

**U.S. Army Corps  
of Engineers**

**Galveston District  
Southwestern Division**

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**Draft**

**Environmental Impact Statement for the  
Proposed Corpus Christi Ship  
Channel Deepening Project**

**Volume II – Appendices A-C**



**June 2022**

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## **Appendix A**

### **Permit Applications**

**Note: The Section 508 amendment of the Rehabilitation Act of 1973 requires that the information in Federal documents be accessible to individuals with disabilities. The USACE has made every effort to ensure that the information in this appendix is accessible.**

**However, this appendix is not fully compliant with Section 508, and readers with disabilities are encouraged to contact Mr. Jayson Hudson at the USACE at (409) 766-3108 or at [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil) if they would like access to the information.**

## **Appendix A1**

**Permit Application, January 3, 2019**



## PORTCORPUSCHRISTI

January 3, 2019

Colonel Lars N. Zetterstrom, PE  
Commander, Galveston District  
USACE Galveston District  
P.O. Box 1229  
Galveston, Texas 77553

Attn: Jayson Hudson

**Subject: Port of Corpus Christi Authority Standard Permit Application for the Proposed Deepening of the Corpus Christi Ship Channel from the Gulf of Mexico to Harbor Island in Nueces and Aransas Counties, Texas**

Dear Colonel Zetterstrom:

The Port of Corpus Christi Authority has contracted with AECOM Technical Services, Inc. (AECOM) to perform engineering design and support services related to the proposed deepening and extension of the Corpus Christi Ship Channel in the subject counties. The proposed channel deepening and extension would accommodate the transit of very large crude carriers calling at the Port of Corpus Christi. This letter authorizes Carl Sepulveda of AECOM to act on behalf of the Port of Corpus Christi Authority as our agent in the processing of the Department of the Army permit application, and to furnish, upon request, supplemental information in support of the permit application for the proposed channel deepening.

Enclosed with this letter is an ENG Form 4345 and supporting information, prepared for the deepening and extension of the Corpus Christi Ship Channel and placement of the dredged material generated from the proposed activity.

Please contact Mr. Sepulveda by telephone at 713-278-4620 or by email at [carl.sepulveda@aecom.com](mailto:carl.sepulveda@aecom.com) should you require additional information to process the permit application.

Sincerely,

Sarah L. Garza  
Director of Environmental Planning & Compliance

cc: Sean C. Strawbridge, Chief Executive Officer  
Clark Robertson, Chief Operating Officer  
David L. Krams, PE, Director of Engineering Services  
Daniel J. Koesema, PE, CFM, Chief of Channel Development  
Paul D. Carangelo, REM, Coastal Development Planning Manager  
Beatriz Rivera, PE, Environmental Engineer



U.S. Army Corps of Engineers (USACE)  
**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**  
33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved -  
OMB No. 0710-0003  
Expires: 01-08-2018

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at [whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil](mailto:whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PRIVACY ACT STATEMENT**

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpclid.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

**(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)**

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

**(ITEMS BELOW TO BE FILLED BY APPLICANT)**

5. APPLICANT'S NAME First - Sarah Middle - L Last - Garza Company - Port of Corpus Christi Authority E-mail Address - sarah@pocca.com	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Carl Middle - Anthony Last - Sepulveda P.E. Company - AECOM E-mail Address - carl.sepulveda@aecom.com
6. APPLICANT'S ADDRESS: Address- 222 Power Street City - Corpus Christi State - TX Zip - 78401 Country - USA	9. AGENT'S ADDRESS: Address- 5444 Westheimer Road, Suite 400 City - Houston State - TX Zip - 77056 Country - USA
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 361-885-6163	10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 713-278-4620

**STATEMENT OF AUTHORIZATION**

11. I hereby authorize, Carl Sepulveda P.E./AECOM to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

  
SIGNATURE OF APPLICANT

1/3/19  
DATE

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

12. PROJECT NAME OR TITLE (see instructions)  
Corpus Christi Ship Channel Deepening Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)  
Gulf of Mexico, Corpus Christi Bay, and Redfish Bay

14. PROJECT STREET ADDRESS (if applicable)  
Address

15. LOCATION OF PROJECT

Latitude: •N 27.837697 Longitude: •W -97.045994

City - State- Zip-

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -



17. DIRECTIONS TO THE SITE

From the Port of Corpus Christi (222 Power Street, Corpus Christi, Texas), head west on Power Street to North Water Street. Turn right on North Broadway Street and take the ramp on the left on US-181 N. Merge onto US-181 N, continue onto TX-35 N. Take the TX-35 Business exit toward Farm to Market Road 1069/Aransas Pass. Continue onto TX-35 BUS N/W Wheeler Avenue. Slight right onto W. Wheeler Avenue. W Wheeler turns slightly right and becomes Harrison Blvd. Turn left onto W Goodnight Avenue. Continue onto TX-361 S/Redfish Bay Causeway for 5.2 miles.

18. Nature of Activity (Description of project, include all features)

The Port of Corpus Christi Authority (PCCA) proposes to deepen the Corpus Christi Ship Channel (CCSC) from the Gulf of Mexico to Harbor Island. From the offshore end of the federally authorized Entrance Channel at Station -330+00 to Station -72+50 (25,750 feet), the CCSC would be deepened beyond the currently authorized project depth of -56 feet MLLW to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW. From Station -72+50 to Station 54+00 (12,650 feet) the CCSC would be deepened from authorized project depths of -56 feet MLLW and -54 feet MLLW to -75 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -78 feet MLLW. The PCCA also proposes to dredge a 29,000-foot entrance channel extension from the authorized Entrance Channel (Station -330+00) to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW at Station -620+00 in the Gulf of Mexico. The overall length of the proposed project is approximately 12.8 miles. The Entrance Channel extension and increased channel depth would accommodate transit of fully laden Very Large Crude Carriers (VLCCs) expected to draft approximately 70 feet.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives, enhance the Port of Corpus Christi's ability to accommodate future growth in crude oil movement, and construct a channel project that the PCCA can operate and maintain to serve industry needs. Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are sometimes light loaded (lightered) due to the depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized -54-foot MLLW project is completed. Reverse lightering translates into additional vessel trips, cost, manhours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs with deeper drafts. To fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA must keep pace with the global marketplace.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Dredged material generated from construction of the proposed project and 10 years of maintenance material would be placed partially within existing authorized placement facilities, and partially within several areas in proximity to the proposed project for beneficial use. Dredged material judged to be suitable for beneficial use would be used to create several feeder berms in near-shore areas to nourish eroded beach areas, reestablish sand dune areas on San Jose Island that were breached by Hurricane Harvey, restore perimeter portions of placement areas that have experienced erosion, place material in areas adjacent to the interior CCSC that were breached by Hurricane Harvey, and enhance/armor a perimeter berm along Harbor Island that would absorb erosive forces of waves and ship wakes to protect areas of marsh and submerged aquatic vegetation behind the berm. Dredged material judged to be unsuitable for beneficial use would be placed in authorized placement areas. (See Attachment A Section 1.2.) Proposed placement options are shown on the attached drawings.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
15.1 Million Cubic Yards of Clay	23.7 Million Cubic Yards of Sand	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 1764.3 acres of open waters to be dredged for proposed channel & turning basin. See Atch A Section 3.1 for dredge placement details.  
or  
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

See Attachment A Sections 5.0 and 6.0.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See attached page

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
TCEQ	401 WQS		In process		
USACE/EPA	MPRSA Section 103		In process		
TGLO	Coastal Consistency		In process		

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

# CONSISTENCY WITH THE TEXAS COASTAL MANAGEMENT PROGRAM

## THE APPLICANT SHOULD SIGN THIS STATEMENT AND RETURN WITH APPLICATION PACKET TO:

COASTAL PERMIT SERVICE CENTER  
TAMU-GALVESTON  
P.O. BOX 1675  
GALVESTON, TX 77553-1675  
FAX: (409) 741-4010

## FOR USACE USE ONLY:

PERMIT #: \_\_\_\_\_

PROJECT MGR: \_\_\_\_\_

## APPLICANT'S NAME AND ADDRESS (PLEASE PRINT):

Title  First  Last  Suffix

Mailing Address  Home

City  State  Zip Code  Work

Country  Email  Mobile

Fax

The Texas Coastal Management Program (CMP) coordinates state, local, and federal programs for the management of Texas coastal resources. Activities within the CMP boundary must comply with the enforceable policies of the Texas Coastal Management Program and be conducted in a manner consistent with those policies. The boundary definition is contained in the CMP rules (31 TAC §503.1).

• To determine whether your proposed activity lies within the CMP boundary, please contact the Permit Service Center at [permitting.assistance@glo.texas.gov](mailto:permitting.assistance@glo.texas.gov)

## PROJECT DESCRIPTION:

Is the proposed activity at a waterfront site or within coastal, tidal, or navigable waters? ☒ Yes ☐ No

If Yes, name affected coastal, tidal, or navigable waters:

Is the proposed activity water dependent? ☒ Yes ☐ No (31 TAC §501.3(a)(14))

<http://tinyurl.com/CMPdefinitions>

Please briefly describe the project and all possible effects on coastal resources:

The Port of Corpus Christi Authority (PCCA) proposes to deepen the Corpus Christi Ship Channel (CCSC) from the Gulf of Mexico to Harbor Island. From the offshore end of the federally authorized Entrance Channel at Station -330+00 to Station -72+50 (25,750 feet), the CCSC would be deepened beyond the currently authorized project depth of -56 feet MLLW to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW. From Station -72+50 to Station 54+00 (12,650 feet) the CCSC would be deepened from authorized project depths of -56 feet MLLW and -54 feet MLLW to -75 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -78 feet MLLW. The PCCA also proposes to dredge a 29,000-foot entrance channel extension from the authorized Entrance Channel (Station -330+00) to a depth of -77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge to a maximum depth of -80 feet MLLW at Station -620+00 in the Gulf of Mexico. The overall length of the proposed project is approximately 12.8 miles. The Entrance Channel extension and increased channel depth would accommodate transit of fully laden Very Large Crude Carriers (VLCCs) expected to draft approximately 70 feet.

Indicate area of impact:

☒ acres or ☐ square feet

## ADDITIONAL PERMITS/ AUTHORIZATIONS REQUIRED:

☐ Coastal Easement - Date application submitted: \_\_\_\_\_

☐ Coastal Lease - Date application submitted: \_\_\_\_\_

☐ Stormwater Permit- Date application submitted: \_\_\_\_\_

☒ Water Quality Certification - Date application submitted:

☒ Other state/federal/local permits/authorizations required:

The proposed activity must not adversely affect coastal natural resource areas (CNRAs).

**PLEASE CHECK ALL COASTAL NATURAL RESOURCE AREAS THAT MAY BE AFFECTED:**

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> Coastal Barriers       | <input checked="" type="checkbox"/> Critical Erosion Areas | <input checked="" type="checkbox"/> Submerged Lands              |
| <input checked="" type="checkbox"/> Coastal Historic Areas | <input checked="" type="checkbox"/> Gulf Beaches           | <input checked="" type="checkbox"/> Submerged Aquatic Vegetation |
| <input type="checkbox"/> Coastal Preserves                 | <input type="checkbox"/> Hard Substrate Reefs              | <input type="checkbox"/> Tidal Sand or Mud Flats                 |
| <input checked="" type="checkbox"/> Coastal Shore Areas    | <input type="checkbox"/> Oyster Reefs                      | <input checked="" type="checkbox"/> Waters of Gulf of Mexico     |
| <input type="checkbox"/> Coastal Wetlands                  | <input type="checkbox"/> Special Hazard Areas              | <input checked="" type="checkbox"/> Waters Under Tidal Influence |
| <input checked="" type="checkbox"/> Critical Dune Areas    |  |  |

*The applicant affirms that the proposed activity, its associated facilities, and their probable effects comply with the relevant enforceable policies of the CMP, and that the proposed activity will be conducted in a manner consistent with such policies.*

**PLEASE CHECK ALL APPLICABLE ENFORCEABLE POLICIES:**

<http://tinyurl.com/CMPpolicies>

<input checked="" type="checkbox"/>	§501.15 Policy for Major Actions
<input type="checkbox"/>	§501.16 Policies for Construction of Electric Generating and Transmission Facilities
<input type="checkbox"/>	§501.17 Policies for Construction, Operation, and Maintenance of Oil and Gas Exploration and Production Facilities
<input type="checkbox"/>	§501.18 Policies for Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities
<input type="checkbox"/>	§501.19 Policies for Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities
<input type="checkbox"/>	§501.20 Policies for Prevention, Response and Remediation of Oil Spills
<input type="checkbox"/>	§501.21 Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters
<input type="checkbox"/>	§501.22 Policies for Nonpoint Source (NPS) Water Pollution
<input checked="" type="checkbox"/>	§501.23 Policies for Development in Critical Areas
<input type="checkbox"/>	§501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands
<input checked="" type="checkbox"/>	§501.25 Policies for Dredging and Dredged Material Disposal and Placement
<input checked="" type="checkbox"/>	§501.26 Policies for Construction in the Beach/Dune System
<input type="checkbox"/>	§501.27 Policies for Development in Coastal Hazard Areas
<input checked="" type="checkbox"/>	§501.28 Policies for Development Within Coastal Barrier Resource System Units and Otherwise Protected Areas on Coastal Barriers
<input type="checkbox"/>	§501.29 Policies for Development in State Parks, Wildlife Management Areas or Preserves
<input checked="" type="checkbox"/>	§501.30 Policies for Alteration of Coastal Historic Areas
<input type="checkbox"/>	§501.31 Policies for Transportation Projects
<input type="checkbox"/>	§501.32 Policies for Emission of Air Pollutants
<input type="checkbox"/>	§501.33 Policies for Appropriations of Water
<input type="checkbox"/>	§501.34 Policies for Levee and Flood Control Projects



Please explain how the proposed project is consistent with the applicable enforceable policies identified above. Please use additional sheets if necessary. *For example: If you are constructing a pier with a covered boathouse, then the applicable enforceable policy is: §501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands. The project is consistent because it will not interfere with navigation, natural coastal processes, and avoids/minimizes shading.*

§501.15 Policy for Major Actions. Prior to taking a major action, the project and associated entities having jurisdiction over the proposed project shall meet and coordinate their major actions relating to the proposed project and to the greatest extent possible, consider the cumulative and secondary adverse effects. Certification of a federal permit for the discharge of dredge or fill material will be issued by the Texas Commission on Environmental Quality.

§501.23 Policies for Development in Critical Areas. The selected channel alternative will not impact critical areas. Placement alternatives have been selected to minimize impacts to critical area and make use of existing Placement Area (PAs) and beneficial use (BU) as much as possible. No oyster reef or hard substrate reef would be impacted by the placement plan. Critical areas that could be impacted are coastal wetland, submerged aquatic vegetation (SAV), and tidal sand flat. However, the majority of proposed BU will restore and protect these resources compared to the minimal direct impacts.

§501.25 Policies for Dredging and Dredged Material and Placement. The project is consistent because it has been designed to minimize adverse effects to coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches to the greatest extent practicable. Dredging and dredged material disposal and placement would not cause or contribute, after consideration of dilution and dispersion, to violation of any applicable surface water quality standards. Dredging and disposal and placement of material to be dredged will comply with applicable standards for sediment toxicity. Use of new work dredge material to raise dikes, restore shoreline, dunes, beaches and protect SAV is consistent with 501.25(d)(1) and (3) to beneficially using dredged material. Of 11 proposed placement features, 10 involve BU. The use of some of the existing PAs proposed is consistent with many of the impact minimization techniques in 501.25(b) such as locating and confining discharges to minimize smothering of organisms, discharging materials in areas previously disturbed or used for placement, discharging materials at sites where the substrate is composed of material similar to that being discharged, and use of containment levees. Past maintenance material and recent 2018 new work testing from the same segment to establish sediment quality has indicated no contaminant concerns, and material is suitable for offshore placement.

§501.26 Policies for Construction in the Beach/Dune System. This project is consistent because it has been designed to avoid adverse effects to the coastal dunes and the selected placement plan includes BU to restore dunes and beaches on San Jose Island. It also proposes feeder berms in multiple locations allowing for dredged material to build up historically receding shoreline along Mustang and San Jose Islands.

§501.28 Policies for Development Within Coastal Barrier Resource System Unites and Otherwise Protected Areas on Coastal Barriers. This project is in compliance because the development of dune and beach restoration and feeder berms within the Coastal Barrier Resource Area (CBRA) T08, also known as San Jose Island. Placement would be designed to repair and nourish these critical areas, critical dunes, gulf beaches, and washover areas. The feeder berm would occur at sites and times selected to have the least adverse effects practicable with the CBRA unit and would be designed to provide material to rehabilitate dunes.

§501.30 Policies for Alteration of Coastal Historic Areas. This project would comply with the Texas Historic Commission (THC) with the policies when issuing permits under the Texas natural Resources Code. The proposed project would avoid affecting a coastal historic area and would minimize alteration or disturbance of the site unless the site's excavation will promote historical, archaeological, educational, or scientific understanding. The few sites that have been identified in the Gulf portion of the proposed placement would be investigated and appropriate action taken prior to construction.

BY SIGNING THIS STATEMENT, THE APPLICANT IS STATING THAT THE PROPOSED ACTIVITY COMPLIES WITH THE TEXAS COASTAL MANAGEMENT PROGRAM AND WILL BE CONDUCTED IN A MANNER CONSISTENT WITH SUCH PROGRAM



January 4, 2019

Signature of Applicant/Agent

Date

***Any questions regarding the Texas Coastal Management Program should be referred to:***

Allison Buchtien  
Texas General Land Office  
1001 Texas Clipper Road  
PMEC #3027, Room 135  
Galveston, Texas 77554  
Phone: (409) 741-4057  
Fax: (409) 741-4010  
Toll Free: 1-866-894-7664  
[permitting.assistance@glo.texas.gov](mailto:permitting.assistance@glo.texas.gov)

Texas General Land Office  
Coastal Protection Division  
1700 North Congress Avenue, Room 330  
Austin, Texas 78701-1495  
Toll Free: 1-800-998-4GLO  
[federal.consistency@glo.texas.gov](mailto:federal.consistency@glo.texas.gov)

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## Attachment A – Project Description

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**PORT OF CORPUS CHRISTI AUTHORITY  
CORPUS CHRISTI SHIP CHANNEL DEEPENING  
NUECES AND ARANSAS COUNTIES, TEXAS**

**Project Description for Corpus Christi Ship Channel Deepening Project**

**Department of the Army Permit Application SWG-XXXX-XXXXX**

**Applicant: Port of Corpus Christi Authority**

**January 2019**

## **Description for Corpus Christi Ship Channel Deepening Project**

### **1.0 INTRODUCTION AND SUMMARY OF THE NATURE OF ACTIVITY**

The Port of Corpus Christi Authority (PCCA) is requesting permit authorization from the U.S. Army Corps of Engineers (USACE) – Galveston District for the PCCA to conduct dredge and fill activities related to the deepening of a portion of the Corpus Christi Ship Channel (CCSC), hereinafter referred to as “the proposed project.” The proposed project requires dredging in navigable waters of the United States to deepen the portion of the CCSC from Harbor Island into the Gulf of Mexico, an overall distance of approximately 12.8 miles (Station 54+00 to Station -620+00) as show on Sheet 2 of 17 of the permit drawings. The proposed project also involves the placement of fill (dredged material) in waters of the United States. Both of the proposed activities are regulated by the USACE.

The CCSC is currently authorized by the USACE to project depths of -54 feet and -56 feet mean lower low water (MLLW) from Station 54+00 to Station -330+00 as part of the Corpus Christi Ship Channel Improvement Project (CCSCIP). The current authorized width of the CCSC is 600 feet inside the jetties and 700 feet in the entrance channel. The proposed project would deepen the channel from Station 54+00 to Station -72+50 to a maximum depth of -78 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge), and from Station -72+50 to Station -330+00, the channel would be deepened to a maximum depth of -80 MLLW (-77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge). The proposed project includes a 29,000-foot extension of the CCSC from Station -330+00 to Station -620+00 to a maximum depth of -80 MLLW (-77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico.

The proposed project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized CCSC channel width. The proposed project does not include widening the channel; however, some minor incidental widening of the channel slopes is expected in order to meet side slope requirements and to maintain the stability of the channel. The proposed project including dredged material placement, is described below.

The following summarizes where information required by USACE Permit Engineering Form 4345 can be found in this attachment:

- Block 21, Type of Discharge – Section 1.1 discusses the amount and type of discharges anticipated to be generated by the channel improvements of the proposed action. Section 4 below provides details on the alternatives screening process, and Table 4.1 summarizes the new work dredge quantities and other attributes involved in the selection process, and of the proposed action.
- Block 22, Surface Area in Acres of Wetlands or Other Waters Filled – Section 3 describes the extent of the proposed affected waters, and summarizes potential impacts of the proposed action, and Table 3.1 summarizes the acreages of waters (associated with bay bottom impacted) proposed for excavation or fill.
- Block 23, Description of Avoidance, Minimization, and Compensation – Sections 4 and 5 describe the various channel and placement alternatives evaluated in the selection of the proposed action, as well as factors of avoidance and minimization of impacts to aquatic

resources where feasible involved in the selection process. Section 6 describes the mitigation or compensation proposed, as well as a summary of the aquatic impacts of the proposed action.

- Section 7 provides a short conclusion.

## **1.1 Proposed Project**

To address changing market needs, the PCCA proposes to deepen the portion of the CCSC from Harbor Island (Station 54+00) into the Gulf of Mexico (Station -620+00) beyond the current authorized project depths of -54 feet and -56 feet MLLW to maximum depths of -78 feet and -80 feet MLLW to accommodate transit of fully laden VLCCs with drafts of approximately 70 feet. The overall project length is approximately 12.8 miles. The design depths are based on a detailed review of the dimensions of the VLCCs expected to call at the Port of Corpus Christi's (Port's) existing and proposed crude oil export terminals; the predominant density of crude oil to be exported and associated vessel drafts; environmental effects due to winds, waves and currents; and required under keel clearances, plus two feet of advanced maintenance and one foot of allowable overdredging depth. The proposed project does not include widening the channel, as the deepening activities would be completed within the footprint of the authorized CCSC channel width. However, some minor incidental widening would be expected to meet the side slope requirements of the deepened channel.

The proposed project consists of the following:

- Deepening from the authorized -54 feet MLLW to approximately -77 feet MLLW, with two feet of advanced maintenance and one foot of allowable overdredge, from Harbor Island at Station 54+00 into the Gulf of Mexico to Station -72+50.
- Deepening from the authorized -56 feet MLLW to approximately -80 feet MLLW, with two feet of advanced maintenance and one foot of allowable overdredge, from Station -72+50 to Station -620+00 in the Gulf of Mexico.
- The existing Inner Basin at Harbor Island would be expanded as necessary to allow VLCC turning there. This modification would also include a flare transition from the CCSC within Aransas Pass to meet the turning basin expansion.

The total length of the CCSC proposed for deepening is approximately 12.8 miles. The proposed project would generate an estimated 38.9 million cubic yards (MCY) of new work material from initial construction, consisting of approximately 39 percent clays (15.1 MCY) and 61 percent sand (23.7 MCY). The clay portion of the new work dredged material located in the offshore reaches (Station -620+00 to -72+50), approximately 13.8 MCY, would be placed at Offshore Dredge Material Disposal Site (ODMDS) No. 1 approximately located approximately 2.9 miles southeast of the Aransas Pass South Jetty and adjacent to the CCSC. The clay portion of new dredged material from Stations -72+50 to Station -54+00 would be used beneficial where possible to create perimeter dikes. Proposed placement options for the new work material are described in more detail in Section 1.2.

The total maintenance quantity is estimated at 1.083 MCY per year, which includes an incremental increase of approximately 0.39 MCY due to the channel deepening beyond the CCSCIP. The 10-year proposed action maintenance increment would be approximately 3.9 MCY. Dredged material from maintenance work would be placed in the existing ODMDS No. 1 in the vicinity of the CCSC, proposed offshore feeder berms B-1 through B-6, or existing PA 2, as material suitability allows. A screening of placement areas (PA) and beneficial use (BU) areas is detailed in Section 5.0. Maintenance materials for the CCSC are currently placed or are planned to be placed in the aforementioned existing PAs and

are routinely rotated between sites. ODMDS No. 1 and the proposed feeder berms B1-B6 are dispersive sites, and would be able to accommodate the project's relatively small incremental amount.

## **1.2 Proposed Dredged Material Placement Plan**

The dredged material placement plan selected for this project proposes to place new work material in a series of existing upland PA and BU sites and proposed new BU sites to beneficially use the new work dredged materials (approximately 38.9 MCY) as much as possible, to expand either existing upland PAs or BU sites, and address shoreline repair needs within Redfish Bay, Corpus Christi Bay, and the Gulf of Mexico in the vicinity of the Preferred Channel Alternative. The plan is shown in Sheet 5 of 17. Detailed views and conceptual cross sections are provided in Sheets 6 through 17 of 17. This plan was a result of the screening and formulation of placement alternatives discussed in Section 5.0. Table 1.1 below summarizes the elements of the placement plan, each representing a singular type of placement. In all but the case of offshore feeder berms B1 through B6, each represents a single site and placement or BU initiative.

The plan predominantly involves (1) use of the approved existing offshore New Work ODMDS, (2) other PA or BU expansion at existing sites used by the PCCA and the USACE to maintain the authorized Federal Project (Corpus Christi Ship Channel Improvement Project) to an authorized depth of -54 to -56 feet MLLW, or (3) new habitat restoration sites located in Redfish Bay, Corpus Christi Bay, or nature center that were identified/confirmed by resource agencies as desirable. These sites would be readily available given the use by the Federal project, for which PCCA is the Non-Federal Sponsor (NFS), and the desire to repair Hurricane Harvey damage and long term erosion.

One exception is dune and shore restoration at San Jose Island (SJI). The site is privately owned by the Bass Family and the planning team is coordinating with their representatives to ultimately gain approval to beneficially restore the extensive damage caused by Hurricane Harvey once additional restoration design detail is developed. Currently, the representatives indicate they view the concept positively and will engage in a series of meetings and coordination in early 2019 with the planning team to advance towards acceptance of this BU initiative. Because it provides substantial placement capacity, is nearby, and could make use of the large volumes of sand in the channel new work prism to restore very important barrier island resources, it is retained in the placement plan. Because of this, more capacity was identified than needed to provide flexibility. Therefore, the bottom of Table 1.1 includes various scenarios for excluding SJI and comparing it to needed new work placement capacity. With SJI removed, there is excess placement capacity available at other BU and PA features in the unlikely scenario that SJI is ultimately excluded from the project.

**Table 1.1: Selected New Work Placement Plan (See Sheet 5 of 17)**

Placement Option	Description	Placement Capacity (CY)	Proximity to New Work Dredging Operations	Provides Environmental Benefit
M3	Estuarine/aquatic creation creation extension Pelican Island	4,328,400	Located approximately 6 miles from Harbor Island	This option will convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	Located approximately 7 miles from Harbor Island	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
M9	Estuarine/aquatic creation creation adjacent to PA9	3,500,000	Located approximately 8 miles from Harbor Island	This option will convert featureless bay bottom to approximately 329 acres of estuarine/aquatic habitat.
M10	Estuarine/aquatic creation creation adjacent to PA10	10,933,600	Located approximately 10 miles from Harbor Island	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	2 foot dike raise and fill	3,704,900	Located approximately 4 miles from Harbor Island	This option does not create any environmental benefit.
SS1	Restoring eroded shoreline and armoring to protect Harbor Island seagrass area	1,682,000	Located approximately 3 miles from Harbor Island	This option restores an eroding shoreline to its historic profile.
SS2	Restore shoreline washout along Port Aransas Nature Preserve as a result of Hurricane Harvey	695,600	Located approximately 2 miles from Harbor Island	This option restores two washouts of shoreline along the Port Aransas Nature Preserve as a result of Hurricane Harvey.
PA4	Reestablish eroded shoreline and land loss behind PA4	3,020,000	Located approximately 2 miles from Harbor Island	This option does not create any environmental benefit.
SJI	Dune & shore restoration San Jose Island	7,000,000	Located directly next to Channel Dredging Operations	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMDS	Place on part of New Work ODMDS	13,800,000	Located directly next to Channel Dredging Operations	This option does not create any environmental benefit.
B1-B6	Feeder berms offshore of SJI and Mustang Island	7,200,000	Located less than 10 miles from Channel Dredging Operations	This option will nourish beach shoreline by natural sediment transport processes.
Scenarios for new work placement capacity provided and needed.		56,731,500	Total Capacity Provided	
		49,731,500	Total Capacity less SJI (should that option become unavailable)	
		38,926,000	Total NW placement capacity required for Channel Preferred Alternative – Base Option	
		10,805,500	Additional Capacity less SJI (should that option become unavailable)	

## **2.0 PURPOSE AND NEED FOR PROJECT**

The purpose of the proposed project is to:

- Allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives,
- Enhance the PCCA's ability to accommodate future growth in crude oil movement, and
- Construct a channel project that the PCCA can implement to accommodate industry needs.

Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are sometimes light loaded (lightered) due to depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized CCSC deepening project is completed. Reverse lightering translates into additional vessel trips, cost, man hours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs. Non-liquid commodity movements are also trending toward larger, more efficient vessels. In order to fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA must keep pace with the global marketplace.

The need for the proposed project is driven by the considerations below, which are explained in the following paragraphs:

- Bolstering national energy security through the growth of U.S. crude exports.
- Protecting national economic interests by decreasing the national trade deficit.
- Supporting national commerce by keeping pace with existing and expanded infrastructure being modified or already under development to export crude oil resulting from the large growth in the Permian and Eagle Ford oil field development, which has helped the U.S. recently become the top oil-producing nation in the world.
- Improve safety and efficiency of water-borne freight movements.

The infrastructure and proximity to the major Texas shale plays makes the Port an attractive location for efficiently exporting crude oil by VLCC vessels. The PCCA has received interest from new and existing customers for developing crude oil export terminals and facilities. Production and export of crude oil and natural gas have greatly increased over the years and are providing an economic boom to the Port and the region.

Investments at the PCCA that are directly aimed at product from the Eagle Ford Shale are over \$100 million. In the latter part of July 2018, the PCCA sold more than \$216 million in bonds to fund energy export products. A portion of this money will be used for the authorized deepening of the CCSC, but also will help fund other improvements, including a crude oil export terminal under design at Harbor Island. The new oil export terminals being planned at the Port will have loading arms, handling equipment, storage tanks, and other related facilities for larger ships including VLCCs.

More efficient transport of crude in greater volumes is the impetus for the PCCA to deepen the channel to accommodate fully loaded VLCCs. Presently, the existing channel depth requires that current crude carriers, whether VLCCs or other vessels, not depart fully loaded from the Port, or that VLCCs remain offshore while smaller tankers transfer their cargo to the larger VLCCs, a process known as reverse lightering. The inefficiency of this process is compounded by some of these smaller vessels not being able to be fully loaded while moving through the Port.

Production from the Permian and Eagle Ford basins continues to increase, and several of the major midstream companies are currently undergoing major expansions to facilitate the export of greater



volumes of crude. As these exports increase, the number of lightering vessels and product carriers will also increase, adding to shipping delays and congestion inside and outside of the Port. These delays and congestion will increase the cost of transportation, which in turn will increase the cost of crude oil with the ultimate consequence of making U.S. crude less competitive in the global market.

### **3.0 SITE ANALYSIS**

The proposed project is located in the Gulf of Mexico, the southern portion of Corpus Christi Bay, and Redfish Bay near Port Aransas as shown in Sheet 1 of 17. The Port is located in Corpus Christi Bay on the south-central portion of the Texas coast, approximately 200 miles southwest of Galveston and approximately 150 miles north of the mouth of the Rio Grande. The CCSC provides deep water access from the Gulf of Mexico to the Port via Port Aransas, through Corpus Christi Bay. The CCSC extends from deep water in the Gulf of Mexico approximately 4.3 miles offshore through the Port Aransas jettied entrance, then continues for 21 miles westward to the Inner Harbor. The proposed project would be constructed within the limits of the CCSC from the Gulf of Mexico to Harbor Island, which comprises the Entrance Channel segment and approximately 2,000 linear feet of the Lower Bay segment of the CCSC. The Entrance Channel segment of the CCSC is currently maintained to a depth of -49 feet MLLW, and the Lower Bay segment to a depth of -47 feet MLLW. The CCSC has been federally authorized to a depth of -56 feet MLLW from the Gulf of Mexico to the end of the jetties in the Entrance Channel segment, and to -54.0 feet MLLW in the Lower Bay segment. Dredging work to reach the authorized depths is scheduled to begin in early 2019.

#### **3.1 Affected Waters**

The proposed improvements to the CCSC would take place in the open water marine environment of the Gulf of Mexico and Corpus Christi Bay. Waters in the project area are navigable waters of the United States (WOUS) regulated by the USACE under Section 10 of the Rivers and Harbors Act of 1899. The areas of proposed channel deepening are unvegetated. Deepening of the CCSC would take place in WOUS, and the proposed improvements were detailed in Section 1.1 above, and were shown in Sheets 2 through 4 of 17. The estimated amounts of new work dredging and maintenance dredging were also listed in Sections 1.1 and 1.2. Similarly, waters occurring in the areas of proposed dredged material placement, whether for upland placement or for beneficial use, are also navigable waters of the United States (i.e. subject to the ebb and flow of the tide) regulated by the USACE. The channel amounts were determined using Computer Aided Design (CAD) and Geographical Information System (GIS) analysis with proposed channel widths and projected daylight lines (where channel template meets existing bathymetry) using the most current bathymetric data available from the USACE and surveyed for this project. The estimated amount of WOUS was 1,728 acres between the projected side slopes of the deepened channel. A summary of potential impacts of the channel WOUS including wetlands is summarized in Table 3.1.

For placement impacts, GIS features based on the proposed template extent using existing National Oceanic and Atmospheric Administration (NOAA) bathymetry and CAD analysis were used in conjunction with existing seagrass and oyster habitat mapping downloaded from NOAA, Texas General Land Office (TGLO) and Texas Parks & Wildlife Department (TPWD). The National Wetland Inventory (NWI) data was used to identify potential mapped wetland habitat. Open water acreage was derived using a land, shoreline and water data set sourced from ESRI and Texas Department of Transportation (TXDOT), which was found to match aerial imagery well. Habitat features were clipped using the placement footprints and review of the mapped habitat was conducted using a current ESRI aerial (2017) to verify the nature of mapped features. A summary of potential impacts of the placement plan to WOUS including wetlands, and other special aquatic sites is provided in Table 3.2. The comments in the table show individually the results of aerial review in examining the nature of the mapped habitat. In

several cases, the NWI identified features in an active PA. In others, the feature had eroded away. In various cases, the BU feature is a shoreline restoration that would protect resources in the interior of the BU feature, such as M4. The bottom of the table summarizes the acreage that after considering the aerial review would likely be impacted. For each impact at each site, measures that could minimize or replace the impacted habitat are identified.

**Table 3.1: Channel Impacts to Gulf and Estuarine Bottom (See Sheet 2 through 4 of 17)**

<b>Channel Impacts to Waters of the U.S.</b>		<b>Channel Acres</b>		
<b>Segment</b>	<b>Impact</b>	<b>Toe to Toe</b>	<b>Total Including Side Slope</b>	<b>Side Slope Acreage</b>
New Entrance Channel Extension	Deepening from natural depth (varies -62 ft to -80 ft MLLW) to -77 ft MLLW + 2 ft adv. maint. + 1 ft overdredge <b>(-80 ft MLLW)</b>	639.6	770.3	130.7
CCSCIP Authorized Entrance Channel Extension	Deepening from -56 ft MLLW to -77 ft MLLW + 2 ft adv. maint + 1ft overdredge <b>(-80 ft MLLW)</b>	160.7	272.4	111.7
Existing Channel	Deepening from -56 ft MLLW to -77 ft MLLW +2 ft adv. maint +1 ft overdredge (-80 ft MLLW) and from -54 ft MLLW to -75 ft MLLW +2 ft adv. maint +1 ft overdredge <b>(-78 ft MLLW)</b>	428.2	685.5	257.3
Turning Basin (area outside of the existing basin footprint) and Flare	Deepen portions of the Lydia Ann Channel from between -54 ft MLLW to <b>-75 ft MLLW</b>	36.1	-	-
<b>TOTAL</b>		1,265	1,728	

Table 3.2: Impacts to Tidal Marsh (See Sheet 5 of 17)

Site ID	Total Site Acres	Mapped Habitat					Open Water WOUS (acres)
		Wetland			Seagrass		
		Acres	Predominant Type	Comment	Acres	Comment	
B1	124.0	-	-	-	-	-	124
B2	124.0	-	-	-	-	-	124
B3	124.0	-	-	-	-	-	124
B4	124.0	-	-	-	-	-	124
B5	124.0	-	-	-	-	-	124
B6	124.0	-	-	-	-	-	124
M3	361.3	-	-	-	17.1	Restoration of larger area to create estuarine/aquatic habitat including elevations suitable for seagrass establishment.	361.3
M4	685.9	68.0	Estuarine and Marine Wetland	Interior wetlands would be avoided and placement to restore shoreline would be integrated with exterior wetlands. Design of project elements will be coordinated to support TPWD's existing permitted project.	559.0	Interior acreage would not be impacted except at fringes. BU feature would protect this from further loss. Design of project elements will be coordinated to support TPWD's existing permitted project.	554.7
M9	329	-	Estuarine and Marine Wetland	-	-	Restoration of larger area to create estuarine/aquatic habitat including elevations suitable for seagrass establishment.	329
M10	770	-	Estuarine and Marine Wetland	-	-	Restoration of larger area to create estuarine/aquatic habitat including elevations suitable for seagrass establishment.	770
NW_ODMDS	1,180.4	-	-	-	-	-	1,180.4
PA4	163.1	51.5	Freshwater Emergent Wetland	Identified within active PA or Feature appears to have eroded away	0.01	Minor impact. BU would protect much larger seagrass area from future losses.	35.7
PA6	331.9	174.6	Lake	Identified within active PA	-	-	2.1

Site ID	Total Site Acres	Mapped Habitat					Open Water WOUS (acres)	
		Wetland			Seagrass			
		Acres	Predominant Type	Comment	Acres	Comment		
SJI	265.7	512.2	Estuarine and Marine Wetland	Consists of entirely of shoreline to be restored	-	-	107.8	
SS1	325	141.5	Estuarine and Marine Wetland	Would be replaced by created upland to protect seagrass area behind it from future loss	80.5	Restoration of shoreline to bolster against future erosion of much larger area of seagrass behind feature	134.9	
SS2	94.8	36.5	Estuarine and Marine Wetland	Eroded away during Harvey	-	-	-	
TOTALS	5,251.4	984.3				656.6		4,219.9
Sum of all Habitats								5,860.9
Summary of Aerial Review of Mapped Habitat								
		262.6	Portion inside an active PA or eroded away		559.0	Portion in interior to be largely avoided except at fringes, and would be protected by proposed BU.		
		721.7	Portion not inside an active PA (WOUS)		17.1	Portion that BU can be reconfigured to replace impacted seagrass acreage		
		512.2	Portion to directly restore as beach or dune (SJI)					
		68.0	Portion avoided or that would be integrated (M4)					
		141.5	Portion that would be impacted		80.5	Remaining portion that would be impacted by SS1		
		141.5	Portion that would be directly impacted by BU feature (SS1)					
Sum of Estimated Wetlands, Seagrass, and Open Water WOUS that would be impacted								
Wetland WOUS								721.7
Seagrass WOUS								97.6
Total WOUS								4,219.9

### 3.2 Threatened and Endangered Species

The U.S. Fish and Wildlife Services (USFWS) Information for Planning Conservation (IPaC) report identified 16 federally listed or proposed to be listed species that have the potential to occur within Nueces and Aransas Counties. According to TPWD, there are 36 state listed species that have the potential to occur within Nueces and Aransas Counties. The National Marine Fisheries Service (NMFS) lists 15 marine species with the potential to occur along the Texas Gulf Coast. Table 3.3 summarizes species that are listed as endangered, threatened, or candidate by USFWS, TPWD, or NMFS.

Of the federally-listed species, the following species are expected to have the relevant type of habitat present in the waters and aquatic habitat of Corpus Christi and Redfish Bays, and along the barrier islands of Mustang Island and San Jose Island, in the vicinity of the proposed project: Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), West Indian Manatee (*Trichechus manatus*) Green sea turtle (*Chelonia mydas*) Hawksbill sea turtle (*Eretmochelys imbricate*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Leatherback sea turtle (*Dermochelys coriacea*), and Loggerhead sea turtle (*Caretta caretta*)

In addition to the federally-protected species, the TPWD maintains separate county-specific lists of threatened and endangered species that may potentially occur as resident or migrant species in the project area. The TPWD protected species are listed in the following table. All species listed in the following table were compiled from USFWS and TPWD county-specific lists for Nueces and Aransas Counties. State-listed species with “rare” designation were not considered due to their non-regulatory status under the Endangered Species Act.

**Table 3.3: Listed Threatened, Endangered, and Candidate Species for Nueces and Aransas Counties, TX**

Common Name	Scientific Name	Listing Status		
		USFWS IPaC List	TPWD	NMFS
Amphibians				
Black-spotted newt	Notophthalmus meridionalis	NL	T	NL
Sheep frog	Hypopachus variolosus	NL	T	NL
South Texas siren (large form)	Siren sp 1	NL	T	NL
Birds				
American Peregrine Falcon	Falco peregrinus anatum	NL	T	NL
Eskimo Curlew	Numenius borealis	NL	E	NL
Least Tern*	Sterna antillarum	E	NL	NL
Northern Aplomando Falcon	Falco femoralis septentrionalis	E	E	NL
Peregrine Falcon	Falco peregrinus	NL	T	NL
Piping Plover	Charadrius melodus	T	T	NL
Red Knot	Calidris canutus rufa	T	NL	NL
Reddish Egret	Egretta rufescens	NL	T	NL
Sooty Tern	Onychoprion fuscatus	NL	T	NL
Texas Botteri's Sparrow	Peucaea botterii texana	NL	T	NL
White-faced Ibis	Plegadis chihi	NL	T	NL
White-tailed hawk	Buteo albicaudatus	NL	T	NL

Common Name	Scientific Name	Listing Status		
		USFWS IPaC List	TPWD	NMFS
Whooping Crane	Grus americana	E	E	NL
Wood stork	Mycteria americana	NL	T	NL
Fishes				
Opossum pipefish	Microphis brachyurus	NL	T	NL
Smalltooth sawfish	Pristis pectinata	NL	E	NL
Oceanic whitetip shark	Carcharhinus longimanus	NL	NL	T
Giant manta ray	Manta birostris	NL	NL	T
<b>Mammals</b>				
	Herpailurus yagouaroundi			
Gulf Coast Jaguarundi	cacomitli	E	E	NL
Ocelot	Leopardus pardalis	E	E	NL
Red wolf	Canis rufus	NL	E	NL
Southern yellow bat	Dasypterus ega	NL	T	NL
West Indian Manatee	Trichechus manatus	T	E	NL
White-nosed coati	Nasua narica	NL	T	NL
Fin whale	Balaenoptera physalus	NL	NL	E
Sei whale	Balaenoptera borealis	NL	NL	E
Sperm whale	Physeter macrocephalus	NL	NL	E
Gulf of Mexico Bryde's whale	Balaenoptera edeni – subspecies	NL	NL	C
<b>Corals</b>				
Lobed star coral	Orbicella annularis	NL	NL	T
Mountainous star coral	Orbicella faveolata	NL	NL	T
Boulder star coral	Orbicella franksi	NL	NL	T
Elkhorn coral	Acropora palmata	NL	NL	T
Clams/Mollusks				
Golden Orb	Quadrula aurea	C	T	NL
Reptiles				
Green sea turtle	Chelonia mydas	T	T	T
Hawksbill sea turtle	Eretmochelys imbricata	E	E	E
Kemp's Ridley sea turtle	Lepidochelys kempii	E	E	E
Leatherback sea turtle	Dermochelys coriacea	E	E	E
Loggerhead sea turtle	Caretta caretta	T	T	T
Texas horned lizard	Phrynosoma cornutum	NL	T	NL
	Drymarchon melanurus			
Texas indigo snake	erebennus	NL	T	NL
Texas scarlet snake	Cemophora coccinea lineri	NL	T	NL
Texas tortoise	Gopherus berlandieri	NL	T	NL
Timber rattlesnake	Crotalus horridus	NL	T	NL
Plants				
Slender Rush-pea	Hoffmannseggia tenella	E	E	NL
South Texas Ambrosia	Ambrosia cheiranthifolia	E	E	NL

E = Endangered, T = Threatened, C = Candidate, DL - Delisted, NL = Not Listed

\*Only needs to be considered for wind related projects within migratory route

Of the five turtle species that are listed by the NMFS and USFWS, only the Kemp's Ridley, green, and loggerhead sea turtles are likely to occur in bay waters in the vicinity of the proposed project area. The hawksbill and leatherback sea turtles are not likely to be found within the project area due to a lack of suitable habitats. Hawksbill sea turtles are unlikely to occur in the project study area, as they prefer clear offshore waters where coral reef formations are present. Leatherback sea turtles are unlikely to occur in the project study area, as they primarily inhabit the upper reaches of the ocean, and also frequently descend into deep waters from 650 to 1,650 feet in depth.

Critical habitat in the proposed project footprint is shown in Figure 3.2. Critical habitat for the loggerhead sea turtle (Sargassum habitat) was designated in 2014 for the offshore waters of the Gulf of Mexico (LOGG-S-2 Gulf of Mexico Sargassum) that includes an existing ocean dredge material disposal site (NW ODMDS) and 10.57 nautical miles of the outer channel and approach channel dredging segments. LOGG-S-2 Gulf of Mexico Sargassum critical habitat contains developmental and foraging habitat for young turtles where surface waters form accumulations of floating material, especially Sargassum.

Dredging operations for the proposed project would be conducted primarily using hydraulic cutterhead dredges, which move at slow enough speeds that turtles would be able to move out of the way of the hydraulic cutterhead. Non-hopper dredges are not known to take sea turtles.<sup>1</sup> It is anticipated that hydraulic dredging for the project would not cause adverse impacts to sea turtles.

Hopper dredging may be used for channel segments where material and placement is more suitable for hopper dredging. In those cases, material would be transported and placed by hopper dredge. The impact of hopper dredging is being determined in the Biological Assessment (BA) but is expected that impacts would not adversely affect loggerhead sea turtles that use critical habitat when Sargassum is present, following recent clarification to the 2007 Gulf of Mexico Regional Biological Opinion (GRBO) on hopper dredging.<sup>2</sup> The best management practices (BMPs) recommended in the GRBO would be employed when hopper dredging. Therefore, dredging associated with the proposed project is unlikely to have long-term negative effects on this species other than temporary displacement of individuals from the channel area, which would also be expected during regular maintenance dredging of the channel.

The proposed NW ODMDS may impact this critical habitat during the placement of dredged material; however, this ODMDS is already approved for use, and a 2016 NMFS memo clarified that any temporary turbidity plumes generated by dredged material placement would be unlikely to cause lasting impacts to Sargassum habitat or juvenile sea turtles that may be foraging in the area.<sup>3</sup>

Critical habitat for wintering piping plovers on the Texas Gulf Coast was designated by the USFWS in 2001 and was expanded to its current extent in 2009. Numerous factors determine critical habitat placement, including consistent winter occupancy, wetlands inventory data, habitat fragmentation, and availability of foraging, feeding, and roosting areas. Proposed PA SJI located on San Jose Island and SS2 located within Corpus Christi Bay (along the southern toe of the CCSC and adjacent to the Port

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<sup>1</sup> NMFS. 2003. Endangered Species Act - Section 7 Consultation Biological Opinion – Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287). National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division St. Petersburg, Florida

<sup>2</sup> NMFS. 2016. Roy E. Crabtree/NOAA Fisheries March 4, 2016 Memorandum to Alvin B. Lee, SES/USACE, South Atlantic Division, Subject: Continued Operations of Maintenance Dredging and Beach Sand Placement Actions under the 2007 Gulf of Mexico Regional Biological Opinion (GRBO)(I/SER/2015/17543).

<sup>3</sup> NMFS. 2016. Roy E. Crabtree/NOAA Fisheries March 4, 2016 Memorandum to Alvin B. Lee, SES/USACE, South Atlantic Division, Subject: Continued Operations of Maintenance Dredging and Beach Sand Placement Actions under the 2007 Gulf of Mexico Regional Biological Opinion (GRBO)(I/SER/2015/17543)



Aransas Nature Preserve) would impact designated final critical habitat. Both these proposed PAs experienced a significant amount of coastal erosion during Hurricane Harvey in 2017, and have been targeted for beach nourishment and beneficial use with this project.<sup>4</sup> Barrier island and beach erosion can be accelerated in the aftermath of large storm events<sup>5</sup>; therefore, preservation of this critical habitat is paramount in a time of increasing development and industrialization along the Texas Gulf Coast.

PA SJI is located almost entirely within critical habitat unit TX-15, designated as an essential feeding and foraging sparsely vegetated dune complex. Immediately behind and adjacent to PA SJI and TX-15 is a separate critical habitat unit, TX-16. TX-16 is composed primarily of tidal flats utilized by the piping plover for feeding and foraging. Although portions of the eroded foredunes within TX-15 may now operate as tidal flats, this habitat type is amply available within unit TX-16, which remained relatively intact despite the effects of Hurricane Harvey on other habitats along the coast. Restoring TX-15 to its former appearance and functionality will protect not only San Jose Island, but the function and durability of TX-16 as well.

PA SS2 along the southern toe of the CCSC and adjacent to the Port Aransas Nature Preserve would restore an eroded berm, originally composed of dredged material placed along the channel to combat vessel wake generated erosion. Hurricane Harvey and vessel wake from normal channel traffic have caused inflow into this tidal area at two locations, and placement of dredged material to shore up this berm would restore the channel shoreline to its former appearance and functionality. The U.S. Geological Survey (USGS) suggests that coastal areas that have demonstrated erosion after large storm events are more susceptible to erosion from normal tidal processes.<sup>6</sup> Fall or winter construction within PAs SJI and SS2 may temporarily displace wintering plovers from the area; however, the benefit of long-term habitat preservation of these areas accomplished by dredged material placement outweighs any negative short-term impacts that may result from construction.

As shown on the Figure 3.2, dredged material from maintenance work would be placed in the existing ODMDs No. 1 in the vicinity of the CCSC, proposed offshore feeder berms B-1 through B-6, or existing PA 2, as material suitability allows.

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<sup>4</sup> Goff, J., Swartz, J.M., and S.P.S Gulick. 2017. An Outflow Event on the Left Side of Harvey: Erosion of Barrier Sand and Seaward Transport Through Aransas Pass. American Geophysical Union, Fall Meeting 2017. Available at: <http://adsabs.harvard.edu/abs/2017AGUFMNH34B..01G>

<sup>5</sup> Houser, C., Hapke, C., and S. Hamilton. 2007. Controls on coastal dune morphology, shoreline erosion, and barrier island response to extreme storms. *Geomorphology*. Vol 100:3-4. 18pp.

<sup>6</sup> *ibid*

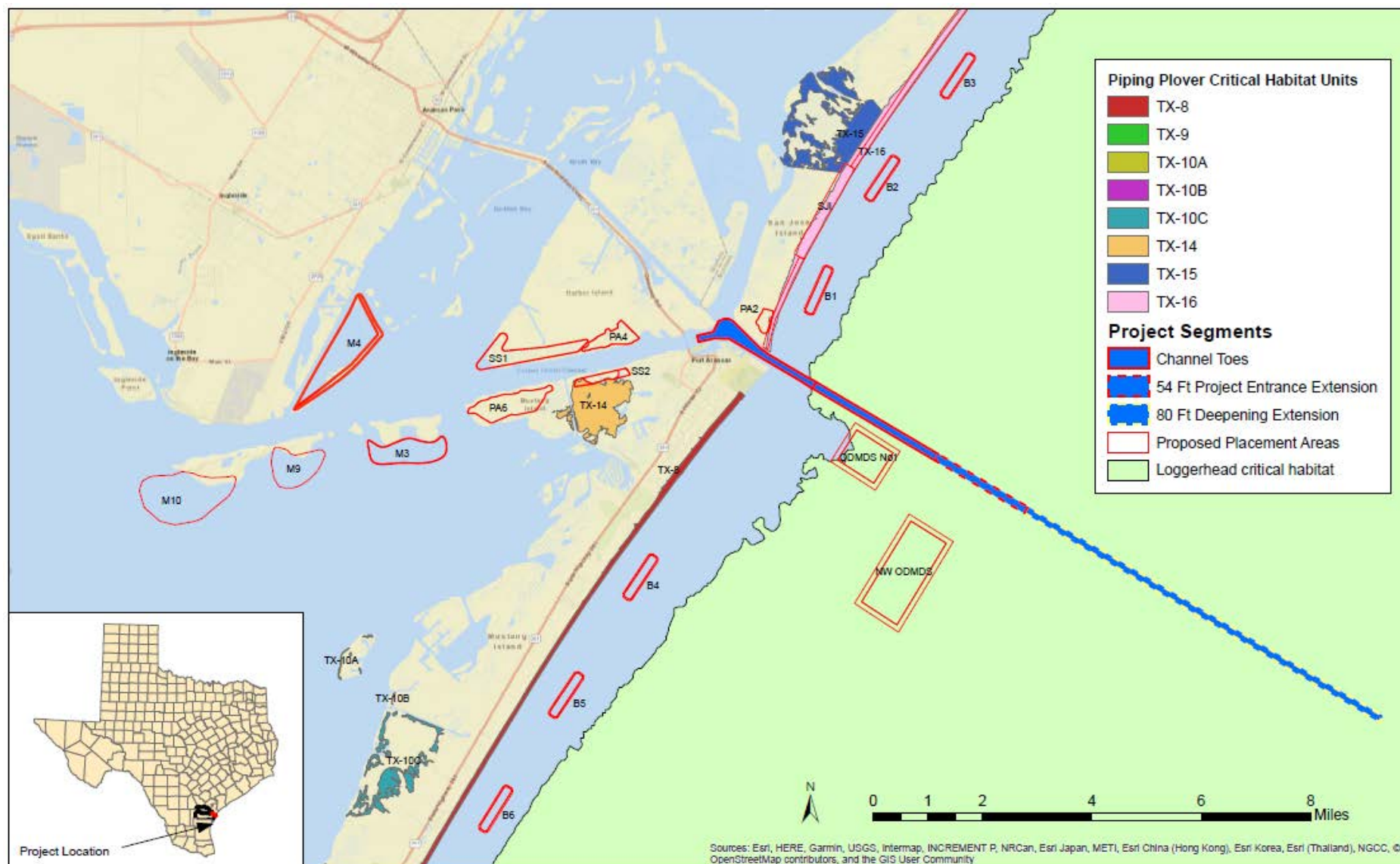


Figure 3.2: Critical Habitat within the Proposed Channel and Placement Areas

### **3.3 Cultural Resources**

The majority of the proposed channel deepening project is within the footprint of the currently authorized channel bottom and side slopes. The exception is the extension of the entrance channel into the Gulf of Mexico to meet deeper Gulf contours. Some minor incidental widening of the channel slopes is expected to meet side slope requirements of the deepened channel. Previous cultural resources investigations conducted for the channel deepening project authorized in 2003 would apply to the proposed project.

A 2018 review of the Texas Archeological Sites Atlas (TASA) maintained by the Texas Historical Commission (THC), and the online National Register of Historic Places (NRHP) database maintained by the National Park Service revealed that multiple cultural resources have been documented within one mile of the proposed project. Of the 42 recorded archeological sites within the one-mile review area, only two sites were identified within the proposed project area. One site was determined to be ineligible for listing in the NRHP, and the other site was assessed as being not significant. No structures greater than 50 years in age, no cemeteries, and no historical markers were identified within the boundaries of the proposed project.

Seventy-two shipwrecks that have not been assigned archeological site numbers were identified within the project review area. Twelve of the identified shipwrecks were located within the boundaries of the proposed channel deepening and PAs; however, only two located east of Aransas Pass are classified as State Archeological Landmarks, which suggests that these two resources may be eligible for listing in the NRHP. Sixty-eight previously completed cultural resources investigations were identified within the project review area. Fourteen of the investigations overlapped portions of the proposed project, with most of these being marine archeological surveys that examined portions of the CCSC and/or Aransas Pass. Only minor portions of some of the dredged material PAs were included in the surveys.

## **4.0 PROJECT ALTERNATIVES FOR CHANNEL IMPROVEMENTS**

### **4.1 Evaluation Criteria**

Preliminary criteria were developed to evaluate how well initial alternatives fulfilled the purpose and need of the proposed project. The initial alternatives were screened using the following general criteria:

- 1) Increase Export Efficiency – Key factors that affected the ability to fully load vessels with crude oil due to constraints of the existing channel and authorized channel were considered. This included draft limitations along the CCSC segments between the Entrance Channel and Harbor Island. This criterion considered whether the alternative allowed a VLCC to move more fully loaded and whether it eliminated or reduced lightering. Lightering would be eliminated for vessels using Harbor Island and lightering would be reduced for vessels using docks at other locations within the CCSC system.

Due to recent exponential growth in crude oil export, the Port of Corpus Christi has seen an increase in vessel tonnage. Several stakeholders' forecasts indicate that this trend will continue for a foreseeable future and beyond. As a result of PCCA's past investments in marine infrastructure and available capacity, PCCA has been capable of accommodating the recent historical shift in oil traffic from import to export. This trend is expected to continue as long as the Port's infrastructure allows it. There are concerns about future limitation to U.S. oil exports due to lack of or insufficient infrastructure capable of handling the export volumes. Lack of adequate infrastructure at U.S. ports including the Port Corpus Christi may lead to inefficient

shipping and ensuing crude price increase which may weaken the U.S.'s competitive edge (EIA 2018).

- 2) **Ability to Serve Multiple Tenants** – Part of the PCCA's mission is to meet the demand of commerce in the Coastal Bend region and throughout the world. To that end, PCCA plans its infrastructure to accommodate the needs of different stakeholders. PCCA has the ability to plan, fund, build and maintain marine infrastructures for common use such as navigation channels and dock infrastructure. PCCA owns and operates several public oil docks and bulk docks that are leased and used by different tenants. The ship channel is a common use infrastructure that is designed and operated to accommodate the different types of vessels used by PCCA's tenants. As cargo volume and vessel traffic increase, larger vessels are being used to improve shipping efficiency and reduce costs. To keep up with these trends, PCCA has undertaken several channel improvement programs. One is the dredging of the CCSC to a depth of 54-foot MLLW for which construction is imminent and will serve tenants all the way to the Inner Harbor. The other is this study to evaluate deepening up to the full depth required to accommodate fully loaded VLCCs. The terminal being planned by the PCCA at Harbor Island could be operated as a facility open for use to several users or companies. This criterion evaluates to what degree the alternative can benefit multiple tenants.
- 3) **Flexibility to Accommodate Future Growth/ Expansion** – This criterion considers the flexibility the alternative provides in being able to accommodate future growth in crude oil export tonnage and future growth in other sectors as well. Crude oil exports have exponentially increased in the last two years and are on pace to exceed the growth rate in 2018. Various long term projections predict much larger export tonnage if export infrastructure and the present bottlenecks in the supply chain end are improved. To that end, the ability to accommodate delivery from new crude export terminals or add capacity for exporting crude oil is important. In addition to crude oil, PCCA seeks to anticipate and be ready to accommodate all other future cargo needs and long term growth.
- 4) **Minimize Environmental Impacts** – All alternatives considered are located in the open waters of Corpus Christi Bay and the Gulf of Mexico. Therefore, environmental impacts would be limited to open water marine habitat and would primarily not involve terrestrial, wetland, or near-shore (tidal flats, beach, dunes etc.) impacts. Potential impacts to the marine environment are discussed below:

*Impact to Marine Habitats:* Existing marine habitat mapping information including seagrasses, tidal wetlands, and oyster reef from TPWD, NOAA and TGLO were obtained and used to gauge the potential for impacts. As environmental marine field surveys were reviewed, preliminary site-specific habitat locations were identified. Because the channel will be constructed within the footprint of an existing channel, no new impact to undisturbed habitat would occur within that footprint. The incremental widening that may be required to maintain the recommended design slope would be minimal and would limit undisturbed habitat impacts.

*Other environmental impacts:* Other environmental aspects that are considered for this criteria include potential impact of oil spills and air emissions from vessels and fuel transfer operations as described below. In conjunction with considerations of risk in #5 below, potential impacts to environmental resources considers the location of major habitat resources (coastal shore, seagrass etc.), climatic (e.g. prevailing wind), and spill response factors. Impacts on air emissions considers how the alternative reduces transit and loading emissions from what would occur during lightered crude oil transfer operations.

- 5) Risk, Safety and Security – Safety and security are primary concerns for all vessels operating at the Port of Corpus Christi. Safety and security concerns include risk and challenges associated with oil spills and ensuing responses, fire and fire suppression activities as well as worker safety as they relate to offshore and onshore operations. Security also considers vulnerability to challenges to physical and operational security such as sabotage, and vandalism. Vulnerability to weather related events including wave height, winds and hurricanes is considered as well.
- 6) Ability to Contribute to Beneficial Uses – PCCA’s environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary, and b) environmental sustainability in the development of port facilities and in ongoing port operations. Although this is normally in the context of executing projects in a manner that restores resources from the impacts of a project, the ability to contribute to resource restoration as a result of project actions regardless of project impact can be considered also. Continuing the practice of considering and incorporating BU where practicable in managing dredged material of its channel projects, as was done in the currently authorized -54-foot project, is desirable. The ability to do this under a given alternative is considered for this criterion.

#### **4.2 Initial Alternatives Considered**

The existing channel dimensions and the authorized channel dimensions are summarized as follows. As of July 2018, the CCSC has a dredged depth of -47 feet MLLW and plans are currently underway to dredge the channel to the authorized -54-foot MLLW depth, which would constitute the “No-Action” condition for the proposed channel deepening project. The CCSC is also planned to be extended into the Gulf of Mexico by 1.4 miles to the -56-foot MLLW contour as part of the federally-authorized project. The width of the channel varies as follows: from the current outer limit of the dredged channel (in the Gulf) to the Port Aransas jetties, the CCSC Entrance Channel is -47 feet MLLW deep with a width of 700 feet, and is authorized to -54 feet MLLW with a width of 700 feet. From the jetties to Harbor Island, the CCSC Entrance Channel is 600-feet wide. The remainder of channel to the La Quinta Junction has a width of 500 feet and is authorized to a width of 530 feet. It was against the limitation of the existing and authorized channel dimensions that initial alternative concepts were developed.

Initial alternatives considered to meet the project purpose included deepening the existing channel and offshore options that pump crude oil from onshore storage to offshore loading facilities. There are two basic types of such facilities: the simpler offshore single point mooring (SPM) buoy system, and the larger, more complex offshore platform or terminal system. An SPM system consists of onshore storage tanks (i.e. above ground storage tank farm) and pumps connected to pipelines leading offshore and terminating at an offshore buoy. The buoy is anchored to the seafloor that has floating loading hoses and mooring lines for the VLCC to hook up to and conduct loading operations. An SPM-based system can be built to provide loading abilities to a few vessels by adding SPMs, but would potentially require multiple pipelines depending on pipeline size and onshore pump capacity. An offshore platform or terminal system similarly uses onshore storage and pumps like the SPM, but the pipeline terminates into a pile-driven platform with conventional manifolds, loading arms and pipe racks, often with berths for several vessels. It is more complex and expensive than SPMs but typically provides more loading capacity. For both these options, the SPM or platform would have to be located in sufficiently deep offshore waters to account for draft, under keel and sea state. This would be between 13 or more miles offshore of Corpus Christi Bay at minimum considering the design depth. The following were the initial alternatives considered:

- **Alternative A – No Action.** No channel improvements and maintaining the channel at its existing depth. This option is equivalent to continuing with lightering and reverses lightering operations to offload and top off large vessels including VLCC's.
- **Alternative B – Channel Deepening.** This alternative consists of deepening the CCSC to -80 feet MLLW from the Gulf of Mexico to Harbor Island, including the approximate 10 mile-extension to the Entrance Channel necessary to reach sufficiently deep waters. As a result of one-way transit assumed for VLCCs, the planned widths for the -54-foot MLLW currently authorized project are nominally sufficient. Therefore no widening other than the minor incidental widening to keep these bottom widths and existing channel slopes at the proposed deeper depths, would occur. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. As discussed earlier, PCCA is studying the feasibility of developing an export terminal at Harbor Island. The Harbor Island terminal is being planned independently of this proposed deepening project. Therefore, there is a strong possibility that this terminal would be developed at Harbor Island to accommodate partially loaded VLCCs even if the deepening project were not implemented. It is assumed 2 to 3 berths would be built at Harbor Island, and existing VLCC berth plans at Ingleside would provide three berths. Under this alternative, light-loaded VLCCs at Ingleside would top off at Harbor Island rather than lightering.
- **Alternative C – Offshore Single Point Mooring (SPM) Facility.** This alternative is an SPM-based system consisting of constructing onshore storage facilities, shore-to-SPM pipelines, and a series of SPMs to load several vessels simultaneously. Conceptually, the onshore storage could be those that would be installed in any one of the marine terminal facilities at Harbor Island or Ingleside if they were converted to offshore delivery, or it could be a new location on other undeveloped property. For purposes of the initial screening, it is assumed 3 to 4 SPMs, and the requisite onshore storage, pumps, and pipelines would be built to load 3 to 4 VLCCs. This number is in the range of facilities built in past offshore terminal projects such as the Louisiana Offshore Oil Platform (LOOP), Iraq's Al Basra Oil Terminal (ABOT), and Bulgarian/Greek Burgas-Alexandroupolis SPM facilities (Trans-Balkan Pipeline B.V.). This alternative would be located somewhere between 13 to 15 miles offshore.
- **Alternative D – Offshore Platform.** This alternative would be similar to Alternative C, except it would be constructed as an offshore platform or terminal. With a more complex system of pile-driven structures and loading arms, it is assumed that pipelines, arms, and berths to service a minimum of 4 vessels simultaneously would be constructed. A four-berth terminal was the constructed capacity of the ABOT. Similar to Alternative C, this alternative would be located in the 13 to 15 miles offshore band, and conceptually could rely on pumping from existing/planned storage either at Harbor Island or Ingleside, or a new location.

#### **4.3 Performance of Alternatives**

Alternative A (No Action) would not meet the purpose of the project, as it would neither provide for the short term need to more efficiently export crude oil, or provide the Port the capacity to respond to long term changes and future economic growth. However, it is retained only for NEPA purposes to compare and contrast action alternatives.

Alternative B (Channel Deepening) does respond to both the short term and long term aspects of the purpose. It improves the efficiency of crude transport by enabling full loading of VLCCs and eliminating or reducing lightering, and provides a deeper channel that could accommodate vessels for other commodities should tenants, cargo, and shipping needs change. The existing or planned terminals

would provide more loading berths than the typical size of multiple point/berth offshore options, although offshore options that match the onshore berth numbers could be built at greater cost. The capacity to accommodate growth in crude is more flexible as new tenants or terminals can be developed on remaining water frontage near the channel. Onshore loading (as would be used in Alternative B) is generally faster due to the greater flow rates of loading arms achievable at onshore berths compared to pumping 13 or more miles to SPM loading hoses under Alternative C. Pumping and loading arms under Alternative D, offshore platform can be made to provide high capacity loading. Dredging approximately 38.9 MCY would be required for Alternative B within the existing channel and proposed extension. Most of the impact would occur in already deepened channel, and approximately 770.3 acres of undredged Gulf bottom would be dredged to provide the entrance extension. Benthic impacts would be temporary and benthic communities would be expected to recover within 1-2 years. No seagrass, wetland or oyster reef would be impacted. This option would provide ample material to beneficially use in the many seagrass, and shoreline, habitat sites impacted by Hurricane Harvey and long term erosion. The option could potentially reduce more than 485,000 metric tons (MT) of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD. This option could reduce between approximately 38 and 112 tons of oxides of nitrogen (NO<sub>x</sub>), and between 2,200 and 9,270 tons of volatile organic compounds (VOC), both USEPA criteria pollutants, depending on whether elimination of lightering at current (approximately 1.5 VLCCs/week serviced) or potential future export rates (4 to 8 VLCCs per week) is assumed.

Offshore Alternatives C (SPM) and D (Offshore Platform) do respond to the short term need of the purpose by enabling full loading of VLCCs and partially eliminating or reducing lightering. However, they are limited in responding to the longer term needs of future economic growth and changes in port tenants and shipping needs, because they are less flexible in accommodating different grades of crude due to pump distances and flushing that could be required to switch grades. The capacity to accommodate growth in crude would require building not only more onshore storage and pumps, but new pipelines and SPMs or platforms, which would tend to be more costly and difficult to add. These options could similarly reduce CO<sub>2</sub>, NO<sub>x</sub> and VOC emissions through lightering elimination or reduction, as Alternative B. However, more vessel hoteling and pumping emissions would be produced due to the offshore location. In contrast to Alternative B, for Alternatives C and D, offshore operations in the Gulf would present more safety and spill risk challenges. The main concern are proximity of these operations to sensitive receptors and coastal habitats such as the Padre Island National Seashore, San Jose Island, and the associated Kemp's ridley turtle nesting grounds and Piping plover critical habitat, and greater exposure to wind and wave climate of the open Gulf, which would make spill containment more difficult. These options would also be in a location where response times would be greater, and access by unauthorized personnel would be greater, again due to distance from the onshore location, further increasing the national security risk.

A summary of the initial screening of alternatives is provided in Table 4.1.

#### **4.4 Screening and Selection of Channel Alternatives**

The project alternatives were assessed using the screening criteria of increasing export efficiency, serving multiple tenants, accommodating future growth and expansion, and minimizing environmental impacts. The alternatives were compared with respect to their ability to meet the project need and purpose. Following the screening of possible action alternatives, the PCCA identified the No Action and the proposed channel deepening to Harbor Island as the alternatives to be evaluated for this project. The channel deepening project alternative would be completed primarily within the footprint of the existing CCSC, maintaining the same channel bottom width and necessitating only minor incidental widening to maintain the required side slopes. The proposed channel deepening alternative would meet the purpose and need of the project compared to the No Action alternative, as described below.

**No Action Alternative:** No channel improvements would be constructed and the existing channel would be maintained at its width and depth following the completion of the ongoing -54-foot deepening project. This alternative would not meet the need and purpose of the proposed project, as it would neither provide for the short-term need to more efficiently export crude oil, or provide the PCCA the capacity to respond to long-term changes and future economic growth. The No Action alternative is retained for comparison against the proposed action alternative.

**Channel Deepening to Harbor Island:** The action alternative would be the deepening of the CCSC to a depth of -80 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and one foot of allowable overdredge) from the Gulf of Mexico to Harbor Island. This alternative would meet the project need and purpose by supporting the efficient export of crude products from the Port through the elimination or reduction of reverse lightering operations. The channel deepening is proposed to be constructed primarily within the footprint of the existing CCSC. The incremental widening expected to be required to maintain the recommended design slope would be minor, and impacts to undisturbed habitat in the Gulf of Mexico would be limited.

The PCCA's environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary and b) environmental sustainability in the development of PCCA facilities and in ongoing port operations. The PCCA's goal is to execute projects in a manner that restores resources impacted by a project, and to contribute to resource restoration as a result of project actions even if the project impacts are minimal. The PCCA's practice is to consider and incorporate beneficial use activities where practicable in managing dredged material generated by channel projects.



**Table 4.1: Alternative Performance**

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>Growth/Expansion</b>	<ul style="list-style-type: none"> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<p>and products moving through the PCCA.</p> <ul style="list-style-type: none"> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel</li> </ul>	<p>required for each individual project.</p> <ul style="list-style-type: none"> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<p>more users even more difficult and costly than SPM</p>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightening activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightening activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightening when annual export rate averages additional 3.5 MMBPD.</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NO<sub>x</sub>, and VOC from eliminating or reducing lightening vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapor emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<ul style="list-style-type: none"> <li>Potential to eliminate 38-112 tons annual NOx and 2,200-9,270 tons of VOC from elimination of some lightering activity</li> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapor recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	<p>positioning during loading will have to transit over 30 miles (assuming support facilities are home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated.</p> <ul style="list-style-type: none"> <li>No technically feasible method for providing vapor recovery of vapour combustion systems for reducing emissions.</li> </ul>	
<b>5) Risk, Safety and Security</b>	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<p>Port.</p> <ul style="list-style-type: none"> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	
<b>6) Ability to Contribute to BU</b>	<ul style="list-style-type: none"> <li>Beneficial use occurring under the - 54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 38 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>

## **5.0 ATTEMPTS TO AVOID JURISDICTIONAL AREAS AND MINIMIZE WATER QUALITY IMPACTS**

The proposed project would require the dredging of earthen material from the existing CCSC and from the bottom of the Gulf of Mexico to create a channel of sufficient depth to allow for the operation of VLCCs. Because the purpose of the proposed project is to deepen the current CCSC to reduce navigation inefficiencies associated with the current channel, the proposed channel improvements must occur in navigable waters of the U.S. Alternatives to achieve the need and purpose of the proposed project that would avoid jurisdictional waters of the U.S. are not available.

The proposed channel deepening activities represent the minimum impact to the Gulf of Mexico and Corpus Christi Bay to achieve the proposed project objective of increasing navigational efficiency of the CCSC. The proposed project alternative is the least environmentally damaging practicable alternative. This alternative meets the proposed project need and purpose with the least impact to the Gulf of Mexico and Corpus Christi Bay environments. The proposed depth and channel dimensions were optimized by taking several factors into consideration. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including draft) from the variation in size among the VLCC fleet to identify the majority of vessels expected rather than the maximum possible. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized. Another factor that will be considered under 33 U.S.C. Section 408 approval and coordination with USACE Operations is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.

Dredged material generated from the project is proposed to be placed within an ODMS adjacent to the CCSC, and, for material judged by the project engineer to be suitable, would be placed in several locations along the coast and within Corpus Christi and Redfish Bays for beneficial use. The new work and maintenance dredge material from the proposed project would be placed in an environmentally acceptable and economically feasible manner, considering technical and logistical feasibility. The section below describes the process of the identification and evaluation of the dredge material placement alternatives that meet these requirements and represent the least environmentally damaging practicable placement alternative(s).

### **5.1 Initial Placement Alternatives Considered**

To help meet the planning objective of identifying practicable dredged material placement that considered engineering, economics and the environment, initial alternatives ranging from use of existing PAs and surrounding uplands, to potential beneficial use (BU) concepts were considered.

### **5.1.1 New Terrestrial Sites**

New terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties etc. needed for hydraulic pipelines. During initial planning of the channel project, the project limits under consideration extended to the La Quinta Junction near Ingleside. Near Harbor Island, surrounding uplands are limited, as they consist of Mustang Island and San Jose Island. Mustang Island has no sizable contiguous tracts within 10 miles that are not developed or are not natural barrier island, State or National refuge/parks, or aquatic habitat. The preponderance of tracts is small waterfront parcels. San Jose Island is a privately owned island that is almost entirely undeveloped natural barrier island and beach. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance which leave no available tracts for placement of dredged material. Therefore, BU and offshore placement in this vicinity was planned.

The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance. Once the proposed channel project terminus was determined to be at Harbor Island, new terrestrial sites became even less likely to be cost effective or desirable. New upland sites would be less cost effective due to farther distances required to reach sizable contiguous tracts of land, could involve impacts to terrestrial wetlands, would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability of terrestrial sites.

### **5.1.2 Initial Concepts**

Therefore, initial planning focused on existing PAs and potential beneficial use, as new upland placement opportunities were limited. Initial BU concepts were generated by considering existing agency restoration plans such as TGLO's Texas Coastal Resiliency Master Plan, recent storm damage caused by Hurricane Harvey, and BU features implemented elsewhere on the Gulf Coast. Since the proposed action consists entirely of dredging the CCSC, practical limitations associated with placement of dredged material were a primary constraint. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredge material placement can be achieved. For hydraulic dredging, most cost effective dredging occurs within 5 miles, requiring one to multiple booster pumps beyond this distance, which rapidly diminishes the cost effectiveness. An initial cost effectiveness limit of 10 miles was considered. Use of hoppers and scows can achieve placement over greater distances, but this is primarily in water and requires minimum depths for vessel draft. These technological constraints factored in planning dredged material placement. The major component of dredging driving placement capacity needed is new work dredging to construct the Proposed Action. Initial planning focused on accommodating projected new work dredging volumes.

To help, further develop dredged material placement that considered environmental impact and BU opportunities, the Applicant conducted an initial agency coordination meeting held in Corpus Christi Texas on September 21, 2018 obtain the input of Federal, State and local resource agencies, including the USACE Galveston District. Representatives from the following agencies participated in the meeting

and provided input on the initial planned PA use and preliminary BUs concepts presented during the meeting:

- University of Texas Marine Science Institute (UTMSI)
- UTMSI/Mission-Aransas National Estuarine Research Reserve
- Coastal Bend Bays and Estuaries Program
- Texas Parks and Wildlife Department (TPWD)
- Texas General Land Office
- Natural Resources Conservation Services
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA) Region 6
- U.S. Fish and Wildlife Service (USFWS)
- Texas Department of Transportation

At the time of conception of initial placement alternatives, the new work quantities considered the additional new work quantities generated from the proposed project used to devise placement concepts. Figure 5.1 below, depicts the initial concepts presented during the agency coordination meeting. These concepts represented general categories of placement alternatives and the general vicinity where they would be located. Agency input generated a few more smaller initiatives, but did not result in major new BU sites being identified. However some concepts were reinforced and better defined based on discussions with agency representatives about site specific information and their knowledge of the ecosystem of Corpus Christi and Redfish Bays. These concepts were then analyzed in consideration of agency feedback, further conceptual development and volumetric analysis, and more research on constraints and impacts. The initial evaluation considered cost, existing technology, and logistics in light of the navigation purpose of the Propose Action. Inherent in cost and existing technology was consideration of the aforementioned dredging method constraints, and inherent in logistics was consideration of needed placement capacities. The following synthesizes the initial concepts, evaluation, and initial screening.

#### **5.1.2.1 Existing PAs for the Current Federally-authorized CCSCIP**

The Applicant is the Non-Federal Sponsor for the authorized Federal project, and is therefore aware of commitments and long-term capacity of existing upland PAs required for the authorized project. The following uses for existing PAs were considered

- Use of existing capacity – Most of the existing PA capacity is dedicated to accommodating the new work dredging and 50-year maintenance of the Federally-authorized -54 foot project. Due to lack of uncommitted capacity, only two existing PAs were identified for use: PA4 and PA6
- Expansion of existing PA – M3, M9, and M10 expand existing PAs by using dredged material beneficially. M3 would convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat behind Pelican Island. M9 and M10 would convert featureless bay bottom to approximately 329 and 770 acres of estuarine/aquatic habitat behind PA9 and PA10, respectively.

#### **5.1.2.2 Existing 54 foot project BU sites**

Existing BU sites were examined for inclusion where possible. According to PCCA, only a handful of sites were available while others lack capacity especially with priority and consideration given to the

placement needs for the CCSCIP which is expected to be constructed over the next three years. Therefore, focus was shifted to expanded existing sites by adding adjacent estuarine/aquatic habitat features or dike raisings. Open-water, unconfined BU sites were avoided completely.

#### **5.1.2.3 Bird Islands**

Rookery islands or bird islands serve as nesting, breeding, foraging and rearing areas for these birds because they are isolated from the mainland and are too small to sustain populations of predators. Dredged material is often used beneficially to construct or restore bird islands.

A recent study identified several existing or new bird islands in Aransas and Nueces counties. However, most were too small in regards to capacity or sited too far (more than 15 miles away) from the project to make construction economically feasible especially with the revised project footprint. The few options that were within the preferred pumping distance were surrounded by seagrass.

#### **5.1.2.4 Oyster Pads**

Beneficially using dredged material as the pad to restore or create new for oyster reef was considered during initial planning. As identified in the TGLO's Texas Coastal Resiliency Master Plan, this option would provide vertical relief need for the restoration of oyster reefs. However, agency feedback indicated that the salinity in the area was not optimal for recruiting or supporting oyster growth.

#### **5.1.2.5 Marsh Restoration at Mustang Island**

Marsh restoration opportunities along the bayside of Mustang Island were examined during early planning. However, the area is too far away from the project to make construction economically feasible. Additionally, public feedback during open houses held in September 2018 indicated concerns regarding impacts to existing, established marsh habitat during construction.

#### **5.1.2.6 13A New BU Site**

Creating a BU feature similar to existing BU 6 was contemplated adjacent to the existing PA13. Once the project terminus changed to Harbor Island, this became a less favorable option due to distance. It was reconfigured in the second stage of placement plan development as a contingency upland extension to PA13.

#### **5.1.2.7 New Work ODMDS**

Use of the portion of this site for new work placement that is not being used by the -54 foot Federal Project was proposed. This site is a dispersive site, and Multiple Dump Fate (MDFATE) modeling was conducted to analyze the capacity for project use.

#### **5.1.2.8 San Jose and Mustang Island Feeder Berms or Shoreline Repair**

The project team reviewed recent aerials and LiDAR data on San Jose Island to determine that there was a substantial amount of repair for dune breaches and foreshore erosion. Similarly, the Texas General Land Office (TGLO) identified areas of both Mustang and San Jose Islands that have experienced historical receding at the rate of 2 feet or more per year. The large amount of sand that would be produced by the project could be used to repair or indirectly nourish these islands



### **5.1.3 Screening of Initial Concepts**

Table 5.1 provides a summary of the screening of initial concepts. Some of these placement options have since been eliminated from further evaluation because of a change in project scope. The initial full built project, deepening the channel to La Quinta Junction, was eliminated from further consideration. The preferred alternative was determined to be deepening the channel to Harbor Island, a shorter reach, which requires less placement areas. As a result some of the concepts identified during the agency coordination meeting were also eliminated from further consideration. However, some of these were reconceived as different BU initiatives, such as expansion of existing PA and BU sites.

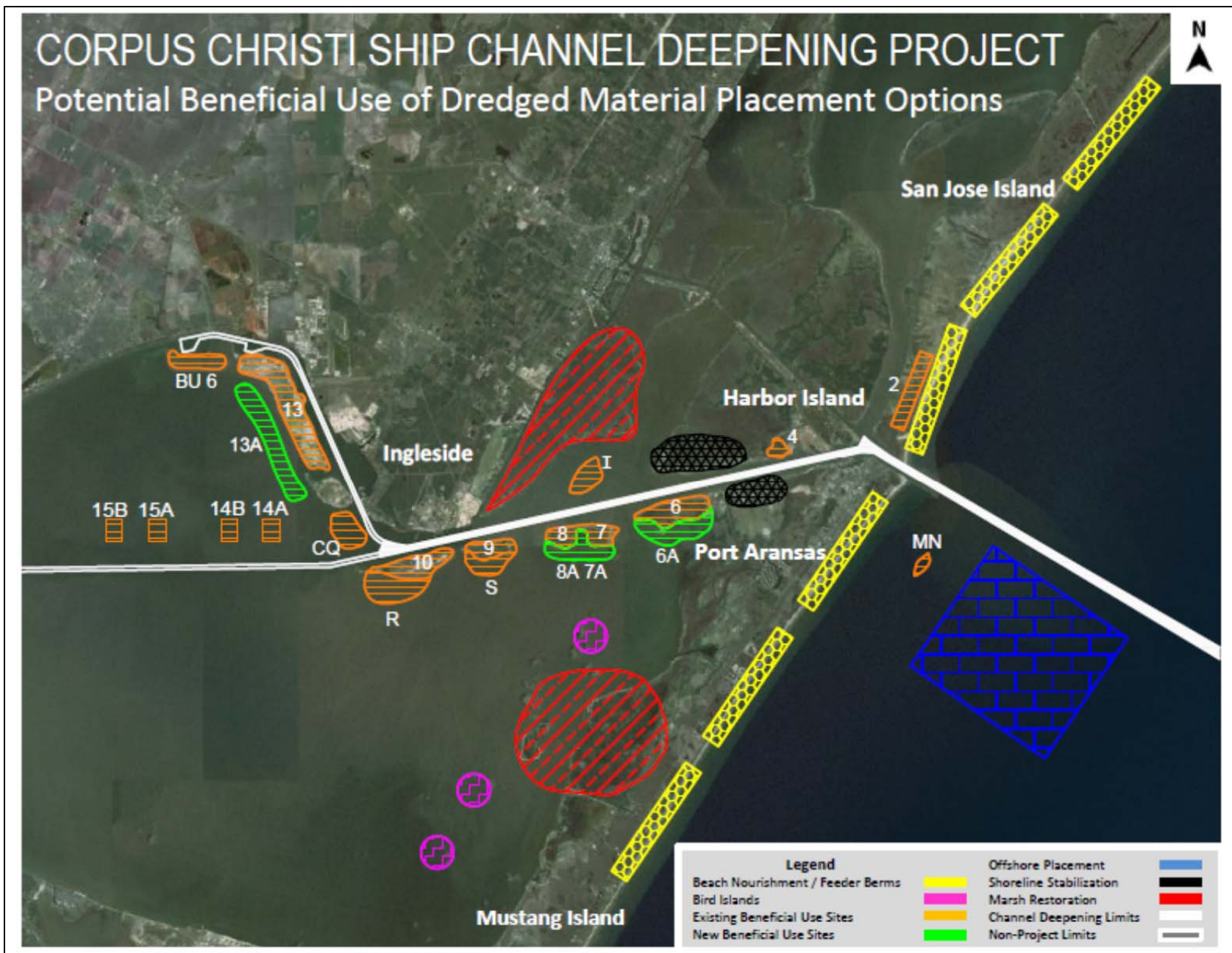


Figure 5.1: Initial Dredged Material Placement Concepts

**Table 5.1: Initial Placement Area Screening**

<b>Concept</b>	<b>Logistics</b>	<b>Technology</b>	<b>Cost</b>	<b>Determination</b>
New Terrestrial Upland Site	Too many issues involving infrastructure, distance, limited parcel size and availability	Pump distance and potential pumping constraints further inland	Logistics factors could make it costly to implement.	Eliminated
Existing PAs for the Current Federally-authorized -54 foot MLLW project	Limited available placement capacity	Feasible	Would be cost effective, but no capacity.	Eliminated for existing, but reconceived for expansion.
Existing 54 foot project BU sites	Limited available placement capacity	Feasible	Would be cost effective, but limited capacity.	Eliminated for existing, but reconceived for expansion.
Bird Islands	12 acre site size criteria limits capacity to place	Feasible	Would likely have higher unit implementation cost due to small size	Eliminated due to distance, and limited capacity
Oyster Pads	Distance from Harbor Island would be far.	Salinity in the area not optimal	Rock for cultch recruitment surface could be a major expense	Eliminated
Marsh Restoration at Mustang Island	Public concerns about impacting existing habitat	Feasible	Could be cost feasible	Eliminated
13A new BU Site	Distance from Harbor Island is far.	Feasible	Distance would make it more costly	Eliminated, but reconceived as contingency upland expansion site
NW ODMDS	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced
San Jose and Mustang Island Feeder Berms or Shoreline Repair	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced

## **5.2 Placement Alternatives Evaluated Further**

The initial alternatives that were advanced or reconceived were refined. Given the large amount of materials that could be beneficially used, especially the large volume of sand in one the of the channel segments, and proximity of some of the desirable BU options, it became clear, a mix of existing offshore, expansion of existing BU sites and the Gulf side BU initiatives would be a viable, cost effective approach. Of 11 initiatives further refined, 10 were BU features that aimed to achieve a variety of shoreline restoration, land loss restoration, marsh cell expansion, and Gulf-side shoreline initiatives. The following alternatives were developed.

- M3 – Creation of an estuarine/aquatic habitat extension at Pelican Island. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- M4 – Restoring historic land and marsh loss at Dagger Island. This is an ecosystem restoration measure included in USACE's Coastal Texas study and the TGLO Coastal Resiliency Master Plan. Design of project elements will be coordinated to support TPWD's existing permit for this project.
- M9 – Creation of an estuarine/aquatic habitat extension at PA9. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- M10 – Creation of an estuarine/aquatic extension at PA10. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- PA6 – Raising the existing dike by 2 feet and filling it with new work material at the existing PA6.
- SS1 – Restoring eroded shoreline and armoring to protect the very large seagrass area behind Harbor Island. This shoreline restoration is desired for a nature center located there.
- SS2 – Restoring a shoreline washout along the Port Aransas Nature Preserve as a result of Hurricane Harvey. Piping plover sand flat critical habitat located behind this breach would be protected again.
- PA4 – Reestablish eroded shoreline and land loss behind PA4. The shoreline has undergone major erosion over the last few decades, and if it continues, would eventually expose the Harbor Island seagrass area to erosion and loss.
- SJI – Dune & shore restoration at San Jose Island using new work sands to repair sever damage caused by Hurricane Harvey
- New Work ODMDS – Placement on part of the New Work ODMDS
- B1-B6 – Feeder berms offshore of SJI and Mustang Island that would be located within the active transport zone in front of the depth of closure, and indirectly nourish these barrier islands.

## **5.3 Applicant's Proposed Placement Plan**

All the proposed options would be viable due to proximity, material volume capacity, and need for material to achieve ecological restoration. The large volume of sands indicates that material placement would be better used for BU restoration of important coastal resources that were damaged by Hurricane Harvey and experience continuing erosion. The availability of other new work material such as clays could opportunely be used to stem land losses that would expose sensitive habitats to continual erosion. These materials would be better used in these initiatives than in upland placement that avoids the marine environment and provides no benefit. All options were selected, with M9 and M10 providing extra capacities as a contingency for unavailability of SJI. Therefore, more capacity was identified to provide flexibility in the plan. Table 5.1 lists the selected placement plan elements.

**Table 5.2: Selected New Work Placement Plan (See Sheet 5 of 17)**

Placement Option	Description	Placement Capacity (CY)	Proximity to New Work Dredging Operations	Provides Environmental Benefit
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	4,328,400	Located approximately 6 miles from Harbor Island	This option will convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	Located approximately 7 miles from Harbor Island	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
M9	Estuarine/aquatic habitat creation adjacent to PA9	3,500,000	Located approximately 8 miles from Harbor Island	This option will convert featureless bay bottom to approximately 329 acres of estuarine/aquatic habitat.
M10	Estuarine/aquatic habitat creation adjacent to PA10	10,933,600	Located approximately 10 miles from Harbor Island	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	2 foot dike raise and fill	3,704,900	Located approximately 4 miles from Harbor Island	This option does not create any environmental benefit.
SS1	Restoring eroded shoreline and armoring to protect Harbor Island seagrass area	1,682,000	Located approximately 3 miles from Harbor Island	This option restores an eroding shoreline to its historic profile.
SS2	Restore shoreline washout along Port Aransas Nature Preserve as a result of Hurricane Harvey	695,600	Located approximately 2 miles from Harbor Island	This option restores two washouts of shoreline along the Port Aransas Nature Preserve as a result of Hurricane Harvey.
PA4	Reestablish eroded shoreline and land loss behind PA4	3,020,000	Located approximately 2 miles from Harbor Island	This option does not create any environmental benefit.
SJI	Dune & shore restoration San Jose Island	7,000,000	Located directly next to Channel Dredging Operations	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMDS	Place on part of New Work ODMDS	13,800,000	Located directly next to Channel Dredging Operations	This option does not create any environmental benefit.
B1-B6	Feeder berms offshore of SJI and Mustang Island	7,200,000	Located less than 10 miles from Channel Dredging Operations	This option will nourish beach shoreline by natural sediment transport processes.
Scenarios for new work placement capacity provided and needed.		56,731,500	Total Capacity Provided	
		49,731,500	Total capacity less SJI (should that option become unavailable)	
		38,926,000	Total NW placement capacity required for Channel Preferred Alternative – Base Option	
		10,805,500	Additional Capacity less SJI (should that option become unavailable)	

## **6.0 SUMMARY OF PROPOSED PROJECT IMPACTS AND MITIGATION FOR AQUATIC HABITATS**

The majority of placement options involves BU to protect impacted resources, and would overall benefit seagrass, estuarine/aquatic habitats, and coastal habitats. The remaining impacts to seagrass or wetlands provided in Table 3.2 would be offset by reconfiguring these sites to be able to host the impacted habitat. As an example, at M3, part of the impacted seagrass could be offset by dedicating part of the created habitat to seagrass colonization, since planned elevations would be conducive to recruitment and establishment.

## **7.0 CONCLUSION**

The PCCA understands that discharges into waters of the United States should not occur unless it can be shown that the discharge would not result in an unacceptable adverse impact on the aquatic ecosystem. It is also understood that if there is a practicable alternative to the discharge, the discharge should not occur. A practicable alternative is not available that would meet the proposed project requirements and achieve the project purpose. The proposed project would increase crude oil export efficiency for the Nation, reducing trade deficits, and fostering economic development. The result of the proposed action would be a more efficient channel to export crude oil. The proposed project meets the project purpose and need. The placement alternatives were developed in coordination with resource agencies, and considered public input during open house meetings at the start of the project. The resultant proposed placement alternatives make extensive use of BU to address ecological restoration needs that agencies desire. The volume of material and volume of sands are valuable assets, and the dredging and placement presents a unique and major opportunity to address restoration needs in this estuary and barrier island system.

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Attachment B – Texas Commission on  
Environmental Quality  
Tier II  
401 Certification Questionnaire  
Alternatives Analysis Checklist

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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II 401 Certification Questionnaire

The following questions seek to determine how adverse impacts will be avoided during construction or upon completion of the project. If any of the following questions are not applicable to your project, write NA ('not applicable') and continue.

Please include the applicant's name as it appears on the Corps of Engineers' permit application (and permit number, if known) on all material submitted. The material should be sent to:

Texas Commission on Environmental Quality  
Attn: 401 Coordinator (MC-150)  
P.O. Box 13087  
Austin, TX 78711-3087

#### **I. Impacts to surface water in the State, including wetlands**

- A. What is the area of surface water in the State, including wetlands, that will be disturbed, altered or destroyed by the proposed activity?

*The proposed activity will dredge approximately 770.3 acres of undredged ocean bottom below mean low lower water in the Gulf of Mexico, 369.0 acres of undredged and partially dredged ocean and estuarine bottom adjacent to the existing and authorized Corpus Christi Ship Channel (CCSC), 588.9 acres of the existing and authorized CCSC channel bottom, 36.1 acres of estuarine bottom in the Lydia Ann Channel, and in Aransas Pass as part of proposed channel improvements.*

*For the proposed placement plan, using available Texas Parks and Wildlife Department (TPWD), Texas General Land Office (TGLO), and U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data, approximately 4,219.9 acres of surface waters, 656.6 acres of mapped seagrass, and 984.3 acres of mapped wetland were identified as located in the proposed placement features.*

*Of the wetlands, 262.6 acres are features mapped within an active Placement Area (PA) or have eroded away based on aerial review, 512.2 acres are San Jose Island shoreline that proposed placement would directly restore as beach or dune (SJI), 68.0 acres would be avoided or integrated into [Ducks Unlimited and TPWD's] planned Dagger Island shoreline restoration (M4). The remaining 141.5 acres would be impacted by beneficial use features proposed to protect large areas of seagrass.*



*Of seagrass, 559.0 acres would be in the interior of M4 at Dagger Island, and would be largely avoided except at the fringes of shoreline restoration which would protect this seagrass from further erosion, and 17.1 acres at M3 where proposed BU marsh can be reconfigured to replace impacted seagrass acreage. The remaining 80.5 acres would be impacted by shore and land loss restoration at SS1, which will protect a very large seagrass area behind Harbor Island.*

- B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

*Except for SS1, the remaining seagrass and wetland impacts would be addressed by reconfiguring the BU placement to provide suitable area for the reestablishment of impacted habitat. SS1 establishes a protective barrier to larger seagrass areas that would otherwise be very prone to erosion if further shoreline loss is experienced,*

- C. Please complete the attached Alternatives Analysis Checklist.

*Alternatives Analysis Checklist is attached.*

## **II. Disposal of waste materials**

- A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.

*No removal or destruction of existing structures is expected. Minor removal of debris and unsuitable materials encountered during dredging may be necessary during construction. Minimal disposal will be required. All material that is not re-usable will be disposed of at a properly permitted facility.*

- B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

*Sewage generated during construction would be collected on ship-board facilities or in self-contained portable toilets that would be serviced regularly. The proposed activity will be dredging in the marine environment and dredged material placement at existing placement areas (PA), beneficial use (BU) sites or proposed PA or BU sites. No wastewater services currently exist within the project area and none are included in the proposed construction.*

- C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also, discuss provisions for the disposing of sewage generated from day-to-day activities.

*N/A*

## **III. Water quality impacts**

- A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged used for fill.

*The proposed action would generate approximately 38.9 million cubic yards (MCY) of new work dredged material. Based on review of existing borings, approximately 15.1 MCY of the new work material would consist of clay material and 23.7 CY would consist of sand material. Placement and use of these materials is planned as follows, employing standards dredged material placement construction techniques generally described here and in more detail under Item B:*

**Offshore Placement** – *For construction of the proposed action, the existing and currently approved dispersive offshore placement site (a.k.a. New Work ODMDS) would be used to place new work clay and silty material. Placement would be by scow, hopper, or direct pipeline placement, employing standard scow or hopper operation techniques to achieve controlled deposition.*

**Repair and nourishment of Gulf-side shorelines** – *For construction of the proposed action, pending owner approval, sandy material would be used to restore dunes in large dune breaches, and restore the eroded foreshore on San Jose Island (SJI) due to damage caused by Hurricane Harvey. Standard construction techniques for beach nourishment used elsewhere on the Texas coast would be employed such as the use of temporary dewatering dikes to effect deposition and material retention. Restored dunes would be planted with native stabilizing vegetation to anchor dunes. Sandy and other appropriate new work material would also be used to create a series of offshore feeder berms (B-1 through B-6) that would be located within the active shoreward transport zone to indirectly nourish San Jose and Mustang Islands. According to the Texas General Land Office (TGLO) 2014 Coastwide Erosion Response Plan (CERP) and Bureau of Economic Geology (BEG) Shoreline Change Map, these islands have experienced historical shoreline erosion of approximately 2 or more feet per year. These berms would be constructed using standard submerged placement techniques for either hydraulic placement at sites closer to the point of dredging and potentially by scow for sites more distant from the point of dredging.*

**Repair of bay-side shorelines and land loss** – *For construction of the proposed action, new work dredged material would be used to repair eroded shorelines at Harbor Island (SS1), Port Aransas Nature Preserve [PANS] (SS2), and Dagger Island (M4) to stem further land, tidal flat and seagrass habitat loss due to damage experienced during Hurricane Harvey and over time. At SS1, containment dikes for dewatering would be used, and would have seeding on dike crowns and interiors, and armoring on the channel side. At SS2, the previous shoreline profile would be restored and would be backfilled behind it to bolster and reestablish the original land barrier to tidal sand flats in the PANS, using armoring where it previously was used in the breaches. At M4, material would be used to construct containment dikes on certain sides of Dagger Island to prevent channel sediment migration and to build/preserve marsh and seagrass elevation behind it, with these areas potentially seeded for initial stabilization and blending in with existing seagrass. M4 would provide material to implement breakwater and land loss restoration measures already permitted by TPWD and included in the USACE Coastal Texas Study and TGLO Coastal Resiliency Master Plan. Suitable new work material would also be used to build containment dikes toward the channel and fill in behind them at the existing PA4 on Harbor Island to restore severe upland losses experienced over the years. This would also help preserve the land buffer between Aransas Pass the large seagrass habitat area behind Harbor Island to protect the seagrass habitat from future damage. Containment dikes would be seeded on the crowns and interiors, and armored on the channel side.*

**Upland Placement** – For construction of the proposed action, new work material would also be used for raising containment dikes on PA 6, and to fill the interior using capacity created by dike raising. Upon the completion of construction, the dikes would be seeded and vegetated to minimize erosion.

**Estuarine/Aquatic Habitat Creation** – M3, M9, and M10 will create estuarine/aquatic habitat by placing material on bay bottom to raise elevation to optimal subtidal and intertidal marsh elevation, likely using erodible containment dike techniques previously employed elsewhere in Texas. These features would ultimately be planted or colonized by appropriate native vegetation.

**Maintenance** – Over the 10-year permit life, approximately 1.08 MCY of maintenance materials would be generated annually from the deepened channel, of which approximately 399,000 CY would be additional material due to the deepened channel. The material is expected to consist of fine grained silts, sands, and clays, and would be dredged and placed in either existing upland placement areas (PA2), ODMDS No. 1, or proposed BU feeder berms B-1 through B-6, as material suitability allows. Use of the existing sites is consistent with the current operations and maintenance (O&M) placement of the existing and authorized CCSC managed by the USACE Galveston District.

The Port of Corpus Christi Authority (PCCA) would follow the current USACE CCSC procedures used for dredging and dredged material placement during construction dredging and channel maintenance. These include standard dredging techniques to construct submerged and emergent containment dikes, and interior placement of material. These techniques are described further in Item B below.

- B. Describe measures that would be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetative cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

Techniques used successfully in Texas, around the U.S., and by USACE to construct stable PA and BU restoration features were described in general above. The following provides more details on these techniques which prevent short and long term erosion and turbidity.

- **Beach nourishment temporary dewatering dikes** – This would involve the use of in-situ sand to form a series of temporary retention dikes to dewater hydraulically pumped sand, constructed as placement moves along the shoreline.
- **In-water placement for submerged berm, in-water dike construction or in-water fill** – This would involve one of two potential general methods: 1) the use of diffusers and downspouts at the end of pipelines to slow exit velocities to achieve focused placement to build the intended template, 2) the use of hydraulically loaded scows or hopper dredges to discharge by gravity fall during a controlled release, to minimize sediment migration and achieve focused placement around the scow or hopper.
- **Upland dike construction** – Material would be hydraulically pumped to create containment dikes. After dike construction riprap, rock, etc. would be added where

*armorings is indicated and dike side slopes would be seeded and vegetated as soon as practicable with robust and rapidly establishing species to provide long term stability.*

- **Interior filling** – Where practicable for the type of feature, containment dikes with limited weir outlets or spill boxes designed or planned to allow retention and eventually dewatering as features become emergent. For placement on emergent interiors, interior training dikes, ditching and other enhanced dewatering techniques would be employed to further optimize material retention and dewatering.

- C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with supporting data (Reference: Technical Report, DS-7810, Dredge Material Research Program, GUIDELINES FOR DESIGNING, OPERATING, AND MAINTAINING DREDGED MATERIAL CONTAINMENT AREAS). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.

*Technical Report, DS-78-10 is a former Waterways Extension Service (WES) publication that has been superseded by newer USACE guidance contained in Engineering Manuals (EM) including EM 1110-2-5025 Dredging and Dredged Material Management, and EM 1110-2-5027 Confined Disposal of Dredged Material, for the design of contained dredged material placement. Where applicable and appropriate, these design criteria would be used during the detailed design phase to configure feature geometry and discharge placement. For other unconfined feature construction (e.g. beach nourishment), use of the above described hydraulic placement techniques would be used.*

*The proposed action is deepening of the existing and authorized Federal channel. Maintenance for the incremental annual amount of 399,000 CY of extra shoaled material would be accomplished as part of the existing channel maintenance cycle using the existing, approved offshore dispersive sites ODMDs No. 1 and MN, and if suitable material is generated, the existing PA2 on San Jose Island, and the proposed offshore feeder berms B-1 through B-6.*

- D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.

*The segment of the CCSC to be dredged for the proposed action has two wastewater discharges located directly adjacent to the channels. One is a private domestic wastewater (TCEQ Permit #12731-001) and the other brine discharge (Permit No. WQ0005253000). However, dredged materials from the CCSC to be dredged for the proposed action are not known or likely to be contaminated. The CCSC is tested and maintained in accordance with USACE sediment testing guidelines. No increases in contaminant levels is expected during dredge and fill operations.*

*The potential for contaminants has been evaluated through chemical analyses, grain-size analyses, bioassays, and bioaccumulation tests in the surrounding area as part of the Corpus Christi Ship Channel, Texas Channel Improvement Project for the current authorized Federal channel. These tests spanned a wide variety of volatile, semi-volatile (e.g. PAH),*

*pesticide and persistent organic (e.g. PCB, dioxin) compounds, and metal constituents. The 2003 "Corpus Christi Ship Channel, Texas Channel Improvement Project, Volume I Final Feasibility Report and Final Environmental Impact Statement" concluded that contaminant studies showed that new work and maintenance dredged material from all sections of the channel, with the exception of the Inner Harbor (which is not part of the proposed action), is acceptable for offshore placement, beneficial uses in the bay or ocean, or upland placement.*

*More recent testing conducted in 2018 for the Entrance Channel segment and entrance channel extension of the CCSC for the current authorized Federal channel to support offshore placement for the purposes Marine Protection, Research and Sanctuaries Act (MPRSA) Section 103 included chemical, grain-size, bioassays, and bioaccumulation tests on new work material samples between current depths and the proposed depth of -54 feet MLLW. Testing results indicated no contaminant concerns and supported offshore placement. This recently tested segment comprises the majority of the project segment for the proposed action. The proposed action would dredge new work, in-situ geological material below the recently tested layer (from -54 feet MLLW to -80 feet MLLW), and thus would be less prone to surface human impacts. The proposed action would also dredge existing Gulf of Mexico seafloor materials to extend the entrance channel further to the -80 foot MLLW contour. This segment would be as or less prone to impacts than the recently tested extension for the authorized Federal channel. The proposed areas to be dredged have been extensively tested previously and/or are not prone to contamination.*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II Alternative Analysis Checklist

#### I. Alternatives

##### A. How could you satisfy your needs in ways which do not affect surface water in the State?

*Work below mean low lower water of the Gulf of Mexico, Corpus Christi Bay, and Redfish Bays within the proposed project area is necessary to meet the project needs of increasing crude oil export efficiency and safety. Crude oil export efficiency and safety in the Corpus Christi Ship Channel (CCSC) cannot be improved without affecting waters in the State. Activities may affect water quality within the proposed project area by temporarily increasing turbidity and suspended sediment load in the estuarine water column. However, these temporary conditions would not be expected to adversely impact marine mammals, essential fish habitat or other aquatic resources in the study area to a significant degree.*

##### B. How could the project be re-designed to fit the site without affecting surface water in the State

*Initial crude oil export alternatives were evaluated and screened including alternatives to deepening the channel, which consisted of offshore loading facility options (See Attachment A of the Permit Application). Offshore options did not meet the purpose and need of the proposed action as well as the channel deepening alternative, and channel deepening performed better in most major criteria including export efficiency, flexibility to accommodate growth, and environmental and safety risk. Offshore options would expose San Jose Island and Mustang Island (with the National Seashore) to a greater risk of oil spills during loading activities compared to channel deepening which brings loading activities in a more controlled environment of Corpus Christi Bay. Both barrier islands which host Piping plover (*Charadrius melodus*) critical habitat and endangered sea turtle nesting beaches. Therefore, channel deepening was selected. The proposed project terminus is Harbor Island, and deepening to accommodate full loading of Very Large Crude Carriers (VLCC) and Suezmax tankers is the only navigation improvement being examined, only one channel extent and alignment was examined. Deepening of the CCSC cannot be done without affecting surface water in the State.*

##### C. How could the project be made smaller and still fit your needs?

*The deepening could be done to an optimized depth that serves the majority of the intended design vessel (VLCC) class and likely prevailing crude oil type instead of absolutely maximizing the depth for all versions of the design vessel, carrying the densest crude oil. This has already been examined and incorporated into the channel alternative selected for the proposed action. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including draft) from the variation in size among the VLCC fleet. A 99<sup>th</sup> percentile set of dimensions was identified, and individual vessel dimensions clustered tightly around the selected dimensions. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in*

*December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized.*

*Another way the project could be made smaller is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. Geotechnical borings and analyses have been accomplished to determine the steepest stable slopes for the in situ material. Steeper slopes than the existing side slope are being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.*

**D. What other sites were considered?**

*Offshore alternatives that were initially considered, but would be located a minimum of 13 or more miles. For the reasons discussed in Item I.B above, these offshore options were eliminated. Alternative sites for increasing the efficiency of moving crude oil would require new development of terminal facilities and/or dredging completely new navigation channels; both of which are not practical, nor least environmentally damaging, and therefore were not considered. Alternative sites for dredged material placement considered were existing placement areas (PA), offshore disposal, and beneficial use (BU) sites, and a variety of new and expanded PA and BU site initiatives, within the practical distance for hydraulic dredging pipeline or scow placement. New terrestrial sites were considered in general, but were not practical due to distance, existing infrastructure and residential development, and presence of ecologically sensitive habitat and refuges in nearby terrestrial sites (e.g. Mustang Island). Details of the alternatives considered for both channel improvement and placement are in Attachment A of the Permit Application*

**1. What geographical areas were searched for alternative sites?**

*The proposed deepening must occur within the proposed project area, thereby precluding the consideration of alternative sites. For dredged material placement, initially, existing PA and BU sites used for the current and authorized CCSC stretching from the Gulf of Mexico to Ingleside, initial new BU concepts coordinated with resource agencies located from the Gulf-side of Mustang and San Jose Islands north and south of the CCSC, and throughout Corpus Christi Bay and Redfish Bay, were all considered.*

*As the proposed channel was refined to an extent from the Gulf to Harbor Island, and existing PA capacities ruled out all but a few current PA and BU sites available for use, the initial PA and BU concepts were further developed and focused to the lower Corpus Christi Bay and Gulf of Mexico. Existing sites are located on existing PAs located on Harbor Island (PA4), Mustang Island (PA6), offshore waters adjacent near the existing channel (New Work ODMDS) or originally developed in the Bay (PA13). New BU sites located adjacent to existing PAs (M3, M9, and M10) in Corpus Christi Bay, in Redfish Bay (M4), near the Port Aransas Nature Preserve (SS1), and in nearshore waters along Mustang and San Jose Islands (B1 through B6) and on San Jose Island (SJI), were considered. Most of these BU sites were associated with restoring habitat and shoreline from Hurricane Harvey damage or long term erosion and land loss. The dredged material placement alternatives were generally limited to within the 10 miles as a practical and cost-feasible radius for hydraulic dredging and dredged material placement or use of scows.*

**2. How did you determine whether other non-wetland sites are available for development in the area?**

*Aerial imagery, appraisal district data, and distance criteria were used to determine if terrestrial sites without wetlands were likely to be viable. Both existing development, refuge and habitat presence, and property parcel sizes versus needed capacity were used to screen out the viability of terrestrial sites that might be free of wetlands. Once it was determined to use existing and new or*

*expanded PA and BU sites, National Wetland Inventory (NWI), and Texas Parks and Wildlife (TPWD) and National Oceanic and Atmospheric Administration (NOAA) sea grass mapping were used to configure and refine PA concepts to minimize impacts. Very little mapped wetland is present in the BU sites and mapped seagrass directly in the footprint of the proposed placement is limited to natural recruitment at the shallow bathymetric margins of PA dike slopes. The initiatives to use the material beneficially will create more tidal marsh, restore shoreline that protects seagrass habitat, or repair damaged dunes and beaches in sensitive barrier island habitat.*

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

*No.*

E. What are the consequences of not building the project?

*The No Action alternative would not increase efficiency of moving crude oil exports from the Port of Corpus Christi in support of national energy security and national trade objectives, which is the proposed project's purpose and would not increase the safety of this movement, which is an underlying need. This would result in a channel depth that forces shippers to light load their vessels, requiring multiple smaller lightering vessels to shuttle oil to deeper waters, increasing the numbers of vessels needed to move crude oil, which would increase shipping costs and volatile organic chemical (VOC) vapor and greenhouse gas emissions. This would substantially affect the ability of the CCSC to efficiently and safely accommodate the projected increase in tanker tonnage to be handled at existing and planned VLLC-capable crude oil terminals at Harbor Island and at Ingleside, as well the larger VLCCs to which industry is moving towards. This would increase costs to shippers and consumers from continued light-loading of tanker vessels. The No Action alternative would not satisfy the PCCA's mission of leveraging commerce to drive prosperity for the region and community.*

## II. Comparison of alternatives

A. How do costs compare for the alternatives considered above?

*No costs were estimated for the initial channel concepts. However, offshore options consisting of Single Point Moorings (SPM) and offshore loading platforms have substantially higher long term operating and maintenance costs due to the distance over which product must be pumped from onshore storage facilities to loading points out in the Gulf of Mexico which could be as far as 13 or more miles. They are also more costly to expand additional loading points, compared to adding berths along water frontage served by a deepened channel. For this and the aforementioned reasons discussed in I.B. the offshore options were screened out. The preferred channel improvement project is the least cost alternative that increases crude oil export efficiency. For dredged material placement, the proposed placement alternatives considered are cost effective compared to new upland sites, meet the placement capacity needed, and make beneficial use of the dredged material or use of existing PA and BU sites.*

B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

*The logistical factor that limits the consideration of alternatives is the location of the CCSC and future expected crude terminal developments. Alternative sites would require development in a new area and were not considered. The proposed project is designed to provide the needed increase in crude oil export efficiency while minimizing adverse environmental impacts to the Gulf of Mexico and Corpus Christi Bay. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredge material placement can be achieved. Terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties*



*etc. needed for pipelines. In the vicinity of Harbor Island, there are no sizable contiguous tracts to accommodate an upland PA to contain substantial planned new work volumes on the adjacent islands of Mustang or San Jose that aren't local or national refuges, seagrass habitat, or T&E critical habitat. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance. Therefore, BU and offshore placement in this vicinity was planned. The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance.*

**C. Are there technological limitations for the alternatives considered?**

*For the channel alternative selected, several technological limitations result in the selected depth, width and side slope ratios. These are the required draft to fully load a VLCC with the intended product (WTI crude), the design criteria from USACE Engineering Manuals and PIANC guidelines to determine required under keel clearances to accommodate dynamic movement due to sea state and climatic conditions, wind and current conditions constraining minimum one-way passage widths, and geotechnical slope stability. For placement, technological limitations mainly involve cost-effective hydraulic pump distances (typically 10 miles), and required draft and cost-effective travel distances for scows and hoppers,*

**D. Are there other reasons certain alternatives are not feasible?**

*For channel alternatives, the primary reasons offshore alternatives are not feasible are discussed in II.A above. For placement, new upland sites would be less cost effective due to farther distances required to reach sizable contiguous tracts of land, could involve impacts to terrestrial wetlands, would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability*

**III. If you have not chosen an alternative which would avoid impacts to surface water in the State, please explain:**

**A. Why your alternative was selected, and**

*The preferred channel alternative would provide a substantial increase in the efficiency of crude oil exports, increase the safety of loading operations, provides more efficient loading and flexibility for future growth than offshore options, and provides material for beneficial use to areas in need of restoration. It meets the overall purpose and needs of the proposed action the best. The selected depth optimizes the necessary draft to address efficient export while minimizing environmental impacts. The proposed dredged material placement alternatives were chosen because they meet a variety of needs for providing sufficient and additional new work and maintenance dredged material placement capacity. Existing placement capacity for the CCSC is limited to take on new work material, new upland sites would likely be more costly and disruptive, and PCCA engaged planning and coordination to identify desirable BU and PA expansion/extension where possible. Attachment A provides the full discussion and justification for selecting the channel and placement alternatives.*

**B. What do you plan to do to minimize adverse effects on the surface water in the State impacted?**

*The construction techniques described in Section III of the Tier II 401 Certification Questionnaire would be employed to minimize migration of placed material. These techniques are standard industry methods of placement employed in USACE and non-Federal projects to construct PAs, and BU sites. In summary, these methods are discharge end measures to slow deposition velocity for hydraulic placement, controlled*

*release from scows or hoppers, diked and contained dewatering methods, and dike erosion control methods including seeding and armoring.*

**IV. Please Provide Comparison of Each Criteria (From Part II) For Each Site Evaluation in The Alternatives Analysis**

*See Attachment A of the Permit Application for details. The outcome of initial screening of channel alternatives is summarized in the table below.*

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future Growth/Expansion</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at and products moving through the PCCA.</li> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits required for each individual project.</li> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add more users even more difficult and costly than SPM</li> </ul>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightering activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightering activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD.</li> <li>Potential to eliminate 38-112 tons annual NOx</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NOx, and VOC from eliminating or reducing lightering vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapour emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC positioning during loading will have to transit</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>

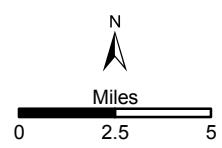
Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		and 2,200- 9,270 tons of VOC from elimination of some lightering activity <ul style="list-style-type: none"> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapour recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	over 30 miles (assuming support facilities are home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated. <ul style="list-style-type: none"> <li>No technically feasible method for providing vapour recovery of vapour combustion systems for reducing emissions.</li> </ul>	
<b>5) Risk, Safety and Security</b>	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the Port.</li> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact               <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location               <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>6) Ability to Contribute to BU</b>	<ul style="list-style-type: none"> <li>Beneficial use occurring under the - 54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 38 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>



Project Location

Sheet 1 of 17

**AECOM**  
19219 Katy Freeway, Suite 100  
Houston, TX 77094  
Tel: 281.646.2400



### Legend

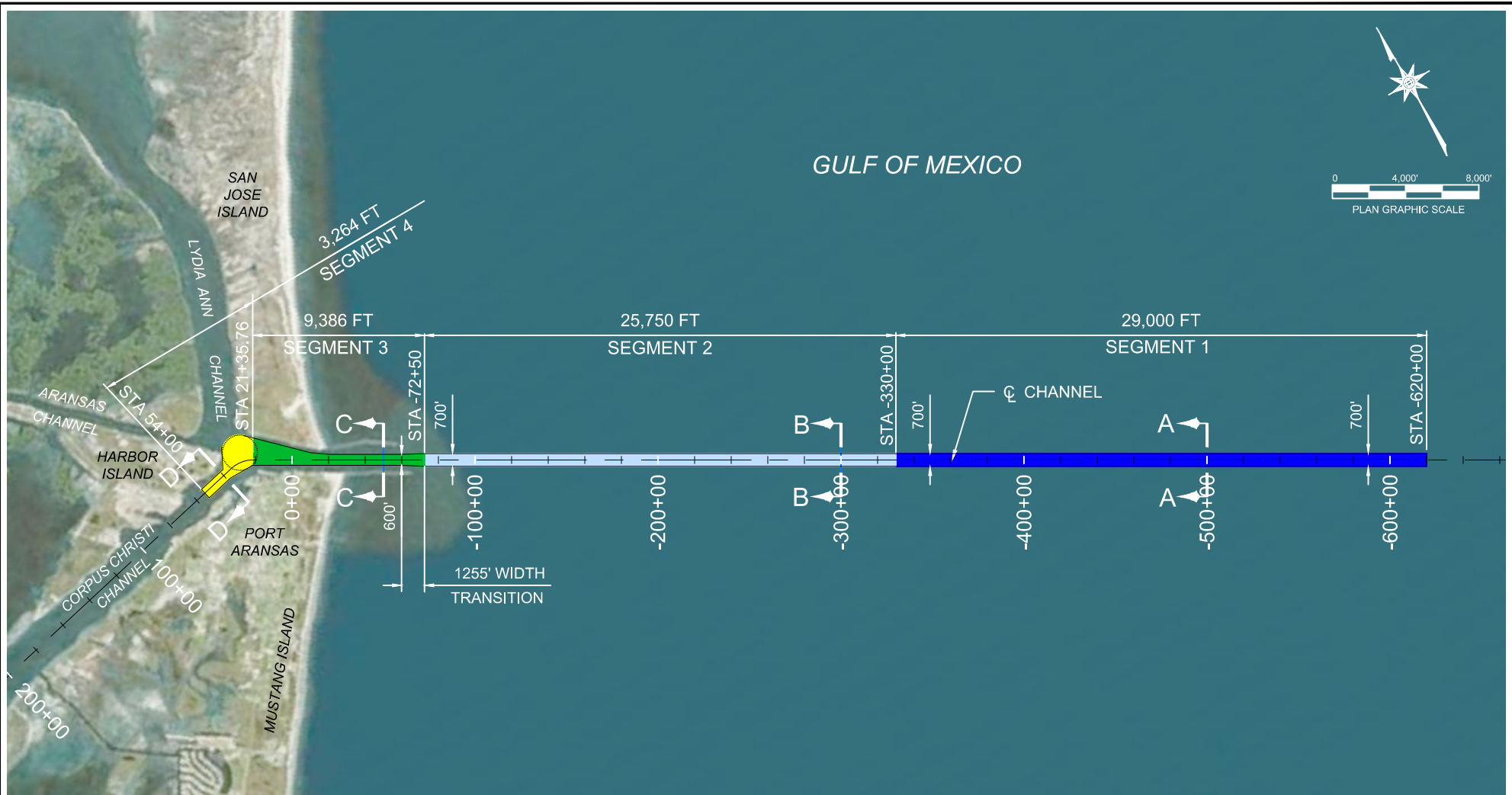
- Corpus Christi Ship Channel
- Project Location
- USACE Maintained Channels
- County Boundary



### Vicinity Map

Title: <b>Corpus Christi Ship Channel Channel Deepening Project</b>			
Client: <b>Port of Corpus Christi Authority</b>			
Drawn By: DS	Date: 12/26/2018	Project No.: 60578532	





## DREDGING PLAN

SCALE: 1" = 8000'

Sheet 2 of 17

SEGMENT	STATIONING (@ CHANNEL CL)		*DEPTH (FT BELOW MLLW)	DESCRIPTION	PLAN VIEW LEGEND
	FROM	TO			
1	STA -620+00	STA -330+00	-77.0	<i>Outer Channel</i>	
2	STA -330+00	STA -72+50	-77.0	<i>Approach Channel</i>	
3	STA -72+50	STA 21+35.76	-75.0	<i>Jetties to Harbor Island Turning Basin</i>	
4	STA 21+35.76	STA 54+00	-75.0	<i>Harbor Island Junction</i>	

\* DESIGN DEPTH SHOWN. DOES NOT INCLUDE 2.0 FT ADVANCED MAINTENANCE DREDGING OR 1.0 FT ALLOWABLE OVER DREDGE.

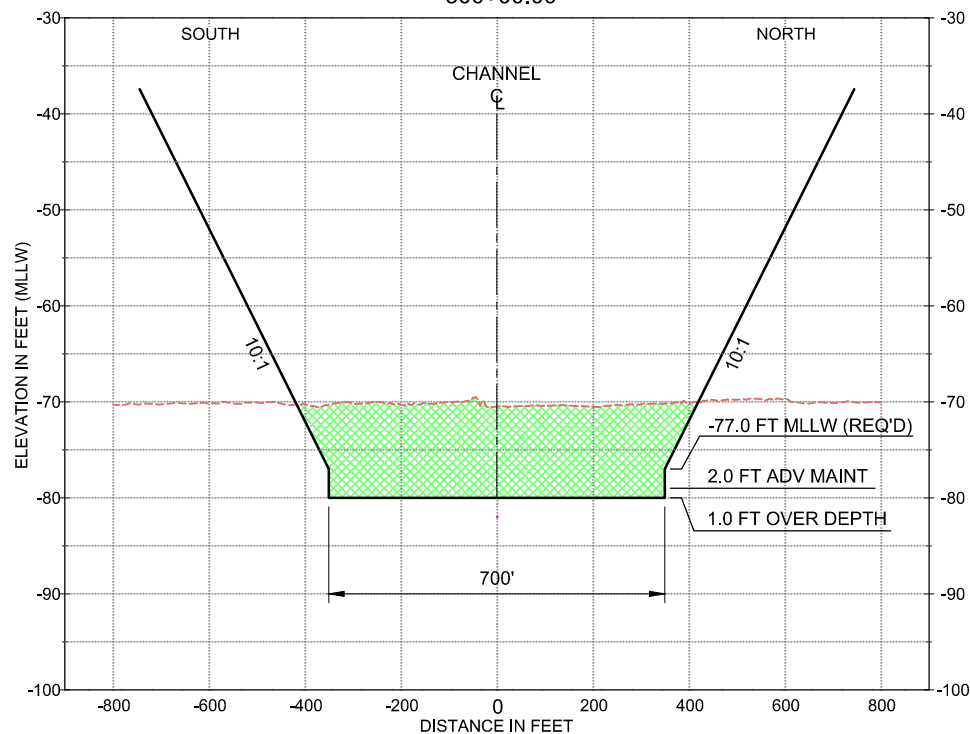
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**Preferred Channel Alternative  
Full Extent**

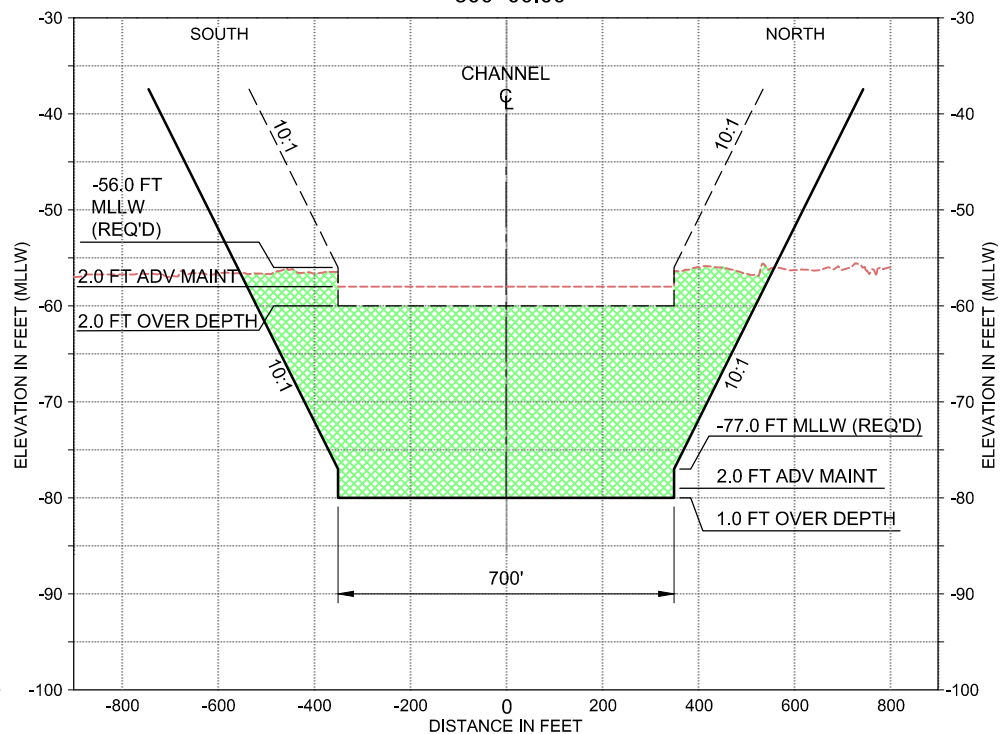
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018

CROSS SECTION A-A (TYPICAL SECTION)  
-500+00.00



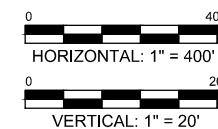
CROSS SECTION B-B (TYPICAL SECTION)  
-300+00.00



**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- - - EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



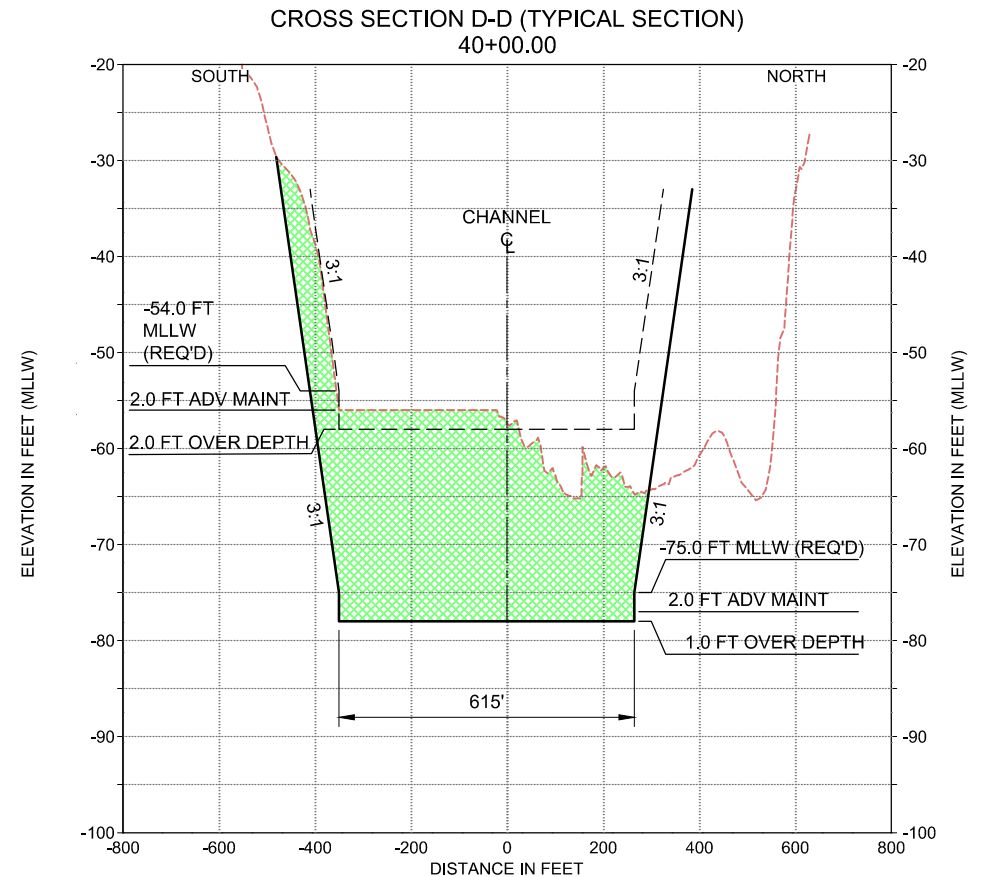
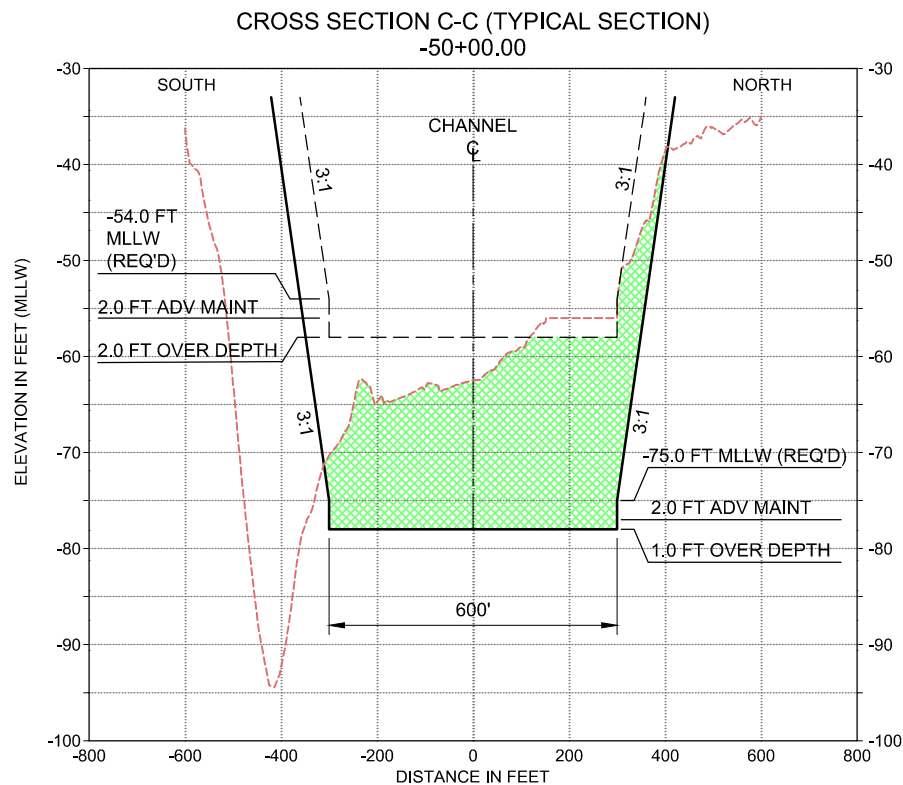
Sheet 3 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**Preferred Channel Alternative  
Dredging Cross Sections A-A & B-B**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

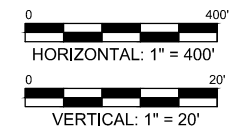
State: Texas  
Date: December 2018



**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



Sheet 4 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**Preferred Channel Alternative**  
**Dredging Cross Sections C-C & D-D**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018





## LEGEND

- — DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
- DREDGE MATERIAL PLACEMENT AREA
- EXIST OFFSHORE PLACEMENT AREA
- EXIST SEAGRASS (RETRIEVED FROM NOAA CSC, 2007)
- EXIST OYSTER REEFS (RETRIEVED FROM TPWD, 2004)
- EXIST PIPELINES (SEE NOTE 4)

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN JANUARY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

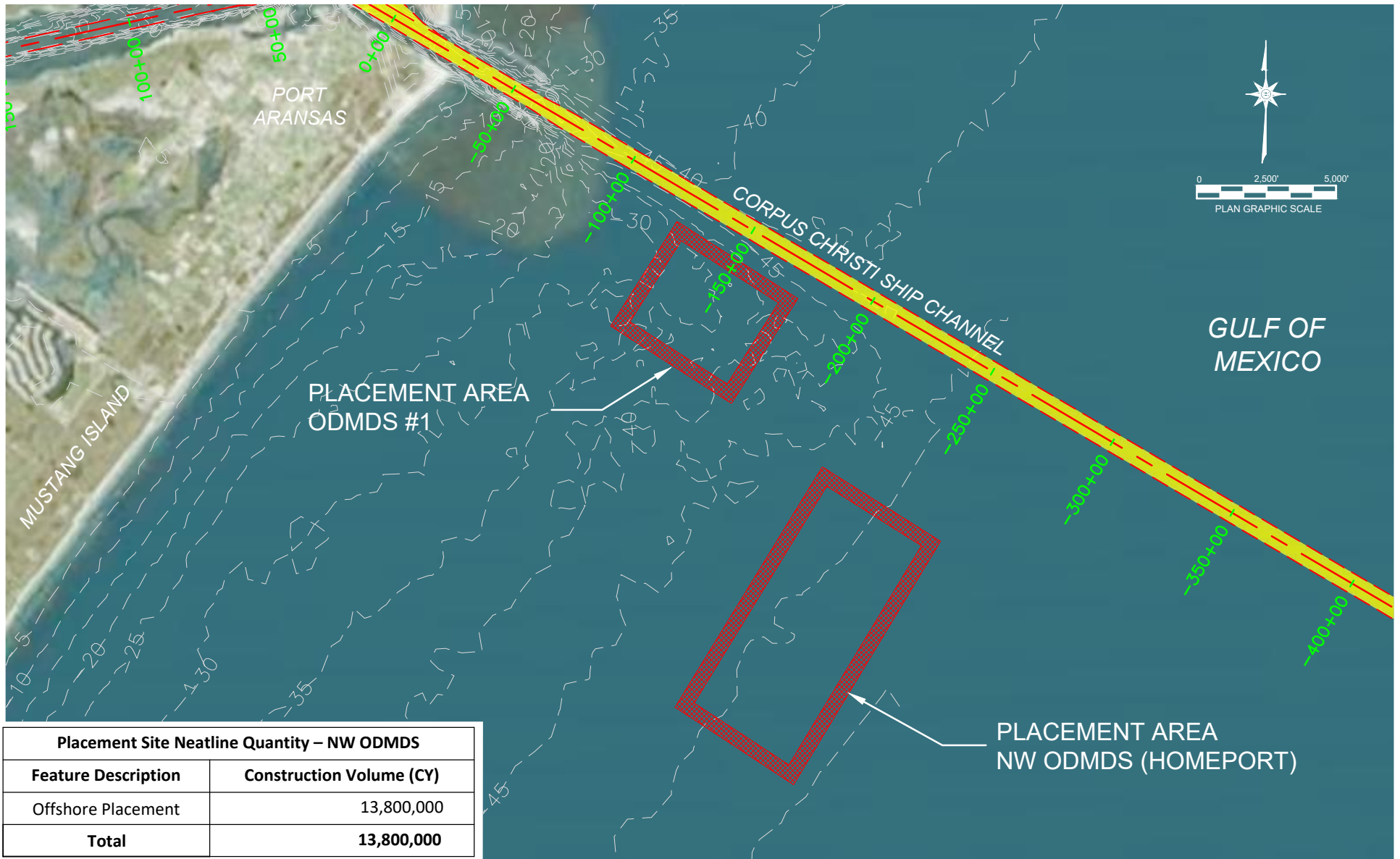
Sheet 5 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

## OVERALL DREDGE MATERIAL PLACEMENT PLAN




County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – NW ODMDS	
Feature Description	Construction Volume (CY)
Offshore Placement	13,800,000
<b>Total</b>	<b>13,800,000</b>

## LEGEND

-  DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
-  EXIST OFFSHORE PLACEMENT AREA
-  EXIST CONTOURS

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN JANUARY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
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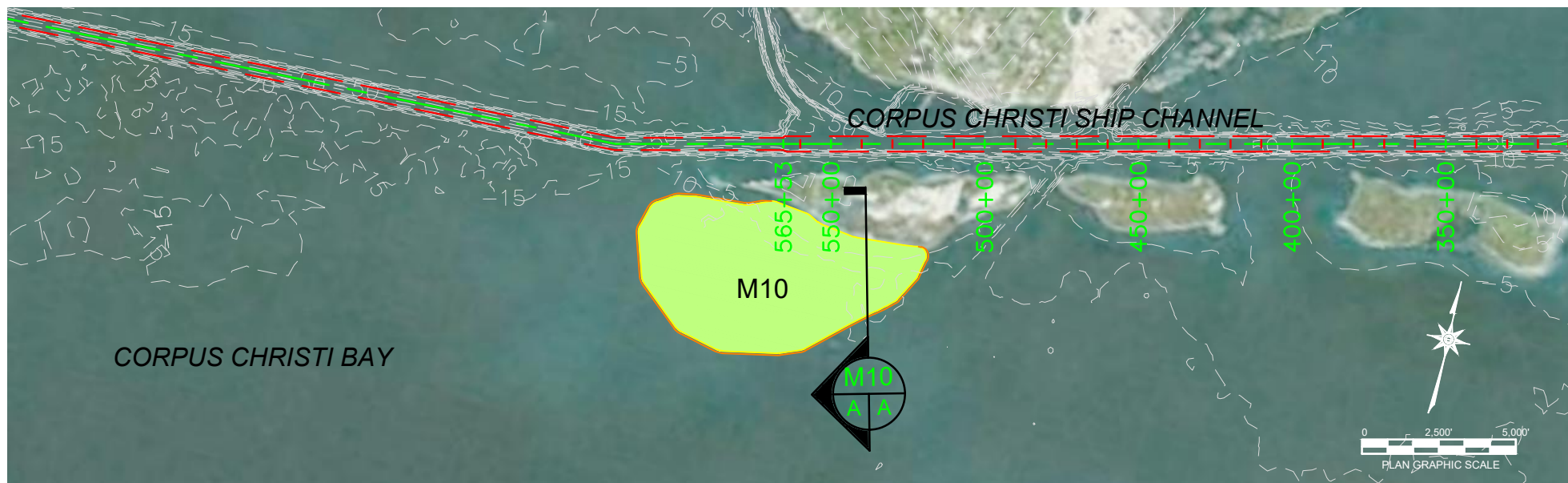
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

## OFFSHORE DREDGE MATERIAL PLACEMENT NW ODMDS (HOMEPORT)

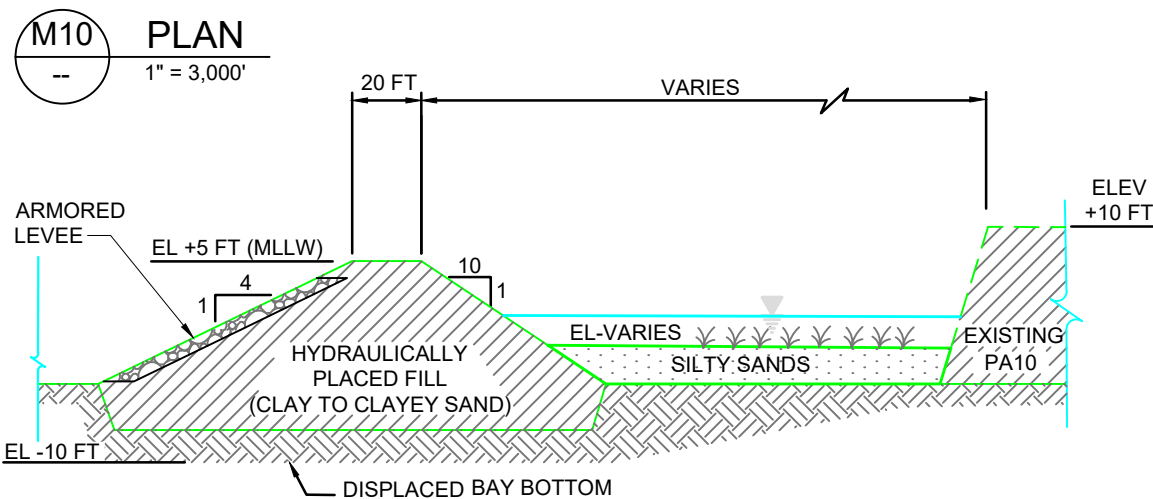
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018





Placement Site Neatline Quantity – Site M10	
Feature Description	Construction Volume (CY)
Armoring*	10,667
Levee Creation	997,300
770 Acre Estuarine / Aquatic Habitat	9,936,300
<b>Total</b>	<b>10,933,600</b>
*Note: Quantity not included in CY total	



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

## SECTION

NOT TO SCALE

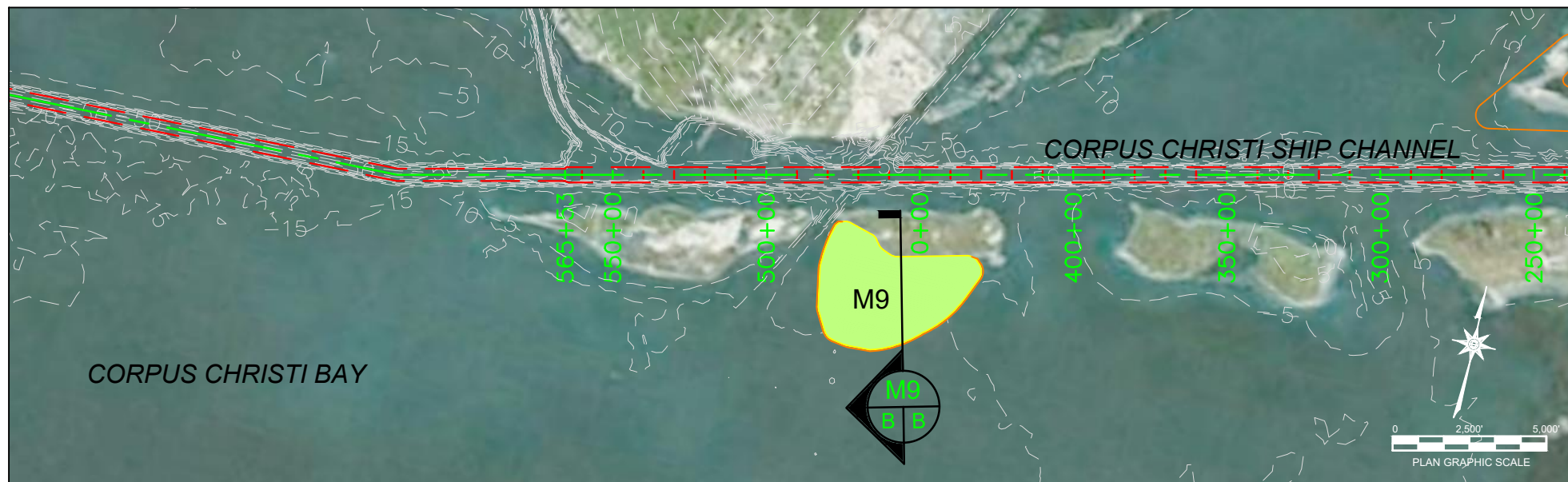
Sheet 7 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**BENEFICIAL USE SITE  
AND SECTION VIEW - M10  
770 ACRE ESTUARINE / AQUATIC HABITAT**

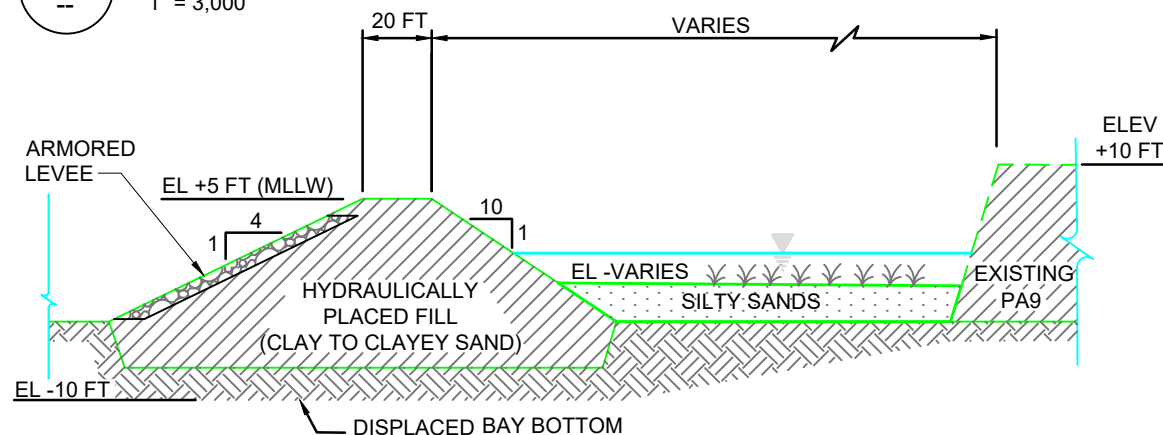
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – Site M9	
Feature Description	Construction Volume (CY)
Armoring*	5,333
Levee Creation	312,000
329 Acre Estuarine / Aquatic Habitat	3,188,000
<b>Total</b>	<b>3,500,000</b>
*Note: Quantity not included in CY total	

**M9**  
PLAN  
1" = 3,000'



**M9**  
SECTION  
NOT TO SCALE

## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

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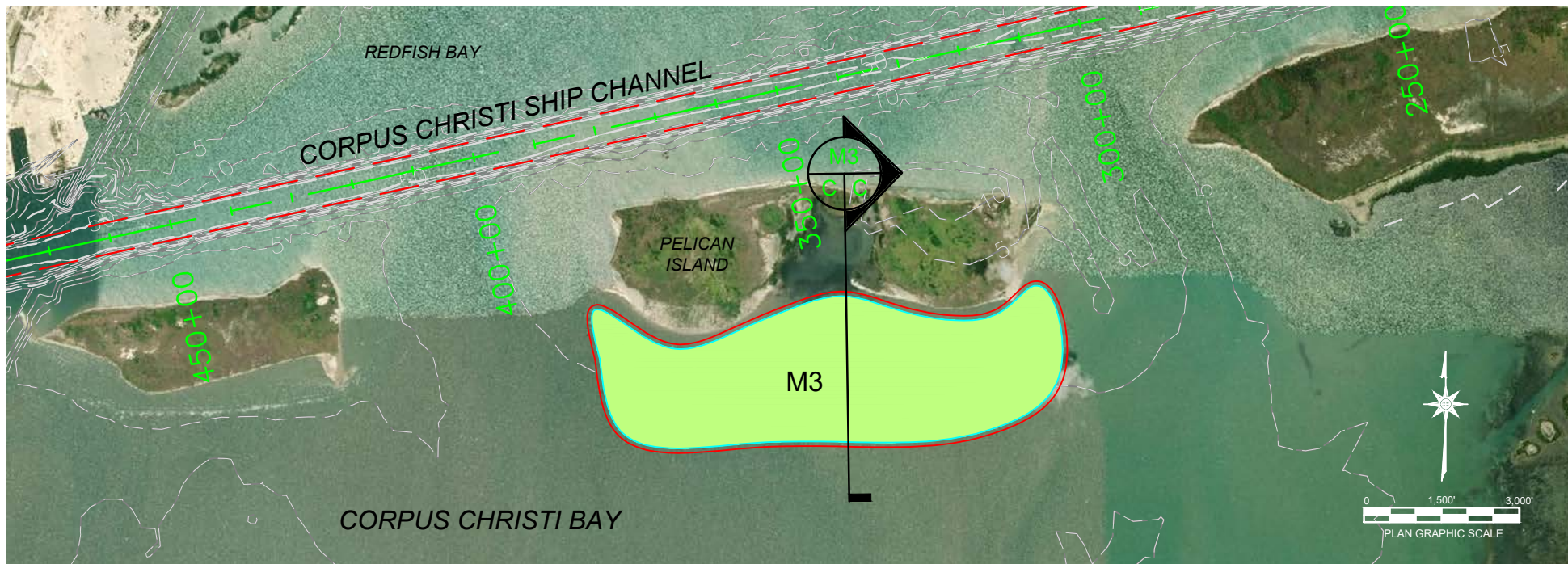
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**BENEFICIAL USE SITE  
AND SECTION VIEW - M9  
329 ACRE ESTUARINE / AQUATIC HABITAT**

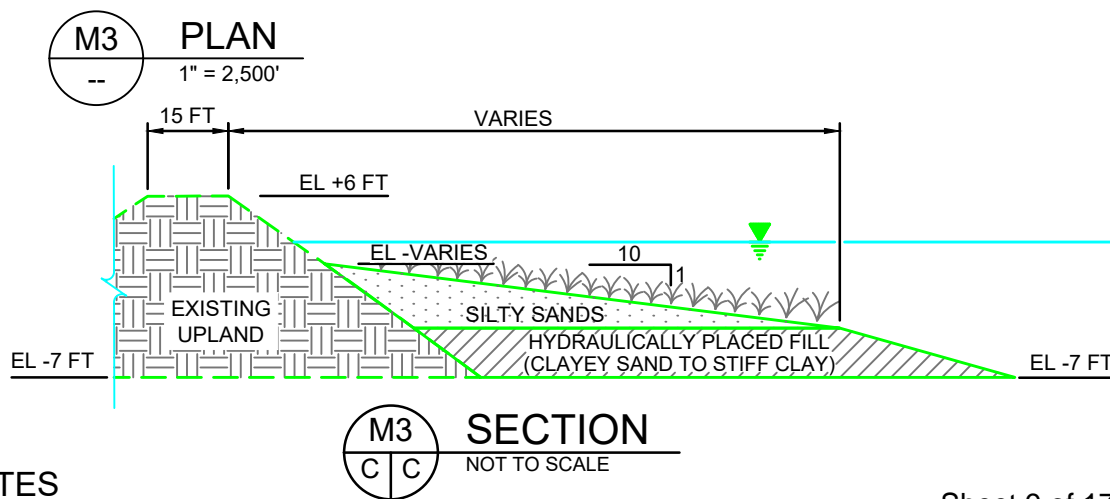
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018





Placement Site Neatline Quantity – Site M3	
Feature Description	Construction Volume (CY)
Foundation Fill	3,269,200
330-Acre Estuarine / Aquatic Habitat	1,059,200
<b>Total</b>	<b>4,328,400</b>



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

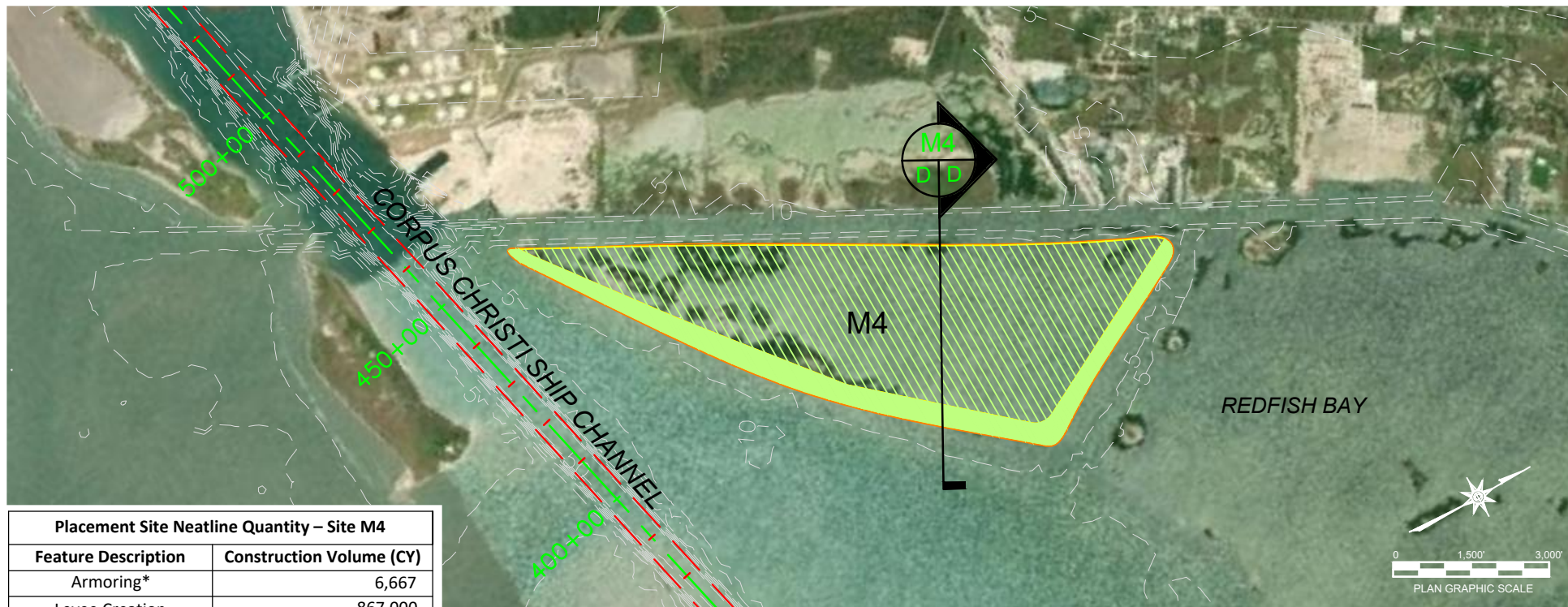
Sheet 9 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**BENEFICIAL USE SITE  
AND SECTION VIEW - M3**

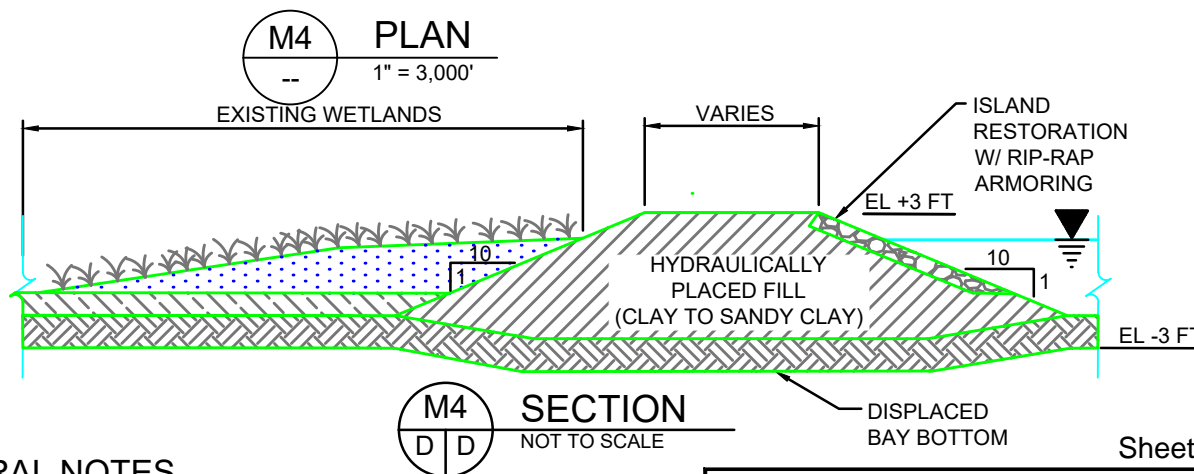
**330 ACRE ESTUARINE / AQUATIC HABITAT**

County: Aransas and Nueces      State: Texas  
Application By: Port of Corpus Christi Authority      Date: December 2018



Placement Site Neatline Quantity – Site M4	
Feature Description	Construction Volume (CY)
Armoring*	6,667
Levee Creation	867,000
<b>Total</b>	<b>867,000</b>

\*Note: Quantity not included in CY total



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- POTENTIAL RESTORATION
- EXIST CONTOURS

## GENERAL NOTES

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- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

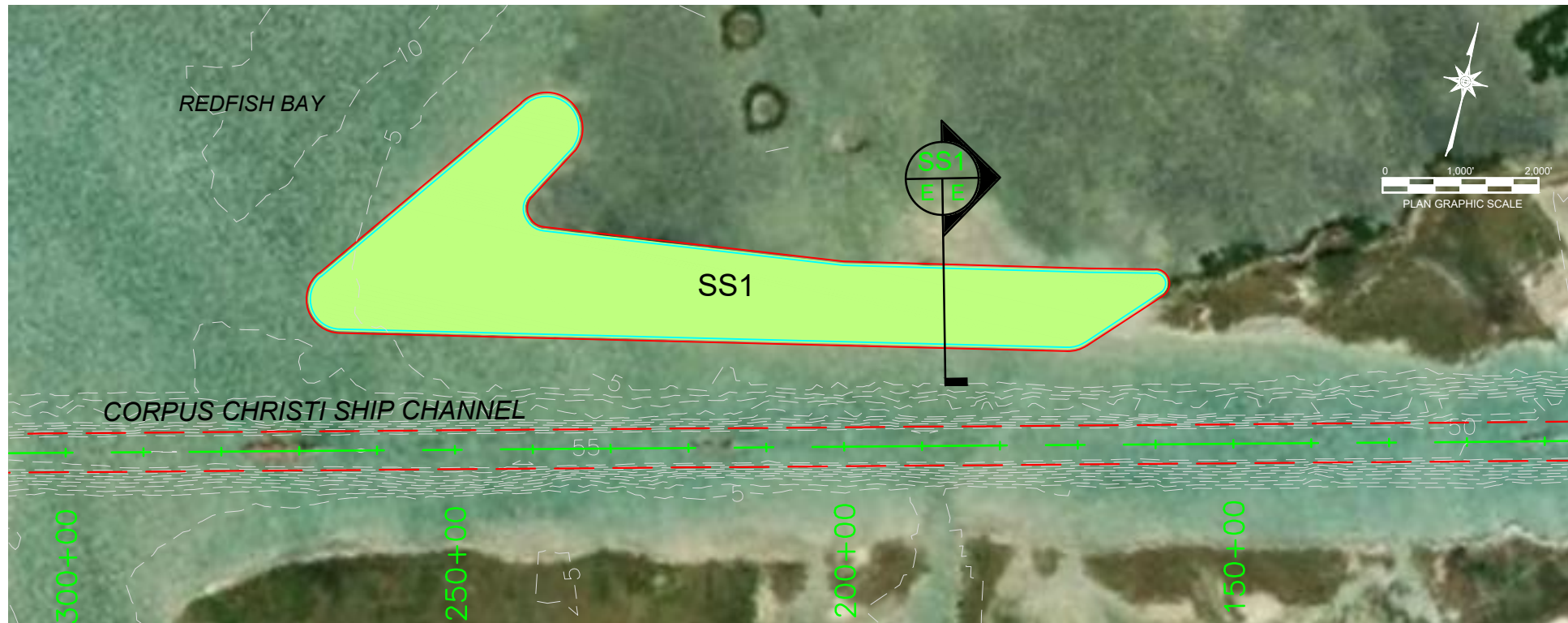
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

**BENEFICIAL USE SITE AND SECTION VIEW - M4  
DAGGER ISLAND LEVEE CREATION**

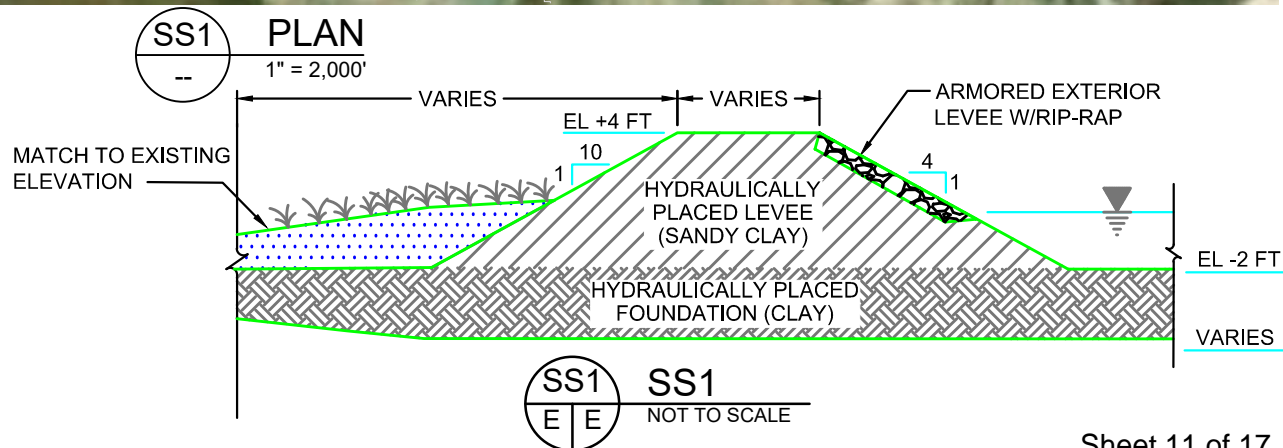
County: Aransas and Nueces      State: Texas  
Application By: Port of Corpus Christi Authority      Date: December 2018

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Placement Site Neatline Quantity – Site SS1	
Feature Description	Construction Volume (CY)
Armoring*	5,555
Levee	107,400
Foundation Fill	1,574,500
<b>Total</b>	<b>1,681,900</b>
*Note: Quantity not included in CY total	



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN DEC 2018 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

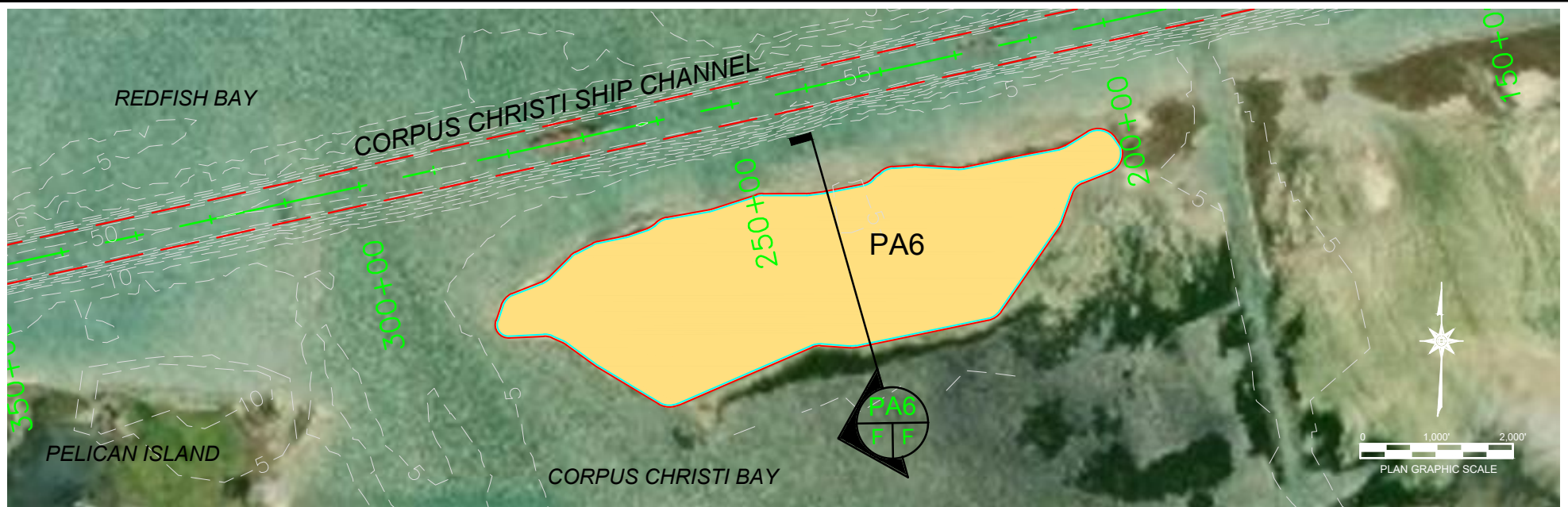
Sheet 11 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

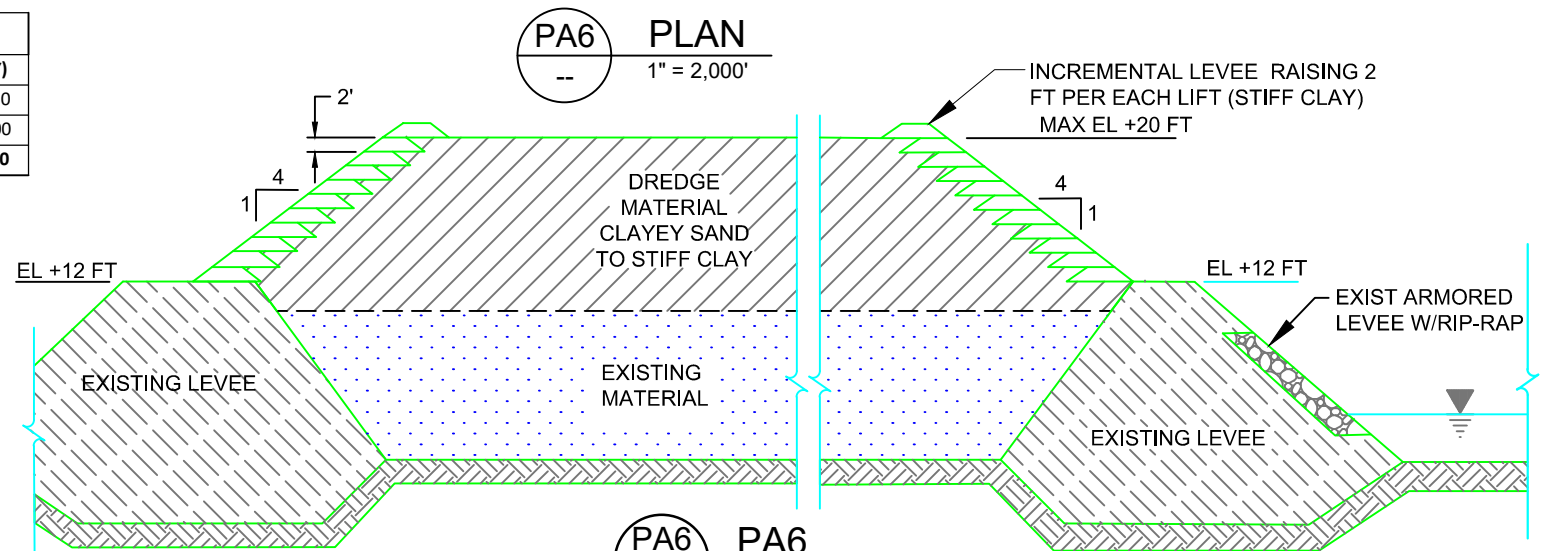
## BENEFICIAL USE SITE AND SECTION VIEW - SS1 SHORELINE RESTORATION

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – Site PA 6	
Feature Description	Construction Volume (CY)
2-ft Levee Raise	116,100
PA Fill	3,588,800
<b>Total</b>	<b>3,704,900</b>



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

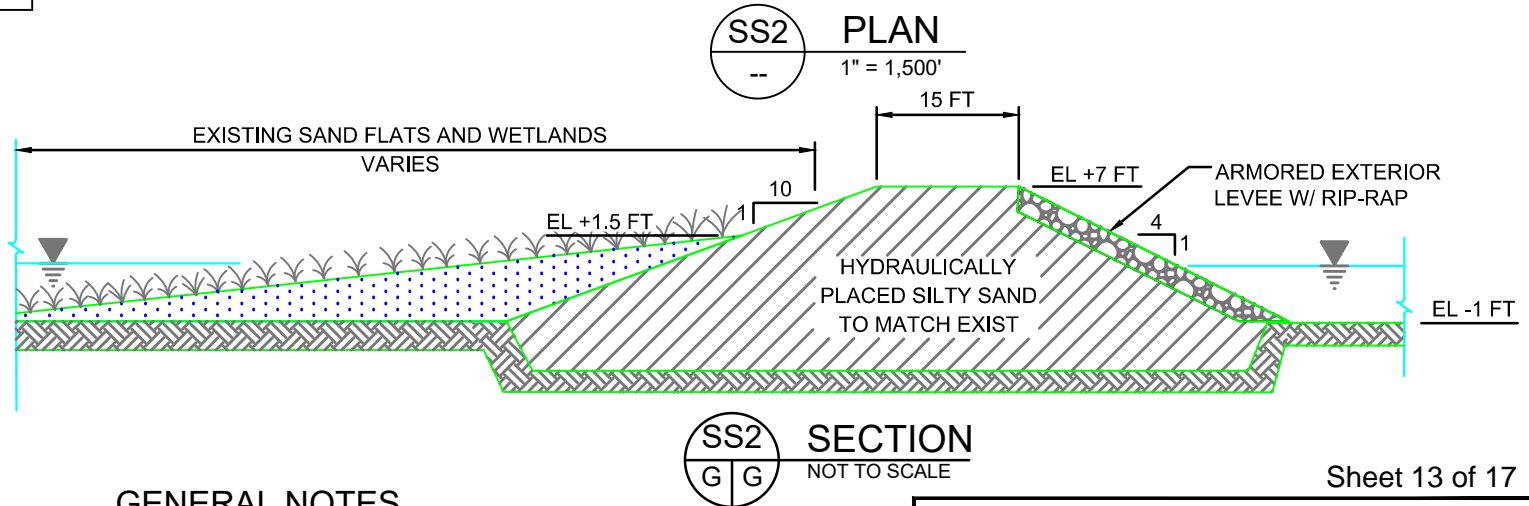
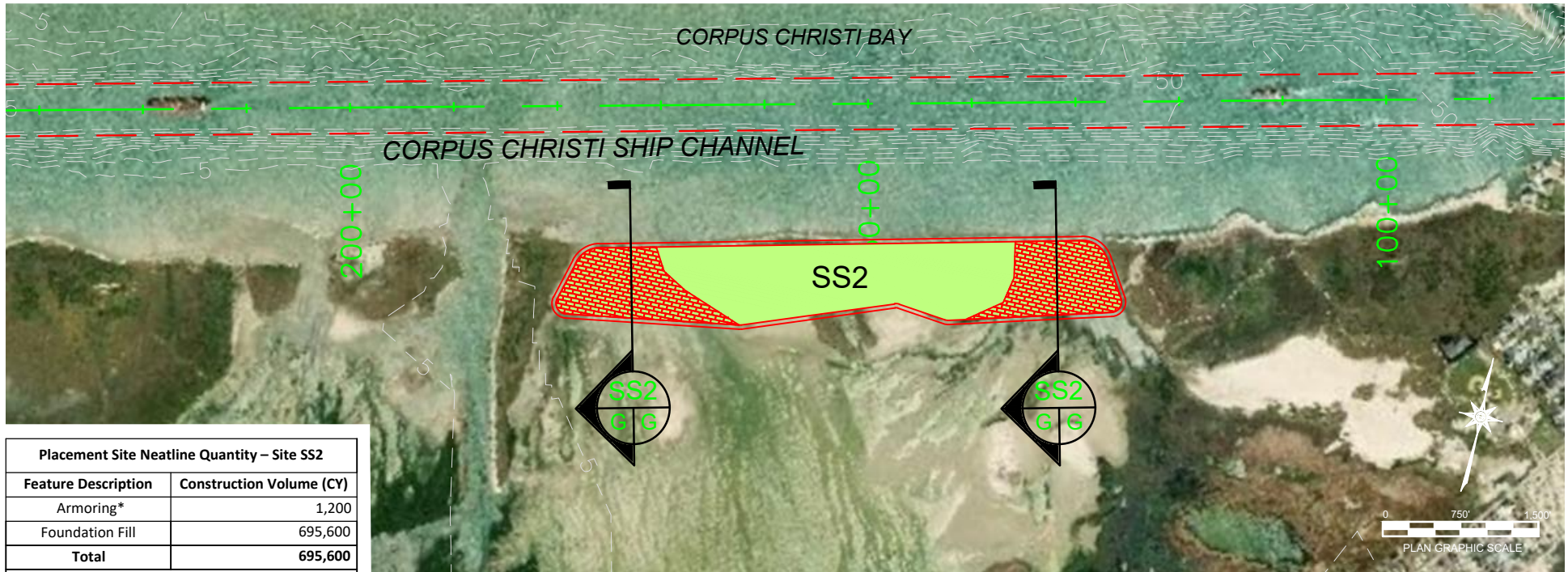
## DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA6 LEVEE RAISE & FILL

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018

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## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- -40- --- EXIST CONTOURS

## GENERAL NOTES

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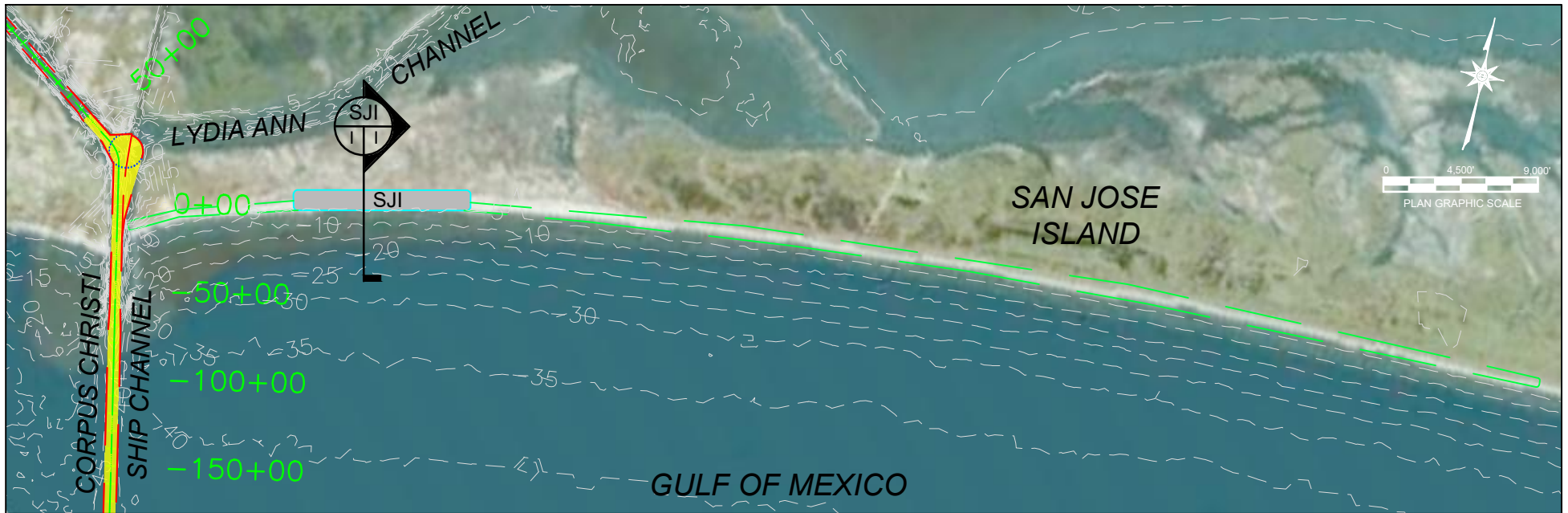
Sheet 13 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

## BENEFICIAL USE SITE AND SECTION VIEW - SS2 SHORELINE BREACH FILL IN

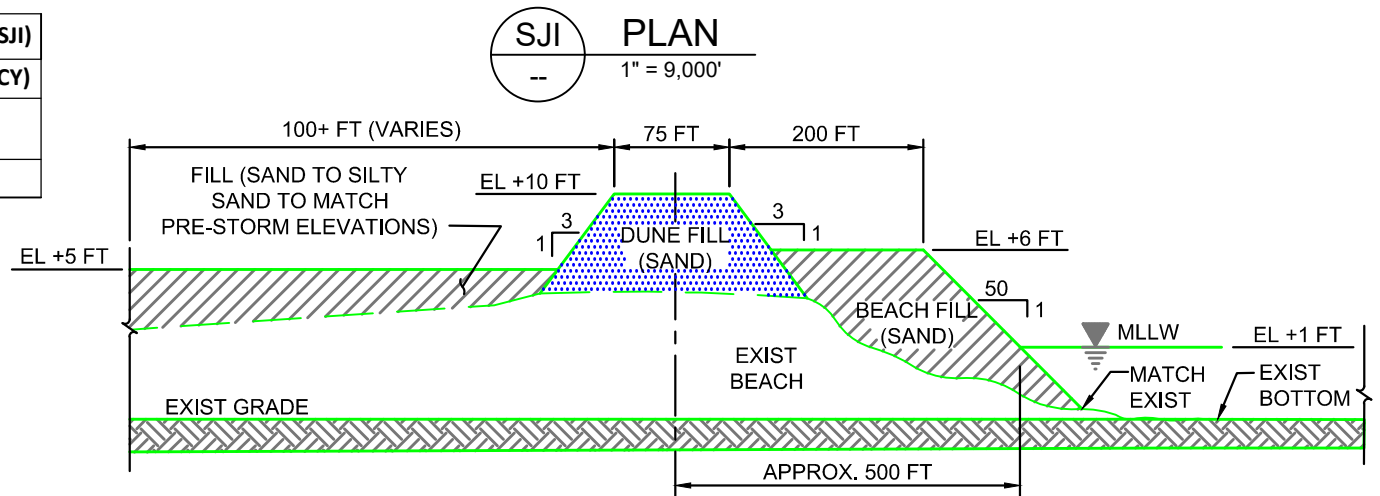
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – San Jose Island (SJI)

Feature Description	Construction Volume (CY)
Dune and Foreshore Restoration	7,000,000
<b>Total</b>	<b>7,000,000</b>



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- EXIST CONTOURS
- DUNE RESTORATION
- FORESHORE RESTORATION

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN DEC 2018 - LAST UPDATED IN SEPT 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO MEAN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

**SJI SECTION**  
NOT TO SCALE

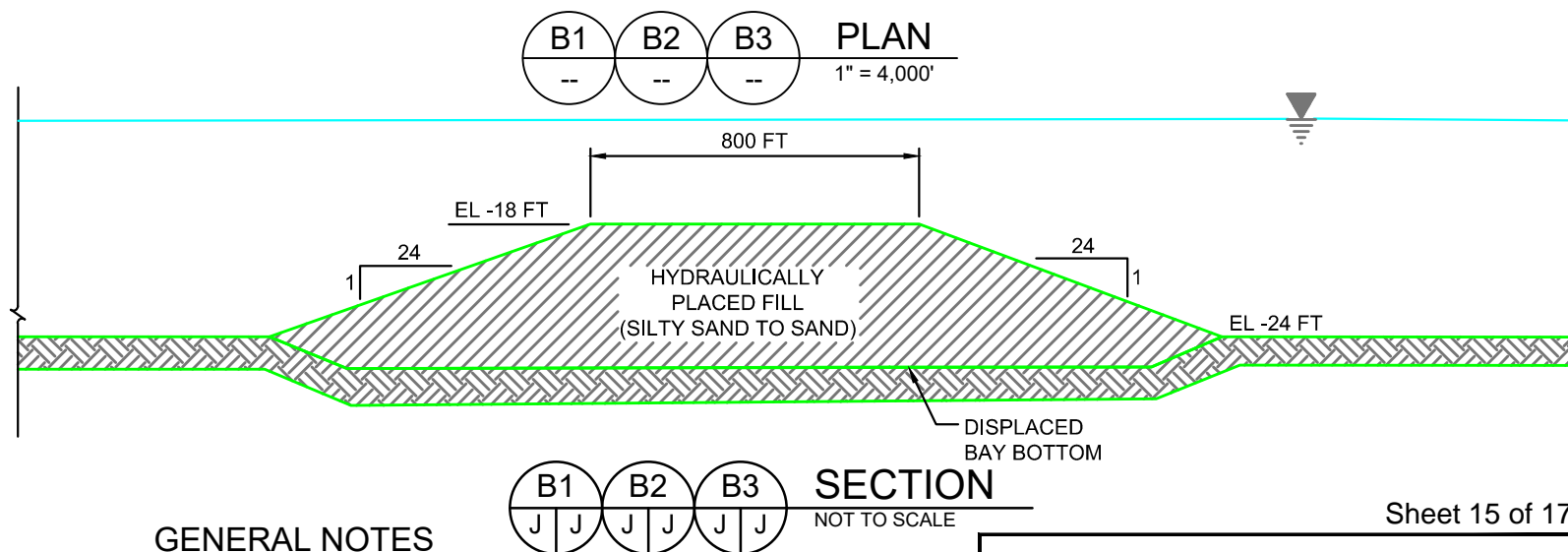
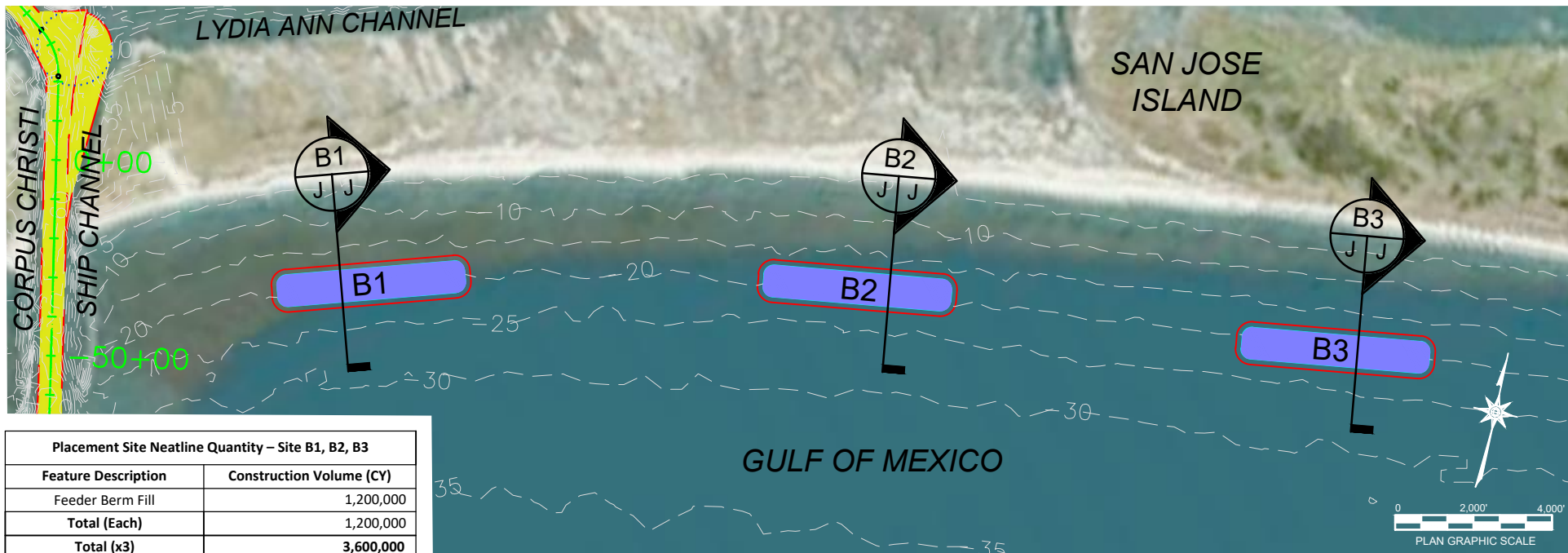
Sheet 14 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX  
**BENEFICIAL USE SITE AND  
SECTION VIEW - SJI  
DUNE AND FORESHORE  
RESTORATION**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018





## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

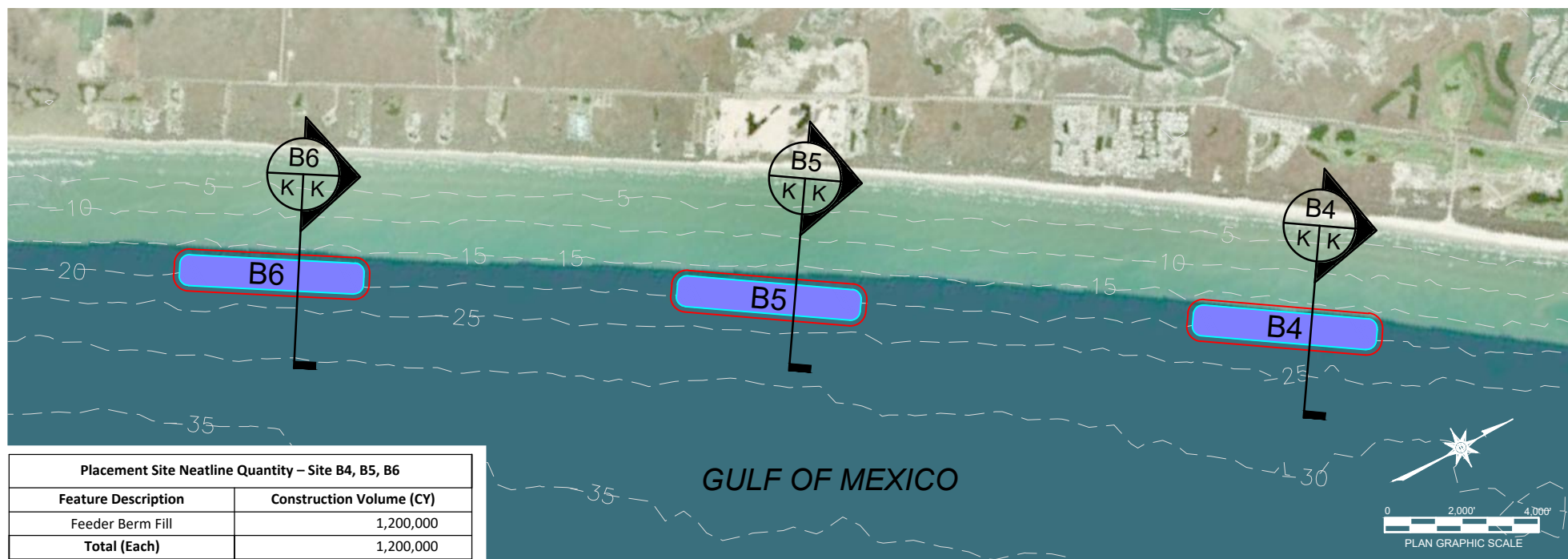
- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN DEC 2018 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

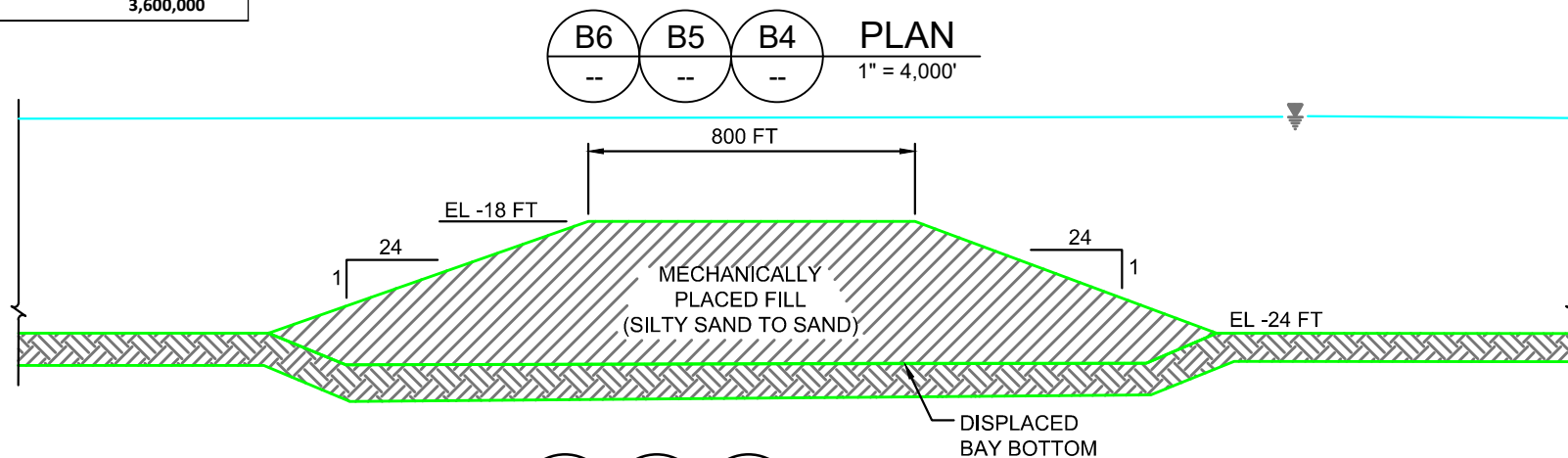
## BENEFICIAL USE SITE AND SECTION VIEW - B1, B2 & B3 OFFSHORE FEEDER BERMS

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – Site B4, B5, B6	
Feature Description	Construction Volume (CY)
Feeder Berm Fill	1,200,000
<b>Total (Each)</b>	<b>1,200,000</b>
<b>Total (x3)</b>	<b>3,600,000</b>



## LEGEND

- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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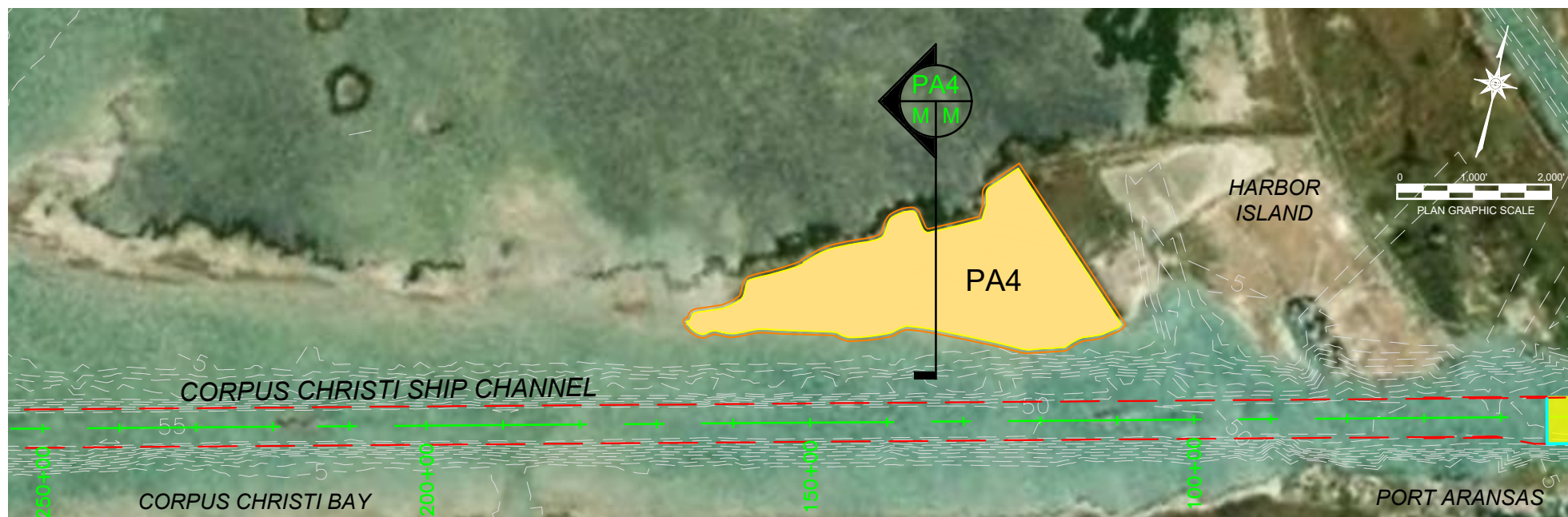
Sheet 16 of 17

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

## BENEFICIAL USE SITE AND SECTION VIEW - B4, B5 & B6 OFFSHORE FEEDER BERMS

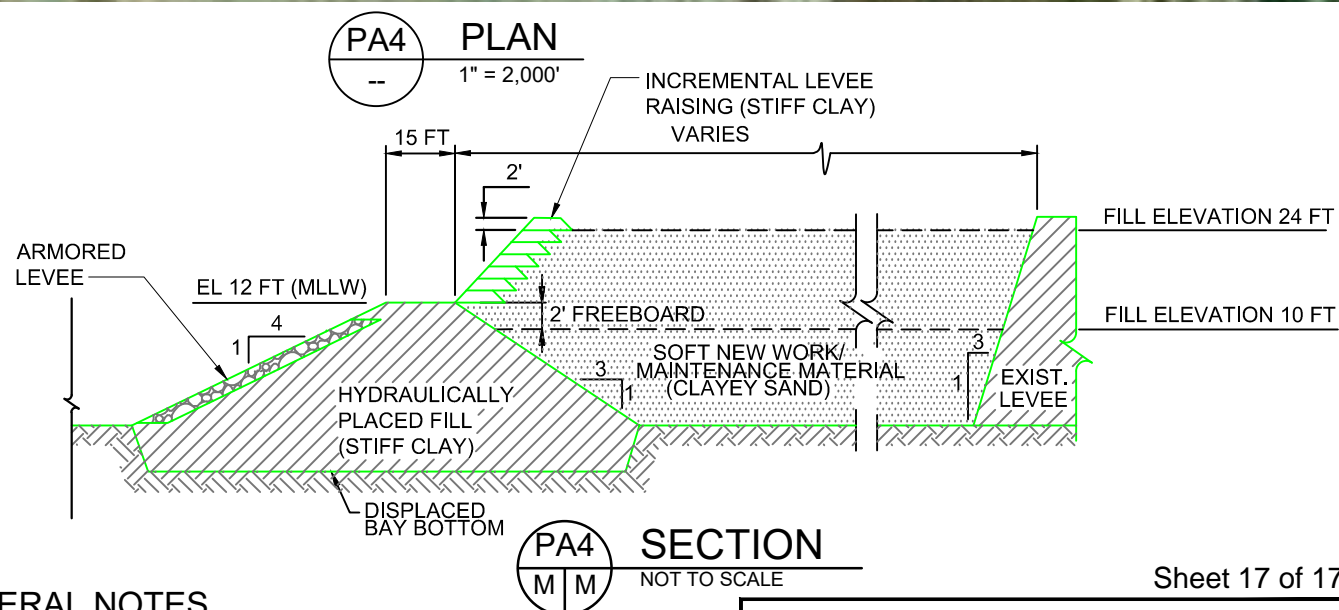
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018



Placement Site Neatline Quantity – Site PA 4	
Feature Description	Construction Volume (CY)
Armoring*	4,667
Levee	158,600
PA Fill	2,861,400
<b>Total</b>	<b>3,020,000</b>

\*Note: Quantity not included in CY total



## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-XXXX-XXXX

## DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA4 LEVEE CONSTRUCTION & FILL

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: December 2018

Sheet 17 of 17

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
<b>San Patricio County</b>				
FLINT HILLS RESOURCES CORPUS CHRISTI LLC ATTN PROPERTY TAX DEPT	PO BOX 3755	WICHITA	KS	67201-2917
G&H TOWING COMPANY	PO DRAWER 2270	GALVESTON	TX	77553
GULF MARINE FABRICATORS L P	16225 PARK TEN PLACE, SUITE 280	HOUSTON	TX	77084
PORT OF CORPUS CHRISTI AUTHORITY OF NUECES COUNTY	PO BOX 1541	CORPUS CHRISTI	TX	78403
<b>Nueces County</b>				
12 BANYAN LLC	3200 Bryker Dr	Austin	TX	78703-1330
231 PORT A LLC	203 Humble Ave	San Antonio	TX	78225-1317
5D PROPERTIES LLC	107 Five Oaks Dr	San Antonio	TX	78209-2405
6221 STATE HIGHWAY 361 LLC	PO Box 781348	San Antonio	TX	78278-1348
663 ANCHOR DR., A SERIES OF GRIZZO'S INVESTMENTS, LLC	12 Park Mtn	San Antonio	TX	78255-2104
ABELL REALTY LMTD PARTNERSHIP	4608 CRESTWAY DR	AUSTIN	TX	78731-5204
ALLEN BRUCE D TRUSTEE	61 Lincoln Dr	New Boston	NH	03070-4304
ANDERSON EVAN D & WF ANEESA W	503 Hummingbird Ln	Austin	TX	78734-4791
ARANSAS FIRST	81 GRIFFITH DR	ROCKPORT	TX	78382
ARNOLD HAYS L III & KRISTEN PLASTINO-ARNOLD	154 Country Ln	San Antonio	TX	78209-2228
ARNOLD MICHAEL J & WF SHERYL L	PO BOX 1118	PORT ARANSAS	TX	78373-1118
ARNOLD MICHAEL J ET UX	SHERYL L	PORT ARANSAS	TX	78373-1118
BADALICH CARL AND SHERRY BADALICH	P O BOX 18150	CORPUS CHRISTI	TX	78480
BANYAN BEACH PROPERTY OWNERS ASSOCIATION INC	14613 S Padre Island Dr	Corpus Christi	TX	78418-6037
BEACH VIEW ESTATES OWNERS ASSN	211 COSTA BELLA DR	AUSTIN	TX	78734-2662
BENTON ELAINE ROBINSON EXEMPT APPT TRUST # 1	2403 Rockmoor Ave	Austin	TX	78703-1516
BERNSEN COASTAL BUILDERS LLC	722 Tarpon Unit J	Port Aransas	TX	78373-5182
BES INVESTMENTS LLC	502 E Center Ave	Carlsbad	NM	88220-6106
BIEDENHARN ALBERT M III	1250 NE LOOP 410	SAN ANTONIO	TX	78209-1525
BIEHN DAVID P	9319 Waterview Rd	Dallas	TX	75218-2745
BIG SAND HILL DEVELOPMENT LP	19802 Messina	San Antonio	TX	78258-3192
BLACKERT JOSEPH	12607 Silver Creek Dr	Austin	TX	78727-2808
BLISS JIMMY AND MARCI BLISS	1016 BLUFF	PORTLAND	TX	78374
BODE BILLY WADE AND WF	5409 Northwest Trl	Corpus Christi	TX	78410-4814
BOGO/ORTIZ LTD	13817 Captains Row	Corpus Christi	TX	78418-6807
BRAMAN RANCHES LLC	PO Box 400	Victoria	TX	77902-0400
BREADY MARK AND STEVE BREADY	1142 Rip Jay Cir	Canyon Lake	TX	78133-4000
BREWSTER REVOCABLE TRUST	PO Box 368	Marietta	OK	73448-0368
BUECHEL FREDERICK MD TR	61 FIRST ST	SOUTH ORANGE	NJ	07079
C & F WEIL TRUST ETAL	500 N Shoreline Blvd Ste 1118	Corpus Christi	TX	78401-0359
C02 INC	110 Allen Ln	Center Point	TX	78010-5494
CABELA JOSEPH & JENNIFER CABELA	220 Roy Creek Trl	Dripping Springs	TX	78620-4197
CALDWELL DOLORES M	6403 LOCHMOOR DR	SAN DIEGO	CA	92120
CAMPBELL CHARLES H FAMILY PARTNERSHIP LTD	5540 Saratoga Blvd	Corpus Christi	TX	78413-2999
CARLISLE THOMAS L	500 N WATER ST STE 900	CORPUS CHRISTI	TX	78471-0019
CASA OCEANSIDE LLC	3303 Rivercrest Dr	Austin	TX	78746-1718
CASERTA DIANE	1009 REDDING RD	FAIRFIELD	CT	06430
CHEEMA JASBIR S	4053 E. MORADA LANE	STOCKTON	CA	95212
CHOKE CANYON MOTEL, INC	PO Box 2181	Port Aransas	TX	78373-2181



**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
CINNAMON SHORE COMMUNITY ASSOCIATION INC	PO Box 342585	Austin	TX	78734-0044
CITY OF CORPUS CHRISTI	PO BOX 9277	CORPUS CHRISTI	TX	78469-9277
CITY OF PORT ARANSAS	710 W AVENUE A	PORT ARANSAS	TX	78373-4128
COBBS JEFFREY DAN AND WF	11 HEWIT DR	CORPUS CHRISTI	TX	78404-1609
COCHRAN IRENE TR OF THE	GULF REALTY TRUST	APALACHICOLA	FL	32329-0400
COUNCIL OF CO-OWNERS OF	14493 S Padre Island Dr	Corpus Christi	TX	78418-9997
CRANDALLS COTTAGE LLC	1511 Blackbird Ln	San Antonio	TX	78248-1743
CRENWELGE DALE A	PO Box 717	Comfort	TX	78013-0717
CUTLER HAYDN H JR	3825 Camp Bowie Blvd	Fort Worth	TX	76107-3355
DANGER SIX REVOCABLE MANAGEMENT TRUST	34 Royal Gardens Dr	San Antonio	TX	78248-1574
DENMAN BRYAN S	P O BOX 775	GONZALES	TX	78629
DOYLE DAVID G & WF AMY L	318 Blue Bonnet Blvd	San Antonio	TX	78209-4633
DTB INVESTMENTS LP	28615 Interstate 10 W	Boerne	TX	78006-9126
DULCE DOG FAMILY LIMITED PARTNERSHIP	PO Box 1111	Leakey	TX	78873-1111
EASON KENNETH D AND SHIRLEY A WFE	4717 Miron Dr	Dallas	TX	75220-2018
EPISCOPAL CHURCH CORP IN	WEST TEXAS	SAN ANTONIO	TX	78209
ERF PORT ARANSAS INC	555 N Carancahua St #700	Corpus Christi	TX	78401-0800
ERWIN JOHN W & WF AMY D	13647 TREASURE TRAIL DR	SAN ANTONIO	TX	78232-3508
ESTRELLA BEACH LLC	5009 State Highway 361	Port Aransas	TX	78373-4833
EVANS JOHN R AND PATRICIA A EVANS WF	21 Inverness Blvd	San Antonio	TX	78230-5652
FACEY ENTERPRISES NVLTD.	A DELAWARE CORP	SAN MARINO	CA	91108
FCI-JJC LP A TEXAS LIMITED PARTNERSHIP	P O BOX 366698	BONITA SPRINGS	FL	34136-6698
FISCHER JERRY E	P O BOX 2464	CORPUS CHRISTI	TX	78403
FOREMAN SCOTT L AND WF	PO BOX 576	COLLEYVILLE	TX	76034-0576
FREEBORG GREGORY J AND CAROL A	1290 Gasparilla Dr NE	Saint Petersburg	FL	33702-2752
FRIESENHAHN DEVELOPMENT PROPERTIES LP	1204 Zanderson Ave	Jourdanton	TX	78026-3512
FRISHMAN BENJAMIN AND	4403 BALCONES DR	AUSTIN	TX	78731-5709
GARCIA HILARIO JR AND	PO Box 855	Pleasanton	TX	78064-0855
GARNER JEFF A AND WF CYNTHIA W	15513 Palmira Ave Apt A	Corpus Christi	TX	78418-6788
GATES THOMAS A	500 N Shoreline Blvd	Corpus Christi	TX	78401-0356
GATES THOMAS ALBERT JR AND WF	338 CATALINA PL	CORPUS CHRISTI	TX	78411-1602
GER PORT ARANSAS HOUSE LTD	P O BOX 9556	AUSTIN	TX	78766
GHADIMI RAMIN G AND DONA	E GHADIMI WFE	AUSTIN	TX	78746-6303
GINGRICH KATIE EILEEN	18214 Crystal Ridge Dr	San Antonio	TX	78259-3613
GOLDEN STEPHEN L AND WF	300 Convent St	San Antonio	TX	78205-3710
GONZALEZ ARNULFO JR ET UX	1510 CALLE DEL NORTE	LAREDO	TX	78401
GORCZYCA KIMBER LEI	520 Ocean Vw	Port Aransas	TX	78373-5711
GREEN WING INVESTMENTS LLC AVENUE G SERIES	101 W Goodwin Ave Ste 410	Victoria	TX	77901-6550
GRODSKY DAVID N AND JUNE PEARSON	P O BOX 864	PORT ARANSAS	TX	78373
GROSSE RICHARD M ET UX	BOX 872	PORT ARANSAS	TX	78373
GUENTHER LIFE INSURANCE TRUST	153 TREELINE PARK	SAN ANTONIO	TX	78209
GULF REALTY TRUST	P O BOX 400	APALACHICOLA	FL	32329-0400
GULFWIND DEVELOPERS LTD	120 GULF WIND DR	PORT ARANSAS	TX	78373
HAGER CECILIA	3121 White Oak Rd	Fredericksburg	TX	78624-7894
HANMORE EROL R	P O BOX 1541	PORT ARANSAS	TX	78373

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
HART JEFFERY L AND PATRICIA KILDAY HART	1504 Hardouin Ave	Austin	TX	78703-2519
HAUCK AMY K AND JOHN R HAUCK	11715 Spring Ridge Dr	San Antonio	TX	78249-2741
HAUSSER ROBERT JR ETALS	9901 W Interstate 10	San Antonio	TX	78230-2255
HAVERDA GARY CARLTON	PO Box 1411	Port Aransas	TX	78373-1411
HAVSAM PROPERTIES LLC	200 Patterson Ave	San Antonio	TX	78209-6264
HAWN EDWIN D	14222 Playa del Rey	Corpus Christi	TX	78418-7503
HEY PETER MALCHAM	121 Northoak Dr	San Antonio	TX	78232-1209
HH FAMILY INVESTMENTS II LTD	PO Box 207916	San Antonio	TX	78220-7916
HILL THOMAS W	PO BOX 3229	PORT ARANSAS	TX	78373
ILC REALTY LTD	TEXAS LIMITED PARTNERSHIP	SAN ANTONIO	TX	78258-7538
IMCO INDUSTRIES LTD	2801 - 5TH STREET NISKU			
ISLAND RETREAT II	CONDO COUNCIL OF CO-OWNERS	PORT ARANSAS	TX	78373-6012
JEAN KENNETH NORMAN & WF MICHELE	3606 W Deer Crossing Dr	Stillwater	OK	74074-7640
JENKINS CHARLES K ETUX	KATRINA C	HOUSTON	TX	77056-1414
JWW PROPERTIES LLC	615 N Upper Broadway St	Corpus Christi	TX	78401-0753
KINCAID JANET C AND	2009 Fringewood Dr	Midland	TX	79707-5051
KITE L WAYNE	PO Box 490	Port Aransas	TX	78373-0490
KJLSWS PROPERTIES LLC	145 Bluestem Ln	Boerne	TX	78006-7035
KLEBERG MARY LEWIS LTD	700 N Saint Marys St Ste 125	San Antonio	TX	78205-3538
KM BEACH, LLC	755 E Mulberry Ave Ste 600	San Antonio	TX	78212-6013
KM LINKS LLC	755 E Mulberry Ave Ste 600	San Antonio	TX	78212-6013
KNIETO PA LLC	700 N Saint Marys St Ste 125	San Antonio	TX	78205-3538
KNOPP GREGORY A & WF CAROL KNOPP	PO Box 1450	Port Aransas	TX	78373-1450
KOONTZ/MCCOMBS 1 LTD	755 E Mulberry Ave Ste 600	San Antonio	TX	78212-6013
KOXLIN TIMOTHY J AND WF, LISA L KOXLIN	24715 Fairway Spgs	San Antonio	TX	78260-4800
LA CONCHA ESTATES OWNERS' ASSOCIATION INC	14493 S PADRE ISLAND DR	CORPUS CHRISTI	TX	78418
LA COSTA LAND DEVELOPMENT PARTNERS LP	248 Addie Roy Rd	Austin	TX	78746-4140
LABRUZZO DANNY ET UX	JEANNINE	PORT ARANSAS	TX	78373
LAYTON MATTHEW E & WF DEBORAH H	235 AMISTAD ST	CORPUS CHRISTI	TX	78404
LENNOX WILLIAM J JR AND ANNE M LENNOX	10521 Bermuda Isle Dr	Tampa	FL	33647-2721
LIKOVICH JOHN D AND SPSE	236 KING WILLIAM	SAN ANTONIO	TX	78204-1314
LINDNER DOROTHY NORTON	515 HOLIDAY RD	COMFORT	TX	78013-3107
LITTLETON MELVIN ET UX	DELANA	PORT ARANSAS	TX	78373
LOCO OCEAN LLC	PO Box 2290	Fort Worth	TX	76113-2290
MARSHIO BEVERLY AND DR P J MARSHIO	P O BOX 669	FULTON	TX	78358
MARTIN OPERATING PARTNERSHIP LP	% MARTIN MIDSTREAM PARTNERS LP	KILGORE	TX	75662
MAYAN PRINCESS COUNCIL OF CO-OWNERS INC	7537 STATE HIGHWAY 361	PORT ARANSAS	TX	78373
MCALLISTER TADDY JO ELLEN	203 Terrell Rd	San Antonio	TX	78209-5915
MCALLISTER WALTER W III	4940 BROADWAY STE 104	SAN ANTONIO	TX	78209
MCCANN CHERYL SUZANNE	236 Dolphin Ln	Port Aransas	TX	78373-5407
MCCARTY DAN E	117 Rockhill Dr	San Antonio	TX	78209-2219
MCDONNELL HENRY JR AND WF MARY ROGERS MCDONNELL	135 Wildrose Ave	San Antonio	TX	78209-3812
MCDONOUGH JOHN G AND	5025 N Central Expy ,Ste 3012	Dallas	TX	75205-3447
MCGINNIS CAMPBELL/JAYNE WFE	1202 BELMONT PARKWAY	AUSTIN	TX	78703
MDW FINANCIAL LIMITED PARTNERSHIP	28255 Interstate 10 W	Boerne	TX	78006-6508



**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
MEADOWS GILBERT R AND JAN B MEADOWS	807 CONTOUR DR	SAN ANTONIO	TX	78212
MEYERS WILLIAM D & WF TRACY L AND STEPHEN W FRANK & WF PATRICIA L	28255 Interstate 10 W, Ste 101	Boerne	TX	78006-6508
MHP TEXAS VENTURES LLC	1506 Hawks Mdw	San Antonio	TX	78248-1719
MILLS STEVE	18314 Emerald Oaks Dr	San Antonio	TX	78259-3637
MOKRY NANCY & WESLEY MOKRY	11223 BLOSSOM BELL DR	AUSTIN	TX	78758-4217
MOONEY RICHARD J TRUSTEE OF THE RJM TRUST	PO Box 1586	Frisco	TX	75034-0027
MOORE EDWARD ETUX TRUDY	1248 Austin Hwy 106-218	San Antonio	TX	78209-4867
MOORHOUSE BURTON L AND WF BEVERLY S BOLNER	684 Shoreline Cir	Port Aransas	TX	78373-4129
MUSTANG ISLAND DEVELOPMENT INC	120 Social Cir UNIT 4-101	Port Aransas	TX	78373-5091
MUSTANG ISLAND LLC	5916 Sterling Dr	Colleyville	TX	76034-7631
NEBLETT DUNCAN JR AND GEORGIA WFE	681 SHORELINE CIRCLE	PORT ARANSAS	TX	78373
NELLA GROUP LLC	427 N Broadway Blvd	Joshua	TX	76058-3413
NUECES CO NAVIGATION DIST				00000
NUECES COUNTY	901 LEOPARD ST	CORPUS CHRISTI	TX	78401-3606
OCEANSIDE ADDITION OWNERS	PO Box 236	Port Aransas	TX	78373-0236
PA POINT LTD	4418 OCEAN DRIVE	CORPUS CHRISTI	TX	78412
PA WATERFRONT L P	3455 PEACHTREE RD NE STE 650	ATLANTA	GA	30326
PAISANO PARTNERS LTD	4040 BROADWAY STE 501	SAN ANTONIO	TX	78209
PANOS MANAGEMENT TRUST	3716 Lagood Dr	Austin	TX	78730-3501
PATE RICHIE	1800 Hughes Landing Blvd	Spring	TX	77380-1684
PAYNE DENNIS L & WF, DEBORAH J	5478 County Road 73	Robstown	TX	78380-9003
PERCOCO RICHARD A & THELMA A WFE	1011 Bayridge Rd	La Porte	TX	77571-3520
PHILLIPS BRICE	2004 PHILADELPHIA AVE	OCEAN CITY	MD	21842
PIONEER RV RESORT INC	120 GULF WIND DR	PORT ARANSAS	TX	78373
PITT STEPHEN M AND SARAH J	2929 Wesleyan St	Houston	TX	77027-2007
POMEROY ANNETTE	200 LEGACY DOWNS DR	FORT WORTH	TX	76126-5737
PORPOISE POINT HOMEOWNERS'	ASSOCIATION	PORT ARANSAS	TX	78373
PORT A MANAGEMENT CO	13647 Treasure Trail Dr	San Antonio	TX	78232-3508
PORT A SANDBOX LLC	17067 PO BOX	AUSTIN	TX	78760-7067
PORT ARANSAS MARICULTURE	CENTER - TEXAS A & M			
PORT ARANSAS MARINA ASSN	PO BOX 117	SAINT HEDWIG	TX	78152-0117
PORT ARANSAS RV PARK	907 ACCESS RD 1A	PORT ARANSAS	TX	78373
PORT OF CORPUS CHRISTI AUTH	P O BOX 1541	CORPUS CHRISTI	TX	78403
PORTA CORPORATION	PO Box 460968	San Antonio	TX	78246-0968
POSEIDON REALTY TRUST	C/O ABACUS REALTY	APALACHICOLA	FL	32329-0400
POWER LAND COMPANY LTD	5601 EDMOND STE M	WACO	TX	76710-4321
PRESTON WILLIAM J & MELISSA V PRESTON	PO Box 7520	Spring	TX	77387-7520
R & R ROYALTY LTD	500 N Shoreline Blvd Ste 322	Corpus Christi	TX	78401-0313
RACHAL ED FOUNDATION	555 N Carancahua St Ste 700	Corpus Christi	TX	78401-0861
RANDALL JAMES PRESTON & WF LAURILEE GRACE	10603 Sierra Oaks	Austin	TX	78759-5166
REDDY GEETA	PO Box 272000	Corpus Christi	TX	78427-2000
RHODES SUZANNE S AND ALAN GARY THOMPSON	4511 Ridgehaven Rd	Fort Worth	TX	76116-7315
RIVERS WIL & JULIE V HUMBLE	610 Shoreline Cir	Port Aransas	TX	78373-4129
ROGERS WALLACE III 1992 FAMILY TRUST	305 Geneseo Rd	San Antonio	TX	78209-6124
RUSSELL JOHN	31211 Silver Spur Trl	Boerne	TX	78015-4107

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
S & K FAMILY TRUST	24165 W Interstate 10 Ste 217-419	San Antonio	TX	78257-9997
SAND POINT N.U.D OWNER'S ASSOC INC	PO BOX 141	PORT ARANSAS	TX	78373-0141
SCHIRMER ROBERT G SR AND	324 DOLPHIN LN	PORT ARANSAS	TX	78373-5405
SCHOLL JACK W & SCHOLL HOLDINGS LTD	5740 Ocean Dr	Corpus Christi	TX	78412-2848
SCHRADER J ERIC ETUX DENISE A	6601 RIVER BEND DR	FT WORTH	TX	76132
SCHWEPPE HENRY IRVING JR TR	1752 NORTH BOULEVARD	HOUSTON	TX	77098
SCOTT MICHAEL D & WF CONNIE SCOTT	638 Shoreline Cir	Port Aransas	TX	78373-4129
SEA OATS INVESTMENTS II LLC	5009 State Highway 361	Port Aransas	TX	78373-4833
SEAS THE VIEW	PO Box 1627	Kyle	TX	78640-1627
SEUREAU GLENN	3214 INWOOD DR	HOUSTON	TX	77019-3228
SHUTTERS PORTA LLC	203 HUMBLE AVE	SAN ANTONIO	TX	78225
SIGMA OCEAN VIEW PROPERTIES LLC	310 Champion Fls	San Antonio	TX	78258-4876
SILVERCLOUD PROPERTIES LLC	221 E Guenther	San Antonio	TX	78204-1404
SNYDER BLAINE & KELLI SNYDER	673 Shoreline Cir	Port Aransas	TX	78373-4146
SPARR RICHARD A JR & WF JENNIFER	1313 NE LOOP 410 STE 100	SAN ANTONIO	TX	78209
SPEC-TACULAR INC	921 N Chaparral St Ste 103	Corpus Christi	TX	78401-2008
SPMP HOLDINGS LTD	115 Rio Cordillera	Boerne	TX	78006-5891
STAFFORD WESLEY W	AND JANE O STAFFORD WFE	CORPUS CHRISTI	TX	78411
STAHLMAN ALAN R AND SUZANNE MARTIN TRUSTEES OF THE	5691 FM 2722	NEW BRAUNFELS	TX	78132-2018
STATE OF TEXAS	PO Box 12608	Austin	TX	78711-2608
STERETT ROBERT HULINGS AND	409 Coral Pl	Corpus Christi	TX	78411-1530
STOVALL CHARLES WILLIAM AND WF	420 Ocean View Dr	Port Aransas	TX	78373-5711
SUNFLOWER BEACH DEVELOPMENT LTD	2215 Westlake Dr	Austin	TX	78746-2910
SWN LTD ET AL	2121 SAGE RD	HOUSTON	TX	77056-4341
TEMPLES RODGER D &	4701 Winthrop Ave W	Fort Worth	TX	76116-8239
TERRAMAR MI LTD	6315 Bandera Ave	Dallas	TX	75225-3621
TF JORGENSEN BUSINESS	MANAGEMENT PARTNSHP LTD	NACOGDOCHES	TX	75961
THE WINAR GROUP LLC	C/O ROBBY ALLEN	JOSHUA	TX	76058
TURNER CHARLES R TRUSTEE	4201 Lomo Alto Dr Apt 109	Dallas	TX	75219-1511
UNITED STATES OF AMERICA	DEPT OF INTERIOR			
UNIVERSITY OF TEXAS	210 W 7th St	Austin	TX	78701-2903
VAGSHENIAN ATHENA	114 CRESTVIEW DR	AUSTIN	TX	78734
VAUGHAN BEN F III TRUSTEE OF THE	PO Box 460968	San Antonio	TX	78246-0968
WALLACE JUDITH LYN	3016 Mid Ln Unit B	Houston	TX	77027-5638
WATSON JOHN DOBREE AND WF	8005 Hidden Creek Ct	Mansfield	TX	76063-2088
WESTPLAN RESIDENTIAL FUND III LP	ONE GLENLAKE PARKWAY STE 1275	ATLANTA	GA	30328
WMI PROPERTIES LLC	605 E Dewey Pl	San Antonio	TX	78212-4012
WMI2 LLC	PO Box 90624	San Antonio	TX	78209-9088
WOLFE RONALD T & WF PAMELA K BURDA-WOLFE	211 COSTA BELLA DR	AUSTIN	TX	78734
YELLOW SHACK INVESTMENTS LLC	302 Dolphin Ln	Port Aransas	TX	78373-5405
ZARS KEITH M	12818 COUNTRY CREST	SAN ANTONIO	TX	78216-0000

## **Appendix A2**

### **Permit Application Modification, June 4, 2019**



## PORTCORPUSCHRISTI

June 4, 2019

Colonel Lars N. Zetterstrom, PE  
Commander, Galveston District  
USACE Galveston District  
P.O. Box 1229  
Galveston, Texas 77553

Attn: Jayson Hudson

**RE: SWG-2019-00067: Port of Corpus Christi Authority Channel Deepening Project - Permit Application Update**

Dear Colonel Zetterstrom:

In follow up to our April 8, 2019 letter and Mr. Heinley's letter dated May 23, 2019, the Port of Corpus Christi Authority is pleased to submit the revised permit application in support of the Channel Deepening Project. The proposed project would construct a channel capable of accommodating fully laden Very Large Crude Carriers (VLCCs) from multiple locations on Harbor Island into the Gulf of Mexico.

Enclosed with this letter is the ENG Form 4345 with supporting information prepared for the deepening and extension of the Corpus Christi Ship Channel and placement of the dredged material generated from the proposed activity. In addition to updating the project terminus from Station 54+00 to Station 110+00, supplement information for the coordination of the MPSRA Section 103 permit has been included in this package. This permit application modification will replace the documents previously provided to you for this permit.

Please contact Mr. Sepulveda by telephone at 713-278-4620 or by email at [carl.sepulveda@aecom.com](mailto:carl.sepulveda@aecom.com) should you require additional information to process the permit application.

Sincerely,

Sarah L. Garza  
Director of Environmental Planning & Compliance

cc: Sean C. Strawbridge, Chief Executive Officer  
Clark Robertson, Chief Operating Officer  
David L. Krams, PE, Director of Engineering Services  
Daniel J. Koesema, PE, CFM, Chief of Channel Development  
Paul D. Carangelo, REM, Coastal Development Planning Manager  
Beatriz Rivera, PE, Environmental Engineer





U.S. Army Corps of Engineers (USACE)  
**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**  
33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved -  
OMB No. 0710-0003  
Expires: 01-08-2018

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at [whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil](mailto:whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PRIVACY ACT STATEMENT**

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcl.d.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

**(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)**

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
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**(ITEMS BELOW TO BE FILLED BY APPLICANT)**

5. APPLICANT'S NAME First - Sarah Middle - L Last - Garza Company - Port of Corpus Christi Authority E-mail Address - sarah@pocca.com	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Carl Middle - Anthony Last - Sepulveda P.E. Company - AECOM E-mail Address - carl.sepulveda@aecom.com
6. APPLICANT'S ADDRESS: Address- 222 Power Street City - Corpus Christi State - TX Zip - 78401 Country - USA	9. AGENT'S ADDRESS: Address- 5444 Westheimer Road, Suite 400 City - Houston State - TX Zip - 77056 Country - USA
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 361-885-6163	10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 713-278-4620

**STATEMENT OF AUTHORIZATION**

11. I hereby authorize, Carl Sepulveda P.E./AECOM to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

 6/4/2019  
SIGNATURE OF APPLICANT DATE

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

12. PROJECT NAME OR TITLE (see instructions)  
Corpus Christi Ship Channel Deepening Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)  
Gulf of Mexico, Corpus Christi Bay, and Redfish Bay

15. LOCATION OF PROJECT

Latitude: °N 27.837697 Longitude: °W -97.045994

14. PROJECT STREET ADDRESS (if applicable)

Address

City - State - Zip -

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID

Municipality

Section -

Township -

Range -

**17. DIRECTIONS TO THE SITE**

From the Port of Corpus Christi (222 Power Street, Corpus Christi, Texas), head west on Power Street to North Water Street. Turn right on North Broadway Street and take the ramp on the left on US-181 N. Merge onto US-181 N, continue onto TX-35 N. Take the TX-35 Business exit toward Farm to Market Road 1069/Aransas Pass. Continue onto TX-35 BUS N/W Wheeler Avenue. Slight right onto W. Wheeler Avenue. W Wheeler turns slightly right and becomes Harrison Blvd. Turn left onto W Goodnight Avenue. Continue onto TX-361 S/Redfish Bay Causeway for 5.2 miles.

**18. Nature of Activity (Description of project, include all features)**

The Port of Corpus Christi Authority (PCCA) proposes to deepen the Corpus Christi Ship Channel (CCSC) from the Gulf of Mexico to Harbor Island. From the offshore end of the federally authorized Entrance Channel at Station -330+00 to Station -72+50 (25,750 feet), the CCSC would be deepened beyond the currently authorized project depth of -56 feet MLLW to a depth of -77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge to a maximum depth of -81 feet MLLW. From Station -72+50 to Station 54+00 (12,650 feet) the CCSC would be deepened from authorized project depths of -56 feet MLLW and -54 feet MLLW to -75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge to a maximum depth of -79 feet MLLW. The PCCA also proposes to dredge a 29,000-foot entrance channel extension from the authorized Entrance Channel (Station -330+00) to a depth of -77 feet MLLW plus two feet of advanced maintenance and two foot of allowable overdredge to a maximum depth of -81 feet MLLW at Station -620+00 in the Gulf of Mexico. The overall length of the proposed project is approximately 13.8 miles. The Entrance Channel extension and increased channel depth would accommodate transit of fully laden Very Large Crude Carriers (VLCCs) expected to draft approximately 70 feet.

**19. Project Purpose (Describe the reason or purpose of the project, see instructions)**

The purpose of the proposed project is to construct a channel with the capability to accommodate transit of fully laden VLCC from multiple locations on Harbor Island into the Gulf of Mexico. The proposed project would (1) allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives, (2) enhance PCCA's ability to accommodate future growth in energy production, and (3) construct a channel project that the PCCA can readily implement to accommodate industry needs. Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are slight loaded (lightered) due to the depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized -54-foot MLLW project is completed. Reverse lightering translates into additional vessel trips, cost, manhours, operational risk, and air emissions. (See Attachment A Section 2.0 for more details.)

**USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**

**20. Reason(s) for Discharge**

Dredged material generated from construction of the proposed project and 10 years of maintenance material would be placed partially within existing authorized placement facilities, and partially within several areas in proximity to the proposed project for beneficial use. Dredged material judged to be suitable for beneficial use would be used to create several feeder berms in near-shore areas to nourish eroded beach areas, reestablish sand dune areas on San Jose Island that were breached by Hurricane Harvey, restore perimeter portions of placement areas that have experienced erosion, place material in areas adjacent to the interior CCSC that were breached by Hurricane Harvey, and enhance/armor the shoreline along Harbor Island and Harbor Island East in order to absorb/mitigate erosive forces of waves and ship wakes to protect adjacent areas of marsh and submerged aquatic vegetation. Dredged material judged to be unsuitable for beneficial use would be placed in authorized placement areas. (See Attachment A Section 1.2.) Proposed placement options are shown on the attached drawings.

**21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:**

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards
17.1 Million Cubic Yards of Clay	29.2 Million Cubic Yards of Sand	

**22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)**

Acres 1778 acres of open waters to be dredged for proposed channel and turning basin. See Attachment A Section 3.1 for placement details.  
or  
Linear Feet

**23. Description of Avoidance, Minimization, and Compensation (see instructions)**

See Attachment A Sections 5.0 and 6.0.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See attached pages

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
TCEQ	401 WQS		In process		
USACE/EPA	MPRSA Section 103		In process		
TGLO	Coastal Consistency		In process		

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



# CONSISTENCY WITH THE TEXAS COASTAL MANAGEMENT PROGRAM

**THE APPLICANT SHOULD SIGN THIS STATEMENT AND  
RETURN WITH APPLICATION PACKET TO:**

COASTAL PERMIT SERVICE CENTER  
602 N. STAPLES STREET, SUITE 240  
CORPUS CHRISTI, TX 78401  
FAX: (361) 888-9305

## FOR USACE USE ONLY:

PERMIT #: \_\_\_\_\_

PROJECT MGR: \_\_\_\_\_

## APPLICANT'S NAME AND ADDRESS (PLEASE PRINT):

Title  First  Last  Suffix

Mailing Address  Home

City  State  Zip Code  Work

Country  Email  Mobile

Fax

The Texas Coastal Management Program (CMP) coordinates state, local, and federal programs for the management of Texas coastal resources. Activities within the CMP boundary must comply with the enforceable policies of the Texas Coastal Management Program and be conducted in a manner consistent with those policies. The boundary definition is contained in the CMP rules (31 TAC §503.1).

- To determine whether your proposed activity lies within the CMP boundary, please contact the Permit Service Center at [permitting.assistance@glo.texas.gov](mailto:permitting.assistance@glo.texas.gov)

## PROJECT DESCRIPTION:

Is the proposed activity at a waterfront site or within coastal, tidal, or navigable waters? ☐ Yes ☐ No

If Yes, name affected coastal, tidal, or navigable waters: \_\_\_\_\_

Is the proposed activity water dependent? ☐ Yes ☐ No (31 TAC §501.3(a)(14))

<http://tinyurl.com/CMPdefinitions>

Please briefly describe the project and all possible effects on coastal resources:

Indicate area of impact: \_\_\_\_\_ ☐ acres or ☐ square feet

## ADDITIONAL PERMITS/ AUTHORIZATIONS REQUIRED:

- ☐ Coastal Easement - Date application submitted: \_\_\_\_\_
- ☐ Coastal Lease - Date application submitted: \_\_\_\_\_
- ☐ Stormwater Permit- Date application submitted: \_\_\_\_\_
- ☐ Water Quality Certification - Date application submitted: \_\_\_\_\_
- ☐ Other state/federal/local permits/authorizations required: \_\_\_\_\_



The proposed activity must not adversely affect coastal natural resource areas (CNRAs).

**PLEASE CHECK ALL COASTAL NATURAL RESOURCE AREAS THAT MAY BE AFFECTED:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Coastal Barriers       | <input type="checkbox"/> Critical Erosion Areas | <input type="checkbox"/> Submerged Lands              |
| <input type="checkbox"/> Coastal Historic Areas | <input type="checkbox"/> Gulf Beaches           | <input type="checkbox"/> Submerged Aquatic Vegetation |
| <input type="checkbox"/> Coastal Preserves      | <input type="checkbox"/> Hard Substrate Reefs   | <input type="checkbox"/> Tidal Sand or Mud Flats      |
| <input type="checkbox"/> Coastal Shore Areas    | <input type="checkbox"/> Oyster Reefs           | <input type="checkbox"/> Waters of Gulf of Mexico     |
| <input type="checkbox"/> Coastal Wetlands       | <input type="checkbox"/> Special Hazard Areas   | <input type="checkbox"/> Waters Under Tidal Influence |
| <input type="checkbox"/> Critical Dune Areas    |   |   |

*The applicant affirms that the proposed activity, its associated facilities, and their probable effects comply with the relevant enforceable policies of the CMP, and that the proposed activity will be conducted in a manner consistent with such policies.*

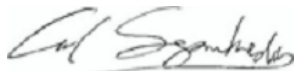
**PLEASE CHECK ALL APPLICABLE ENFORCEABLE POLICIES:**

<http://tinyurl.com/CMPpolicies>

	§501.15 Policy for Major Actions
	§501.16 Policies for Construction of Electric Generating and Transmission Facilities
	§501.17 Policies for Construction, Operation, and Maintenance of Oil and Gas Exploration and Production Facilities
	§501.18 Policies for Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities
	§501.19 Policies for Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities
	§501.20 Policies for Prevention, Response and Remediation of Oil Spills
	§501.21 Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters
	§501.22 Policies for Nonpoint Source (NPS) Water Pollution
	§501.23 Policies for Development in Critical Areas
	§501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands
	§501.25 Policies for Dredging and Dredged Material Disposal and Placement
	§501.26 Policies for Construction in the Beach/Dune System
	§501.27 Policies for Development in Coastal Hazard Areas
	§501.28 Policies for Development Within Coastal Barrier Resource System Units and Otherwise Protected Areas on Coastal Barriers
	§501.29 Policies for Development in State Parks, Wildlife Management Areas or Preserves
	§501.30 Policies for Alteration of Coastal Historic Areas
	§501.31 Policies for Transportation Projects
	§501.32 Policies for Emission of Air Pollutants
	§501.33 Policies for Appropriations of Water
	§501.34 Policies for Levee and Flood Control Projects

Please explain how the proposed project is consistent with the applicable enforceable policies identified above. Please use additional sheets if necessary. *For example: If you are constructing a pier with a covered boathouse, then the applicable enforceable policy is: §501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands. The project is consistent because it will not interfere with navigation, natural coastal processes, and avoids/minimizes shading.*

BY SIGNING THIS STATEMENT, THE APPLICANT IS STATING THAT THE PROPOSED ACTIVITY COMPLIES WITH THE TEXAS COASTAL MANAGEMENT PROGRAM AND WILL BE CONDUCTED IN A MANNER CONSISTENT WITH SUCH PROGRAM



Signature of Applicant/Agent

Date

***Any questions regarding the Texas Coastal Management Program should be referred to:***

Jesse Solis  
Texas General Land Office  
602 N. Staples St., Suite 240  
Corpus Christi, Texas 78401  
Phone: (361) 886-1630  
Fax: (361) 888-9305  
[permitting.assistance@glo.texas.gov](mailto:permitting.assistance@glo.texas.gov)

Texas General Land Office  
Coastal Protection Division  
1700 North Congress Avenue, Room 330  
Austin, Texas 78701-1495  
Toll Free: 1-800-998-4GLO  
[federal.consistency@glo.texas.gov](mailto:federal.consistency@glo.texas.gov)

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## Attachment A – Project Description

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**PORT OF CORPUS CHRISTI AUTHORITY  
CORPUS CHRISTI SHIP CHANNEL DEEPENING  
NUECES AND ARANSAS COUNTIES, TEXAS**

**Project Description for Corpus Christi Ship Channel Deepening Project**

**Department of the Army Permit Application SWG-2019-00067**

**Applicant: Port of Corpus Christi Authority**

**June 2019**

## **Description for Corpus Christi Ship Channel Deepening Project**

### **1.0 INTRODUCTION AND SUMMARY OF THE NATURE OF ACTIVITY**

The Port of Corpus Christi Authority (PCCA) is requesting permit authorization from the U.S. Army Corps of Engineers (USACE) – Galveston District for the PCCA to conduct dredge and fill activities related to the deepening of a portion of the Corpus Christi Ship Channel (CCSC), hereinafter referred to as “the proposed project.” The proposed project requires dredging in navigable waters of the United States to deepen the portion of the CCSC from Harbor Island into the Gulf of Mexico, an overall distance of approximately 13.8 miles (Station 110+00 to Station -620+00) as shown on Sheet 2 of 23 of the permit drawings. The proposed project also involves the placement of fill (dredged material) in waters of the United States. Both of the proposed activities are regulated by the USACE.

The CCSC is currently authorized by the USACE to project depths of -54 feet and -56 feet mean lower low water (MLLW) from Station 110+00 to Station -330+00 as part of the Corpus Christi Ship Channel Improvement Project (CCSCIP). The current authorized width of the CCSC is 600 feet inside the jetties and 700 feet in the entrance channel. The proposed project would deepen the channel from Station 110+00 to Station -72+50 to a maximum depth of -79 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge), and from Station -72+50 to Station -330+00, the channel would be deepened to a maximum depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge). The proposed project includes a 29,000-foot extension of the CCSC from Station -330+00 to Station -620+00 to a maximum depth of -81 MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico.

The proposed project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized CCSC channel width. The proposed project does not include widening the channel; however, some minor incidental widening of the channel slopes is expected to meet side slope requirements and to maintain the stability of the channel. The proposed project including dredged material placement, is described below.

The following summarizes where information required by USACE Permit Engineering Form 4345 can be found in this attachment:

- Block 21: Type of Discharge – Section 1.1 discusses the amount and type of discharges anticipated to be generated by the channel improvements of the proposed action. Section 4 below provides details on the alternatives screening process, and Table 4.1 summarizes the new work dredge quantities and other attributes involved in the selection process, and of the proposed action.
- Block 22: Surface Area in Acres of Wetlands or Other Waters Filled – Section 3 describes the extent of the proposed affected waters, and summarizes potential impacts of the proposed action, and Table 3.1 summarizes the acreages of waters (associated with bay bottom impacted) proposed for excavation or fill.
- Block 23: Description of Avoidance, Minimization, and Compensation – Sections 4 and 5 describe the various channel and placement alternatives evaluated in the selection of the proposed action, as well as factors of avoidance and minimization of impacts to aquatic

resources where feasible involved in the selection process. Section 6 describes the mitigation or compensation proposed, as well as a summary of the aquatic impacts of the proposed action.

- Section 7 provides a short conclusion.

This project also proposes to use existing authorized Ocean Dredged Material Disposal Sites (ODMDS) regulated under the Marine Protection, Research and Sanctuaries Act (MPRSA) Section 103. Pursuant to the requirements to initiate a public notice listed in 33 CFR 325.3(a)(17), for Section 103 activities, the requisite information can be found in the sections listed below:

- The specific location of the proposed disposal site and its physical boundaries
  - See Section 1.3 Proposed Use of Existing Offshore Placement Sites
- A statement as to whether the proposed disposal site has been designated for use by the Administrator, EPA, pursuant to section 102(c) of the Act
  - See Section 1.3 Proposed Use of Existing Offshore Placement Sites
- A brief description of known dredged material discharges at the proposed disposal site
  - See Section 1.3 Proposed Use of Existing Offshore Placement Sites
- Existence and documented effects of other authorized disposals that have been made in the disposal area (e.g., heavy metal background reading and organic carbon content)
  - See Section 1.3 Proposed Use of Existing Offshore Placement Sites
- An estimate of the length of time during which disposal would continue at the proposed site; and Information on the characteristics and composition of the dredged material
  - See Sections 1.2 Proposed Dredged Material Placement Plan and 1.3 Proposed Use of Existing Offshore Placement Sites

## **1.1 Proposed Project**

To address changing market needs, the PCCA proposes to deepen the portion of the CCSC from Harbor Island (Station 110+00) into the Gulf of Mexico (Station -620+00) beyond the current authorized project depths of -54 feet and -56 feet MLLW to maximum depths of -79 feet and -81 feet MLLW to accommodate transit of fully laden VLCCs with drafts of approximately 70 feet. The overall project length is approximately 13.8 miles. The design depths are based on a detailed review of the dimensions of the VLCCs expected to call at the Port of Corpus Christi's (Port's) existing and proposed crude oil export terminals; the predominant density of crude oil to be exported and associated vessel drafts; environmental effects due to winds, waves and currents; and required under keel clearances, plus two feet of advanced maintenance and two feet of allowable overdredging depth. The proposed project does not include widening the channel, as the deepening activities would be completed within the footprint of the authorized CCSC channel width. However, some minor incidental widening would be expected to meet the side slope requirements of the deepened channel.

The proposed project consists of the following:

- Deepening from the authorized -54 feet MLLW to approximately -75 feet MLLW, with two feet of advanced maintenance and two feet of allowable overdredge, from Station 110+00 into the Gulf of Mexico to Station -72+50.
- Deepening from the authorized -56 feet MLLW to approximately -77 feet MLLW, with two feet of advanced maintenance and two feet of allowable overdredge, from Station -72+50 to Station -620+00 in the Gulf of Mexico.
- The existing Inner Basin at Harbor Island will be expanded as necessary to allow VLCC turning. This modification will also include a flare transition from the CCSC within Aransas Pass to meet the turning basin expansion.

The total length of the CCSC proposed for deepening is approximately 13.8 miles. The proposed project would generate an estimated 46.3 million cubic yards (MCY) of new work material from initial construction, consisting of approximately 36.9% clays (17.1 MCY) and 63.1% sand (29.2 MCY). The clay portion of the new work dredged material located in the offshore reaches (Station -620+00 to -72+50), approximately 13.8 MCY, would be placed at New Work ODMDs (NW ODMDs) located approximately 2.9 miles southeast of the Aransas Pass South Jetty and adjacent to the CCSC. The clay portion of new work dredged material from Stations -72+50 to Station 110+00 would be used beneficially where possible to create perimeter dikes. Proposed placement options for the new work material are described in more detail in Section 0.

## **1.2 Proposed Dredged Material Placement Plan**

The dredged material placement plan selected for this project proposes to place new work material in a series of existing upland Placement Area (PA) and Beneficial Use (BU) sites and proposed new BU sites to beneficially use the new work dredged materials (approximately 46.3 MCY) as much as possible, to expand either existing upland PAs or BU sites, and address shoreline repair needs within Redfish Bay, Corpus Christi Bay, and the Gulf of Mexico in the vicinity of the Preferred Channel Alternative. The plan is shown in Sheet 9 of 23. Detailed views and conceptual cross sections are provided in Sheets 11 through 23 of 23. This plan was a result of the screening and formulation of placement alternatives discussed in Section 5.0. Table 1.1 below summarizes the elements of the placement plan, each representing a singular type of placement. In all but the case of offshore feeder berms B1 through B6, each represents a single site and placement or BU initiative.

The plan predominantly involves (1) use of the approved existing offshore NW ODMDs, (2) other PA or BU expansion at existing sites used by the PCCA and the USACE to maintain the federally authorized CCSCIP to an authorized depth of -54 to -56 feet MLLW, or (3) new habitat restoration sites located in Redfish Bay, Corpus Christi Bay, or nature center that were identified/confirmed by resource agencies as desirable. These sites would be readily available given the use by the Federal project, for which PCCA is the Non-Federal Sponsor (NFS), and the desire to repair Hurricane Harvey damage and long term erosion.

For construction, new work materials would be placed at the NW ODMDs over approximately 10 months. The new work materials will consist of approximately 36.9% (17.1 Million Cubic Yards) of clays and 63.1% (29.2 Million Cubic Yards) of sand.

Currently, the application identifies that ten (10) years of maintenance material would be placed within the existing authorized PAs including the ODMDS No.1 with maintenance events that are expected to occur every two (2) years. Maintenance material is expected to continue to consist predominantly of sands with some silt as the current channel experiences.

One exception to the areas currently used by the Federal project is the dune and shore restoration at San Jose Island (SJI). The site is privately owned by the Bass Family and the planning team is coordinating with their representatives to ultimately gain approval to beneficially restore the extensive damage caused by Hurricane Harvey once additional restoration design detail is developed. Currently, the representatives indicate they view the concept positively and will continue to engage in coordination meetings with the planning team to advance towards acceptance of this BU initiative. Because it provides substantial placement capacity, is nearby, and could make use of the large volumes of sand in the channel new work prism to restore very important barrier island resources, it is retained in the placement plan. Since coordination is ongoing, more capacity was identified than needed to provide flexibility in placement options. Therefore, the bottom of Table 1.1 includes various scenarios for excluding SJI and comparing it to needed new work placement capacity. With SJI removed, there is excess placement capacity available at other BU and PA features in the unlikely scenario that SJI is ultimately excluded from the project.

The total maintenance quantity is estimated at 1.083 MCY per year, which includes an incremental increase of approximately 0.39 MCY due to the channel deepening beyond the limits of CCSCIP. The 10-year proposed action maintenance increment would be approximately 3.9 MCY. Dredged material from maintenance work would be placed in the existing ODMDS No. 1 in the vicinity of the CCSC, proposed offshore feeder berms B-1 through B-9, or existing PA 2, as material suitability allows. A screening of PAs and BU areas is detailed in Section 5.0. Maintenance materials for the CCSC are currently placed or are planned to be placed in the existing PAs and are routinely rotated between sites. ODMDS No. 1 and the proposed feeder berms B1-B9 are dispersive sites, and would be able to accommodate the project's relatively small incremental amount.



**Table 1.1: Selected New Work Placement Plan (See Sheet 9 of 23)**

Placement Option	Description	Placement Capacity (CY)	Proposed Restoration
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	3,798,000	This option will convert featureless bay bottom to approximately 300 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
PA9-S	Upland Placement Site Expansion behind PA9	9,000,000	This option does not restore aquatic habitat, it will convert featureless bay bottom to upland.
M10	Estuarine/aquatic habitat creation adjacent to PA10	10,933,600	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	5 foot levee raise and fill	1,796,400	This option does not create any environmental benefit.
SS1	Restoring eroded and washed out shoreline	4,800,000	This option restores an eroded shoreline landmass and provides protection to Harbor Island Seagrass area.
SS2	Restore shoreline washouts along Port Aransas Nature Preserve as a result of Hurricane Harvey	669,700	Shoreline restoration that fills in the washouts caused by Hurricane Harvey that protects Piping Plover critical sand flat habitat.
PA4	Reestablish eroded shoreline and land loss in front of PA4	3,020,000	This option provides protection to Harbor Island Seagrass area.
HI-E	Bluff and Shoreline restoration with site fill	1,825,000	This option restores an eroding bluff and shoreline to its historic profile.
SJI	Dune and beach restoration San Jose Island	4,000,000	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMS	Place on New Work ODMS (Homeport)	13,800,000	This option does not create any environmental benefit.
B1-B9	Feeder berms offshore of SJI and Mustang Island	8,100,000	This option will nourish beach shoreline by natural sediment transport processes.
MI	Beach Nourishment for Gulf side of Mustang Island	2,000,000	This option will nourish beach shoreline by direct sediment placement.
Scenarios for new work placement capacity provided and needed.		64,609,700	Total Capacity Provided
		60,609,700	Total capacity less SJI (should that option become unavailable)
		46,283,590	Total NW placement capacity required for Channel Preferred Alternative – Base Option
		14,326,110	Additional Capacity less SJI (should that option become unavailable)

### 1.3 Proposed Use of Existing Offshore Placement Sites

As discussed in Section 1.2, PCCA proposes the use of the existing approved NW ODMDS for new work dredged material generated from the proposed project and the ODMDS No. 1 for maintenance of the deepened channel. Both sites have been designated for use by EPA, pursuant to section 102(c) of the Act.<sup>1</sup> The following summarizes information on their location, prior designation and approval, and known material placement amounts and characterization. Information was obtained from the 2008 and 2017 Site Management and Monitoring Plans for the ODMDS sites.<sup>2,3</sup>

The CCSC ODMDS No.1 received the administrator's final designation pursuant to section 102(c) on July 11, 1989. It is located approximately 1.5 miles offshore and about 1,000 feet southwest of the centerline of the Outer Bar Channel. The site is rectangular in shape with corner coordinates located at:

27°49'11.0994"N, 97°01'09.9546"W;  
27°48'43.1022"N, 97°00'21.9522 "W;  
27°48'07.1064"N, 97°00'48.9528"W;  
27°48'34.1136"N, 97°01'36.9654"W.

The CCSC NW ODMDS is located approximately 3.4 miles offshore and about 6,200 feet southwest of the centerline of the Outer Bar Channel, occupying an area of approximately 1.36 square nautical miles. Water depths range from 46 to 53 feet. The site is rectangular in shape with corner coordinates at:

27°47'43.1052"N, 97°0'12.9522"W;  
27°47'16.1052"N, 96°59'25.9512"W;  
27°46'18.1086"N, 97°1'12.9512"W;  
27°45'50.1084"N, 97°0'25.9488"W.

Historically, since 1969, the dredging frequency for this navigation project is approximately 2.1 years, with an average of about 1,377,887 CY of material excavated per dredging contract. Table 1.2 summarizes the known placement during this period.

**Table 1.2: ODMDS No. 1 Maintenance Placement History 1969-2007**

Maintenance Dredging History		
Started	Completed	Quantity Dredged (Cubic Yards)
May 12, 1969	July 3, 1969	898,568
June 8, 1970	July 19, 1970	570,010
May 19, 1971	September 25, 1971	4,846,577
July 3, 1972	June 30, 1973	1,749,500
March 5, 1973	March 26, 1973	123,036
July 1, 1973	November 6, 1973	1,586,547

<sup>1</sup> U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE) Galveston District. 2017. Corpus Christi, Nueces County, Texas Maintenance And New Work Ocean Dredged Material Disposal Sites Site Management And Monitoring Plan As Required By Section 102 Of The Marine Protection, Research, And Sanctuaries Act

<sup>2</sup> USEPA and USACE Galveston District. 2008. Corpus Christi Ship Channel, Texas Site Management Plan For The Maintenance Dredging Ocean Dredged Material Disposal Site As Required By Section 102 Of The Marine Protection, Research And Sanctuaries Act.

<sup>3</sup> USEPA and USACE Galveston District. 2017. Corpus Christi, Nueces County, Texas Maintenance And New Work Ocean Dredged Material Disposal Sites Site Management And Monitoring Plan As Required By Section 102 Of The Marine Protection, Research, And Sanctuaries Act

<b>Maintenance Dredging History</b>		
<b>Started</b>	<b>Completed</b>	<b>Quantity Dredged (Cubic Yards)</b>
September 23, 1976	October 27, 1976	1,026,053
April 20, 1977	May 31, 1977	671,622
April 14, 1978	August 2, 1978	337,704
August 14, 1980	March 1, 1981	4,205,334
August 10, 1982	September 30, 1982	969,500
August 22, 1984	October 12, 1984	1,865,930
September 4, 1992	December 6, 1992	1,774,816
August 9, 1995	September 18, 1995	724,339
June 11, 1999	July 11, 1999	1,417,492
April 9, 2003	July 7, 2003	930,657
July 21, 2006	August 10, 2006	149,706
February 24, 2007	May 23, 2007	954,566
<b>Total</b>		<b>24,801,957</b>
<b>Average</b>		<b>1,377,887</b>

Since the final designation of the ODMDS No.1 in 1989, however, the average quantity of material dredged and deposited offshore decreased to approximately 991,929 CY, while the dredging interval increased to about 2.5 years. Following the authorization of the Federal CCSCIP, quantities for the use of this site for Jetty and Entrance Channels, and Entrance Channel Extension were expected to double, resulting in a use of the site every two years. USACE also planned to use the site for other CCSIP segments less frequently for future suitable material. Table 1.3 summarizes the currently planned Federal maintenance frequency. The ODMDS No. 1 sediments can be characterized as predominantly sand (93.6%) with a small fraction of silt (0.5%) and clay (1.4%). The proposed excavated maintenance channel sediments can also be characterized as predominantly sand with some silt and clay.

**Table 1.3: ODMDS No. 1 Maintenance Placement Frequency at Present**

<b>Channel Segments</b>	<b>Dredge Area Stations</b>	<b>Estimated Volume per Contract (CY)</b>	<b>Dredging Rate (years)</b>
Entrance Channel	-210+00 to 36+00	1,000,000	2.0
Inner Basin to La Quinta	36+00 to 500+00	800,000	5.0
La Quinta to Beacon 82	500+00 to 1090+00	1,000,000	2.0
Beacon 82 to Viola TB (Inner Harbor)	1100+00 to 1587+00	1,500,000	4.0
La Quinta	0+00 to 382+00	500,000	3.0
Rincon	0+00 to 150+00	400,000	7.0

For the NW ODMDS, the site, originally designated for use for the U.S. Navy Homeport Project, has not been used; that project was not implemented. The Federally-authorized CCSCIP has planned to place 2.5 MCY of new work material from the Entrance Channel, which is a segment proposed for further deepening under this permit application.

On September 24, 1992, a Regional Implementation Agreement (RIA) was executed between EPA Region 6, and the Galveston District. This RIA was updated on November 3, 2003, and describes protocols for evaluating the quality of the dredged material and implementation of the Green Book, Inland Testing Manual.<sup>4</sup> These protocols describe chemical parameters to be analyzed, required detection limits, how toxicity testing and bioaccumulation assessments are to be conducted, and test organisms to be used. Since that time, all sediment evaluations have been conducted in accordance with the RIA. Since the mid-1970s, before the development of the RIA, dredged material from the CCSC Project was evaluated numerous times to determine suitability for offshore placement. This testing was performed to determine levels of metals and organic constituents, as well as toxicity and bioaccumulation assessments. Testing performed for this project is summarized in the following table:

**Table 1.4: Summary of Testing for Dredged Material to be placed in ODMDS No.1 and New Work ODMDS**

<b>Date</b>	<b>Type of Testing</b>
<b>Maintenance Sediment Testing History</b>	
September 17, 1975	Pre-dredging Bulk Analyses
October 6, 1975	During-dredging Bulk Analyses
December 2, 1975	After-dredging Bulk Analyses
April 1978	Toxicity and Bioaccumulation Assessment
October 1978	Toxicity and Bioaccumulation Assessment
July 1980	Toxicity and Bioaccumulation Assessment
January 14, 1982	Pre-dredging Bulk Analyses
February 22, 1983	Pre-dredging Bulk Analyses
July 3, 1984	Pre-dredging Bulk Analyses
April 1985	Toxicity and Bioaccumulation Assessment
May 15, 1985	Pre-dredging Bulk Analyses
March 28, 1986	Pre-dredging Bulk Analyses
March 18, 1987	Pre-dredging Bulk Analyses
March 15, 1988	Pre-dredging Bulk Analyses
April 7, 1989	Pre-dredging Bulk Analyses
March/April 1990	Pre-dredging Bulk Analyses
July 20, 1993	Pre-dredging Bulk Analyses
September 1995	Toxicity and Bioaccumulation Assessment
January 28, 1999	Pre-dredging Bulk Analyses
November 2000	Pre-dredging Bulk Analyses
August 2002	Toxicity and Bioaccumulation Assessment
July 2009	Toxicity and Bioaccumulation Assessment
January 2015	Toxicity and Bioaccumulation Assessment
<b>New Work (Virgin Sediment) Testing History</b>	
December 2016/January 2017	Toxicity and Bioaccumulation Assessment

<sup>4</sup> U.S. Environmental Protection Agency/U.S. Army Corps of Engineers (USEPA/USACE). 1991. Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual. EPA-503/891/001. U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, Washington, D.C.

The above testing indicated that the material was suitable for offshore placement without special management conditions.

Prior to initiation of construction of the first segment of the CCSCIP, the previous testing and most recent testing (conducted in 2016/2017) were reviewed to determine the suitability of the new work material for the placement in the NW ODMDS. Below is a synopsis of conclusions in the assessment report to approve new work material use under Section 103;<sup>5</sup>

- Surface Water and Elutriate: No concerns for the Entrance Channel for testing conducted from 1984 through 2014;
- New work sediment: Slightly elevated levels of copper and lead were found in entrance channel sediments in 1984. Sampling reports as recent as 2009 and 2015 indicate no exceedances in sediment samples when compared to the Effects Range-Low (ERL) standards (NOAA SQiRTs, Buchman, 1999);
- Bioassays using maintenance material: Acute toxicity to water column organisms was not of concern for the Entrance Channel/eastern portions of the Lower Bay reach under consideration in this sampling and analysis effort. Testing in 2015 determined that there is low potential for undesirable effects due to bioaccumulation because of the presence of individual chemicals or of the solid phase of the dredged material.
- For the most recent new work testing, new work sediment and site surface water was sampled to analyze bulk sediment and elutriate for chemistry, suspended particulate phase (SPP) bioassay, direct toxicity bioassay, and bioaccumulation bioassays for both reference and new work sediments. Constituents analyzed included a wide suite of analytes including volatile organic compounds (VOC), semi-volatile VOCs (SVOC), Polyaromatic Hydrocarbons (PAH), Metals, Mercury, Pesticides, Polychlorinated Biphenyls (PCB), Total Petroleum Hydrocarbon (TPH), Total and Dissolved Organic Carbon (TOC, DOC), Selenium, and Ammonia.
- A lines of evidence analysis using results of sampling, testing and evaluation for offshore disposal in 2018 of the of the CCSC Entrance Channel and Extension sediment, site water, and elutriate, as well as toxicity and bioaccumulation testing, concluded that no adverse environmental effects would be expected from dredging or placement of the sediment from the project area into the NW ODMDS. The sediments from the project area met the Limiting Permissible Concentration (LPC) and were suitable for open water ocean placement.

New construction sediments are not expected to adversely impact human health or the environment, and the evaluation supported by this sampling and analysis effort included site surface water, sediment, elutriates, suspended particulate phase (SPP) bioassay, direct toxicity bioassay, and bioaccumulation bioassays for both reference and new work sediments.

The proposed further extension outward of the CCSC Entrance Channel and Extension would not be expected to be subject to impacts different from the CCSC Entrance Channel and Extension as it is undredged, existing Gulf of Mexico sea bottom. However, a Sampling and Analysis Plan has been prepared to confirm this and supports the approval to use the ODMDS sites under Section 103 MPRSA.

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<sup>5</sup> Montgomery C.R., and Bourne, E.M. 2018. Sampling, Chemical Analysis, and Bioassessment in Accordance with MPSRA Section 103, Corpus Christi Ship Channel (CCSC) Improvement Project, Entrance Channel and Extension Corpus Christi, TX. USACE Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS

## **2.0 PURPOSE AND NEED FOR PROJECT**

The purpose of the proposed project is to construct a channel with the capability to accommodate transit of fully laden Very Large Crude Carriers (VLCCs) from multiple locations on Harbor Island into the Gulf of Mexico. Factors influencing the Applicant's need for the project include:

- Allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives,
- Enhance the PCCA's ability to accommodate future growth in energy production, and
- Construct a channel project that the PCCA can readily implement to accommodate industry needs.

Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are sometimes light loaded (lightered) due to depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized CCSC deepening project is completed. Reverse lightering translates into additional vessel trips, cost, man hours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs. Non-liquid commodity movements are also trending toward larger, more efficient vessels. In order to fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA must keep pace with the global marketplace.

The need for the proposed project is driven by the considerations below, which are explained in the following paragraphs:

- Pipelines from Eagle Ford and Permian Basins are being constructed to the Port of Corpus Christi and to Harbor Island. Crude oil terminals are also being planned at Harbor Island using the Federally-authorized -54-foot deep channel that limits the ability to fully load VLCCs, decreasing efficiency by requiring reverse lightering of these vessels.
- Bolstering national energy security through the growth of U.S. crude exports.
- Protecting national economic interests by decreasing the national trade deficit.
- Supporting national commerce by keeping pace with existing and expanded infrastructure being modified or already under development to export crude oil resulting from the large growth in the Permian and Eagle Ford oil field development, which has helped the U.S. recently become the top oil-producing nation in the world.
- Improve safety and efficiency of water-borne freight movements.

The infrastructure and proximity to the major Texas shale plays makes the Port an attractive location for efficiently exporting crude oil by VLCC vessels. The PCCA has received interest from new and existing customers for developing crude oil export terminals and facilities. Production and export of crude oil and natural gas have greatly increased over the years and are providing an economic boom to the Port and the region.

Investments at the PCCA that are directly aimed at product from the Eagle Ford Shale are over \$100 million. In the latter part of July 2018, the PCCA sold more than \$216 million in bonds to fund energy export products. A portion of this money will be used for the authorized deepening of the CCSC, but

also will help fund other improvements, including a crude oil export terminal under design at Harbor Island. The new oil export terminals being planned at the Port will have loading arms, handling equipment, storage tanks, and other related facilities for larger ships including VLCCs. Similar crude export facilities are being planned by multiple other entities at Harbor Island.

More efficient transport of crude in greater volumes is the impetus for the PCCA to deepen the channel to accommodate fully loaded VLCCs. Presently, the existing channel depth requires that current crude carriers, whether VLCCs or other vessels, not depart fully loaded from the Port, or that VLCCs remain offshore while smaller tankers transfer their cargo to the larger VLCCs, a process known as reverse lightering. The inefficiency of this process is compounded by some of these smaller vessels not being able to be fully loaded while moving through the Port.

Production from the Permian and Eagle Ford basins continues to increase, and several of the major midstream companies are currently undergoing major expansions to facilitate the export of greater volumes of crude. As these exports increase, the number of lightering vessels and product carriers will also increase, adding to shipping delays and congestion inside and outside of the Port. These delays and congestion will increase the cost of transportation, which in turn will increase the cost of crude oil with the ultimate consequence of making U.S. crude less competitive in the global market.

### **3.0 SITE ANALYSIS**

The proposed project is located in the Gulf of Mexico, the southern portion of Corpus Christi Bay, and Redfish Bay near Port Aransas as shown in Sheet 1 of 23. The Port is located in Corpus Christi Bay on the south-central portion of the Texas coast, approximately 200 miles southwest of Galveston and approximately 150 miles north of the mouth of the Rio Grande. The CCSC provides deep water access from the Gulf of Mexico to the Port via Port Aransas, through Corpus Christi Bay. The CCSC extends from deep water in the Gulf of Mexico approximately 4.3 miles offshore through the Port Aransas jettied entrance, then continues for 21 miles westward to the Inner Harbor. The proposed project would be constructed within the limits of the CCSC from the Gulf of Mexico to Harbor Island, which comprises the Entrance Channel segment and approximately 2,000 linear feet of the Lower Bay segment of the CCSC. The Entrance Channel segment of the CCSC is currently maintained to a depth of -49 feet MLLW, and the Lower Bay segment to a depth of -47 feet MLLW. The CCSC has been federally authorized to a depth of -56 feet MLLW from the Gulf of Mexico to the end of the jetties in the Entrance Channel segment, and to -54.0 feet MLLW in the Lower Bay segment. Dredging work to reach the authorized depths is scheduled to begin in mid-2019.

#### **Affected Waters**

The proposed improvements to the CCSC would take place in the open water marine environment of the Gulf of Mexico and Corpus Christi Bay. Waters in the project area are navigable waters of the United States (WOUS) regulated by the USACE under Section 10 of the Rivers and Harbors Act of 1899. The areas of proposed channel deepening are unvegetated. Deepening of the CCSC would take place in WOUS, and the proposed improvements were detailed in Section 1.1 above, and were shown in Sheets 2 through 8 of 23. The estimated amounts of new work dredging and maintenance dredging were also listed in Sections 1.1 and 1.2. Similarly, waters occurring in the areas of proposed dredged material placement, whether for upland placement or for BU, are also navigable waters of the United States (i.e. subject to the ebb and flow of the tide) regulated by the USACE. The channel amounts were determined using Computer Aided Design (CAD) and Geographical Information System (GIS) analysis with proposed channel widths and projected daylight lines (where channel template meets existing bathymetry) using the most current bathymetric data available from the USACE and surveyed for this project. The estimated amount of WOUS was 1,664 acres between the projected side slopes of the

deepened channel. Of that, a very small patch of seagrass is mapped in the Aransas Pass within the jetties. Approximately two acres of upland at the southwest corner of San Jose Island falls within the daylight of the projected side slope of the turning basin expansion. The expansion footprint was based on empirical design criteria in Engineer Manual (EM) 1110-2-1613 *Hydraulic Design of Deep Draft Navigation Projects*, and without consideration of the potential use of sheet piling to reduce the side slope required. Additional ship simulation will be conducted in 2019 to determine if the required turning basin diameter can be reduced. A summary of potential impacts of the channel WOUS including wetlands is summarized in Table 3.1.

For placement impacts, GIS features based on the proposed template extent using existing National Oceanic and Atmospheric Administration (NOAA) bathymetry and CAD analysis were used in conjunction with existing seagrass and oyster habitat mapping downloaded from NOAA, Texas General Land Office (TGLO) and Texas Parks & Wildlife Department (TPWD). The National Wetland Inventory (NWI) data was used to identify potential mapped wetland habitat. Open water acreage was derived using a land, shoreline and water data set sourced from ESRI and Texas Department of Transportation (TXDOT), which was found to match aerial imagery well. Habitat features were clipped using the placement footprints and review of the mapped habitat was conducted using a current ESRI aerial (2018) to verify the nature of mapped features. A summary of potential impacts of the placement plan to WOUS including wetlands, and other special aquatic sites is provided in Table 3.2. The comments in the table show individually the results of aerial review in examining the nature of the mapped habitat. In several cases, the NWI identified ponded features early in the life of an active PA that have since been filled. In others, the feature had eroded away. In various cases, the BU feature is a shoreline restoration that would protect resources in the interior of the BU feature, such as M4, and not impact all the interior mapped acreage. Reductions of these acreages from being counted as adverse impacts are shown in the adjustment column, and the net result is shown as the estimated adverse impact. The bottom of the table summarizes the acreage that after considering the aerial review would likely be adversely impacted. For each impact at each site, measures that could minimize or replace the impacted habitat are identified

The PCCA's environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary and b) environmental sustainability in the development of PCCA facilities and in ongoing port operations. The PCCA's goal is to execute projects in a manner that restores resources impacted by a project, and to contribute to resource restoration as a result of project actions even if the project impacts are minimal. The PCCA's practice is to consider and incorporate BU activities where practicable in managing dredged material generated by channel projects.



Table 3.1: Channel Impacts to Gulf and Estuarine Bottom (See Sheet 2 through 4 of 23)

Channel Impacts to Waters of the U.S.		Channel Acres			Channel Impact		
Segment	Impact	Toe to Toe	Total Including Side Slope	Side Slope Acreage	Upland Acreage	Seagrass Acreage	WOUS (Deepwater)
New Entrance Channel Extension	Deepening from natural depth (varies -62 ft to -81 ft MLLW) to -77 ft MLLW + 2 ft adv. maint.+ 2 ft overdredge <b>(-81 ft MLLW)</b>	455.4	588.8	133.4	-	-	588.8
54-foot Authorized Entrance Channel Extension	Deepening from -56 ft MLLW to -77 ft MLLW + 2 ft adv. maint + 2 ft overdredge <b>(-81 ft MLLW)</b>	146.9	260	113.1	-	-	260
Existing Channel	Deepening from -56 ft MLLW to -77 ft MLLW +2 ft adv. maint +2 ft overdredge (-81 ft MLLW) and from -54 ft MLLW to -75 ft MLLW +2 ft adv. maint +2 ft overdredge <b>(-79 ft MLLW)</b>	518.9	734.8	215.9	2.00	0.11	732.69
Turning Basin (area outside of the existing basin footprint) and Flare	Deepen portions of the Lydia Ann Channel from between -54 ft MLLW to <b>-75 ft MLLW</b>	56.68	82.42	25.74	-	-	82.42
<b>TOTAL</b>		1,178	1,666	488	2.00	0.11	1,664

**Table 3.2: Impacts to Mapped Aquatic Habitat (See Sheet 9 of 23)**

Placement Option	Total Site Acres	Mapped Habitat									Open Water WOUS (ac.)
		Wetland					Seagrass				
		Acres	Predominant Type	Comment	Impact Review Adjustment	Est. Adverse Impact	Acres	Comment	Impact Review Adjustment	Est. Adverse Impact	
B1	80.0	-	-	-	-	-	-	-	-	-	80.0
B2	80.5	-	-	-	-	-	-	-	-	-	80.5
B3	83.8	-	-	-	-	-	-	-	-	-	83.8
B4	83.8	-	-	-	-	-	-	-	-	-	83.8
B5	83.8	-	-	-	-	-	-	-	-	-	83.8
B6	83.8	-	-	-	-	-	-	-	-	-	83.8
B7	124.0	-	-	-	-	-	-	-	-	-	124.0
B8	124.0	-	-	-	-	-	-	-	-	-	124.0
B9	124.0	-	-	-	-	-	-	-	-	-	124.0
HI-E	138.7	36.2	Estuarine and Marine Wetland	Features appear to have eroded away	-7.7	28.6	0.0	-	0.0	0.0	3.3
M3	332.6	-	-	-	-	-	17.1	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too.	-9.5	7.6	332.6
M4	702.6	68.9	Estuarine and Marine Wetland	Interior wetlands that would be avoided, and exterior would be integrated with through placement	-68.9	0.0	571.5	Interior acreage would not be impacted except at fringes. BU feature would protect this from further loss.	-571.5	0.0	546.3
PA9-S	329.3	-	-	-	-	-	3.1	Restoration of larger area to create uplands. In recent years aerials do not show evidence of Seagrass stands. If in existence seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-3.1	0.0	308.8
M10	769.9	-	-	-	-	-	2.5	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too. In recent years aerials do not show evidence of Seagrass stands. If in existence seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-2.5	0.0	752.9

Placement Option	Total Site Acres	Mapped Habitat									Open Water WOUS (ac.)
		Wetland					Seagrass				
		Acres	Predominant Type	Comment	Impact Review Adjustment	Est. Adverse Impact	Acres	Comment	Impact Review Adjustment	Est. Adverse Impact	
MI	362.2	211.7	Estuarine and Marine Wetland	Consists of entirely of unconsolidated shoreline to be restored	-211.7	0.0	-	-	-	-	262.1
NW_ODMDS	1180.4	-	-	-			-	-	-	-	1180.4
PA4	163.1	51.5	Freshwater Emergent Wetland	Identified within active PA or Feature appear to have eroded away	-51.5	0.0	0.0	Minor fringe impact. BU would protect much larger seagrass area from future losses.	0.0	0.0	3.3
PA6	269.8	143.0	Lake	Identified within active PA. Feature appears associated with earlier filling of this PA and is no longer apparent in current aerials.	-143.0	0.0	-	-	-	-	0.8
SJI	593.0	279.4	Estuarine and Marine Wetland	Consists of entirely of shoreline to be restored	-279.4	0.0	-	-	-	-	334.3
SS1	307.6	157.3	Estuarine and Marine Wetland	Would be replaced by created upland to protect seagrass area behind it from future loss	0.0	157.3	94.1	Restoration of shoreline to bolster against future erosion of much larger area of seagrass behind feature. Due to shifting uplands and erosion over recent years much of the seagrass no longer appears to be visible within aerials.	-43.3	50.8	81.4
SS2	94.8	36.5	Estuarine and Marine Wetland	Unconsolidated shoreline that eroded away during Harvey. Placement would restore protective shoreline for interior sand flats.	-36.5	0.0	-	-	-	-	-
TOTALS	6111.7	984.5				185.9	688.3			58.5	4,673.9
							Sum of all Habitat Acreage				6,346.7
									Estimated Adverse Impacts (Seagrass & Wetlands)		All Habitat
							Sum of all Impacted Mapped Habitat Acreage		244.4		4,918.2

### 3.1 Threatened and Endangered Species

The U.S. Fish and Wildlife Services (USFWS) Information for Planning Conservation (IPaC) report identified 16 federally listed or proposed to be listed species that have the potential to occur within Nueces and Aransas Counties. According to TPWD, there are 39 state listed species that have the potential to occur within Nueces and Aransas Counties. The National Marine Fisheries Service (NMFS) lists 15 marine species with the potential to occur along the Texas Gulf Coast. Table 3.3 summarizes species that are listed as endangered, threatened, or candidate by USFWS, TPWD, or NMFS.

Of the federally-listed species, the following species are expected to have the relevant type of habitat present in the waters and aquatic habitat of Corpus Christi and Redfish Bays, and along the barrier islands of Mustang Island and San Jose Island, in the vicinity of the proposed project: Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), West Indian Manatee (*Trichechus manatus*) Green sea turtle (*Chelonia mydas*) Hawksbill sea turtle (*Eretmochelys imbricate*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Leatherback sea turtle (*Dermochelys coriacea*), and Loggerhead sea turtle (*Caretta caretta*)

In addition to the federally-protected species, the TPWD maintains separate county-specific lists of threatened and endangered species that may potentially occur as resident or migrant species in the project area. The TPWD protected species are listed in the following table. All species listed in the following table were compiled from USFWS and TPWD county-specific lists for Nueces and Aransas Counties. State-listed species with “rare” designation were not considered due to their non-regulatory status under the Endangered Species Act.

**Table 3.3: Listed Threatened, Endangered, and Candidate Species for Nueces and Aransas Counties, TX**

Common Name	Scientific Name	Listing Status		
		USFWS IPaC List	TPWD	NMFS
Amphibians				
Black-spotted newt	<i>Notophthalmus meridionalis</i>	NL	T	NL
Sheep frog	<i>Hypopachus variolosus</i>	NL	T	NL
South Texas siren (large form)	Siren sp 1	NL	T	NL
Birds				
Attwater's greater prairie-chicken	<i>Tympanuchus cupido attwateri</i>	E	E	NL
Bald Eagle	<i>Haliaeetus leucocephalus</i>	DL	T	NL
Black rail	<i>Laterallus jamaicensis</i>	PT	NL	NL
Botteri's sparrow	<i>Peucaea botterii</i>	NL	T	NL
Golden-cheeked warbler	<i>Setophaga chrysoparia</i>	E	E	NL
Northern Aplomando				NL
Falcon	<i>Falco femoralis septentrionalis</i>	E	E	
Piping Plover	<i>Charadrius melodus</i>	T	T	NL
Red Knot	<i>Calidris canutus rufa</i>	T	NL	NL
Reddish Egret	<i>Egretta rufescens</i>	NL	T	NL
Rose-throated becard	<i>Pachyramphus aglaiae</i>	NL	T	NL
Sooty Tern	<i>Onychoprion fuscatus</i>	NL	T	NL
Swallow-tailed kite	<i>Elanoides forficatus</i>	NL	T	NL
Texas Botteri's Sparrow	<i>Peucaea botterii texana</i>	NL	T	NL
Tropical parula	<i>Setophaga pitiayumi</i>	NL	T	NL

Common Name	Scientific Name	Listing Status		
		USFWS IPaC List	TPWD	NMFS
White-faced Ibis	<i>Plegadis chihi</i>	NL	T	NL
White-tailed hawk	<i>Buteo albicaudatus</i>	NL	T	NL
Whooping Crane	<i>Grus americana</i>	E	E	NL
Wood stork	<i>Mycteria americana</i>	NL	T	NL
<b>Fishes</b>				
Opossum pipefish	<i>Microphis brachyurus</i>	NL	T	NL
Oceanic whitetip shark	<i>Carcharhinus longimanus</i>	NL	NL	T
Giant manta ray	<i>Manta birostris</i>	NL	NL	T
<b>Mammals</b>				
Gulf Coast Jaguarundi	<i>Herpailurus yagouaroundi cacomitli</i>	E	E	NL
Ocelot	<i>Leopardus pardalis</i>	E	E	NL
Humpback whale	<i>Megaptera novaeangliae</i>	E	E	E
Southern yellow bat	<i>Dasypterus ega</i>	NL	T	NL
West Indian Manatee	<i>Trichechus manatus</i>	T	E	NL
White-nosed coati	<i>Nasua narica</i>	NL	T	NL
Fin whale	<i>Balaenoptera physalus</i>	NL	NL	E
Sei whale	<i>Balaenoptera borealis</i>	NL	NL	E
Sperm whale	<i>Physeter macrocephalus</i>	NL	NL	E
Gulf of Mexico Bryde's whale	<i>Balaenoptera edeni – subspecies</i>	NL	NL	C
<b>Corals</b>				
Lobed star coral	<i>Orbicella annularis</i>	NL	NL	T
Mountainous star coral	<i>Orbicella faveolata</i>	NL	NL	T
Boulder star coral	<i>Orbicella franksi</i>	NL	NL	T
Elkhorn coral	<i>Acropora palmata</i>	NL	NL	T
<b>Clams/Mollusks</b>				
Golden Orb	<i>Quadrula aurea</i>	C	T	NL
<b>Reptiles</b>				
Green sea turtle	<i>Chelonia mydas</i>	T	T	T
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	E	E	E
Kemp's Ridley sea turtle	<i>Lepidochelys kempii</i>	E	E	E
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	E	E
Loggerhead sea turtle	<i>Caretta caretta</i>	T	T	T
Texas horned lizard	<i>Phrynosoma cornutum</i>	NL	T	NL
Texas indigo snake	<i>Drymarchon melanurus erebennus</i>	NL	T	NL
Texas scarlet snake	<i>Cemophora coccinea lineri</i>	NL	T	NL
Texas tortoise	<i>Gopherus berlandieri</i>	NL	T	NL
<b>Plants</b>				
Black lace cactus	<i>Echinocereus reichenbachii var. albertii</i>	E	E	NL
Slender Rush-pea	<i>Hoffmannseggia tenella</i>	E	E	NL
South Texas Ambrosia	<i>Ambrosia cheiranthifolia</i>	E	E	NL

E = Endangered, T = Threatened, C = Candidate, DL - Delisted, NL = Not Listed

Of the five turtle species that are listed by the NMFS and USFWS, only the Kemp's Ridley, green, and loggerhead sea turtles are likely to occur in bay waters in the vicinity of the proposed project area. The

hawksbill and leatherback sea turtles are not likely to be found within the project area due to a lack of suitable habitats. Hawksbill sea turtles are unlikely to occur in the project study area, as they prefer clear offshore waters where coral reef formations are present. Leatherback sea turtles are unlikely to occur in the project study area, as they primarily inhabit the upper reaches of the ocean, and also frequently descend into deep waters from 650 to 1,650 feet in depth.

Critical habitat in the proposed project footprint is shown in Figure 3.2. Critical habitat for the loggerhead sea turtle (Sargassum habitat) was designated in 2014 for the offshore waters of the Gulf of Mexico (LOGG-S-2 Gulf of Mexico Sargassum) that includes an existing NW ODMS and 10.57 nautical miles of the outer channel and approach channel dredging segments. LOGG-S-2 Gulf of Mexico Sargassum critical habitat contains developmental and foraging habitat for young turtles where surface waters form accumulations of floating material, especially Sargassum.

Dredging operations for the proposed project would be conducted primarily using hydraulic cutterhead dredges, which move at slow enough speeds that turtles would be able to move out of the way of the hydraulic cutterhead. Non-hopper dredges are not known to take sea turtles.<sup>6</sup> It is anticipated that hydraulic dredging for the project would not cause adverse impacts to sea turtles.

Hopper dredging may be used for channel segments where material and placement is more suitable for hopper dredging. In those cases, material would be transported and placed by hopper dredge. The impact of hopper dredging is being determined in the Biological Assessment (BA) but is expected that impacts would not adversely affect loggerhead sea turtles that use critical habitat when Sargassum is present, following recent clarification to the 2007 Gulf of Mexico Regional Biological Opinion (GRBO) on hopper dredging.<sup>7</sup> The best management practices (BMPs) recommended in the GRBO would be employed when hopper dredging. Therefore, dredging associated with the proposed project is unlikely to have long-term negative effects on this species other than temporary displacement of individuals from the channel area, which would also be expected during regular maintenance dredging of the channel.

The proposed NW ODMS may impact this critical habitat during the placement of dredged material; however, this ODMS is already approved for use, and a 2016 NMFS memo clarified that any temporary turbidity plumes generated by dredged material placement would be unlikely to cause lasting impacts to Sargassum habitat or juvenile sea turtles that may be foraging in the area.<sup>8</sup>

Critical habitat for wintering piping plovers on the Texas Gulf Coast was designated by the USFWS in 2001 and was expanded to its current extent in 2009. Numerous factors determine critical habitat placement, including consistent winter occupancy, wetlands inventory data, habitat fragmentation, and availability of foraging, feeding, and roosting areas. Proposed PA SJI located on San Jose Island and SS2 located within Corpus Christi Bay (along the southern toe of the CCSC and adjacent to the Port Aransas Nature Preserve) would impact designated final critical habitat. Both these proposed PAs experienced a significant amount of coastal erosion during Hurricane Harvey in 2017, and have been

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<sup>6</sup> NMFS. 2003. Endangered Species Act - Section 7 Consultation Biological Opinion – Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287). National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division St. Petersburg, Florida

<sup>7</sup> NMFS. 2016. Roy E. Crabtree/NOAA Fisheries March 4, 2016 Memorandum to Alvin B. Lee, SES/USACE, South Atlantic Division, Subject: Continued Operations of Maintenance Dredging and Beach Sand Placement Actions under the 2007 Gulf of Mexico Regional Biological Opinion (GRBO)(I/SER/2015/17543).

<sup>8</sup> NMFS. 2016. Roy E. Crabtree/NOAA Fisheries March 4, 2016 Memorandum to Alvin B. Lee, SES/USACE, South Atlantic Division, Subject: Continued Operations of Maintenance Dredging and Beach Sand Placement Actions under the 2007 Gulf of Mexico Regional Biological Opinion (GRBO)(I/SER/2015/17543)

targeted for beach nourishment and BU with this project.<sup>9</sup> Barrier island and beach erosion can be accelerated in the aftermath of large storm events<sup>10</sup>; therefore, preservation of this critical habitat is paramount in a time of increasing development and industrialization along the Texas Gulf Coast.

PA SJI is located almost entirely within critical habitat unit TX-15, designated as an essential feeding and foraging sparsely vegetated dune complex. Immediately behind and adjacent to PA SJI and TX-15 is a separate critical habitat unit, TX-16. TX-16 is composed primarily of tidal flats utilized by the piping plover for feeding and foraging. Although portions of the eroded foredunes within TX-15 may now operate as tidal flats, this habitat type is amply available within unit TX-16, which remained relatively intact despite the effects of Hurricane Harvey on other habitats along the coast. Restoring TX-15 to its former appearance and functionality will protect not only San Jose Island, but the function and durability of TX-16 as well.

PA SS2 along the southern toe of the CCSC and adjacent to the Port Aransas Nature Preserve would restore an eroded berm originally composed of dredged material placed along the channel to combat vessel wake generated erosion. Hurricane Harvey and vessel wake from normal channel traffic have caused inflow into this tidal area at two locations, and placement of dredged material to shore up this berm would restore the channel shoreline to its former appearance and functionality. The U.S. Geological Survey (USGS) suggests that coastal areas that have demonstrated erosion after large storm events are more susceptible to erosion from normal tidal processes.<sup>11</sup> Fall or winter construction within PAs SJI and SS2 may temporarily displace wintering plovers from the area; however, the benefit of long-term habitat preservation of these areas accomplished by dredged material placement outweighs any negative short-term impacts that may result from construction.

As shown on the Figure 3.2, dredged material from maintenance work would be placed in the existing ODMDS No. 1 near the CCSC, proposed offshore feeder berms B-1 through B-6, or existing PA 2, as material suitability allows.

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<sup>9</sup> Goff, J., Swartz, J.M., and S.P.S Gulick. 2017. An Outflow Event on the Left Side of Harvey: Erosion of Barrier Sand and Seaward Transport Through Aransas Pass. American Geophysical Union, Fall Meeting 2017. Available at: <http://adsabs.harvard.edu/abs/2017AGUFMNH34B..01G>

<sup>10</sup> Houser, C., Hapke, C., and S. Hamilton. 2007. Controls on coastal dune morphology, shoreline erosion, and barrier island response to extreme storms. *Geomorphology*. Vol 100:3-4. 18pp.

<sup>11</sup> *ibid*

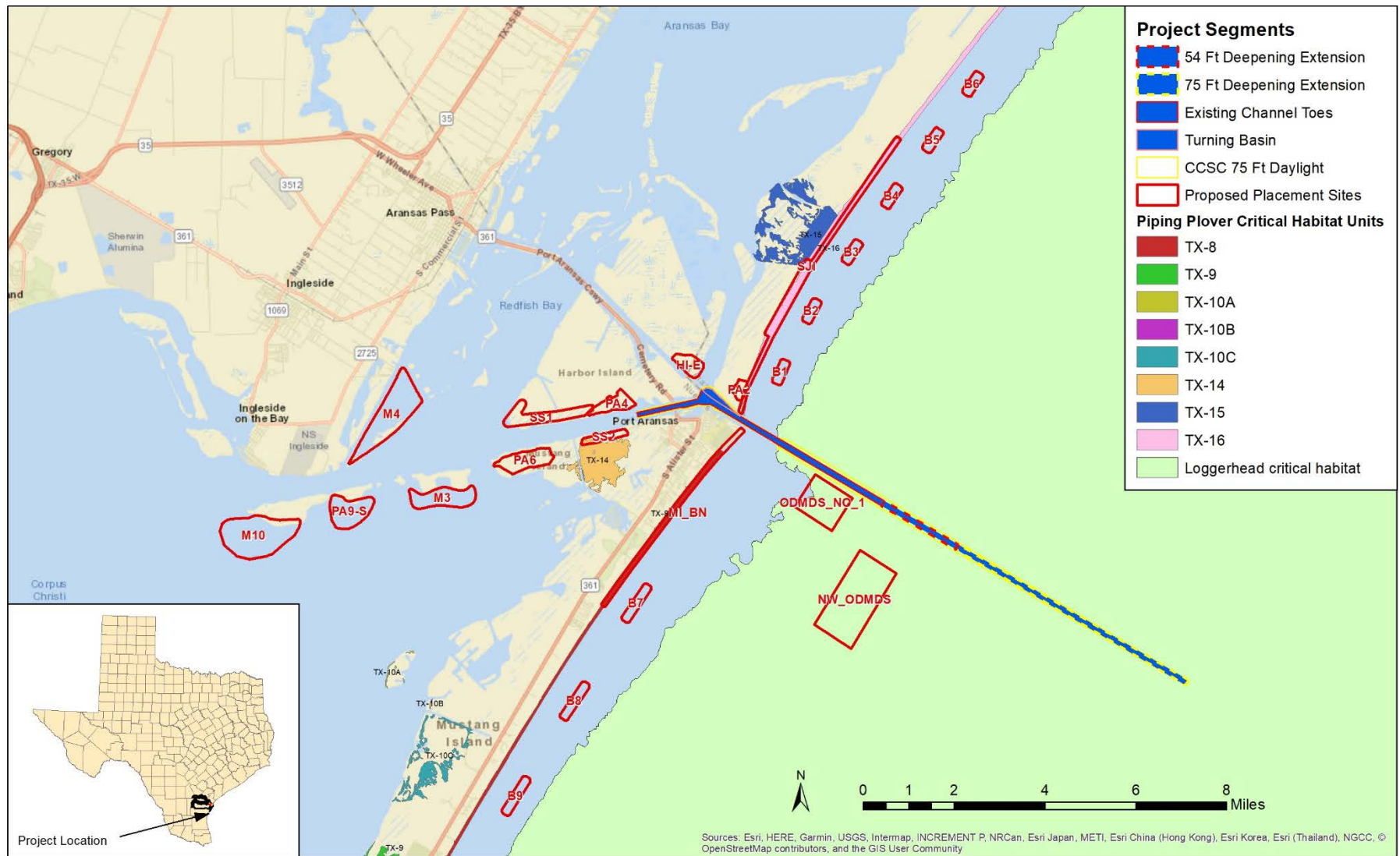


Figure 3.2: Critical Habitat within the Proposed Channel and Placement Areas



### **3.2 Cultural Resources**

The majority of the proposed channel deepening project is within the footprint of the currently authorized channel bottom and side slopes. The exception is the extension of the entrance channel into the Gulf of Mexico to meet deeper Gulf contours. Some minor incidental widening of the channel slopes is expected to meet side slope requirements of the deepened channel. Previous cultural resources investigations conducted for the channel deepening project authorized in 2003 would apply to the proposed project.

A 2018 review of the Texas Archeological Sites Atlas (TASA) maintained by the Texas Historical Commission (THC), and the online National Register of Historic Places (NRHP) database maintained by the National Park Service revealed that multiple cultural resources have been documented within one mile of the proposed project. Of the 42 recorded archeological sites within the one-mile review area, only two sites were identified within the proposed project area. One site was determined to be ineligible for listing in the NRHP, and the other site was assessed as being not significant. No structures greater than 50 years in age, no cemeteries, and no historical markers were identified within the boundaries of the proposed project.

Seventy-two shipwrecks that have not been assigned archeological site numbers were identified within the project review area. Twelve of the identified shipwrecks were located within the boundaries of the proposed channel deepening and PAs; however, only two located east of Aransas Pass are classified as State Archeological Landmarks, which suggests that these two resources may be eligible for listing in the NRHP. Sixty-eight previously completed cultural resources investigations were identified within the project review area. Fourteen of the investigations overlapped portions of the proposed project, with most of these being marine archeological surveys that examined portions of the CCSC and/or Aransas Pass. Only minor portions of some of the dredged material PAs were included in the surveys.

## **4.0 PROJECT ALTERNATIVES FOR CHANNEL IMPROVEMENTS**

### **4.1 Evaluation Criteria**

Preliminary criteria were developed to evaluate how well initial alternatives fulfilled the purpose and need of the proposed project. The initial alternatives were screened using the following general criteria:

- 1) Increase Export Efficiency – Key factors that affected the ability to fully load vessels with crude oil due to constraints of the existing channel and authorized channel were considered. This included draft limitations along the CCSC segments between the Entrance Channel and Harbor Island. This criterion considered whether the alternative allowed a VLCC to move more fully loaded and whether it eliminated or reduced lightering. Lightering would be eliminated for vessels using Harbor Island and lightering would be reduced for vessels using docks at other locations within the CCSC system.

Due to recent exponential growth in crude oil export, the Port of Corpus Christi has seen an increase in vessel tonnage. Several stakeholders' forecasts indicate that this trend will continue for a foreseeable future and beyond. As a result of PCCA's past investments in marine infrastructure and available capacity, PCCA has been capable of accommodating the recent historical shift in oil traffic from import to export. This trend is expected to continue as long as the Port's infrastructure allows it. There are concerns about future limitation to U.S. oil exports due to lack of or insufficient infrastructure capable of handling the export volumes. Lack of adequate infrastructure at U.S. ports including the Port Corpus Christi may lead to inefficient

shipping and ensuing crude price increase which may weaken the U.S.'s competitive edge (EIA 2018).

- 2) **Ability to Serve Multiple Tenants** – Part of the PCCA's mission is to meet the demand of commerce in the Coastal Bend region and throughout the world. To that end, PCCA plans its infrastructure to accommodate the needs of different stakeholders. PCCA has the ability to plan, fund, build and maintain marine infrastructures for common use such as navigation channels and dock infrastructure. PCCA owns and operates several public oil docks and bulk docks that are leased and used by different tenants. The ship channel is a common use infrastructure that is designed and operated to accommodate the different types of vessels used by PCCA's tenants. As cargo volume and vessel traffic increase, larger vessels are being used to improve shipping efficiency and reduce costs. To keep up with these trends, PCCA has undertaken several channel improvement programs. One is the dredging of the CCSC to a depth of 54-foot MLLW for which construction is imminent and will serve tenants all the way to the Inner Harbor. The other is this study to evaluate deepening up to the full depth required to accommodate fully loaded VLCCs. The terminal being planned by the PCCA at Harbor Island could be operated as a facility open for use to several users or companies, and the ability of a common use navigation channel can provide access for separate, multiple users. This criterion evaluates to what degree the alternative can benefit multiple tenants.
- 3) **Flexibility to Accommodate Future Growth/ Expansion** – This criterion considers the flexibility the alternative provides in being able to accommodate future growth in crude oil export tonnage and future growth in other sectors as well. Crude oil exports have exponentially increased in the last two years and are on pace to exceed the growth rate in 2018. Various long term projections predict much larger export tonnage if export infrastructure and the present bottlenecks in the supply chain end are improved. To that end, the ability to accommodate delivery from new crude export terminals or add capacity for exporting crude oil is important. In addition to crude oil, PCCA seeks to anticipate and be ready to accommodate all other future cargo needs and long term growth.
- 4) **Minimize Environmental Impacts** – All alternatives considered are located in the open waters of Corpus Christi Bay and the Gulf of Mexico. Therefore, environmental impacts would be limited to open water marine habitat and would primarily not involve terrestrial, wetland, or near-shore (tidal flats, beach, dunes etc.) impacts. Potential impacts to the marine environment are discussed below:

*Impact to Marine Habitats:* Existing marine habitat mapping information including seagrasses, tidal wetlands, and oyster reef from TPWD, NOAA and TGLO were obtained and used to gauge the potential for impacts. As environmental marine field surveys were reviewed, preliminary site-specific habitat locations were identified. Because the channel will be constructed within the footprint of an existing channel, no new impact to undisturbed habitat would occur within that footprint. The incremental widening that may be required to maintain the recommended design slope would be minimal and would limit undisturbed habitat impacts.

*Other environmental impacts:* Other environmental aspects that are considered for this criteria include potential impact of oil spills and air emissions from vessels and fuel transfer operations as described below. In conjunction with considerations of risk in criteria #5 below, potential impacts to environmental resources considers the location of major habitat resources (coastal shore, seagrass etc.), climatic (e.g. prevailing wind), and spill response factors. Impacts on air emissions considers how the alternative reduces transit and loading emissions from what would occur during lightered crude oil transfer operations.

- 5) Risk, Safety and Security – Safety and security are primary concerns for all vessels operating at the Port of Corpus Christi. Safety and security concerns include risk and challenges associated with oil spills and ensuing responses, fire and fire suppression activities as well as worker safety as they relate to offshore and onshore operations. Security also considers vulnerability to challenges to physical and operational security such as sabotage, and vandalism. Vulnerability to weather related events including wave height, winds and hurricanes is considered as well.
- 6) Ability to Contribute to Beneficial Uses – PCCA’s environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary, and b) environmental sustainability in the development of port facilities and in ongoing port operations. Although this is normally in the context of executing projects in a manner that restores resources from the impacts of a project, the ability to contribute to resource restoration as a result of project actions regardless of project impact can be considered also. Continuing the practice of considering and incorporating BU where practicable in managing dredged material of its channel projects, as was done in the currently authorized -54-foot project, is desirable. The ability to do this under a given alternative is considered for this criterion.

## **4.2 Initial Alternatives Considered**

The existing channel dimensions and the authorized channel dimensions are summarized as follows. As of July 2018, the CCSC has a dredged depth of -47 feet MLLW and plans are currently underway to dredge the channel to the authorized -54-foot MLLW depth, which would constitute the “No-Action” condition for the proposed channel deepening project. The CCSC is also planned to be extended into the Gulf of Mexico by 1.4 miles to the -56-foot MLLW contour as part of the federally-authorized project. The width of the channel varies as follows: from the current outer limit of the dredged channel (in the Gulf) to the Port Aransas jetties, the CCSC Entrance Channel is -47 feet MLLW deep with a width of 700 feet, and is authorized to -54 feet MLLW with a width of 700 feet. From the jetties to Harbor Island, the CCSC Entrance Channel is 600-feet wide. The remainder of channel to the La Quinta Junction has a width of 500 feet and is authorized to a width of 530 feet. It was against the limitation of the existing and authorized channel dimensions that initial alternative concepts were developed.

Initial alternatives considered to meet the project purpose included deepening the existing channel and offshore options that pump crude oil from onshore storage to offshore loading facilities. There are two basic types of such facilities: the simpler offshore single point mooring (SPM) buoy system, and the larger, more complex offshore platform or terminal system. An SPM system consists of onshore storage tanks (i.e. above ground storage tank farm) and pumps connected to pipelines leading offshore and terminating at an offshore buoy. The buoy is anchored to the seafloor that has floating loading hoses and mooring lines for the VLCC to hook up to and conduct loading operations. An SPM-based system can be built to provide loading abilities to a few vessels by adding SPMs, but would potentially require multiple pipelines depending on pipeline size and onshore pump capacity. An offshore platform or terminal system similarly uses onshore storage and pumps like the SPM, but the pipeline terminates into a pile-driven platform with conventional manifolds, loading arms and pipe racks, often with berths for several vessels. It is more complex and expensive than SPMs but typically provides more loading capacity. For both these options, the SPM or platform would have to be located in sufficiently deep offshore waters to account for draft, under keel and sea state. This would be between 13 or more miles offshore of Corpus Christi Bay at minimum considering the design depth. The following were the initial alternatives considered:

- **Alternative A – No Action.** No channel improvements and maintaining the channel at its existing depth. This option is equivalent to continuing with lightering and reverses lightering operations to offload and top off large vessels including VLCC's.
- **Alternative B – Channel Deepening.** This alternative consists of deepening the CCSC to -81 feet MLLW from the Gulf of Mexico to station 110+00, including the approximate 10 mile-extension to the Entrance Channel necessary to reach sufficiently deep waters. As a result of one-way transit assumed for VLCCs, the planned widths for the -54-foot MLLW currently authorized project are nominally sufficient. Therefore, no widening other than the minor incidental widening to keep these bottom widths and existing channel slopes at the proposed deeper depths, would occur. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. As discussed in the purpose and need in Section 2.0, multiple entities including the PCCA are planning and permitting development of crude export terminals at Harbor Island. These terminals are being planned independently of this proposed deepening project. Therefore, they would be used to accommodate partially loaded VLCCs even if the deepening project were not implemented. It is assumed 2 to 3 berths would be built at PCCA's Harbor Island terminal, and two other facilities being planned, would be expected to provide between three and four more berths. Existing VLCC berth plans at Ingleside would provide three berths. Under this alternative, light-loaded VLCCs at Ingleside would top off at Harbor Island rather than lightering.
- **Alternative C – Offshore Single Point Mooring (SPM) Facility.** This alternative is an SPM-based system consisting of constructing onshore storage facilities, shore-to-SPM pipelines, and a series of SPMs to load several vessels simultaneously. Conceptually, the onshore storage could be those that would be installed in any one of the marine terminal facilities at Harbor Island or Ingleside if they were converted to offshore delivery, or it could be a new location on other undeveloped property. For purposes of the initial screening, it is assumed 3 to 4 SPMs, and the requisite onshore storage, pumps, and pipelines would be built to load 3 to 4 VLCCs. This number is in the range of facilities built in past offshore terminal projects such as the Louisiana Offshore Oil Platform (LOOP), Iraq's Al Basra Oil Terminal (ABOT), and Bulgarian/Greek Burgas-Alexandroupolis SPM facilities (Trans-Balkan Pipeline B.V.). This alternative would be located somewhere between 13 to 15 miles offshore.
- **Alternative D – Offshore Platform.** This alternative would be similar to Alternative C, except it would be constructed as an offshore platform or terminal. With a more complex system of pile-driven structures and loading arms, it is assumed that pipelines, arms, and berths to service a minimum of 4 vessels simultaneously would be constructed. A four-berth terminal was the constructed capacity of the ABOT. Similar to Alternative C, this alternative would be located in the 13 to 15 miles offshore band, and conceptually could rely on pumping from existing/planned storage either at Harbor Island or Ingleside, or a new location.

#### 4.3 **Performance of Alternatives**

Alternative A (No Action) would not meet the purpose of the project, as it would neither provide for the short term need to more efficiently export crude oil, or provide the Port the capacity to respond to long term changes and future economic growth. However, it is retained only for NEPA purposes to compare action alternatives.

Alternative B (Channel Deepening) does respond to both the short term and long term aspects of the purpose. It most directly addresses the purpose by providing a channel capable of accommodating transit of fully laden VLCCs from multiple locations on Harbor Island, providing full vessel draft access

to export facilities already being planned there. It improves the efficiency of crude transport by enabling full loading of VLCCs and eliminating or reducing lightering, and provides a deeper channel that could accommodate vessels for other commodities should tenants, cargo, and shipping needs change. The existing or planned terminals would provide more loading berths than the typical size of multiple point/berth offshore options, although offshore options that match the onshore berth numbers could be built at greater cost. The capacity to accommodate growth in crude is more flexible as new tenants or terminals can be developed on remaining water frontage near the channel. Onshore loading (as would be used in Alternative B) is generally faster due to the greater flow rates of loading arms achievable at onshore berths compared to pumping 13 or more miles to SPM loading hoses under Alternative C. Pumping and loading arms under Alternative D, offshore platform can be made to provide high capacity loading. Dredging approximately 46.3 MCY would be required for Alternative B within the existing channel and proposed extension. Most of the impact would occur in already deepened channel, and approximately 588.8 acres of undredged Gulf bottom would be dredged to provide the entrance extension. Benthic impacts would be temporary and benthic communities would be expected to recover within 1-2 years. No oyster reef or wetland and very minimal seagrass (0.11 acres) would be impacted. This option would provide ample material to beneficially use in the many seagrass, and shoreline, habitat sites impacted by Hurricane Harvey and long term erosion. The option could potentially reduce more than 485,000 metric tons (MT) of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD. This option could reduce between approximately 38 and 112 tons of oxides of nitrogen (NO<sub>x</sub>), and between 2,200 and 9,270 tons of volatile organic compounds (VOC), both USEPA criteria pollutants, depending on whether elimination of lightering at current (approximately 1.5 VLCCs/week serviced) or potential future export rates (4 to 8 VLCCs per week) is assumed.

Offshore Alternatives C (SPM) and D (Offshore Platform) do respond to the short term need of the purpose by enabling full loading of VLCCs and partially eliminating or reducing lightering. However, they are limited in responding to the longer term needs of future economic growth and changes in port tenants and shipping needs, because they are less flexible in accommodating different grades of crude due to pump distances and flushing that could be required to switch grades. The capacity to accommodate growth in crude would require building not only more onshore storage and pumps, but new pipelines and SPMs or platforms, which would tend to be more costly and difficult to add. These options could similarly reduce CO<sub>2</sub>, NO<sub>x</sub> and VOC emissions through lightering elimination or reduction, as Alternative B. However, more vessel hoteling and pumping emissions would be produced due to the offshore location. In contrast to Alternative B, for Alternatives C and D, offshore operations in the Gulf would present more safety and spill risk challenges. The main concern are proximity of these operations to sensitive receptors and coastal habitats such as the Padre Island National Seashore, San Jose Island, and the associated Kemp's ridley turtle nesting grounds and Piping plover critical habitat, and greater exposure to wind and wave climate of the open Gulf, which would make spill containment more difficult. These options would also be in a location where response times would be greater, and access by unauthorized personnel would be greater, again due to distance from the onshore location, further increasing the national security risk.

A summary of the initial screening of alternatives is provided in Table 4.1.

#### **4.4 Screening and Selection of Channel Alternatives**

The project alternatives were assessed using the screening criteria of increasing export efficiency, serving multiple tenants, accommodating future growth and expansion, and minimizing environmental impacts. The alternatives were compared with respect to their ability to meet the project need and purpose. Following the screening of possible action alternatives, the PCCA identified the No Action and the proposed channel deepening to Harbor Island as the alternatives to be evaluated for this project. The channel deepening project alternative would be completed primarily within the footprint of the existing CCSC, maintaining the same channel bottom width and necessitating only minor incidental

widening to maintain the required side slopes. The proposed channel deepening alternative would meet the purpose and need of the project compared to the No Action alternative, as described below.

**No Action Alternative:** No channel improvements would be constructed and the existing channel would be maintained at its width and depth following the completion of the ongoing -54-foot deepening project. This alternative would not meet the need and purpose of the proposed project, as it would neither provide for the short-term need to more efficiently export crude oil, or provide the PCCA the capacity to respond to long-term changes and future economic growth. The No Action alternative is retained for comparison against the proposed action alternative.

**Channel Deepening to Harbor Island:** The action alternative would be the deepening of the CCSC to a depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two foot of allowable overdredge) from the Gulf of Mexico to Harbor Island. This alternative would meet the project need and purpose by providing a channel with the capability to accommodate transit of fully laden VLCCs from multiple locations on Harbor Island, supporting the efficient export of crude products from the Port through the elimination or reduction of reverse lightering operations. The channel deepening is proposed to be constructed primarily within the footprint of the existing CCSC. The incremental widening expected to be required to maintain the recommended design slope would be minor, and impacts to undisturbed habitat in the Gulf of Mexico would be limited.



**Table 4.1: Alternative Performance**

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>Growth/Expansion</b>	<ul style="list-style-type: none"> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<ul style="list-style-type: none"> <li>and products moving through the PCCA.</li> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel</li> </ul>	<ul style="list-style-type: none"> <li>required for each individual project.</li> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<ul style="list-style-type: none"> <li>more users even more difficult and costly than SPM</li> </ul>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightening activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightening activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightening when annual export rate averages additional 3.5 MMBPD.</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NO<sub>x</sub>, and VOC from eliminating or reducing lightening vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapor emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<ul style="list-style-type: none"> <li>Potential to eliminate 38-112 tons annual NOx and 2,200- 9,270 tons of VOC from elimination of some lightering activity</li> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapor recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	<p>positioning during loading will have to transit over 30 miles (assuming support facilities are home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated.</p> <ul style="list-style-type: none"> <li>No technically feasible method for providing vapor recovery of vapour combustion systems for reducing emissions.</li> </ul>	
<b>5) Risk, Safety and Security</b>	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<p>Port.</p> <ul style="list-style-type: none"> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	
<b>6) Ability to Contribute to BU</b>	<ul style="list-style-type: none"> <li>Beneficial use occurring under the -54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 46.3 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>

## **5.0 ATTEMPTS TO AVOID JURISDICTIONAL AREAS AND MINIMIZE WATER QUALITY IMPACTS**

The proposed project would require the dredging of earthen material from the existing CCSC and from the bottom of the Gulf of Mexico to create a channel of sufficient depth to allow for the operation of VLCCs. Because the purpose of the proposed project is to deepen the current CCSC to reduce navigation inefficiencies associated with the current channel, the proposed channel improvements must occur in navigable waters of the U.S. Alternatives to achieve the need and purpose of the proposed project that would avoid jurisdictional waters of the U.S. are not available.

The proposed channel deepening activities represent the minimum impact to the Gulf of Mexico and Corpus Christi Bay to achieve the proposed project objective of increasing navigational efficiency of the CCSC. The proposed project alternative is the least environmentally damaging practicable alternative. This alternative meets the proposed project need and purpose with the least impact to the Gulf of Mexico and Corpus Christi Bay environments. The proposed depth and channel dimensions were optimized by taking several factors into consideration. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including draft) from the variation in size among the VLCC fleet to identify the majority of vessels expected rather than the maximum possible. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized. Another factor that will be considered under 33 U.S.C. Section 408 approval and coordination with USACE Operations is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.

Dredged material generated from the project is proposed to be placed within an ODMS adjacent to the CCSC, and, for material judged by the project engineer to be suitable, would be placed in several locations along the coast and within Corpus Christi and Redfish Bays for BU. The new work and maintenance dredged material from the proposed project would be placed in an environmentally acceptable and economically feasible manner, considering technical and logistical feasibility. The section below describes the process of the identification and evaluation of the dredged material placement alternatives that meet these requirements and represent the least environmentally damaging practicable placement alternative(s).

### **5.1 Initial Placement Alternatives Considered**

To help meet the planning objective of identifying practicable dredged material placement that considered engineering, economics and the environment, initial alternatives ranging from use of existing PAs and surrounding uplands, to potential BU concepts were considered.

### **5.1.1 New Terrestrial Sites**

New terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties etc. needed for hydraulic pipelines. Near Harbor Island, surrounding uplands are limited, as they consist of Mustang Island and San Jose Island. Mustang Island has no sizable contiguous tracts within 10 miles that are not developed or are not natural barrier island, State or National refuge/parks, or aquatic habitat. The preponderance of tracts is small waterfront parcels. San Jose Island is a privately owned island that is almost entirely undeveloped natural barrier island and beach. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance which leave no available tracts for placement of dredged material. Therefore, BU and offshore placement in this vicinity was planned.

The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance. New upland sites at farther distances would be less cost effective due to farther distances required to reach sizable contiguous tracts of land, could involve impacts to terrestrial wetlands, would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability of terrestrial sites.

### **5.1.2 Initial Concepts**

Therefore, initial planning efforts focused on existing PAs and potential BU, as new upland placement opportunities were limited. Initial BU concepts were generated by considering existing agency restoration plans such as TGLO's Texas Coastal Resiliency Master Plan, recent storm damage caused by Hurricane Harvey, and BU features implemented elsewhere on the Gulf Coast. Since the proposed action consists entirely of dredging the CCSC, practical limitations associated with placement of dredged material were a primary constraint. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredged material placement can be achieved. For hydraulic dredging, most cost effective dredging occurs within 5 miles, requiring one to multiple booster pumps beyond this distance which rapidly diminishes the cost effectiveness. An initial cost effectiveness limit of 10 miles was considered. Use of hoppers and scows can achieve placement over greater distances, but this is primarily in water and requires minimum depths for vessel draft. These technological constraints factored in planning dredged material placement. The major component of dredging driving placement capacity needed is the new work dredging to construct the Proposed Action. Initial planning focused on accommodating projected new work dredging volumes.

To help, further develop dredged material placement that considered environmental impact and BU opportunities, the Applicant conducted an initial agency coordination meeting held in Corpus Christi Texas on September 21, 2018 to obtain the input of Federal, State and local resource agencies including the USACE Galveston District. Representatives from the following agencies participated in the meeting and provided input on the initial planned PA use and preliminary BUs concepts presented during the meeting:

- University of Texas Marine Science Institute (UTMSI)
- UTMSI/Mission-Aransas National Estuarine Research Reserve
- Coastal Bend Bays and Estuaries Program
- Texas Parks and Wildlife Department (TPWD)
- Texas General Land Office
- Natural Resources Conservation Services
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA) Region 6
- U.S. Fish and Wildlife Service (USFWS)
- Texas Department of Transportation

At the time that initial placement alternatives were originally conceived, only the new work quantities generated from the proposed project were considered to devise placement concepts. Figure 5.1, shown below, depicts the initial concepts presented during the agency coordination meeting. These concepts represented general categories of placement alternatives and the general vicinity where they would be located. Agency input generated a few more smaller initiatives, but did not result in major new BU sites being identified. However some concepts were reinforced and better defined based on discussions with agency representatives about site specific information and their knowledge of the ecosystem of Corpus Christi and Redfish Bays. These concepts were then analyzed in consideration of agency feedback, further conceptual development and volumetric analysis, and more research on constraints and impacts. The initial evaluation considered cost, existing technology, and logistics in light of the navigation purpose of the Proposed Action. Inherent in cost and existing technology was consideration of the aforementioned dredging method constraints, and inherent in logistics was consideration of needed placement capacities. The following synthesizes the initial concepts, evaluation, and initial screening.

#### **5.1.2.1 Existing PAs for the Current Federally-authorized CCSCIP**

The Applicant is the Non-Federal Sponsor for the authorized Federal project, and is therefore aware of commitments and long-term capacity of existing upland PAs required for the authorized project. The following uses for existing PAs were considered

- Use of existing capacity – Most of the existing PA capacity is dedicated to accommodating the new work dredging and 50-year maintenance of the Federally-authorized -54 foot project. Due to lack of uncommitted capacity, only two existing PAs were identified for use: PA4 and PA6
- Expansion of existing PA – M3, M9, and M10 expand existing PAs by using dredged material beneficially. M3 would convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat behind Pelican Island. M9 and M10 would convert featureless bay bottom to approximately 329 and 770 acres of estuarine/aquatic habitat behind PA9 and PA10, respectively.

#### **5.1.2.2 Existing 54 foot project BU sites**

Existing BU sites were examined for inclusion where possible. According to PCCA, only a handful of sites were available while others lack capacity especially with priority and consideration given to the placement needs for the CCSCIP which is expected to be constructed over the next three years. Therefore, focus was shifted to expanded existing sites by adding adjacent estuarine/aquatic habitat features or dike raisings. Open-water, unconfined BU sites were avoided completely.



#### **5.1.2.3 Bird Islands**

Rookery islands or bird islands serve as nesting, breeding, foraging and rearing areas for birds because they are isolated from the mainland and are too small to sustain populations of predators. Dredged material is often used beneficially to construct or restore bird islands.

A recent study identified several existing or new bird islands in Aransas and Nueces counties. However, most were too small in regards to capacity or sited too far (more than 15 miles away) from the project to make construction economically feasible especially with the revised project footprint. The few options that were within the preferred pumping distance were surrounded by seagrass.

#### **5.1.2.4 Oyster Pads**

Beneficially using dredged material as the pad to restore or create new for oyster reef was considered during initial planning. As identified in the TGLO's Texas Coastal Resiliency Master Plan, this option would provide vertical relief need for the restoration of oyster reefs. However, agency feedback indicated that the salinity in the area was not optimal for recruiting or supporting oyster growth.

#### **5.1.2.5 Marsh Restoration at Mustang Island**

Marsh restoration opportunities along the bayside of Mustang Island were examined during early planning. However, the area is too far away from the project to make construction economically feasible. Additionally, public feedback during open houses held in September 2018 indicated concerns regarding impacts to existing, established marsh habitat during construction.

#### **5.1.2.6 13A New BU Site**

Creating a BU feature similar to existing BU 6 was contemplated adjacent to the existing PA13. This became a less favorable option due to distance. It was reconfigured in the second stage of placement plan development as a contingency upland extension to PA13.

#### **5.1.2.7 New Work ODMDS**

Use of the portion of this site for new work placement that is not being used by the -54 foot Federal Project was proposed. This site is a dispersive site, and Multiple Dump Fate (MDFATE) modeling was conducted to analyze the capacity for project use.

#### **5.1.2.8 San Jose and Mustang Island Feeder Berms or Shoreline Repair**

The project team reviewed recent aerials and LiDAR data on San Jose Island to determine that there was a substantial amount of repair for dune breaches and foreshore erosion. Similarly, the Texas General Land Office (TGLO) identified areas of both Mustang and San Jose Islands that have experienced historical receding at the rate of 2 feet or more per year. The large amount of sand that would be produced by the project could be used to repair or indirectly nourish these islands

### **5.1.3 Screening of Initial Concepts**

Table 5.1 provides a summary of the screening of initial concepts. Some of these placement options have since been eliminated from further evaluation because of a change in project scope. The preferred alternative was determined to be deepening the channel to Harbor Island, a shorter reach, which requires less PAs. As a result some of the concepts identified during the agency coordination

meeting were also eliminated from further consideration. However, some of these were reconceived as different BU initiatives, such as expansion of existing PA and BU sites.

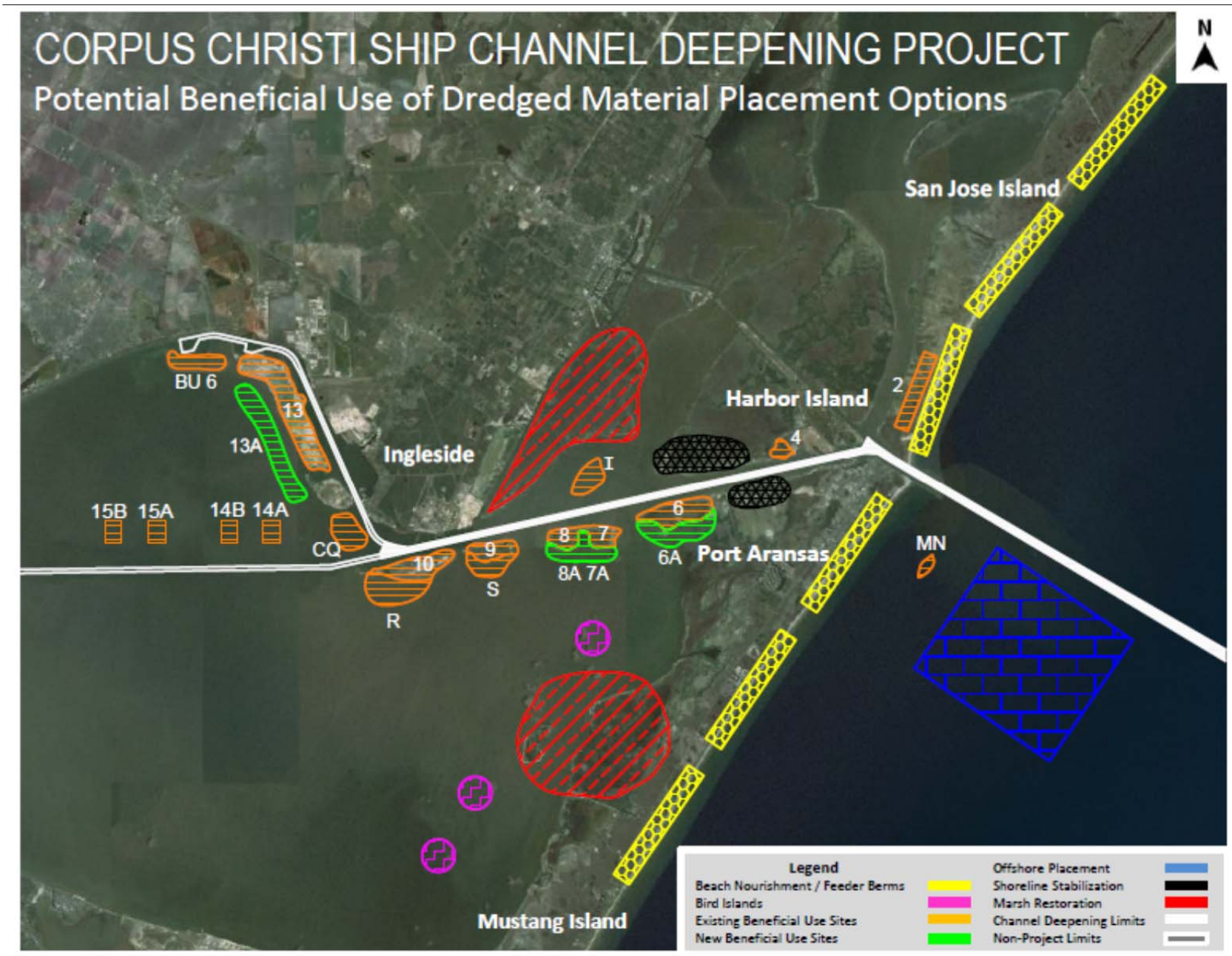


Figure 5.1: Initial Dredged Material Placement Concepts

**Table 5.1: Initial Placement Area Screening**

<b>Concept</b>	<b>Logistics</b>	<b>Technology</b>	<b>Cost</b>	<b>Determination</b>
New Terrestrial Upland Site	Too many issues involving infrastructure, distance, limited parcel size and availability	Pump distance and potential pumping constraints further inland	Logistics factors could make it costly to implement.	Eliminated
Existing PAs for the Current Federally-authorized -54 foot MLLW project	Limited available placement capacity	Feasible	Would be cost effective, but no capacity.	Eliminated for existing, but reconceived for expansion.
Existing 54 foot project BU sites	Limited available placement capacity	Feasible	Would be cost effective, but limited capacity.	Eliminated for existing, but reconceived for expansion.
Bird Islands	12 acre site size criteria limits capacity to place	Feasible	Would likely have higher unit implementation cost due to small size	Eliminated due to distance, and limited capacity
Oyster Pads	Distance from Harbor Island would be far.	Salinity in the area not optimal	Rock for cultch recruitment surface could be a major expense	Eliminated
Marsh Restoration at Mustang Island	Public concerns about impacting existing habitat	Feasible	Could be cost feasible	Eliminated
13A new BU Site	Distance from Harbor Island is far.	Feasible	Distance would make it more costly	Eliminated
NW ODMDS	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced
San Jose and Mustang Island Feeder Berms and Shoreline Repair	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced

## **5.2 Placement Alternatives Evaluated Further**

The initial alternatives that were advanced or reconceived were refined. Given the large amount of materials that could be beneficially used, especially the large volume of sand in one of the channel segments, and proximity of some of the desirable BU options, it became clear, a mix of existing offshore, expansion of existing BU sites and the Gulf side BU initiatives would be a viable, cost effective approach. Of 13 initiatives further refined, 11 were BU features that aimed to achieve a variety of shoreline restoration, land loss restoration, marsh cell expansion, and Gulf-side shoreline initiatives. The following alternatives were developed.

- M3 – Creation of an estuarine/aquatic habitat extension at Pelican Island. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- M4 – Restoring historic land and marsh loss at Dagger Island. This is an ecosystem restoration measure included in USACE's Coastal Texas study and the TGLO Coastal Resiliency Master Plan. Design of project elements will be coordinated to support TPWD's existing permit for this project.
- PA9-S – This option will extend the upland placement of dredged material behind PA9. This area was originally identified as Site R in the CCSCIP for the creation of shallow water habitat, but current projections from the PCCA are that there will not be enough material from that project to create that site.
- M10 – Creation of an estuarine/aquatic extension behind PA10. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- PA6 – Raising levees on PA6, after the CCSC CIP one time use, by 5 feet and filling it with 4 feet of new work material at the existing PA6 location.
- SS1 – Restoring eroded shoreline to a higher elevation than what was previous to prevent future land breaches as a result of storm events, the restored feature will be armored to protect the very large seagrass area behind Harbor Island.
- SS2 – Restoring shoreline washouts along the Port Aransas Nature Preserve/Charlie's Pasture as a result of Hurricane Harvey. Piping plover sand flat critical habitat located behind this breach would be protected again. Design of project elements will be coordinated with TGLO's restoration efforts for this area.
- PA4 – Reestablish eroded shoreline and land loss in front of PA4. The shoreline has undergone major erosion over the last few decades, and if it continues, would eventually expose the Harbor Island seagrass area to erosion and loss.
- SJI – Dune & shore restoration at San Jose Island using new work sands to repair severe damage caused by Hurricane Harvey.
- NW ODMDS – Placement in New Work ODMDS (Homeport).
- B1-B9 – Feeder berms offshore of SJI and Mustang Island that would be located within the active transport zone in front of the depth of closure, and indirectly nourish these barrier islands.
- HI-E – Restore eroded bluff at the junction of the CCSC, Aransas Channel and Lydia Ann Channel and will be armored to prevent future erosion. The bluff will be restored to its historic shape and

new work material will be placed behind the bluff with a levee raise around the site. According to USGS historical topographic maps for Port Aransas, Texas, SE/4 Aransas Pass 15' Quadrangle, this site appears to have been created from Aransas Channel spoils around 1967-1968.

- MI – Mustang Island beach nourishment, this feature is intended to directly place new work sands to enhance the shoreline from the south CCSC jetty five (5) miles along the Gulf side of Mustang Island.

### **5.3 Applicant's Proposed Placement Plan**

All the proposed options would be viable due to proximity, material volume capacity, and need for material to achieve ecological restoration. The large volume of sands indicates that material placement would be better used for BU restoration of important coastal resources that were damaged by Hurricane Harvey and experience continuing erosion. The availability of other new work material such as clays could opportunely be used to stem land losses that would expose sensitive habitats to continual erosion. These materials would be better used in these initiatives than in upland placement that avoids the marine environment and provides no benefit. All options were selected, with M9 and M10 providing extra capacities as a contingency for unavailability of SJI. Therefore, more capacity was identified to provide flexibility in the plan. Table 5.1 lists the selected placement plan elements.

**Table 5.2: Selected New Work Placement Plan (See Sheet 9 of 23)**

Placement Option	Description	Placement Capacity (CY)	Proximity to New Work Dredging Operations	Provides Environmental Benefit
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	3,798,000	Located approximately 6 miles from Harbor Island	This option will convert featureless bay bottom to approximately 300 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	Located approximately 7 miles from Harbor Island	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
PA9-S	Upland Placement Site Expansion behind PA9	9,000,000	Located approximately 8 miles from Harbor Island	This option does not restore aquatic habitat, it will convert featureless bay bottom to upland.
M10	Estuarine/aquatic habitat creation adjacent to PA10	10,933,600	Located approximately 10 miles from Harbor Island	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	5 foot levee raise and fill	1,796,400	Located approximately 4 miles from Harbor Island	This option does not create any environmental benefit.
SS1	Restoring eroded and washed out shoreline	4,800,000	Located approximately 3 miles from Harbor Island	This option restores an eroded shoreline landmass and provides protection to Harbor Island Seagrass area.
SS2	Restore shoreline washouts along Port Aransas Nature Preserve as a result of Hurricane Harvey	669,700	Located approximately 2 miles from Harbor Island	Shoreline restoration that fills in the washouts caused by Hurricane Harvey that protects Piping Plover critical sand flat habitat.
PA4	Reestablish eroded shoreline and land loss in front of PA4	3,020,000	Located approximately 2 miles from Harbor Island	This option provides protection to Harbor Island seagrass area.
HI-E	Bluff and Shoreline restoration with site fill	1,825,000	Located less than 1 mile from Harbor Island	This option restores an eroding bluff and shoreline to its historic profile.
SJI	Dune and beach restoration San Jose Island	4,000,000	Located directly next to Channel Dredging Operations	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMDS	Place on New Work ODMDS (Homeport)	13,800,000	Located directly next to Channel Dredging Operations	This option does not create any environmental benefit.
B1-B9	Feeder berms offshore of SJI and Mustang Island	8,100,000	Located less than 10 miles from Channel Dredging Operations	This option will nourish beach shoreline by natural sediment transport processes.
MI	Beach Nourishment for Gulf side of Mustang Island	2,000,000	Located directly next to Channel Dredging Operations	This option will nourish beach shoreline by direct sediment placement.
Scenarios for new work placement capacity provided and needed.		64,609,700	Total Capacity Provided	
		60,609,700	Total capacity less SJI (should that option become unavailable)	
		46,283,590	Total NW placement capacity required for Channel Preferred Alternative – Base Option	
		14,326,110	Additional Capacity less SJI (should that option become unavailable)	



## **6.0 SUMMARY OF PROPOSED PROJECT IMPACTS AND MITIGATION FOR AQUATIC HABITATS**

As shown in Table 5.2, the majority of placement options involves BU to restore aquatic habitat or protect impacted resources, and would overall benefit seagrass, estuarine/aquatic habitats, and coastal habitats. The options that indicate estuarine or aquatic habitat restoration (M3 and M10) would be targeted to restore either tidal marsh or seagrasses, dependent on further agency input and final project impact offset needs. At similar elevation to tidal marsh, portions of the site could be left unvegetated and configured to restore sand or mudflat habitats. The remaining impacts to seagrass or wetlands provided in Table 3.2 would be offset by reconfiguring these sites to be able to host the impacted habitat. Placement would be configured to provide the elevations needed conducive to successful planting or recruitment of either tidal marsh or seagrass vegetation species. As an example, at M3, part of the impacted seagrass could be offset by dedicating part of the created habitat to seagrass colonization, since planned elevations would be conducive to recruitment and establishment. Table 6.1 below provides a summary of the proposed new work placement in terms of the impact and the restoration provided. As shown, the proposed restoration of approximately 1,100 acres of aquatic habitat would exceed the actual adverse impacts of approximately 244 acres of special aquatic sites. PCCA proposes to use this restoration to offset these impacts, with the amount of the proposed acreage required to offset the impacts to be determined in consultation with the USACE. Placement volumes for these features have been initially determined assuming tidal marsh elevation. However, the DMMP has enough flexibility in the placement capacity to allow variation of the needed elevations of M3 and M10 to be configured as either habitat as necessary without constraining the overall needed placement. The table also provides an estimate of the acreage of mapped special aquatic sites that would be directly protected by features proposing to restore or bolster eroding shoreline features. This was estimated using geospatial data, using estimates of the mapped acreage directly behind the restored feature. As shown, large areas behind these features would be subject to more wind, wave, tidal flow, and vessel wake erosion from eroded land and shoreline.

## **7.0 CONCLUSION**

The PCCA understands that discharges into waters of the United States should not occur unless it can be shown that the discharge would not result in an unacceptable adverse impact on the aquatic ecosystem. It is also understood that if there is a practicable alternative to the discharge, the discharge should not occur. A practicable alternative is not available that would meet the proposed project requirements and achieve the project purpose. The proposed project would increase crude oil export efficiency for the Nation, reducing trade deficits, and fostering economic development. The result of the proposed action would be a more efficient channel to export crude oil. The proposed project meets the project purpose and need. The placement alternatives were developed in coordination with resource agencies, and considered public input during open house meetings at the start of the project. The resultant proposed placement alternatives make extensive use of BU to address ecological restoration needs that agencies desire. The volume of material and volume of sands are valuable assets, and the dredging and placement presents a unique and major opportunity to address restoration needs in this estuary and barrier island system.

**Table 6.1: Summary of Project Impacts and Proposed Restoration**

Placement Option	Description	Restoration Action	Acres				Comments
			Proposed Restoration Seagrass or Marsh	Adverse Impacts to Special Aquatic Sites (SAS)	SAS Protected	Conversion of Open Water to Upland	
HI-E	Estuarine/Marine Wetland	Restoring protective uplands and armored bluff for protection of significant seagrass acreage which lies behind	0.0	28.6	264.4	3.3	Predominantly unconsolidated shore impacted Predominantly Estuarine and Marine Wetland protected
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	Convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat.	330.0	7.6			Seagrass impacted
M4	Restoring historic land and marsh loss at Dagger Island	Restore eroding marsh habitat for native shorebirds and coastal wildlife. Design elements will be coordinated to support TPWD's existing permitted project.		0.0	615.4		Predominantly seagrass protected
PA9-S	Upland placement expansion converting 309 acres of bay bottom to upland, adjacent to PA9.	none		0.0		308.8	
M10	Estuarine/aquatic habitat creation adjacent to PA10	Convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.	770.0	0.0			
MI	Mustang Island Beach Nourishment	Nourishment creating 250 ft of aerial beach, utilizing » 2,000,000 CY of sand as storm surge and wave attenuation		0.0			
SS1	Restoring eroded shoreline and armoring to protect Harbor Island seagrass area	Restore eroding shoreline to its historic profile. Protects Harbor Island seagrass area	0.0	208.1	1,552.1		Predominantly unconsolidated shore impacted Predominantly seagrass protected

Placement Option	Description	Restoration Action	Acres				Comments
			Proposed Restoration Seagrass or Marsh	Adverse Impacts to Special Aquatic Sites (SAS)	SAS Protected	Conversion of Open Water to Upland	
SS2	Restore shoreline washout along Port Aransas Nature Preserve as a result of Hurricane Harvey	Restores two washouts of shoreline along the Port Aransas Nature Preserve as a result of Hurricane Harvey.	0.0	0.0	333.0		Predominantly Estuarine and Marine Wetland (sand flats) protected
PA4	Reestablish eroded shoreline and land loss behind PA4	Restores historically eroding shoreline and land protecting Harbor Island seagrass area.	0.0	0.0	750.6	3.3	Predominantly seagrass protected
PA6	Dike raise	none	0.0	0.0			
SJI	Dune & shore restoration San Jose Island	Restore several miles of beach profile washed away as a result of Hurricane Harvey.		0.0			
NW ODMDS	Place on part of New Work ODMDS	none		0.0			
B1-B9	Feeder berms offshore of SJI and Mustang Island	Nourish beach shoreline by natural sediment transport processes.		0.0			
<b>TOTAL</b>			1,100.0	244.3	3,515.6		

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Attachment B – Texas Commission on  
Environmental Quality  
Tier II  
401 Certification Questionnaire  
Alternatives Analysis Checklist

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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II 401 Certification Questionnaire

The following questions seek to determine how adverse impacts will be avoided during construction or upon completion of the project. If any of the following questions are not applicable to your project, write NA ('not applicable') and continue.

Please include the applicant's name as it appears on the Corps of Engineers' permit application (and permit number, if known) on all material submitted. The material should be sent to:

Texas Commission on Environmental Quality  
Attn: 401 Coordinator (MC-150)  
P.O. Box 13087  
Austin, TX 78711-3087

**Applicant's Name:** Sarah L. Garza, Port of Corpus Christi Authority  
**Assigned Permit Number:** SWG-2019-00067

#### I. Impacts to surface water in the State, including wetlands

- A. What is the area of surface water in the State, including wetlands, that will be disturbed, altered or destroyed by the proposed activity?

*The proposed activity will dredge approximately 588.8 acres of undredged ocean bottom below mean lower low water (MLLW) in the Gulf of Mexico, 329.0 acres of undredged and partially dredged ocean and estuarine bottom and 0.11 acres of seagrass adjacent to the existing and authorized Corpus Christi Ship Channel (CCSC), 665.8 acres of the existing and authorized CCSC channel bottom, 56.7 acres of estuarine bottom in the Lydia Ann Channel, and in Aransas Pass as part of proposed channel improvements.*

*For the proposed dredged material management plan (DMMP), using available Texas Parks and Wildlife Department (TPWD), Texas General Land Office (TGLO), National Oceanic and Atmospheric Administration (NOAA), and U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data, approximately 4,673.9 acres of surface waters, 688.3 acres of mapped seagrass, and 984.5 acres of mapped wetland were identified as located in the proposed placement features.*

*Of the wetlands, 238.6 acres are features that were mapped within an active Placement Area (PA) or have eroded away based on aerial review (SS2, PA4,6,HI-E), 279.4 acres are San*

*Jose Island shoreline and 211.7 are Mustang Island shoreline which are proposed for placement and would directly restore as beach or dune (SJI, MI), 68.9 acres would be avoided or integrated into [Ducks Unlimited and TPWD's] planned Dagger Island shoreline restoration (M4). 28.6 acres of wetland will be impacted by placement at Harbor Island East (HI-E), and 157.3 acres of wetland impacted at restoring an eroded shoreline to protect Harbor Island seagrass (SS1). The 185.9 acres between SS1 and HI-E would be impacted by beneficial use (BU) features proposed to protect large areas of seagrass.*

*Of the seagrass, 571.5 acres would be in the interior of M4 at Dagger Island and would be largely avoided except at the fringes of shoreline restoration which would protect this seagrass from further erosion, and of the 17.1 acres at M3 where proposed BU marsh can be reconfigured to replace impacted seagrass acreage approximately 7.6 acres are visible upon aerial inspection. PA9-S and M10 may have stands of seagrass of 3.1 and 2.5 respectively however it is not visible upon aerial inspection and is most likely sparse and tenuous as a result of focused wave energy. The remaining 50.8 acres would be impacted by shore and land loss restoration at SS1, which will protect a very large seagrass area behind Harbor Island.*

- B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

*Currently, waters of the U.S. (WOUS) and aquatic habitat within proposed project footprints have been determined using the most current existing geospatial mapping from TPWD, TGLO, NOAA, USFWS, and aerial imagery to identify open water, wetlands and seagrass. A mitigation plan has not been developed yet. Compensatory mitigation will be proposed as required, following field surveys to delineate WOUS and special aquatic sites more specifically, and assessment to determine the functions and services of these resources. The proposed DMMP for this project has been planned to use beneficially as much dredged material as possible to restore beach, shorelines, and aquatic habitat, including the types that would be impacted. Initially, BU aquatic habitat restoration sites have been planned assuming tidal marsh elevation, but the DMMP has enough available material and capacity to have the flexibility to provide the required elevation for tidal marsh, flats, or seagrass. Tables 3.1, 3.2 and 6.1 in Attachment A of the permit application detail and summarize the acreage of mapped habitat in each proposed placement feature, the estimated adverse impacts, and the proposed BU restoration. The proposed aquatic habitat restoration of 1,100 acres exceeds the estimated adverse impacts of 244 acres of mapped special aquatic sites. Except for SS1 and HI-E, the remaining seagrass and wetland impacts of the BU features would be addressed by reconfiguring the BU placement to provide suitable area for the reestablishment of impacted habitat. SSI and HI-E establish protective barriers to larger seagrass areas that would otherwise be very prone to erosion if further shoreline loss is experienced. These and several other features restore shoreline protecting approximately 3,500 acres of seagrass and marsh behind these shorelines from wind, wave, tidal flow, and vessel wake energy. The proposed BU features SJI, MI, and B1 through B9 on the Gulf side of San Jose and Mustang Islands, are all direct or indirect beach and dune nourishment intended to restore those coastal habitats from hurricane-related and long term erosion.*

- C. Please complete the attached Alternatives Analysis Checklist.

*Alternatives Analysis Checklist is attached.*

## II. Disposal of waste materials

- A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.

*No removal or destruction of existing structures is expected. Minor removal of debris and unsuitable materials encountered during dredging may be necessary during construction. Minimal disposal will be required. All material that is not re-usable will be disposed of at a properly permitted facility.*

- B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

*Sewage generated during construction would be collected on ship-board facilities or in self-contained portable toilets that would be serviced regularly. The proposed activity will be dredging in the marine environment and dredged material placement at existing placement areas (PA), beneficial use (BU) sites or proposed PA or BU sites. No wastewater services currently exist within the project area and none are included in the proposed construction.*

- C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also, discuss provisions for the disposing of sewage generated from day-to-day activities.

*N/A*

## III. Water quality impacts

- A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged used for fill.

*The proposed action would generate approximately 46.3 million cubic yards (MCY) of new work dredged material. Based on review of existing borings, approximately 17.1 MCY of the new work material would consist of clay material and 29.2 CY would consist of sand material. Placement and use of these materials is planned as follows, employing standards dredged material placement construction techniques generally described here and in more detail under Item B:*

**Offshore Placement** – *For construction of the proposed action, the existing and currently approved dispersive offshore placement site (a.k.a. New Work ODMDS) would be used to place new work clay and silty material. Placement would be by scow, hopper, or direct pipeline placement, employing standard scow or hopper operation techniques to achieve controlled deposition.*

**Repair and nourishment of Gulf-side shorelines** – *For construction of the proposed action, pending owner approval, sandy material would be used to restore dunes in large dune breaches, and restore the eroded foreshore on San Jose Island (SJI) due to damage caused by Hurricane Harvey. Standard construction techniques for beach nourishment used elsewhere on the Texas coast would be employed such as the use of temporary dewatering*



dikes to effect deposition and material retention. Restored dunes would be planted with native stabilizing vegetation to anchor dunes. Sandy and other appropriate new work material would also be used to create a series of offshore feeder berms (B-1 through B-6) that would be located within the active shoreward transport zone to indirectly nourish San Jose and Mustang Islands. According to the Texas General Land Office (TGLO) 2014 Coastwide Erosion Response Plan (CERP) and Bureau of Economic Geology (BEG) Shoreline Change Map, these islands have experienced historical shoreline erosion of approximately 2 or more feet per year. These berms would be constructed using standard submerged placement techniques for either hydraulic placement at sites closer to the point of dredging and potentially by scow for sites more distant from the point of dredging.

**Repair of bay-side shorelines and land loss** – For construction of the proposed action, new work dredged material would be used to repair eroded shorelines at Harbor Island (SS1), Port Aransas Nature Preserve [PANS] (SS2), and Dagger Island (M4) to stem further land, tidal flat and seagrass habitat loss due to damage experienced during Hurricane Harvey and over time. At SS1, containment dikes for dewatering would be used, and would have seeding on dike crowns and interiors, and armoring on the channel side. At SS2, the previous shoreline profile would be restored and would be backfilled behind it to bolster and reestablish the original land barrier to tidal sand flats in the PANS, using armoring where it previously was used in the breaches. At M4, material would be used to construct containment dikes on certain sides of Dagger Island to prevent channel sediment migration and to build/preserve marsh and seagrass elevation behind it, with these areas potentially seeded for initial stabilization and blending in with existing seagrass. M4 would provide material to implement breakwater and land loss restoration measures already permitted by TPWD and included in the USACE Coastal Texas Study and TGLO Coastal Resiliency Master Plan. Suitable new work material would also be used to build containment dikes toward the channel and fill in behind them at the existing PA4 on Harbor Island to restore severe upland losses experienced over the years. This would also help preserve the land buffer between Aransas Pass and the large seagrass habitat area behind Harbor Island to protect the seagrass habitat from future damage. Containment dikes would be seeded on the crowns and interiors, and armored on the channel side.

**Upland Placement** – For construction of the proposed action, new work material would also be used for raising containment dikes on PA 6, and to fill the interior using capacity created by dike raising. Upon the completion of construction, the dikes would be seeded and vegetated to minimize erosion.

**Estuarine/Aquatic Habitat Creation** – M3, M9, and M10 will create estuarine/aquatic habitat by placing material on bay bottom to raise elevation to optimal subtidal and intertidal marsh elevation, likely using erodible containment dike techniques previously employed elsewhere in Texas. These features would ultimately be planted or colonized by appropriate native vegetation.

**Maintenance** – Over the 10-year permit life, approximately 1.08 MCY of maintenance materials would be generated annually from the deepened channel, of which approximately 399,000 CY would be additional material due to the deepened channel. The material is expected to consist of fine grained silts, sands, and clays, and would be dredged and placed in either existing upland placement areas (PA2), ODMDS No. 1, or proposed BU feeder berms B-1 through B-6, as material suitability allows. Use of the existing sites is consistent

*with the current operations and maintenance (O&M) placement of the existing and authorized CCSC managed by the USACE Galveston District.*

*The Port of Corpus Christi Authority (PCCA) would follow the current USACE CCSC procedures used for dredging and dredged material placement during construction dredging and channel maintenance. These include standard dredging techniques to construct submerged and emergent containment dikes, and interior placement of material. These techniques are described further in Item B below.*

- B. Describe measures that would be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetative cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

*Techniques used successfully in Texas, around the U.S., and by USACE to construct stable PA and BU restoration features were described in general above. The following provides more details on these techniques which prevent short and long term erosion and turbidity.*

- **Beach nourishment temporary dewatering dikes** – *This would involve the use of in-situ sand to form a series of temporary retention dikes to dewater hydraulically pumped sand, constructed as placement moves along the shoreline.*
- **In-water placement for submerged berm, in-water dike construction or in-water fill** – *This would involve one of two potential general methods: 1) the use of diffusers and downspouts at the end of pipelines to slow exit velocities, reduce turbidity, and control material migration, to achieve focused placement to build the intended template, 2) the use of hydraulically loaded scows or hopper dredges to discharge by gravity fall during a controlled release, to minimize sediment migration and achieve focused placement around the scow or hopper.*
- **Upland dike construction** – *Material would be hydraulically pumped to create containment dikes. After dike construction riprap, rock, etc. would be added where armoring is indicated and dike side slopes would be seeded and vegetated as soon as practicable with robust and rapidly establishing species to provide long term stability.*
- **Interior filling** – *Where practicable for the type of feature, containment dikes with limited weir outlets or spill boxes designed or planned to allow retention and eventually dewatering as features become emergent. For placement on emergent interiors, interior training dikes, ditching and other enhanced dewatering techniques would be employed to further optimize material retention and dewatering.*

- C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with supporting data (Reference: Technical Report, DS-7810, Dredge Material Research Program, GUIDELINES FOR DESIGNING, OPERATING, AND MAINTAINING DREDGED MATERIAL CONTAINMENT AREAS). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.

*Technical Report, DS-78-10 is a former Waterways Extension Service (WES) publication that has been superseded by newer USACE guidance contained in Engineering Manuals (EM) including EM 1110-2-5025 Dredging and Dredged Material Management, and EM 1110-2-5027 Confined Disposal of Dredged Material, for the design of contained dredged material placement. Where applicable and appropriate, these design criteria would be used during the detailed design phase to configure feature geometry and discharge placement. For other unconfined feature construction (e.g. beach nourishment), use of the above described hydraulic placement techniques would be used.*

*The proposed action is deepening of the existing and authorized Federal channel. Maintenance for the incremental annual amount of 399,000 CY of extra shoaled material would be accomplished as part of the existing channel maintenance cycle using the existing, approved offshore dispersive site ODMDS No. 1, and if suitable material is generated, the existing PA2 on San Jose Island, and the proposed offshore feeder berms B-1 through B-9.*

- D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.

*The segment of the CCSC to be dredged for the proposed action has two wastewater discharges located directly adjacent to the channels. One is a private domestic wastewater (TCEQ Permit #12731-001) and the other brine discharge (Permit No. WQ0005253000). However, dredged materials from the CCSC to be dredged for the proposed action are not known or likely to be contaminated. The CCSC is tested and maintained in accordance with USACE sediment testing guidelines. No increases in contaminant levels is expected during dredge and fill operations.*

*The potential for contaminants has been evaluated through chemical analyses, grain-size analyses, bioassays, and bioaccumulation tests in the surrounding area as part of the Corpus Christi Ship Channel, Texas Channel Improvement Project for the current authorized Federal channel. These tests spanned a wide variety of volatile, semi-volatile (e.g. PAH), pesticide and persistent organic (e.g. PCB, dioxin) compounds, and metal constituents. The 2003 "Corpus Christi Ship Channel, Texas Channel Improvement Project, Volume I Final Feasibility Report and Final Environmental Impact Statement" concluded that contaminant studies showed that new work and maintenance dredged material from all sections of the channel, with the exception of the Inner Harbor (which is not part of the proposed action), is acceptable for offshore placement, beneficial uses in the bay or ocean, or upland placement.*

*More recent testing conducted in 2018 for the Entrance Channel segment and entrance channel extension of the CCSC for the current authorized Federal channel to support offshore placement for the purposes Marine Protection, Research and Sanctuaries Act (MPRSA) Section 103 included chemical, grain-size, bioassays, and bioaccumulation tests on new work material samples between current depths and the proposed depth of -54 feet MLLW. Testing results indicated no contaminant concerns and supported offshore placement. This recently tested segment comprises the majority of the project segment for the proposed action. The proposed action would dredge new work, in-situ geological material below the recently tested layer (from -54 feet MLLW to -80 feet MLLW), and thus would be less prone to surface human impacts. The proposed action would also dredge existing Gulf of Mexico seafloor materials to extend the entrance channel further to the -80*

*foot MLLW contour. This segment would be as or less prone to impacts than the recently tested extension for the authorized Federal channel. The proposed areas to be dredged have been extensively tested previously and/or are not prone to contamination. Despite the expectation of the extension not being prone to contamination based on the review of past nearby sampling and the environmental setting, a Sampling and Analysis Plan (SAP) has been developed for the extension for this project to confirm this expectation.*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II Alternative Analysis Checklist

#### I. Alternatives

##### A. How could you satisfy your needs in ways which do not affect surface water in the State?

*Work below mean lower low water (MLLW) of the Gulf of Mexico, Corpus Christi Bay, and Redfish Bays within the proposed project area is necessary to meet the project needs of increasing crude oil export efficiency and safety. Crude oil export efficiency and safety in the Corpus Christi Ship Channel (CCSC) cannot be improved without affecting waters in the State. The existing CCSC would need to be deepened to meet the purpose of the project, which is to construct a channel with the capability to accommodate transit of fully laden Very Large Crude Carriers (VLCC) from multiple locations on Harbor Island into the Gulf of Mexico. Multiple crude export terminals are being planned on Harbor Island to export crude oil using the authorized Federal channel being currently constructed to a depth of -54 feet MLLW, which would still require light loading of VLCCs, and supplemental lightering involving multiple other lightering vessels out in the Gulf of Mexico to fully load VLCCs, decreasing export efficiency and increasing crude transfer activity and associated risks in the Gulf. Dredging activities may affect water quality within the proposed project area by temporarily increasing turbidity and suspended sediment load in the estuarine water column. However, these temporary conditions would not be expected to adversely impact marine mammals, essential fish habitat or other aquatic resources in the study area to a significant degree.*

##### B. How could the project be re-designed to fit the site without affecting surface water in the State

*Initial crude oil export alternatives were evaluated and screened including alternatives to deepening the channel, which consisted of offshore loading facility options (See Attachment A of the Permit Application). Offshore options did not meet the purpose and need of the proposed action as well as the channel deepening alternative, and channel deepening performed better in most major criteria including export efficiency, flexibility to accommodate growth, and environmental and safety risk. Deepening the channel improves the access for terminals already being planned to export crude. Offshore options would expose San Jose Island and Mustang Island (with the National Seashore) to a greater risk of oil spills during loading activities compared to channel deepening which brings loading activities in a more controlled environment of Corpus Christi Bay. Both barrier islands which host Piping plover (*Charadrius melodus*) critical habitat and endangered sea turtle nesting beaches. Therefore, channel deepening was selected. The proposed project terminus is Harbor Island, and deepening to accommodate full loading of Very Large Crude Carriers (VLCC) and Suezmax tankers is the only navigation improvement being examined, only one channel extent and alignment was examined. Deepening of the CCSC cannot be done without affecting surface water in the State.*

##### C. How could the project be made smaller and still fit your needs?

*The deepening could be done to an optimized depth that serves the majority of the intended design vessel (VLCC) class and likely prevailing crude oil type instead of absolutely maximizing the depth for all versions of the design vessel, carrying the densest crude oil. This has already been examined and incorporated into the channel alternative selected for the proposed action. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including*

*draft) from the variation in size among the VLCC fleet. A 99<sup>th</sup> percentile set of dimensions was identified, and individual vessel dimensions clustered tightly around the selected dimensions. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized.*

*Another way the project could be made smaller is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. Geotechnical borings and analyses have been accomplished to determine the steepest stable slopes for the in situ material. Steeper slopes than the existing side slope are being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.*

**D. What other sites were considered?**

*Offshore alternatives that were initially considered, but would be located a minimum of 13 or more miles. For the reasons discussed in Item I.B above, these offshore options were eliminated. Alternative sites for increasing the efficiency of moving crude oil would require new development of terminal facilities and/or dredging completely new navigation channels; both of which are not practical, nor least environmentally damaging, and therefore were not considered. Alternative sites for dredged material placement considered were existing placement areas (PA), offshore disposal, and beneficial use (BU) sites, and a variety of new and expanded PA and BU site initiatives, within the practical distance for hydraulic dredging pipeline or scow placement. New terrestrial sites were considered in general, but were not practical due to distance, existing infrastructure and residential development, and presence of ecologically sensitive habitat and refuges in nearby terrestrial sites (e.g. Mustang Island). Details of the alternatives considered for both channel improvement and placement are in Attachment A of the Permit Application*

**1. What geographical areas were searched for alternative sites?**

*The proposed deepening must occur within the proposed project area, thereby precluding the consideration of alternative sites. For dredged material placement, initially, existing PA and BU sites used for the current and authorized CCSC stretching from the Gulf of Mexico to Ingleside, initial new BU concepts coordinated with resource agencies located from the Gulf-side of Mustang and San Jose Islands north and south of the CCSC, and throughout Corpus Christi Bay and Redfish Bay, were all considered.*

*As the proposed channel was refined to an extent from the Gulf to Harbor Island, and existing PA capacities ruled out all but a few current PA and BU sites available for use, the initial PA and BU concepts were further developed and focused to the lower Corpus Christi Bay and Gulf of Mexico. Existing sites are located on existing PAs located on Harbor Island (PA4, HI-E), Mustang Island (PA6), offshore waters adjacent near the existing channel (New Work ODMDS) or originally developed in the Bay (PA13). New BU sites located adjacent to existing PAs (M3, PA9-S, and M10) in Corpus Christi Bay, in Redfish Bay (M4), near the Port Aransas Nature Preserve (SS1, SS2), and in nearshore waters along Mustang (MI) and San Jose Islands (B1 through B9) and on San Jose Island (SJI), were considered. Most of these BU sites were associated with restoring habitat and shoreline from Hurricane Harvey damage or long term erosion and land loss. The dredged material placement alternatives were generally limited to within the 10 miles as a*

*practical and cost-feasible radius for hydraulic dredging and dredged material placement or use of scows.*

2. How did you determine whether other non-wetland sites are available for development in the area?

*Aerial imagery, appraisal district data, and distance criteria were used to determine if terrestrial sites without wetlands were likely to be viable. Both existing development, refuge and habitat presence, and property parcel sizes versus needed capacity were used to screen out the viability of terrestrial sites that might be free of wetlands. Once it was determined to use existing and new or expanded PA and BU sites, National Wetland Inventory (NWI), and Texas Parks and Wildlife (TPWD) and National Oceanic and Atmospheric Administration (NOAA) seagrass mapping were used to configure and refine PA concepts to minimize impacts. Very little mapped wetland is present in the BU sites and mapped seagrass directly in the footprint of the proposed placement is limited to natural recruitment at the shallow bathymetric margins of PA dike slopes. The initiatives to use the material beneficially will create more tidal marsh, restore shoreline that protects seagrass habitat, or repair damaged dunes and beaches in sensitive barrier island habitat.*

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

*Yes. Property at Harbor Island adjacent to the project segment of the CCSC has been leased to an operator to implement construction and long term operation of the PCCA's proposed crude oil export terminal. This is not suitable for project placement use as it is one of several properties being developed for crude export at Harbor Island serviced by the proposed deepening. No other property near the channel project have been leased or sold.*

- E. What are the consequences of not building the project?

*The No Action alternative would not increase efficiency of moving crude oil exports from the Port of Corpus Christi in support of national energy security and national trade objectives, which is the proposed project's purpose and would not increase the safety of this movement, which is an underlying need. This would result in a channel depth that forces shippers to light load their vessels, requiring multiple smaller lightering vessels to shuttle oil to deeper waters, increasing the numbers of vessels needed to move crude oil, which would increase shipping costs and volatile organic chemical (VOC) vapor and greenhouse gas emissions. This would substantially affect the ability of the CCSC to efficiently and safely accommodate the projected increase in tanker tonnage to be handled at existing and planned VLLC-capable crude oil terminals at Harbor Island and at Ingleside, as well the larger VLCCs to which industry is moving towards. This would increase costs to shippers and consumers from continued light-loading of tanker vessels. The No Action alternative would not satisfy the PCCA's mission of leveraging commerce to drive prosperity for the region and community.*

## **II. Comparison of alternatives**

- A. How do costs compare for the alternatives considered above?

*No costs were estimated for the initial channel concepts. However, offshore options consisting of Single Point Moorings (SPM) and offshore loading platforms have substantially higher long term operating and maintenance costs due to the distance over which product must be pumped from onshore storage facilities to loading points out in the Gulf of Mexico which could be as far as 13 or more miles. They are also more costly to expand with additional loading points, compared to adding berths along water frontage served by a deepened channel. For this and the aforementioned reasons discussed in I.B. the offshore options were screened out. The preferred channel improvement project is the least cost alternative that increases crude oil export efficiency. For dredged material placement, the proposed placement alternatives considered are*

*cost effective compared to new upland sites, meet the placement capacity needed, and make beneficial use of the dredged material or use of existing PA and BU sites.*

- B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

*The logistical factor that limits the consideration of alternatives is the location of the CCSC and future expected crude terminal developments. Alternative sites would require development in a new area and were not considered. The proposed project is designed to provide the needed increase in crude oil export efficiency while minimizing adverse environmental impacts to the Gulf of Mexico and Corpus Christi Bay. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredge material placement can be achieved. Terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties etc. needed for pipelines. In the vicinity of Harbor Island, there are no sizable contiguous tracts to accommodate an upland PA to contain substantial planned new work volumes on the adjacent islands of Mustang or San Jose that aren't local or national refuges, seagrass habitat, or T&E critical habitat. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance. Therefore, BU and offshore placement in this vicinity were planned. The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance.*

- C. Are there technological limitations for the alternatives considered?

*For the channel alternative selected, several technological limitations result in the selected depth, width and side slope ratios. These are the required draft to fully load a VLCC with the intended product (WTI crude), the design criteria from USACE Engineering Manuals and PIANC guidelines to determine required under keel clearances to accommodate dynamic movement due to sea state and climatic conditions, wind and current conditions constraining minimum one-way passage widths, and geotechnical slope stability. For placement, technological limitations mainly involve cost-effective hydraulic pump distances (typically 10 miles), and required draft and cost-effective travel distances for scows and hoppers,*

- D. Are there other reasons certain alternatives are not feasible?

*For channel alternatives, the primary reasons offshore alternatives are not feasible are discussed in II.A above. For placement, new upland sites would be less cost effective due to farther distances required to reach sizable contiguous tracts of land. They could involve impacts to terrestrial wetlands, and would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability*

**III. If you have not chosen an alternative which would avoid impacts to surface water in the State, please explain:**

- A. Why your alternative was selected, and

*The preferred channel alternative will deepen a channel that will already be used for crude export facilities already being planned and permitted. The preferred channel alternative would provide a substantial increase in the efficiency of crude oil exports, increase the safety of loading operations, provides more efficient loading and flexibility for future growth than offshore options, and provides material for beneficial use to areas in need of restoration. It meets the overall purpose and needs of the proposed action the best.*



*The selected depth optimizes the necessary draft to address efficient export while minimizing environmental impacts. The proposed dredged material placement alternatives were chosen because they meet a variety of needs for providing sufficient and additional new work and maintenance dredged material placement capacity. Existing placement capacity for the CCSC is limited to take on new work material, new upland sites would likely be more costly and disruptive, and PCCA engaged planning and coordination to identify desirable BU and PA expansion/extension where possible. Attachment A provides the full discussion and justification for selecting the channel and placement alternatives.*

**B. What do you plan to do to minimize adverse effects on the surface water in the State impacted?**

*The construction techniques described in Section III of the Tier II 401 Certification Questionnaire would be employed to minimize migration of placed material. These techniques are standard industry methods of placement employed in USACE and non-Federal projects to construct PAs, and BU sites. In summary, these methods are discharge end measures to slow deposition velocity and control the discharge for hydraulic placement, controlled release from scows or hoppers, diked and contained dewatering methods, and dike erosion control methods including seeding and armoring.*

**IV. Please Provide Comparison of Each Criteria (From Part II) For Each Site Evaluation in The Alternatives Analysis**

*See Attachment A of the Permit Application for details. The outcome of initial screening of channel alternatives is summarized in the table below.*

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future Growth/Expansion</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at and products moving through the PCCA.</li> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel.</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits required for each individual project.</li> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add more users even more difficult and costly than SPM</li> </ul>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightering activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightering activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD.</li> <li>Potential to eliminate 38-112 tons annual NOx and 2,200- 9,270 tons of VOC from elimination</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NOx, and VOC from eliminating or reducing lightering vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapour emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC positioning during loading will have to transit over 30 miles (assuming support facilities are</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<ul style="list-style-type: none"> <li>of some lightering activity</li> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapour recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	<ul style="list-style-type: none"> <li>home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated.</li> <li>No technically feasible method for providing vapour recovery of vapour combustion systems for reducing emissions.</li> </ul>	
5) Risk, Safety and Security	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the Port.</li> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
6) Ability to Contribute to BU	<ul style="list-style-type: none"> <li>Beneficial use occurring under the - 54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 38 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>



Sheet 1 of 23

**AECOM**  
5444 Westheimer Road, Suite 400  
Houston, Texas 77056  
Tel: 713-780-4100



### Legend

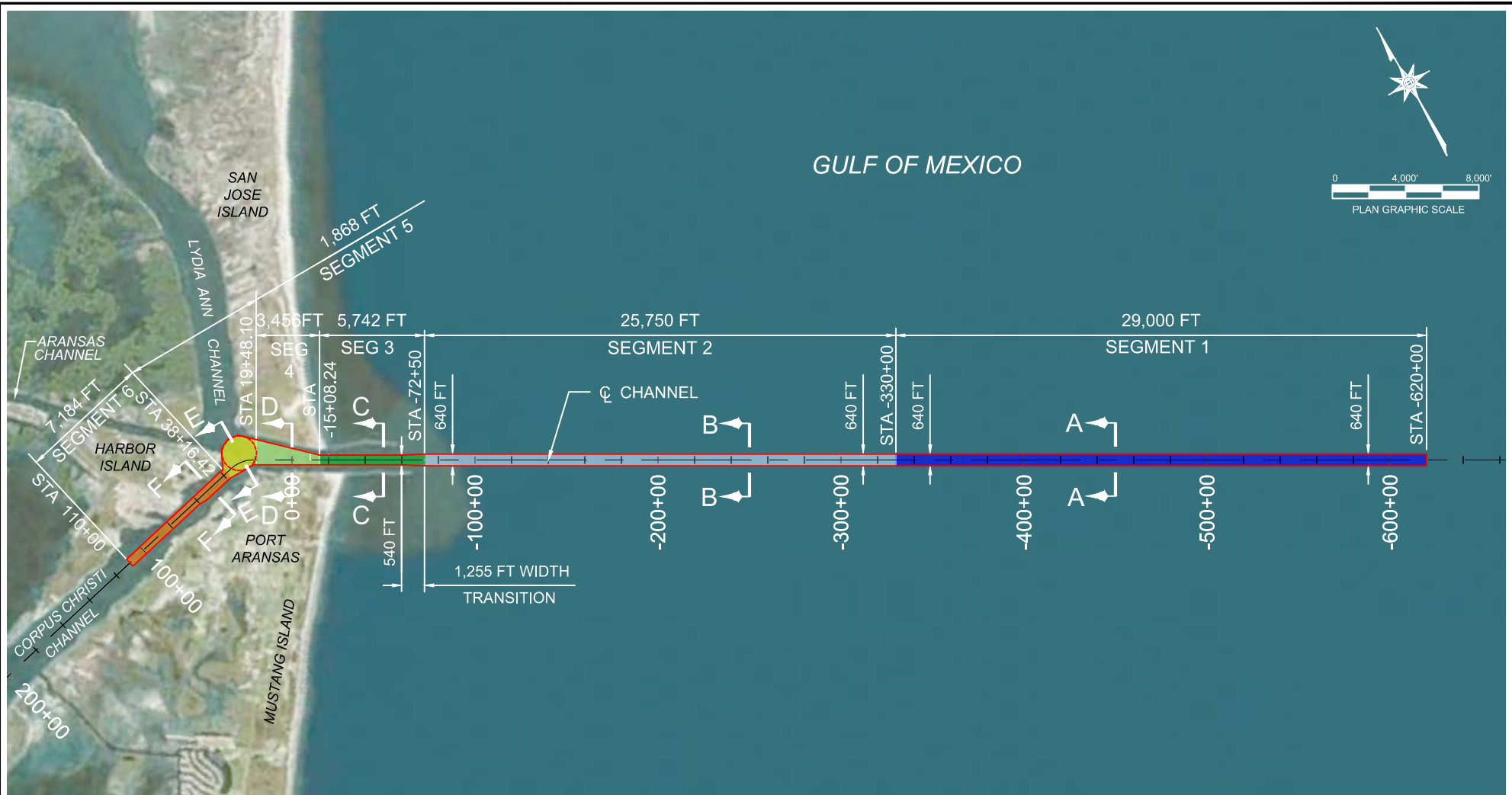
- Corpus Christi Ship Channel
- CCSC Deepening Extension
- Project Location
- Texas Coastal Boundary
- County Boundary



### Vicinity Map

Title: <b>Corpus Christi Ship Channel Deepening Project</b>			
Client: <b>Port of Corpus Christi Authority</b>			
Drawn By: DS	Date: 5/28/2019	Project No.: 60578532	





## DREDGING PLAN

SCALE: 1" = 8000'

SEGMENT	STATIONING (@ CHANNEL CL)		*DEPTH (FT BELOW MLLW)	DESCRIPTION	PLAN VIEW LEGEND
	FROM	TO			
1	STA -620+00	STA -330+00	-77.0	Outer Channel	
2	STA -330+00	STA -72+50	-77.0	Approach Channel	
3	STA -72+50	STA -15+08.24	-75.0	Jetties to Harbor Island Transition Flare	
4	STA -15+08.24	STA 19+48.10	-75.0	Harbor Island Transition Flare	
5	STA 19+48.10	STA 38+16.42	-75.0	Harbor Island Junction	
6	STA 38+16.42	STA 110+00	-75.0	Corpus Christi Channel	

\* DESIGN DEPTH SHOWN. DOES NOT INCLUDE 2.0 FT ADVANCED MAINTENANCE DREDGING OR 2.0 FT ALLOWABLE OVER DREDGE.

Sheet 2 of 23

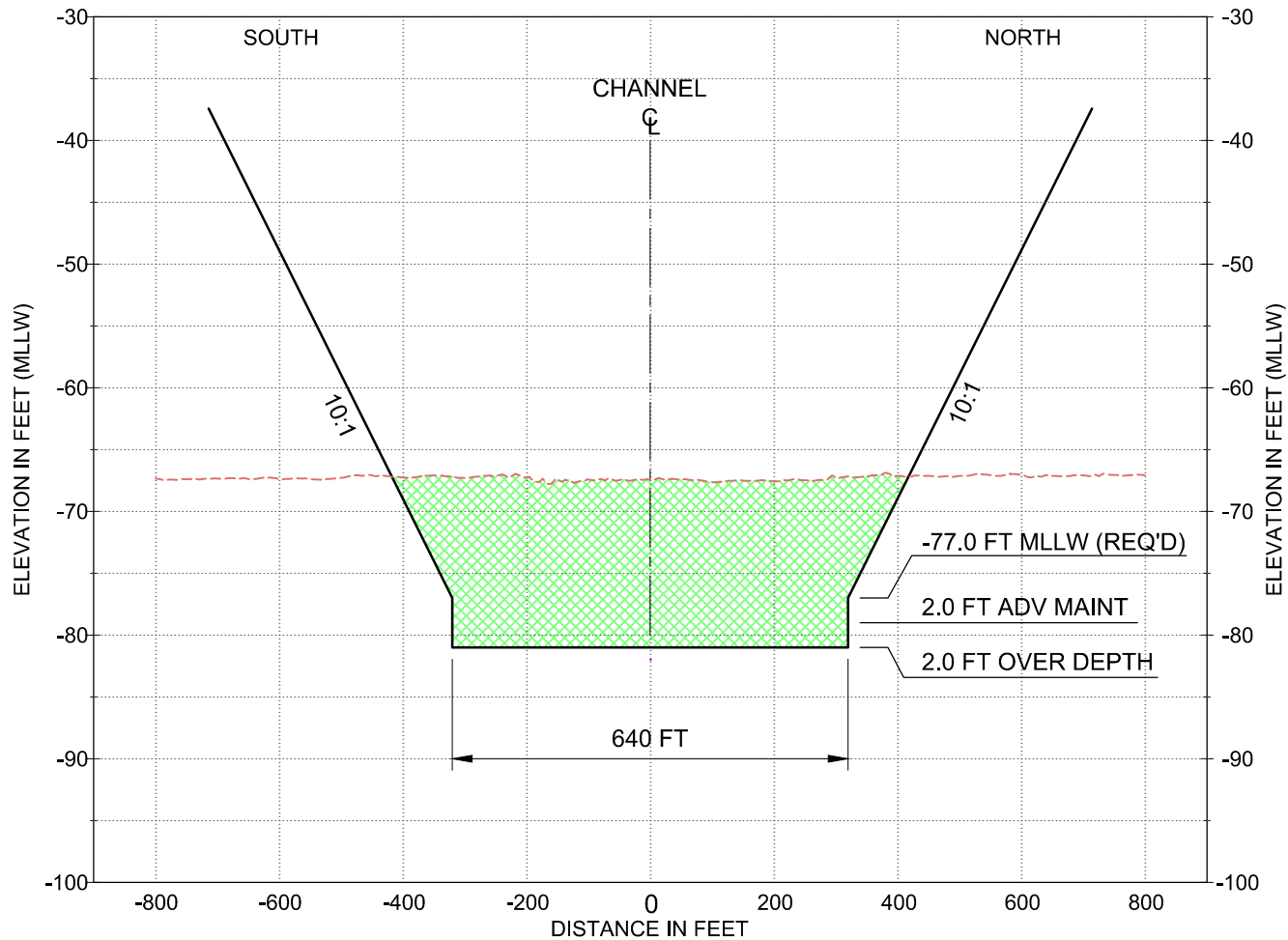
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

Preferred Channel Alternative

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

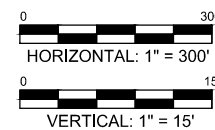
# CROSS SECTION A-A (TYPICAL SECTION) -450+00.00



## CROSS SECTION LEGEND:

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

## CROSS SECTION GRAPHIC SCALES:



Sheet 3 of 23

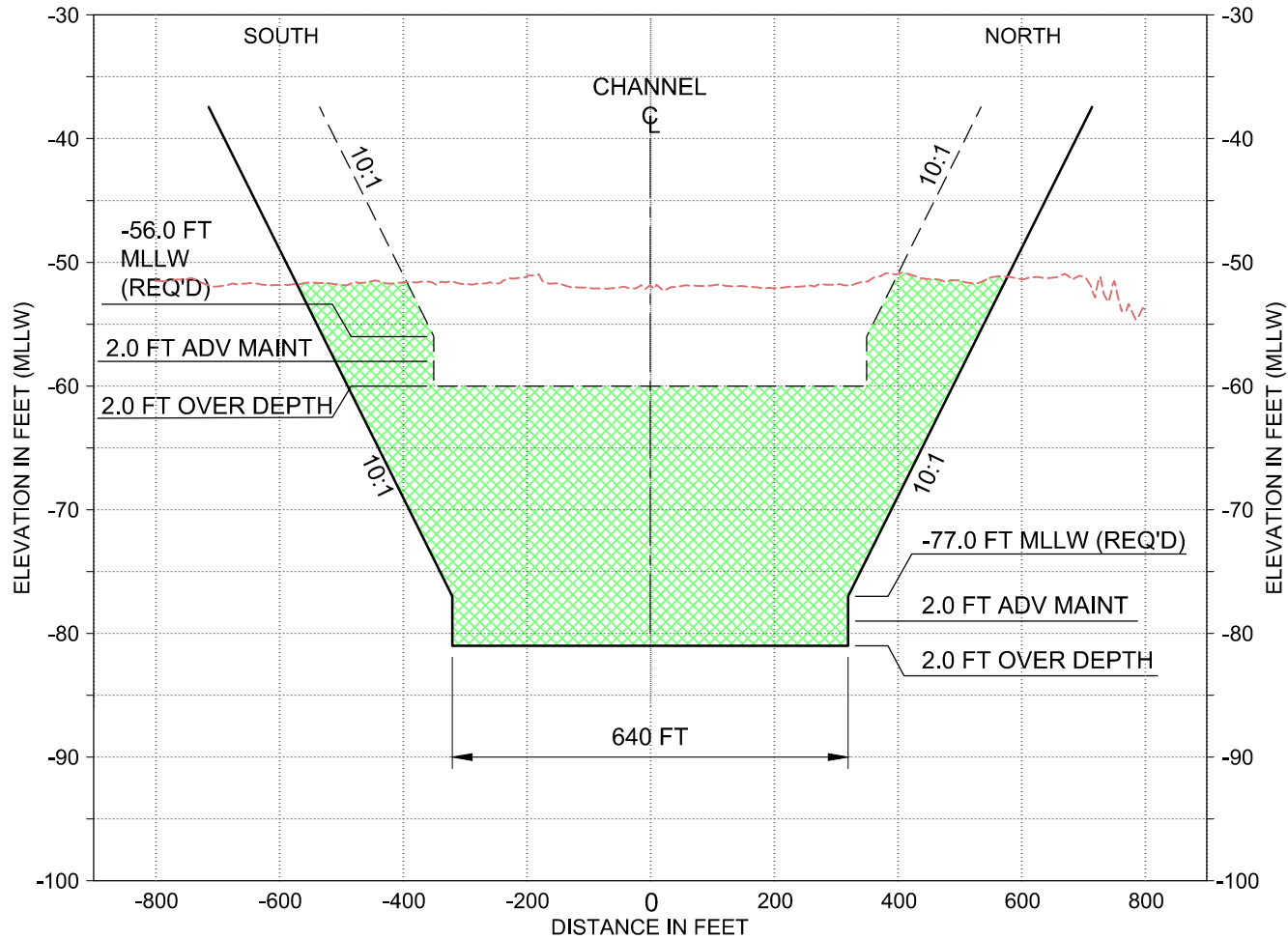
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section A-A**  
**STA -450+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

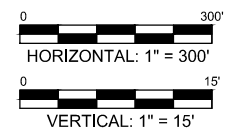
# CROSS SECTION B-B (TYPICAL SECTION) -250+00.00



## CROSS SECTION LEGEND:

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

## CROSS SECTION GRAPHIC SCALES:



Sheet 4 of 23

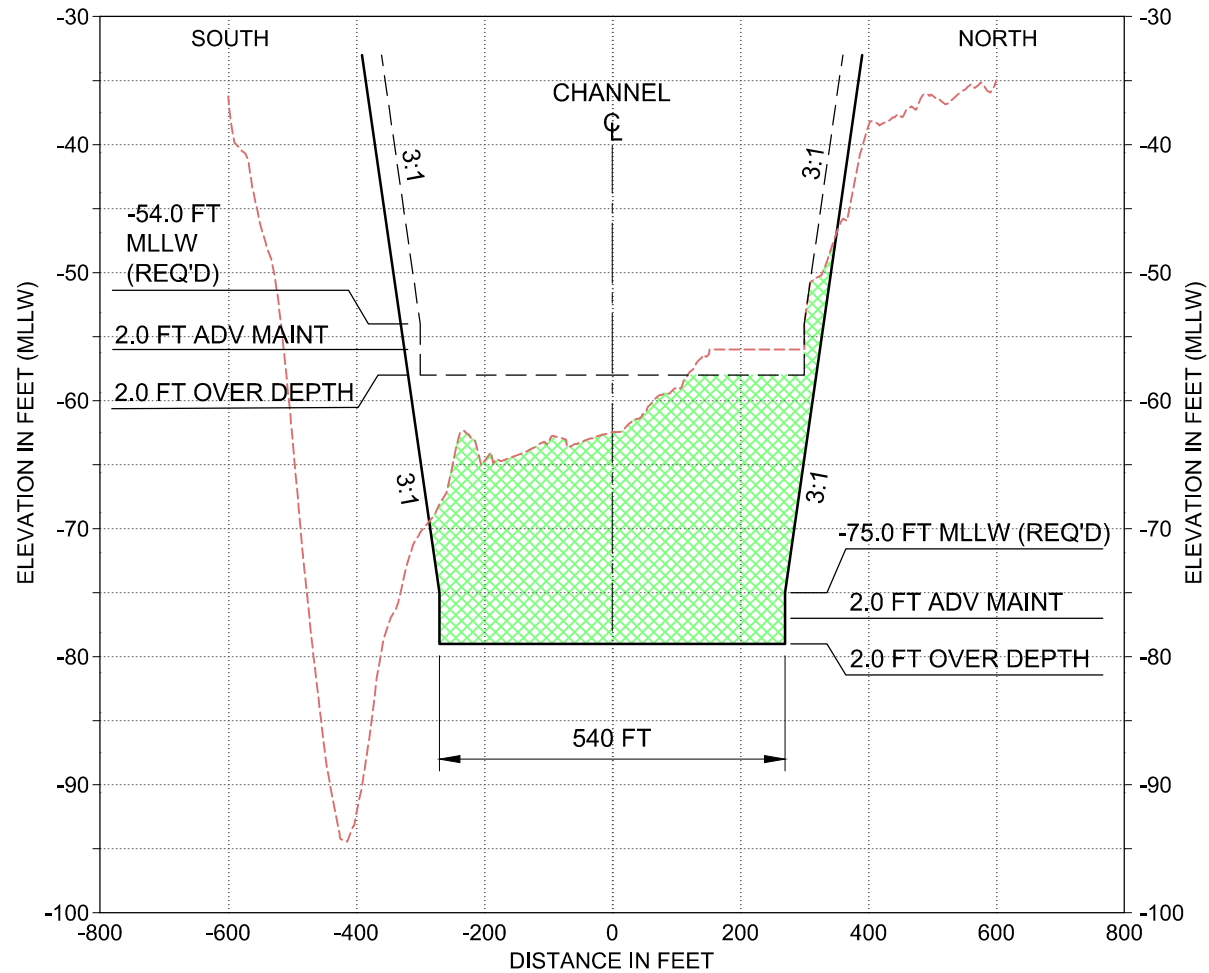
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative  
Dredging Cross Section B-B  
STA -250+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

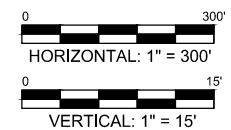
# CROSS SECTION C-C (TYPICAL SECTION) -50+00.00



## CROSS SECTION LEGEND:

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

## CROSS SECTION GRAPHIC SCALES:



Sheet 5 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section C-C**  
**STA -50+00.00**

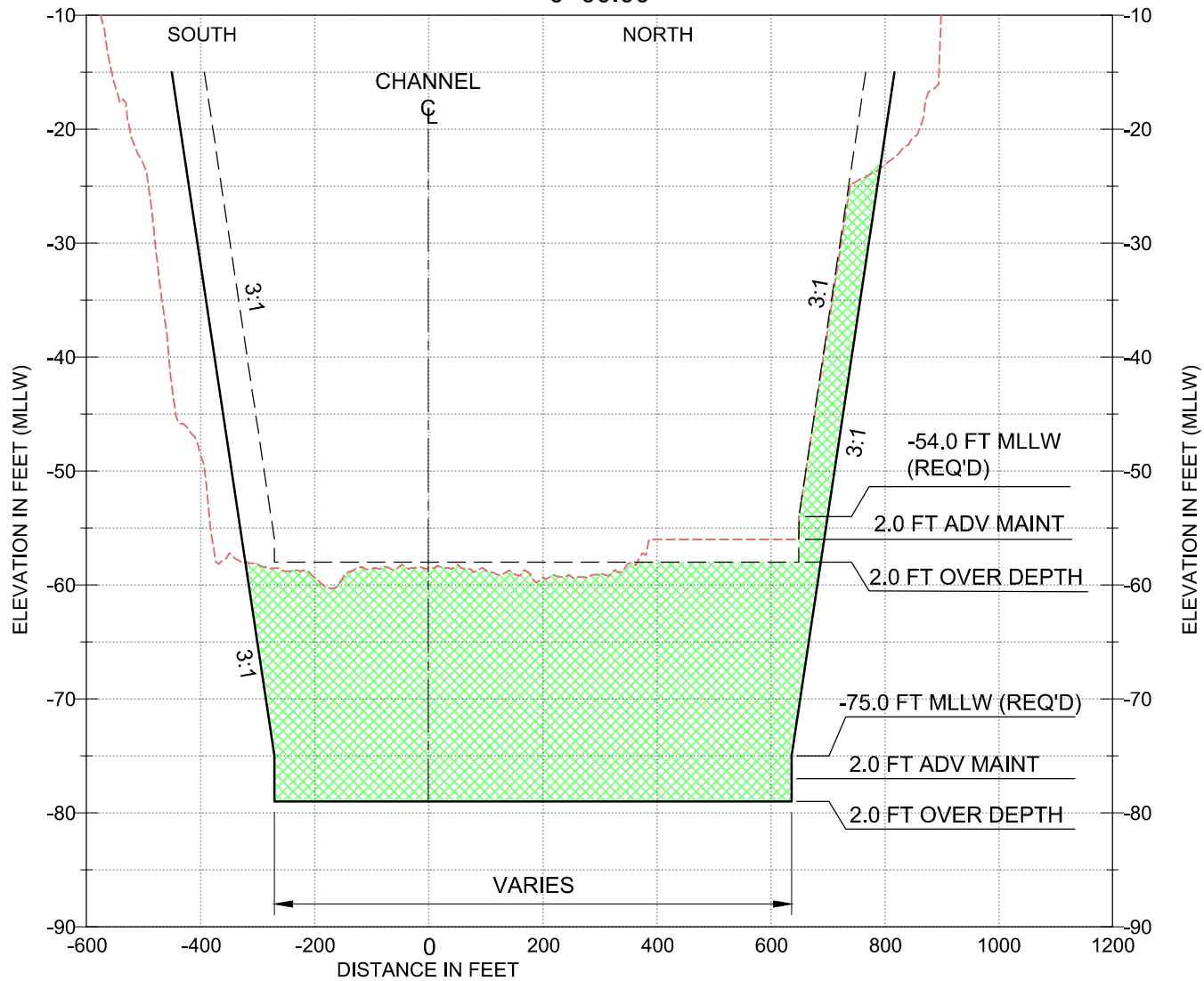
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



# CROSS SECTION D-D (TYPICAL SECTION)

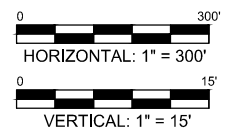
0+00.00



## CROSS SECTION LEGEND:

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- █ PROPOSED AREA TO BE DREDGED

## CROSS SECTION GRAPHIC SCALES:



Sheet 6 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section D-D**  
**STA 0+00.00**

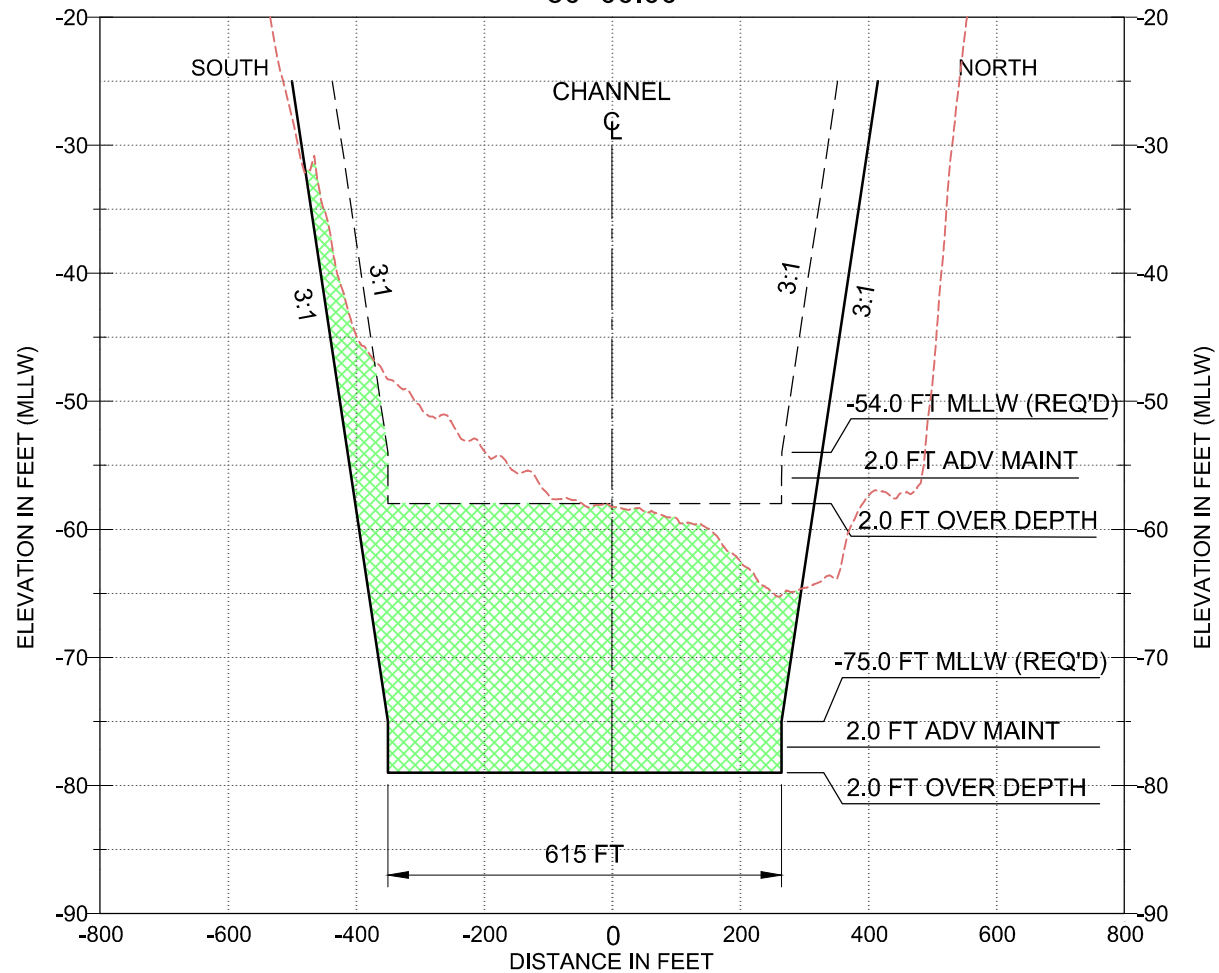
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

The diagram illustrates a cross-section of a channel and its approach. The central channel has a flat bottom at -54.0 FT MLLW (REQ'D) and sloped sides at 3:1. The channel is flanked by approach areas with a bottom at -75.0 FT MLLW (REQ'D). The diagram includes labels for 'SOUTH', 'NORTH', 'CHANNEL', 'VARIES', and various depth requirements like '2.0 FT ADV MAINT' and '2.0 FT OVER DEPTH'. The vertical axis is 'ELEVATION IN FEET (MLLW)' ranging from -10 to -90. The horizontal axis shows stationing from -800 to 2000.

State: Texas  
Date: May 2019

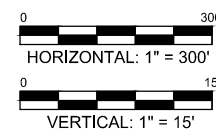
# CROSS SECTION F-F (TYPICAL SECTION) 50+00.00



## CROSS SECTION LEGEND:

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

## CROSS SECTION GRAPHIC SCALES:



Sheet 8 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section F-F**  
**STA 50+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



## LEGEND

- — DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
- ■ ■ DREDGE MATERIAL PLACEMENT AREA
- EXIST OFFSHORE PLACEMENT AREA
- EXIST SEAGRASS (RETRIEVED FROM NOAA CSC, 2007)
- EXIST OYSTER REEFS (RETRIEVED FROM TPWD, 2004)
- EXIST PIPELINES (SEE NOTE 4)

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 9 of 23

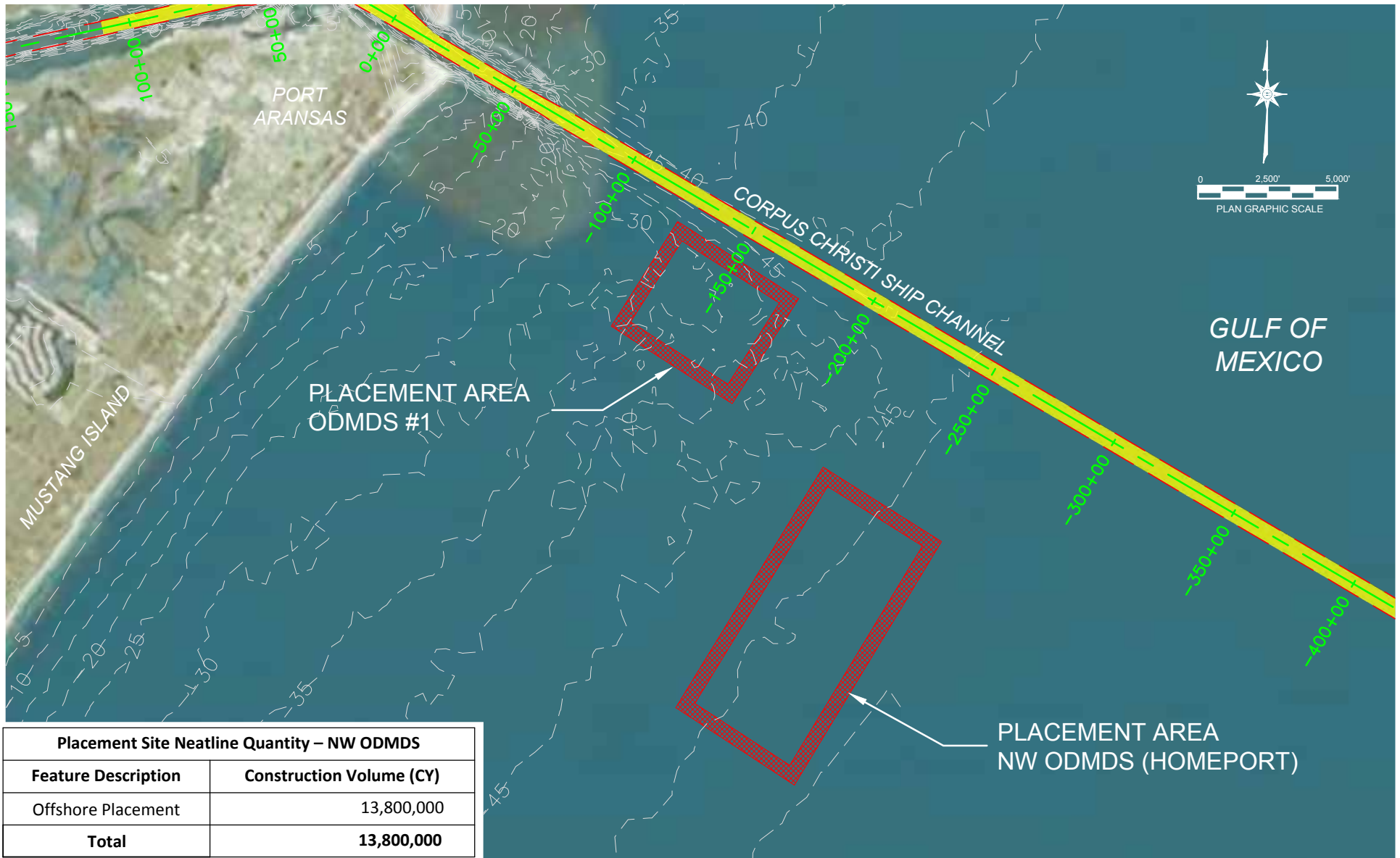
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## OVERALL DREDGE MATERIAL PLACEMENT PLAN

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority




State: Texas  
Date: May 2019





Placement Site Neatline Quantity – NW ODMDS	
Feature Description	Construction Volume (CY)
Offshore Placement	13,800,000
<b>Total</b>	<b>13,800,000</b>

## LEGEND

-  DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
-  EXIST OFFSHORE PLACEMENT AREA
-  EXIST CONTOURS

## GENERAL NOTES

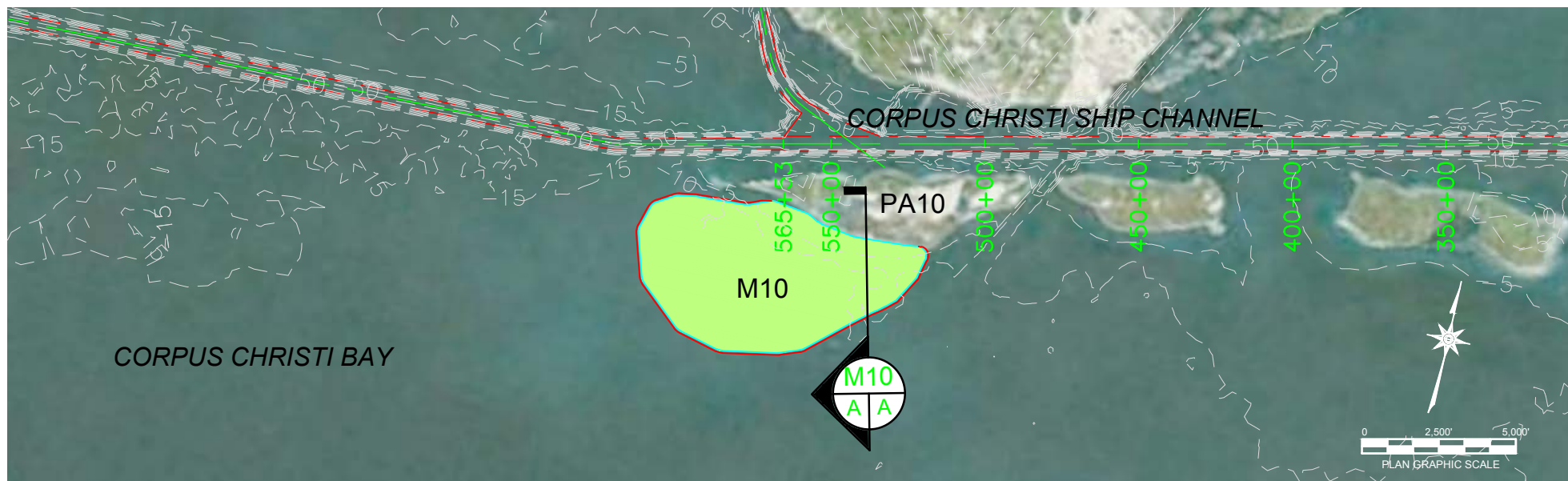
1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

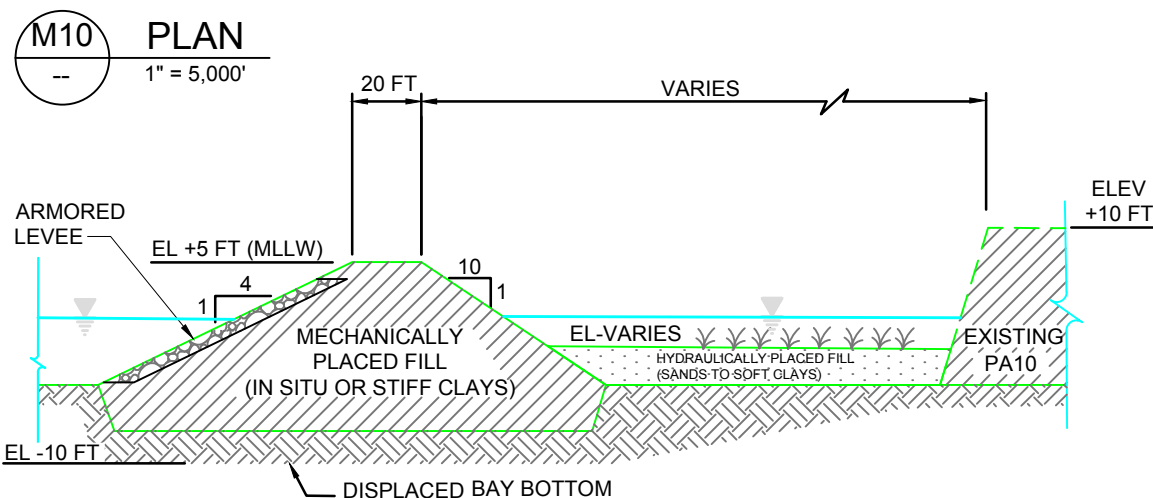
## OFFSHORE DREDGE MATERIAL PLACEMENT NW ODMDS (HOMEPORT)

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site M10	
Feature Description	Construction Volume (CY)
Armoring*	10,667
Levee Creation	997,300
770 Acre Estuarine / Aquatic Habitat	9,936,300
<b>Total</b>	<b>10,933,600</b>
*Note: Quantity not included in CY total	



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.



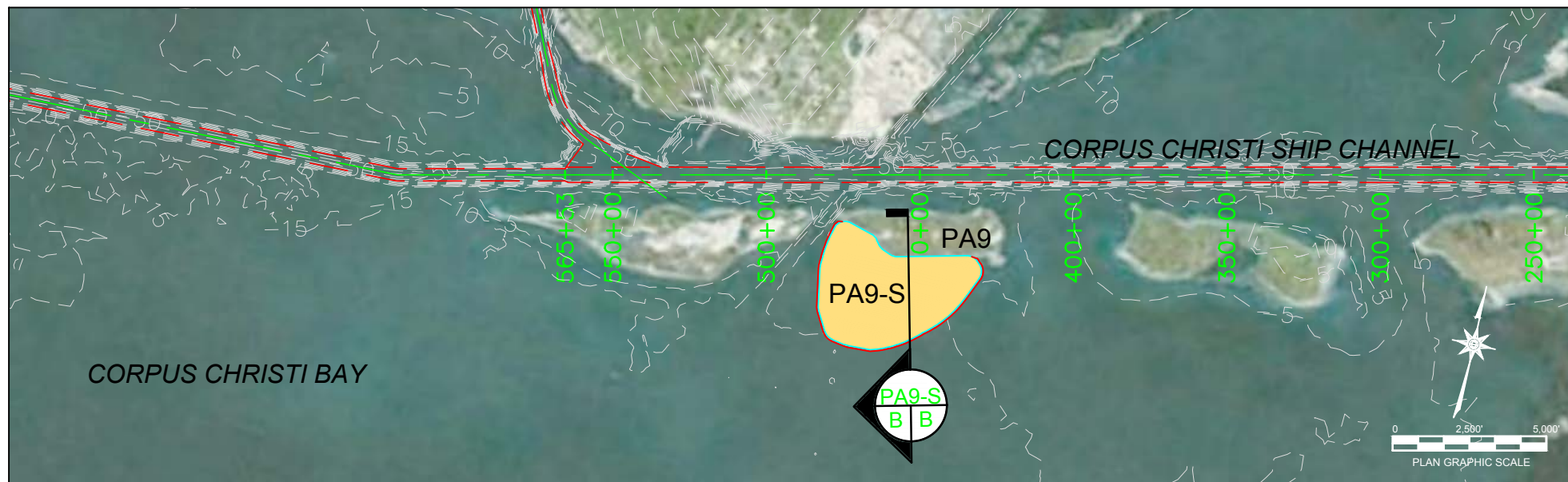
Sheet 11 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE  
AND SECTION VIEW - M10  
770 ACRE ESTUARINE / AQUATIC HABITAT**

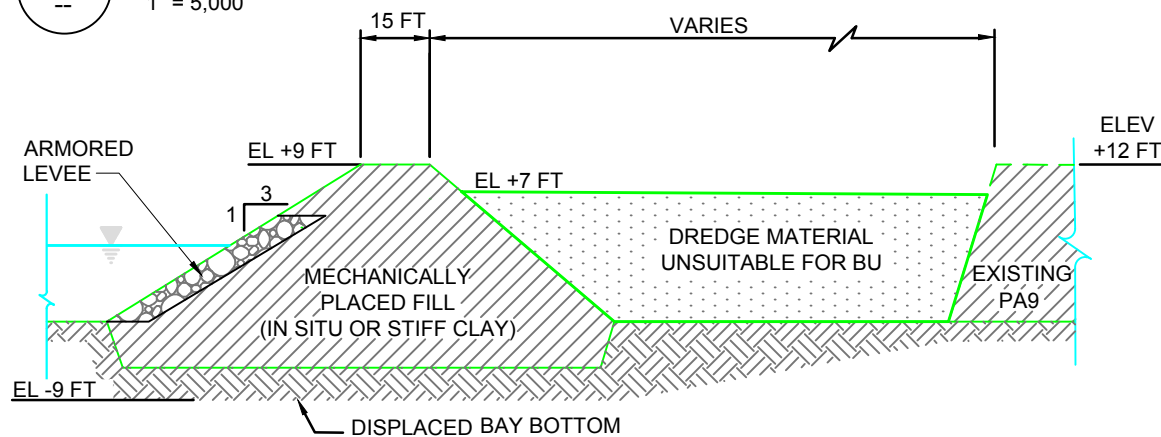
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site PA9-S	
Feature Description	Construction Volume (CY)
Armoring*	26,400
Levee Creation	500,000
Upland Placement	8,500,000
<b>Total</b>	<b>9,000,000</b>
*Note: Quantity not included in CY total	

PA9-S  
--  
PLAN  
1" = 5,000'



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 12 of 23

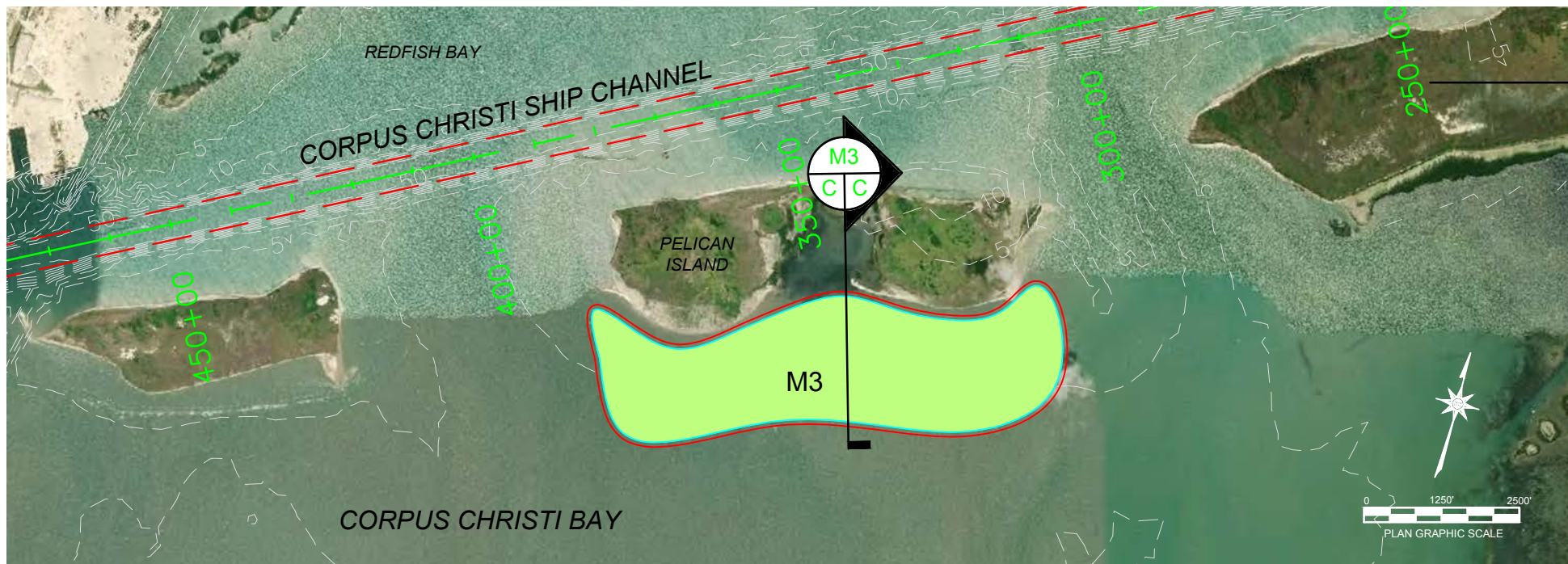
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**SITE AND SECTION VIEW PA9-S**  
**PA9 UPLAND SITE EXPANSION**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

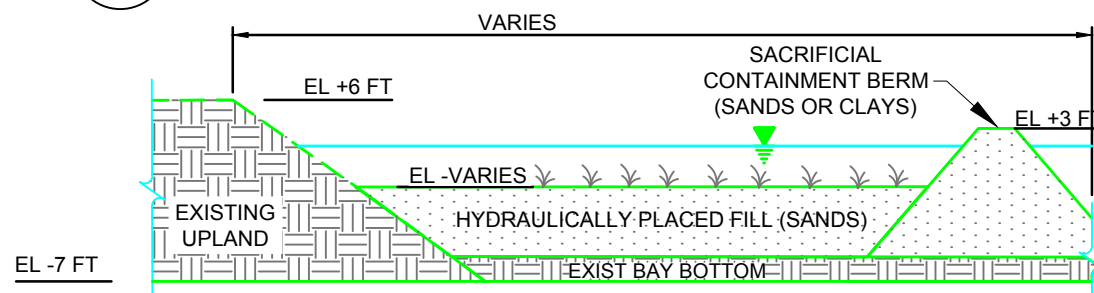
State: Texas  
Date: May 2019





**M3 PLAN**  
1" = 2,500'

Placement Site Neatline Quantity – Site M3	
Feature Description	Construction Volume (CY)
300-Acre Estuarine / Aquatic Habitat	3,798,000
<b>Total</b>	<b>3,798,000</b>



**M3 SECTION**  
NOT TO SCALE

## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 13 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE  
AND SECTION VIEW - M3  
300 ACRE ESTUARINE / AQUATIC HABITAT**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

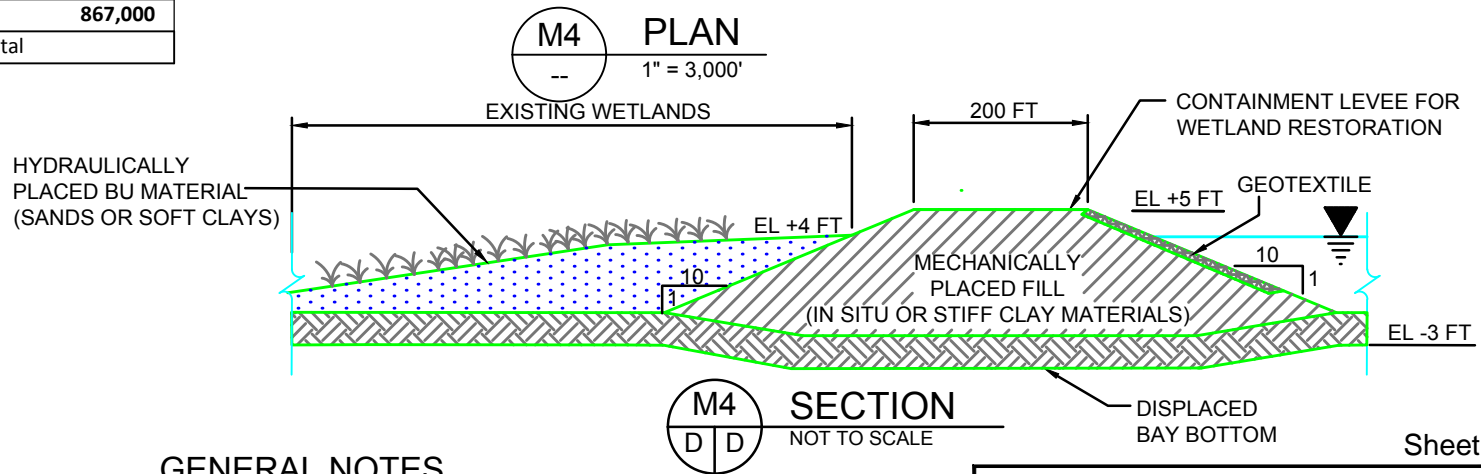
State: Texas  
Date: May 2019





Placement Site Neatline Quantity – Site M4	
Feature Description	Construction Volume (CY)
Armoring*	6,667
Levee Creation	867,000
<b>Total</b>	<b>867,000</b>
*Note: Quantity not included in CY total	

NOTE: UPDATES  
BASED ON EXIST  
TPWD PERMIT



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- POTENTIAL WETLAND RESTORATION
- EXIST CONTOURS

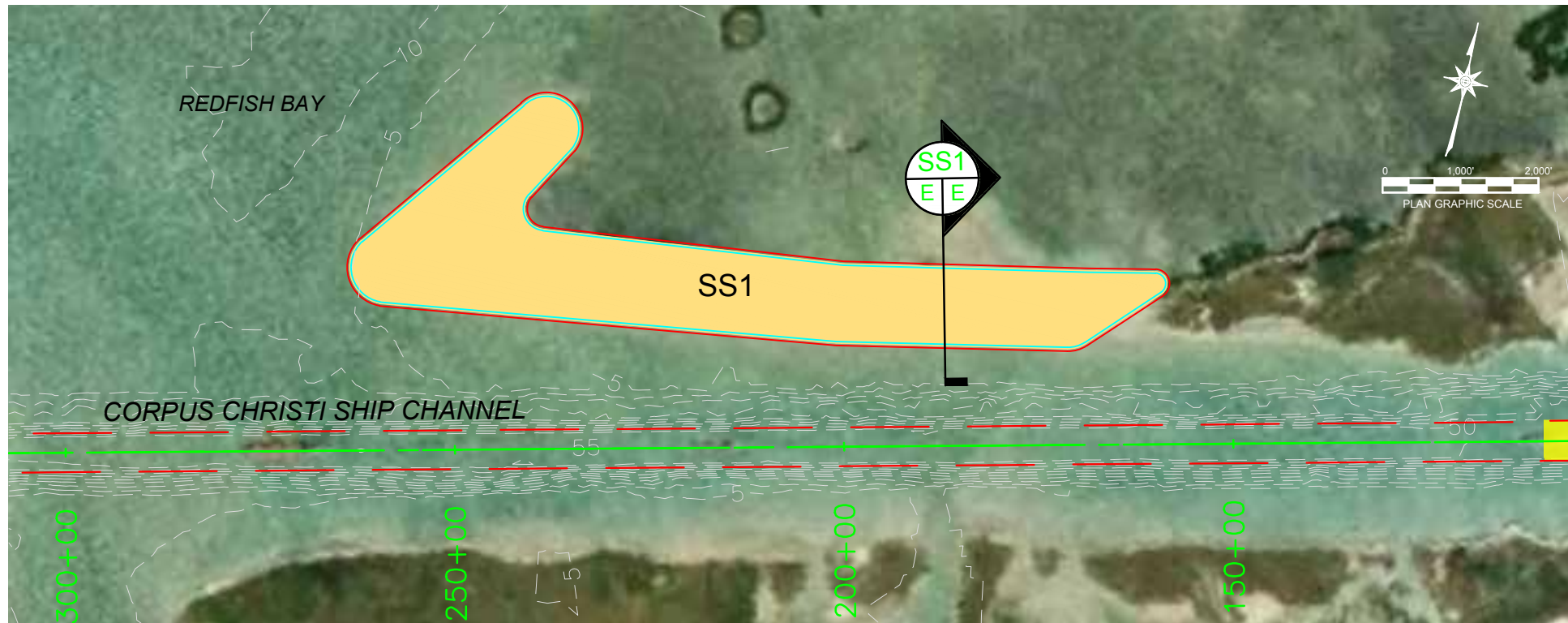
## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE AND SECTION VIEW - M4  
DAGGER ISLAND LEVEE CREATION**

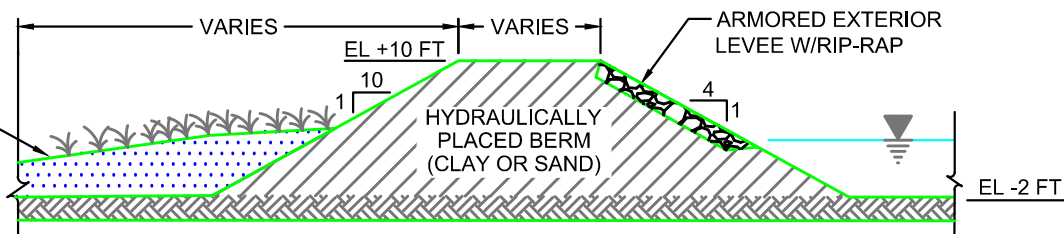
County: Aransas and Nueces      State: Texas  
Application By: Port of Corpus Christi Authority      Date: May 2019



Placement Site Neatline Quantity – Site SS1	
Feature Description	Construction Volume (CY)
Armoring*	38,500
Berm Fill	4,800,000
<b>Total</b>	<b>4,800,000</b>
*Note: Quantity not included in CY total	

SS1 PLAN  
1" = 2,000'

HYDRAULICALLY PLACED  
BU MATERIAL MATCHED  
TO EXISTING ELEVATION  
(SANDS OR SOFT CLAYS)



SS1 SS1  
E E NOT TO SCALE

## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 15 of 23

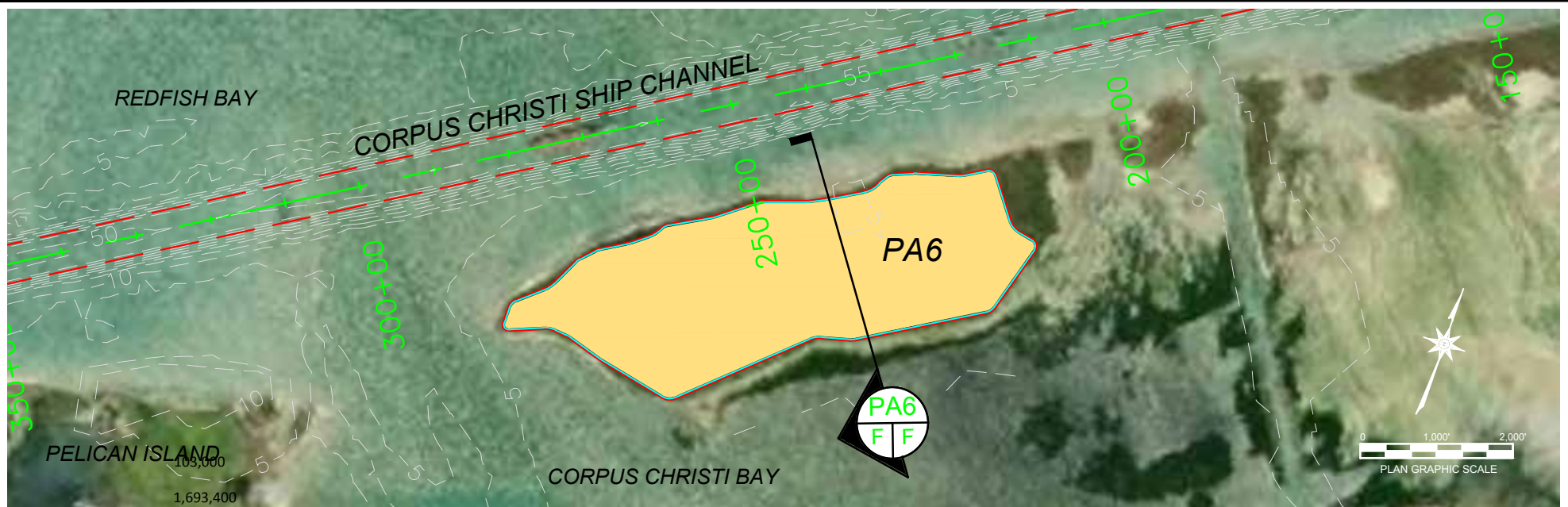
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - SS1 SHORELINE STABILIZATION

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019





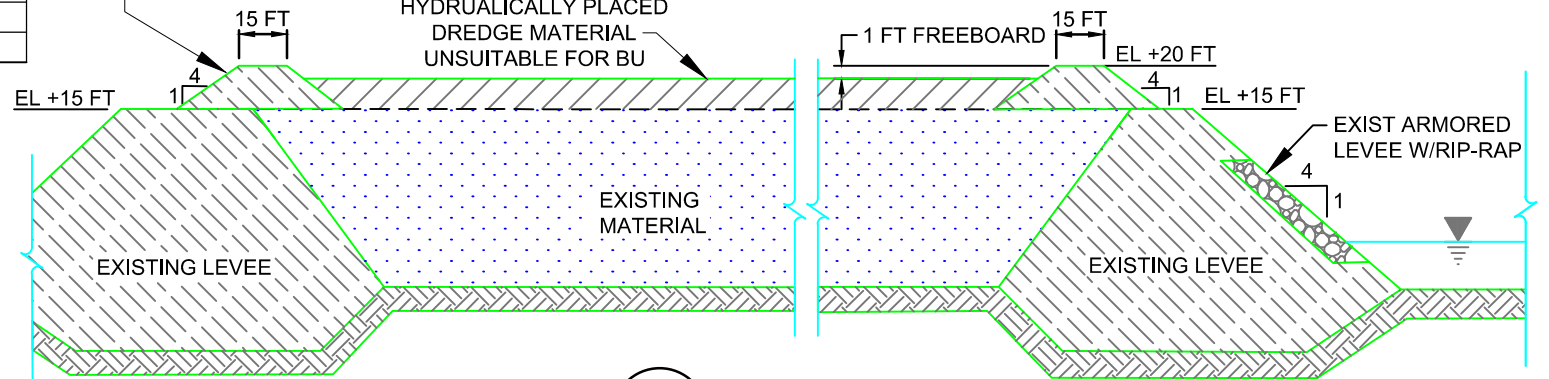
**1,796,400**  
Placement Site Neatline Quantity – Site PA 6

Feature Description	Construction Volume (CY)
5-ft Levee Raise	
PA Fill	
<b>Total</b>	

MECHANICALLY PLACED  
5 FT LEVEE RAISE  
(STIFF CLAY OR IN SITU)

**PA6**  
--  
**PLAN**  
1" = 2,000'

HYDRULICALLY PLACED  
DREDGE MATERIAL  
UNSUITABLE FOR BU



**PA6**  
F F  
**PA6**  
NOT TO SCALE

## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO MEAN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

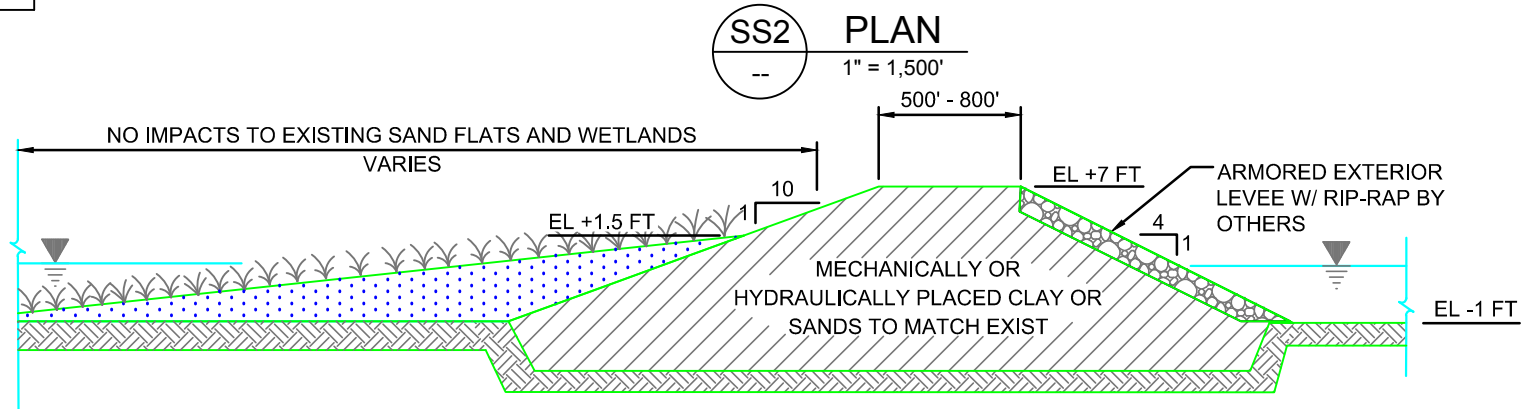
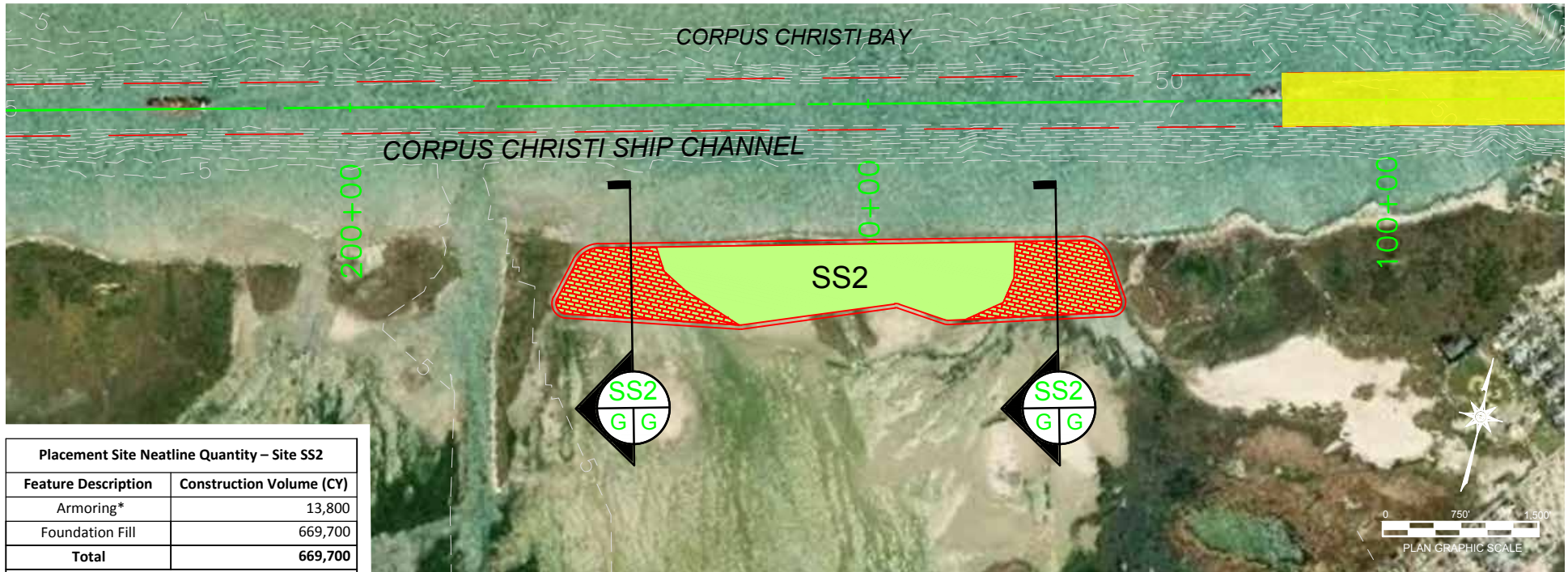
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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA6 5 FT LEVEE RAISE & FILL

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- -40- --- EXIST CONTOURS

## GENERAL NOTES

- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
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Sheet 17 of 23

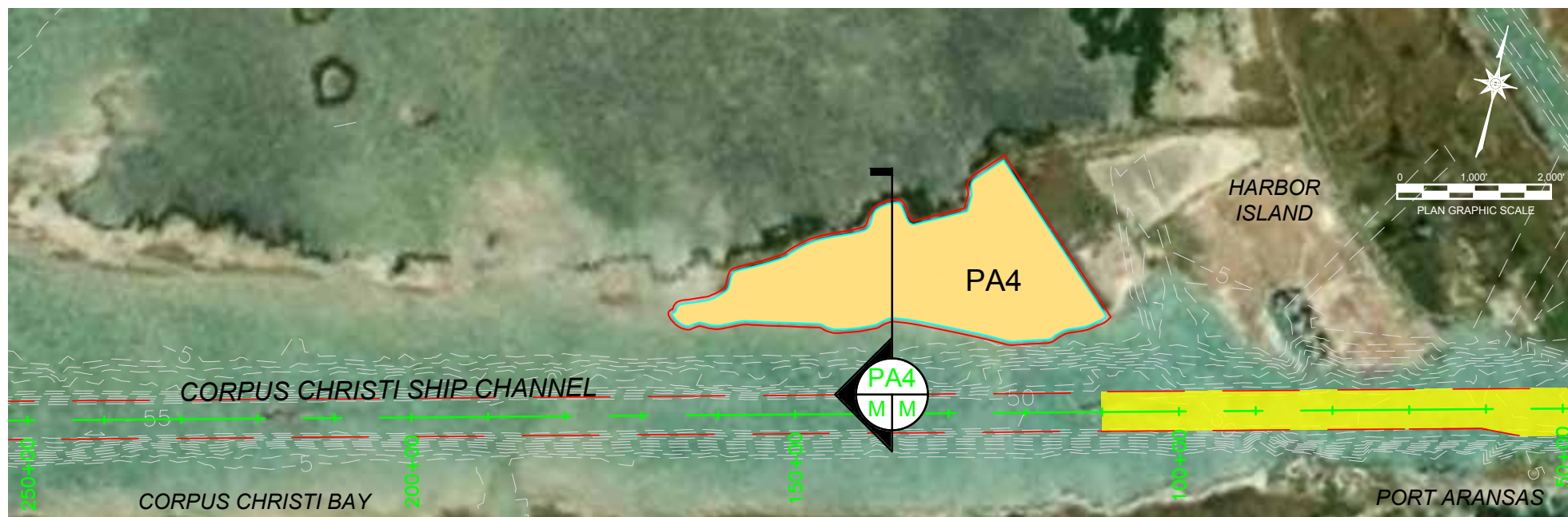
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - SS2 SHORELINE BREACH FILL IN

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

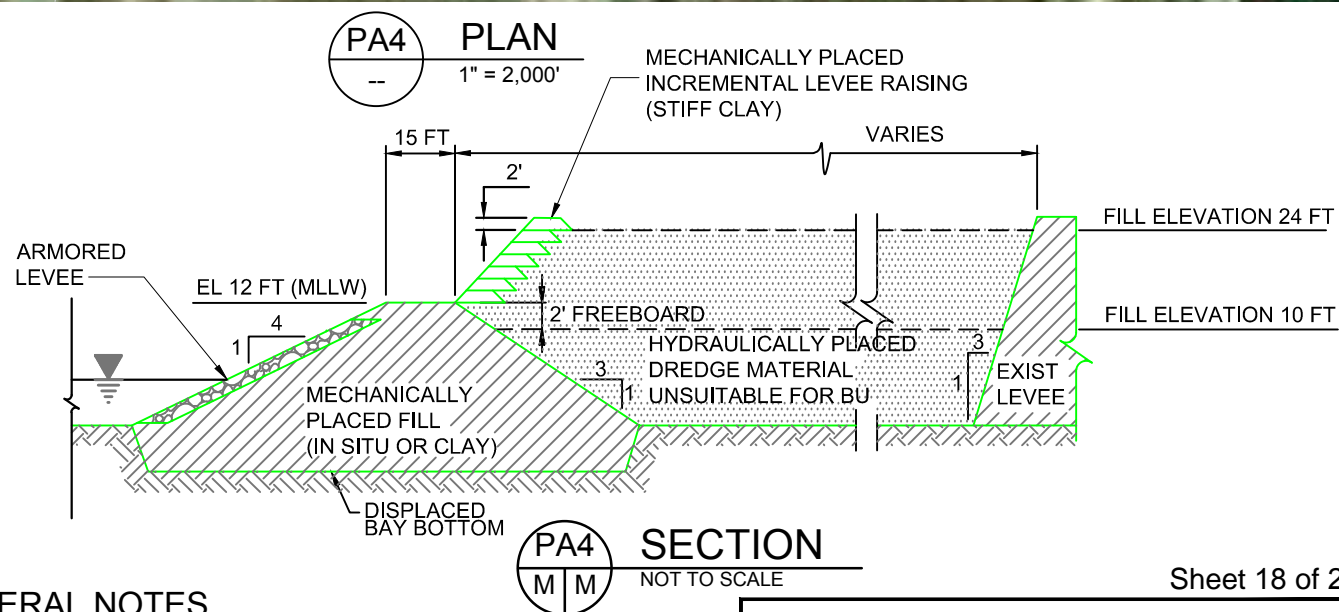
State: Texas  
Date: May 2019





Placement Site Neatline Quantity – Site PA 4	
Feature Description	Construction Volume (CY)
Armoring*	17,100
Levee	158,600
PA Fill	2,861,400
<b>Total</b>	<b>3,020,000</b>

\*Note: Quantity not included in CY total



## LEGEND

- — EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

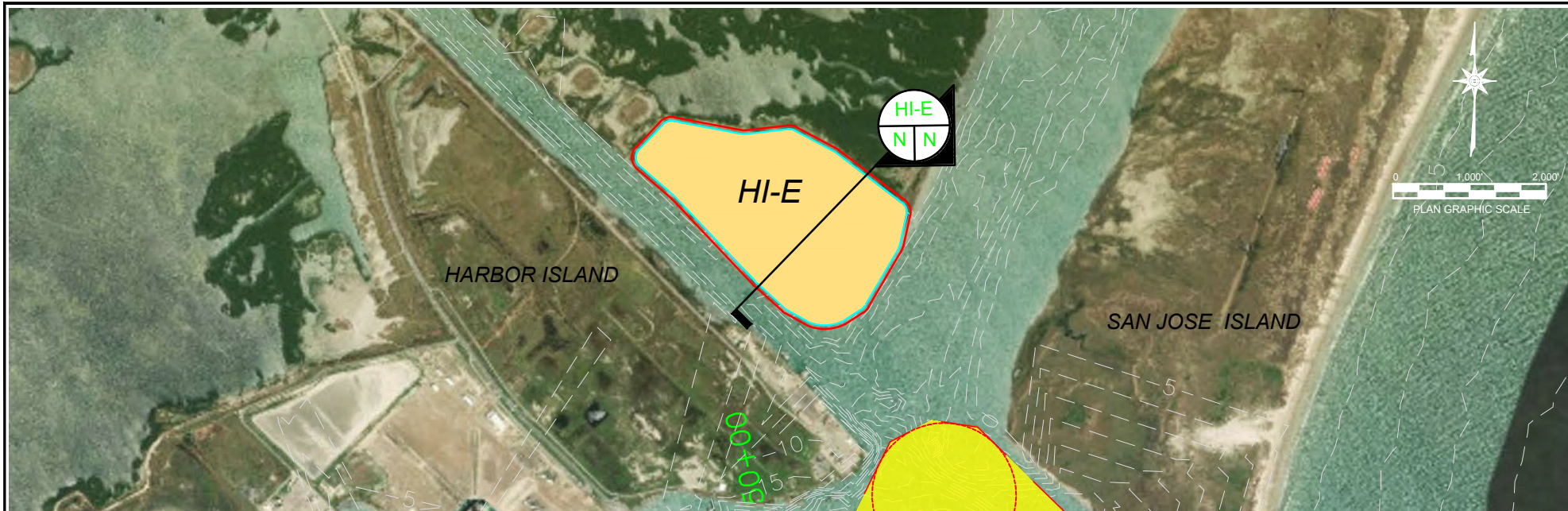
- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
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- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA4 LEVEE CONSTRUCTION & FILL

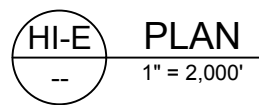
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



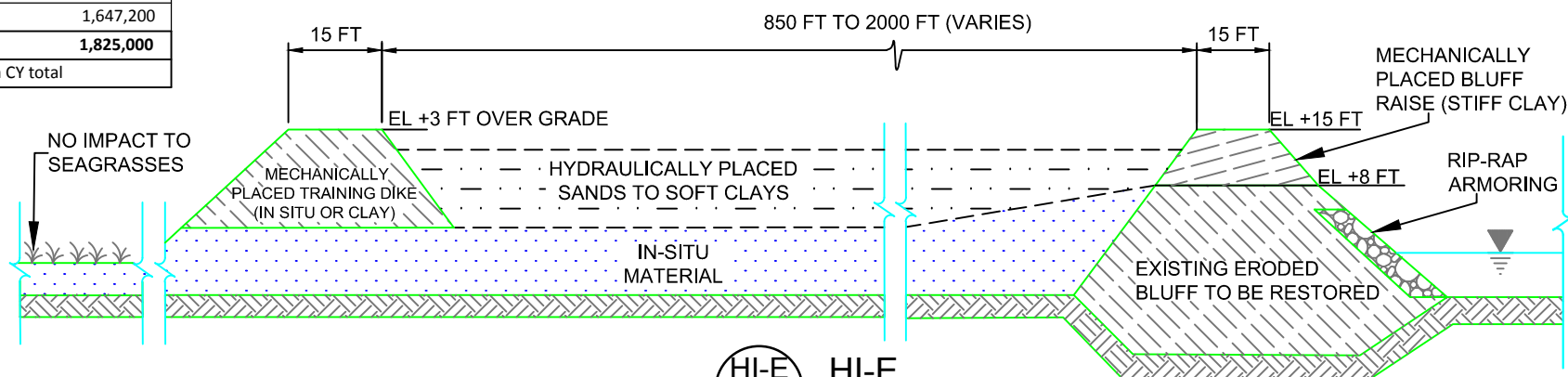
Placement Site Neatline Quantity – Site HI-E	
Feature Description	Construction Volume (CY)
Armoring*	23,400
Levee	177,800
Fill Placement	1,647,200
<b>Total</b>	<b>1,825,000</b>

\*Note: Quantity not included in CY total



PLAN

1" = 2,000'



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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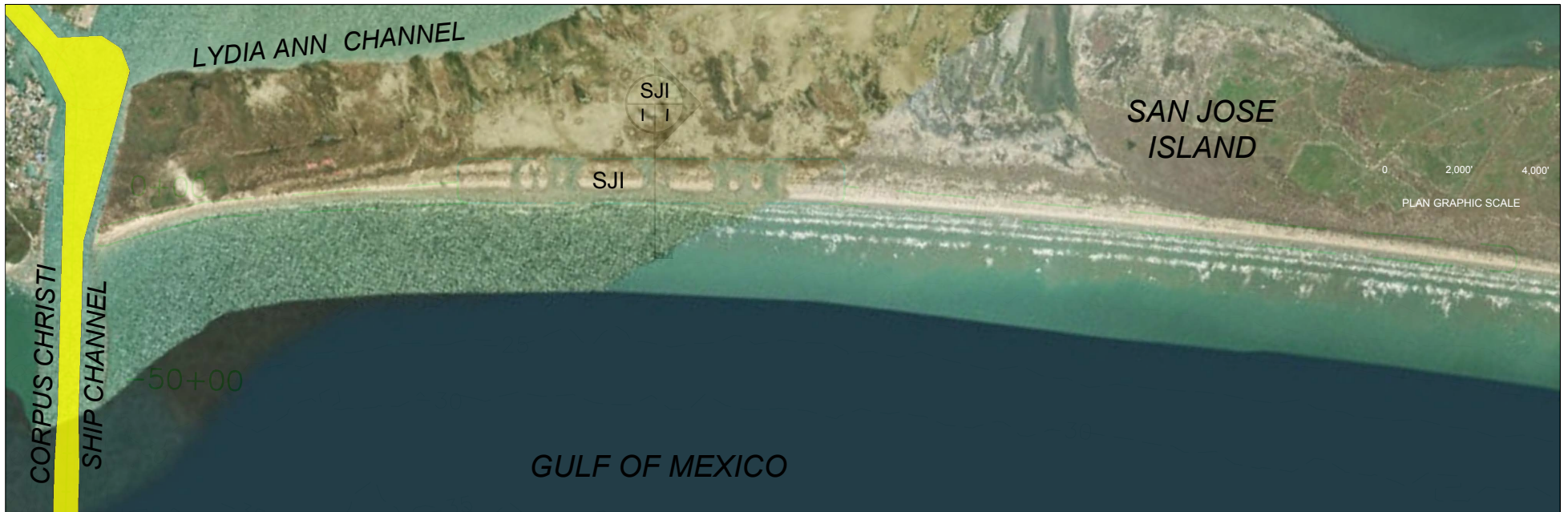
Sheet 19 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067  
**DREDGE MATERIAL PLACEMENT  
SITE AND SECTION VIEW HI-E  
SITE GRADING FILL AND  
SHORELINE RESTORATION**

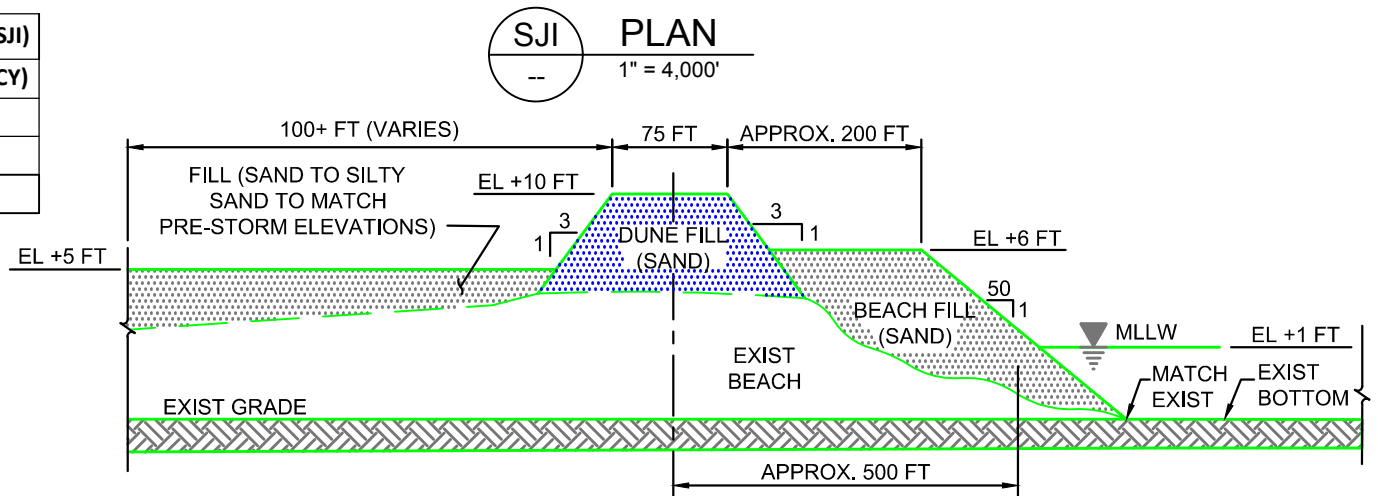
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019





Placement Site Neatline Quantity - San Jose Island (SJI)	
Feature Description	Construction Volume (CY)
Dune Restoration	4,000,000
Beach Restoration	
<b>Total</b>	



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- EXIST CONTOURS
- DUNE RESTORATION
- BEACH RESTORATION

## GENERAL NOTES

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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

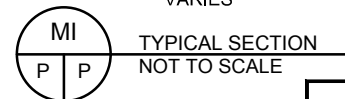
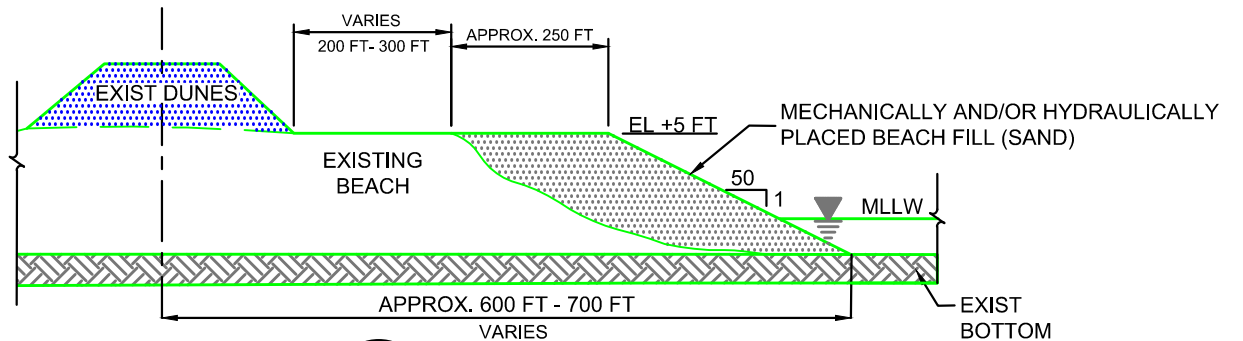
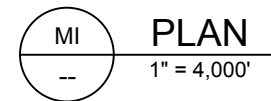
## BENEFICIAL USE SITE AND SECTION VIEW - SJI DUNE AND BEACH RESTORATION

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority




State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Mustang Island	
Feature Description	Construction Volume (CY)
Beach Nourishment	2,000,000
<b>Total</b>	<b>2,000,000</b>



## LEGEND

-  PROPOSED SHIP CHANNEL DEEPENING
-  EXIST CONTOURS
-  BEACH NOURISHMENT

## GENERAL NOTES

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3. VERTICAL DATUM IS REFERENCED TO MEAN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
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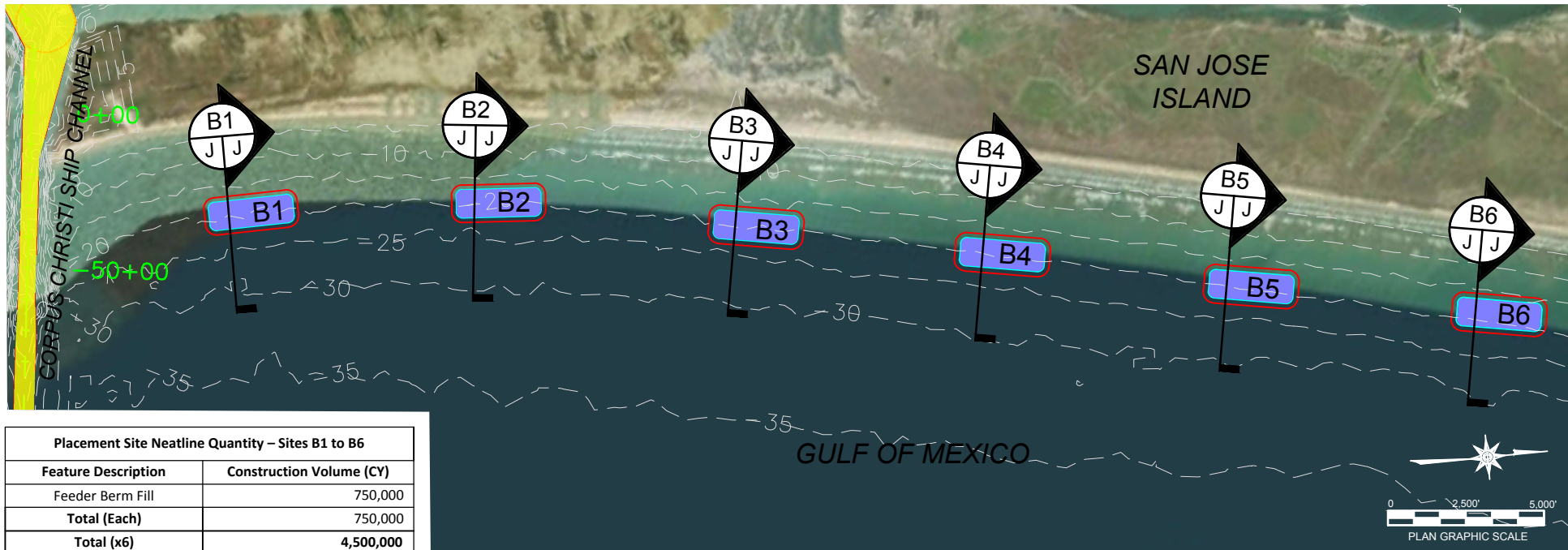
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - MI MUSTANG ISLAND BEACH NOURISHMENT

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

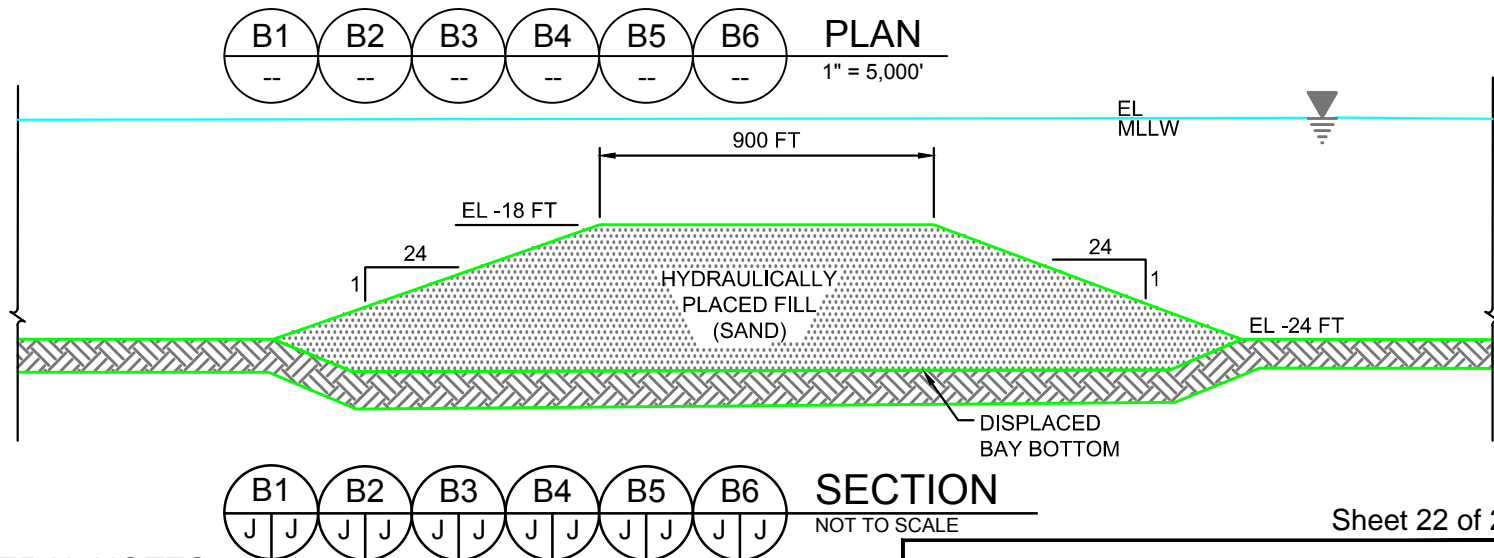
State: Texas  
Date: May 2019





BERM CONFIGURATION AND DESIGN TO BE FINALIZED IN P.E.D.

PLACEMENT QUANTITY NOT TO EXCEED AS SHOWN ABOVE.



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - B1 TO B6 OFFSHORE FEEDER BERMS

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

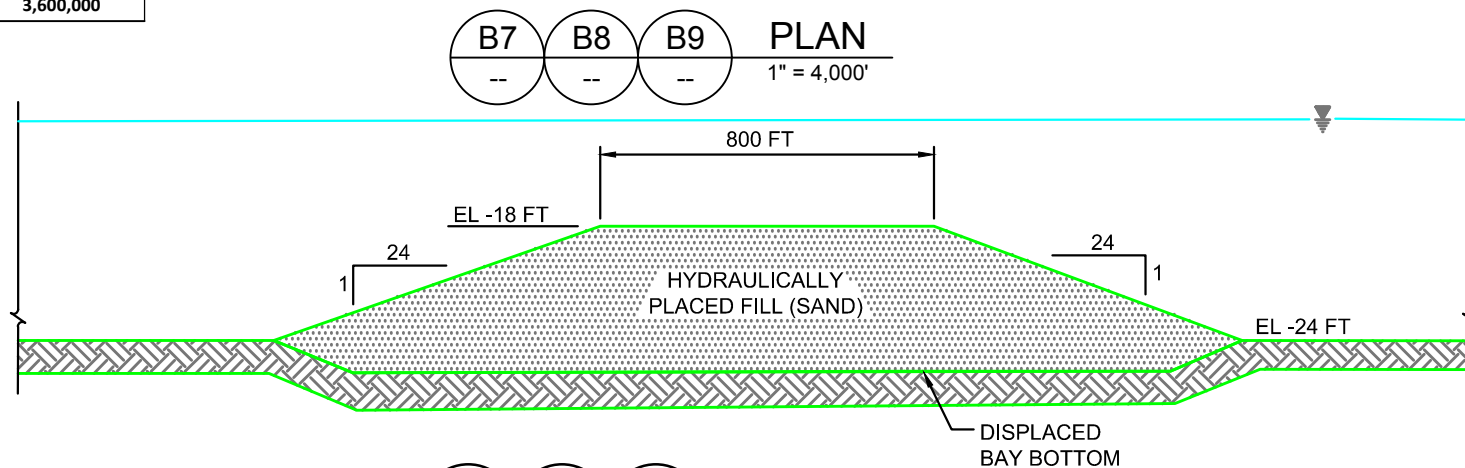
State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site B7, B8, B9	
Feature Description	Construction Volume (CY)
Feeder Berm Fill	1,200,000
<b>Total (Each)</b>	<b>1,200,000</b>
<b>Total (x3)</b>	<b>3,600,000</b>

BERM CONFIGURATION AND DESIGN TO BE FINALIZED IN P.E.D.

PLACEMENT QUANTITY NOT TO EXCEED AS SHOWN ABOVE.



## LEGEND

- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - B7, B8 & B9 OFFSHORE FEEDER BERMS

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2019)**

Owner	Mailing Address	City	State	Zip
<b>San Patricio County</b>				
FLINT HILLS RESOURCES CORPUS CHRISTI LLC ATTN PROPERTY TAX DEPT	PO BOX 3755	WICHITA	KS	67201-2917
G&H TOWING COMPANY	PO DRAWER 2270	GALVESTON	TX	77553
GULF MARINE FABRICATORS L P	16225 PARK TEN PLACE, SUITE 280	HOUSTON	TX	77084
PORT OF CORPUS CHRISTI AUTHORITY OF NUECES COUNTY	PO BOX 1541	CORPUS CHRISTI	TX	78403
<b>Nueces County</b>				
12 BANYAN LLC	3200 Bryker Dr	Austin	TX	78703-1330
231 PORT A LLC	203 Humble Ave	San Antonio	TX	78225-1317
5D PROPERTIES LLC	107 Five Oaks Dr	San Antonio	TX	78209-2405
6221 STATE HIGHWAY 361 LLC	PO Box 781348	San Antonio	TX	78278-1348
ABELL REALTY LMTD PARTNERSHIP	4608 CRESTWAY DR	AUSTIN	TX	78731-5204
ABERNETHY GAYLE TRSTE GAYLE ABERNETHY DYNASTY TRUST	PO Box 1230	Port Aransas	TX	78373-1230
ALLEN BRUCE D TRUSTEE	61 Lincoln Dr	New Boston	NH	03070-4304
ANDERSON EVAN D & WF ANEESA W	503 Hummingbird Ln	Austin	TX	78734-4791
ARANSAS FIRST	81 GRIFFITH DR	ROCKPORT	TX	78382
ARNOLD HAYS L III & KRISTEN PLASTINO-ARNOLD	154 Country Ln	San Antonio	TX	78209-2228
ARNOLD MICHAEL J & WF SHERYL L	PO BOX 1118	PORT ARANSAS	TX	78373-1118
ATKINS RICHARD DALE & WF PAMELA BORNEMANN ATKINS	15096 Barrie Dr	Austin	TX	78734-6270
BADALICH CARL AND SHERRY BADALICH	PO Box 18150	CORPUS CHRISTI	TX	78480
BANYAN BEACH PROPERTY OWNERS ASSOCIATION INC	14613 S Padre Island Dr	Corpus Christi	TX	78418-6037
BEACH VIEW ESTATES OWNERS ASSN	211 COSTA BELLA DR	AUSTIN	TX	78734-2662
BENTON ELAINE ROBINSON EXEMPT APPT TRUST # 1	2403 Rockmoor Ave	Austin	TX	78703-1516
BERNSEN COASTAL BUILDERS LLC	722 Tarpon Unit J	Port Aransas	TX	78373-5182
BES INVESTMENTS LLC	502 E Center Ave	Carlsbad	NM	88220-6106
BIAGGI ANDRES E & BLANCA ONDINA	6850 San Pedro Ave	San Antonio	TX	78216-7201
BIEDENHARN ALBERT M III	1250 NE LOOP 410	SAN ANTONIO	TX	78209-1525
BIEHN DAVID P	9319 Waterview Rd	Dallas	TX	75218-2745
BIG SAND HILL DEVELOPMENT LP	19802 Messina	San Antonio	TX	78258-3192
BLACKERT JOSEPH	12607 Silver Creek Dr	Austin	TX	78727-2808
BLISS JIMMY AND MARCI BLISS	1016 BLUFF	PORTLAND	TX	78374
BODE BILLY WADE AND WF	5409 Northwest Trl	Corpus Christi	TX	78410-4814
BOGO/ORTIZ LTD	13817 Captains Row	Corpus Christi	TX	78418-6807
BRAMAN RANCHES LLC	PO Box 400	Victoria	TX	77902-0400
BREADY MARK AND STEVE BREADY	1142 Rip Jay Cir	Canyon Lake	TX	78133-4000
BREWSTER REVOCABLE TRUST	PO Box 368	Marietta	OK	73448-0368
BUECHEL FREDERICK MD TR	61 FIRST ST	SOUTH ORANGE	NJ	07079
C & F WEIL TRUST ETAL	500 N Shoreline Blvd Ste 1118	Corpus Christi	TX	78401-0359
C02 INC	110 Allen Ln	Center Point	TX	78010-5494

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
CABELA JOSEPH & JENNIFER CABELA	220 Roy Creek Trl	Dripping Springs	TX	78620-4197
CALDWELL DOLORES M	6403 LOCHMOOR DR	SAN DIEGO	CA	92120
CAMPBELL CHARLES H FAMILY PARTNERSHIP LTD	5540 Saratoga Blvd	Corpus Christi	TX	78413-2999
CARLISLE THOMAS L	500 N WATER ST STE 900	CORPUS CHRISTI	TX	78471-0019
CASA OCEANSIDE LLC	3303 Rivercrest Dr	Austin	TX	78746-1718
CASERTA DIANE	1009 REDDING RD	FAIRFIELD	CT	06430
CHEEMA JASBIR S	4053 E. MORADA LANE	STOCKTON	CA	95212
CHOKE CANYON MOTEL, INC	PO Box 2181	Port Aransas	TX	78373-2181
CINNAMON SHORE COMMUNITY ASSOCIATION INC	PO Box 342585	Austin	TX	78734-0044
CITY OF CORPUS CHRISTI	PO BOX 9277	CORPUS CHRISTI	TX	78469-9277
CITY OF PORT ARANSAS	710 W AVENUE A	PORT ARANSAS	TX	78373-4128
COBBS JEFFREY DAN AND WF	11 HEWIT DR	CORPUS CHRISTI	TX	78404-1609
COCHRAN IRENE TR OF THE	GULF REALTY TRUST	APALACHICOLA	FL	32329-0400
CRANDALLS COTTAGE LLC	1511 Blackbird Ln	San Antonio	TX	78248-1743
CRENWELGE DALE A	PO Box 717	Comfort	TX	78013-0717
CUTLER HAYDN H JR	3825 Camp Bowie Blvd	Fort Worth	TX	76107-3355
DANGER SIX REVOCABLE MANAGEMENT TRUST	34 Royal Gardens Dr	San Antonio	TX	78248-1574
DENMAN BRYAN S	PO Box 775	GONZALES	TX	78629
DOYLE DAVID G & WF AMY L	318 Blue Bonnet Blvd	San Antonio	TX	78209-4633
DTB INVESTMENTS LP	28615 Interstate 10 W	Boerne	TX	78006-9126
DULCE DOG FAMILY LIMITED PARTNERSHIP	PO Box 1111	Leakey	TX	78873-1111
EASON KENNETH D AND SHIRLEY A WFE	4717 Miron Dr	Dallas	TX	75220-2018
EPISCOPAL CHURCH CORP IN	WEST TEXAS	SAN ANTONIO	TX	78209
ERF PORT ARANSAS INC	555 N Carancahua St #700	Corpus Christi	TX	78401-0800
ERWIN JOHN W & WF AMY D	13647 TREASURE TRAIL DR	SAN ANTONIO	TX	78232-3508
ESTRELLA BEACH LLC	5009 State Highway 361	Port Aransas	TX	78373-4833
EVANS JOHN R AND PATRICIA A EVANS WF	21 Inverness Blvd	San Antonio	TX	78230-5652
FACEY ENTERPRISES NVLTD.	A DELAWARE CORP	SAN MARINO	CA	91108
FCI-JJC LP A TEXAS LIMITED PARTNERSHIP	PO Box 366698	BONITA SPRINGS	FL	34136-6698
FISCHER JERRY E	PO Box 2464	CORPUS CHRISTI	TX	78403
FOREMAN SCOTT L AND WF	PO BOX 576	COLLEYVILLE	TX	76034-0576
FREEBORG GREGORY J AND CAROL A	1290 Gasparilla Dr NE	Saint Petersburg	FL	33702-2752
FRIESENHAHN DEVELOPMENT PROPERTIES LP	1204 Zanderson Ave	Jourdanton	TX	78026-3512
FRISHMAN BENJAMIN AND	4403 BALCONES DR	AUSTIN	TX	78731-5709
GARCIA HILARIO JR AND	PO Box 855	Pleasanton	TX	78064-0855
GARNER JEFF A AND WF CYNTHIA W	15513 Palmira Ave Apt A	Corpus Christi	TX	78418-6788
GATES THOMAS A	500 N Shoreline Blvd	Corpus Christi	TX	78401-0356
GATES THOMAS ALBERT JR AND WF	338 CATALINA PL	CORPUS CHRISTI	TX	78411-1602

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

Owner	Mailing Address	City	State	Zip
GER PORT ARANSAS HOUSE LTD	PO Box 9556	AUSTIN	TX	78766
GHADIMI RAMIN G AND DONA	E GHADIMI WFE	AUSTIN	TX	78746-6303
GOLDEN STEPHEN L AND WF	300 Convent St	San Antonio	TX	78205-3710
GONZALEZ ARNULFO JR ET UX	1510 CALLE DEL NORTE	LAREDO	TX	78401
GORCZYCA KIMBER LEI	520 Ocean Vw	Port Aransas	TX	78373-5711
GREEN WING INVESTMENTS LLC AVENUE G SERIES	101 W Goodwin Ave Ste 410	Victoria	TX	77901-6550
GRODSKY DAVID N AND JUNE PEARSON	PO Box 864	PORT ARANSAS	TX	78373
GROSSE RICHARD M ET UX	PO Box 872	PORT ARANSAS	TX	78373
GUENTHER LIFE INSURANCE TRUST	153 TREELINE PARK	SAN ANTONIO	TX	78209
GULF REALTY TRUST	PO Box 400	APALACHICOLA	FL	32329-0400
GULFWIND DEVELOPERS LTD	120 GULF WIND DR	PORT ARANSAS	TX	78373
HAGER CECILIA	3121 White Oak Rd	Fredericksburg	TX	78624-7894
HANMORE EROL R	PO Box 1541	PORT ARANSAS	TX	78373
HART JEFFERY L AND PATRICIA KILDAY HART	1504 Hardouin Ave	Austin	TX	78703-2519
HAUCK AMY K AND JOHN R HAUCK	11715 Spring Ridge Dr	San Antonio	TX	78249-2741
HAUSSER ROBERT JR ETALS	9901 W Interstate 10	San Antonio	TX	78230-2255
HAVERDA GARY CARLTON	PO Box 1411	Port Aransas	TX	78373-1411
HAVSAM PROPERTIES LLC	200 Patterson Ave	San Antonio	TX	78209-6264
HAWN EDWIN D	14222 Playa del Rey	Corpus Christi	TX	78418-7503
HEY PETER MALCHAM	121 Northoak Dr	San Antonio	TX	78232-1209
HH FAMILY INVESTMENTS II LTD	PO Box 207916	SAN ANTONIO	TX	78220-7916
HILL THOMAS W	PO BOX 3229	PORT ARANSAS	TX	78373
ILC REALTY LTD	TEXAS LIMITED PARTNERSHIP	SAN ANTONIO	TX	78258-7538
IMCO INDUSTRIES LTD	2801 - 5TH STREET			
ISLAND RETREAT II	CONDO COUNCIL OF CO-OWNERS	PORT ARANSAS	TX	78373-6012
JEAN KENNETH NORMAN & WF MICHELE	3606 W Deer Crossing Dr	Stillwater	OK	74074-7640
JENKINS CHARLES K ETUX	KATRINA C	HOUSTON	TX	77056-1414
JWI PARTNERS LTD	7373 Broadway St Ste 308	San Antonio	TX	78209-3266
JWW PROPERTIES LLC	615 N Upper Broadway St	Corpus Christi	TX	78401-0753
KINCAID JANET C AND	2009 Fringewood Dr	Midland	TX	79707-5051
KITE L WAYNE	PO Box 490	Port Aransas	TX	78373-0490
KJLSWS PROPERTIES LLC	145 Bluestem Ln	Boerne	TX	78006-7035
KLEBERG MARY LEWIS LTD	700 N Saint Marys St Ste 125	San Antonio	TX	78205-3538
KM BEACH, LLC	755 E Mulberry Ave Ste 600	San Antonio	TX	78212-6013
KNIETO PA LLC	700 N Saint Marys St Ste 125	San Antonio	TX	78205-3538
KNOPP GREGORY A & WF CAROL KNOPP	PO Box 1450	Port Aransas	TX	78373-1450
KOONTZ/MCCOMBS 1 LTD	755 E Mulberry Ave Ste 600	San Antonio	TX	78212-6013
KOXLIEN TIMOTHY J AND WF, LISA L KOXLIEN	24715 Fairway Spgs	San Antonio	TX	78260-4800

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

<b>Owner</b>	<b>Mailing Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
LA CONCHA ESTATES OWNERS' ASSOCIATION INC	14493 S PADRE ISLAND DR	CORPUS CHRISTI	TX	78418
LA COSTA LAND DEVELOPMENT PARTNERS LP	248 Addie Roy Rd	Austin	TX	78746-4140
LABRUZZO DANNY ET UX	JEANNINE	PORT ARANSAS	TX	78373
LAYTON MATTHEW E & WF DEBORAH H	235 AMISTAD ST	CORPUS CHRISTI	TX	78404
LENNOX WILLIAM J JR AND ANNE M LENNOX	10521 Bermuda Isle Dr	Tampa	FL	33647-2721
LIKOVICH JOHN D AND SPSE	236 KING WILLIAM	SAN ANTONIO	TX	78204-1314
LINDNER DOROTHY NORTON	515 HOLIDAY RD	COMFORT	TX	78013-3107
LITTLETON MELVIN ET UX	DELANA	PORT ARANSAS	TX	78373
LOCO OCEAN LLC	PO Box 2290	Fort Worth	TX	76113-2290
MARSHIO BEVERLY AND DR P J MARSHIO	PO Box 669	FULTON	TX	78358
MARTIN OPERATING PARTNERSHIP LP	% MARTIN MIDSTREAM PARTNERS LP	KILGORE	TX	75662
MAYAN PRINCESS COUNCIL OF CO-OWNERS INC	7537 STATE HIGHWAY 361	PORT ARANSAS	TX	78373
MCALLISTER TADDY JO ELLEN	203 Terrell Rd	San Antonio	TX	78209-5915
MCALLISTER WALTER W III	4940 BROADWAY STE 104	SAN ANTONIO	TX	78209
MCCANN CHERYL SUZANNE	236 Dolphin Ln	Port Aransas	TX	78373-5407
MCCARTY DAN E	117 Rockhill Dr	San Antonio	TX	78209-2219
MCDONNELL HENRY JR AND WF MARY ROGERS MCDONNELL	135 Wildrose Ave	San Antonio	TX	78209-3812
MCDONOUGH JOHN G AND	5025 N Central Expy ,Ste 3012	Dallas	TX	75205-3447
MCGINNIS CAMPBELL/JAYNE WFE	1202 BELMONT PARKWAY	AUSTIN	TX	78703
MDW FINANCIAL LIMITED PARTNERSHIP	28255 Interstate 10 W	Boerne	TX	78006-6508
MEADOWS GILBERT R AND JAN B MEADOWS	807 CONTOUR DR	SAN ANTONIO	TX	78212
MHP TEXAS VENTURES LLC	1506 Hawks Mdw	San Antonio	TX	78248-1719
MILLS STEVE	18314 Emerald Oaks Dr	San Antonio	TX	78259-3637
MOKRY NANCY & WESLEY MOKRY	11223 BLOSSOM BELL DR	AUSTIN	TX	78758-4217
MOONEY RICHARD J TRUSTEE OF THE RJM TRUST	PO Box 1586	Frisco	TX	75034-0027
MOORE EDWARD ETUX TRUDY	1248 Austin Hwy 106-218	San Antonio	TX	78209-4867
MOORHOUSE BURTON L AND WF BEVERLY S BOLNER	684 Shoreline Cir	Port Aransas	TX	78373-4129
MUSTANG ISLAND DEVELOPMENT INC	120 Social Cir UNIT 4-101	Port Aransas	TX	78373-5091
MUSTANG ISLAND LLC	5916 Sterling Dr	Colleyville	TX	76034-7631
NEBLETT DUNCAN JR AND GEORGIA WFE	681 SHORELINE CIRCLE	PORT ARANSAS	TX	78373
NELLA GROUP LLC	427 N Broadway Blvd	Joshua	TX	76058-3413
NUECES COUNTY	901 LEOPARD ST	CORPUS CHRISTI	TX	78401-3606
OCEANSIDE ADDITION OWNERS	PO Box 236	Port Aransas	TX	78373-0236
PA POINT LTD	4418 OCEAN DRIVE	CORPUS CHRISTI	TX	78412
PA WATERFRONT L P	3455 PEACHTREE RD NE STE 650	ATLANTA	GA	30326
PAISANO PARTNERS LTD	4040 BROADWAY STE 501	SAN ANTONIO	TX	78209
PANOS MANAGEMENT TRUST	3716 Lagood Dr	Austin	TX	78730-3501
PATE RICHIE	1800 Hughes Landing Blvd	Spring	TX	77380-1684



**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

<b>Owner</b>	<b>Mailing Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
PAYNE DENNIS L & WF, DEBORAH J	5478 County Road 73	Robstown	TX	78380-9003
PERCOCO RICHARD A & THELMA A WFE	1011 Bayridge Rd	La Porte	TX	77571-3520
PHILLIPS BRICE	2004 PHILADELPHIA AVE	OCEAN CITY	MD	21842
PIONEER RV RESORT INC	120 GULF WIND DR	PORT ARANSAS	TX	78373
PITT STEPHEN M AND SARAH J	2929 Weslayan St	Houston	TX	77027-2007
POMEROY ANNETTE	200 LEGACY DOWNS DR	FORT WORTH	TX	76126-5737
PORPOISE POINT HOMEOWNERS'	ASSOCIATION	PORT ARANSAS	TX	78373
PORT A MANAGEMENT CO	13647 Treasure Trail Dr	San Antonio	TX	78232-3508
PORT A SANDBOX LLC	PO BOX 17067	AUSTIN	TX	78760-7067
PORT ARANSAS MARICULTURE	CENTER - TEXAS A & M			
PORT ARANSAS MARINA ASSN	PO BOX 117	SAINT HEDWIG	TX	78152-0117
PORT ARANSAS RV PARK	907 ACCESS RD 1A	PORT ARANSAS	TX	78373
PORT OF CORPUS CHRISTI AUTH	PO Box 1541	CORPUS CHRISTI	TX	78403
PORTA CORPORATION	PO Box 460968	San Antonio	TX	78246-0968
POSEIDON REALTY TRUST	C/O ABACUS REALTY	APALACHICOLA	FL	32329-0400
POWER LAND COMPANY LTD	5601 EDMOND STE M	WACO	TX	76710-4321
PRESTON WILLIAM J & MELISSA V PRESTON	PO Box 7520	Spring	TX	77387-7520
R & R ROYALTY LTD	500 N Shoreline Blvd Ste 322	Corpus Christi	TX	78401-0313
RACHAL ED FOUNDATION	555 N Carancahua St Ste 700	Corpus Christi	TX	78401-0861
RANDALL JAMES PRESTON & WF LAURILEE GRACE	10603 Sierra Oaks	Austin	TX	78759-5166
REDDY GEETA	PO Box 272000	Corpus Christi	TX	78427-2000
RHODES SUZANNE S AND ALAN GARY THOMPSON	4511 Ridgehaven Rd	Fort Worth	TX	76116-7315
RIVERS WIL & JULIE V HUMBLE	610 Shoreline Cir	Port Aransas	TX	78373-4129
ROGERS WALLACE III 1992 FAMILY TRUST	305 Geneseo Rd	San Antonio	TX	78209-6124
RUSSELL JOHN	31211 Silver Spur Trl	Boerne	TX	78015-4107
S & K FAMILY TRUST	24165 W Interstate 10 Ste 217-419	San Antonio	TX	78257-9997
SAMBERSON RANDALL	688 Kaila Ct	Port Aransas	TX	78373-2240
SAND POINT N.U.D OWNER'S ASSOC INC	PO BOX 141	PORT ARANSAS	TX	78373-0141
SCHIRMER ROBERT G SR AND	324 DOLPHIN LN	PORT ARANSAS	TX	78373-5405
SCHOLL JACK W & SCHOLL HOLDINGS LTD	5740 Ocean Dr	Corpus Christi	TX	78412-2848
SCHRADER J ERIC ETUX DENISE A	6601 RIVER BEND DR	FT WORTH	TX	76132
SCHWEPPE HENRY IRVING JR TR	1752 NORTH BOULEVARD	HOUSTON	TX	77098-5414
SCOTT MICHAEL D & WF CONNIE SCOTT	638 Shoreline Cir	Port Aransas	TX	78373-4129
SEA OATS INVESTMENTS II LLC	5009 State Highway 361	Port Aransas	TX	78373-4833
SEAS THE VIEW	PO Box 1627	Kyle	TX	78640-1627
SEUREAU GLENN	3214 INWOOD DR	HOUSTON	TX	77019-3228
SHUTTERS PORTA LLC	203 HUMBLE AVE	SAN ANTONIO	TX	78225
SIGMA OCEAN VIEW PROPERTIES LLC	310 Champion Fls	San Antonio	TX	78258-4876

**Block 25 Addresses of Adjoining Property Owners (from Nueces and San Patricio Counties 2018)**

<b>Owner</b>	<b>Mailing Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
SILVERCLOUD PROPERTIES LLC	221 E Guenther	San Antonio	TX	78204-1404
SKEWIS RONALD J AND WF	717 S 9th St Unit D	Port Aransas	TX	78373-4413
SNYDER BLAINE & KELLI SNYDER	673 Shoreline Cir	Port Aransas	TX	78373-4146
SPARR RICHARD A JR & WF JENNIFER	1313 NE LOOP 410 STE 100	SAN ANTONIO	TX	78209
SPEC-TACULAR INC	921 N Chaparral St Ste 103	Corpus Christi	TX	78401-2008
SPMP HOLDINGS LTD	115 Rio Cordillera	Boerne	TX	78006-5891
STAFFORD WESLEY W	AND JANE O STAFFORD WFE	CORPUS CHRISTI	TX	78411
STAHLMAN ALAN R	5691 FM 2722	NEW BRAUNFELS	TX	78132-2018
STATE OF TEXAS	PO Box 12608	Austin	TX	78711-2608
STERETT ROBERT HULINGS AND	409 Coral Pl	Corpus Christi	TX	78411-1530
STOVALL CHARLES WILLIAM AND WF	420 Ocean View Dr	Port Aransas	TX	78373-5711
SUNFLOWER BEACH DEVELOPMENT LTD	2215 Westlake Dr	Austin	TX	78746-2910
SWN LTD ET AL	2121 SAGE RD	HOUSTON	TX	77056-4341
TEMPLES RODGER D &	4701 Winthrop Ave W	Fort Worth	TX	76116-8239
TERRAMAR MI LTD	6315 Bandera Ave	Dallas	TX	75225-3621
TF JORGENSEN BUSINESS	MANAGEMENT PARTNSHP LTD	NACOGDOCHES	TX	75961
THE WINAR GROUP LLC	C/O ROBBY ALLEN	JOSHUA	TX	76058
TURNER CHARLES R TRUSTEE	4201 Lomo Alto Dr Apt 109	Dallas	TX	75219-1511
UNITED STATES OF AMERICA	DEPT OF INTERIOR			
UNIVERSITY OF TEXAS	210 W 7th St	Austin	TX	78701-2903
VAGSHENIAN ATHENA	114 CRESTVIEW DR	AUSTIN	TX	78734
VAN FAMILY REAL ESTATE PARTNERSHIP LTD	8701 Research Blvd Ste E	Austin	TX	78758-6509
VAUGHAN BEN F III TRUSTEE OF THE	PO Box 460968	San Antonio	TX	78246-0968
WALLACE JUDITH LYN	3016 Mid Ln Unit B	Houston	TX	77027-5638
WATSON JOHN DOBREE AND WF	8005 Hidden Creek Ct	Mansfield	TX	76063-2088
WESTPLAN RESIDENTIAL FUND III LP	ONE GLENLAKE PARKWAY STE 1275	ATLANTA	GA	30328
WMI PROPERTIES LLC	605 E Dewey Pl	San Antonio	TX	78212-4012
WMI2 LLC	PO Box 90624	San Antonio	TX	78209-9088
WOLFE RONALD T & WF PAMELA K BURDA-WOLFE	211 COSTA BELLA DR	AUSTIN	TX	78734
YELLOW SHACK INVESTMENTS LLC	302 Dolphin Ln	Port Aransas	TX	78373-5405
ZARS KEITH M	12818 COUNTRY CREST	SAN ANTONIO	TX	78216-0000

## **Appendix B**

### **Public and Agency Coordination**

**Note: The Section 508 amendment of the Rehabilitation Act of 1973 requires that the information in Federal documents be accessible to individuals with disabilities. The USACE has made every effort to ensure that the information in this appendix is accessible.**

**However, this appendix is not fully compliant with Section 508, and readers with disabilities are encouraged to contact Mr. Jayson Hudson at the USACE at (409) 766-3108 or at [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil) if they would like access to the information.**

## **Appendix B1**

**Notice of Intent, April 7, 2020**

6. *Public Involvement*: The purpose of the public scoping process is used to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the following categories have been identified to date: Waters of the U.S. including wetlands, water quality, sedimentation and erosion, hydrology and flood hazards, water rights, wildlife and aquatic species, migratory birds, threatened and endangered species, invasive species, air quality, environmental justice, socioeconomic environment, archaeological and cultural resources, navigation and recreational resources, hazardous waste and materials, public health and safety, downstream and off-site impacts, and cumulative impacts. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination*: The proposed action is being coordinated with a number of federal, state, regional, and local agencies, including the U.S. Environmental Protection Agency (a cooperating agency under NEPA), U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, Texas Commission on Environmental Quality, Texas General Land Office, and Texas Parks and Wildlife Department.

8. *Availability of Draft EIS and Scoping*: The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

[FR Doc. 2020-07315 Filed 4-6-20; 8:45 am]

BILLING CODE 3720-58-P

## DEPARTMENT OF DEFENSE

### Department of the Army, Corps of Engineers

[Department of the Army Permit Number SWG-2019-00067]

#### [Intent To Prepare an Environmental Impact Statement and Public Scoping Meeting for the Port of Corpus Christi Channel Deepening Project, Nueces and Aransas Counties, Texas]

**AGENCY:** U.S. Army Corps of Engineers, DoD.

**ACTION:** Notice of intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Galveston District (Corps),

has received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). The primary Federal involvement associated with the proposed action is the discharge of dredged or fill material into waters of the United States, the construction of structures and/or work that may affect navigable waters, and ocean disposal of dredged material. Federal authorizations for the proposed project would constitute a "major federal action." Based on the potential impacts, both individually and cumulatively, the Corps intends to prepare an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) to render a final decision on the permit application. The Corps' decision will be to issue, issue with modification, or deny DA permits for the proposed action. The EIS will assess the potential social, economic, and environmental impacts of the proposed project and is intended to be sufficient in scope to address Federal, State and local requirements, environmental and socioeconomic issues concerning the proposed action, and permit reviews.

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.

**SUPPLEMENTARY INFORMATION:** The Corps Galveston District intends to prepare an EIS for the proposed Port of Corpus Christi Deepening project. The proposed project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening

activities would be completed within the footprint of the authorized CCSC channel width. The proposed project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel. As part of the Department of the Army permit application process, a public notice was published on August 1, 2019. The purpose of the public notice was to initiate an early public scoping process to solicit comments and information from the public as well as state and federal agencies to better enable us to make a reasonable decision on factors affecting the public interest. All comments received to date, including those provided for review during the public notice comment period, will be considered by the Galveston District during EIS preparation.

1. *Scoping Process/Public Involvement*: The Corps invites all affected federal, state, and local agencies, affected Native American Tribes, other interested parties, and the general public to participate in the NEPA process during development of the EIS. The purpose of the public scoping process is to provide information to the public, narrow the scope of analysis to significant environmental issues, serve as a mechanism to solicit agency and public input on alternatives and issues of concern, and ensure full and open participation in scoping for the Draft EIS. To ensure that all of the issues related to this proposed project are addressed, the Corps will conduct public scoping meeting(s) in which agencies, organizations, and members of the general public are invited to present comments or suggestions with regard to the range of actions, alternatives, and potential impacts to be considered in the EIS. The scoping meeting will begin with an informal open house including a presentation of the proposed action and a description of the NEPA process. These will be held in person, or virtually, as determined by the Agency. Comments will be accepted for 14 days following the scoping meeting. Displays and other forms of information about the proposed action will be available, and the Corps and PCCA personnel will be present at the informal session to discuss the proposed project and the EIS Process. The Corps invites comments on the proposed scope and content of the EIS from all interested parties. Verbal transcribers will be available at the scoping meeting to accept verbal comments. A time limit will be imposed on verbal comments. Written comments

may be submitted prior, during, or up to 14 days after the scoping meeting. The specific dates, times, and locations of the meetings will be published in press releases, special public notices and on the Corps' project website: <https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>.

2. *Project Background:* The CCSC is currently authorized by the USACE to project depths of -54 feet and -56 feet mean lower low water (MLLW) from Station 110+00 to Station -330+00 as part of the CCSC Improvement Project. The current authorized width of the CCSC is 600 feet inside the jetties and 700 feet in the entrance channel. The proposed project would deepen the channel from Station 110+00 to Station -72+50 to a maximum depth of -79 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge), and from Station -72+50 to Station -330+00, the channel would be deepened to a maximum depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge). The proposed project includes a 29,000-foot extension of the CCSC from Station -330+00 to Station -620+00 to a maximum depth of -81 MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would span approximately 13.8 miles from a location near the southeast side of Harbor Island to the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would cover approximately 1,778 acres, creating approximately 46 million cubic yards (MCY) of new work dredged material (17.1 MCY of clay and 29.2 MCY of sand).

The proposed project consists of the following:

Deepening a portion of the CCSC from the currently authorized depth of -54 to -56 MLLW to final constructed depths ranging from -79 to -81 feet MLLW;

Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach the -80-foot MLLW bathymetric contour;

Expanding the existing Inner Basin at Harbor Island as necessary to accommodate VLCC turning, which includes construction of a flare transition from the CCSC within Aransas to meet the turning basin expansion;

Potential placement of new work dredged material into waters of the

United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;

Potential placement of dredged material on San Jose Island for dune restoration;

Potential placement of dredged material feeder berms for beach restoration along San Jose and Mustang Islands; and

Transport of new work dredged material to the CCSC Improvement Project New Work Ocean Dredged Material Disposal Site (ODMDS).

3. *Location:* The proposed project is located within the existing channel bottom of the CCSC starting at station 110+00 near the southeast side of Harbor Island, traversing easterly through the Aransas Pass, and extending beyond the currently authorized terminus Station -330+00 an additional 29,000 feet terminating out into the Gulf of Mexico at the proposed new Terminus Station -620+00, an approximate distance of 13.8 miles, in Port Aransas, Nueces County, Texas. The project can be located on the U.S.G.S. quadrangle map entitled: Port Aransas, Texas.

4. *Purpose and Need:* To safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and affects safety.

5. *Alternatives:* An evaluation of alternatives to PCCA's preferred alternative initially being considered includes a No Action alternative; alternatives that would avoid, minimize, and compensate for impacts to the environment within the proposed Project footprint; alternatives that would avoid, minimize, and compensate for impacts to the environment outside the footprint; alternatives using alternative practices; and other reasonable alternatives that will be developed through the Project scoping process, which may also meet the identified purpose and need.

6. *Public Involvement:* The purpose of the public scoping process is to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the

following categories have been identified to date: Potential direct effects to waters of the United States including wetlands; water and sediment quality; aquatic species; air quality; socioeconomic environment; archaeological and cultural resources; recreation and recreational resources; hazardous waste and materials; aesthetics; public health and safety; navigation; ferry operations; erosion; invasive species; cumulative impacts; public benefit and needs of the people along with potential effects on the human environment. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination:* The proposed action is being coordinated with a number of Federal, State, regional and local agencies. As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS.

8. *Availability of Draft EIS and Scoping:* The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

[FR Doc. 2020-07313 Filed 4-6-20; 8:45 am]

**BILLING CODE 3720-58-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

*Docket Number:* PR20-47-000.

*Applicants:* Public Service Company of Colorado.

*Description:* Tariff filing per 284.123(b),(e)+(g): Statement of Rates 3.1.2020 to be effective 3/1/2020.

*Filed Date:* 3/27/2020.

*Accession Number:* 202003275291.

*Comments Due:* 5 p.m. ET 4/17/2020.

*284.123(g) Protests Due:* 5 p.m. ET 5/26/2020.

## **Appendix B2**

### **Concurrence Point Correspondence**



## Lisa Vitale

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**From:** Hudson, Jayson M CIV USARMY CESWG (USA) <Jayson.M.Hudson@usace.army.mil>  
**Sent:** Wednesday, March 25, 2020 2:24 PM  
**To:** Judith, Ashley; Garza, Sarah  
**Cc:** Hudson, Jayson M CIV USARMY CESWG (USA); Lisa Vitale; Tom Dixon; Anthony Risko  
**Subject:** Department of the Army Permit Application No. SWG-2019-00067 - Concurrence Point 1 Purpose and Need  
**Attachments:** Attach B - 2020-01-10\_REV\_2\_PCCA CDP Purpose and Need Rev5.pdf

External Email. Use caution when clicking links or opening attachments.

Sarah,

DA permit application SWG-2019-00067 is subject to the "One Federal Decision" (OFD) Executive Order (EO) 13807: Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure projects, dated August 15, 2017 and the subsequent Memorandum of Understanding Implementing One Federal Decision Under Executive Order 13807 (MOU), April 9, 2018 identify three specific concurrence points in Section XI of the MOU, identified as milestones in the Permitting Timetable.

Concurrence points are opportunities for lead and cooperating agencies to assess mutual understanding and agreement on fundamental elements of the EIS. Concurrence among lead and cooperating agencies establishes that all involved agree to a given decision described in the concurrence point, and that all agree to abide by the decision as analyses and EIS preparation progress. The Purpose and Need statement is Concurrence Point #1

Defining purpose and need is discussed in Section 9(b)(4) of Appendix B to 33 CFR part 325, as well as the Council on Environmental Quality's regulations at 40 CFR 1502.13. The Corps should use a reasonably and objectively formulated and stated project purpose, after taking into account the "purpose and need" provided by the applicant. The Corps should not allow the applicant to improperly limit the project's "purpose and need", because a reasonably defined purpose and need is required to properly perform the alternatives analysis.

Defining the project purpose is critical to the evaluation of any project and in evaluating project compliance with the Section 404(b)(1) Guidelines. Defining the basic project purpose enables the Corps to determine if the activity is special aquatic site dependent (see 40 CFR 230.10(a)(3)). The overall project purpose is used to identify and evaluate practicable alternatives (see 40 CFR 230.10(a)(2)).

The Corps is responsible for defining the basic project purpose. The basic purpose of the project must be known to determine if a given project requires access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose. If a project does not require access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose, alternatives that do not involve impacts to special aquatic sites are presumed to be available to the applicant, unless it is clearly demonstrated that such alternatives are not available. An activity that does not require access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose may still be authorized, as long as the 404(b)(1) Guidelines presumption against such discharges is successfully rebutted, the discharge meets the other criteria of the 404(b)(1) Guidelines, the activity is not contrary to the public interest, and it satisfies all other statutory and regulatory requirements (see 40 CFR 230.10(a)(3)).

The Corps also develops a more robust purpose statement, the overall project purpose, which is used to evaluate less environmentally damaging practicable alternatives. The 404(b)(1) Guidelines state that an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. This evaluation applies to all waters of the United States, not just special aquatic sites. Defining

the overall project purpose is the Corps' responsibility. However, the applicant's needs and the type of project being proposed should be considered. The overall project purpose should be specific enough to define the applicant's needs, but not so restrictive as to constrain the range of alternatives that must be considered under the 404(b)(1) Guidelines (see 40 CFR 230.10(a)(2)).

This applicant's purpose and need statement, attached, was used by the Corps to determine the "basic" and "overall" project purposes. The Cooperating Agencies pursuant to NEPA and OFD have concurred with the following Basic and Overall project purpose.

Basic project purpose, as determined by the Corps: To safely, efficiently, and economically export current and forecasted crude oil inventories from the facilities at the Port of Corpus Christi.

Determination: The proposed project does not require access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose. Alternatives that do not involve impacts to special aquatic sites are presumed to be available.

Overall project purpose, as determined by the Corps: To safely, efficiently, and economically export current and forecasted crude oil inventories via Very Large Crude Carriers (VLCC), a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and effects safety.

Reasonable and practicable alternatives to the proposed project will be based on this overall project purpose. If you have any questions, please let me know.

Sincerely,

Jayson M Hudson  
Regulatory Project Manager  
Policy Analysis Branch  
Galveston District  
409.766.3108

Please tell me how I am doing by completing the survey found at:

[https://nam03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fcorpsmapu.usace.army.mil%2Fcm\\_apex%2Ff%3Fp%3D136%3A4%3A0&data=02%7C01%7CLisa.Vitale%40freese.com%7Ca071846c9bce4a1beaa608d7d0f2139e%7C191657eabccff43859d04659ef9cee515%7C0%7C0%7C637207610459718796&sdata=zR4v7EBNNSn2kfgxDtwse4AGuG4tpvZ9jKT50QxRdCk%3D&reserved=0](https://nam03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fcorpsmapu.usace.army.mil%2Fcm_apex%2Ff%3Fp%3D136%3A4%3A0&data=02%7C01%7CLisa.Vitale%40freese.com%7Ca071846c9bce4a1beaa608d7d0f2139e%7C191657eabccff43859d04659ef9cee515%7C0%7C0%7C637207610459718796&sdata=zR4v7EBNNSn2kfgxDtwse4AGuG4tpvZ9jKT50QxRdCk%3D&reserved=0)

## **PURPOSE AND NEED FOR PROJECT**

The purpose of the proposed project is to construct a channel with the capability to accommodate transit of fully laden Very Large Crude Carriers (VLCCs) from multiple locations on Harbor Island into the Gulf of Mexico. Factors influencing the Applicant's need for the project include:

- The ability for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives,
- Enhancement of the PCCA's ability to accommodate future growth in energy production, and
- Construction of a channel project that the PCCA can readily implement to accommodate industry needs.

Currently, crude oil is primarily exported using Aframax and Suezmax vessels. VLCCs are now regularly calling on existing crude export facilities further up the channel at Ingleside, including at the Moda terminal. Suezmax and VLCC vessels are light loaded (lightered) due to depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized CCSC deepening project is completed. Reverse lightering translates into additional vessel trips, cost, man hours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs. In order to fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA must keep pace with the global marketplace.

The need for the proposed project is driven by the considerations below, which are explained in the following paragraphs:

- Pipelines from Eagle Ford and Permian Basins are being constructed to the Port of Corpus Christi and to Harbor Island. Crude oil terminals are also being planned at Harbor Island using the Federally-authorized -54-foot deep channel. However, use of the -54-foot deep channel limits the ability to fully load VLCCs, decreasing efficiency and requiring reverse lightering of these vessels.
- Bolstering national energy security through the growth of U.S. crude exports.
- Protecting national economic interests by decreasing the national trade deficit.
- Supporting national commerce by keeping pace with existing and expanded infrastructure being modified or already under development to export crude oil resulting from the large growth in the Permian and Eagle Ford oil field development, which has helped the U.S. recently become the top oil-producing nation in the world.
- Improve safety and efficiency of water-borne freight movements.

The infrastructure and proximity to the major Texas shale plays makes the Port an attractive location for efficiently exporting crude oil by VLCC vessels. The PCCA has received interest from new and existing customers for developing crude oil export terminals and facilities. Production and export of crude oil and natural gas have greatly increased over the years and are providing an economic boom to the Port and the region.

In 2017 the Port of Corpus Christi exported an average of 280,000 barrels of crude oil per day, as of 1st January 2020, the Port is exporting an average of 1,650,000 barrels of crude oil per day, and projections

indicate that exports could increase to 4,500,000 barrels per day by 2030. Investments at the PCCA that are directly aimed at product from the Eagle Ford Shale and Permian Basin are over \$300 million. In the latter part of July 2018, the PCCA sold more than \$216 million in bonds to fund energy export products. A portion of this money will be used for the authorized deepening of the CCSC, and will also help fund other improvements, including a crude oil export terminal under design at Harbor Island. The new oil export terminals being planned at the Port will have loading arms, handling equipment, storage tanks, and other related facilities for larger ships including VLCCs. Similar crude export facilities are being planned by multiple other entities at Harbor Island.

More efficient transport of crude in greater volumes is the impetus for the PCCA to deepen the channel to accommodate fully loaded VLCCs. Presently, the existing channel depth requires that current crude carriers, whether VLCCs or other vessels, depart partially loaded from the Port, or that VLCCs remain offshore while smaller tankers transfer their cargo to the larger VLCCs, a process known as reverse lightering. The inefficiency of this process is compounded by some of these smaller vessels also not being able to be fully loaded while moving through the Port.

Production from the Permian and Eagle Ford basins continues to increase, and several of the major midstream companies are currently undergoing major expansions to facilitate the export of greater volumes of crude. One example of these expansions are the new terminals which are at the center of an emerging pipeline and storage hub near Taft, Texas. The terminals are planned to be connected to the Cactus II Pipeline, the Grey Oak Pipeline and other crude systems, to store crude oil and supply it to the export markets at Corpus Christi. As these exports increase, the number of lightering vessels and product carriers will also increase, adding to shipping delays and congestion inside and outside of the Port. These delays and congestion will increase the cost of transportation, which in turn will increase the cost of crude oil with the ultimate consequence of making U.S. crude less competitive in the global market.



**DEPARTMENT OF THE ARMY**  
GALVESTON DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

July 1, 2020

Regulatory Division

SUBJECT: Department of the Army Permit Application No. SWG-2019-00067

Mr. Robert Houston  
Chief, Office of Planning and Coordination  
USEPA Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

Dear Mr. Houston:

The U.S. Army Corps of Engineers, as the lead Federal agency, is developing an Environmental Impact Statement (EIS), for which the Environmental Protection Agency is a cooperating agency. The EIS will analyze the potential impacts of issuing a Department of the Army permit for the Corpus Christi Ship Channel (CCSC) Channel Deepening Project (Project). The purpose of this letter is to coordinate an important milestone and ensure your agencies concurrence with the assumptions currently being evaluated by my office.

Fixing America's Surface Transportation Act (FAST-41).

On June 18, 2019, the Federal Permitting Improvement Steering Council (FPISC) added the proposed Project to the inventory of "covered projects" that are pending environmental review or authorization of the head of any Federal Agency pursuant to the requirements set forth in Title 41 of Fixing America's Surface Transportation Act (FAST-41). The CCSC Project has been placed on the FAST-41 Infrastructure Projects Permitting Dashboard (Permitting Dashboard) in accordance with the Joint Memorandum of the Office of Management and Budget/Council on Environmental Quality (OMB/CEQ) dated January 13, 2017 and entitled: "*Guidance to Federal Agencies Regarding the Environmental Review and Authorizations Process for Infrastructure Projects*".

Executive Order 13807 Concurrence Point 2

The CCSC Project is also subject to the "One Federal Decision" (OFD) Executive Order (EO) 13807: *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure projects*, dated August 15, 2017. The subsequent Memorandum of Understanding Implementing One Federal Decision Under Executive Order 13807 (MOU), April 9, 2018 identifies three specific concurrence points in Section XI of the MOU, identified as milestones in the Permitting Timetable.

Concurrence points are opportunities for lead and cooperating agencies to assess mutual understanding and agreement on fundamental elements of the EIS. Concurrence among lead and cooperating agencies establishes that all involved agree to a given decision described in the concurrence point, and that all agree to abide by the decision as analyses and EIS preparation progresses. The Alternatives Analysis is Concurrence Point #2.

### Corps Regulations for Alternatives Analysis

In its evaluation of permit applications to discharge dredged or fill material into waters of the U.S. (WOUS), including wetlands, the U.S. Army Corps of Engineers (Corps) is required to analyze alternatives to the proposed project that achieve its purpose. The Corps conducts this analysis pursuant to two main requirements – the 404(b)(1) Guidelines (Guidelines) found in 40 CFR 230 and the National Environmental Policy Act (NEPA) found in 33 CFR Part 325 Appendix B and 40 CFR 1508. The Corps also considers alternatives as part of its public interest review evaluation found in 33 CFR 320.4(a)(2)(ii).

The overall project purpose is used to evaluate less environmentally damaging practicable alternatives. The 404(b)(1) Guidelines state that an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. This evaluation applies to all waters of the United States, not just special aquatic sites such as wetlands and seagrasses.

The overall project purpose, as determined by the Corps after concurrence with the Cooperating Agencies is: *To safely, efficiently, and economically export current and forecasted crude oil inventories via Very Large Crude Carriers (VLCC), a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and effects safety.*

Based on evaluating information obtained from public input and meetings with federal and state agencies and data collection and analysis of environmental, socioeconomic, and engineering factors, development of Project alternatives prioritized minimization of impacts, both individually and cumulatively, to aquatic resources during both construction and operations. Using these concepts and considering avoidance and minimization to reduce impacts, the following six Project alternatives were identified.

1. No Action. Under the No Action Alternative, the CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. VLCCs will continue to be partially loaded and reverse-lightered offshore. The No Action Alternative does not meet the Project purpose and need but is carried forward for detailed analysis in this EIS for comparison purposes.

2. Channel Deepening Alternative - This alternative consists of deepening the CCSC to -81 MLLW from the Gulf of Mexico to station 110+00 near Harbor Island, including the approximate 10 mile extension to the Entrance Channel necessary to reach sufficiently deep waters. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. Dredging approximately 46.3 MCY would be required with inshore and offshore placement of the material. During our analysis, alternatives to dredge placement will be conducted on a case-by case basis. Under this alternative, only berths at Harbor Island would be capable of fully loading VLCCs. Partially loaded VLCCs at Ingleside could top off at Harbor Island thereby reducing or eliminating reverse-lightering.

3. Offshore Alternative - The CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. To meet the project purpose, multiple deep water port facilities capable of sustaining all projected oil exportation would be constructed. VLCCs would be fully loaded offshore eliminating the need to traverse the channel and reverse-lighter. This alternative would also eliminate dredging of the channel and the impacts associated with dredged material placement.

4. Combined Inshore/Offshore - The CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. To meet the project purpose, VLCC vessels would be partially loaded at inshore facilities in Ingleside and Harbor Island then traverse the channel to the offshore facility to be fully loaded. This alternative would eliminate the need to reverse-lighter and would also eliminate dredging of the channel and the impacts associated with dredged material placement.

5. Houston Alternative – This alternative consists of relocating the project to the Port of Houston. The Houston Ship Channel (HSC) is currently maintained at -45 MLLW. This alternative would either require the HSC be dredge to -81 MLLW or construct offshore facilities to eliminate reverse-lightering.



6. Brownsville Alternative – This alternative consists of relocating the project to the Port of Brownsville. The Brownsville Ship Channel (BSC) is maintained at -42 MLLW. This alternative would require either the BSC to be dredged to -81 MLLW or construct offshore facilities to eliminate reverse-lightering

The Corps used a multi-step process to screen the range of alternatives to determine which alternatives are reasonable, practicable, and meet the Project purpose. The Project alternatives were analyzed using the following screening criteria to identify a range of reasonable alternatives: satisfaction of the overall Project purpose; practicable based on Clean Water Act Section 404(b)(1) Guidelines (technology, logistics, cost); and consideration of potential aquatic resources impacts. The alternatives screening analysis is summarized in Table 1.

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* It is not a particular applicant's financial standing that is the primary consideration for determining practicability in regards to cost, but rather characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations.				

Based on this analysis, the Corps has determined that the No Action Alternative and three action alternatives will be carried forward for detailed analysis in the EIS. Sites that lie substantially outside the geographic boundaries identified in the overall project purpose are not practicable, and therefore unreasonable, and can be eliminated with little information. Therefore, alternative locations, such as Houston and Brazos Island Harbor, which was scoped in by the public, are not being carried forward in the analysis.

Enclosed, you will find a copy of the applicant's alternatives analysis for your reference. In accordance with the MOU, cooperating agencies will respond to the lead agency's request for concurrence within 10 business days. Failure to respond within 10 business days may be treated as concurrence, at the discretion of the lead agency.

If you have any questions, feel free to contact Mr. Jayson M Hudson, Regulatory Project Manager, from my staff at the letterhead address or by telephone at 409-766-3108 or by email at [jayson.m.hudson@usace.army.mil](mailto:jayson.m.hudson@usace.army.mil).

Sincerely,

MCMAHAN.JOSEPH.A  
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Joe McMahan  
Chief, Regulatory Division

Enclosure



**DEPARTMENT OF THE ARMY**  
GALVESTON DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

July 1, 2020

Regulatory Division

SUBJECT: Department of the Army Permit Application No. SWG-2019-00067

Mr. Rusty Swafford  
NOAA-NMFS HCD  
National Marine Fisheries Service  
Galveston Laboratory  
4700 Avenue U  
Galveston, TX 77551

Dear Mr. Swafford:

The U.S. Army Corps of Engineers, as the lead Federal agency, is developing an Environmental Impact Statement (EIS), for which the National Marine Fisheries Service is a cooperating agency. The EIS will analyze the potential impacts of issuing a Department of the Army permit for the Corpus Christi Ship Channel (CCSC) Channel Deepening Project (Project). The purpose of this letter is to coordinate an important milestone and ensure your agencies concurrence with the assumptions currently being evaluated by my office.

Fixing America's Surface Transportation Act (FAST-41).

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Sincerely,

MCMAHAN.JOSEPH.

ANTHONY.11077926

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Joe McMahan

Chief, Regulatory Division

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Enclosure





**DEPARTMENT OF THE ARMY**  
GALVESTON DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

July 1, 2020

Regulatory Division

SUBJECT: Department of the Army Permit Application No. SWG-2019-00067

LCDR Margaret Brown  
U.S. Coast Guard  
Sector Corpus Christi  
Waterways Management  
249 Glasson Drive  
Corpus Christi, Texas 78406

Dear LCDR Brown:

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Port of Houston	No	No	No	No
* It is not a particular applicant's financial standing that is the primary consideration for determining practicability in regards to cost, but rather characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations.				


Based on this analysis, the Corps has determined that the No Action Alternative and three action alternatives will be carried forward for detailed analysis in the EIS. Sites that lie substantially outside the geographic boundaries identified in the overall project purpose are not practicable, and therefore unreasonable, and can be eliminated with little information. Therefore, alternative locations, such as Houston and Brazos Island Harbor, which was scoped in by the public, are not being carried forward in the analysis.

Enclosed, you will find a copy of the applicant's alternatives analysis for your reference. In accordance with the MOU, cooperating agencies will respond to the lead agency's request for concurrence within 10 business days. Failure to respond within 10 business days may be treated as concurrence, at the discretion of the lead agency.

If you have any questions, feel free to contact Mr. Jayson M Hudson, Regulatory Project Manager, from my staff at the letterhead address or by telephone at 409-766-3108 or by email at [jayson.m.hudson@usace.army.mil](mailto:jayson.m.hudson@usace.army.mil).

Sincerely,

MCMAHAN.JOSEPH.A  
NTHONY.1107792623



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Joe McMahan  
Chief, Regulatory Division

Enclosure



**DEPARTMENT OF THE ARMY**  
GALVESTON DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

July 1, 2020

Regulatory Division

SUBJECT: Department of the Army Permit Application No. SWG-2019-00067

Mr. Chuck Ardizzone  
Field Supervisor  
U.S. Fish and Wildlife Service  
17629 El Camino Real  
Houston, TX 77058

Dear Mr. Ardizzone:

The U.S. Army Corps of Engineers, as the lead Federal agency, is developing an Environmental Impact Statement (EIS), for which the U.S. Fish and Wildlife Service is a cooperating agency. The EIS will analyze the potential impacts of issuing a Department of the Army permit for the Corpus Christi Ship Channel (CCSC) Channel Deepening Project (Project). The purpose of this letter is to coordinate an important milestone and ensure your agencies concurrence with the assumptions currently being evaluated by my office.

Fixing America's Surface Transportation Act (FAST-41).

On June 18, 2019, the Federal Permitting Improvement Steering Council (FPISC) added the proposed Project to the inventory of "covered projects" that are pending environmental review or authorization of the head of any Federal Agency pursuant to the requirements set forth in Title 41 of Fixing America's Surface Transportation Act (FAST-41). The CCSC Project has been placed on the FAST-41 Infrastructure Projects Permitting Dashboard (Permitting Dashboard) in accordance with the Joint Memorandum of the Office of Management and Budget/Council on Environmental Quality (OMB/CEQ) dated January 13, 2017 and entitled: "*Guidance to Federal Agencies Regarding the Environmental Review and Authorizations Process for Infrastructure Projects*".

Executive Order 13807 Concurrence Point 2

The CCSC Project is also subject to the "One Federal Decision" (OFD) Executive Order (EO) 13807: *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure projects*, dated August 15, 2017. The subsequent Memorandum of Understanding Implementing One Federal Decision Under Executive Order 13807 (MOU), April 9, 2018 identifies three specific concurrence points in Section XI of the MOU, identified as milestones in the Permitting Timetable.

Concurrence points are opportunities for lead and cooperating agencies to assess mutual understanding and agreement on fundamental elements of the EIS. Concurrence among lead and cooperating agencies establishes that all involved agree to a given decision described in the concurrence point, and that all agree to abide by the decision as analyses and EIS preparation progresses. The Alternatives Analysis is Concurrence Point #2.

### Corps Regulations for Alternatives Analysis

In its evaluation of permit applications to discharge dredged or fill material into waters of the U.S. (WOUS), including wetlands, the U.S. Army Corps of Engineers (Corps) is required to analyze alternatives to the proposed project that achieve its purpose. The Corps conducts this analysis pursuant to two main requirements – the 404(b)(1) Guidelines (Guidelines) found in 40 CFR 230 and the National Environmental Policy Act (NEPA) found in 33 CFR Part 325 Appendix B and 40 CFR 1508. The Corps also considers alternatives as part of its public interest review evaluation found in 33 CFR 320.4(a)(2)(ii).

The overall project purpose is used to evaluate less environmentally damaging practicable alternatives. The 404(b)(1) Guidelines state that an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. This evaluation applies to all waters of the United States, not just special aquatic sites such as wetlands and seagrasses.

The overall project purpose, as determined by the Corps after concurrence with the Cooperating Agencies is: *To safely, efficiently, and economically export current and forecasted crude oil inventories via Very Large Crude Carriers (VLCC), a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and effects safety.*

Based on evaluating information obtained from public input and meetings with federal and state agencies and data collection and analysis of environmental, socioeconomic, and engineering factors, development of Project alternatives prioritized minimization of impacts, both individually and cumulatively, to aquatic resources during both construction and operations. Using these concepts and considering avoidance and minimization to reduce impacts, the following six Project alternatives were identified.



1. No Action. Under the No Action Alternative, the CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. VLCCs will continue to be partially loaded and reverse-lightered offshore. The No Action Alternative does not meet the Project purpose and need but is carried forward for detailed analysis in this EIS for comparison purposes.

2. Channel Deepening Alternative - This alternative consists of deepening the CCSC to -81 MLLW from the Gulf of Mexico to station 110+00 near Harbor Island, including the approximate 10 mile extension to the Entrance Channel necessary to reach sufficiently deep waters. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. Dredging approximately 46.3 MCY would be required with inshore and offshore placement of the material. During our analysis, alternatives to dredge placement will be conducted on a case-by case basis. Under this alternative, only berths at Harbor Island would be capable of fully loading VLCCs. Partially loaded VLCCs at Ingleside could top off at Harbor Island thereby reducing or eliminating reverse-lightering.

3. Offshore Alternative - The CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. To meet the project purpose, multiple deep water port facilities capable of sustaining all projected oil exportation would be constructed. VLCCs would be fully loaded offshore eliminating the need to traverse the channel and reverse-lighter. This alternative would also eliminate dredging of the channel and the impacts associated with dredged material placement.

4. Combined Inshore/Offshore - The CCSC would not be deepened to a -81 MLLW, and would remain at -54 MLLW. To meet the project purpose, VLCC vessels would be partially loaded at inshore facilities in Ingleside and Harbor Island then traverse the channel to the offshore facility to be fully loaded. This alternative would eliminate the need to reverse-lighter and would also eliminate dredging of the channel and the impacts associated with dredged material placement.

5. Houston Alternative – This alternative consists of relocating the project to the Port of Houston. The Houston Ship Channel (HSC) is currently maintained at -45 MLLW. This alternative would either require the HSC be dredge to -81 MLLW or construct offshore facilities to eliminate reverse-lightering.

6. Brownsville Alternative – This alternative consists of relocating the project to the Port of Brownsville. The Brownsville Ship Channel (BSC) is maintained at -42 MLLW. This alternative would require either the BSC to be dredged to -81 MLLW or construct offshore facilities to eliminate reverse-lightering

The Corps used a multi-step process to screen the range of alternatives to determine which alternatives are reasonable, practicable, and meet the Project purpose. The Project alternatives were analyzed using the following screening criteria to identify a range of reasonable alternatives: satisfaction of the overall Project purpose; practicable based on Clean Water Act Section 404(b)(1) Guidelines (technology, logistics, cost); and consideration of potential aquatic resources impacts. The alternatives screening analysis is summarized in Table 1.

Table 1. Comparison Summary of Alternatives

Alternative	Carried Forward (Yes/No)			
	Purpose and Need	Practicability - Technology	Practicability - Logistics	Practicability - Cost*
No Action	Yes	Yes	Yes	Yes
Channel Deepening Corpus Christi	Yes	Yes	Yes	Yes
Offshore Corpus Christi	Yes	Yes	Yes	Yes
Inshore/Offshore Corpus Christi	Yes	Yes	Yes	Yes
Port of Brownsville	No	No	No	No
Port of Houston	No	No	No	No
* It is not a particular applicant's financial standing that is the primary consideration for determining practicability in regards to cost, but rather characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations.				

Based on this analysis, the Corps has determined that the No Action Alternative and three action alternatives will be carried forward for detailed analysis in the EIS. Sites that lie substantially outside the geographic boundaries identified in the overall project purpose are not practicable, and therefore unreasonable, and can be eliminated with little information. Therefore, alternative locations, such as Houston and Brazos Island Harbor, which was scoped in by the public, are not being carried forward in the analysis.

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If you have any questions, feel free to contact Mr. Jayson M Hudson, Regulatory Project Manager, from my staff at the letterhead address or by telephone at 409-766-3108 or by email at [jayson.m.hudson@usace.army.mil](mailto:jayson.m.hudson@usace.army.mil).

Sincerely,

MCMAHAN.JOSEPH.A  
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Joe McMahan  
Chief, Regulatory Division

Enclosure

## **Appendix B3**

**Initial Public Notice, August 2019**



# Public Notice

**U.S. Army Corps  
Of Engineers**

**Galveston District**

Permit Application No: SWG-2019-00067

Date Issued: 1 August 2019

Comments

Due: 30 August 2019

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**U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT  
AND  
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

**PURPOSE OF PUBLIC NOTICE:** To inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. The U.S. Army Corps of Engineers (Corps) is not the entity proposing or performing the proposed work, nor has the Corps taken a position, in favor or against the proposed work.

**AUTHORITY:** This application will be reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (RHA), Section 404 of the Clean Water Act (CWA), and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA).

**APPLICANT:** Port of Corpus Christi Authority (PCCA)  
222 Power Street  
Corpus Christi, Texas 78401  
POC: Sarah Garza  
Telephone: (361) 885-6163  
Email: [sarah@pocca.com](mailto:sarah@pocca.com)

**AGENT:** AECOM  
5444 Westheimer Road, Suite 400  
Houston, Texas 77056  
POC: Carl Sepulveda  
Telephone: (713) 278-4620  
Email: [carl.sepulveda@aecom.com](mailto:carl.sepulveda@aecom.com)

**LOCATION:** The proposed Channel Deepening Project (CDP) is located within the existing channel bottom of the Corpus Christi Ship Channel (CCSC) starting at station 110+00 near the southeast side of Harbor Island, traversing easterly through the Aransas Pass, and extending beyond the currently authorized terminus Station -330+00 an additional 29,000 feet terminating out into the Gulf of Mexico at the proposed new Terminus Station -620+00, an approximate distance of 13.8 miles, in Port Aransas, Nueces County, Texas. The project can be located on the U.S.G.S. quadrangle map entitled: Port Aransas, Texas.

**LATITUDE & LONGITUDE (NAD 83):**

Latitude: 27.824019 North; Longitude: 97.054338 West

**PROJECT DESCRIPTION:** The applicant (PCCA) is proposing to deepen a portion of the CCSC to depths that vary from -75 to -77 feet mean lower low water (MLLW), plus 2 feet allowable over dredge, plus 2 feet advanced maintenance dredging, which ultimately totals -79 to -81 feet MLLW. The proposed CDP of the CCSC is approximately 1,778 acres and will create approximately 46 million cubic yards (MCY) of new work dredged material (17.1 MCY of clay and 29.2 MCY of sand). The proposed CDP is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The proposed project does not include widening the channel; however, some minor incidental widening of the channel slopes is expected to meet side slope requirements and to maintain the stability of the channel. The applicant is proposing to dispose of the material in several ways. Approximately 13.8 MCY of the clay portion of the new work dredged material located in the offshore reaches between Stations -620+00 to -72+50 would be placed at CCSC Improvement Project (CCSCIP) New Work (NW) Ocean Dredged Material Disposal Site (ODMDS). The clay portion of new work dredged material from Stations -72+50 to Station 110+00 would be used beneficially where possible to create perimeter dikes.

Regulated Activities for the proposed CDP consists of:

1. Activities subject to Section 10 of the RHA:
  - a. Deepening a portion of the CCSC between Station 110+00 to the proposed extension Station -620+00 by conducting “new work” dredging activities in navigable waters of the US:
    - i. Stations 110+00 to -72+00: -79 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge).
    - ii. Stations -72+00 to -330+00: -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge).
    - iii. Stations -330+00 to Station -620+00: This section represents the expansion of the CCSC an additional 29,000 feet from Station -330+00. This proposed expansion would be dredged to -81 MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico.
    - iv. The existing Inner Basin at Harbor Island will be expanded as necessary to allow VLCC turning. This modification will also include a flare transition from the CCSC within Aransas Pass to meet the turning basin expansion.
2. Activities subject to Section 404 of the CWA:
  - a. The proposed placement of new work dredged material into waters of the US for Beneficial Use (BU) sites located in and around Corpus Christi and Redfish Bays which also includes the Redfish Bay State Scientific Research Area.
  - b. The dredged material may also be used for dune restoration on San Jose Island (SJI).
  - c. Proposed feeder berms (B1 – B9) for beach restoration along SJI and Mustang Island are proposed.

3. Activities subject to Section 103 of the MPRSA:
  - a. Transportation of new work dredged material to the CCSCIP NW ODMDS.

The proposed total estimated adverse impact to special aquatic sites, specifically wetlands, resulting from the placement of dredged material totals 185.9 acres. The proposed adverse impacts to submerged aquatic vegetation total 58.5 acres. As of the date of this Public Notice, the Corps has not received special aquatic site delineations for wetlands or surveys for submerged aquatic vegetation (SAV).

The following tables represent the proposed placement options and its impacts to waters of the US including aquatic sites from the proposed CDP:

<b>Table 1: Proposed Restoration Sites to for the Placement of the Proposed BU Sites</b>			
<b>Placement Option</b>	<b>Description</b>	<b>Placement Capacity (CY)</b>	<b>Proposed Restoration</b>
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	3,798,000	This option will convert featureless bay bottom to approximately 300 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
PA9-S	Upland Placement Site Expansion behind PA9	9,000,000	This option does not restore aquatic habitat; it will convert featureless bay bottom to upland.
M10	Estuarine/aquatic habitat creation adjacent to PA10	10,933,600	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	5 foot levee raise and fill	1,796,400	This option does not create any environmental benefit.
SS1	Restoring eroded and washed out shoreline	4,800,000	This option restores an eroded shoreline landmass and provides protection to Harbor Island Seagrass area.
SS2	Restore shoreline washouts along Port Aransas Nature Preserve as a result of Hurricane Harvey	669,700	Shoreline restoration that fills in the washouts caused by Hurricane Harvey that protects Piping Plover critical sand flat habitat.
PA4	Reestablish eroded shoreline and land loss in front of PA4	3,020,000	This option provides protection to Harbor Island Seagrass area.
HI-E	Bluff and Shoreline restoration with site fill	1,825,000	This option restores an eroding bluff and shoreline to its historic profile.
SJI	Dune and beach restoration San Jose Island	4,000,000	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMDS	Place on New Work ODMDS (Homeport)	13,800,000	This option does not create any environmental benefit.



B1-B9	Feeder berms offshore of SJL and Mustang Island	8,100,000	This option will nourish beach shoreline by natural sediment transport processes.
MI	Beach Nourishment for Gulf side of Mustang Island	2,000,000	This option will nourish beach shoreline by direct sediment placement.
Scenarios for new work placement capacity provided and needed.		64,609,700	Total Capacity Provided
		60,609,700	Total capacity less SJL (should that option become unavailable)
		46,283,590	Total NW placement capacity required for Channel Preferred Alternative – Base Option
		14,326,110	Additional Capacity less SJL (should that option become unavailable)

**Table 2: Impacts to Aquatic Sites Resulting from the Proposed Placement of Dredged Material**

Placement Option	Total Site Acres	Acres	Predominant Type	Comment	Impact Review Adjust	Est Adverse Impact
B1	80.0	-	-	-	-	-
B2	80.5	-	-	-	-	-
B3	83.8	-	-	-	-	-
B4	83.8	-	-	-	-	-
B5	83.8	-	-	-	-	-
B6	83.8	-	-	-	-	-
B7	124.0	-	-	-	-	-
B8	124.0	-	-	-	-	-
B9	124.0	-	-	-	-	-
HI-E	138.7	36.2	Estuarine and Marine Wetland	Features appear to have eroded away	-7.7	28.6
M3	332.6	-	-	-	-	-
M4	702.6	68.9	Estuarine and Marine Wetland	Interior wetlands that would be avoided, and exterior would be integrated with through placement	-68.9	0.0
PA9-S	329.3	-	-	-	-	-
M10	769.9	-	-	-	-	-
MI	362.2	211.7	Estuarine and Marine Wetland	Consists entirely of unconsolidated shoreline to be restored	-211.7	0.0
NW ODMDS	1180.4	-	-	-		
PA4	163.1	51.5	Freshwater Emergent Wetland	Identified within active PA or Feature appear to have eroded away	-51.5	0.0
PA6	269.8	143.0	Lake	Identified within active PA. Feature appears associated with earlier filling of this PA and is no longer apparent in current aerials.	-143.0	0.0
SJL	593.0	279.4	Estuarine and Marine Wetland	Consists entirely of shoreline to be restored	-279.4	0.0

SS1	307.6	157.3	Estuarine and Marine Wetland	Would be replaced by created upland to protect seagrass area behind it from future loss	0.0	157.3
SS2	94.8	36.5	Estuarine and Marine Wetland	Unconsolidated shoreline that eroded away during Harvey. Placement would restore protective shoreline for interior sand flats.	-36.5	0.0
TOTALS	6111.7	984.5				185.9

**Table 3: Impacts to Submerged Aquatic Vegetation  
Resulting from the Proposed Placement of Dredged Material**

Placement Option	Total Site Acres	Acres	Comment	Impact Review Adjust	Est Adverse Impact	Open Water
B1	80.0	-	-	-	-	80.0
B2	80.5	-	-	-	-	80.5
B3	83.8	-	-	-	-	83.8
B4	83.8	-	-	-	-	83.8
B5	83.8	-	-	-	-	83.8
B6	83.8	-	-	-	-	83.8
B7	124.0	-	-	-	-	124.0
B8	124.0	-	-	-	-	124.0
B9	124.0	-	-	-	-	124.0
HI-E	138.7	0.0	-	0.0	0.0	3.3
M3	332.6	17.1	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too.	-9.5	7.6	332.6
M4	702.6	571.5	Interior acreage would not be impacted except at fringes. BU feature would protect this from further loss.	-571.5	0.0	546.3
PA9-S	329.3	3.1	Restoration of larger area to create uplands. In recent years aerials do not show evidence of seagrass stands. If in existence, seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-3.1	0.0	308.8
M10	769.9	2.5	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too. In recent years aerials do not show evidence of seagrass stands. If in existence, seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-2.5	0.0	752.9
MI	362.2	-	-	-	-	262.1
NW ODMDS	1180.4	-	-	-	-	1180.4
PA4	163.1	0.0	Minor fringe impact. BU would protect much larger seagrass area from future losses.	0.0	0.0	3.3
PA6	269.8	-	-	-	-	0.8

SJI	593.0	-	-	-	-	334.3
SS1	307.6	94.1	Restoration of shoreline to bolster against future erosion of much larger area of seagrass behind feature. Due to shifting uplands and erosion over recent years much of the seagrass no longer appears to be visible within aerials.	-43.3	50.8	81.4
SS2	94.8	688.3		-	-	-
TOTALS	6111.7				58.5	4,673.9

**Table 4: Impacts Within the Channel to Waters of the US Resulting from the Proposed Dredging**

Segment	Channel Acres			Channel Impact		
	Toe to Toe	Total Including Side Slope	Side Slope Acreage	Upland Acreage	Seagrass Acreage	WOUS (Deepwater)
Stations -620+00 to -330+00	455.4	588.8	133.4		-	588.8
Stations -330+00 to -210+00	146.9	260	113.1	-	-	260
Stations -210+00 to 100+00	518.9	734.8	215.9	2.00	0.11	732.69
Turning Basin and Flare Stations 19+48.10 to 38+16.42	56.68	82.42	25.74	-	-	82.42

**ODMDS LOCATIONS AND DESIGNATIONS:** The applicant is proposing to use an existing authorized Ocean Dredged Material Disposal Site (ODMDS) regulated under Section 103 of the MPRSA. Pursuant to the requirements to initiate a public notice listed in 33 CFR 325.3(a)(17), for Section 103 activities:

CCSC ODMDS No. 1 is located approximately 1.5 miles offshore and about 1,000 feet southwest of the centerline of the Outer Bar Channel. The site is rectangular in shape with corner coordinates located at:

ODMDS No.1	Latitude	Longitude
North Corner	27°49'11.0994"N	97°01'09.9546"W
East Corner	27°48'43.1022"N	97°00'21.9522"W
South Corner	27°48'07.1064"N	97°00'48.9528"W
West Corner	27°48'34.1136"N	97°01'36.9654"W

CCSC NW ODMDS is located approximately 3.4 miles offshore and about 6,200 feet southwest of the centerline of the Outer Bar Channel, occupying an area of approximately 1.36 square nautical miles. Water depths range from 46 to 53 feet. The site is rectangular in shape with corner coordinates at:

NW ODMDS	Latitude	Longitude
North Corner	27°47'43.1052"N	97°0'12.9522"W
East Corner	27°47'16.1052"N	96°59'25.9512"W
South Corner	27°45'50.1084"N	97°0'25.9488"W
West Corner	27°46'18.1086"N	97°1'12.9512"W

The CCSC ODMDS No.1 received the administrator's final designation pursuant to section 102(c) on July 11, 1989. The CCSCIP NW ODMDS was originally designated for use for the US Navy Homeport Project; however, it has not been used because that project was not implemented. The CCSCIP NW ODMDS is currently authorized to use this site and work is currently underway.

**CHARACTERISTICS AND COMPOSITION OF THE DREDGED MATERIAL:** The 2003 *CCSCIP Feasibility Report* tested the material that is within the footprint of the proposed CDP and found that the material was suitable for offshore disposal as well as BU. The proposed CDP dredged material is not expected to be different than the sediment material currently authorized to be dredged in the CCSCIP.

Table 5. New Work Testing History	
Date	Type of Testing
Dec-16/Jan-17	Toxicity and Bioaccumulation Assessment

**PROPOSED LENGTH OF TIME DISPOSAL ACTIVITIES WILL OCCUR AT ODMDS:** Following the authorization of the Federal CCSCIP, quantities for the use of this site for Jetty and Entrance Channels, and Entrance Channel Extension were expected to double, resulting in a use of the site every two years. The Corps also planned to use the site for other CCSCIP segments less frequently for future suitable material. The following table represents the planned Federal maintenance frequency:

Table 6. PCCA Proposed Timeline			
Channel Segments	Dredge Area Stations	Est Volume per Contract	Dredging Rate (Years)
Entrance Channel	-210+00 to 36+00	1,000,000	2
Inner Basin to La Quinta	36+00 to 500+00	800,000	5
La Quinta to Beacon 82	500+00 to 1090+00	1,000,000	2
Beacon 82 to Viola TB (Inner Harbor)	1100+00 to 1587+00	1,500,000	4
La Quinta	0+00 to 382+00	500,000	3
Rincon	0+00 to 150+00	400,000	7

**AUTHORIZED DISPOSAL EFFECTS:** Dredged material deposited at the ODMDS No.1 disperse and erode quickly. There are no significant environmental resources delineated within or immediately outside of the designated ODMDS. Since this site is dispersive in nature, the primary concern of the use of the site is the potential short-term buildup of dredged material, such that a hazard to navigation is presented. Another concern is whether there is significant short-term transport of the dredged material beyond the

ODMDS boundaries; specifically, the benthic community can be impacted if significant rapid movement of material off the site occurs, resulting in burial of benthic populations outside the site.

**CURRENT SITE CONDITIONS:** The CCSCIP currently is authorized to extend from Stations -210+00 to -330+00 out into the Gulf of Mexico. This stretch of the proposed project as well as the portion that extends into the Aransas Pass inside the jetties is classed as a deep water marine habitat. The Entrance Channel segment of the CCSC is currently maintained to a depth of -49 feet MLLW and the Lower Bay segment to a depth of -47 feet MLLW. The CCSC has been federally authorized to a depth of -56 feet MLLW from the Gulf of Mexico to the end of the jetties in the Entrance Channel segment, and to -54.0 feet MLLW in the Lower Bay segment. Dredging work to reach the authorized depths is currently starting out in the Gulf on the entrance channel.

The proposed feeder berms (B1 – B9) will be placed in unvegetated ocean bottom nearshore to facilitate sediment transfer to the beaches that have been heavily impacted by Hurricane Harvey. Placement Option HI-E is located in the Mission – Aransas National Estuarine Research Reserve (MANERR). Placement options M10, PA9-S, M3, PA6, and SS2 occur in Corpus Christi Bay. Placement options M4, SS1, and PA4 occur in Redfish Bay State Scientific Research Area.

Harbor Island shoreline has slowly, but exponentially, eroded over the past 10 years. Recent aerial imagery indicates that a new channel has formed from within the tidal flat/historical spoil site and has separated the mangrove stand (*Avicennia germinans*) on the southern portion of the island from the northern developed portion of the island. Areas where the proposed BU placement would occur within Redfish Bay contains submerged aquatic vegetation (SAV), mainly *Halodule wrightii* (shoalgrass). Shoalgrass, as well as the fringed tidal *Spartina alterniflora* (cordgrass), intertidal mangrove stands, and fringed estuarine wetlands, is considered essential fish habitat for some or all life cycles of species that utilize these areas.

In the context of the geographic area, numerous important resources may be affected. The largest neighboring resource, located 20 miles south of the project site, is the Padre Island National Seashore, the largest stretch of undeveloped barrier island in the world and home to the National Park Service's Division of Sea Turtle Science and Recovery. Immediately to the north of the project site is San Jose Island, a privately-owned undeveloped barrier island known to be occupied by numerous Endangered Species Act (ESA) federally listed threatened and endangered sea turtle and bird species, including Whooping Cranes (*Grus americana*), Piping Plovers (*Charadrius melodus*), and Red Knots (*Calidris canutus*). Immediately behind San Jose Island is Redfish Bay State Scientific Area (RBSSA), a state-designated 14,000-acre area for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. In addition, the area includes the Mission-Aransas National Estuarine Research Reserve (MANERR), a state and federal partnership that conducts research, education, and stewardship programs funded by the National Oceanic and Atmospheric Administration (NOAA). The MANERR is the third largest National Estuarine Research Reserve (NERR) in the United States and the only NERR in Texas.

In addition to the potential direct, indirect and cumulative effects to these unique aquatic ecosystems, the proposed PCCA project will impact two ESA federally designated critical habitat units, one for piping plovers (*Charadrius melodus*) and the other for loggerhead sea turtles (*Caretta caretta*). This impact is in addition to proposed impacts to habitat occupied by piping plovers, Red Knot (*Calidris canutus rufa*), West Indian manatee (*Trichechus manatus*) green sea turtle (*Chelonia mydas*) hawksbill sea turtle (*Eretmochelys imbricate*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle that are not designated as critical.

**AVOIDANCE AND MINIMIZATION:** The following is the applicant's statement on how they have avoided and minimized the environmental impacts: PCCA understands that discharges into waters of the US should not occur unless it can be shown that the discharge would not result in an unacceptable adverse impact on the aquatic ecosystem. It is also understood that if there is a practicable alternative to the discharge, the discharge should not occur. A practicable alternative is not available that would meet the proposed project requirements and achieve the project purpose. The proposed project would increase crude oil export efficiency for the Nation, reducing trade deficits, and fostering economic development. The result of the proposed action would be a more efficient channel to export crude oil. The proposed project meets the project purpose and need. The placement alternatives were developed in coordination with resource agencies, and considered public input during open house meetings at the start of the project. The resultant proposed placement alternatives make extensive use of BU to address ecological restoration needs that the agencies desire. The volume of material and volume of sands are valuable assets, and the dredging and placement presents a unique and major opportunity to address restoration needs in this estuary and barrier island system.

**COMPENSATORY MITIGATION:** The Corps may incorporate consideration of proposed mitigation measures during various stages of its decision making. For instance, mitigation can play a role in the scope of the EIS, in the alternatives to the proposed action, the consequences to that action, and finally in the explanation of the decision rendered. Included in PCCA's application is the statement that impacts to seagrass or wetlands would be offset by reconfiguring the beneficial use (BU) placement sites to be able to host the impacted habitat.

**NOTES:** This public notice is being issued based on information furnished by the applicant. This project information has not been verified by the Corps. The applicant's plans are enclosed in 23 sheets.

A previous review of this application concluded that an Environmental Impact Statement (EIS) is required.

Our evaluation will also follow the guidelines published by the U.S. Environmental Protection Agency pursuant to Section 404 (b)(1) of the Clean Water Act (CWA).

**OTHER AGENCY AUTHORIZATIONS:**

Consistency with the State of Texas Coastal Management Plan is required. The applicant has stated that the proposed activity complies with Texas' approved Coastal Management Program goals and policies and will be conducted in a manner consistent with said program.

This project would result in a direct impact of greater than three acres of waters of the state or 1500 linear feet of streams (or a combination of the two is above the threshold), and as such would not fulfill Tier I criteria for the project. Therefore, Texas Commission on Environmental Quality (TCEQ) certification is required. Concurrent with Corps processing of this application, the TCEQ is reviewing this application under Section 401 of the CWA and in accordance with Title 30, Texas Administrative Code Section 279.1-13 to determine if the work would comply with State water quality standards. By virtue of an agreement between the Corps and the TCEQ, this public notice is also issued for the purpose of advising all known interested persons that there is pending before the TCEQ a decision on water quality certification under such act. Any comments concerning this application may be submitted to the Texas Commission on Environmental Quality, 401 Coordinator, MSC-150, P.O. Box 13087, Austin, Texas 78711-3087. The public comment period extends 30 days from the date of publication of this notice. A copy of the public notice with a description of work is made available for review in the TCEQ's Austin office. The complete application may be reviewed in the Corps office listed in this public notice. The TCEQ may conduct a public meeting to consider all comments concerning water quality if requested in writing. A request for a public meeting must contain the following information: the name, mailing address, application number, or other recognizable reference to the application; a brief description of the interest of the requester, or of persons represented by the requester; and a brief description of how the application, if granted, would adversely affect such interest.

The return water from the upland contained dredge material placement area(s) requires an independent certification by the Texas Commission on Environmental Quality (TCEQ). The applicant must obtain a Section 401-water quality certification from the TCEQ for the effluent or return water discharge. A copy of the 401-certification must also be furnished to the Corps of Engineers prior to the Corps making a decision on the proposed project.

Pursuant to 33 USC 408, the proposed project will require Section 408 coordination and review. This is a requirement for activities that seek permission, to temporarily or permanently, alter, occupy, or use a federally authorized United States Army Corps of Engineers civil works project. Changes to the proposed project, from the Section 408 process, may warrant additional coordination.

**NATIONAL REGISTER OF HISTORIC PLACES:** The staff archaeologist has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible, and other sources of information. The following is current knowledge of the presence or absence of historic properties and the effects of the undertaking upon these properties: The proposed activity has the potential to adversely affect historic properties. Therefore, a cultural resources investigation is required to determine if historic properties exist within the permit area.



**THREATENED AND ENDANGERED SPECIES:** Threatened and/or endangered species or their critical habitat may be affected by the proposed work. Consultation with the U.S. Fish and Wildlife and/or the National Marine Fisheries Service will be initiated to assess the effect on endangered species.

**ESSENTIAL FISH HABITAT:** This notice initiates the Essential Fish Habitat consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Our initial determination is that the proposed action would have a substantial adverse impact on Essential Fish Habitat or federally managed fisheries in the Gulf of Mexico.

Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

**PUBLIC INTEREST REVIEW FACTORS:** This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Programs of the Corps of Engineers, and other pertinent laws, regulations and executive orders. The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people.

**SOLICITATION OF COMMENTS:** The Corps of Engineers is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Impact Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

This public notice is being distributed to all known interested persons in order to assist in developing facts upon which a decision by the Corps of Engineers may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

**PUBLIC HEARING:** The purpose of a public hearing is to solicit additional information to assist in the evaluation of the proposed project. Prior to the close of the comment period, any person may make a written request for a public hearing, setting forth the particular reasons for the request. The District Engineer will determine if the reasons identified for holding a public hearing are sufficient to warrant that a public hearing be held. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this Public Notice must reach this office on or before **30 August 2019**. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. **If no comments are received by that date, it will be considered that there are no objections.** Comments and requests for additional information should reference our file number, **SWG-2019-00067**, and should be submitted to:

Regulatory Division, CESWG-RDP  
U.S. Army Corps of Engineers  
2000 Fort Point Road  
Galveston, Texas 77550  
361-814-5847 Phone  
[SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil)

DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS



Sheet 1 of 23

### Legend

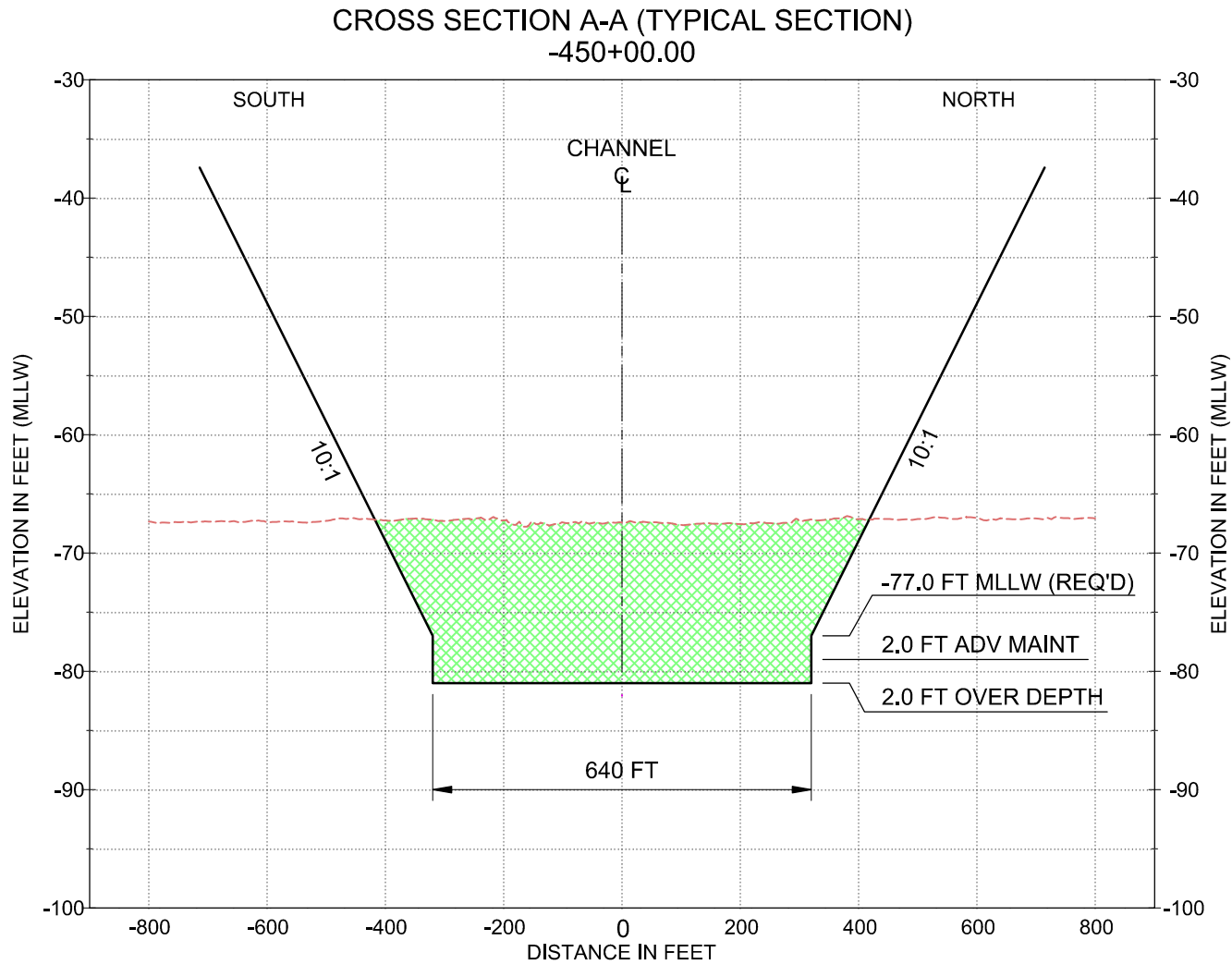
- Corpus Christi Ship Channel
- CCSC Deepening Extension
- Project Location
- Texas Coastal Boundary
- County Boundary



### Vicinity Map

Project	Corpus Christi Ship Channel Deepening Project		
Client	Port of Corpus Christi Authority		
Drawn By	Date	Project No.	
DS	5/28/2019	60578532	

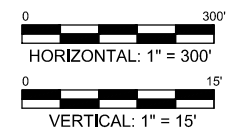




**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



Sheet 3 of 23

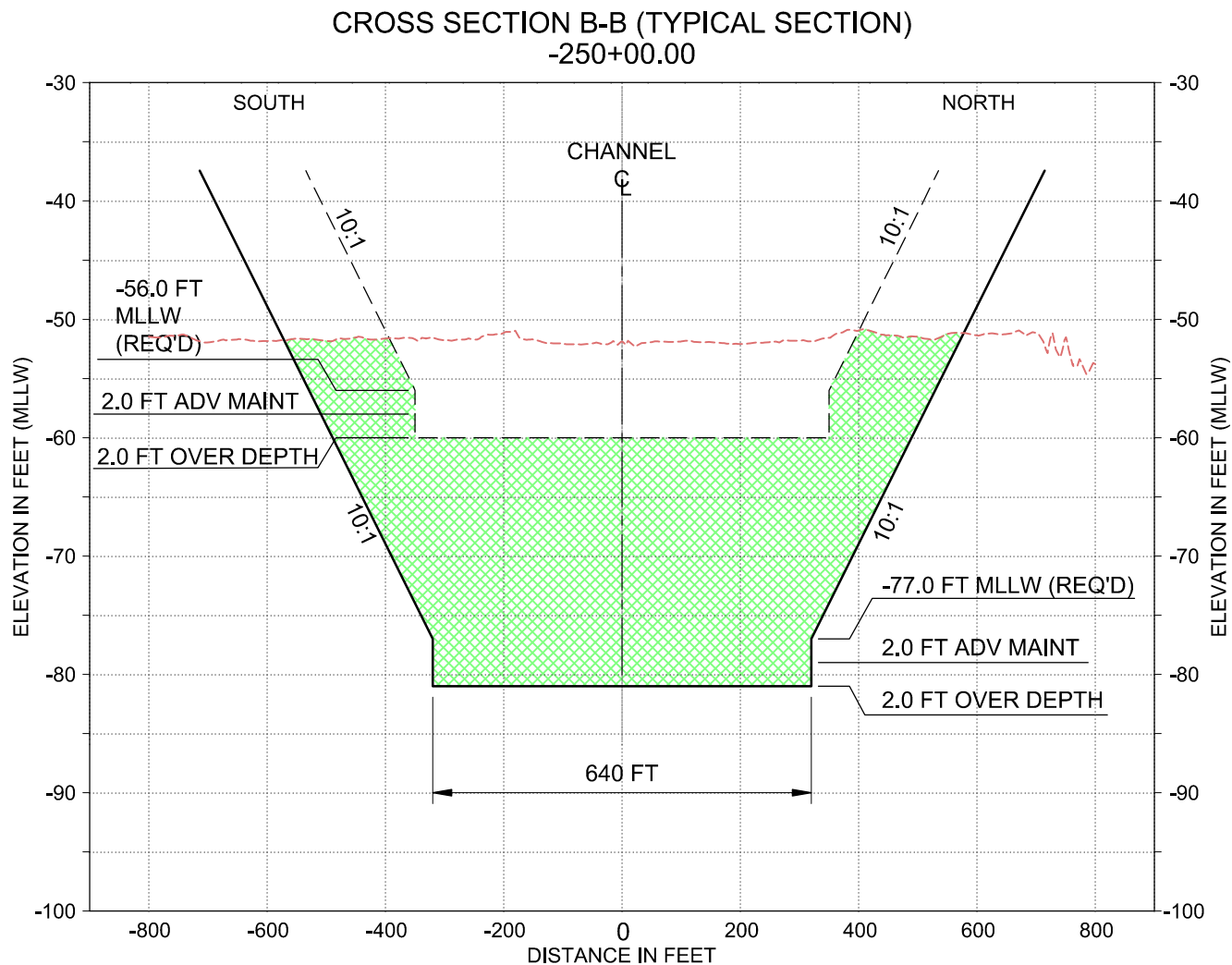
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section A-A**  
**STA -450+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

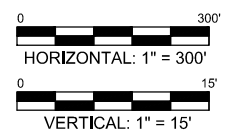




**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



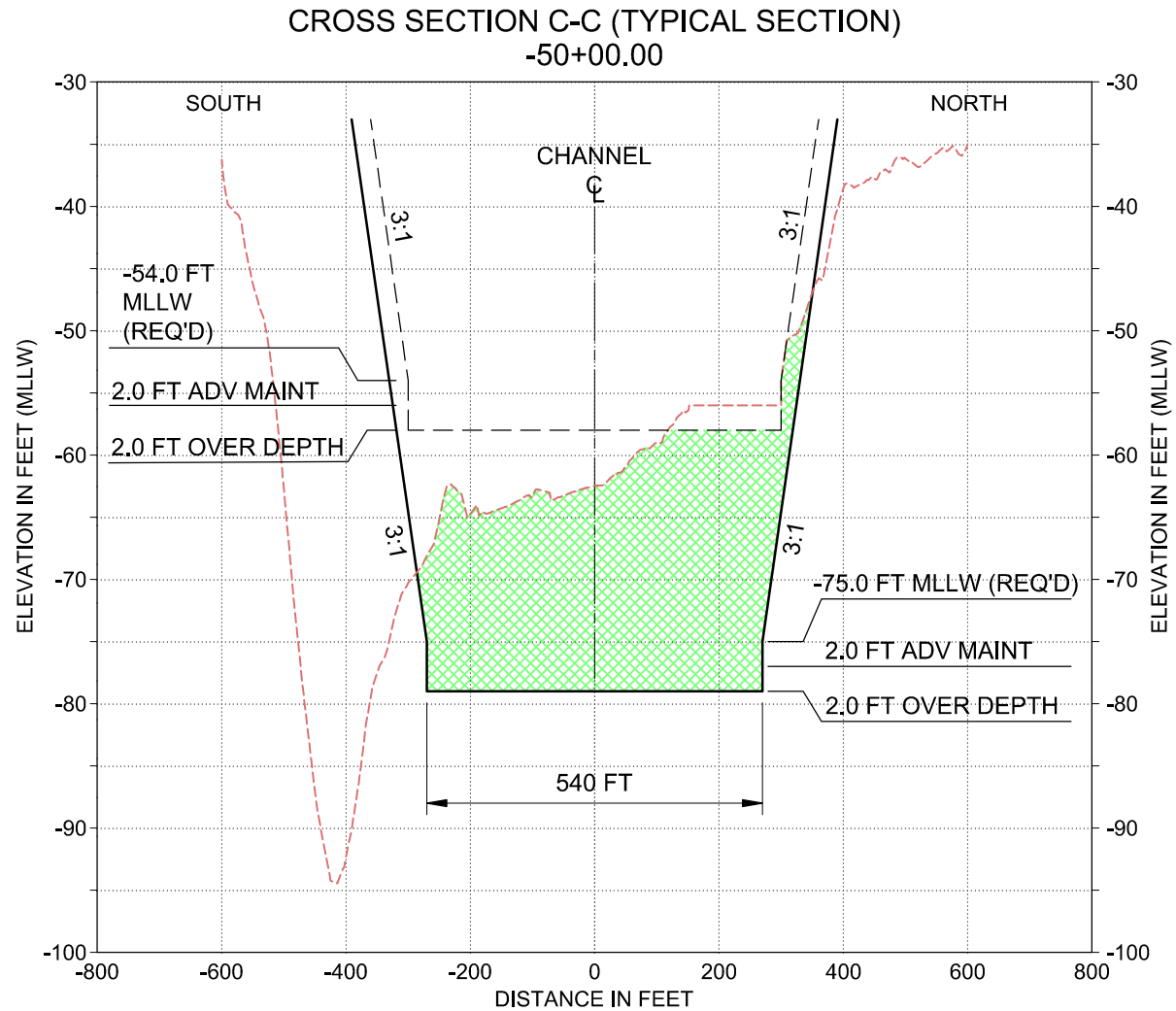
Sheet 4 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section B-B**  
**STA -250+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

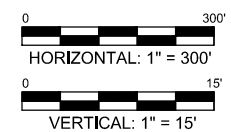
State: Texas  
Date: May 2019



**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- █ PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



Sheet 5 of 23

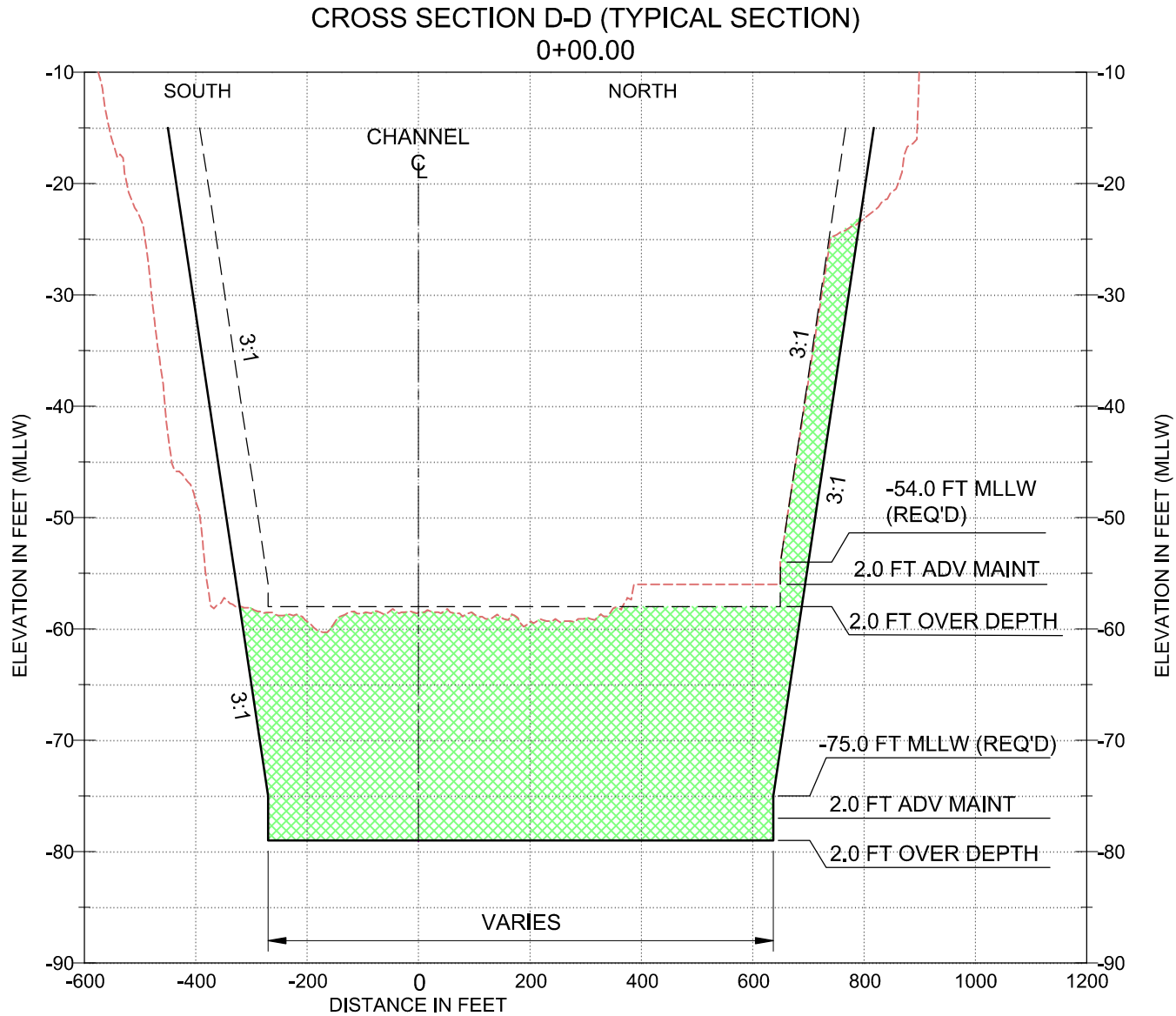
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section C-C**  
**STA -50+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

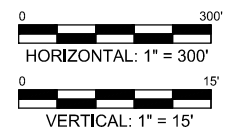




**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



Sheet 6 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067




**Preferred Channel Alternative**  
**Dredging Cross Section D-D**  
**STA 0+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 23

CROSS SECTION E-E (SECTION @ CENTER OF TURNING BASIN)  
26+29.90



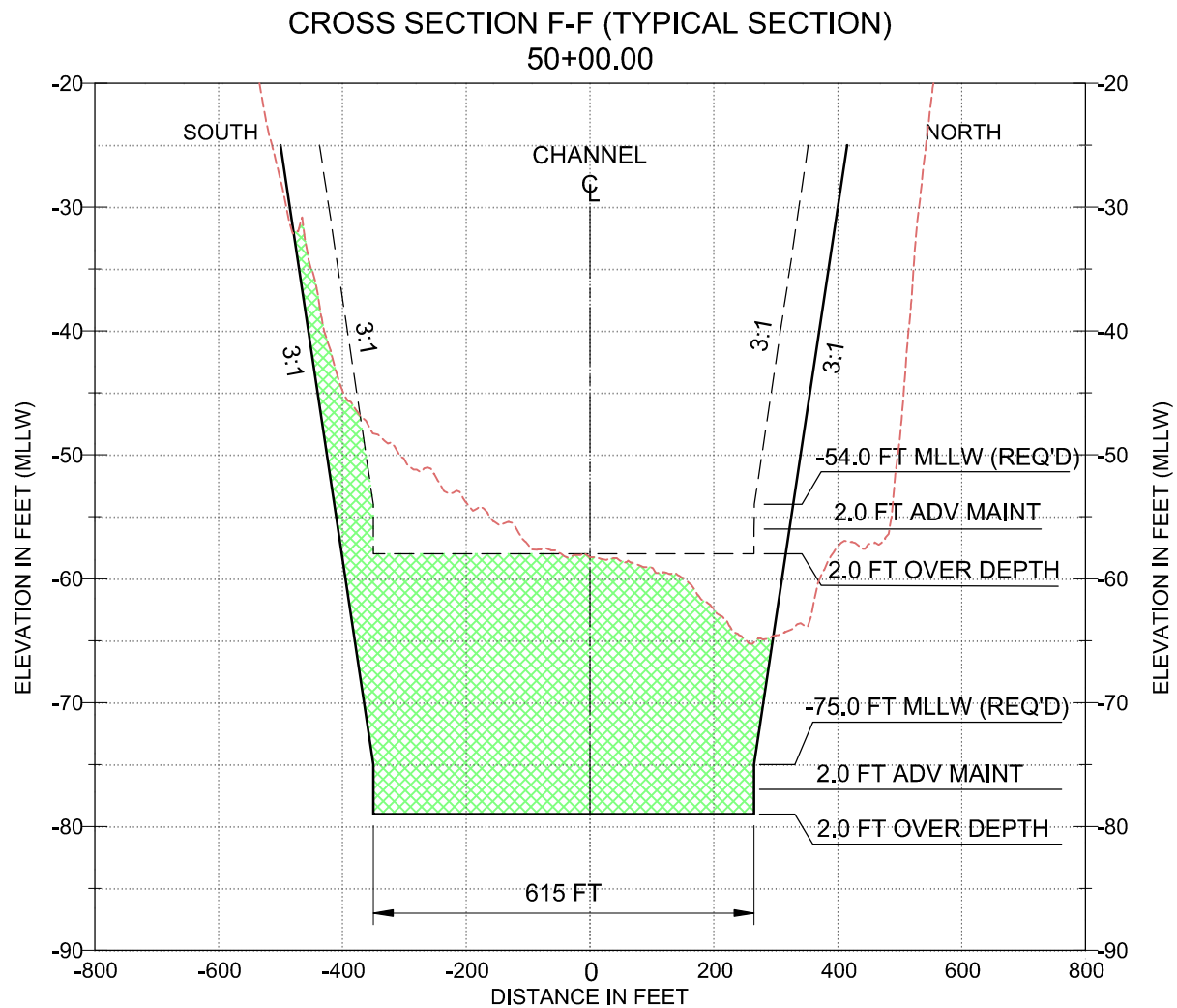
 EXISTING BOTTOM  
 EXISTING CHANNEL DREDGE TEMPLATE  
 PROPOSED CHANNEL  
 PROPOSED AREA TO BE DREDGED

0 30  
HORIZONTAL: 1" = 300'

0 15  
VERTICAL: 1" = 15'

Preferred Channel Alternative  
Dredging Cross Section E-E  
STA 26+29.90

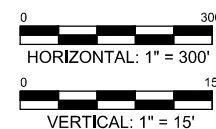
State: Texas  
Date: May 2019



**CROSS SECTION LEGEND:**

- EXISTING BOTTOM
- EXISTING CHANNEL DREDGE TEMPLATE
- PROPOSED CHANNEL
- PROPOSED AREA TO BE DREDGED

**CROSS SECTION GRAPHIC SCALES:**



Sheet 8 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**Preferred Channel Alternative**  
**Dredging Cross Section F-F**  
**STA 50+00.00**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



## LEGEND

- --- --- DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
- ■ ■ DREDGE MATERIAL PLACEMENT AREA
- EXIST OFFSHORE PLACEMENT AREA
- EXIST SEAGRASS (RETRIEVED FROM NOAA CSC, 2007)
- EXIST OYSTER REEFS (RETRIEVED FROM TPWD, 2004)
- EXIST PIPELINES (SEE NOTE 4)

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 9 of 23

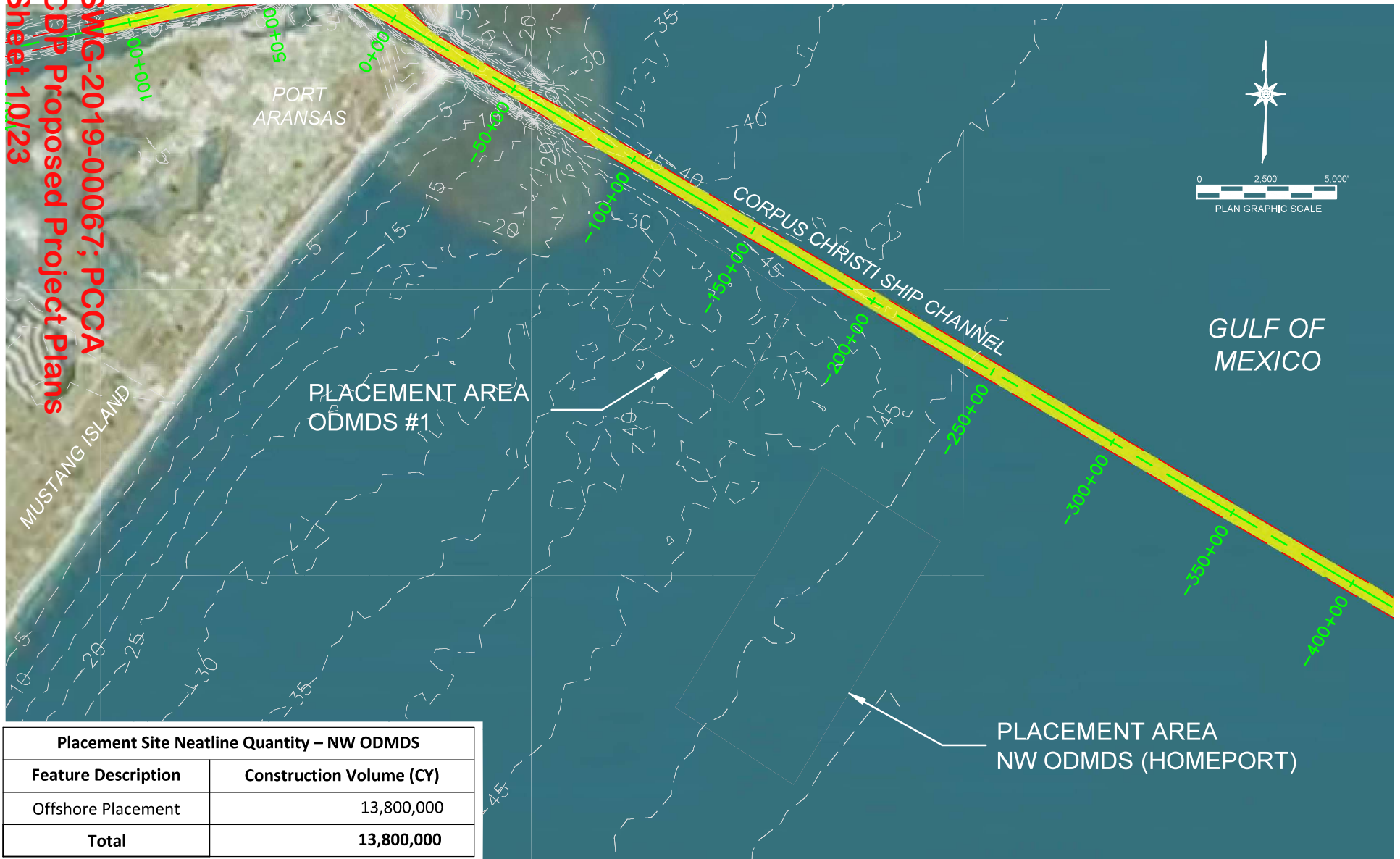
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## OVERALL DREDGE MATERIAL PLACEMENT PLAN

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority




State: Texas  
Date: May 2019





Placement Site Neatline Quantity – NW ODMDS	
Feature Description	Construction Volume (CY)
Offshore Placement	13,800,000
<b>Total</b>	<b>13,800,000</b>

## LEGEND

-  DEEPENING IMPROVEMENTS (-75' / -77' MLLW)
-  EXIST OFFSHORE PLACEMENT AREA
-  EXIST CONTOURS

## GENERAL NOTES

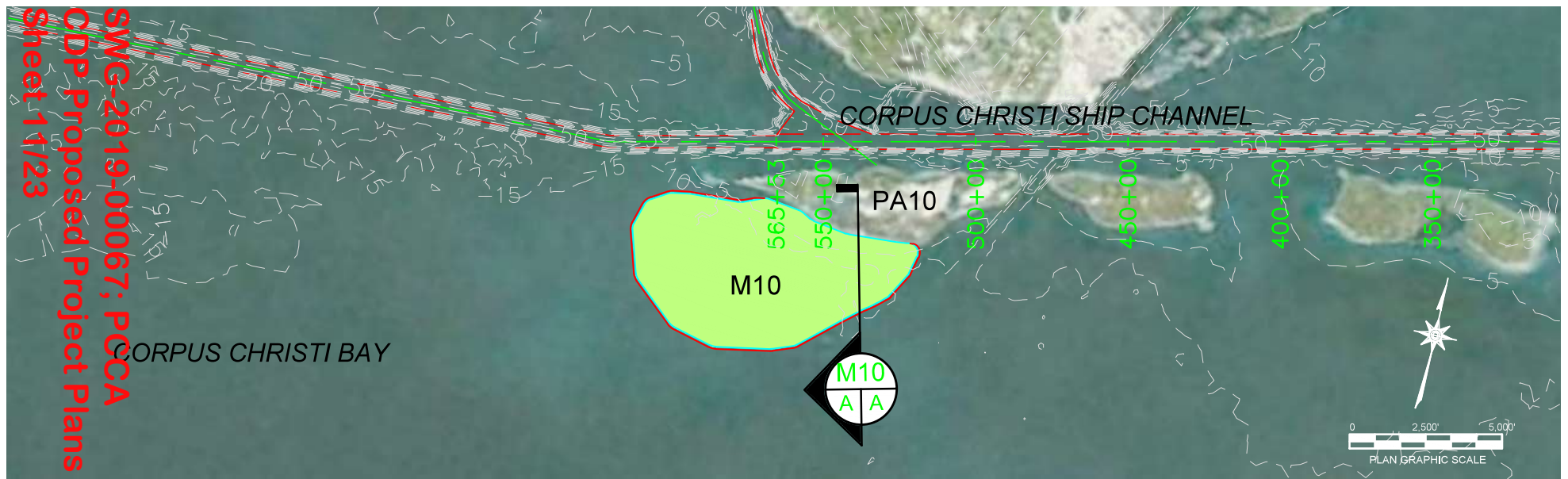
1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPTEMBER 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
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4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

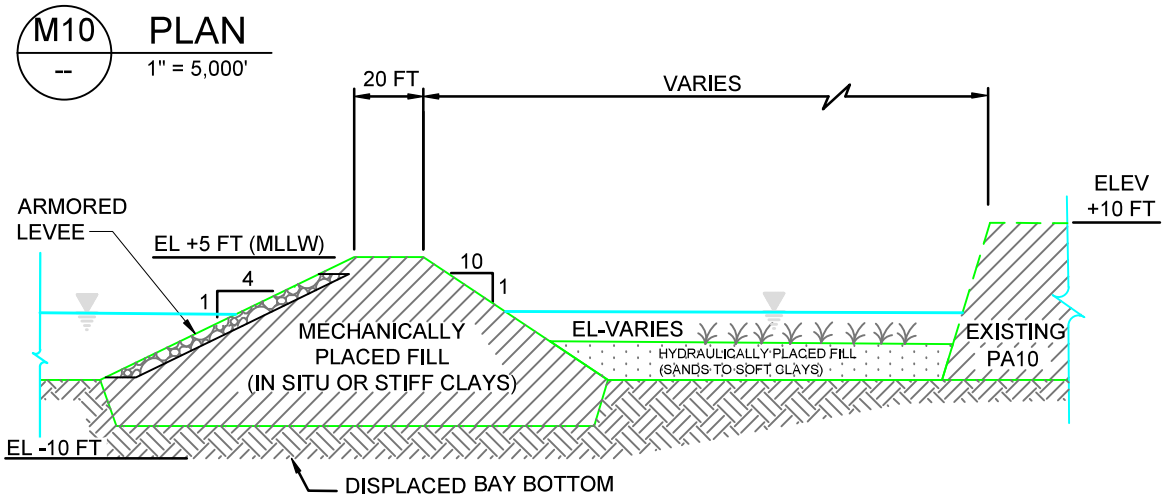
## OFFSHORE DREDGE MATERIAL PLACEMENT NW ODMDS (HOMEPORT)

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site M10	
Feature Description	Construction Volume (CY)
Armoring*	10,667
Levee Creation	997,300
770 Acre Estuarine / Aquatic Habitat	9,936,300
<b>Total</b>	<b>10,933,600</b>
*Note: Quantity not included in CY total	



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

## SECTION

NOT TO SCALE

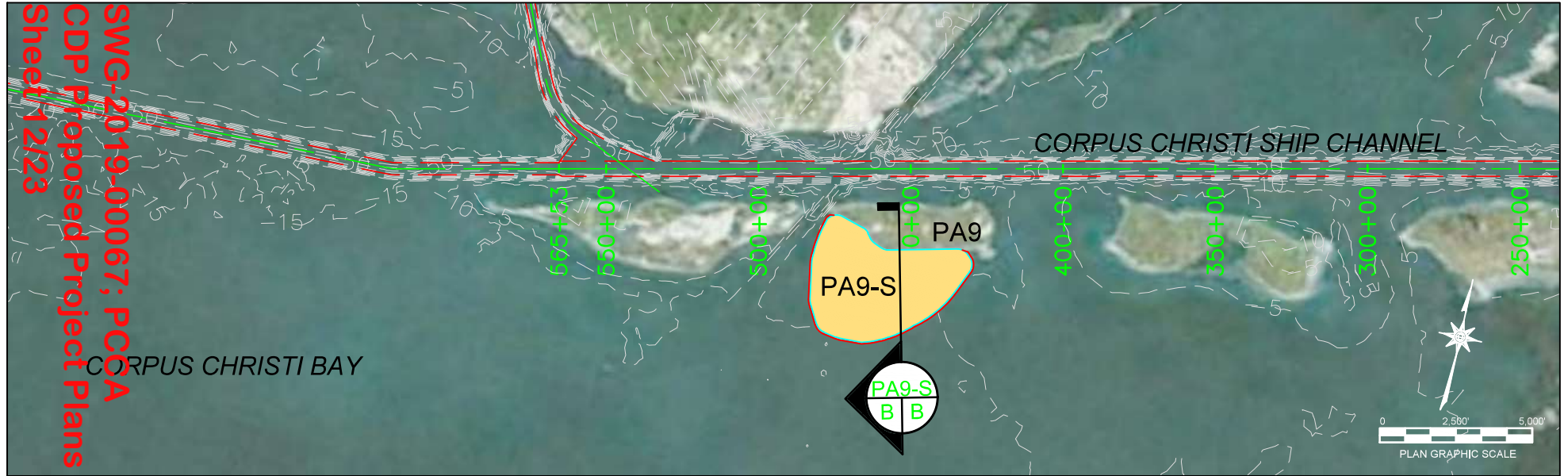
Sheet 11 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE  
AND SECTION VIEW - M10  
770 ACRE ESTUARINE / AQUATIC HABITAT**

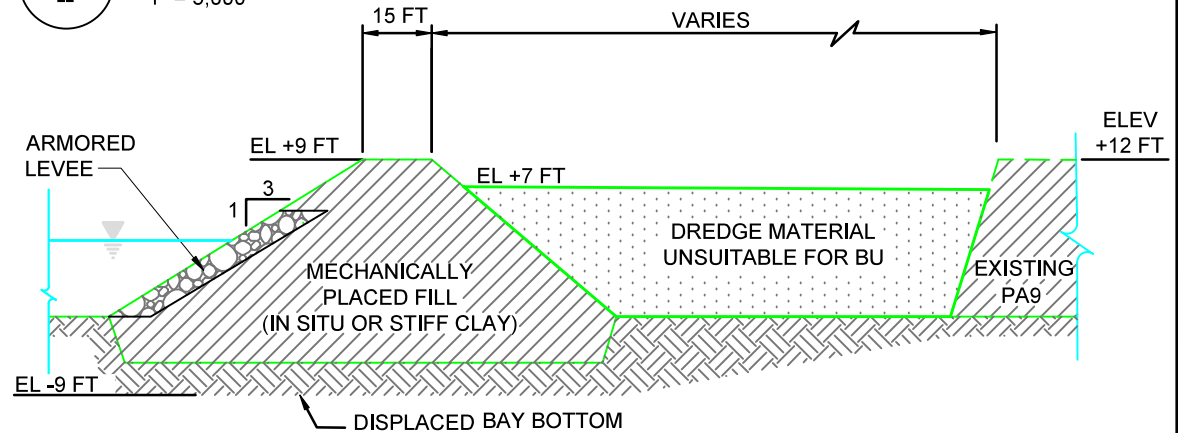
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site PA9-S	
Feature Description	Construction Volume (CY)
Armoring*	26,400
Levee Creation	500,000
Upland Placement	8,500,000
<b>Total</b>	<b>9,000,000</b>
*Note: Quantity not included in CY total	

PA9-S  
--  
PLAN  
1" = 5,000'



PA9-S  
B B  
SECTION  
NOT TO SCALE

## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Sheet 12 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

SITE AND SECTION VIEW PA9-S  
PA9 UPLAND SITE EXPANSION

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



**M3** **PLAN**  
1" = 2,500'



## GENERAL NOTES

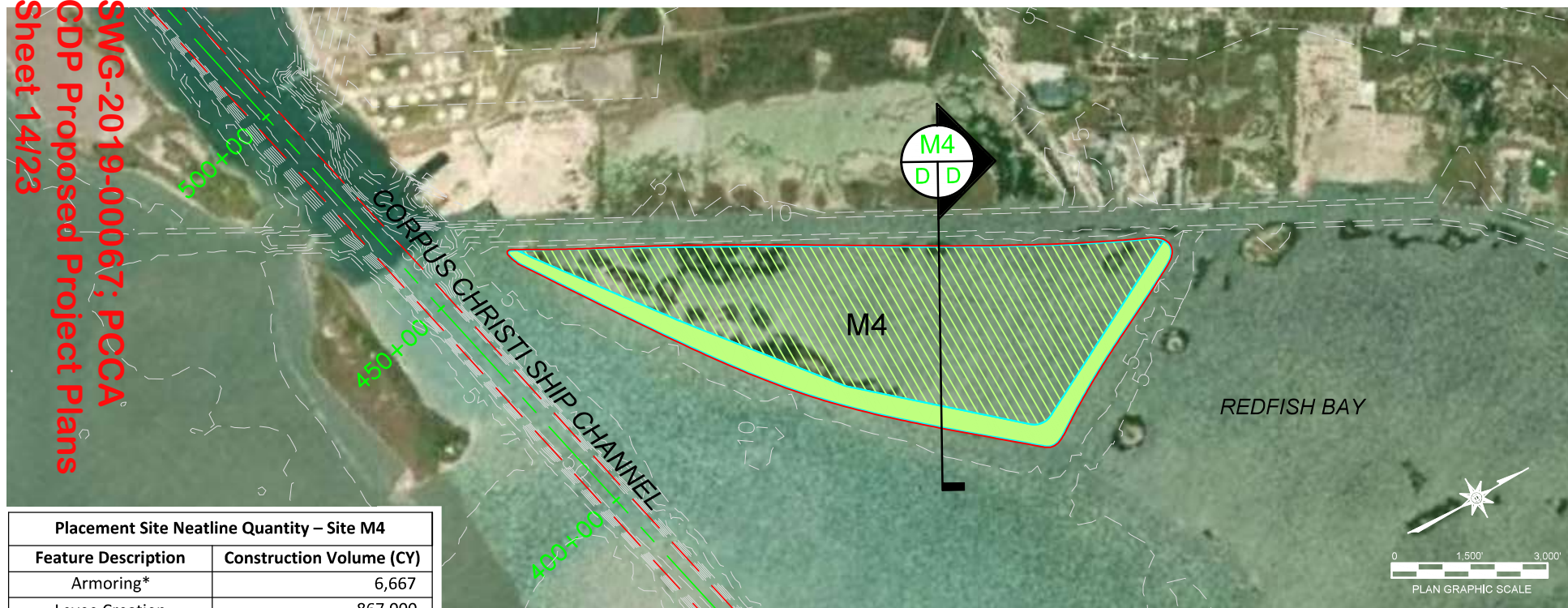
- Sheet 13 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

BENEFICIAL USE SITE  
AND SECTION VIEW - M3  
300 ACRE ESTUARINE / AQUATIC HABITAT

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

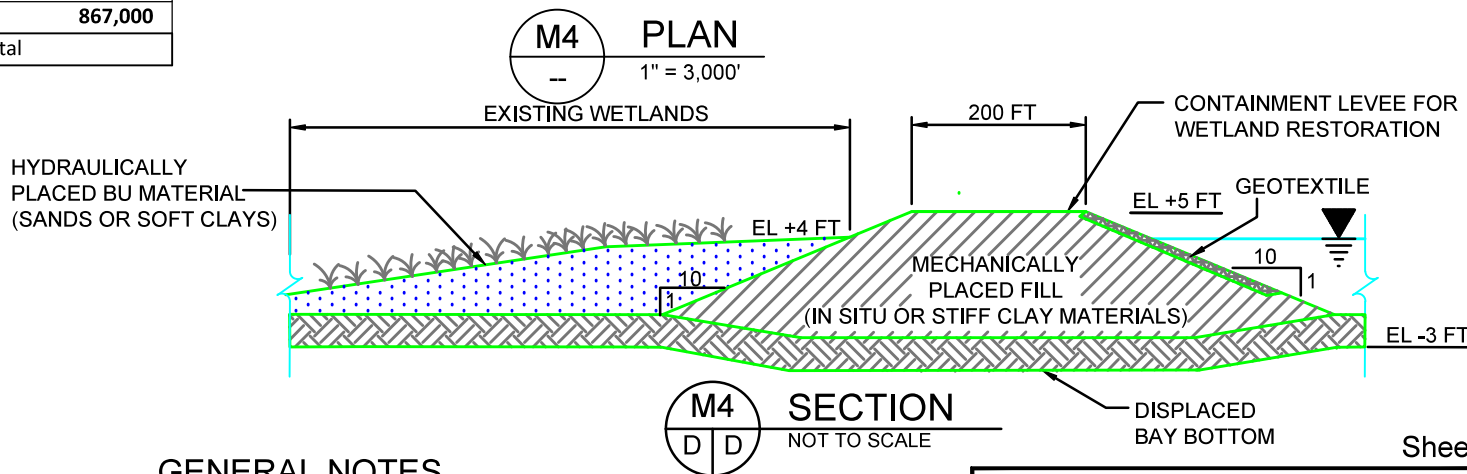
State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site M4	
Feature Description	Construction Volume (CY)
Armoring*	6,667
Levee Creation	867,000
<b>Total</b>	<b>867,000</b>

\*Note: Quantity not included in CY total

NOTE: UPDATES  
BASED ON EXIST  
TPWD PERMIT



## LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- POTENTIAL WETLAND RESTORATION
- EXIST CONTOURS

## GENERAL NOTES

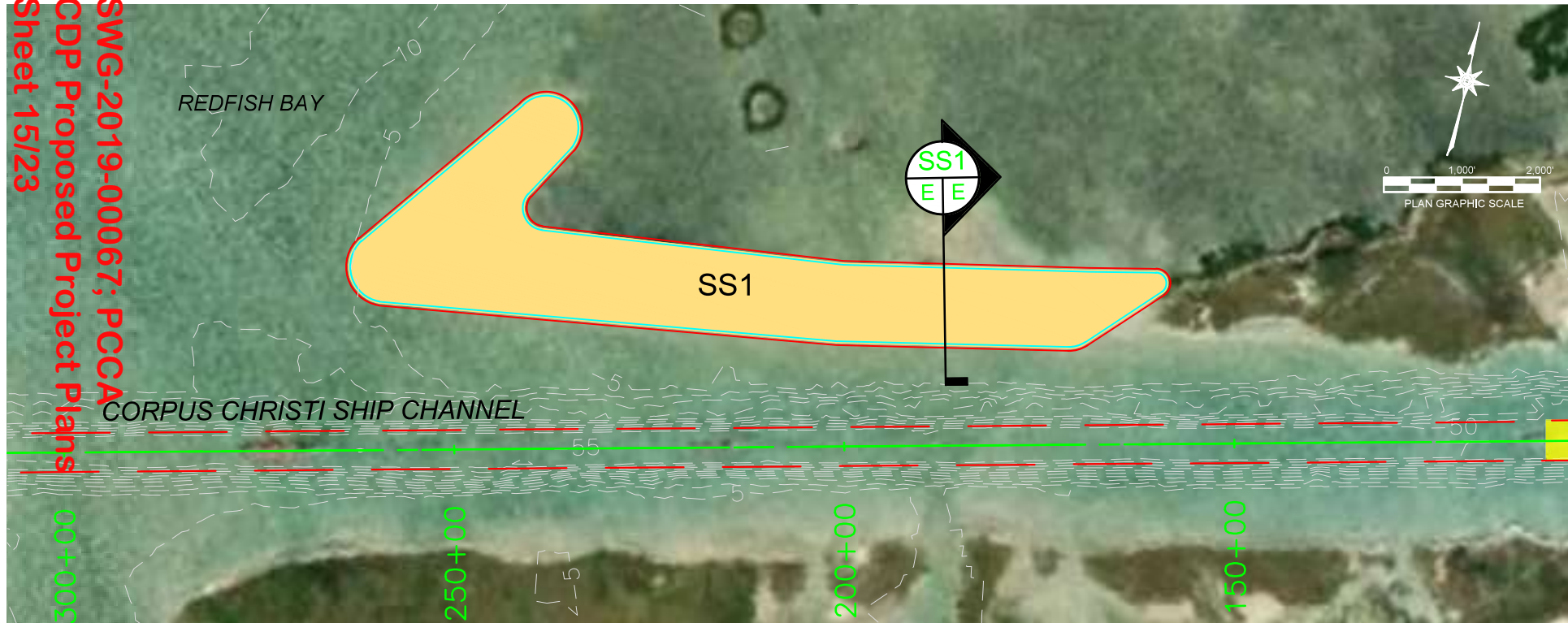
- BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
- HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
- VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE AND SECTION VIEW - M4  
DAGGER ISLAND LEVEE CREATION**

County: Aransas and Nueces      State: Texas  
Application By: Port of Corpus Christi Authority      Date: May 2019

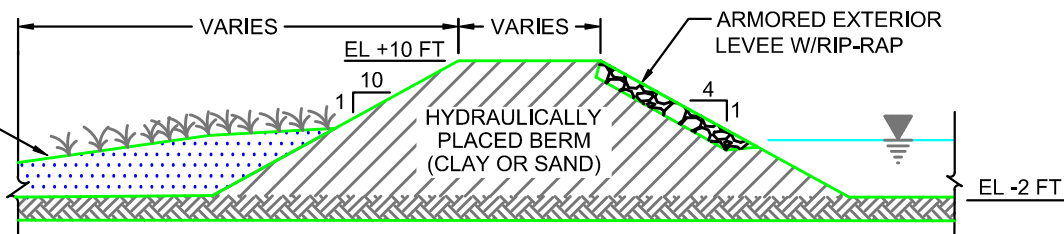




Placement Site Neatline Quantity – Site SS1	
Feature Description	Construction Volume (CY)
Armoring*	38,500
Berm Fill	4,800,000
<b>Total</b>	<b>4,800,000</b>
*Note: Quantity not included in CY total	

SS1 PLAN  
1" = 2,000'

HYDRAULICALLY PLACED  
BU MATERIAL MATCHED  
TO EXISTING ELEVATION  
(SANDS OR SOFT CLAYS)



SS1 SS1  
E E NOT TO SCALE

## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

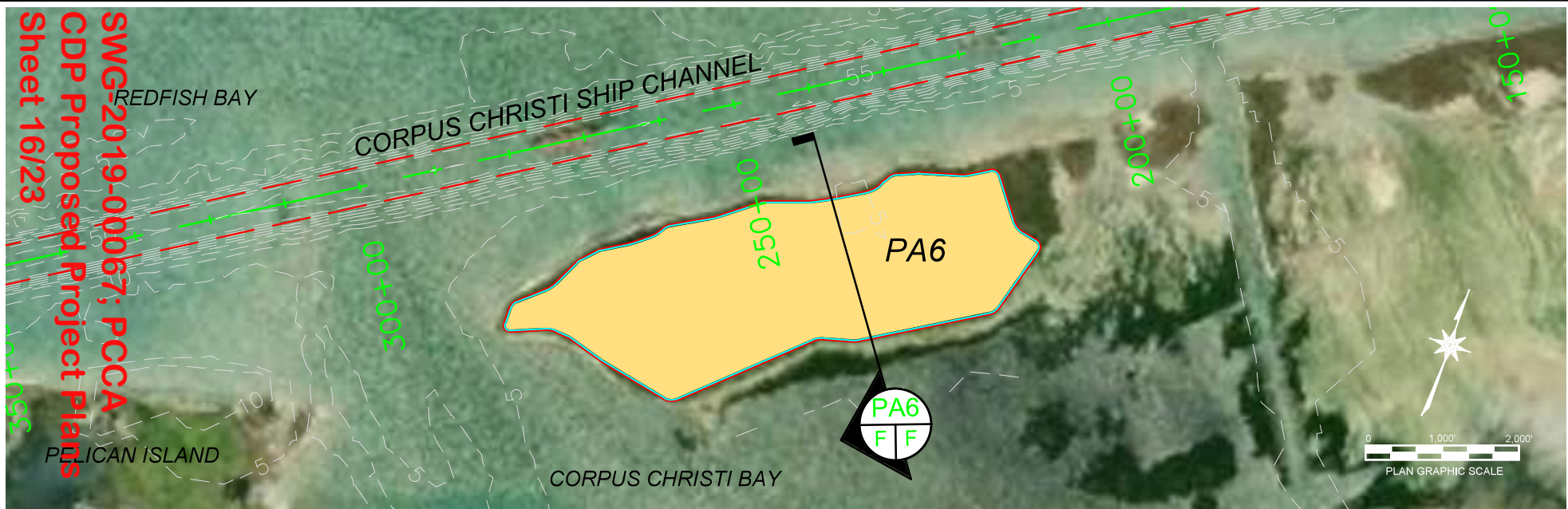
Sheet 15 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - SS1 SHORELINE STABILIZATION

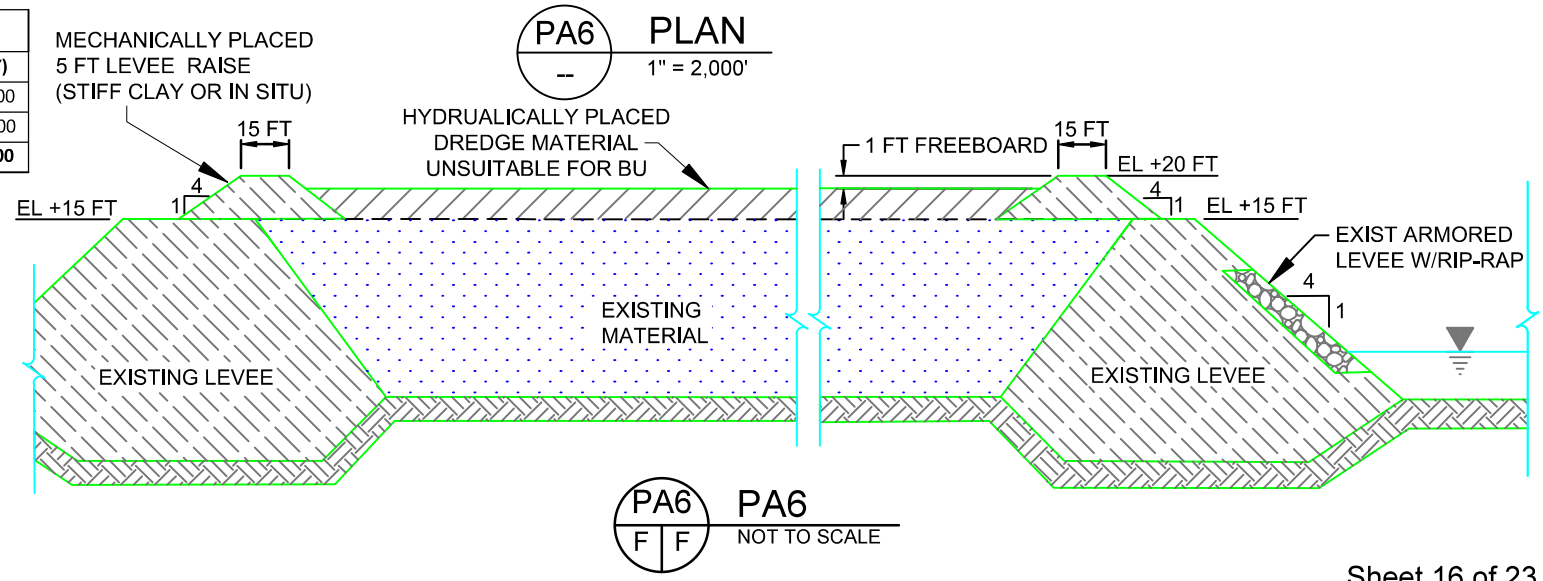
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



**Placement Site Neatline Quantity – Site PA 6**

Feature Description	Construction Volume (CY)
5-ft Levee Raise	103,000
PA Fill	1,693,400
<b>Total</b>	<b>1,796,400</b>



### LEGEND

- EXISTING SHIP CHANNEL
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

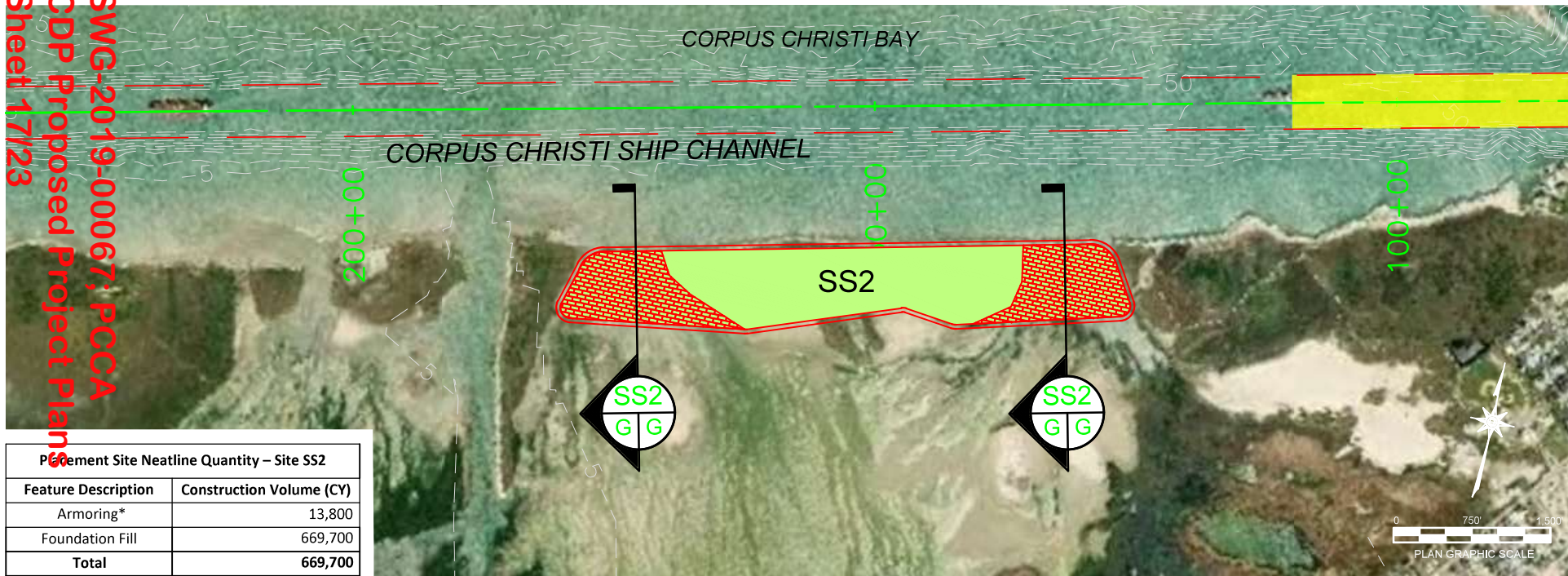
### GENERAL NOTES

1. BASE MAPPING SHOWN IS ESRI WORLD IMAGERY, RETRIEVED FROM ARCGIS TO AUTOCAD IN MAY 2019 - LAST UPDATED IN SEPT 2018.
2. HORIZONTAL COORDINATE SYSTEM IS NAD83 TEXAS STATE PLANE, SOUTH ZONE, US FOOT.
3. VERTICAL DATUM IS REFERENCED TO MEAN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. PIPELINE DATA FOR ARANSAS AND NUECES COUNTIES RETRIEVED FROM RAILROAD COMMISSION OF TEXAS ON NOVEMBER 19, 2018.

Corpus Christi Ship Channel Deepening Project  
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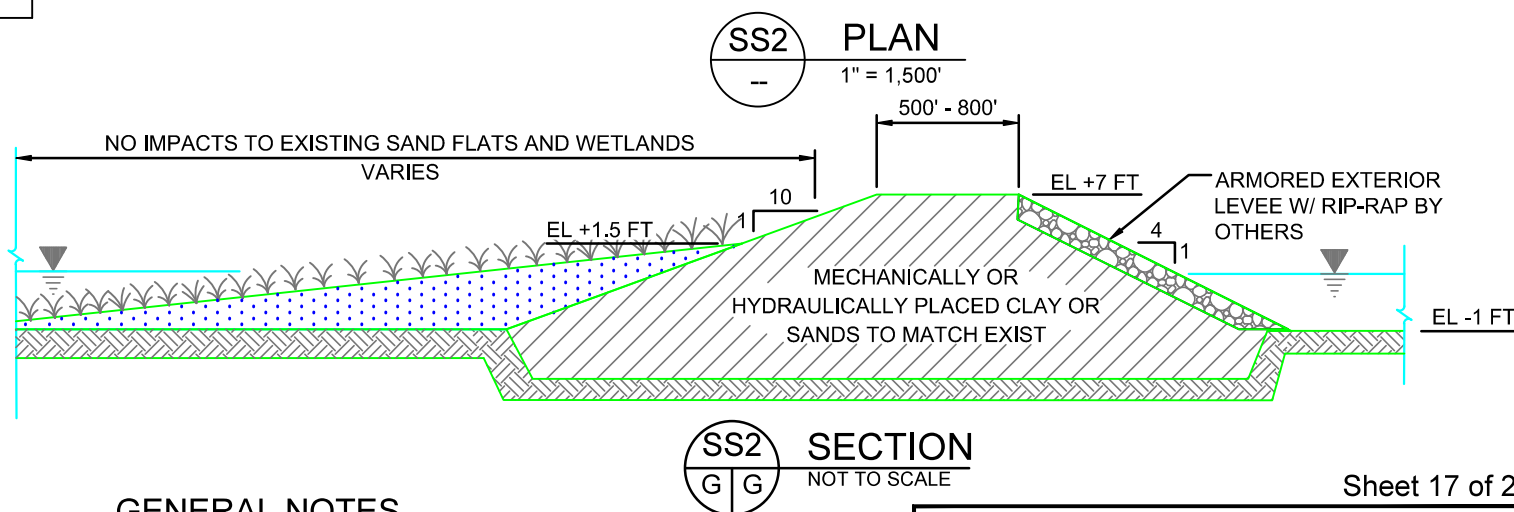
### DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA6 5 FT LEVEE RAISE & FILL





Pavement Site Neatline Quantity – Site SS2	
Feature Description	Construction Volume (CY)
Armoring*	13,800
Foundation Fill	669,700
<b>Total</b>	<b>669,700</b>

\*Note: Quantity not included in CY total



## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- -40- EXIST CONTOURS

## GENERAL NOTES

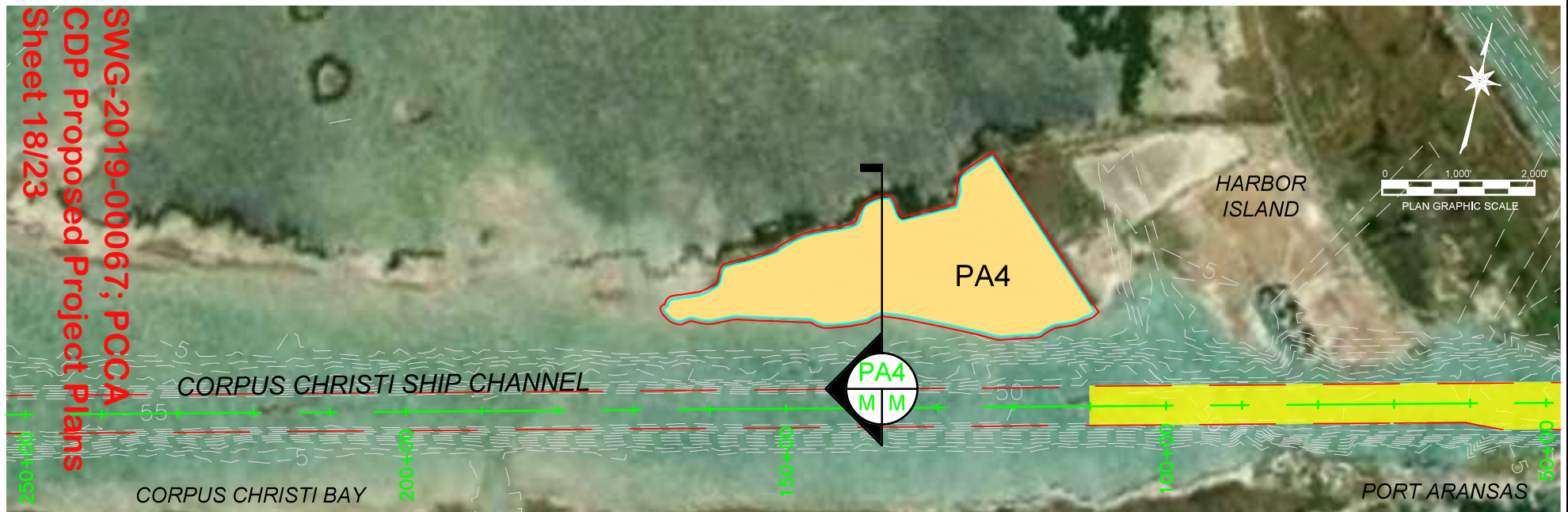
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Corpus Christi Ship Channel Deepening Project  
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## BENEFICIAL USE SITE AND SECTION VIEW - SS2 SHORELINE BREACH FILL IN

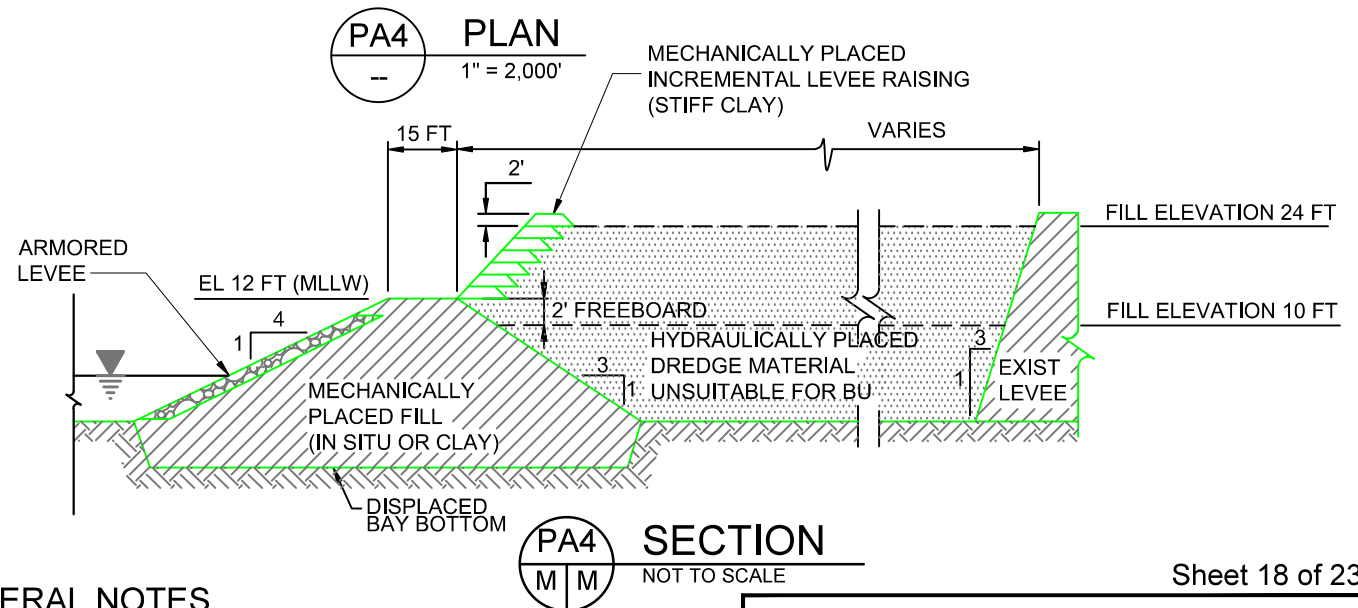
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Site PA 4	
Feature Description	Construction Volume (CY)
Armoring*	17,100
Levee	158,600
PA Fill	2,861,400
<b>Total</b>	<b>3,020,000</b>

\*Note: Quantity not included in CY total



## LEGEND

- EXISTING / PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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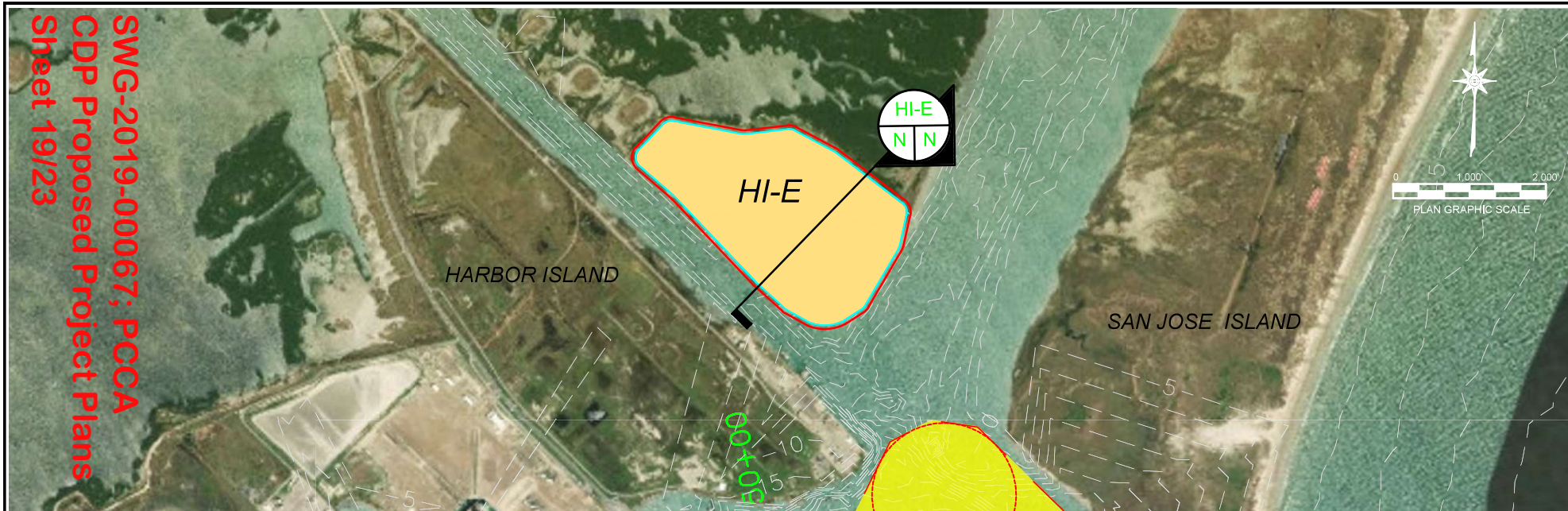
Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## DREDGE MATERIAL PLACEMENT SITE AND SECTION VIEW - PA4 LEVEE CONSTRUCTION & FILL

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

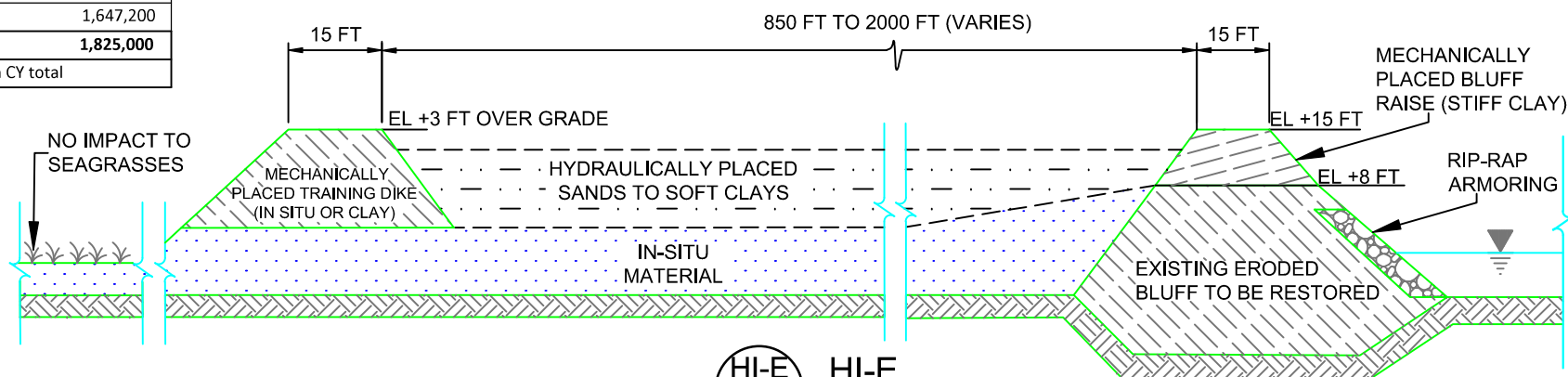




Placement Site Neatline Quantity – Site HI-E	
Feature Description	Construction Volume (CY)
Armoring*	23,400
Levee	177,800
Fill Placement	1,647,200
<b>Total</b>	<b>1,825,000</b>

\*Note: Quantity not included in CY total

HI-E PLAN  
1" = 2,000'



HI-E HI-E  
N N NOT TO SCALE

## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

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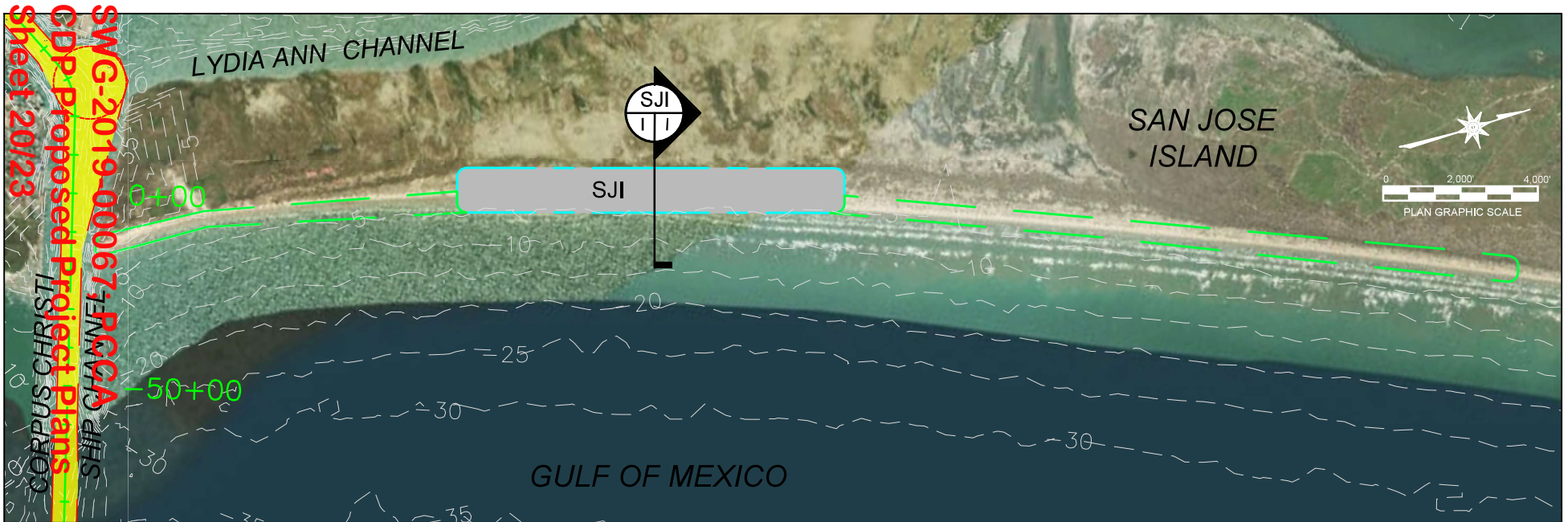
Sheet 19 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067  
**DREDGE MATERIAL PLACEMENT  
SITE AND SECTION VIEW HI-E  
SITE GRADING FILL AND  
SHORELINE RESTORATION**

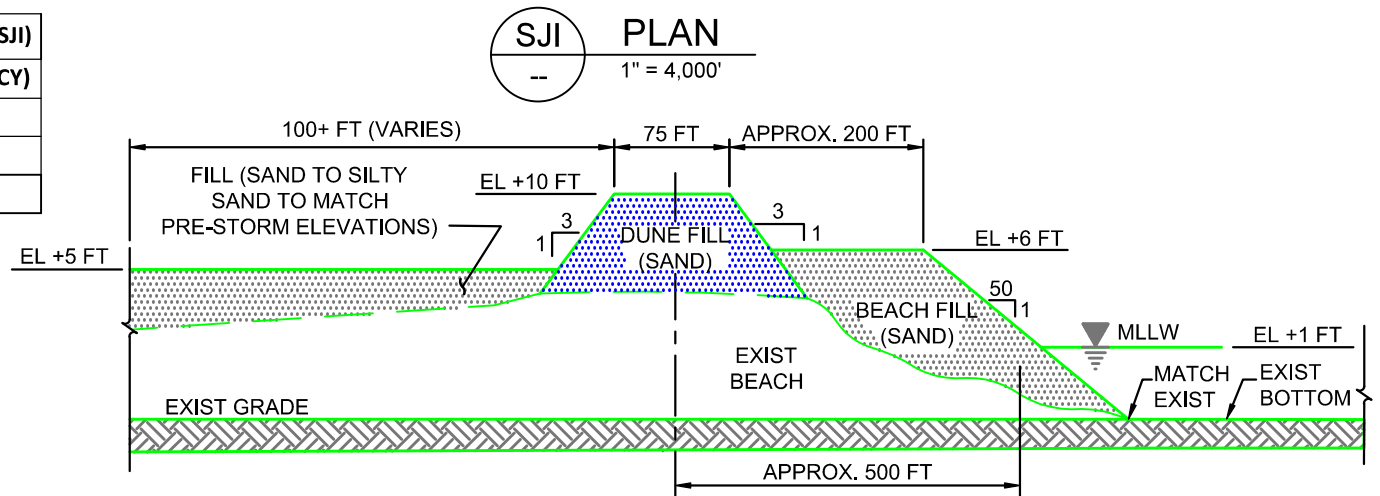
County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019





Placement Site Neatline Quantity – San Jose Island (SJI)	
Feature Description	Construction Volume (CY)
Dune Restoration	2,000,000
Beach Restoration	2,000,000
<b>Total</b>	<b>4,000,000</b>



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- EXIST CONTOURS
- DUNE RESTORATION
- BEACH RESTORATION

## GENERAL NOTES

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Sheet 20 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

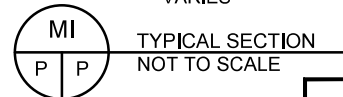
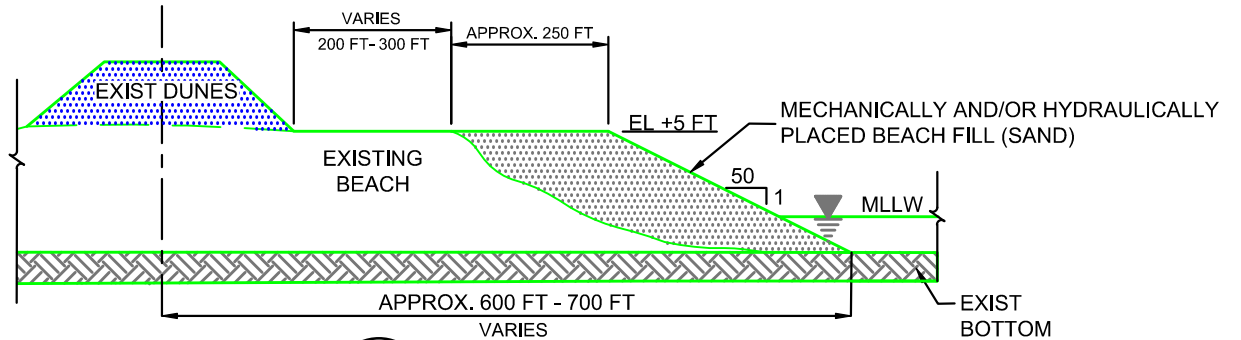
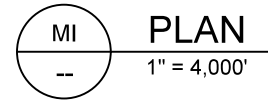
## BENEFICIAL USE SITE AND SECTION VIEW - SJI DUNE AND BEACH RESTORATION

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019



Placement Site Neatline Quantity – Mustang Island	
Feature Description	Construction Volume (CY)
Beach Nourishment	2,000,000
<b>Total</b>	<b>2,000,000</b>



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- EXIST CONTOURS
- BEACH NOURISHMENT

## GENERAL NOTES

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Sheet 21 of 23

Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - MI MUSTANG ISLAND BEACH NOURISHMENT

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

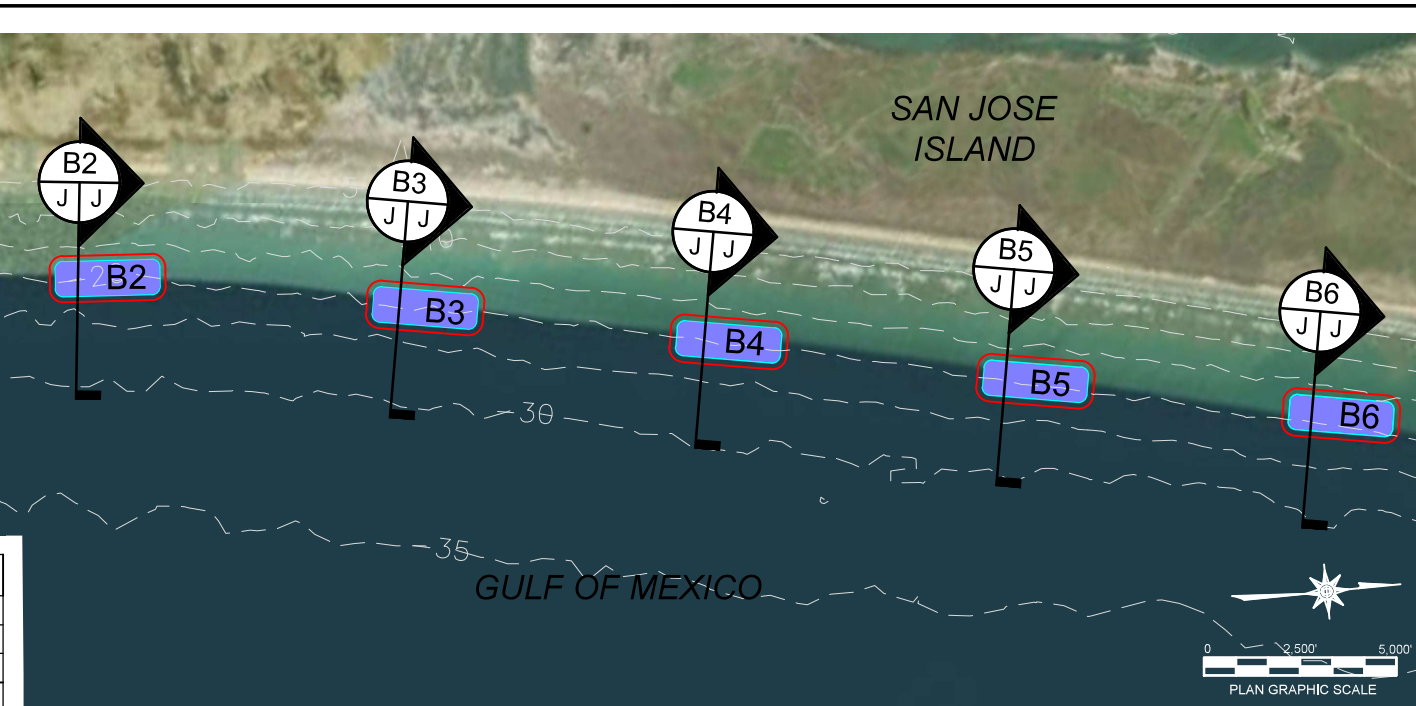
State: Texas  
Date: May 2019



Sheet 22/23  
 CDP Proposed Project Plans  
 SWG-2019-00067, PCCA

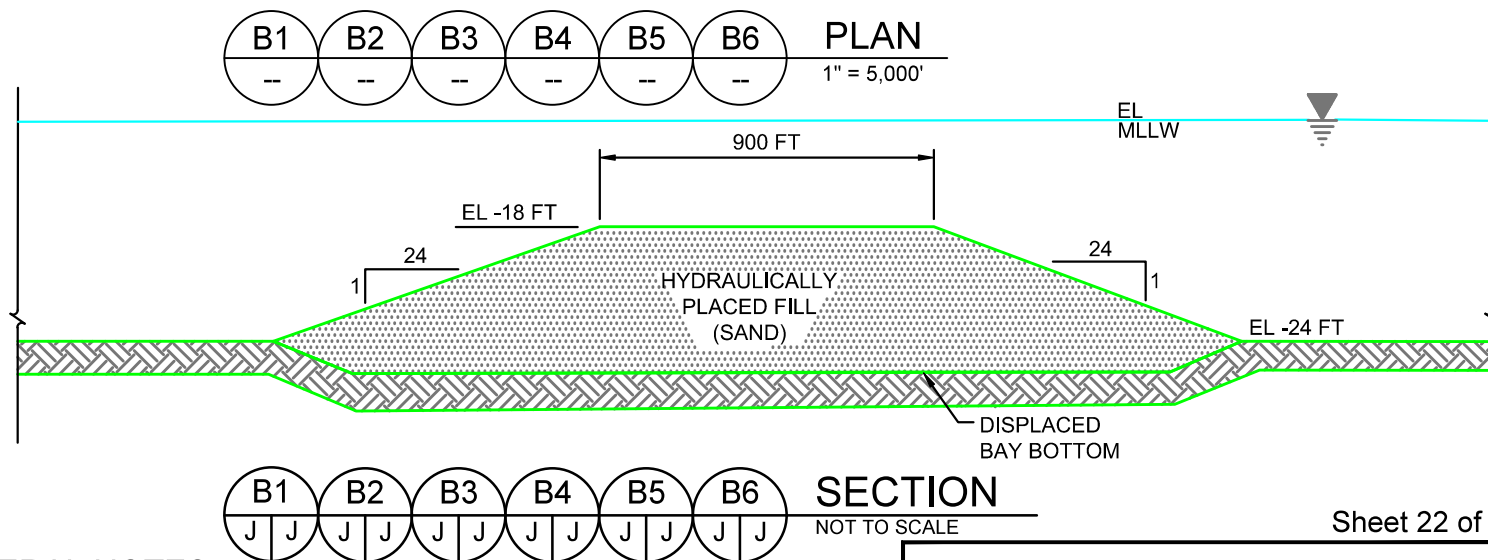
Placement Site Neatline Quantity – Sites B1 to B6

Feature Description	Construction Volume (CY)
Feeder Berm Fill	750,000
Total (Each)	750,000
Total (x6)	4,500,000



BERM CONFIGURATION AND DESIGN TO BE FINALIZED IN P.E.D.

PLACEMENT QUANTITY NOT TO EXCEED AS SHOWN ABOVE.



## LEGEND

- PROPOSED SHIP CHANNEL DEEPENING
- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

## GENERAL NOTES

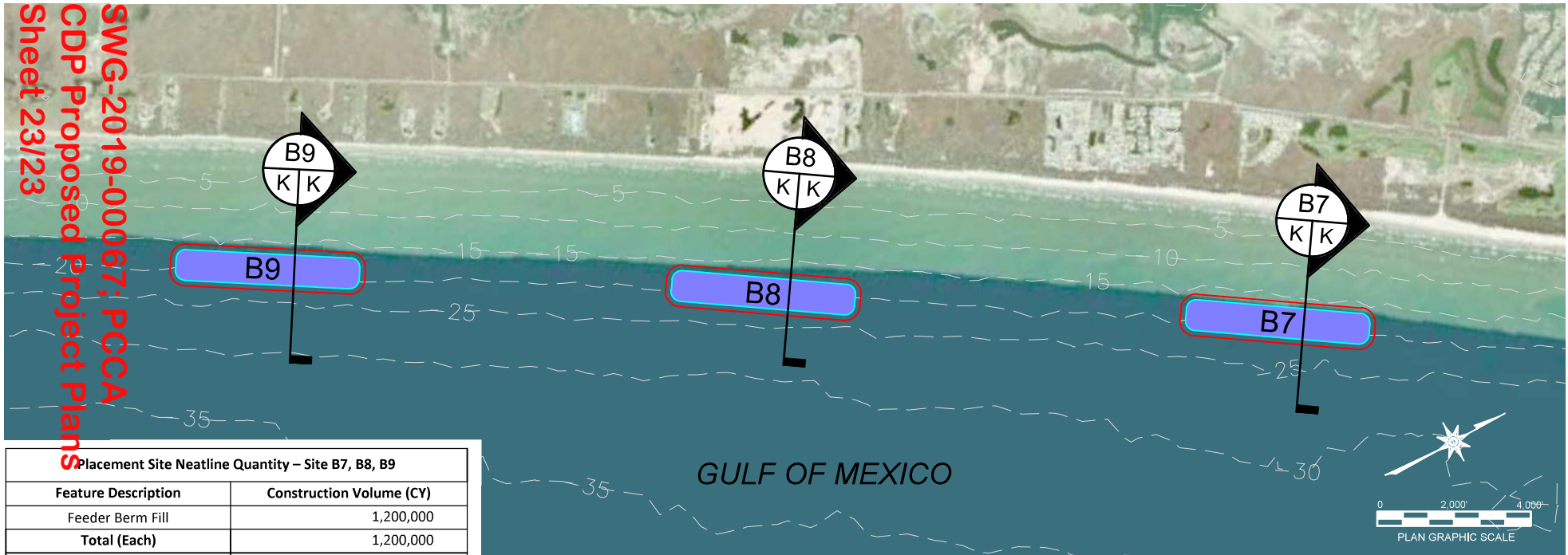
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Corpus Christi Ship Channel Deepening Project  
 Individual Permit Application SWG-2019-00067

## BENEFICIAL USE SITE AND SECTION VIEW - B1 TO B6 OFFSHORE FEEDER BERMS

County: Aransas and Nueces  
 Application By: Port of Corpus Christi Authority

State: Texas  
 Date: May 2019

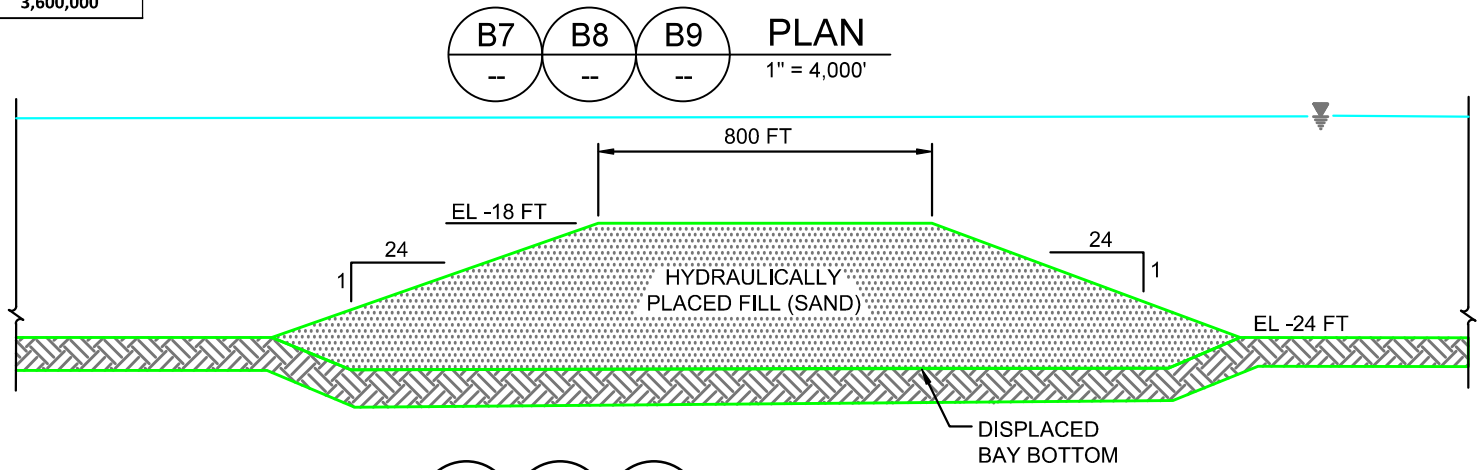


**Placement Site Neatline Quantity – Site B7, B8, B9**

Feature Description	Construction Volume (CY)
Feeder Berm Fill	1,200,000
<b>Total (Each)</b>	<b>1,200,000</b>
<b>Total (x3)</b>	<b>3,600,000</b>

BERM CONFIGURATION AND DESIGN TO BE FINALIZED IN P.E.D.

PLACEMENT QUANTITY NOT TO EXCEED AS SHOWN ABOVE.



### LEGEND

- DREDGE MATERIAL PLACEMENT
- EXIST CONTOURS

### GENERAL NOTES

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Corpus Christi Ship Channel Deepening Project  
Individual Permit Application SWG-2019-00067

**BENEFICIAL USE SITE AND  
SECTION VIEW - B7, B8 & B9  
OFFSHORE FEEDER BERMS**

County: Aransas and Nueces  
Application By: Port of Corpus Christi Authority

State: Texas  
Date: May 2019

## **2.0 PURPOSE AND NEED FOR PROJECT**

The purpose of the proposed project is to construct a channel with the capability to accommodate transit of fully laden Very Large Crude Carriers (VLCCs) from multiple locations on Harbor Island into the Gulf of Mexico. Factors influencing the Applicant's need for the project include:

- Allow for more efficient movement of U.S. produced crude oil to meet current and forecasted demand in support of national energy security and national trade objectives,
- Enhance the PCCA's ability to accommodate future growth in energy production, and
- Construct a channel project that the PCCA can readily implement to accommodate industry needs.

Currently, crude oil is exported using Aframax and Suezmax vessels. The Suezmax vessels are sometimes light loaded (lightered) due to depth restrictions in the existing CCSC, and would continue to be light loaded when the current federally-authorized CCSC deepening project is completed. Reverse lightering translates into additional vessel trips, cost, man hours, operational risk, and air emissions. To efficiently and cost effectively move crude oil cargo, oil exporters are increasingly using fully loaded vessels, including VLCCs. Non-liquid commodity movements are also trending toward larger, more efficient vessels. In order to fulfill its mission of leveraging commerce to drive prosperity in support of national priorities, the PCCA must keep pace with the global marketplace.

The need for the proposed project is driven by the considerations below, which are explained in the following paragraphs:

- Pipelines from Eagle Ford and Permian Basins are being constructed to the Port of Corpus Christi and to Harbor Island. Crude oil terminals are also being planned at Harbor Island using the Federally-authorized -54-foot deep channel that limits the ability to fully load VLCCs, decreasing efficiency by requiring reverse lightering of these vessels.
- Bolstering national energy security through the growth of U.S. crude exports.
- Protecting national economic interests by decreasing the national trade deficit.
- Supporting national commerce by keeping pace with existing and expanded infrastructure being modified or already under development to export crude oil resulting from the large growth in the Permian and Eagle Ford oil field development, which has helped the U.S. recently become the top oil-producing nation in the world.
- Improve safety and efficiency of water-borne freight movements.

The infrastructure and proximity to the major Texas shale plays makes the Port an attractive location for efficiently exporting crude oil by VLCC vessels. The PCCA has received interest from new and existing customers for developing crude oil export terminals and facilities. Production and export of crude oil and natural gas have greatly increased over the years and are providing an economic boom to the Port and the region.

Investments at the PCCA that are directly aimed at product from the Eagle Ford Shale are over \$100 million. In the latter part of July 2018, the PCCA sold more than \$216 million in bonds to fund energy export products. A portion of this money will be used for the authorized deepening of the CCSC, but

also will help fund other improvements, including a crude oil export terminal under design at Harbor Island. The new oil export terminals being planned at the Port will have loading arms, handling equipment, storage tanks, and other related facilities for larger ships including VLCCs. Similar crude export facilities are being planned by multiple other entities at Harbor Island.

More efficient transport of crude in greater volumes is the impetus for the PCCA to deepen the channel to accommodate fully loaded VLCCs. Presently, the existing channel depth requires that current crude carriers, whether VLCCs or other vessels, not depart fully loaded from the Port, or that VLCCs remain offshore while smaller tankers transfer their cargo to the larger VLCCs, a process known as reverse lightering. The inefficiency of this process is compounded by some of these smaller vessels not being able to be fully loaded while moving through the Port.

Production from the Permian and Eagle Ford basins continues to increase, and several of the major midstream companies are currently undergoing major expansions to facilitate the export of greater volumes of crude. As these exports increase, the number of lightering vessels and product carriers will also increase, adding to shipping delays and congestion inside and outside of the Port. These delays and congestion will increase the cost of transportation, which in turn will increase the cost of crude oil with the ultimate consequence of making U.S. crude less competitive in the global market.

### **3.0 SITE ANALYSIS**

The proposed project is located in the Gulf of Mexico, the southern portion of Corpus Christi Bay, and Redfish Bay near Port Aransas as shown in Sheet 1 of 23. The Port is located in Corpus Christi Bay on the south-central portion of the Texas coast, approximately 200 miles southwest of Galveston and approximately 150 miles north of the mouth of the Rio Grande. The CCSC provides deep water access from the Gulf of Mexico to the Port via Port Aransas, through Corpus Christi Bay. The CCSC extends from deep water in the Gulf of Mexico approximately 4.3 miles offshore through the Port Aransas jettied entrance, then continues for 21 miles westward to the Inner Harbor. The proposed project would be constructed within the limits of the CCSC from the Gulf of Mexico to Harbor Island, which comprises the Entrance Channel segment and approximately 2,000 linear feet of the Lower Bay segment of the CCSC. The Entrance Channel segment of the CCSC is currently maintained to a depth of -49 feet MLLW, and the Lower Bay segment to a depth of -47 feet MLLW. The CCSC has been federally authorized to a depth of -56 feet MLLW from the Gulf of Mexico to the end of the jetties in the Entrance Channel segment, and to -54.0 feet MLLW in the Lower Bay segment. Dredging work to reach the authorized depths is scheduled to begin in mid-2019.

#### **Affected Waters**

The proposed improvements to the CCSC would take place in the open water marine environment of the Gulf of Mexico and Corpus Christi Bay. Waters in the project area are navigable waters of the United States (WOUS) regulated by the USACE under Section 10 of the Rivers and Harbors Act of 1899. The areas of proposed channel deepening are unvegetated. Deepening of the CCSC would take place in WOUS, and the proposed improvements were detailed in Section 1.1 above, and were shown in Sheets 2 through 8 of 23. The estimated amounts of new work dredging and maintenance dredging were also listed in Sections 1.1 and 1.2. Similarly, waters occurring in the areas of proposed dredged material placement, whether for upland placement or for BU, are also navigable waters of the United States (i.e. subject to the ebb and flow of the tide) regulated by the USACE. The channel amounts were determined using Computer Aided Design (CAD) and Geographical Information System (GIS) analysis with proposed channel widths and projected daylight lines (where channel template meets existing bathymetry) using the most current bathymetric data available from the USACE and surveyed for this project. The estimated amount of WOUS was 1,664 acres between the projected side slopes of the



deepened channel. Of that, a very small patch of seagrass is mapped in the Aransas Pass within the jetties. Approximately two acres of upland at the southwest corner of San Jose Island falls within the daylight of the projected side slope of the turning basin expansion. The expansion footprint was based on empirical design criteria in Engineer Manual (EM) 1110-2-1613 *Hydraulic Design of Deep Draft Navigation Projects*, and without consideration of the potential use of sheet piling to reduce the side slope required. Additional ship simulation will be conducted in 2019 to determine if the required turning basin diameter can be reduced. A summary of potential impacts of the channel WOUS including wetlands is summarized in Table 3.1.

For placement impacts, GIS features based on the proposed template extent using existing National Oceanic and Atmospheric Administration (NOAA) bathymetry and CAD analysis were used in conjunction with existing seagrass and oyster habitat mapping downloaded from NOAA, Texas General Land Office (TGLO) and Texas Parks & Wildlife Department (TPWD). The National Wetland Inventory (NWI) data was used to identify potential mapped wetland habitat. Open water acreage was derived using a land, shoreline and water data set sourced from ESRI and Texas Department of Transportation (TXDOT), which was found to match aerial imagery well. Habitat features were clipped using the placement footprints and review of the mapped habitat was conducted using a current ESRI aerial (2018) to verify the nature of mapped features. A summary of potential impacts of the placement plan to WOUS including wetlands, and other special aquatic sites is provided in Table 3.2. The comments in the table show individually the results of aerial review in examining the nature of the mapped habitat. In several cases, the NWI identified ponded features early in the life of an active PA that have since been filled. In others, the feature had eroded away. In various cases, the BU feature is a shoreline restoration that would protect resources in the interior of the BU feature, such as M4, and not impact all the interior mapped acreage. Reductions of these acreages from being counted as adverse impacts are shown in the adjustment column, and the net result is shown as the estimated adverse impact. The bottom of the table summarizes the acreage that after considering the aerial review would likely be adversely impacted. For each impact at each site, measures that could minimize or replace the impacted habitat are identified

The PCCA's environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary and b) environmental sustainability in the development of PCCA facilities and in ongoing port operations. The PCCA's goal is to execute projects in a manner that restores resources impacted by a project, and to contribute to resource restoration as a result of project actions even if the project impacts are minimal. The PCCA's practice is to consider and incorporate BU activities where practicable in managing dredged material generated by channel projects.

Table 3.1: Channel Impacts to Gulf and Estuarine Bottom (See Sheet 2 through 4 of 23)

Channel Impacts to Waters of the U.S.		Channel Acres			Channel Impact		
Segment	Impact	Toe to Toe	Total Including Side Slope	Side Slope Acreage	Upland Acreage	Seagrass Acreage	WOUS (Deepwater)
New Entrance Channel Extension	Deepening from natural depth (varies -62 ft to -81 ft MLLW) to -77 ft MLLW + 2 ft adv. maint.+ 2 ft overdredge <b>(-81 ft MLLW)</b>	455.4	588.8	133.4	-	-	588.8
54-foot Authorized Entrance Channel Extension	Deepening from -56 ft MLLW to -77 ft MLLW + 2 ft adv. maint + 2 ft overdredge <b>(-81 ft MLLW)</b>	146.9	260	113.1	-	-	260
Existing Channel	Deepening from -56 ft MLLW to -77 ft MLLW +2 ft adv. maint +2 ft overdredge (-81 ft MLLW) and from -54 ft MLLW to -75 ft MLLW +2 ft adv. maint +2 ft overdredge <b>(-79 ft MLLW)</b>	518.9	734.8	215.9	2.00	0.11	732.69
Turning Basin (area outside of the existing basin footprint) and Flare	Deepen portions of the Lydia Ann Channel from between -54 ft MLLW to <b>-75 ft MLLW</b>	56.68	82.42	25.74	-	-	82.42
<b>TOTAL</b>		1,178	1,666	488	2.00	0.11	1,664

**Table 3.2: Impacts to Mapped Aquatic Habitat (See Sheet 9 of 23)**

Placement Option	Total Site Acres	Mapped Habitat									Open Water WOUS (ac.)
		Wetland					Seagrass				
		Acres	Predominant Type	Comment	Impact Review Adjustment	Est. Adverse Impact	Acres	Comment	Impact Review Adjustment	Est. Adverse Impact	
B1	80.0	-	-	-	-	-	-	-	-	-	80.0
B2	80.5	-	-	-	-	-	-	-	-	-	80.5
B3	83.8	-	-	-	-	-	-	-	-	-	83.8
B4	83.8	-	-	-	-	-	-	-	-	-	83.8
B5	83.8	-	-	-	-	-	-	-	-	-	83.8
B6	83.8	-	-	-	-	-	-	-	-	-	83.8
B7	124.0	-	-	-	-	-	-	-	-	-	124.0
B8	124.0	-	-	-	-	-	-	-	-	-	124.0
B9	124.0	-	-	-	-	-	-	-	-	-	124.0
HI-E	138.7	36.2	Estuarine and Marine Wetland	Features appear to have eroded away	-7.7	28.6	0.0	-	0.0	0.0	3.3
M3	332.6	-	-	-	-	-	17.1	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too.	-9.5	7.6	332.6
M4	702.6	68.9	Estuarine and Marine Wetland	Interior wetlands that would be avoided, and exterior would be integrated with through placement	-68.9	0.0	571.5	Interior acreage would not be impacted except at fringes. BU feature would protect this from further loss.	-571.5	0.0	546.3
PA9-S	329.3	-	-	-	-	-	3.1	Restoration of larger area to create uplands. In recent years aerials do not show evidence of Seagrass stands. If in existence seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-3.1	0.0	308.8
M10	769.9	-	-	-	-	-	2.5	Restoration of larger area to create marsh. Elevation could be suitable for seagrass establishment too. In recent years aerials do not show evidence of Seagrass stands. If in existence seagrass is sparse and tenuous, most likely because of focused wave energy in the area.	-2.5	0.0	752.9

Placement Option	Total Site Acres	Mapped Habitat									Open Water WOUS (ac.)
		Wetland					Seagrass				
		Acres	Predominant Type	Comment	Impact Review Adjustment	Est. Adverse Impact	Acres	Comment	Impact Review Adjustment	Est. Adverse Impact	
MI	362.2	211.7	Estuarine and Marine Wetland	Consists of entirely of unconsolidated shoreline to be restored	-211.7	0.0	-	-	-	-	262.1
NW_ODMDS	1180.4	-	-	-			-	-	-	-	1180.4
PA4	163.1	51.5	Freshwater Emergent Wetland	Identified within active PA or Feature appear to have eroded away	-51.5	0.0	0.0	Minor fringe impact. BU would protect much larger seagrass area from future losses.	0.0	0.0	3.3
PA6	269.8	143.0	Lake	Identified within active PA. Feature appears associated with earlier filling of this PA and is no longer apparent in current aerials.	-143.0	0.0	-	-	-	-	0.8
SJI	593.0	279.4	Estuarine and Marine Wetland	Consists of entirely of shoreline to be restored	-279.4	0.0	-	-	-	-	334.3
SS1	307.6	157.3	Estuarine and Marine Wetland	Would be replaced by created upland to protect seagrass area behind it from future loss	0.0	157.3	94.1	Restoration of shoreline to bolster against future erosion of much larger area of seagrass behind feature. Due to shifting uplands and erosion over recent years much of the seagrass no longer appears to be visible within aerials.	-43.3	50.8	81.4
SS2	94.8	36.5	Estuarine and Marine Wetland	Unconsolidated shoreline that eroded away during Harvey. Placement would restore protective shoreline for interior sand flats.	-36.5	0.0	-	-	-	-	-
TOTALS	6111.7	984.5				185.9	688.3			58.5	4,673.9
							Sum of all Habitat Acreage				6,346.7
									Estimated Adverse Impacts (Seagrass & Wetlands)		All Habitat
							Sum of all Impacted Mapped Habitat Acreage		244.4		4,918.2

## **4.0 PROJECT ALTERNATIVES FOR CHANNEL IMPROVEMENTS**

### **4.1 Evaluation Criteria**

Preliminary criteria were developed to evaluate how well initial alternatives fulfilled the purpose and need of the proposed project. The initial alternatives were screened using the following general criteria:

- 1) Increase Export Efficiency – Key factors that affected the ability to fully load vessels with crude oil due to constraints of the existing channel and authorized channel were considered. This included draft limitations along the CCSC segments between the Entrance Channel and Harbor Island. This criterion considered whether the alternative allowed a VLCC to move more fully loaded and whether it eliminated or reduced lightering. Lightering would be eliminated for vessels using Harbor Island and lightering would be reduced for vessels using docks at other locations within the CCSC system.

Due to recent exponential growth in crude oil export, the Port of Corpus Christi has seen an increase in vessel tonnage. Several stakeholders' forecasts indicate that this trend will continue for a foreseeable future and beyond. As a result of PCCA's past investments in marine infrastructure and available capacity, PCCA has been capable of accommodating the recent historical shift in oil traffic from import to export. This trend is expected to continue as long as the Port's infrastructure allows it. There are concerns about future limitation to U.S. oil exports due to lack of or insufficient infrastructure capable of handling the export volumes. Lack of adequate infrastructure at U.S. ports including the Port Corpus Christi may lead to inefficient

shipping and ensuing crude price increase which may weaken the U.S.'s competitive edge (EIA 2018).

- 2) **Ability to Serve Multiple Tenants** – Part of the PCCA's mission is to meet the demand of commerce in the Coastal Bend region and throughout the world. To that end, PCCA plans its infrastructure to accommodate the needs of different stakeholders. PCCA has the ability to plan, fund, build and maintain marine infrastructures for common use such as navigation channels and dock infrastructure. PCCA owns and operates several public oil docks and bulk docks that are leased and used by different tenants. The ship channel is a common use infrastructure that is designed and operated to accommodate the different types of vessels used by PCCA's tenants. As cargo volume and vessel traffic increase, larger vessels are being used to improve shipping efficiency and reduce costs. To keep up with these trends, PCCA has undertaken several channel improvement programs. One is the dredging of the CCSC to a depth of 54-foot MLLW for which construction is imminent and will serve tenants all the way to the Inner Harbor. The other is this study to evaluate deepening up to the full depth required to accommodate fully loaded VLCCs. The terminal being planned by the PCCA at Harbor Island could be operated as a facility open for use to several users or companies, and the ability of a common use navigation channel can provide access for separate, multiple users. This criterion evaluates to what degree the alternative can benefit multiple tenants.
- 3) **Flexibility to Accommodate Future Growth/ Expansion** – This criterion considers the flexibility the alternative provides in being able to accommodate future growth in crude oil export tonnage and future growth in other sectors as well. Crude oil exports have exponentially increased in the last two years and are on pace to exceed the growth rate in 2018. Various long term projections predict much larger export tonnage if export infrastructure and the present bottlenecks in the supply chain end are improved. To that end, the ability to accommodate delivery from new crude export terminals or add capacity for exporting crude oil is important. In addition to crude oil, PCCA seeks to anticipate and be ready to accommodate all other future cargo needs and long term growth.
- 4) **Minimize Environmental Impacts** – All alternatives considered are located in the open waters of Corpus Christi Bay and the Gulf of Mexico. Therefore, environmental impacts would be limited to open water marine habitat and would primarily not involve terrestrial, wetland, or near-shore (tidal flats, beach, dunes etc.) impacts. Potential impacts to the marine environment are discussed below:

*Impact to Marine Habitats:* Existing marine habitat mapping information including seagrasses, tidal wetlands, and oyster reef from TPWD, NOAA and TGLO were obtained and used to gauge the potential for impacts. As environmental marine field surveys were reviewed, preliminary site-specific habitat locations were identified. Because the channel will be constructed within the footprint of an existing channel, no new impact to undisturbed habitat would occur within that footprint. The incremental widening that may be required to maintain the recommended design slope would be minimal and would limit undisturbed habitat impacts.

*Other environmental impacts:* Other environmental aspects that are considered for this criteria include potential impact of oil spills and air emissions from vessels and fuel transfer operations as described below. In conjunction with considerations of risk in criteria #5 below, potential impacts to environmental resources considers the location of major habitat resources (coastal shore, seagrass etc.), climatic (e.g. prevailing wind), and spill response factors. Impacts on air emissions considers how the alternative reduces transit and loading emissions from what would occur during lightered crude oil transfer operations.



- 5) Risk, Safety and Security – Safety and security are primary concerns for all vessels operating at the Port of Corpus Christi. Safety and security concerns include risk and challenges associated with oil spills and ensuing responses, fire and fire suppression activities as well as worker safety as they relate to offshore and onshore operations. Security also considers vulnerability to challenges to physical and operational security such as sabotage, and vandalism. Vulnerability to weather related events including wave height, winds and hurricanes is considered as well.
- 6) Ability to Contribute to Beneficial Uses – PCCA’s environmental precepts include a) wildlife habitat development, improvements, and replacement when modification to existing habitat is necessary, and b) environmental sustainability in the development of port facilities and in ongoing port operations. Although this is normally in the context of executing projects in a manner that restores resources from the impacts of a project, the ability to contribute to resource restoration as a result of project actions regardless of project impact can be considered also. Continuing the practice of considering and incorporating BU where practicable in managing dredged material of its channel projects, as was done in the currently authorized -54-foot project, is desirable. The ability to do this under a given alternative is considered for this criterion.

#### **4.2 Initial Alternatives Considered**

The existing channel dimensions and the authorized channel dimensions are summarized as follows. As of July 2018, the CCSC has a dredged depth of -47 feet MLLW and plans are currently underway to dredge the channel to the authorized -54-foot MLLW depth, which would constitute the “No-Action” condition for the proposed channel deepening project. The CCSC is also planned to be extended into the Gulf of Mexico by 1.4 miles to the -56-foot MLLW contour as part of the federally-authorized project. The width of the channel varies as follows: from the current outer limit of the dredged channel (in the Gulf) to the Port Aransas jetties, the CCSC Entrance Channel is -47 feet MLLW deep with a width of 700 feet, and is authorized to -54 feet MLLW with a width of 700 feet. From the jetties to Harbor Island, the CCSC Entrance Channel is 600-feet wide. The remainder of channel to the La Quinta Junction has a width of 500 feet and is authorized to a width of 530 feet. It was against the limitation of the existing and authorized channel dimensions that initial alternative concepts were developed.

Initial alternatives considered to meet the project purpose included deepening the existing channel and offshore options that pump crude oil from onshore storage to offshore loading facilities. There are two basic types of such facilities: the simpler offshore single point mooring (SPM) buoy system, and the larger, more complex offshore platform or terminal system. An SPM system consists of onshore storage tanks (i.e. above ground storage tank farm) and pumps connected to pipelines leading offshore and terminating at an offshore buoy. The buoy is anchored to the seafloor that has floating loading hoses and mooring lines for the VLCC to hook up to and conduct loading operations. An SPM-based system can be built to provide loading abilities to a few vessels by adding SPMs, but would potentially require multiple pipelines depending on pipeline size and onshore pump capacity. An offshore platform or terminal system similarly uses onshore storage and pumps like the SPM, but the pipeline terminates into a pile-driven platform with conventional manifolds, loading arms and pipe racks, often with berths for several vessels. It is more complex and expensive than SPMs but typically provides more loading capacity. For both these options, the SPM or platform would have to be located in sufficiently deep offshore waters to account for draft, under keel and sea state. This would be between 13 or more miles offshore of Corpus Christi Bay at minimum considering the design depth. The following were the initial alternatives considered:

- **Alternative A – No Action.** No channel improvements and maintaining the channel at its existing depth. This option is equivalent to continuing with lightering and reverses lightering operations to offload and top off large vessels including VLCC's.
- **Alternative B – Channel Deepening.** This alternative consists of deepening the CCSC to -81 feet MLLW from the Gulf of Mexico to station 110+00, including the approximate 10 mile-extension to the Entrance Channel necessary to reach sufficiently deep waters. As a result of one-way transit assumed for VLCCs, the planned widths for the -54-foot MLLW currently authorized project are nominally sufficient. Therefore, no widening other than the minor incidental widening to keep these bottom widths and existing channel slopes at the proposed deeper depths, would occur. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. As discussed in the purpose and need in Section 2.0, multiple entities including the PCCA are planning and permitting development of crude export terminals at Harbor Island. These terminals are being planned independently of this proposed deepening project. Therefore, they would be used to accommodate partially loaded VLCCs even if the deepening project were not implemented. It is assumed 2 to 3 berths would be built at PCCA's Harbor Island terminal, and two other facilities being planned, would be expected to provide between three and four more berths. Existing VLCC berth plans at Ingleside would provide three berths. Under this alternative, light-loaded VLCCs at Ingleside would top off at Harbor Island rather than lightering.
- **Alternative C – Offshore Single Point Mooring (SPM) Facility.** This alternative is an SPM-based system consisting of constructing onshore storage facilities, shore-to-SPM pipelines, and a series of SPMs to load several vessels simultaneously. Conceptually, the onshore storage could be those that would be installed in any one of the marine terminal facilities at Harbor Island or Ingleside if they were converted to offshore delivery, or it could be a new location on other undeveloped property. For purposes of the initial screening, it is assumed 3 to 4 SPMs, and the requisite onshore storage, pumps, and pipelines would be built to load 3 to 4 VLCCs. This number is in the range of facilities built in past offshore terminal projects such as the Louisiana Offshore Oil Platform (LOOP), Iraq's Al Basra Oil Terminal (ABOT), and Bulgarian/Greek Burgas-Alexandroupolis SPM facilities (Trans-Balkan Pipeline B.V.). This alternative would be located somewhere between 13 to 15 miles offshore.
- **Alternative D – Offshore Platform.** This alternative would be similar to Alternative C, except it would be constructed as an offshore platform or terminal. With a more complex system of pile-driven structures and loading arms, it is assumed that pipelines, arms, and berths to service a minimum of 4 vessels simultaneously would be constructed. A four-berth terminal was the constructed capacity of the ABOT. Similar to Alternative C, this alternative would be located in the 13 to 15 miles offshore band, and conceptually could rely on pumping from existing/planned storage either at Harbor Island or Ingleside, or a new location.

#### 4.3 **Performance of Alternatives**

Alternative A (No Action) would not meet the purpose of the project, as it would neither provide for the short term need to more efficiently export crude oil, or provide the Port the capacity to respond to long term changes and future economic growth. However, it is retained only for NEPA purposes to compare action alternatives.

Alternative B (Channel Deepening) does respond to both the short term and long term aspects of the purpose. It most directly addresses the purpose by providing a channel capable of accommodating transit of fully laden VLCCs from multiple locations on Harbor Island, providing full vessel draft access

to export facilities already being planned there. It improves the efficiency of crude transport by enabling full loading of VLCCs and eliminating or reducing lightering, and provides a deeper channel that could accommodate vessels for other commodities should tenants, cargo, and shipping needs change. The existing or planned terminals would provide more loading berths than the typical size of multiple point/berth offshore options, although offshore options that match the onshore berth numbers could be built at greater cost. The capacity to accommodate growth in crude is more flexible as new tenants or terminals can be developed on remaining water frontage near the channel. Onshore loading (as would be used in Alternative B) is generally faster due to the greater flow rates of loading arms achievable at onshore berths compared to pumping 13 or more miles to SPM loading hoses under Alternative C. Pumping and loading arms under Alternative D, offshore platform can be made to provide high capacity loading. Dredging approximately 46.3 MCY would be required for Alternative B within the existing channel and proposed extension. Most of the impact would occur in already deepened channel, and approximately 588.8 acres of undredged Gulf bottom would be dredged to provide the entrance extension. Benthic impacts would be temporary and benthic communities would be expected to recover within 1-2 years. No oyster reef or wetland and very minimal seagrass (0.11 acres) would be impacted. This option would provide ample material to beneficially use in the many seagrass, and shoreline, habitat sites impacted by Hurricane Harvey and long term erosion. The option could potentially reduce more than 485,000 metric tons (MT) of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD. This option could reduce between approximately 38 and 112 tons of oxides of nitrogen (NO<sub>x</sub>), and between 2,200 and 9,270 tons of volatile organic compounds (VOC), both USEPA criteria pollutants, depending on whether elimination of lightering at current (approximately 1.5 VLCCs/week serviced) or potential future export rates (4 to 8 VLCCs per week) is assumed.

Offshore Alternatives C (SPM) and D (Offshore Platform) do respond to the short term need of the purpose by enabling full loading of VLCCs and partially eliminating or reducing lightering. However, they are limited in responding to the longer term needs of future economic growth and changes in port tenants and shipping needs, because they are less flexible in accommodating different grades of crude due to pump distances and flushing that could be required to switch grades. The capacity to accommodate growth in crude would require building not only more onshore storage and pumps, but new pipelines and SPMs or platforms, which would tend to be more costly and difficult to add. These options could similarly reduce CO<sub>2</sub>, NO<sub>x</sub> and VOC emissions through lightering elimination or reduction, as Alternative B. However, more vessel hoteling and pumping emissions would be produced due to the offshore location. In contrast to Alternative B, for Alternatives C and D, offshore operations in the Gulf would present more safety and spill risk challenges. The main concern are proximity of these operations to sensitive receptors and coastal habitats such as the Padre Island National Seashore, San Jose Island, and the associated Kemp's ridley turtle nesting grounds and Piping plover critical habitat, and greater exposure to wind and wave climate of the open Gulf, which would make spill containment more difficult. These options would also be in a location where response times would be greater, and access by unauthorized personnel would be greater, again due to distance from the onshore location, further increasing the national security risk.

A summary of the initial screening of alternatives is provided in Table 4.1.

#### **4.4 Screening and Selection of Channel Alternatives**

The project alternatives were assessed using the screening criteria of increasing export efficiency, serving multiple tenants, accommodating future growth and expansion, and minimizing environmental impacts. The alternatives were compared with respect to their ability to meet the project need and purpose. Following the screening of possible action alternatives, the PCCA identified the No Action and the proposed channel deepening to Harbor Island as the alternatives to be evaluated for this project. The channel deepening project alternative would be completed primarily within the footprint of the existing CCSC, maintaining the same channel bottom width and necessitating only minor incidental

widening to maintain the required side slopes. The proposed channel deepening alternative would meet the purpose and need of the project compared to the No Action alternative, as described below.

**No Action Alternative:** No channel improvements would be constructed and the existing channel would be maintained at its width and depth following the completion of the ongoing -54-foot deepening project. This alternative would not meet the need and purpose of the proposed project, as it would neither provide for the short-term need to more efficiently export crude oil, or provide the PCCA the capacity to respond to long-term changes and future economic growth. The No Action alternative is retained for comparison against the proposed action alternative.

**Channel Deepening to Harbor Island:** The action alternative would be the deepening of the CCSC to a depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two foot of allowable overdredge) from the Gulf of Mexico to Harbor Island. This alternative would meet the project need and purpose by providing a channel with the capability to accommodate transit of fully laden VLCCs from multiple locations on Harbor Island, supporting the efficient export of crude products from the Port through the elimination or reduction of reverse lightering operations. The channel deepening is proposed to be constructed primarily within the footprint of the existing CCSC. The incremental widening expected to be required to maintain the recommended design slope would be minor, and impacts to undisturbed habitat in the Gulf of Mexico would be limited.

**Table 4.1: Alternative Performance**

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>Growth/Expansion</b>	<ul style="list-style-type: none"> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<p>and products moving through the PCCA.</p> <ul style="list-style-type: none"> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel</li> </ul>	<p>required for each individual project.</p> <ul style="list-style-type: none"> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<p>more users even more difficult and costly than SPM</p>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightening activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightening activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightening when annual export rate averages additional 3.5 MMBPD.</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NO<sub>x</sub>, and VOC from eliminating or reducing lightening vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapor emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>



Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<ul style="list-style-type: none"> <li>Potential to eliminate 38-112 tons annual NOx and 2,200- 9,270 tons of VOC from elimination of some lightering activity</li> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapor recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	<p>positioning during loading will have to transit over 30 miles (assuming support facilities are home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated.</p> <ul style="list-style-type: none"> <li>No technically feasible method for providing vapor recovery of vapour combustion systems for reducing emissions.</li> </ul>	
<b>5) Risk, Safety and Security</b>	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		<p>Port.</p> <ul style="list-style-type: none"> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	
<b>6) Ability to Contribute to BU</b>	<ul style="list-style-type: none"> <li>Beneficial use occurring under the -54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 46.3 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>

## **5.0 ATTEMPTS TO AVOID JURISDICTIONAL AREAS AND MINIMIZE WATER QUALITY IMPACTS**

The proposed project would require the dredging of earthen material from the existing CCSC and from the bottom of the Gulf of Mexico to create a channel of sufficient depth to allow for the operation of VLCCs. Because the purpose of the proposed project is to deepen the current CCSC to reduce navigation inefficiencies associated with the current channel, the proposed channel improvements must occur in navigable waters of the U.S. Alternatives to achieve the need and purpose of the proposed project that would avoid jurisdictional waters of the U.S. are not available.

The proposed channel deepening activities represent the minimum impact to the Gulf of Mexico and Corpus Christi Bay to achieve the proposed project objective of increasing navigational efficiency of the CCSC. The proposed project alternative is the least environmentally damaging practicable alternative. This alternative meets the proposed project need and purpose with the least impact to the Gulf of Mexico and Corpus Christi Bay environments. The proposed depth and channel dimensions were optimized by taking several factors into consideration. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including draft) from the variation in size among the VLCC fleet to identify the majority of vessels expected rather than the maximum possible. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized. Another factor that will be considered under 33 U.S.C. Section 408 approval and coordination with USACE Operations is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.

Dredged material generated from the project is proposed to be placed within an ODMS adjacent to the CCSC, and, for material judged by the project engineer to be suitable, would be placed in several locations along the coast and within Corpus Christi and Redfish Bays for BU. The new work and maintenance dredged material from the proposed project would be placed in an environmentally acceptable and economically feasible manner, considering technical and logistical feasibility. The section below describes the process of the identification and evaluation of the dredged material placement alternatives that meet these requirements and represent the least environmentally damaging practicable placement alternative(s).

### **5.1 Initial Placement Alternatives Considered**

To help meet the planning objective of identifying practicable dredged material placement that considered engineering, economics and the environment, initial alternatives ranging from use of existing PAs and surrounding uplands, to potential BU concepts were considered.

### **5.1.1 New Terrestrial Sites**

New terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties etc. needed for hydraulic pipelines. Near Harbor Island, surrounding uplands are limited, as they consist of Mustang Island and San Jose Island. Mustang Island has no sizable contiguous tracts within 10 miles that are not developed or are not natural barrier island, State or National refuge/parks, or aquatic habitat. The preponderance of tracts is small waterfront parcels. San Jose Island is a privately owned island that is almost entirely undeveloped natural barrier island and beach. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance which leave no available tracts for placement of dredged material. Therefore, BU and offshore placement in this vicinity was planned.

The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance. New upland sites at farther distances would be less cost effective due to farther distances required to reach sizable contiguous tracts of land, could involve impacts to terrestrial wetlands, would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability of terrestrial sites.

### **5.1.2 Initial Concepts**

Therefore, initial planning efforts focused on existing PAs and potential BU, as new upland placement opportunities were limited. Initial BU concepts were generated by considering existing agency restoration plans such as TGLO's Texas Coastal Resiliency Master Plan, recent storm damage caused by Hurricane Harvey, and BU features implemented elsewhere on the Gulf Coast. Since the proposed action consists entirely of dredging the CCSC, practical limitations associated with placement of dredged material were a primary constraint. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredged material placement can be achieved. For hydraulic dredging, most cost effective dredging occurs within 5 miles, requiring one to multiple booster pumps beyond this distance which rapidly diminishes the cost effectiveness. An initial cost effectiveness limit of 10 miles was considered. Use of hoppers and scows can achieve placement over greater distances, but this is primarily in water and requires minimum depths for vessel draft. These technological constraints factored in planning dredged material placement. The major component of dredging driving placement capacity needed is the new work dredging to construct the Proposed Action. Initial planning focused on accommodating projected new work dredging volumes.

To help, further develop dredged material placement that considered environmental impact and BU opportunities, the Applicant conducted an initial agency coordination meeting held in Corpus Christi Texas on September 21, 2018 to obtain the input of Federal, State and local resource agencies including the USACE Galveston District. Representatives from the following agencies participated in the meeting and provided input on the initial planned PA use and preliminary BUs concepts presented during the meeting:

- University of Texas Marine Science Institute (UTMSI)
- UTMSI/Mission-Aransas National Estuarine Research Reserve
- Coastal Bend Bays and Estuaries Program
- Texas Parks and Wildlife Department (TPWD)
- Texas General Land Office
- Natural Resources Conservation Services
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA) Region 6
- U.S. Fish and Wildlife Service (USFWS)
- Texas Department of Transportation

At the time that initial placement alternatives were originally conceived, only the new work quantities generated from the proposed project were considered to devise placement concepts. Figure 5.1, shown below, depicts the initial concepts presented during the agency coordination meeting. These concepts represented general categories of placement alternatives and the general vicinity where they would be located. Agency input generated a few more smaller initiatives, but did not result in major new BU sites being identified. However some concepts were reinforced and better defined based on discussions with agency representatives about site specific information and their knowledge of the ecosystem of Corpus Christi and Redfish Bays. These concepts were then analyzed in consideration of agency feedback, further conceptual development and volumetric analysis, and more research on constraints and impacts. The initial evaluation considered cost, existing technology, and logistics in light of the navigation purpose of the Proposed Action. Inherent in cost and existing technology was consideration of the aforementioned dredging method constraints, and inherent in logistics was consideration of needed placement capacities. The following synthesizes the initial concepts, evaluation, and initial screening.

#### **5.1.2.1 Existing PAs for the Current Federally-authorized CCSCIP**

The Applicant is the Non-Federal Sponsor for the authorized Federal project, and is therefore aware of commitments and long-term capacity of existing upland PAs required for the authorized project. The following uses for existing PAs were considered

- Use of existing capacity – Most of the existing PA capacity is dedicated to accommodating the new work dredging and 50-year maintenance of the Federally-authorized -54 foot project. Due to lack of uncommitted capacity, only two existing PAs were identified for use: PA4 and PA6
- Expansion of existing PA – M3, M9, and M10 expand existing PAs by using dredged material beneficially. M3 would convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat behind Pelican Island. M9 and M10 would convert featureless bay bottom to approximately 329 and 770 acres of estuarine/aquatic habitat behind PA9 and PA10, respectively.

#### **5.1.2.2 Existing 54 foot project BU sites**

Existing BU sites were examined for inclusion where possible. According to PCCA, only a handful of sites were available while others lack capacity especially with priority and consideration given to the placement needs for the CCSCIP which is expected to be constructed over the next three years. Therefore, focus was shifted to expanded existing sites by adding adjacent estuarine/aquatic habitat features or dike raisings. Open-water, unconfined BU sites were avoided completely.

#### **5.1.2.3 Bird Islands**

Rookery islands or bird islands serve as nesting, breeding, foraging and rearing areas for birds because they are isolated from the mainland and are too small to sustain populations of predators. Dredged material is often used beneficially to construct or restore bird islands.

A recent study identified several existing or new bird islands in Aransas and Nueces counties. However, most were too small in regards to capacity or sited too far (more than 15 miles away) from the project to make construction economically feasible especially with the revised project footprint. The few options that were within the preferred pumping distance were surrounded by seagrass.

#### **5.1.2.4 Oyster Pads**

Beneficially using dredged material as the pad to restore or create new for oyster reef was considered during initial planning. As identified in the TGLO's Texas Coastal Resiliency Master Plan, this option would provide vertical relief need for the restoration of oyster reefs. However, agency feedback indicated that the salinity in the area was not optimal for recruiting or supporting oyster growth.

#### **5.1.2.5 Marsh Restoration at Mustang Island**

Marsh restoration opportunities along the bayside of Mustang Island were examined during early planning. However, the area is too far away from the project to make construction economically feasible. Additionally, public feedback during open houses held in September 2018 indicated concerns regarding impacts to existing, established marsh habitat during construction.

#### **5.1.2.6 13A New BU Site**

Creating a BU feature similar to existing BU 6 was contemplated adjacent to the existing PA13. This became a less favorable option due to distance. It was reconfigured in the second stage of placement plan development as a contingency upland extension to PA13.

#### **5.1.2.7 New Work ODMDS**

Use of the portion of this site for new work placement that is not being used by the -54 foot Federal Project was proposed. This site is a dispersive site, and Multiple Dump Fate (MDFATE) modeling was conducted to analyze the capacity for project use.

#### **5.1.2.8 San Jose and Mustang Island Feeder Berms or Shoreline Repair**

The project team reviewed recent aeriels and LiDAR data on San Jose Island to determine that there was a substantial amount of repair for dune breaches and foreshore erosion. Similarly, the Texas General Land Office (TGLO) identified areas of both Mustang and San Jose Islands that have experienced historical receding at the rate of 2 feet or more per year. The large amount of sand that would be produced by the project could be used to repair or indirectly nourish these islands

### **5.1.3 Screening of Initial Concepts**

Table 5.1 provides a summary of the screening of initial concepts. Some of these placement options have since been eliminated from further evaluation because of a change in project scope. The preferred alternative was determined to be deepening the channel to Harbor Island, a shorter reach, which requires less PAs. As a result some of the concepts identified during the agency coordination



meeting were also eliminated from further consideration. However, some of these were reconceived as different BU initiatives, such as expansion of existing PA and BU sites.

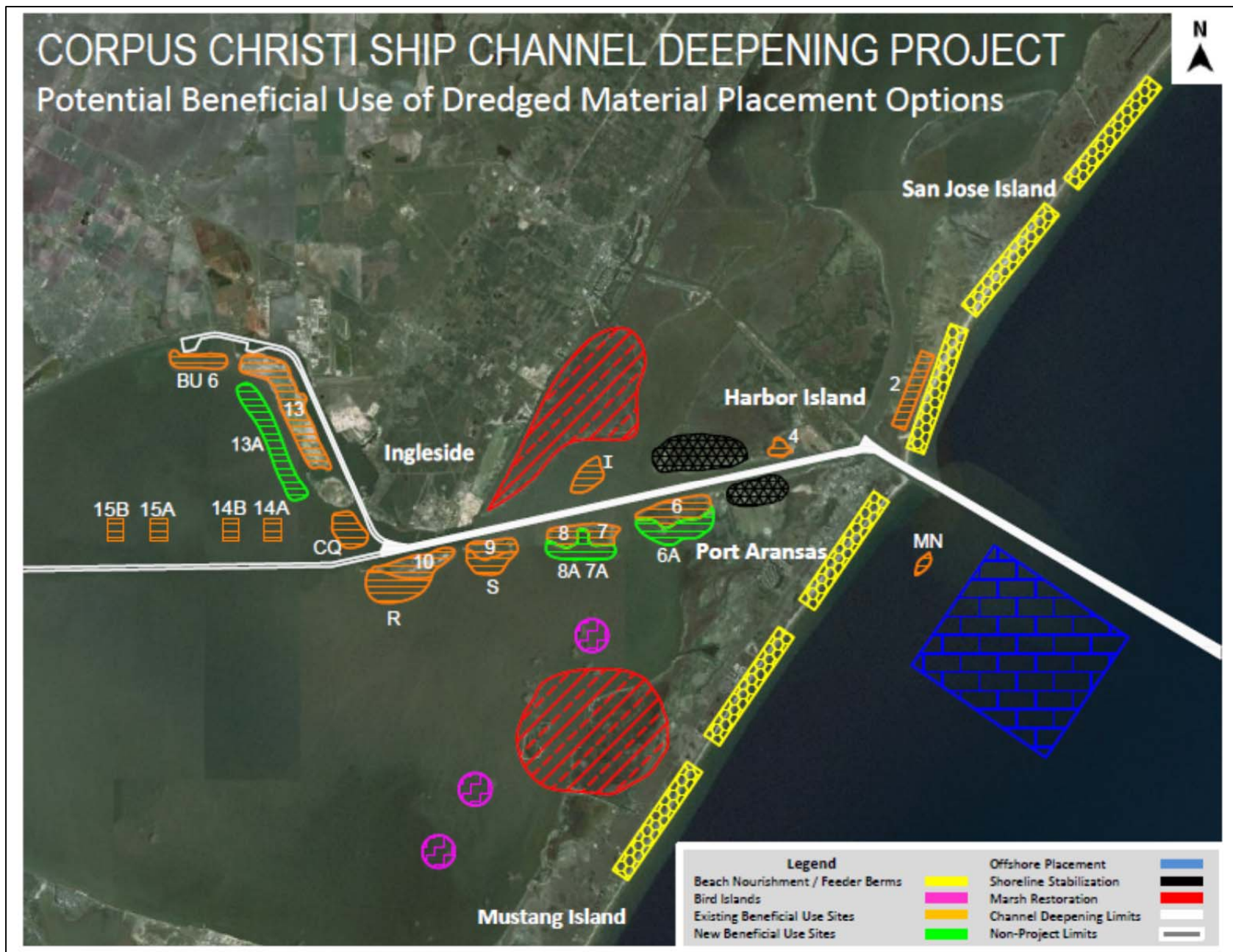


Figure 5.1: Initial Dredged Material Placement Concepts

**Table 5.1: Initial Placement Area Screening**

<b>Concept</b>	<b>Logistics</b>	<b>Technology</b>	<b>Cost</b>	<b>Determination</b>
New Terrestrial Upland Site	Too many issues involving infrastructure, distance, limited parcel size and availability	Pump distance and potential pumping constraints further inland	Logistics factors could make it costly to implement.	Eliminated
Existing PAs for the Current Federally-authorized -54 foot MLLW project	Limited available placement capacity	Feasible	Would be cost effective, but no capacity.	Eliminated for existing, but reconceived for expansion.
Existing 54 foot project BU sites	Limited available placement capacity	Feasible	Would be cost effective, but limited capacity.	Eliminated for existing, but reconceived for expansion.
Bird Islands	12 acre site size criteria limits capacity to place	Feasible	Would likely have higher unit implementation cost due to small size	Eliminated due to distance, and limited capacity
Oyster Pads	Distance from Harbor Island would be far.	Salinity in the area not optimal	Rock for cultch recruitment surface could be a major expense	Eliminated
Marsh Restoration at Mustang Island	Public concerns about impacting existing habitat	Feasible	Could be cost feasible	Eliminated
13A new BU Site	Distance from Harbor Island is far.	Feasible	Distance would make it more costly	Eliminated
NW ODMDS	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced
San Jose and Mustang Island Feeder Berms and Shoreline Repair	Channel adjacent. Good option.	Feasible	Near channel. Minimal construction. Would be cost effective	Advanced

## 5.2 Placement Alternatives Evaluated Further

The initial alternatives that were advanced or reconceived were refined. Given the large amount of materials that could be beneficially used, especially the large volume of sand in one the of the channel segments, and proximity of some of the desirable BU options, it became clear, a mix of existing offshore, expansion of existing BU sites and the Gulf side BU initiatives would be a viable, cost effective approach. Of 13 initiatives further refined, 11 were BU features that aimed to achieve a variety of shoreline restoration, land loss restoration, marsh cell expansion, and Gulf-side shoreline initiatives. The following alternatives were developed.

- M3 – Creation of an estuarine/aquatic habitat extension at Pelican Island. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- M4 – Restoring historic land and marsh loss at Dagger Island. This is an ecosystem restoration measure included in USACE's Coastal Texas study and the TGLO Coastal Resiliency Master Plan. Design of project elements will be coordinated to support TPWD's existing permit for this project.
- PA9-S – This option will extend the upland placement of dredged material behind PA9. This area was originally identified as Site R in the CCSCIP for the creation of shallow water habitat, but current projections from the PCCA are that there will not be enough material from that project to create that site.
- M10 – Creation of an estuarine/aquatic extension behind PA10. This would bring the elevation of an extension at this BU site to an elevation suitable to restore either marsh or seagrass.
- PA6 – Raising levees on PA6, after the CCSC CIP one time use, by 5 feet and filling it with 4 feet of new work material at the existing PA6 location.
- SS1 – Restoring eroded shoreline to a higher elevation than what was previous to prevent future land breaches as a result of storm events, the restored feature will be armored to protect the very large seagrass area behind Harbor Island.
- SS2 – Restoring shoreline washouts along the Port Aransas Nature Preserve/Charlie's Pasture as a result of Hurricane Harvey. Piping plover sand flat critical habitat located behind this breach would be protected again. Design of project elements will be coordinated with TGLO's restoration efforts for this area.
- PA4 – Reestablish eroded shoreline and land loss in front of PA4. The shoreline has undergone major erosion over the last few decades, and if it continues, would eventually expose the Harbor Island seagrass area to erosion and loss.
- SJI – Dune & shore restoration at San Jose Island using new work sands to repair severe damage caused by Hurricane Harvey.
- NW ODMDS – Placement in New Work ODMDS (Homeport).
- B1-B9 – Feeder berms offshore of SJI and Mustang Island that would be located within the active transport zone in front of the depth of closure, and indirectly nourish these barrier islands.
- HI-E – Restore eroded bluff at the junction of the CCSC, Aransas Channel and Lydia Ann Channel and will be armored to prevent future erosion. The bluff will be restored to its historic shape and

new work material will be placed behind the bluff with a levee raise around the site. According to USGS historical topographic maps for Port Aransas, Texas, SE/4 Aransas Pass 15' Quadrangle, this site appears to have been created from Aransas Channel spoils around 1967-1968.

- MI – Mustang Island beach nourishment, this feature is intended to directly place new work sands to enhance the shoreline from the south CCSC jetty five (5) miles along the Gulf side of Mustang Island.

### **5.3 Applicant's Proposed Placement Plan**

All the proposed options would be viable due to proximity, material volume capacity, and need for material to achieve ecological restoration. The large volume of sands indicates that material placement would be better used for BU restoration of important coastal resources that were damaged by Hurricane Harvey and experience continuing erosion. The availability of other new work material such as clays could opportunely be used to stem land losses that would expose sensitive habitats to continual erosion. These materials would be better used in these initiatives than in upland placement that avoids the marine environment and provides no benefit. All options were selected, with M9 and M10 providing extra capacities as a contingency for unavailability of SJI. Therefore, more capacity was identified to provide flexibility in the plan. Table 5.1 lists the selected placement plan elements.

**Table 5.2: Selected New Work Placement Plan (See Sheet 9 of 23)**

Placement Option	Description	Placement Capacity (CY)	Proximity to New Work Dredging Operations	Provides Environmental Benefit
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	3,798,000	Located approximately 6 miles from Harbor Island	This option will convert featureless bay bottom to approximately 300 acres of estuarine/aquatic habitat.
M4	Restoring historic land and marsh loss at Dagger Island	867,000	Located approximately 7 miles from Harbor Island	This option will restore eroding marsh habitat for native shorebirds and coastal wildlife. Design of project elements will be coordinated to support TPWD's existing permitted project.
PA9-S	Upland Placement Site Expansion behind PA9	9,000,000	Located approximately 8 miles from Harbor Island	This option does not restore aquatic habitat, it will convert featureless bay bottom to upland.
M10	Estuarine/aquatic habitat creation adjacent to PA10	10,933,600	Located approximately 10 miles from Harbor Island	This option will convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.
PA6	5 foot levee raise and fill	1,796,400	Located approximately 4 miles from Harbor Island	This option does not create any environmental benefit.
SS1	Restoring eroded and washed out shoreline	4,800,000	Located approximately 3 miles from Harbor Island	This option restores an eroded shoreline landmass and provides protection to Harbor Island Seagrass area.
SS2	Restore shoreline washouts along Port Aransas Nature Preserve as a result of Hurricane Harvey	669,700	Located approximately 2 miles from Harbor Island	Shoreline restoration that fills in the washouts caused by Hurricane Harvey that protects Piping Plover critical sand flat habitat.
PA4	Reestablish eroded shoreline and land loss in front of PA4	3,020,000	Located approximately 2 miles from Harbor Island	This option provides protection to Harbor Island seagrass area.
HI-E	Bluff and Shoreline restoration with site fill	1,825,000	Located less than 1 mile from Harbor Island	This option restores an eroding bluff and shoreline to its historic profile.
SJI	Dune and beach restoration San Jose Island	4,000,000	Located directly next to Channel Dredging Operations	This option restores several miles of beach profile that was washed away as a result of Hurricane Harvey.
NW ODMDS	Place on New Work ODMDS (Homeport)	13,800,000	Located directly next to Channel Dredging Operations	This option does not create any environmental benefit.
B1-B9	Feeder berms offshore of SJI and Mustang Island	8,100,000	Located less than 10 miles from Channel Dredging Operations	This option will nourish beach shoreline by natural sediment transport processes.
MI	Beach Nourishment for Gulf side of Mustang Island	2,000,000	Located directly next to Channel Dredging Operations	This option will nourish beach shoreline by direct sediment placement.
Scenarios for new work placement capacity provided and needed.		64,609,700	Total Capacity Provided	
		60,609,700	Total capacity less SJI (should that option become unavailable)	
		46,283,590	Total NW placement capacity required for Channel Preferred Alternative – Base Option	
		14,326,110	Additional Capacity less SJI (should that option become unavailable)	



## **6.0 SUMMARY OF PROPOSED PROJECT IMPACTS AND MITIGATION FOR AQUATIC HABITATS**

As shown in Table 5.2, the majority of placement options involves BU to restore aquatic habitat or protect impacted resources, and would overall benefit seagrass, estuarine/aquatic habitats, and coastal habitats. The options that indicate estuarine or aquatic habitat restoration (M3 and M10) would be targeted to restore either tidal marsh or seagrasses, dependent on further agency input and final project impact offset needs. At similar elevation to tidal marsh, portions of the site could be left unvegetated and configured to restore sand or mudflat habitats. The remaining impacts to seagrass or wetlands provided in Table 3.2 would be offset by reconfiguring these sites to be able to host the impacted habitat. Placement would be configured to provide the elevations needed conducive to successful planting or recruitment of either tidal marsh or seagrass vegetation species. As an example, at M3, part of the impacted seagrass could be offset by dedicating part of the created habitat to seagrass colonization, since planned elevations would be conducive to recruitment and establishment. Table 6.1 below provides a summary of the proposed new work placement in terms of the impact and the restoration provided. As shown, the proposed restoration of approximately 1,100 acres of aquatic habitat would exceed the actual adverse impacts of approximately 244 acres of special aquatic sites. PCCA proposes to use this restoration to offset these impacts, with the amount of the proposed acreage required to offset the impacts to be determined in consultation with the USACE. Placement volumes for these features have been initially determined assuming tidal marsh elevation. However, the DMMP has enough flexibility in the placement capacity to allow variation of the needed elevations of M3 and M10 to be configured as either habitat as necessary without constraining the overall needed placement. The table also provides an estimate of the acreage of mapped special aquatic sites that would be directly protected by features proposing to restore or bolster eroding shoreline features. This was estimated using geospatial data, using estimates of the mapped acreage directly behind the restored feature. As shown, large areas behind these features would be subject to more wind, wave, tidal flow, and vessel wake erosion from eroded land and shoreline.

## **7.0 CONCLUSION**

The PCCA understands that discharges into waters of the United States should not occur unless it can be shown that the discharge would not result in an unacceptable adverse impact on the aquatic ecosystem. It is also understood that if there is a practicable alternative to the discharge, the discharge should not occur. A practicable alternative is not available that would meet the proposed project requirements and achieve the project purpose. The proposed project would increase crude oil export efficiency for the Nation, reducing trade deficits, and fostering economic development. The result of the proposed action would be a more efficient channel to export crude oil. The proposed project meets the project purpose and need. The placement alternatives were developed in coordination with resource agencies, and considered public input during open house meetings at the start of the project. The resultant proposed placement alternatives make extensive use of BU to address ecological restoration needs that agencies desire. The volume of material and volume of sands are valuable assets, and the dredging and placement presents a unique and major opportunity to address restoration needs in this estuary and barrier island system.

**Table 6.1: Summary of Project Impacts and Proposed Restoration**

Placement Option	Description	Restoration Action	Acres				Comments
			Proposed Restoration Seagrass or Marsh	Adverse Impacts to Special Aquatic Sites (SAS)	SAS Protected	Conversion of Open Water to Upland	
HI-E	Estuarine/Marine Wetland	Restoring protective uplands and armored bluff for protection of significant seagrass acreage which lies behind	0.0	28.6	264.4	3.3	Predominantly unconsolidated shore impacted Predominantly Estuarine and Marine Wetland protected
M3	Estuarine/aquatic habitat creation adjacent to Pelican Island	Convert featureless bay bottom to approximately 330 acres of estuarine/aquatic habitat.	330.0	7.6			Seagrass impacted
M4	Restoring historic land and marsh loss at Dagger Island	Restore eroding marsh habitat for native shorebirds and coastal wildlife. Design elements will be coordinated to support TPWD's existing permitted project.		0.0	615.4		Predominantly seagrass protected
PA9-S	Upland placement expansion converting 309 acres of bay bottom to upland, adjacent to PA9.	none		0.0		308.8	
M10	Estuarine/aquatic habitat creation adjacent to PA10	Convert featureless bay bottom to approximately 770 acres of estuarine/aquatic habitat.	770.0	0.0			
MI	Mustang Island Beach Nourishment	Nourishment creating 250 ft of aerial beach, utilizing » 2,000,000 CY of sand as storm surge and wave attenuation		0.0			
SS1	Restoring eroded shoreline and armoring to protect Harbor Island seagrass area	Restore eroding shoreline to its historic profile. Protects Harbor Island seagrass area	0.0	208.1	1,552.1		Predominantly unconsolidated shore impacted Predominantly seagrass protected

Placement Option	Description	Restoration Action	Acres				Comments
			Proposed Restoration Seagrass or Marsh	Adverse Impacts to Special Aquatic Sites (SAS)	SAS Protected	Conversion of Open Water to Upland	
SS2	Restore shoreline washout along Port Aransas Nature Preserve as a result of Hurricane Harvey	Restores two washouts of shoreline along the Port Aransas Nature Preserve as a result of Hurricane Harvey.	0.0	0.0	333.0		Predominantly Estuarine and Marine Wetland (sand flats) protected
PA4	Reestablish eroded shoreline and land loss behind PA4	Restores historically eroding shoreline and land protecting Harbor Island seagrass area.	0.0	0.0	750.6	3.3	Predominantly seagrass protected
PA6	Dike raise	none	0.0	0.0			
SJI	Dune & shore restoration San Jose Island	Restore several miles of beach profile washed away as a result of Hurricane Harvey.		0.0			
NW ODMDS	Place on part of New Work ODMDS	none		0.0			
B1-B9	Feeder berms offshore of SJI and Mustang Island	Nourish beach shoreline by natural sediment transport processes.		0.0			
<b>TOTAL</b>			1,100.0	244.3	3,515.6		

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Attachment B – Texas Commission on  
Environmental Quality  
Tier II  
401 Certification Questionnaire  
Alternatives Analysis Checklist

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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II 401 Certification Questionnaire

The following questions seek to determine how adverse impacts will be avoided during construction or upon completion of the project. If any of the following questions are not applicable to your project, write NA ('not applicable') and continue.

Please include the applicant's name as it appears on the Corps of Engineers' permit application (and permit number, if known) on all material submitted. The material should be sent to:

Texas Commission on Environmental Quality  
Attn: 401 Coordinator (MC-150)  
P.O. Box 13087  
Austin, TX 78711-3087

**Applicant's Name:** Sarah L. Garza, Port of Corpus Christi Authority  
**Assigned Permit Number:** SWG-2019-00067

#### I. Impacts to surface water in the State, including wetlands

- A. What is the area of surface water in the State, including wetlands, that will be disturbed, altered or destroyed by the proposed activity?

*The proposed activity will dredge approximately 588.8 acres of undredged ocean bottom below mean lower low water (MLLW) in the Gulf of Mexico, 329.0 acres of undredged and partially dredged ocean and estuarine bottom and 0.11 acres of seagrass adjacent to the existing and authorized Corpus Christi Ship Channel (CCSC), 665.8 acres of the existing and authorized CCSC channel bottom, 56.7 acres of estuarine bottom in the Lydia Ann Channel, and in Aransas Pass as part of proposed channel improvements.*

*For the proposed dredged material management plan (DMMP), using available Texas Parks and Wildlife Department (TPWD), Texas General Land Office (TGLO), National Oceanic and Atmospheric Administration (NOAA), and U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data, approximately 4,673.9 acres of surface waters, 688.3 acres of mapped seagrass, and 984.5 acres of mapped wetland were identified as located in the proposed placement features.*

*Of the wetlands, 238.6 acres are features that were mapped within an active Placement Area (PA) or have eroded away based on aerial review (SS2, PA4,6,HI-E), 279.4 acres are San*

*Jose Island shoreline and 211.7 are Mustang Island shoreline which are proposed for placement and would directly restore as beach or dune (SJI, MI), 68.9 acres would be avoided or integrated into [Ducks Unlimited and TPWD's] planned Dagger Island shoreline restoration (M4). 28.6 acres of wetland will be impacted by placement at Harbor Island East (HI-E), and 157.3 acres of wetland impacted at restoring an eroded shoreline to protect Harbor Island seagrass (SS1). The 185.9 acres between SS1 and HI-E would be impacted by beneficial use (BU) features proposed to protect large areas of seagrass.*

*Of the seagrass, 571.5 acres would be in the interior of M4 at Dagger Island and would be largely avoided except at the fringes of shoreline restoration which would protect this seagrass from further erosion, and of the 17.1 acres at M3 where proposed BU marsh can be reconfigured to replace impacted seagrass acreage approximately 7.6 acres are visible upon aerial inspection. PA9-S and M10 may have stands of seagrass of 3.1 and 2.5 respectively however it is not visible upon aerial inspection and is most likely sparse and tenuous as a result of focused wave energy. The remaining 50.8 acres would be impacted by shore and land loss restoration at SS1, which will protect a very large seagrass area behind Harbor Island.*

- B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

*Currently, waters of the U.S. (WOUS) and aquatic habitat within proposed project footprints have been determined using the most current existing geospatial mapping from TPWD, TGLO, NOAA, USFWS, and aerial imagery to identify open water, wetlands and seagrass. A mitigation plan has not been developed yet. Compensatory mitigation will be proposed as required, following field surveys to delineate WOUS and special aquatic sites more specifically, and assessment to determine the functions and services of these resources. The proposed DMMP for this project has been planned to use beneficially as much dredged material as possible to restore beach, shorelines, and aquatic habitat, including the types that would be impacted. Initially, BU aquatic habitat restoration sites have been planned assuming tidal marsh elevation, but the DMMP has enough available material and capacity to have the flexibility to provide the required elevation for tidal marsh, flats, or seagrass. Tables 3.1, 3.2 and 6.1 in Attachment A of the permit application detail and summarize the acreage of mapped habitat in each proposed placement feature, the estimated adverse impacts, and the proposed BU restoration. The proposed aquatic habitat restoration of 1,100 acres exceeds the estimated adverse impacts of 244 acres of mapped special aquatic sites. Except for SS1 and HI-E, the remaining seagrass and wetland impacts of the BU features would be addressed by reconfiguring the BU placement to provide suitable area for the reestablishment of impacted habitat. SSI and HI-E establish protective barriers to larger seagrass areas that would otherwise be very prone to erosion if further shoreline loss is experienced. These and several other features restore shoreline protecting approximately 3,500 acres of seagrass and marsh behind these shorelines from wind, wave, tidal flow, and vessel wake energy. The proposed BU features SJI, MI, and B1 through B9 on the Gulf side of San Jose and Mustang Islands, are all direct or indirect beach and dune nourishment intended to restore those coastal habitats from hurricane-related and long term erosion.*

- C. Please complete the attached Alternatives Analysis Checklist.

*Alternatives Analysis Checklist is attached.*

## II. Disposal of waste materials

- A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.

*No removal or destruction of existing structures is expected. Minor removal of debris and unsuitable materials encountered during dredging may be necessary during construction. Minimal disposal will be required. All material that is not re-usable will be disposed of at a properly permitted facility.*

- B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

*Sewage generated during construction would be collected on ship-board facilities or in self-contained portable toilets that would be serviced regularly. The proposed activity will be dredging in the marine environment and dredged material placement at existing placement areas (PA), beneficial use (BU) sites or proposed PA or BU sites. No wastewater services currently exist within the project area and none are included in the proposed construction.*

- C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also, discuss provisions for the disposing of sewage generated from day-to-day activities.

*N/A*

## III. Water quality impacts

- A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged used for fill.

*The proposed action would generate approximately 46.3 million cubic yards (MCY) of new work dredged material. Based on review of existing borings, approximately 17.1 MCY of the new work material would consist of clay material and 29.2 CY would consist of sand material. Placement and use of these materials is planned as follows, employing standards dredged material placement construction techniques generally described here and in more detail under Item B:*

**Offshore Placement** – *For construction of the proposed action, the existing and currently approved dispersive offshore placement site (a.k.a. New Work ODMDS) would be used to place new work clay and silty material. Placement would be by scow, hopper, or direct pipeline placement, employing standard scow or hopper operation techniques to achieve controlled deposition.*

**Repair and nourishment of Gulf-side shorelines** – *For construction of the proposed action, pending owner approval, sandy material would be used to restore dunes in large dune breaches, and restore the eroded foreshore on San Jose Island (SJI) due to damage caused by Hurricane Harvey. Standard construction techniques for beach nourishment used elsewhere on the Texas coast would be employed such as the use of temporary dewatering*



dikes to effect deposition and material retention. Restored dunes would be planted with native stabilizing vegetation to anchor dunes. Sandy and other appropriate new work material would also be used to create a series of offshore feeder berms (B-1 through B-6) that would be located within the active shoreward transport zone to indirectly nourish San Jose and Mustang Islands. According to the Texas General Land Office (TGLO) 2014 Coastwide Erosion Response Plan (CERP) and Bureau of Economic Geology (BEG) Shoreline Change Map, these islands have experienced historical shoreline erosion of approximately 2 or more feet per year. These berms would be constructed using standard submerged placement techniques for either hydraulic placement at sites closer to the point of dredging and potentially by scow for sites more distant from the point of dredging.

**Repair of bay-side shorelines and land loss** – For construction of the proposed action, new work dredged material would be used to repair eroded shorelines at Harbor Island (SS1), Port Aransas Nature Preserve [PANS] (SS2), and Dagger Island (M4) to stem further land, tidal flat and seagrass habitat loss due to damage experienced during Hurricane Harvey and over time. At SS1, containment dikes for dewatering would be used, and would have seeding on dike crowns and interiors, and armoring on the channel side. At SS2, the previous shoreline profile would be restored and would be backfilled behind it to bolster and reestablish the original land barrier to tidal sand flats in the PANS, using armoring where it previously was used in the breaches. At M4, material would be used to construct containment dikes on certain sides of Dagger Island to prevent channel sediment migration and to build/preserve marsh and seagrass elevation behind it, with these areas potentially seeded for initial stabilization and blending in with existing seagrass. M4 would provide material to implement breakwater and land loss restoration measures already permitted by TPWD and included in the USACE Coastal Texas Study and TGLO Coastal Resiliency Master Plan. Suitable new work material would also be used to build containment dikes toward the channel and fill in behind them at the existing PA4 on Harbor Island to restore severe upland losses experienced over the years. This would also help preserve the land buffer between Aransas Pass and the large seagrass habitat area behind Harbor Island to protect the seagrass habitat from future damage. Containment dikes would be seeded on the crowns and interiors, and armored on the channel side.

**Upland Placement** – For construction of the proposed action, new work material would also be used for raising containment dikes on PA 6, and to fill the interior using capacity created by dike raising. Upon the completion of construction, the dikes would be seeded and vegetated to minimize erosion.

**Estuarine/Aquatic Habitat Creation** – M3, M9, and M10 will create estuarine/aquatic habitat by placing material on bay bottom to raise elevation to optimal subtidal and intertidal marsh elevation, likely using erodible containment dike techniques previously employed elsewhere in Texas. These features would ultimately be planted or colonized by appropriate native vegetation.

**Maintenance** – Over the 10-year permit life, approximately 1.08 MCY of maintenance materials would be generated annually from the deepened channel, of which approximately 399,000 CY would be additional material due to the deepened channel. The material is expected to consist of fine grained silts, sands, and clays, and would be dredged and placed in either existing upland placement areas (PA2), ODMDS No. 1, or proposed BU feeder berms B-1 through B-6, as material suitability allows. Use of the existing sites is consistent

*with the current operations and maintenance (O&M) placement of the existing and authorized CCSC managed by the USACE Galveston District.*

*The Port of Corpus Christi Authority (PCCA) would follow the current USACE CCSC procedures used for dredging and dredged material placement during construction dredging and channel maintenance. These include standard dredging techniques to construct submerged and emergent containment dikes, and interior placement of material. These techniques are described further in Item B below.*

- B. Describe measures that would be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetative cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

*Techniques used successfully in Texas, around the U.S., and by USACE to construct stable PA and BU restoration features were described in general above. The following provides more details on these techniques which prevent short and long term erosion and turbidity.*

- **Beach nourishment temporary dewatering dikes** – *This would involve the use of in-situ sand to form a series of temporary retention dikes to dewater hydraulically pumped sand, constructed as placement moves along the shoreline.*
- **In-water placement for submerged berm, in-water dike construction or in-water fill** – *This would involve one of two potential general methods: 1) the use of diffusers and downspouts at the end of pipelines to slow exit velocities, reduce turbidity, and control material migration, to achieve focused placement to build the intended template, 2) the use of hydraulically loaded scows or hopper dredges to discharge by gravity fall during a controlled release, to minimize sediment migration and achieve focused placement around the scow or hopper.*
- **Upland dike construction** – *Material would be hydraulically pumped to create containment dikes. After dike construction riprap, rock, etc. would be added where armoring is indicated and dike side slopes would be seeded and vegetated as soon as practicable with robust and rapidly establishing species to provide long term stability.*
- **Interior filling** – *Where practicable for the type of feature, containment dikes with limited weir outlets or spill boxes designed or planned to allow retention and eventually dewatering as features become emergent. For placement on emergent interiors, interior training dikes, ditching and other enhanced dewatering techniques would be employed to further optimize material retention and dewatering.*

- C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with supporting data (Reference: Technical Report, DS-7810, Dredge Material Research Program, GUIDELINES FOR DESIGNING, OPERATING, AND MAINTAINING DREDGED MATERIAL CONTAINMENT AREAS). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.

*Technical Report, DS-78-10 is a former Waterways Extension Service (WES) publication that has been superseded by newer USACE guidance contained in Engineering Manuals (EM) including EM 1110-2-5025 Dredging and Dredged Material Management, and EM 1110-2-5027 Confined Disposal of Dredged Material, for the design of contained dredged material placement. Where applicable and appropriate, these design criteria would be used during the detailed design phase to configure feature geometry and discharge placement. For other unconfined feature construction (e.g. beach nourishment), use of the above described hydraulic placement techniques would be used.*

*The proposed action is deepening of the existing and authorized Federal channel. Maintenance for the incremental annual amount of 399,000 CY of extra shoaled material would be accomplished as part of the existing channel maintenance cycle using the existing, approved offshore dispersive site ODMDS No. 1, and if suitable material is generated, the existing PA2 on San Jose Island, and the proposed offshore feeder berms B-1 through B-9.*

- D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.

*The segment of the CCSC to be dredged for the proposed action has two wastewater discharges located directly adjacent to the channels. One is a private domestic wastewater (TCEQ Permit #12731-001) and the other brine discharge (Permit No. WQ0005253000). However, dredged materials from the CCSC to be dredged for the proposed action are not known or likely to be contaminated. The CCSC is tested and maintained in accordance with USACE sediment testing guidelines. No increases in contaminant levels is expected during dredge and fill operations.*

*The potential for contaminants has been evaluated through chemical analyses, grain-size analyses, bioassays, and bioaccumulation tests in the surrounding area as part of the Corpus Christi Ship Channel, Texas Channel Improvement Project for the current authorized Federal channel. These tests spanned a wide variety of volatile, semi-volatile (e.g. PAH), pesticide and persistent organic (e.g. PCB, dioxin) compounds, and metal constituents. The 2003 "Corpus Christi Ship Channel, Texas Channel Improvement Project, Volume I Final Feasibility Report and Final Environmental Impact Statement" concluded that contaminant studies showed that new work and maintenance dredged material from all sections of the channel, with the exception of the Inner Harbor (which is not part of the proposed action), is acceptable for offshore placement, beneficial uses in the bay or ocean, or upland placement.*

*More recent testing conducted in 2018 for the Entrance Channel segment and entrance channel extension of the CCSC for the current authorized Federal channel to support offshore placement for the purposes Marine Protection, Research and Sanctuaries Act (MPRSA) Section 103 included chemical, grain-size, bioassays, and bioaccumulation tests on new work material samples between current depths and the proposed depth of -54 feet MLLW. Testing results indicated no contaminant concerns and supported offshore placement. This recently tested segment comprises the majority of the project segment for the proposed action. The proposed action would dredge new work, in-situ geological material below the recently tested layer (from -54 feet MLLW to -80 feet MLLW), and thus would be less prone to surface human impacts. The proposed action would also dredge existing Gulf of Mexico seafloor materials to extend the entrance channel further to the -80*

*foot MLLW contour. This segment would be as or less prone to impacts than the recently tested extension for the authorized Federal channel. The proposed areas to be dredged have been extensively tested previously and/or are not prone to contamination. Despite the expectation of the extension not being prone to contamination based on the review of past nearby sampling and the environmental setting, a Sampling and Analysis Plan (SAP) has been developed for the extension for this project to confirm this expectation.*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

### Tier II Alternative Analysis Checklist

#### I. Alternatives

##### A. How could you satisfy your needs in ways which do not affect surface water in the State?

*Work below mean lower low water (MLLW) of the Gulf of Mexico, Corpus Christi Bay, and Redfish Bays within the proposed project area is necessary to meet the project needs of increasing crude oil export efficiency and safety. Crude oil export efficiency and safety in the Corpus Christi Ship Channel (CCSC) cannot be improved without affecting waters in the State. The existing CCSC would need to be deepened to meet the purpose of the project, which is to construct a channel with the capability to accommodate transit of fully laden Very Large Crude Carriers (VLCC) from multiple locations on Harbor Island into the Gulf of Mexico. Multiple crude export terminals are being planned on Harbor Island to export crude oil using the authorized Federal channel being currently constructed to a depth of -54 feet MLLW, which would still require light loading of VLCCs, and supplemental lightering involving multiple other lightering vessels out in the Gulf of Mexico to fully load VLCCs, decreasing export efficiency and increasing crude transfer activity and associated risks in the Gulf. Dredging activities may affect water quality within the proposed project area by temporarily increasing turbidity and suspended sediment load in the estuarine water column. However, these temporary conditions would not be expected to adversely impact marine mammals, essential fish habitat or other aquatic resources in the study area to a significant degree.*

##### B. How could the project be re-designed to fit the site without affecting surface water in the State

*Initial crude oil export alternatives were evaluated and screened including alternatives to deepening the channel, which consisted of offshore loading facility options (See Attachment A of the Permit Application). Offshore options did not meet the purpose and need of the proposed action as well as the channel deepening alternative, and channel deepening performed better in most major criteria including export efficiency, flexibility to accommodate growth, and environmental and safety risk. Deepening the channel improves the access for terminals already being planned to export crude. Offshore options would expose San Jose Island and Mustang Island (with the National Seashore) to a greater risk of oil spills during loading activities compared to channel deepening which brings loading activities in a more controlled environment of Corpus Christi Bay. Both barrier islands which host Piping plover (*Charadrius melodus*) critical habitat and endangered sea turtle nesting beaches. Therefore, channel deepening was selected. The proposed project terminus is Harbor Island, and deepening to accommodate full loading of Very Large Crude Carriers (VLCC) and Suezmax tankers is the only navigation improvement being examined, only one channel extent and alignment was examined. Deepening of the CCSC cannot be done without affecting surface water in the State.*

##### C. How could the project be made smaller and still fit your needs?

*The deepening could be done to an optimized depth that serves the majority of the intended design vessel (VLCC) class and likely prevailing crude oil type instead of absolutely maximizing the depth for all versions of the design vessel, carrying the densest crude oil. This has already been examined and incorporated into the channel alternative selected for the proposed action. First, world fleet registry data from IHS Fairplay was used to analyze and identify the appropriate target vessel dimensions (including*

*draft) from the variation in size among the VLCC fleet. A 99<sup>th</sup> percentile set of dimensions was identified, and individual vessel dimensions clustered tightly around the selected dimensions. Second, the fully loaded draft for the design vessel was calculated assuming the American Petroleum Institute gravity for West Texas Intermediate (WTI) crude oil, which will be the predominant controlling grade of crude oil exported from the Port of Corpus Christi. This was done in lieu of assuming the largest VLCC carrying the heaviest crude oil possible for this Port (heavy sour). Appropriate under keel clearance in consideration of sea state and climatic factors and guiding navigation standards (USACE and World Association for Waterborne Transport Infrastructure [PIANC]) was added. Ship simulation was accomplished in December 2018 at the Maritime Institute of Technology and Graduate Studies (MITAGS) to verify the depths and under keel clearances were navigable under a range of conditions. Therefore, the depth of the proposed deepening has been optimized.*

*Another way the project could be made smaller is to use the steepest channel side slopes and narrowest bottom width allowable for one way passage. Geotechnical borings and analyses have been accomplished to determine the steepest stable slopes for the in situ material. Steeper slopes than the existing side slope are being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. December 2018 ship simulation at MITAGS also examined alternate channel bottom widths for one way VLCC transit. This is also being coordinated with the USACE for acceptability under 33 U.S.C. Section 408 approval. If approved and possible, steeper side slopes and narrower bottom widths will be planned for implementation.*

**D. What other sites were considered?**

*Offshore alternatives that were initially considered, but would be located a minimum of 13 or more miles. For the reasons discussed in Item I.B above, these offshore options were eliminated. Alternative sites for increasing the efficiency of moving crude oil would require new development of terminal facilities and/or dredging completely new navigation channels; both of which are not practical, nor least environmentally damaging, and therefore were not considered. Alternative sites for dredged material placement considered were existing placement areas (PA), offshore disposal, and beneficial use (BU) sites, and a variety of new and expanded PA and BU site initiatives, within the practical distance for hydraulic dredging pipeline or scow placement. New terrestrial sites were considered in general, but were not practical due to distance, existing infrastructure and residential development, and presence of ecologically sensitive habitat and refuges in nearby terrestrial sites (e.g. Mustang Island). Details of the alternatives considered for both channel improvement and placement are in Attachment A of the Permit Application*

**1. What geographical areas were searched for alternative sites?**

*The proposed deepening must occur within the proposed project area, thereby precluding the consideration of alternative sites. For dredged material placement, initially, existing PA and BU sites used for the current and authorized CCSC stretching from the Gulf of Mexico to Ingleside, initial new BU concepts coordinated with resource agencies located from the Gulf-side of Mustang and San Jose Islands north and south of the CCSC, and throughout Corpus Christi Bay and Redfish Bay, were all considered.*

*As the proposed channel was refined to an extent from the Gulf to Harbor Island, and existing PA capacities ruled out all but a few current PA and BU sites available for use, the initial PA and BU concepts were further developed and focused to the lower Corpus Christi Bay and Gulf of Mexico. Existing sites are located on existing PAs located on Harbor Island (PA4, HI-E), Mustang Island (PA6), offshore waters adjacent near the existing channel (New Work ODMDS) or originally developed in the Bay (PA13). New BU sites located adjacent to existing PAs (M3, PA9-S, and M10) in Corpus Christi Bay, in Redfish Bay (M4), near the Port Aransas Nature Preserve (SS1, SS2), and in nearshore waters along Mustang (MI) and San Jose Islands (B1 through B9) and on San Jose Island (SJI), were considered. Most of these BU sites were associated with restoring habitat and shoreline from Hurricane Harvey damage or long term erosion and land loss. The dredged material placement alternatives were generally limited to within the 10 miles as a*

*practical and cost-feasible radius for hydraulic dredging and dredged material placement or use of scows.*

2. How did you determine whether other non-wetland sites are available for development in the area?

*Aerial imagery, appraisal district data, and distance criteria were used to determine if terrestrial sites without wetlands were likely to be viable. Both existing development, refuge and habitat presence, and property parcel sizes versus needed capacity were used to screen out the viability of terrestrial sites that might be free of wetlands. Once it was determined to use existing and new or expanded PA and BU sites, National Wetland Inventory (NWI), and Texas Parks and Wildlife (TPWD) and National Oceanic and Atmospheric Administration (NOAA) seagrass mapping were used to configure and refine PA concepts to minimize impacts. Very little mapped wetland is present in the BU sites and mapped seagrass directly in the footprint of the proposed placement is limited to natural recruitment at the shallow bathymetric margins of PA dike slopes. The initiatives to use the material beneficially will create more tidal marsh, restore shoreline that protects seagrass habitat, or repair damaged dunes and beaches in sensitive barrier island habitat.*

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

*Yes. Property at Harbor Island adjacent to the project segment of the CCSC has been leased to an operator to implement construction and long term operation of the PCCA's proposed crude oil export terminal. This is not suitable for project placement use as it is one of several properties being developed for crude export at Harbor Island serviced by the proposed deepening. No other property near the channel project have been leased or sold.*

- E. What are the consequences of not building the project?

*The No Action alternative would not increase efficiency of moving crude oil exports from the Port of Corpus Christi in support of national energy security and national trade objectives, which is the proposed project's purpose and would not increase the safety of this movement, which is an underlying need. This would result in a channel depth that forces shippers to light load their vessels, requiring multiple smaller lightering vessels to shuttle oil to deeper waters, increasing the numbers of vessels needed to move crude oil, which would increase shipping costs and volatile organic chemical (VOC) vapor and greenhouse gas emissions. This would substantially affect the ability of the CCSC to efficiently and safely accommodate the projected increase in tanker tonnage to be handled at existing and planned VLLC-capable crude oil terminals at Harbor Island and at Ingleside, as well the larger VLCCs to which industry is moving towards. This would increase costs to shippers and consumers from continued light-loading of tanker vessels. The No Action alternative would not satisfy the PCCA's mission of leveraging commerce to drive prosperity for the region and community.*

## **II. Comparison of alternatives**

- A. How do costs compare for the alternatives considered above?

*No costs were estimated for the initial channel concepts. However, offshore options consisting of Single Point Moorings (SPM) and offshore loading platforms have substantially higher long term operating and maintenance costs due to the distance over which product must be pumped from onshore storage facilities to loading points out in the Gulf of Mexico which could be as far as 13 or more miles. They are also more costly to expand with additional loading points, compared to adding berths along water frontage served by a deepened channel. For this and the aforementioned reasons discussed in I.B. the offshore options were screened out. The preferred channel improvement project is the least cost alternative that increases crude oil export efficiency. For dredged material placement, the proposed placement alternatives considered are*



*cost effective compared to new upland sites, meet the placement capacity needed, and make beneficial use of the dredged material or use of existing PA and BU sites.*

- B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

*The logistical factor that limits the consideration of alternatives is the location of the CCSC and future expected crude terminal developments. Alternative sites would require development in a new area and were not considered. The proposed project is designed to provide the needed increase in crude oil export efficiency while minimizing adverse environmental impacts to the Gulf of Mexico and Corpus Christi Bay. For dredged material placement, distance over which material must be pumped or transported by scow, required water depths for hopper or scow use, and access to stage and route hydraulic pipelines, all constrain where cost effective dredge material placement can be achieved. Terrestrial sites are more constrained by available contiguous land and parcel size, easement and access across roads, properties etc. needed for pipelines. In the vicinity of Harbor Island, there are no sizable contiguous tracts to accommodate an upland PA to contain substantial planned new work volumes on the adjacent islands of Mustang or San Jose that aren't local or national refuges, seagrass habitat, or T&E critical habitat. Along with the planned crude terminal, Martin Midstream, and Gulf Copper are located on Harbor Island at the channel entrance. Therefore, BU and offshore placement in this vicinity were planned. The next nearest mainland with larger tracts of land is Ingleside, 8 miles farther in, where several crude oil export facilities are being planned on the land nearest water. Flint Hills Resources, OXY Ingleside Energy Center, Kiewit Offshore, Chemours, Oxychem, Ingleside Ethylene, Cheniere, and Voestalpine Texas are existing facilities located along Ingleside. These limit upland placement options, and options to use material beneficially would be cost competitive due to the distance.*

- C. Are there technological limitations for the alternatives considered?

*For the channel alternative selected, several technological limitations result in the selected depth, width and side slope ratios. These are the required draft to fully load a VLCC with the intended product (WTI crude), the design criteria from USACE Engineering Manuals and PIANC guidelines to determine required under keel clearances to accommodate dynamic movement due to sea state and climatic conditions, wind and current conditions constraining minimum one-way passage widths, and geotechnical slope stability. For placement, technological limitations mainly involve cost-effective hydraulic pump distances (typically 10 miles), and required draft and cost-effective travel distances for scows and hoppers,*

- D. Are there other reasons certain alternatives are not feasible?

*For channel alternatives, the primary reasons offshore alternatives are not feasible are discussed in II.A above. For placement, new upland sites would be less cost effective due to farther distances required to reach sizable contiguous tracts of land. They could involve impacts to terrestrial wetlands, and would require new property purchases, and routing and burial of temporary hydraulic pipelines across existing roads and properties. Depending on land elevation, pumping hydraulic pressure head limitations could be reached, which would force less cost effective transport by truck. These factors would complicate the usability and viability*

**III. If you have not chosen an alternative which would avoid impacts to surface water in the State, please explain:**

- A. Why your alternative was selected, and

*The preferred channel alternative will deepen a channel that will already be used for crude export facilities already being planned and permitted. The preferred channel alternative would provide a substantial increase in the efficiency of crude oil exports, increase the safety of loading operations, provides more efficient loading and flexibility for future growth than offshore options, and provides material for beneficial use to areas in need of restoration. It meets the overall purpose and needs of the proposed action the best.*

*The selected depth optimizes the necessary draft to address efficient export while minimizing environmental impacts. The proposed dredged material placement alternatives were chosen because they meet a variety of needs for providing sufficient and additional new work and maintenance dredged material placement capacity. Existing placement capacity for the CCSC is limited to take on new work material, new upland sites would likely be more costly and disruptive, and PCCA engaged planning and coordination to identify desirable BU and PA expansion/extension where possible. Attachment A provides the full discussion and justification for selecting the channel and placement alternatives.*

**B. What do you plan to do to minimize adverse effects on the surface water in the State impacted?**

*The construction techniques described in Section III of the Tier II 401 Certification Questionnaire would be employed to minimize migration of placed material. These techniques are standard industry methods of placement employed in USACE and non-Federal projects to construct PAs, and BU sites. In summary, these methods are discharge end measures to slow deposition velocity and control the discharge for hydraulic placement, controlled release from scows or hoppers, diked and contained dewatering methods, and dike erosion control methods including seeding and armoring.*

**IV. Please Provide Comparison of Each Criteria (From Part II) For Each Site Evaluation in The Alternatives Analysis**

*See Attachment A of the Permit Application for details. The outcome of initial screening of channel alternatives is summarized in the table below.*

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
<b>1) Increase Export Efficiency</b>	<ul style="list-style-type: none"> <li>No increase in export efficiency. Inefficient lightering process, involving more vessel calls, transit, and longer VLCC loading process will still occur</li> <li>Would involve light-loaded VLCC transit on lower 3<sup>rd</sup> of CCSC</li> <li>Increase in congestion with future growth from more lightering vessels</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, decreasing vessel traffic and shortening the duration of VLCC loading process</li> <li>Would still require VLCC transit on lower 3<sup>rd</sup> of CCSC, but elimination or reduction of lightering transit would free up channel availability for future growth.</li> <li>Multiple tenant accommodation discussed below would allow more fully loaded VLCC participation, increasing efficiency for more exporters</li> </ul>	<ul style="list-style-type: none"> <li>Lightering can be eliminated or reduced, thereby reducing vessels involved and shorten VLCC loading process</li> <li>Would eliminate VLCC transit.</li> <li>Exporting participants would be more limited than channel option, and exporting nonparticipants who couldn't fully load VLCCs would resort to smaller vessels or lightered VLCCs, leaving this congestion component in place as growth occurs. See multiple tenant and future growth discussion below.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>2) Ability to Serve Multiple Tenants</b>	<ul style="list-style-type: none"> <li>No Change</li> </ul>	<ul style="list-style-type: none"> <li>Port can operate VLCC berths as public docks, servicing multiple tenants and shipping lines, encouraging healthy competition and raising revenue for the Port and local communities.</li> <li>Centralized and integrated land use planning of developable land assets at Harbor Island.</li> <li>Loading of different grades from onshore terminals would be easier compared to offshore options</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to plan multiple offshore SPMs connected individually to individual tank farms.</li> <li>Accommodating different grades from different customers would be more cumbersome, requiring flushing of longer lengths of line to switch grades, compared to onshore terminals.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>3) Ability to Accommodate Future Growth/Expansion</b>	<ul style="list-style-type: none"> <li>No accommodation of future growth</li> <li>Vessel draft limitations</li> <li>Increased vessel traffic due to large increase in reverse lightening</li> </ul>	<ul style="list-style-type: none"> <li>Local and regional economy is enhanced as revenues are collected for ships calling at and products moving through the PCCA.</li> <li>Efficient use of capital to achieve growth and meet overall crude export forecast for the nation</li> <li>Allows for future growth within the PCCA under a single permitting process for deepening the channel.</li> </ul>	<ul style="list-style-type: none"> <li>Multiple single SPMs may need to be planned by the industry. Multiple permits required for each individual project.</li> <li>Future expansion of offshore SPM facility more difficult to accommodate new users. Limited users can access the facility at any one time due to complex financing and project development challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Expansion of platform to add more users even more difficult and costly than SPM</li> </ul>
<b>4) Environmental Impact</b>	<ul style="list-style-type: none"> <li>No habitat impact</li> <li>Increase in air emissions due to increase from reverse lightering activities.</li> <li>CO<sub>2</sub> emissions would be greater than other options due to continuing lightering activities</li> </ul>	<ul style="list-style-type: none"> <li>Construction largely being undertaken within existing channel limits.</li> <li>New entrance channel extension would temporarily disturb 770.3 acres of 60-ft deep Gulf bottom, convert it to deeper bottom, but benthos would recolonize within a year, and water column would remain. Amount of conversion to deeper bottom would be insignificant compared to available Gulf Habitat.</li> <li>Dredged material will be evaluated for beneficial use and building resilient community.</li> <li>Potential to reduce more than 485,000 MT of CO<sub>2</sub> emissions by eliminating or reducing reverse lightering when annual export rate averages additional 3.5 MMBPD.</li> <li>Potential to eliminate 38-112 tons annual NOx and 2,200- 9,270 tons of VOC from elimination</li> </ul>	<ul style="list-style-type: none"> <li>Puts active loading facility and new pipelines in previously undisturbed part of Gulf of Mexico.</li> <li>Permanent but negligible size (compared to available Gulf Habitat) of conversion of Gulf bottom and water column to SPM platform</li> <li>No potential beneficial use of dredged material</li> <li>Similar potential to reduce CO<sub>2</sub>, NOx, and VOC from eliminating or reducing lightering vessel emissions.</li> <li>Spillages are more likely to happen and not as easily confined or cleaned up.</li> <li>Potential for higher vapour emissions and higher CO<sub>2</sub> emissions from vessels hoteling due to reduced loading rates.</li> <li>Tugs needed for hose tending and VLCC positioning during loading will have to transit over 30 miles (assuming support facilities are</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> <li>Permanent but negligible size of conversion of Gulf bottom and water column to SPM platform – larger than SPM, but still negligible</li> </ul>

Screening Criteria	OPTIONS			
	Alternative A No Action	Alternative B Channel Deepening Project	Alternative C Offshore SPM Facility	Alternative D Offshore Platform
		of some lightering activity <ul style="list-style-type: none"> <li>Enables faster loading rates than SPM, reducing CO<sub>2</sub> emissions from hoteling vessels.</li> <li>Ability to provide vapour recovery system and shore power to operate vessel systems for reduced emissions.</li> </ul>	home based at Port Aransas) from the CCSC to service the platform increasing air emissions generated. <ul style="list-style-type: none"> <li>No technically feasible method for providing vapour recovery of vapour combustion systems for reducing emissions.</li> </ul>	
<b>5) Risk, Safety and Security</b>	<ul style="list-style-type: none"> <li>More vessels in Harbor will make monitoring harder</li> </ul>	<ul style="list-style-type: none"> <li>Severity of accidental spills would be reduced compared to offshore options as facilities and vessels are in a more controlled Port environment.</li> <li>Environmental accidents better controlled at onshore facilities in protected waters.</li> <li>Comprehensive spill response would be quicker than offshore options due to proximity to response resources</li> <li>Incidents at onshore terminal can be more easily contained to avoid affecting other users.</li> <li>Risk of in-channel vessel incident or allision present, but would be reduced greatly by slow vessel speed, multiple tug assist, and one way transit when bringing VLCCs in the Port.</li> <li>Loading spill incident would be closer to Redfish Bay seagrass and marsh areas, but would not significantly expose National Seashore or San Jose Island beaches to impact               <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards terminal shore which would help containment</li> <li>Tidal transport may vary however</li> </ul> </li> <li>Strong security presence within the port environment to protect against deliberate damage and sabotage.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to subsea pipelines or the platform will render the facility unusable until repaired.</li> <li>Environmental conditions such as high winds, high waves, and strong currents can be designed for, however potential is there for conditions that could restrict use of the facility.</li> <li>Avoids potential for in-channel vessel incident, but trades it for more risk of pipeline failures due to miles of multiple necessary pipelines.</li> <li>Comprehensive spill response times to address environmental accidents longer compared to onshore terminals</li> <li>Loading spill incident would not significantly expose Redfish Bay seagrass and marsh areas to impact, but an offshore facility may be potentially expose National Seashore or San Jose Island beaches to impact depending on the location               <ul style="list-style-type: none"> <li>Prevailing SE winds directed towards beaches which would hamper containment</li> </ul> </li> <li>More accessible by non-authorized persons; can lead to accidental damage, deliberate damage and sabotage.</li> <li>Higher risk to human safety with offshore operations.</li> <li>Response time to the facility by emergency services will be greater and more costly due to offshore location.</li> </ul>	<ul style="list-style-type: none"> <li>Same as SPM for all attributes except where noted</li> </ul>
<b>6) Ability to Contribute to BU</b>	<ul style="list-style-type: none"> <li>Beneficial use occurring under the - 54 foot project would continue. As before, since there would be no change in dredging or other actions that could contribute.</li> </ul>	<ul style="list-style-type: none"> <li>New work dredging would provide 38 MCY of varying sandy, clayey and some silty material some of which could be used for ecological or construction BU. Channel maintenance material could also be used long term for future BU such as restoring subsided or submerged marsh.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>	<ul style="list-style-type: none"> <li>Would require virtually no dredging, and therefore would not provide material that could be used to construct BU features.</li> </ul>

## **Appendix B4**

### **Scoping Meeting, June 2020**



**US Army Corps  
of Engineers®**

**Galveston District  
Regulatory Division**

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**Special Public Notice  
Public Scoping Meeting for the  
Port of Corpus Christi Channel Deepening Project  
Environmental Impact Statement  
5-27-2020**

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**NOTICE OF PUBLIC SCOPING MEETING FOR PORT OF CORPUS CHRISTI  
CHANNEL DEEPENING PROJECT, NUECEC AND ARANSAS COUNTIES, TEXAS  
(DEPARTMENT OF THE ARMY PERMIT NUMBER SWG-2019-00067)**

**PURPOSE OF PUBLIC NOTICE:** To inform you that the U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of Public Scoping Meetings on June 9, 11, 16, and 18, 2020 for an Environmental Impact Statement (EIS), for which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

**BACKGROUND:** The U.S. Army Corps of Engineers, Galveston District (Corps) received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS. The DA permit application was first advertised by a Public Notice issued August 1, 2019.

The proposed Project is located in Port Aransas, Nueces County, Texas (Latitude 27.824019 North; Longitude: 97.054338 West). The proposed Project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized PCCA channel width. The proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

**SCOPING PROCESS/PUBLIC INVOLVEMENT:** A series of virtual scoping meetings will be held online at 4:00 p.m. on June 9, 11, 16, and 18, 2020. The public meeting will be presented online to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project will be made available prior to the virtual meeting at <https://publicinput.com/PCCA-Channel-EIS>.

The Corps invites full public participation to promote open communication on the

potential concerns surrounding the draft EIS. In addition, participation by Federal, State, local agencies and other interested organizations is encouraged. Both oral and written statements will be accepted at the meeting through several channels including a virtual comment portal, telephone, and text message. Materials and visual depictions of the proposed Project and associated impacts will be available.

Each speaker will be given 3 minutes. Please keep your time to 3 minutes or less. If you do not need the full 3 minutes, help us to move the process along by only using the time you need. If you have additional comments that you'd like to submit beyond what you're able to address during your time allotted, please submit them in writing. Written comments are just as valid and count the same as verbal comments presented during the Public Scoping Meeting. Questions for the Port of Corpus Christi related to the proposed Project or the Corps' regulatory and Civil Works process may be submitted to the website referenced above or via email, text or the toll-free number 855-680-0455.

The public meeting will be conducted in English. Those in need of language interpreters should contact the Corps' Public Involvement consultant, Hollaway Environmental + Communications Services, Inc. (713) 868-1043, by Friday, June 5, to make arrangements. Every effort will be made to address requests.

Any comments received at the virtual public meeting will be considered by the Corps to assist in determining whether to issue, modify, condition, or deny a permit for the Project. Comments will be considered in the draft EIS analysis pursuant to NEPA and used to help determine the overall public interest of the proposed Project. All comments must be received or postmarked by Thursday, July 3, 2020, (15 calendar days following the public meeting).

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: SWG201900067@usace.army.mil. Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address SWG201900067@usace.army.mil, or the address provided above.

DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS



6. *Public Involvement*: The purpose of the public scoping process is used to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the following categories have been identified to date: Waters of the U.S. including wetlands, water quality, sedimentation and erosion, hydrology and flood hazards, water rights, wildlife and aquatic species, migratory birds, threatened and endangered species, invasive species, air quality, environmental justice, socioeconomic environment, archaeological and cultural resources, navigation and recreational resources, hazardous waste and materials, public health and safety, downstream and off-site impacts, and cumulative impacts. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination*: The proposed action is being coordinated with a number of federal, state, regional, and local agencies, including the U.S. Environmental Protection Agency (a cooperating agency under NEPA), U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, Texas Commission on Environmental Quality, Texas General Land Office, and Texas Parks and Wildlife Department.

8. *Availability of Draft EIS and Scoping*: The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

[FR Doc. 2020-07315 Filed 4-6-20; 8:45 am]

BILLING CODE 3720-58-P

## DEPARTMENT OF DEFENSE

### Department of the Army, Corps of Engineers

[Department of the Army Permit Number SWG-2019-00067]

#### [Intent To Prepare an Environmental Impact Statement and Public Scoping Meeting for the Port of Corpus Christi Channel Deepening Project, Nueces and Aransas Counties, Texas]

**AGENCY:** U.S. Army Corps of Engineers, DoD.

**ACTION:** Notice of intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Galveston District (Corps),

has received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). The primary Federal involvement associated with the proposed action is the discharge of dredged or fill material into waters of the United States, the construction of structures and/or work that may affect navigable waters, and ocean disposal of dredged material. Federal authorizations for the proposed project would constitute a "major federal action." Based on the potential impacts, both individually and cumulatively, the Corps intends to prepare an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) to render a final decision on the permit application. The Corps' decision will be to issue, issue with modification, or deny DA permits for the proposed action. The EIS will assess the potential social, economic, and environmental impacts of the proposed project and is intended to be sufficient in scope to address Federal, State and local requirements, environmental and socioeconomic issues concerning the proposed action, and permit reviews.

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.

**SUPPLEMENTARY INFORMATION:** The Corps Galveston District intends to prepare an EIS for the proposed Port of Corpus Christi Deepening project. The proposed project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening

activities would be completed within the footprint of the authorized CCSC channel width. The proposed project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel. As part of the Department of the Army permit application process, a public notice was published on August 1, 2019. The purpose of the public notice was to initiate an early public scoping process to solicit comments and information from the public as well as state and federal agencies to better enable us to make a reasonable decision on factors affecting the public interest. All comments received to date, including those provided for review during the public notice comment period, will be considered by the Galveston District during EIS preparation.

1. *Scoping Process/Public Involvement*: The Corps invites all affected federal, state, and local agencies, affected Native American Tribes, other interested parties, and the general public to participate in the NEPA process during development of the EIS. The purpose of the public scoping process is to provide information to the public, narrow the scope of analysis to significant environmental issues, serve as a mechanism to solicit agency and public input on alternatives and issues of concern, and ensure full and open participation in scoping for the Draft EIS. To ensure that all of the issues related to this proposed project are addressed, the Corps will conduct public scoping meeting(s) in which agencies, organizations, and members of the general public are invited to present comments or suggestions with regard to the range of actions, alternatives, and potential impacts to be considered in the EIS. The scoping meeting will begin with an informal open house including a presentation of the proposed action and a description of the NEPA process. These will be held in person, or virtually, as determined by the Agency. Comments will be accepted for 14 days following the scoping meeting. Displays and other forms of information about the proposed action will be available, and the Corps and PCCA personnel will be present at the informal session to discuss the proposed project and the EIS Process. The Corps invites comments on the proposed scope and content of the EIS from all interested parties. Verbal transcribers will be available at the scoping meeting to accept verbal comments. A time limit will be imposed on verbal comments. Written comments

may be submitted prior, during, or up to 14 days after the scoping meeting. The specific dates, times, and locations of the meetings will be published in press releases, special public notices and on the Corps' project website: <https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>.

2. *Project Background:* The CCSC is currently authorized by the USACE to project depths of -54 feet and -56 feet mean lower low water (MLLW) from Station 110+00 to Station -330+00 as part of the CCSC Improvement Project. The current authorized width of the CCSC is 600 feet inside the jetties and 700 feet in the entrance channel. The proposed project would deepen the channel from Station 110+00 to Station -72+50 to a maximum depth of -79 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge), and from Station -72+50 to Station -330+00, the channel would be deepened to a maximum depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge). The proposed project includes a 29,000-foot extension of the CCSC from Station -330+00 to Station -620+00 to a maximum depth of -81 MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would span approximately 13.8 miles from a location near the southeast side of Harbor Island to the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would cover approximately 1,778 acres, creating approximately 46 million cubic yards (MCY) of new work dredged material (17.1 MCY of clay and 29.2 MCY of sand).

The proposed project consists of the following:

Deepening a portion of the CCSC from the currently authorized depth of -54 to -56 MLLW to final constructed depths ranging from -79 to -81 feet MLLW;

Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach the -80-foot MLLW bathymetric contour;

Expanding the existing Inner Basin at Harbor Island as necessary to accommodate VLCC turning, which includes construction of a flare transition from the CCSC within Aransas to meet the turning basin expansion;

Potential placement of new work dredged material into waters of the

United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;

Potential placement of dredged material on San Jose Island for dune restoration;

Potential placement of dredged material feeder berms for beach restoration along San Jose and Mustang Islands; and

Transport of new work dredged material to the CCSC Improvement Project New Work Ocean Dredged Material Disposal Site (ODMDS).

3. *Location:* The proposed project is located within the existing channel bottom of the CCSC starting at station 110+00 near the southeast side of Harbor Island, traversing easterly through the Aransas Pass, and extending beyond the currently authorized terminus Station -330+00 an additional 29,000 feet terminating out into the Gulf of Mexico at the proposed new Terminus Station -620+00, an approximate distance of 13.8 miles, in Port Aransas, Nueces County, Texas. The project can be located on the U.S.G.S. quadrangle map entitled: Port Aransas, Texas.

4. *Purpose and Need:* To safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and affects safety.

5. *Alternatives:* An evaluation of alternatives to PCCA's preferred alternative initially being considered includes a No Action alternative; alternatives that would avoid, minimize, and compensate for impacts to the environment within the proposed Project footprint; alternatives that would avoid, minimize, and compensate for impacts to the environment outside the footprint; alternatives using alternative practices; and other reasonable alternatives that will be developed through the Project scoping process, which may also meet the identified purpose and need.

6. *Public Involvement:* The purpose of the public scoping process is to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the

following categories have been identified to date: Potential direct effects to waters of the United States including wetlands; water and sediment quality; aquatic species; air quality; socioeconomic environment; archaeological and cultural resources; recreation and recreational resources; hazardous waste and materials; aesthetics; public health and safety; navigation; ferry operations; erosion; invasive species; cumulative impacts; public benefit and needs of the people along with potential effects on the human environment. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination:* The proposed action is being coordinated with a number of Federal, State, regional and local agencies. As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS.

8. *Availability of Draft EIS and Scoping:* The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

[FR Doc. 2020-07313 Filed 4-6-20; 8:45 am]

**BILLING CODE 3720-58-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

*Docket Number:* PR20-47-000.

*Applicants:* Public Service Company of Colorado.

*Description:* Tariff filing per 284.123(b),(e)+(g): Statement of Rates 3.1.2020 to be effective 3/1/2020.

*Filed Date:* 3/27/2020.

*Accession Number:* 202003275291.

*Comments Due:* 5 p.m. ET 4/17/2020.

*284.123(g) Protests Due:* 5 p.m. ET 5/26/2020.



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

June 10, 2020

Regulatory Division

SUBJECT: Virtual Public Scoping for Permit Application: SWG-2019-00067 Port of Corpus Christi Channel Deepening Project Environmental Impact Statement

To Whom It May Concern:

Due to the restrictions on conducting large in-person meetings we scheduled a series of virtual public scoping meetings for proposed Port of Corpus Christi Channel Deepening project Environmental Impact Statement, or EIS. The goal of scoping is to solicit public input on the elements of the environment to be evaluated in the EIS and to help identify and narrow the issues to those that are significant.

We conducted our first meeting on June 9<sup>th</sup> utilizing a new technology and we are disappointed that the technology failed. For those of you who joined us, I apologize for the inconvenience. We have spoken with the Port of Corpus Christi Authority and have agreed that this meeting does not meet the intent of public involvement. We have decided to include an additional date for a public scoping meeting and have developed a new method to conduct our meetings.

The public meetings will be now be presented online through Cisco Webex to provide information about the proposed Project and to receive public input and comment on the EIS. Meeting access information, instructions, and an opportunity to subscribe to project updates, as well as additional information regarding this project are available at <https://publicinput.com/PCCA-Channel-EIS>.

You may also submit written comments by July 3, 2020 directly to my staff by sending by mail to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229 or by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil).

Sincerely,

Joseph McMahan  
Chief, Regulatory Division  
Galveston District



U.S. Army Corps of Engineers  
Port of Corpus Christi Authority

Environmental Impact Statement Corpus Christi Ship Channel Deepening Project

Scoping Meetings Comment Summary

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**Date:** June 2020

**Summary of Comments:**

The following list indicates the subjects identified in the 191 public comments received during the virtual scoping meeting (tally of associated comments):

- Comments addressing alternatives for the proposed Project (87)
  - Comments addressed finding an alternative with a lower impact to the environment to prevent storm surge.
  - Comments addressed finding alternatives that will not damage local ecosystems such as sea grasses, oyster beds, fish nurseries.
  - Comments requesting identification of all potential impacts to the environment, marine life, ecosystems and compare alternatives.
- Comments addressing environmental concerns (mitigation, air/water quality, erosion, endangered species, migration etc.) with the proposed Project (228)
  - Comments addressed the risk of endangered species and marine life such as, cranes, plovers, local birds, bulkheads, jetty, fish, flounder, coral etc.
  - Comments addressed concern of the air quality due to larger shipping traffic.
  - Comments expressed concern of fishing, birding, and hunting around the area.
  - Comments expressed the need to know the impact of dredged material disposal and disposal sites.
  - Comments requested a restoration plan due to impacts of the proposed Project to local ecosystems.
- Comments addressing navigation/transportation concerns to the proposed Project (44)
  - Comments addressed concerns of large vessels in the area and effects on boating, kayaking, beachgoers, and birdwatching.
- Comments addressing land use, recreation, and tourism concerns with the proposed Project (82)
  - Comments expressed concern about Port Aransas' tourism industry and the effects on the economy.
  - Comments expressed concern on the fishing industry, and safety for their communities due to the damage on the land and potential impact of storm surge from hurricanes.
- Comments addressing public involvement concerns with the proposed Project (91)
  - Comments addressed the inability to connect to the public scoping meeting, difficulty finding the meeting information and dialing in to comment.
  - Comments addressed the technical difficulties from having virtual meetings.

- Comments proposed to have in-person meeting instead of virtual meetings.
- Comments addressing noise concerns for the proposed Project (6)
  - Comments addressed the noise pollution to nearby communities.
- Comments addressing the purpose and need for the proposed Project (45)
  - Comments addressed that additional documentation should be required to provide more in-depth analysis of the proposed Project and the impacts to the communities and environment.
  - Comments addressed the concern of having three permit applications.
- Comments addressing dredging for the proposed project (25)
  - Comments expressed concern for the effects of dredging including impacts on marine life, noise pollution, low air quality, and contamination.
  - Comments asked the applicant for the location of where the dredged material will be placed.
  - Comments expressed concern and requested clarity on the effects of dredging and the potential risks.
- Comments addressing safety and security for the proposed project (10)
  - Comments addressed the PCCA being a risk for national security in the future and risk for explosions.
  - Comments expressed concerns over the possibilities of emergencies such as oil spills, health, welfare, ship collisions and vessel groundings.
  - Comments addressed the need for an emergency alert system, lighting and emergency evacuation plan in case of emergency.
- Comments addressing permit concerns and opposition for the proposed project (11)
  - Comments addressed concerns that the permit will lead to litigation.

# Environmental Impact Statement Scoping Report

## Port of Corpus Christi Authority Channel Deepening Project



Department of the Army Permit Application  
SWG-2019-00067



US Army Corps  
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# 1. Introduction

The National Environmental Policy Act of 1969 (NEPA) requires an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process is referred to as scoping and is one of several public involvement aspects of the NEPA Environmental Impact Statement (EIS) process. NEPA is a statutory requirement triggered by major federal actions that could significantly affect the quality of the human environment. NEPA requires the identification and analysis of potential environmental effects before those actions take place and serves as a "full disclosure" law with provisions for public access to and public participation in the federal decision-making process.

Scoping is an opportunity for the U.S. Army Corps of Engineers (Corps) to introduce and explain the interdisciplinary approach to our environmental analysis as well as solicit public and agency comments regarding environmental resources, potential impacts, and alternatives that should be included. The Council on Environmental Quality's (CEQ) implementing regulations for scoping (40 C.F.R. § 1501.7(a)) require the Corps to:

- Identify people or organizations who are interested in the proposed action;
- Determine the roles and responsibilities of lead and cooperating agencies by identifying other environmental review and consultation requirements so they can be integrated with the EIS;
- Identify the significant issues to be analyzed in the EIS;
- Identify and eliminate from detailed review those issues that will not be significant or those that have been adequately covered in prior environmental review;
- Identify gaps in data and informational needs; and
- Identify any related Environmental Assessments or EIS's.

The CEQ's implementing regulations for scoping (40 C.F.R. § 1501.7(b)) also recommend, but do not require, the Corps to:

- Set page limits on environmental documents;
- Set time limits;
- Hold an early scoping meeting or meetings.

This Scoping Report has been developed for the Corps to share the types of issues that were received during the scoping period from the general public and the cooperating agencies. It documents outreach efforts during the scoping period and summarizes the primary issues of concern and suggested alternatives from the public. The Scoping Report will be used to develop alternatives for the EIS and identifies issues that are important to the public and should be considered in the analysis of the EIS.

## 1.1. Project Background

The Corps received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) for the deepening of the Corpus Christi Ship Channel (CCSC).

The purpose of the proposed Project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized PCCA channel width.

## Port of Corpus Christi Channel Deepening Project INTERNAL DRAFT

The proposed Project is located within the existing channel bottom of the Corpus Christi Ship Channel starting near the southeast side of Harbor Island, traversing east through the Aransas Pass, and extending into the Gulf of Mexico for an approximate distance of 13.8 miles. To address changing market needs, the proposed Project would deepen this portion of the Corpus Christi Ship Channel beyond the current authorized channel depths of -54 feet and -56 feet mean lower low water to maximum depths of -79 feet and -81 feet mean lower low water to accommodate transit of fully loaded VLCCs with vertical distances between the waterline and the bottom of the hull, or drafts, of approximately 70 feet. An estimated 42 million cubic yards of new work dredged material would be generated as a result of the channel deepening.

Additionally, the proposed Project includes:

- Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach -80 mean lower low water;
- Expanding the existing Inner Basin at Harbor Island as necessary to accommodate VLCC turning, including construction of a flare transition from the Corpus Christi Ship Channel with Aransas to meet the turning basin expansion;
- Potential placement of the new work dredged material into Waters of the United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;
- Potential placement of dredged material on San Jose Island for dune restoration;
- Potential placement of dredged material feeder berms for beach to provide restoration along San Jose and Mustang Islands; and
- Transport of new work dredged material to the New Work Ocean Dredged Material Disposal Site.



Figure 1 - Proposed Project Area Map

The proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time, a 45-day public review period will be provided for individuals and agencies to review and comment on the draft EIS

## **1.2. Purpose and Need for Proposed Project**

The Corps is required to restate the purpose and need for the project from the public interest perspective. The Corps, after coordinating with the cooperating agencies, developed the following overall purpose to identify and screen alternatives to the applicant's proposed Project:

*To safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and affects safety.*

## **2. Scoping Process**

### **2.1. Transition to Virtual Meetings**

On March 24, 2020, the Corps issued a memorandum: *Interim Army Procedures for National Environmental Policy Act (NEPA)* in response to the coronavirus (COVID-19) pandemic. The memorandum established interim Army NEPA procedures in consideration of the COVID-19 public health emergency. These interim NEPA procedures apply to all Army NEPA proponents responsible for NEPA compliance. The memorandum directed the following actions related to public meetings and the NEPA process:

- NEPA public meetings will be transitioned to virtual meetings, postponed, or cancelled, as deemed appropriate by the Army NEPA proponent.
- Alternative means of public engagement will be implemented and documented in public participation plans. Virtual meetings may be conducted using online meeting / collaboration tools, teleconference, social media, or email, as appropriate.
- NEPA public and Federal Register notices will inform the public about these alternative participation procedures and how to obtain NEPA materials on the project web site or through the mail. Public notices will provide a contact phone number, email, website address, and mailing address.
- Project information, including, but not limited to, scoping materials, draft NEPA documents, and comment forms will be available on project websites. This includes materials normally presented at public meetings.
- Project information, including, but not limited to, scoping materials, draft NEPA documents, and comment forms will be sent through the mail as either hard copies or as printable compact discs (as requested). Mailed materials will include requested materials normally presented at public meetings and materials on the project website.

- Army NEPA proponents will ensure cooperating agencies are aware of these NEPA alternative participation procedures.

In response to this memorandum, the Corps determined that the scoping meeting for the proposed Project would be moved to a virtual platform in accordance with the above interim procedures.

## **2.2. Public Notification of Scoping**

### **2.2.1. *Notice of Intent***

The Corps published a Notice of Intent (NOI) on the Federal Register to notify the public of the intent to prepare a draft EIS on April 9, 2020. The NOI also provided information about the proposed Project and invited the public to attend and provide comments and information to better enable the Corps to make a reasonable decision on factors that affect the public interest. A copy of the NOI is included in **Appendix A**.

### **2.2.2. *Mailed Notices***

A total of 1,640 notices to interested parties, affected property owners, and local, state, and federal elected officials were sent via mail on Thursday, May 28, 2020, announcing the public meetings in June 2020. The notices provided information about the proposed Project and invited the public to attend and provide comments and information to better enable the Corps to make a reasonable decision on factors that affect the public interest. Copies of the mailed notices are included in **Appendix A**.

### **2.2.3. *Newspaper Notice***

A public notice announcing the virtual public scoping meetings in June 2020 was published in English and Spanish as a legal advertisement in the following publications in May and June 2020.

- Aransas Pass Progress (English and Spanish) – June 3, 2020
- Corpus Christi Caller-Times – May 29, 2020

The public notice also included information about the proposed Project and information about how to access the virtual public scoping meeting. Copies of the public notices in English and Spanish are included in **Appendix A**.

### **2.2.4. *Email Notices***

A total of 674 notices were sent to interested parties and local, state, and federal elected officials via email on May 27, 2020, announcing the virtual public scoping meetings in June 2020. The notices provided information about the proposed Project and invited the public to attend and provide comments and information to better enable the Corps to make a reasonable decision on factors that affect the public interest. A copy of the email notice is included in **Appendix A**.

### **2.2.5. *Website***

A third-party website ([publicinput.com/PCCA-Channel-EIS](http://publicinput.com/PCCA-Channel-EIS)) was established in May 2020 for the virtual public scoping meeting process. The website provides overview information about the proposed Project, the virtual public scoping meeting notice, meeting date, time, and access information. Available information materials such as Frequently Asked Questions, Project

Factsheet, and informational videos about the proposed Project and the EIS process were also included on the website and are included in **Appendix B**. Additionally, the website provides information on the multiple ways of submitting comments for participants, including an online comment portal and the project phone line to submit voice and text message comments. Images of the website are included in **Appendix C**.

### **3. Public Scoping Meetings Summary**

A series of virtual public scoping meetings, hosted by the Corps, Galveston District, for the Port of Corpus Christi Channel Deepening Project (proposed Project) EIS was held online in June 2020.

The first of this series of virtual public scoping meetings was held on Tuesday, June 9, 2020, utilizing PublicInput.com, and this virtual meeting platform encountered numerous technical problems, severely restricting public access and participation in the virtual public scoping meeting. As a result of the technical problems encountered, the Corps adjourned the meeting early and publicly acknowledged and apologized for the technical problems on the project website ([publicinput.com/PCCA-Channel-EIS](http://publicinput.com/PCCA-Channel-EIS)).

To avoid postponement of the remaining scheduled meetings, virtual scoping meetings were scheduled on an alternative virtual platform, Cisco WebEx Events. Subsequent virtual public scoping meetings were hosted utilizing Cisco WebEx Events, and an additional virtual public scoping meeting was scheduled for Monday, June 15, 2020, to make up for the technical issues experienced during the June 9, 2020, virtual public scoping meeting. In total, five virtual public scoping meetings were held, with four meetings successfully hosted on Cisco WebEx Events. The virtual public scoping meetings were on the following dates and online platforms:

- Tuesday, June 9, 2020 (hosted on PublicInput.com) at 4:00 p.m.
- Thursday, June 11, 2020 (hosted on Cisco WebEx Events) at 4:00 p.m.
- Monday, June 15, 2020 (hosted on Cisco WebEx Events) 4:00 p.m. This was an additional meeting scheduled due to online technical issues experienced during the June 9, 2020 meeting
- Tuesday, June 16, 2020 (hosted on Cisco WebEx Events) at 4:00 p.m.
- Thursday, June 18, 2020 (hosted on Cisco WebEx Events) at 4:00 p.m.

The purpose of the virtual public scoping meetings was to provide the public with information about the proposed Project and to solicit comments and information to better enable the Corps to make a reasonable decision on factors affecting the public interest.

Virtual public scoping meetings were held in lieu of a traditional in-person public scoping meetings due to the COVID-19 pandemic and the resulting federal restrictions surrounding the ability to host in-person, public scoping meetings. In consideration of the inability to hold traditional in-person, public scoping meetings and to accommodate public comments to the greatest extent practicable, the following measures were taken:

- The public comment period was extended from 30 to 90 days.
- Non-traditional means to submit comments were established, including:
  - Voicemail commenting through a project phone line (855-680-0455)
  - Text message commenting through a project phone line (855-680-0455)
  - An online comment portal on a third-party project website ([publicinput.com/PCCA-Channel-EIS](http://publicinput.com/PCCA-Channel-EIS))



Following the technical problems encountered during the July 9, 2020 virtual public scoping meeting (hosted on PublicInput.com), four virtual public scoping meetings were held on June 11, 15, 16 and 18, via Cisco WebEx Events. Prior to the meeting, attendees were prompted to register and were asked for their first, last name, phone number, email address, if they were an elected official, and if they planned to provide a verbal comment during the commenting period. A total of 233 people attended the virtual public scoping meetings.

The virtual public scoping meetings began with opening remarks from Col. Timothy Vail of the Corps Galveston District. Following opening remarks, the meeting proceeded with a presentation of the proposed Project from the PCCA, and this presentation was followed by presentations about the EIS scoping process, the purpose and need of the proposed Project, and known environmental concerns led by Mr. Jayson Hudson, a representative of the Corps. Electronic links to view the opening remarks and presentations from PCCA and the Corps are included in **Appendix D**.

Following the formal presentation portion of the virtual public scoping meeting, attendees were invited to provide verbal comments. Attendees wishing to provide comments were required to sign up either by indicating their intent to provide a verbal comment during online meeting registration or by using the virtual “Raise Hand” feature available on the Cisco WebEx Events platform during the meeting. Attendees were called to speak in the order in which they registered. Each speaker was provided with three minutes to speak and was asked to state and spell their first and last name before speaking. Verbal comments were recorded through the Cisco WebEx Events platform and provided to a court reporter for transcription following the virtual public scoping meeting. Each meeting adjourned following the verbal commenting period. In addition to verbal comments, attendees were invited to submit comments through email, the project website, text message, or voice message.

## **4. Comments Received**

### **4.1. Comment Collection Methods**

All comments received during the 90-day comment period, and those received after the comment period to the extent practicable, were reviewed and considered. The comment deadline for the study was Friday, July 3, 2020. Comments were received via the following channels:

- Verbal comments were received during the formal public commenting portion of the virtual public scoping meeting.
- Comment forms were mailed to Mr. Jayson Hudson U.S. Army Corps of Engineers, Galveston District, Regulatory Branch P.O. Box 1229, Galveston, Texas 77553-1229.
- Electronic comments were received via the project email addresses at PCCA-Channel-EIS@publicinput.com and SWG201900067@usace.army.mil.
- Text message comments were received by texting 855-680-0455.
- Voice message comments were received via phone at 855-680-0455.

### **4.2. Comment Tabulation**

A total of 192 comments were received from all the available channels. A database of comments submitted is available in **Appendix E**. Verbal comments were recorded in the public meeting transcript from the virtual public scoping meeting, available in **Appendix F**. Below is the breakdown of how many comments were collected through the commenting period from each of the available channels:

- Verbal comments – (41)
- Comments submitted through email/website comment portal (116)
- Comments submitted through mail (15)
- Comments submitted through voice message/text (19)

### 4.3. Comment Summary

The following list indicates the subjects identified in the 191 public comments received during the virtual scoping meeting (tally of associated comments):

- Comments addressing *alternatives* for the proposed Project (87)
  - Comments addressed finding an alternative with a lower impact to the environment to prevent storm surge.
  - Comments addressed finding alternatives that will not damage local ecosystems such as sea grasses, oyster beds, fish nurseries.
  - Comments requesting identification of all potential impacts to the environment, marine life, ecosystems and compare alternatives.
- Comments addressing *environmental* concerns (mitigation, air/water quality, erosion, endangered species, migration etc.) with the proposed Project (228)
  - Comments addressed the risk of endangered species and marine life such as, cranes, plovers, local birds, bulkheads, jetty, fish, flounder, coral etc.
  - Comments addressed concern of the air quality due to larger shipping traffic.
  - Comments expressed concern of fishing, birding, and hunting around the area.
  - Comments expressed the need to know the impact of dredged material disposal and disposal sites.
  - Comments requested a restoration plan due to impacts of the proposed Project to local ecosystems.
- Comments addressing *navigation/transportation concerns* to the proposed Project (44)
  - Comments addressed concerns of large vessels in the area and effects on boating, kayaking, beachgoers, and birdwatching.
- Comments addressing *land use, recreation, and tourism* concerns with the proposed Project (82)
  - Comments expressed concern about Port Aransas' tourism industry and the effects on the economy.
  - Comments expressed concern on the fishing industry, and safety for their communities due to the damage on the land and potential impact of storm surge from hurricanes.
- Comments addressing *public involvement* concerns with the proposed Project (91)
  - Comments addressed the inability to connect to the public scoping meeting, difficulty finding the meeting information and dialing in to comment.
  - Comments addressed the technical difficulties from having virtual meetings.
  - Comments proposed to have in-person meeting instead of virtual meetings.
- Comments addressing *noise* concerns for the proposed Project (6)
  - Comments addressed the noise pollution to nearby communities.
- Comments addressing the *purpose and need* for the proposed Project (45)
  - Comments addressed that additional documentation should be required to provide more in-depth analysis of the proposed Project and the impacts to the communities and environment.
  - Comments addressed the concern of having three permit applications.
- Comments addressing *dredging* for the proposed project (25)

- Comments expressed concern for the effects of dredging including impacts on marine life, noise pollution, low air quality, and contamination.
  - Comments asked the applicant for the location of where the dredged material will be placed.
  - Comments expressed concern and requested clarity on the effects of dredging and the potential risks.
- Comments addressing *safety and security* for the proposed project (10)
  - Comments addressed the PCCA being a risk for national security in the future and risk for explosions.
  - Comments expressed concerns over the possibilities of emergencies such as oil spills, health, welfare, ship collisions and vessel groundings.
  - Comments addressed the need for an emergency alert system, lighting and emergency evacuation plan in case of emergency.
- Comments addressing *permit concerns and opposition* for the proposed project (11)
  - Comments addressed concerns that the permit will lead to litigation.

## 5. Alternatives

The Corps evaluated information obtained from scoping, and with input submitted from Federal and state agencies and interested public, as well as data collection and analysis of environmental, socioeconomic, and engineering factors as part of development of alternatives to the proposed Project. The Corps prioritized minimization of impacts, both individually and cumulatively, to aquatic resources during both construction and operations in its development of alternatives. Using these concepts and considering avoidance and minimization to reduce impacts, the following six Project alternatives were identified.

1. **No Action Alternative:** Under the No Action Alternative, the CCSC would not be deepened to a -81 MLLW and would remain at -54 MLLW. VLCCs will continue to be partially loaded and reverse-lightered offshore. The No Action Alternative does not meet the Project purpose and need but is carried forward for detailed analysis in this EIS for comparison purposes.
2. **Channel Deepening Alternative:** This alternative consists of deepening the CCSC to -81 MLLW from the Gulf of Mexico to station 110+00 near Harbor Island, including the approximate 10-mile extension to the Entrance Channel necessary to reach sufficiently deep waters. Deepening would take place largely within the footprint of the currently authorized -54-foot MLLW channel. Dredging approximately 46.3 million cubic yards (MCY) would be required with inshore and offshore placement of the material. During our analysis, alternatives to dredge placement will be conducted on a case-by case basis. Under this alternative, only berths at Harbor Island would be capable of fully loading VLCCs. Partially loaded VLCCs at Ingleside could top off at Harbor Island thereby reducing or eliminating reverse-lightering.
3. **Offshore Alternative:** The CCSC would not be deepened to a -81 MLLW and would remain at -54 MLLW. To meet the project purpose, multiple deep-water port facilities capable of sustaining all projected oil exportation would be constructed. VLCCs would be fully loaded offshore eliminating the need to traverse the channel and reverse lighter. This alternative would also eliminate dredging of the channel and the impacts associated with dredged material placement.

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4. **Combined Inshore/Offshore:** The CCSC would not be deepened to a -81 MLLW and would remain at -54 MLLW. To meet the project purpose, VLCC vessels would be partially loaded at inshore facilities in Ingleside and Harbor Island then traverse the channel to the offshore facility to be fully loaded. This alternative would eliminate the need to reverse-lighter and would also eliminate dredging of the channel and the impacts associated with dredged material placement.
5. **Houston Alternative:** This alternative consists of relocating the project to the Port of Houston. The Houston Ship Channel (HSC) is currently maintained at -45 MLLW. This alternative would either require the HSC be dredge to -81 MLLW or construct offshore facilities to eliminate reverse lightering.
6. **Brownsville Alternative:** This alternative consists of relocating the project to the Port of Brownsville. The Brownsville Ship Channel (BSC) is maintained at -42 MLLW. This alternative would require either the BSC to be dredged to -81 MLLW or construct offshore facilities to eliminate reverse lightering.

The Corps used a multi-step process to screen the range of alternatives to determine which alternatives are reasonable, practicable, and meet the Project purpose. The Project alternatives were analyzed using the following screening criteria to identify a range of reasonable alternatives: satisfaction of the overall Project purpose; practicable based on Clean Water Act Section 404(b)(1) Guidelines (technology, logistics, cost); and consideration of potential aquatic resources impacts. The alternatives screening analysis is summarized in **Table 1**.

Table 1. Comparison Summary of Alternatives

<b>Alternative</b>	<b>Carried Forward (Yes/No)</b>			
	<b>Purpose and Need</b>	<b>Practicability - Technology</b>	<b>Practicability - Logistics</b>	<b>Practicability - Cost*</b>
<i>No Action</i>	Yes	Yes	Yes	Yes
<i>Channel Deepening Corpus Christi</i>	Yes	Yes	Yes	Yes
<i>Offshore Corpus Christi</i>	Yes	Yes	Yes	Yes
<i>Inshore/Offshore Corpus Christi</i>	Yes	Yes	Yes	Yes
<i>Port of Brownsville</i>	No	No	No	No
<i>Port of Houston</i>	No	No	No	No
<i>*It is not a particular applicant's financial standing that is the primary consideration for determining practicability in regards to cost, but rather characteristics of the project and what constitutes a reasonable expense for these projects that are most relevant to practicability determinations.</i>				

## 6. Next Steps in the NEPA Process

The next step in the NEPA process for the proposed Project is consideration of scoping comments related to resource issues and identification of any additional data and analyses that may be required to conduct an analysis of environmental consequences on resources to develop the Draft

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EIS (DEIS). Once the DEIS is completed, the Corps will issue a Notice of Availability (NOA) indicating that the DEIS is available for public review and comment. The DEIS will summarize the results of multiple technical reports or studies that will be relied upon to determine effects of the proposed Project. These technical reports and studies will be appended to the DEIS for review by the public. All individuals who have already expressed interest in the proposed Project either during the Public Noticing period for the DA permit application in 2018 or during scoping, will be notified either via email, regular mail or both that the DEIS is available for public review. The DEIS and appendices will be available to the public during the comment period on the Corps project website:

<https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>

During the public comment period for the DEIS, the Corps will hold a public meeting to provide the public with an opportunity to provide verbal comments on the DEIS. The public meeting on the DEIS will be held in-person or virtually similar to the Scoping Meetings in June 2020. If COVID-19 pandemic considerations are in effect at the time of the public meeting, a virtual meeting will be conducted in compliance with Interim Army Procedures for NEPA (March 24, 2020), similar to the Project Scoping Meetings held in June 2020. The NOA will include information on the public meeting and how it is to be conducted.

After the conclusion of the comment period for the DEIS, the Corps will prepare the Final EIS (FEIS). Similar to the DEIS, the Corps will issue an NOA indicating that the FEIS is available for public review. It will be posted on the same Corps project website as the DEIS. Following publication of the FEIS, the Corps will decide on the DA permit for the proposed Project. The proposed timeline for these next steps is located on the Permitting Dashboard for Federal Infrastructure Projects:

<https://www.permits.performance.gov/permitting-projects/port-corpus-christi-authority-channel-deepening-project>

# **Appendix A**

## **Public Notices**

## Notice of Intent



6. *Public Involvement*: The purpose of the public scoping process is used to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the following categories have been identified to date: Waters of the U.S. including wetlands, water quality, sedimentation and erosion, hydrology and flood hazards, water rights, wildlife and aquatic species, migratory birds, threatened and endangered species, invasive species, air quality, environmental justice, socioeconomic environment, archaeological and cultural resources, navigation and recreational resources, hazardous waste and materials, public health and safety, downstream and off-site impacts, and cumulative impacts. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination*: The proposed action is being coordinated with a number of federal, state, regional, and local agencies, including the U.S. Environmental Protection Agency (a cooperating agency under NEPA), U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, Texas Commission on Environmental Quality, Texas General Land Office, and Texas Parks and Wildlife Department.

8. *Availability of Draft EIS and Scoping*: The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

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## DEPARTMENT OF DEFENSE

### Department of the Army, Corps of Engineers

[Department of the Army Permit Number SWG-2019-00067]

#### [Intent To Prepare an Environmental Impact Statement and Public Scoping Meeting for the Port of Corpus Christi Channel Deepening Project, Nueces and Aransas Counties, Texas]

**AGENCY:** U.S. Army Corps of Engineers, DoD.

**ACTION:** Notice of intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Galveston District (Corps),

has received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). The primary Federal involvement associated with the proposed action is the discharge of dredged or fill material into waters of the United States, the construction of structures and/or work that may affect navigable waters, and ocean disposal of dredged material. Federal authorizations for the proposed project would constitute a "major federal action." Based on the potential impacts, both individually and cumulatively, the Corps intends to prepare an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) to render a final decision on the permit application. The Corps' decision will be to issue, issue with modification, or deny DA permits for the proposed action. The EIS will assess the potential social, economic, and environmental impacts of the proposed project and is intended to be sufficient in scope to address Federal, State and local requirements, environmental and socioeconomic issues concerning the proposed action, and permit reviews.

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.

**SUPPLEMENTARY INFORMATION:** The Corps Galveston District intends to prepare an EIS for the proposed Port of Corpus Christi Deepening project. The proposed project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening

activities would be completed within the footprint of the authorized CCSC channel width. The proposed project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel. As part of the Department of the Army permit application process, a public notice was published on August 1, 2019. The purpose of the public notice was to initiate an early public scoping process to solicit comments and information from the public as well as state and federal agencies to better enable us to make a reasonable decision on factors affecting the public interest. All comments received to date, including those provided for review during the public notice comment period, will be considered by the Galveston District during EIS preparation.

1. *Scoping Process/Public Involvement*: The Corps invites all affected federal, state, and local agencies, affected Native American Tribes, other interested parties, and the general public to participate in the NEPA process during development of the EIS. The purpose of the public scoping process is to provide information to the public, narrow the scope of analysis to significant environmental issues, serve as a mechanism to solicit agency and public input on alternatives and issues of concern, and ensure full and open participation in scoping for the Draft EIS. To ensure that all of the issues related to this proposed project are addressed, the Corps will conduct public scoping meeting(s) in which agencies, organizations, and members of the general public are invited to present comments or suggestions with regard to the range of actions, alternatives, and potential impacts to be considered in the EIS. The scoping meeting will begin with an informal open house including a presentation of the proposed action and a description of the NEPA process. These will be held in person, or virtually, as determined by the Agency. Comments will be accepted for 14 days following the scoping meeting. Displays and other forms of information about the proposed action will be available, and the Corps and PCCA personnel will be present at the informal session to discuss the proposed project and the EIS Process. The Corps invites comments on the proposed scope and content of the EIS from all interested parties. Verbal transcribers will be available at the scoping meeting to accept verbal comments. A time limit will be imposed on verbal comments. Written comments

may be submitted prior, during, or up to 14 days after the scoping meeting. The specific dates, times, and locations of the meetings will be published in press releases, special public notices and on the Corps' project website: <https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>.

2. *Project Background:* The CCSC is currently authorized by the USACE to project depths of -54 feet and -56 feet mean lower low water (MLLW) from Station 110+00 to Station -330+00 as part of the CCSC Improvement Project. The current authorized width of the CCSC is 600 feet inside the jetties and 700 feet in the entrance channel. The proposed project would deepen the channel from Station 110+00 to Station -72+50 to a maximum depth of -79 feet MLLW (-75 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge), and from Station -72+50 to Station -330+00, the channel would be deepened to a maximum depth of -81 feet MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge). The proposed project includes a 29,000-foot extension of the CCSC from Station -330+00 to Station -620+00 to a maximum depth of -81 MLLW (-77 feet MLLW plus two feet of advanced maintenance and two feet of allowable overdredge) to reach the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would span approximately 13.8 miles from a location near the southeast side of Harbor Island to the -80-foot MLLW bathymetric contour in the Gulf of Mexico. The proposed project would cover approximately 1,778 acres, creating approximately 46 million cubic yards (MCY) of new work dredged material (17.1 MCY of clay and 29.2 MCY of sand).

The proposed project consists of the following:

Deepening a portion of the CCSC from the currently authorized depth of -54 to -56 MLLW to final constructed depths ranging from -79 to -81 feet MLLW;

Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach the -80-foot MLLW bathymetric contour;

Expanding the existing Inner Basin at Harbor Island as necessary to accommodate VLCC turning, which includes construction of a flare transition from the CCSC within Aransas to meet the turning basin expansion;

Potential placement of new work dredged material into waters of the

United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;

Potential placement of dredged material on San Jose Island for dune restoration;

Potential placement of dredged material feeder berms for beach restoration along San Jose and Mustang Islands; and

Transport of new work dredged material to the CCSC Improvement Project New Work Ocean Dredged Material Disposal Site (ODMDS).

3. *Location:* The proposed project is located within the existing channel bottom of the CCSC starting at station 110+00 near the southeast side of Harbor Island, traversing easterly through the Aransas Pass, and extending beyond the currently authorized terminus Station -330+00 an additional 29,000 feet terminating out into the Gulf of Mexico at the proposed new Terminus Station -620+00, an approximate distance of 13.8 miles, in Port Aransas, Nueces County, Texas. The project can be located on the U.S.G.S. quadrangle map entitled: Port Aransas, Texas.

4. *Purpose and Need:* To safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and affects safety.

5. *Alternatives:* An evaluation of alternatives to PCCA's preferred alternative initially being considered includes a No Action alternative; alternatives that would avoid, minimize, and compensate for impacts to the environment within the proposed Project footprint; alternatives that would avoid, minimize, and compensate for impacts to the environment outside the footprint; alternatives using alternative practices; and other reasonable alternatives that will be developed through the Project scoping process, which may also meet the identified purpose and need.

6. *Public Involvement:* The purpose of the public scoping process is to determine relevant issues that will influence the scope of the environmental analysis and EIS alternatives. General concerns in the

following categories have been identified to date: Potential direct effects to waters of the United States including wetlands; water and sediment quality; aquatic species; air quality; socioeconomic environment; archaeological and cultural resources; recreation and recreational resources; hazardous waste and materials; aesthetics; public health and safety; navigation; ferry operations; erosion; invasive species; cumulative impacts; public benefit and needs of the people along with potential effects on the human environment. All parties who express interest will be given an opportunity to participate in the process.

7. *Coordination:* The proposed action is being coordinated with a number of Federal, State, regional and local agencies. As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS.

8. *Availability of Draft EIS and Scoping:* The draft EIS is estimated to be available for public review and comment no sooner than the spring of 2021. At that time a 45-day public review period will be provided for individuals and agencies to review and comment on the DEIS.

**Pete G. Perez,**

*Director, Programs Directorate.*

[FR Doc. 2020-07313 Filed 4-6-20; 8:45 am]

**BILLING CODE 3720-58-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

*Docket Number:* PR20-47-000.

*Applicants:* Public Service Company of Colorado.

*Description:* Tariff filing per 284.123(b),(e)+(g): Statement of Rates 3.1.2020 to be effective 3/1/2020.

*Filed Date:* 3/27/2020.

*Accession Number:* 202003275291.

*Comments Due:* 5 p.m. ET 4/17/2020.

*284.123(g) Protests Due:* 5 p.m. ET 5/26/2020.

## Public Notice

*English*



**US Army Corps  
of Engineers®**

**Galveston District  
Regulatory Division**

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**Special Public Notice  
Public Scoping Meeting for the  
Port of Corpus Christi Channel Deepening Project  
Environmental Impact Statement  
5-27-2020**

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**NOTICE OF PUBLIC SCOPING MEETING FOR PORT OF CORPUS CHRISTI  
CHANNEL DEEPENING PROJECT, NUECEC AND ARANSAS COUNTIES, TEXAS  
(DEPARTMENT OF THE ARMY PERMIT NUMBER SWG-2019-00067)**

**PURPOSE OF PUBLIC NOTICE:** To inform you that the U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of Public Scoping Meetings on June 9, 11, 16, and 18, 2020 for an Environmental Impact Statement (EIS), for which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

**BACKGROUND:** The U.S. Army Corps of Engineers, Galveston District (Corps) received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS. The DA permit application was first advertised by a Public Notice issued August 1, 2019.

The proposed Project is located in Port Aransas, Nueces County, Texas (Latitude 27.824019 North; Longitude: 97.054338 West). The proposed Project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized PCCA channel width. The proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

**SCOPING PROCESS/PUBLIC INVOLVEMENT:** A series of virtual scoping meetings will be held online at 4:00 p.m. on June 9, 11, 16, and 18, 2020. The public meeting will be presented online to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project will be made available prior to the virtual meeting at <https://publicinput.com/PCCA-Channel-EIS>.

The Corps invites full public participation to promote open communication on the

potential concerns surrounding the draft EIS. In addition, participation by Federal, State, local agencies and other interested organizations is encouraged. Both oral and written statements will be accepted at the meeting through several channels including a virtual comment portal, telephone, and text message. Materials and visual depictions of the proposed Project and associated impacts will be available.

Each speaker will be given 3 minutes. Please keep your time to 3 minutes or less. If you do not need the full 3 minutes, help us to move the process along by only using the time you need. If you have additional comments that you'd like to submit beyond what you're able to address during your time allotted, please submit them in writing. Written comments are just as valid and count the same as verbal comments presented during the Public Scoping Meeting. Questions for the Port of Corpus Christi related to the proposed Project or the Corps' regulatory and Civil Works process may be submitted to the website referenced above or via email, text or the toll-free number 855-680-0455.

The public meeting will be conducted in English. Those in need of language interpreters should contact the Corps' Public Involvement consultant, Hollaway Environmental + Communications Services, Inc. (713) 868-1043, by Friday, June 5, to make arrangements. Every effort will be made to address requests.

Any comments received at the virtual public meeting will be considered by the Corps to assist in determining whether to issue, modify, condition, or deny a permit for the Project. Comments will be considered in the draft EIS analysis pursuant to NEPA and used to help determine the overall public interest of the proposed Project. All comments must be received or postmarked by Thursday, July 3, 2020, (15 calendar days following the public meeting).

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: SWG201900067@usace.army.mil. Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address SWG201900067@usace.army.mil, or the address provided above.

DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS

## Public Notice

*Spanish*



**US Army Corps  
of Engineers®**

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**Aviso de Reunión  
Estudio Conceptual Publico para el  
Proyecto de Profundizacion del  
Canal de Corpus Christi  
Declaración de Impacto Ambiental  
5-27-2020**

**Distrito de Galveston  
Programa Regulatorio**

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**AVISO DE REUNIÓN DE ESTUDIO CONCEPTUAL PÚBLICO PARA EL PROYECTO  
DE PARA EL PROYECTO DE PROFUNDIZACIÓN DEL CANAL DE CORPUS  
CHRISTI, EN LOS CONDADOS DE NUECES Y ARANSAS, EN TEXAS  
(NÚMERO DE PERMISO DEL DEPARTAMENTO DEL EJÉRCITO- SWG-2019-00067)**

**PROPOSITO DE AVISO PÚBLICO:** Para informarle que el Cuerpo de Ingenieros del Ejército de los EE. UU. del Distrito de Galveston ha programado una serie de reuniones públicas el 9 de junio, 11 de junio, 16 de junio y 18 de junio de 2020 para una Declaración de Impacto Ambiental (EIS), por cuales podría estar interesado. También es para solicitar sus comentarios e información para permitarnos tomar una decisión razonable sobre los factores que afectan el interés público.

**ANTECEDENTES:** El Cuerpo de Ingenieros del Ejército de los EE. UU. (Cuerpo) del Distrito de Galveston recibió una solicitud de permiso, para un permiso del Departamento del Ejército de los EE. UU. (DA) de conformidad con la Sección 10 de la Ley de Ríos y Puertos de 1899, la Sección 404 de la Ley de Agua Limpia y la Sección 103 de la Ley de Protección Marina, Santuarios de Investigación de 1972 de la Autoridad del Puerto de Corpus Christi (PCCA) (SWG-2019-00067) para la profundización del Canal de Corpus Christi. Como parte del proceso de NEPA, la Agencia de Protección Ambiental de los Estados Unidos, la Administración Nacional Oceánica y Atmosférica, el Servicio Nacional de Pesca Marina, el Servicio de Pesca y Vida Silvestre de los Estados Unidos y la Guardia Costera de los Estados Unidos serán agencias cooperantes en la preparación de la Declaración del Impacto Ambiental (EIS). La Comisión de Calidad Ambiental de Texas y el Departamento de Parques y Vida Silvestre de Texas serán agencias participantes en la preparación del EIS. La solicitud de permiso del Departamento del Ejército (DA) fue anunciada por primera vez por un Aviso Público emitido el 1 de agosto de 2019.

El proyecto propuesto se ubica en Port Aransas, Condado de Nueces, Texas (Latitud 27.824019 Norte; Longitud: 97.054338 Oeste). El proyecto propuesto es necesario para acomodar el tránsito de buques tanque de gran tamaño (VLCC) con su carga máxima de crudo con un calado de aproximadamente 70 pies. Las actividades de profundización se completarían dentro de la huella del ancho del canal PCCA autorizado. El proyecto propuesto no incluye ampliar el canal; sin embargo, se espera que un ensanchamiento incidental menor del canal cumpla con los requisitos de pendiente lateral y mantenga la estabilidad del canal.



**ESTUDIO CONCEPTUAL/PARTICIPACIÓN PÚBLICA:** Una serie de reuniones de alcance virtuales se llevarán a cabo en línea los días 9 de junio, 11 de junio, 16 de junio y 18 de junio de 2020 a las 6:30 p.m. La reunión pública se presentará en línea como un evento informal de puertas abiertas para proporcionar información sobre el proyecto propuesto y recibir opiniones y comentarios del público sobre el Borrador de la Declaración de Impacto Ambiental (DEIS). La información de acceso, las instrucciones, la oportunidad de suscribirse a futuras actualizaciones del proyecto y la información adicional sobre este proyecto estarán disponibles antes de la reunión virtual en [www.publicinput.com/PCCA-Channel-EIS](http://www.publicinput.com/PCCA-Channel-EIS).

El Cuerpo de Ingenieros invita a la participación pública plena para promover una comunicación abierta sobre las preocupaciones potenciales con respecto al EIS. Además, se alienta la participación de agencias federales, estatales, locales y otras organizaciones interesadas. En la reunión se aceptarán declaraciones verbales y escritas a través de varios canales, incluyendo un portal virtual de comentarios, teléfono y mensaje de texto. Se realizará una reunión virtual. Estarán disponibles presentaciones del proyecto propuesto y los impactos asociados.

Cada persona recibirá 3 minutos. Por favor, mantenga su tiempo a 3 minutos o menos. Si no necesita los 3 minutos completos, ayúdenos a mover el proceso utilizando sólo el tiempo que necesita. Si tiene comentarios adicionales que te gustaría enviar más allá de lo que puedes abordar durante el tiempo asignado, envíalos por escrito. Los comentarios escritos son igual de válidos y cuentan lo mismo que los comentarios verbales presentados durante la reunión pública de alcance. Las preguntas para el Puerto de Corpus Christi relacionadas con el proyecto propuesto o el proceso reglamentario y proceso de Obras Civiles del Cuerpo de Ingenieros pueden enviarse al sitio web al que se hace referencia anteriormente o por correo electrónico, texto o el número gratuito 855-680-0455.

La audiencia pública se llevará a cabo en inglés. Las personas que necesiten intérpretes de idiomas deben comunicarse con el consultor de Participación Pública del Cuerpo de Ingenieros, Hollaway Environmental + Communications (713) 868-1043, a más tardar el viernes 5 de junio de 2020 para hacer los arreglos. Se hará todo lo posible para atender las solicitudes.

Cualquier comentario recibido en la reunión pública virtual será considerado por el Cuerpo de Ingenieros para ayudar a determinar si se debe emitir, modificar, condicionar o negar un permiso para el proyecto. De conformidad con NEPA, los comentarios se considerarán en el EIS final y se utilizarán para ayudar a determinar el interés público general del proyecto propuesto. Todos los comentarios deben ser recibidos o tener estampado el matasellos postal a más tardar el jueves 3 de julio de 2020 (15 días de calendario después de la reunión pública).

**DIRECCIONES:** Las observaciones escritas sobre el alcance propuesto del EIS deben ser enviadas a Sr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Las personas que deseen proporcionar

comentarios electrónicamente deben ponerse en contacto con el Sr. Hudson por correo electrónico a [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Comentarios enviados por correo electrónico, deberán de estar adjuntos en formatos de .doc, .docx, .pdf or .txt.

**PARA MÁS INFORMACIÓN:** Para obtener información sobre este proyecto, para ser incluido en la lista de correo para futuras actualizaciones y anuncios de reuniones, o para recibir una copia del Borrador de la Declaración de Impacto Ambiental (DEIS) cuando se emita, por favor de contactar a Sr. Jayson Hudson, en el Cuerpo de Ingenieros al (409) 766-3108, o a la dirección de correo electrónico [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), o a la dirección proporcionada anteriormente.

DISTRITO DE GALVESTON  
CUERPO DE INGENIEROS DEL EJÉRCITO DE LOS EE. UU.

## Public Meeting Change Letter



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT  
P. O. BOX 1229  
GALVESTON, TEXAS 77553-1229

June 10, 2020

Regulatory Division

SUBJECT: Virtual Public Scoping for Permit Application: SWG-2019-00067 Port of Corpus Christi Channel Deepening Project Environmental Impact Statement

To Whom It May Concern:

Due to the restrictions on conducting large in-person meetings we scheduled a series of virtual public scoping meetings for proposed Port of Corpus Christi Channel Deepening project Environmental Impact Statement, or EIS. The goal of scoping is to solicit public input on the elements of the environment to be evaluated in the EIS and to help identify and narrow the issues to those that are significant.

We conducted our first meeting on June 9<sup>th</sup> utilizing a new technology and we are disappointed that the technology failed. For those of you who joined us, I apologize for the inconvenience. We have spoken with the Port of Corpus Christi Authority and have agreed that this meeting does not meet the intent of public involvement. We have decided to include an additional date for a public scoping meeting and have developed a new method to conduct our meetings.

The public meetings will be now be presented online through Cisco Webex to provide information about the proposed Project and to receive public input and comment on the EIS. Meeting access information, instructions, and an opportunity to subscribe to project updates, as well as additional information regarding this project are available at <https://publicinput.com/PCCA-Channel-EIS>.

You may also submit written comments by July 3, 2020 directly to my staff by sending by mail to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229 or by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil).

Sincerely,

Joseph McMahan  
Chief, Regulatory Division  
Galveston District

## Corpus Christi Caller-Times

### *Public Notice*



## Corpus Christi Caller-Times

### *Affidavit*



# Caller Times

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2500 SUMMER ST # 1130

**HOUSTON, TX 77007-3387**

STATE OF WISCONSIN)  
))  
COUNTY OF BROWN)


I, being first duly sworn, upon oath depose and say that I am a legal clerk and employee of the publisher, namely, the Corpus Christi Caller-Times, a daily newspaper published at Corpus Christi in said City and State, generally circulated in Aransas, Bee, Brooks, Duval, Jim Hogg, Jim Wells, Kleberg, Live Oak, Nueces, Refugio, and San Patricio, Counties, and that the publication of which the annexed is a true copy, was inserted in the Corpus Christi Caller-Times on the following dates:

05/29/2020

On this July 10, 2020, I certify that the attached document is a true and exact copy made by the publisher:



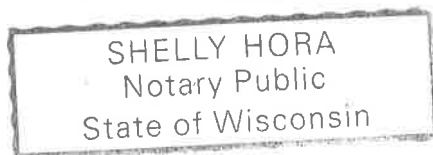
Legal Notice Clerk



Notary Public, State of Wisconsin, County of Brown

8-25-23

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# of Affidavits: 1

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**NOTICE OF PUBLIC  
SCOPING MEETING FOR  
PORT OF CORPUS CHRISTI  
CHANNEL DEEPEN-  
ING PROJECT, NUECEC  
AND ARANSAS COUN-  
TIES, TEXAS (DEPART-  
MENT OF THE ARMY  
PERMIT NUMBER  
SWG-2019-00067)**

**PURPOSE OF PUBLIC**

**NOTICE:** To inform you that the U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of Public Scoping Meetings on June 9, 11, 16, and 18, 2020 for an Environmental Impact Statement (EIS), for which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

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proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

**SCOPING  
PROCESS/PUBLIC IN-**

**INVOLVEMENT:** A series of virtual scoping meetings will be held online at 4:00 p.m. on June 9, 11, 16, and 18, 2020. The public meeting will be presented online to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project will be made available prior to the virtual meeting at <https://publicinput.com/PCCA-Channel-EIS>.

The Corps invites full public participation to promote open communication on the potential concerns surrounding the draft EIS. In addition, participation by Federal, State, local agencies and other interested organizations is encouraged. Both oral and written statements will be accepted at the meeting through several channels including a virtual comment portal, telephone, and text message. Materials and visual depictions of the proposed Project and associated impacts will be available.

Each speaker will be given 3 minutes. Please keep your time to 3 minutes or less. If you do not need the full 3 minutes, help us to move the process along by only using the time you need. If you have additional comments that you'd like to submit beyond what you're able to address during your time allotted, please submit them in writing. Written comments are just as valid and count the same as verbal comments presented during the Public Scoping Meeting. Questions for the Port of Corpus Christi related to the proposed Project or the Corps' regulatory and Civil Works process may be submitted to the website referenced above or via email, text or the toll-free number 855-680-0455.

The public meeting will be conducted in English. Those in need of language interpreters should contact the Corps' Public Involvement consultant, Hollaway Environmental + Communications Services, Inc. (713) 868-1043, by Friday, June 5, to make arrangements. Every effort will be made to address requests.

Any comments received at the virtual public meeting will be considered by the Corps to assist in determining whether to issue, modify, condition, or deny a permit for the Project. Comments will be considered in the draft EIS analysis pursuant to NEPA and used to help determine the overall public interest of the proposed Project. All comments must be received or postmarked by Thursday, July 3, 2020, (15 calendar days following the public meeting).

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory

Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usa ce.army.mil](mailto:SWG201900067@usa ce.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.  
**DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS**

## Aransas Pass Progress

### *Public Notice - English*



# The Classifieds

**Deadline: Monday 11 a.m.**  
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Texas Commission on Environmental Quality



AMENDED NOTICE OF HEARING  
(To change hearing date and location.)  
PORT OF CORPUS CHRISTI AUTHORITY OF NUECES COUNTY  
SOAH Docket No. 582-20-1895  
TCEQ Docket No. 2019-1156-IWD  
Permit No. WQ0005253000

**APPLICATION.**  
Port of Corpus Christi Authority of Nueces County, P.O. Box 1541, Corpus Christi, Texas 78403, which proposes to operate the Harbor Island Property - Former FINA Tank Farm, a seawater desalination facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005253000, to authorize the discharge of water treatment wastes at a daily average flow not to exceed 95,600,000 gallons per day via Outfall 001. The TCEQ received this application on March 7, 2018.

The facility will be located adjacent to State Highway 361 just northeast of the Ferry Landing, in Nueces County, Texas 78336. As a public courtesy, we have provided the following Web page to an online map of the site or the facility's general location. The online map is not part of the application or the notice: <<https://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=db5bac44afbc468bbddd360f8168250f8&marker=-97.0675%2C27.845833&level=12>>. For the exact location, refer to the application.

The effluent will be discharged via pipe directly to Corpus Christi Bay in Segment No. 2481 of the Bays and Estuaries. The designated uses for Segment No. 2481 are primary contact recreation, exceptional aquatic life use, and oyster waters.

In accordance with Title 30 Texas Administrative Code (TAC) Section 307.5 and TCEQ's Procedures to Implement the Texas Surface Water Quality Standards (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Corpus Christi Bay, which has been identified as having exceptional aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

The TCEQ Executive Director has prepared a draft permit which, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at the following locations: Ed & Hazel Richmond Public Library, located at 110 N Lamont Street, Aransas Pass, Texas 78336; City Hall of Port Aransas, located at 710 W Avenue A, Port Aransas, Texas 78373; La Retama Central Library, located at 805 Comanche Street, Corpus Christi, Texas 78401; and Sinton Public Library, located at 100 N Pirate Blvd, Sinton, Texas.

**CONTESTED CASE HEARING.**  
Considering directives to protect public health, the State Office of Administrative Hearings (SOAH) will conduct a preliminary hearing via Zoom videoconference. A Zoom meeting is a secure, free meeting held over the internet that allows video, audio, or audio/video conferencing.

10:00 a.m. – July 9, 2020

To join the Zoom meeting via computer:  
[www.zoom.us/join](http://www.zoom.us/join)  
**Meeting ID:** 950-3842-5697  
**Password:** 4eK#C8

or

To join the Zoom meeting via telephone:  
(346) 248-7799  
**Meeting ID:** 950-3842-5697  
**Password:** 669094

or

To join the Zoom meeting via Smart Device:  
Download the free app  
**Meeting ID:** 950-3842-5697  
**Password:** 4eK#C8

Additional details and methods for joining the Zoom meeting are available online in SOAH Order No. 3 at:  
[https://www.tceq.texas.gov/assets/public/comm\\_exec/agendas/comm/backup/SOAH\\_POCCA/2019-1156-IWD-Order3.pdf](https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/SOAH_POCCA/2019-1156-IWD-Order3.pdf)

Visit the SOAH website for registration at: <http://www.soah.texas.gov/> or call SOAH at 512-475-4993.

The purpose of a preliminary hearing is to establish jurisdiction, name the parties, establish a procedural schedule for the remainder of the proceeding, allow an opportunity for settlement discussions, and to address other matters as determined by the judge. The evidentiary hearing phase of the proceeding, which will occur at a later date, will be similar to a civil trial in state district court. The hearing will address the disputed issues of fact identified in the TCEQ order concerning this application issued on November 21, 2019. In addition to these issues, the judge may consider additional issues if certain factors are met.

The hearing will be conducted in accordance with Chapter 2001, Texas Government Code; Chapter 26, Texas Water Code; and the procedural rules of the TCEQ and SOAH, including 30 TAC Chapter 80 and 1 TAC Chapter 155. The hearing will be held unless all timely hearing requests have been withdrawn or denied.

To request to be a party, you must attend the hearing and show you would be adversely affected by the application in a way not common to members of the general public. Any person may attend the hearing and request to be a party. Only persons named as parties may participate at the hearing.

**In accordance with 1 Tex. Admin. Code § 155.401(a), Notice of Hearing, “Parties that are not represented by an attorney may obtain information regarding contested case hearings on the public website of the State Office of Administrative Hearings at [www.soah.texas.gov](http://www.soah.texas.gov), or in printed format upon request to SOAH.”**

**INFORMATION.**  
If you need more information about the hearing process for this application, please call the Public Education Program, toll free, at 8006874040. General information about the TCEQ can be found at our web site at [www.tceq.texas.gov](http://www.tceq.texas.gov).

Further information may also be obtained from Port of Corpus Christi Authority of Nueces County at the address stated above or by calling Ms. Sarah L. Garza, Director of Environmental Planning, at 361-885-6163.

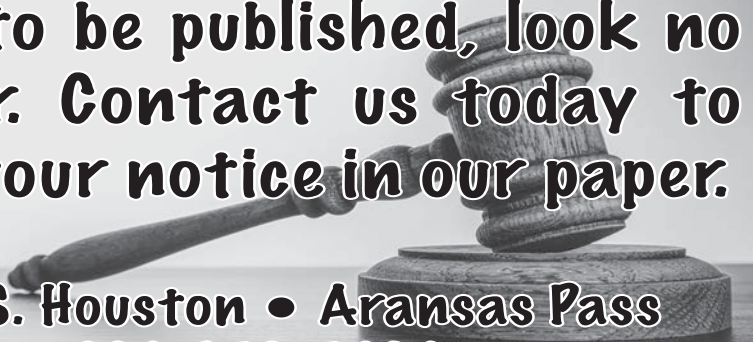
Persons with disabilities who need special accommodations at the hearing should call the SOAH Docketing Department at 512-475-4993, at least one week prior to the hearing.

Issued: May 28, 2020


*Bridget C. Bohac*

Bridget C. Bohac, Chief Clerk  
Texas Commission on Environmental Quality

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**US Army Corps of Engineers®**  
Galveston District  
Regulatory Division

**Special Public Notice**  
**Public Scoping Meeting for the**  
**Port of Corpus Christi Channel Deepening Project**  
**Environmental Impact Statement**  
**5-27-2020**

**NOTICE OF PUBLIC SCOPING MEETING FOR PORT OF CORPUS CHRISTI CHANNEL DEEPENING PROJECT, NUECEC AND ARANSAS COUNTIES, TEXAS (DEPARTMENT OF THE ARMY PERMIT NUMBER SWG-2019-00067)**

**PURPOSE OF PUBLIC NOTICE:** To inform you that the U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of Public Scoping Meetings on June 9, 11, 16, and 18, 2020 for an Environmental Impact Statement (EIS), for which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

**BACKGROUND:** The U.S. Army Corps of Engineers, Galveston District (Corps) received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS. The DA permit application was first advertised by a Public Notice issued August 1, 2019.

The proposed Project is located in Port Aransas, Nueces County, Texas (Latitude 27.824019 North; Longitude: 97.054338 West). The proposed Project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized PCCA channel width. The proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

**SCOPING PROCESS/PUBLIC INVOLVEMENT:** A series of virtual scoping meetings will be held **online at 4:00 p.m. on June 9, 11, 16, and 18, 2020.** The public meeting will be presented online to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project will be made available prior to the virtual meeting at <https://publicinput.com/PCCA-Channel-EIS>. The Corps invites full public participation to promote open communication on the potential concerns surrounding the draft EIS. In addition, participation by Federal, State, local agencies and other interested organizations is encouraged. Both oral and written statements will be accepted at the meeting through several channels including a virtual comment portal, telephone, and text message. Materials and visual depictions of the proposed Project and associated impacts will be available.

Each speaker will be given 3 minutes. Please keep your time to 3 minutes or less. If you do not need the full 3 minutes, help us to move the process along by only using the time you need. If you have additional comments that you'd like to submit beyond what you're able to address during your time allotted, please submit them in writing. Written comments are just as valid and count the same as verbal comments presented during the Public Scoping Meeting. Questions for the Port of Corpus Christi related to the proposed Project or the Corps' regulatory and Civil Works process may be submitted to the website referenced above or via email, text or the toll-free number 855-680-0455.

The public meeting will be conducted in English. Those in need of language interpreters should contact the Corps' Public Involvement consultant, Hollaway Environmental + Communications Services, Inc. (713) 868-1043, by Friday, June 5, to make arrangements. Every effort will be made to address requests.

Any comments received at the virtual public meeting will be considered by the Corps to assist in determining whether to issue, modify, condition, or deny a permit for the Project. Comments will be considered in the draft EIS analysis pursuant to NEPA and used to help determine the overall public interest of the proposed Project. All comments must be received or postmarked by Thursday, July 3, 2020, (15 calendar days following the public meeting).

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.

DISTRICT ENGINEER  
GALVESTON DISTRICT  
CORPS OF ENGINEERS

Aransas Pass Progress

*Public Notice - Spanish*



# The Classifieds

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a part-time position of 20 to 25 hours per week at \$450, depending on workload. Need ot be detail-oriented, possess good customer service skills, some cash & items handling skills. Apply email: billwilliams0029@gmail.com 6/3 6/10 6/17 6/27 7/1 7/8 7/15 7/22

Mrs. Woody Jrs. Full Time Auto Mechanic Position - • Job Category - Automotive, Mechanic, Full - Time position, Salary based on experience and knowledge • Job Description - We are looking for a skilled Auto Mechanic to maintain and repair vehicles. You will be responsible for diagnosing vehicles and making repairs. Must be a good communicator to provide advice to customers as well as maintain a professional appearance within the workplace. Also, must hard worker and motivated. • Candidate Profile - Qualification : High School Diploma Experience: 1-3 yrs. Located at 422 Ave. G. Port Aransas Tx, 78373. 361-749-4290 6/3 6/10

Now Hiring - full time & part time positions available. Must be 18 yrs or older to apply, must be flexible, food handler card & non slip shoes required. Good-N-Crisp Ingleside 2860 Main St. 361-776-3659

### HELP WANTED

6/3 6/10

### GARAGE SALE

Friday and Saturday June 5 & 6 from 8 a.m. - ? located at 1215 W. DeBerry Ave. Aransas Pass 6/3

Located at 2194 W. Highland, Friday from 8-3 and Saturday from 9-2, lots of everything, houshold items, tools, doors, ladders, new wall art, small appliances, washer/dryer, much more. 6/3

### LEGAL NOTICE

6/3

**Application has been made witht the Texas Alcoholic Beverage Commission for a Mixed Beverage Permit by Daniel Neill dba The Fisherman's Daughter to be located at 3714 FM 1069 unit 1, Aransas Pass, San Patricio County, Texas, 78336. Officer of said corporation are Daniel Neil, Owner. 6/3**

**NOTICE OF PUBLIC SALE** household items are being sold to satisfy a landlord's lien. Sale to be held at Kenney mini Storage 1500 Kenney Lane Ingleside, Tx at 0900 on June 21, 2020. Clean up deposit is required. Seller reserves the right to withdraw the property at any time before the sale. Property includes misc household items. Please contact Todd at 361-774-3026. If anyone knows how to contact Scott Owent please contact Todd. 6/3

The Aransas Pass ISD Board of Trustee will be taking applications to fill the place 3 board vacancy. Any interested individual may download an application from our website at www.apisd.org. Completed applications may be submitted via email tot he Board President, Victor Galvan at vgal-

### LEGAL NOTICE

van@apisd.org. The deadline to submit an application is Friday June 12, 2020 at noon. 6/3

**NOTICE OF PUBLIC SALE:** Self-Storage Cube Contents of the following customers containing household and other goods will be sold for cash by CubeSmart 2005 W. Wheeler Ave, Aransas Pass, Tx 78336 to satisfy a lien on June 19th, 2020 at approx.

### LEGAL NOTICE

9:30AM at www.storagetreasures.com: Ashley Deleon, Courtney Wright, Courtney Wright, Janet Bernal, Philip Zaayer II, Pedro Sanchez, Ashley Fuentes, Gabriel Vann,

### LEGAL NOTICE

Enrique Arriola Jr., Tony Denbow, Helena Hoffman, Jennifer Brand, Rebecca Garcia, Oshaina Trejo. 6/3 6/10

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### REQUEST FOR PROPOSALS

### NOTICE OF SALE OF REAL PROPERTY

The City of Aransas Pass is accepting sealed bids for the possible sale of the following real property:

- Railroad Street, Legal Description: Property ID 12856, Aransas Pass, Block 618, Lot 5, 0.0775 acre

Sealed bids are to be received at the Office of the City Secretary on or before June 11, 2020, at 3:00 pm (CST). Proposals shall be submitted in a sealed envelope and marked as follows: City of Aransas Pass, Attn: City Secretary, RFP – PURCHASE OF REAL PROPERTY, 600 W. Cleveland, Aransas Pass, Texas 78336. A proposal package may be obtained from the City Secretary’s Office, located 600 W. Cleveland, Aransas Pass, Texas, (361) 758-5301, or from the City’s Website at [www.aransas-passtx.gov](http://www.aransas-passtx.gov).

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Programa Regulatorio

### Aviso de Reunión

### Estudio Conceptual Publico para el Proyecto de Profundizacion del Canal de Corpus Christi

### Declaración de Impacto Ambiental

5-27-2020

**AVISO DE REUNIÓN DE ESTUDIO CONCEPTUAL PÚBLICO PARA EL PROYECTO DE PARA EL PROYECTO DE PROFUNDIZACIÓN DEL CANAL DE CORPUS CHRISTI, EN LOS CONDADOS DE NUECES Y ARANSAS, EN TEXAS (NÚMERO DE PERMISO DEL DEPARTAMENTO DEL EJÉRCITO- SWG-2019-00067)**

**PROPOSITO DE AVISO PÚBLICO:** Para informarle que el Cuerpo de Ingenieros del Ejército de los EE. UU. del Distrito de Galveston ha programado una serie de reuniones públicas el 9 de junio, 11 de junio, 16 de junio y 18 de junio de 2020 para una Declaración de Impacto Ambiental (EIS), por cuales podría estar interesado. También es para solicitar sus comentarios e información para permitirnoss tomar una decisión razonable sobre los factores que afectan el interés público.

**ANTECEDENTES:** El Cuerpo de Ingenieros del Ejército de los EE. UU. (Cuerpo) del Distrito de Galveston recibió una solicitud de permiso, para un permiso del Departamento del Ejército de los EE. UU. (DA) de conformidad con la Sección 10 de la Ley de Ríos y Puertos de 1899, la Sección 404 de la Ley de Agua Limpia y la Sección 103 de la Ley de Protección Marina, Santuarios de Investigación de 1972 de la Autoridad del Puerto de Corpus Christi (PCCA) (SWG-2019-00067) para la profundización del Canal de Corpus Christi. Como parte del proceso de NEPA, la Agencia de Protección Ambiental de los Estados Unidos, la Administración Nacional Oceánica y Atmosférica, el Servicio Nacional de Pesca Marina, el Servicio de Pesca y Vida Silvestre de los Estados Unidos y la Guardia Costera de los Estados Unidos serán agencias cooperantes en la preparación de la Declaración del Impacto Ambiental (EIS). La Comisión de Calidad Ambiental de Texas y el Departamento de Parques y Vida Silvestre de Texas serán agencias participantes en la preparación del EIS. La solicitud de permiso del Departamento del Ejército (DA) fue anunciada por primera vez por un Aviso Público emitido el 1 de agosto de 2019.

El proyecto propuesto se ubica en Port Aransas, Condado de Nueces, Texas (Latitud 27.824019 Norte; Longitud: 97.054338 Oeste). El proyecto propuesto es necesario para acomodar el tránsito de buques tanque de gran tamaño (VLCC) con su carga máxima de crudo con un calado de aproximadamente 70 pies. Las actividades de profundización se completarían dentro de la huella del ancho del canal PCCA autorizado. El proyecto propuesto no incluye ampliar el canal; sin embargo, se espera que un ensanchamiento incidental menor del canal cumpla con los requisitos de pendiente lateral y mantenga la estabilidad del canal.

**ESTUDIO CONCEPTUAL/PARTICIPACIÓN PÚBLICA:** Una serie de reuniones de alcance virtuales se llevarán a cabo en línea los días 9 de junio, 11 de junio, 16 de junio y 18 de junio de 2020 a las 6:30 p.m. La reunión pública se presentará en línea como un evento informal de puertas abiertas para proporcionar información sobre el proyecto propuesto y recibir opiniones y comentarios del público sobre el Borrador de la Declaración de Impacto Ambiental (DEIS). La información de acceso, las instrucciones, la oportunidad de suscribirse a futuras actualizaciones del proyecto y la información adicional sobre este proyecto estarán disponibles antes de la reunión virtual en [www.publicinput.com/PCCA-Channel-EIS](http://www.publicinput.com/PCCA-Channel-EIS).

El Cuerpo de Ingenieros invita a la participación pública plena para promover una comunicación abierta sobre las preocupaciones potenciales con respecto al EIS. Además, se alienta la participación de agencias federales, estatales, locales y otras organizaciones interesadas. En la reunión se aceptarán declaraciones verbales y escritas a través de varios canales, incluyendo un portal virtual de comentarios, teléfono y mensaje de texto. Se realizará una reunión virtual. Estarán disponibles presentaciones del proyecto propuesto y los impactos asociados.

Cada persona recibirá 3 minutos. Por favor, mantenga su tiempo a 3 minutos o menos. Si no necesita los 3 minutos completos, ayúdenos a mover el proceso utilizando sólo el tiempo que necesita. Si tiene comentarios adicionales que te gustaría enviar más allá de lo que puedes abordar durante el tiempo asignado, envíalos por escrito. Los comentarios escritos son igual de válidos y cuentan lo mismo que los comentarios verbales presentados durante la reunión pública de alcance. Las preguntas para el Puerto de Corpus Christi relacionadas con el proyecto propuesto o el proceso reglamentario y proceso de Obras Civiles del Cuerpo de Ingenieros pueden enviarse al sitio web al que se hace referencia anteriormente o por correo electrónico, texto o el número gratuito 855-680-0455.

La audiencia pública se llevará a cabo en inglés. Las personas que necesiten intérpretes de idiomas deben comunicarse con el consultor de Participación Pública del Cuerpo de Ingenieros, Hollaway Environmental + Communications (713) 868-1043, a más tardar el viernes 5 de junio de 2020 para hacer los arreglos. Se hará todo lo posible para atender las solicitudes.

Cualquier comentario recibido en la reunión pública virtual será considerado por el Cuerpo de Ingenieros para ayudar a determinar si se debe emitir, modificar, condicionar o negar un permiso para el proyecto. De conformidad con NEPA, los comentarios se considerarán en el EIS final y se utilizarán para ayudar a determinar el interés público general del proyecto propuesto. Todos los comentarios deben ser recibidos o tener estampado el matasellos postal a más tardar el jueves 3 de julio de 2020 (15 días de calendario después de la reunión pública).

**DIRECCIONES:** Las observaciones escritas sobre el alcance propuesto del EIS deben ser enviadas a Sr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Las personas que deseen proporcionar comentarios electrónicamente deben ponerse en contacto con el Sr. Hudson por correo electrónico a [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Comentarios enviados por correo electrónico, deberán de estar adjuntos en formatos de .doc, .docx, .pdf or .txt.

**PARA MÁS INFORMACIÓN:** Para obtener información sobre este proyecto, para ser incluido en la lista de correo para futuras actualizaciones y anuncios de reuniones, o para recibir una copia del Borrador de la Declaración de Impacto Ambiental (DEIS) cuando se emita, por favor de contactar a Sr. Jayson Hudson, en el Cuerpo de Ingenieros al (409) 766-3108, o a la dirección de correo electrónico [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), o a la dirección proporcionada anteriormente.

DISTRITO DE GALVESTON  
CUERPO DE INGENIEROS DEL EJÉRCITO DE LOS EE. UU.

## Aransas Pass Progress

### *Affidavit*



Affidavit of Publication

State of Texas &

County of San Patricio

Before me, the undersigned authority, on this day personally appeared

John D. Bowers, who being by me duly sworn, deposes and says that (s)he is  
(name of person representing Newspaper)

the Publisher of the Aransas Pass Progress/Ingleside Index  
(Title of Person Representing Newspaper) (Name of Newspaper)  
a weekly newspaper.

That the Hollaway Environment - Notice of Public Scoping Meeting of Corpus Christi  
Hereto annexed, was published in the regular issue(s) of said newspaper once each week for  
1 successive weeks.

The enclosed notice was published in said newspaper on the following date(s):

June 3, 2020

JDB  
(Newspaper representative's signature)

Subscribed and sworn to before me this the 14<sup>th</sup> day of July, 2020  
to certify which witness my hand and seal of office.

(Seal)



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# **Appendix B**

## Meeting Materials

## Factsheet

# CHANNEL DEEPENING PROJECT

## FACT SHEET

June 2020



*Thank you for your interest in the Port of Corpus Christi Authority Channel Deepening Project. This Fact Sheet is intended to give you information about the U.S. Army Corps of Engineers' Environmental Impact Statement that is being prepared to support the proposed Project. We look forward to receiving your feedback.*

### Project Background

The U.S. Army Corps of Engineers, Galveston District (Corps) received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel. As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the Environmental Impact Statement (EIS). The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS. The DA permit application was first advertised by a Public Notice issued August 1, 2019.

The proposed Project is needed to safely, efficiently, and economically export current and forecasted crude oil inventories through the Corpus Christi Ship Channel via Very Large Crude Carriers, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford Shale and Permian Basin to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to approximately 1.6 million barrels in January 2020 with forecasts increasing to 4.5 million barrels per day by 2030. Current facilities require vessel lightening to fully load Very Large Crude Carriers which increases costs and affects safety.

### Join Us for the Virtual Public Scoping Meetings

The U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of virtual Public Scoping Meetings for the Port of Corpus Christi Authority Channel Deepening Project Environmental Impact Statement (EIS). The public meetings will be presented online at the project website to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project is available at the project website.

#### Join the Virtual Public Scoping Meetings:

**June 9, 11, 16, and 18, 2020**

**Presentations begin at 4:00 p.m.**

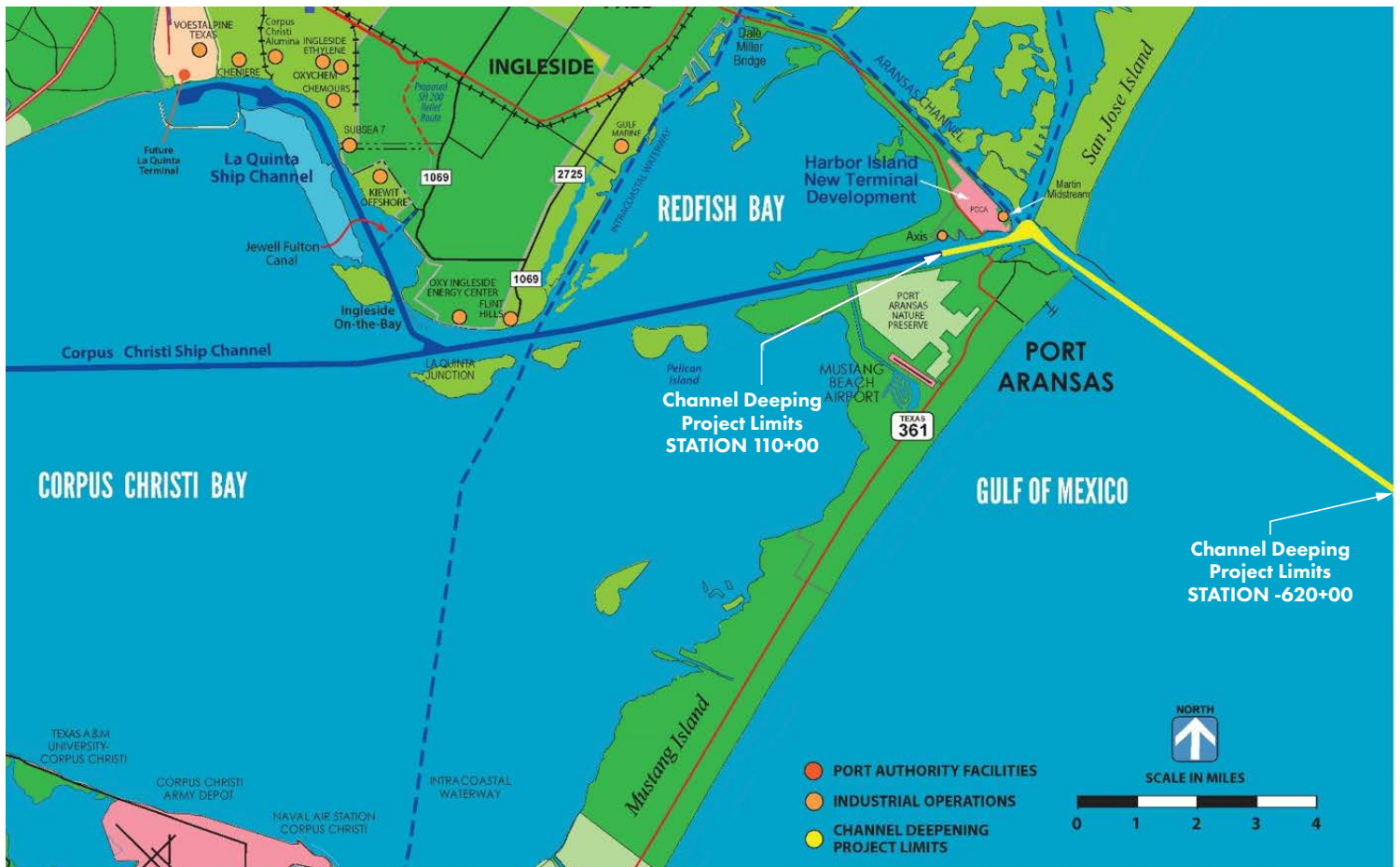
**Participate online by visiting:**

**[www.publicinput.com/PCCA](http://www.publicinput.com/PCCA)**  
**Channel EIS**

**Or participate by phone by calling**  
**855 925 2801 (Meeting code: 8968)**

Information about how to provide comments is included on Page 3.





## About the Proposed Project

The proposed Project is located within the existing channel bottom of the Corpus Christi Ship Channel starting near the southeast side of Harbor Island, traversing east through the Aransas Pass, and extending into the Gulf of Mexico for an approximate distance of 13.8 miles. To address changing market needs, the proposed Project would deepen this portion of the Corpus Christi Ship Channel beyond the current authorized channel depths of -54 feet and -56 feet mean lower low water to maximum depths of -79 feet and -81 feet mean lower low water to accommodate transit of fully loaded Very Large Crude Carriers with vertical distances between the waterline and the bottom of the hull, or drafts, of approximately 70 feet. An estimated 42 million cubic yards of new work dredged material would be generated as a result of the channel deepening.

Additionally, the proposed Project includes:

- Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach -80 mean lower low water;
- Expanding the existing Inner Basin at Harbor Island as necessary to accommodate Very Large Crude Carrier turning, including construction of a flare transition from the Corpus Christi Ship Channel with Aransas to meet the turning basin expansion;
- Potential placement of the new work dredged material into Waters of the United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;
- Potential placement of dredged material on San Jose Island for dune restoration;
- Potential placement of dredged material feeder berms for beach to provide restoration along San Jose and Mustang Islands; and
- Transport of new work dredged material to the Corpus Christi New Work Ocean Dredged Material Disposal Site.

The proposed Project does not include widening the channel, as the deepening activities would be completed within the footprint of the authorized ship channel width. However, some minor incidental widening would be expected to meet the side slope requirements of the deepened channel enhancements.

An evaluation of alternatives to the proposed Project were also considered, including:

- A No Action alternative;
- Alternatives that would avoid, minimize, and compensate for impacts to the environment within the proposed Project footprint;
- Alternatives that would avoid, minimize, and compensate for impacts to the environment outside the footprint;
- Alternatives using alternative practices; and
- Other reasonable alternatives that will be developed through the EIS scoping process.

# The EIS Process



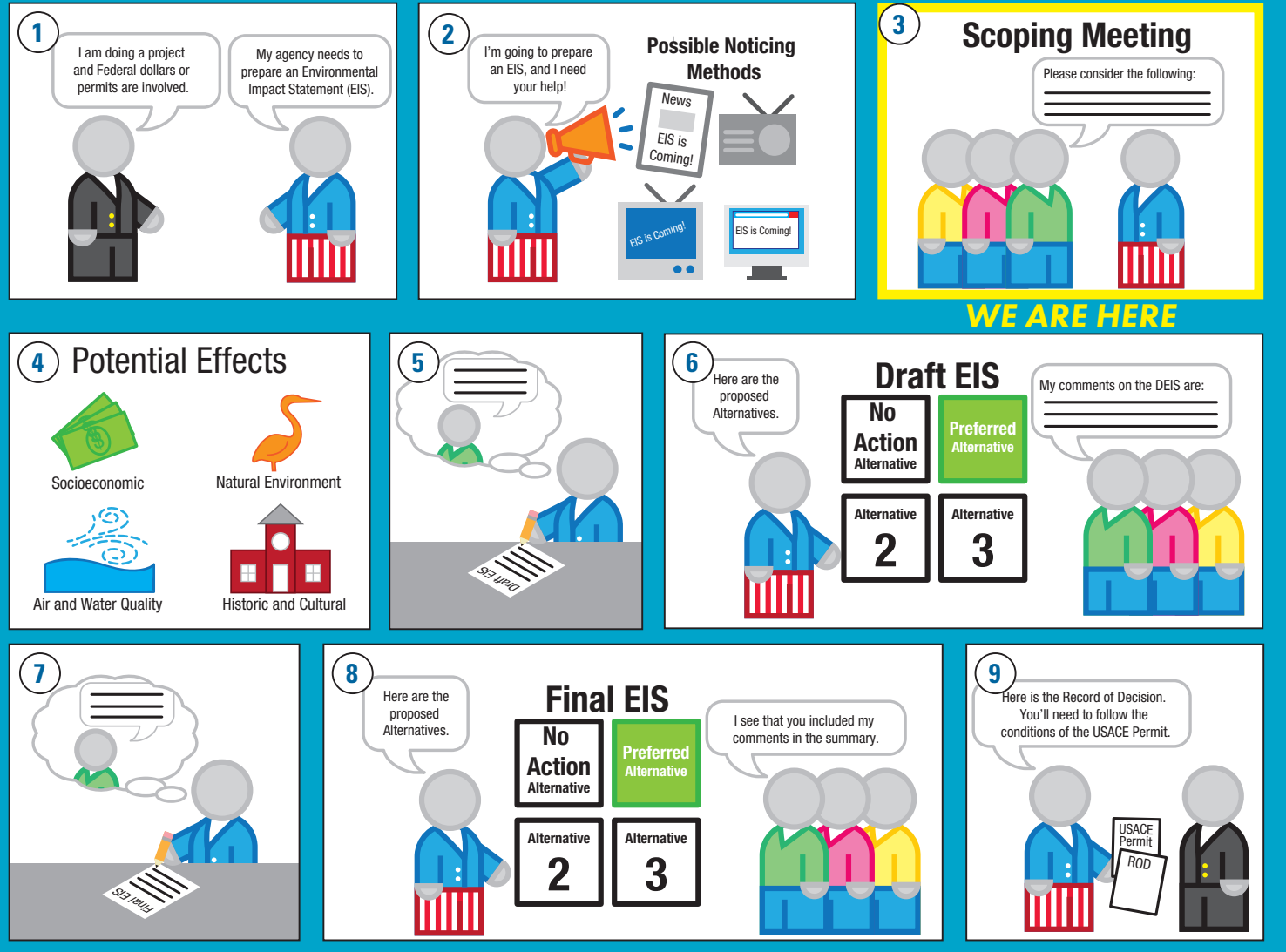
U.S. Army Corps  
of Engineers  
(the Lead Agency)



Port of Corpus  
Christi Authority  
(The Applicant)



**You**  
The Public and  
Local Stakeholders



## Where are we in the EIS process?

An EIS is prepared in a series of steps. The first step, referred to as "Scoping", involves an open process where government and public comments are gathered to define issues that will be analyzed in the EIS. After the Scoping stage, the draft EIS is prepared and is then made available for public and agency review; the project team will then receive and respond to public comments on the draft EIS and prepare the final EIS in consideration of all feedback received during the EIS process. Decisions are not made in an EIS; rather, the EIS analysis serves as one of several factors decisionmakers consider. The decision is announced in the Record of Decision after the final EIS has been published.

We are currently in the Scoping stage of the EIS process. After reviewing comments and constraints identified by the public and coordinating with the appropriate federal, state, regional, and local agencies, our team will then proceed with developing alternatives for future public review in the draft EIS.

## How do I participate in the EIS process?

You may participate in this process by providing comments for the Project team's consideration. Your comments will be addressed in the environmental impacts analysis to help define the scope of the EIS.

The Corps encourages full public participation to promote open communication on the issues surrounding the EIS for the proposed Project. In addition, participation by federal, state, regional, and local agencies and other interested organizations is encouraged.

Comments may be submitted by mail, email, text, or voicemail to:

Mr. Jayson Hudson  
USACE, Galveston District, Regulatory Branch  
P.O. Box 1229  
Galveston, Texas 77553-1229  
**Email:** SWG201900067@usace.army.mil  
**Text:** 855-680-0455  
**Voicemail:** 855-680-0455

**All comments must be received or postmarked by Friday, July 3, 2020.**

## Introduction Video



**Port of Corpus Christi Channel Deepening  
Project EIS Informational Video**



## Frequently Asked Questions Handout

What is being studied in the Environmental Impact Statement? The Port of Corpus Christi Authority is proposing to deepen a portion of the Corpus Christi Ship Channel (CCSC) from the currently authorized depth of –54 to –56 mean lower low water (MLLW) to final constructed depths ranging from –79 to –81 feet MLLW, extend the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach the –81-foot MLLW bathymetric contour; and expand the existing Inner Basin at Harbor Island as necessary to accommodate VLCC turning, which includes construction of a flare transition from the CCSC within Aransas to meet the turning basin expansion. New work dredged material will be placed into waters of the United States for beneficial use sites located in and around Corpus Christi and Redfish Bays, on San Jose Island for dune restoration, in feeder berms for beach restoration along San Jose and Mustang Islands; and transported to the CCSC Improvement Project New Work Ocean Dredged Material Disposal Site (ODMDS).

Why is the proposed action needed? To safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC, a common vessel in the world fleet. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030.

What is the U.S. Army Corps of Engineers' (Corps) relationship with the applicant? The Corps has no relationship with the applicant in regards to this project and is neither for nor against the project. The Corps has a responsibility to review the applicant's proposed project with the same objectivity as it would any permit application and make a permit decision under the Corps statutory authorities.

Is the Project already approved and going to be built? No.

What is the Corps' role in reviewing this project? The applicant has applied for authorization under Section 103 of the Marine Protection, Research, and Sanctuaries Act, Section 404 of the Clean Water Act and Sections 10 and 14 of the Rivers and Harbors Act. It is the Corps responsibility to evaluate their application and ultimately make permit decisions (approval or denial) under the Corps' authorities.

Are any other agency reviews required based on the applicant's submittal of the permit application? The permit application is subject to reviews under the Endangered Species Act, National Historic Preservation Act, Coastal Zone Management Act, Magnuson-Stevens Fisheries Conservation and Management Act, and Section 401 of the Clean Water Act – Water Quality Certification (WQC). The Corps has invited the Environmental Protection Agency, US Fish and Wildlife Service, National Marine Fisheries Service, and the U.S. Coast Guard Texas to be Cooperating Agencies on the development of the EIS. The Texas Historical Commission, Texas Parks and Wildlife, Texas General Land Office, and Texas Commission on Environmental Quality are participating agencies in these reviews.

What is Executive Order 13807 Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure? This Executive Order requires Federal agencies to process environmental reviews and authorization decisions for "major infrastructure projects" as One Federal Decision (OFD). That means that all Federal agencies with environmental review, authorization, or consultation responsibilities for major infrastructure projects to develop a single Environmental Impact Statement (EIS) for such projects, sign a

single Record of Decision (ROD) and issue all necessary permits, if authorized, within 90 days after the ROD.

What is Title 41 of the Fixing America's Surface Transportation Act (FAST41)? FAST41 establishes new procedures that standardize interagency consultation and coordination practices. FAST-41 codifies into law the use of the Permitting Dashboard to track project timelines, including qualifying actions that must be taken by lead and other federal agencies

Is the Corps studying alternatives to the proposed Action? The Corps compiles a range of alternatives to be considered that meet the overall project purpose with consideration of the applicant's objectives. The alternatives compilation will include the no action alternative, any alternatives considered by the applicant, and alternatives suggested during the scoping process.

Has the Corps determined the overall project purpose? Yes, the Corps has concluded that the overall project purpose is; "To safely, efficiently, and economically export current and forecasted crude oil inventories via Very Large Crude Carriers (VLCC), a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford and Permian Basins to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to 1,650,000 barrels in January 2020 with forecasts increasing to 4,500,000 barrels per day by 2030. Current facilities require vessel lightering to fully load a VLCC which increases cost and effects safety."

Will the Corps seriously consider the No Action Alternative and what factors might lead to its selection? The Corps cannot be pre-decisional, therefore, the process will be required to analyze and consider the No Action Alternative. In the context of Corps' evaluation, the No Action Alternative constitutes denial of the permit authorization.

What is NEPA? The National Environmental Policy Act (NEPA) requires federal agencies to engage in a review process to evaluate the potential environmental and public health effects of a proposed action and to involve the public before a decision is made or construction begins.

A NEPA-mandated review must be completed before an agency makes a final decision on a proposed action. NEPA does not require the decision-maker to select the most environmentally preferable alternative, but NEPA does require that decision-makers be informed of the environmental consequences of their decisions. Analysis under NEPA should be informed by NEPA's policy goals which include assuring a safe and healthful environment for future generations.

What is Scoping? Scoping is the process of identifying the elements of the environment to be evaluated in an EIS. Scoping is intended to help identify and narrow the issues to those that are significant. Scoping includes a public comment period so that the public and other agencies can comment on key issues and concerns. Following the comment period, the Corps considers all comments received and determines the scope of review for the environmental analysis.

Is the scoping meeting a public hearing? No. A scoping meeting is not a public hearing. Public hearings have formal procedural and legal steps that differ from scoping meetings. NEPA is intended to identify and evaluate potentially significant environmental impacts and mitigation measures that could avoid, reduce, or minimize adverse environmental impacts. The EIS is an objective, comprehensive document used by agency decision-makers to inform their permitting

and other decisions. Although scoping meetings are not required by NEPA, the Corps decided to offer both agency and public meetings where people could learn more about the proposal and provide written and/or verbal comments to help inform the Draft EISs. People do not have to attend scoping meetings to submit comments – there are a variety of ways to do this and all comments are being treated equally.

What should scoping comments address? Public comments on the scope of the EIS help the Agencies determine what should be addressed in each document. Comments may address:

- A reasonable range of alternatives (identification of an alternative site for a terminal, or identification of an alternative approach to bulk material handling that achieves the proposal's objective).
- Potentially affected resources and extent of analyses (identification of natural, cultural, or community resources that will be potentially affected and the extent of study and analyses that is needed to understand the potential impacts)
- Significant unavoidable adverse impacts
- Measures to avoid, minimize, and mitigate (offset) effects of the proposal

Does it matter what method people use to comment during scoping? No. All comments are valued equally no matter what method is used. It doesn't matter if a comment is submitted online, via U.S. mail, by electronic mail, or recorded verbally. All comments are considered equal by the Corps. However, remember that only those comments submitted within the scoping period dates are considered for each Draft EIS.

What is an Environmental Impact Statement? Federal agencies prepare an EIS if a proposed major federal action is determined to significantly affect the quality of the human environment. An EIS is a detailed written statement that defines the purpose and need for a project; considers a range of reasonable alternatives (including a no action alternative); analyzes and evaluates the potential direct, indirect, and cumulative environmental impacts that may result from the Proposed Action and reasonable alternatives that meet the purpose and need; and identifies measures that may mitigate the effects of a proposed action.

An EIS includes:

- Executive Summary. A summary of the EIS, including the major conclusions, areas of controversy, and the issues to be resolved.
- Table of Contents. Assists the reader in navigating through the EIS.
- Purpose and Need Statement. Explains the reason the agency is proposing the action and what the agency expects to achieve.
- Alternatives. The EIS must consider all reasonable project alternatives that can accomplish the purpose and need of the proposed action. For all project alternatives that were eliminated, the EIS must briefly discuss the reasons why the alternative was eliminated from consideration.
- Affected Environment. Describes the environment of the area to be affected by the alternatives under consideration.

- **Environmental Consequences.** A discussion of the direct and indirect environmental effects and their significance.
- **Mitigation.** Describes measures to be taken to minimize harm from the proposed action and reasonable alternatives.
- **List of Preparers.** A list of the names and qualifications of the persons who were primarily responsible for preparing the EIS.
- **List of Agencies, Organizations, and Persons to whom the EIS was sent.**
- **Index.** The index focuses on areas of reasonable interest to the reader.
- **Appendices (if required).** Appendices provide background materials prepared in connection with the EIS.

What is the difference between a Draft EIS and a Final EIS? A Draft EIS provides the public and agency decision-makers with information on likely significant adverse environmental impacts of a proposal and alternatives and on mitigation measures to reduce impacts. Following publication of the Draft EIS, a comment period of no less than 30 days begins.

A Final EIS includes all comments received on the Draft EIS and responses from the Corps, and may include revisions to the Draft EIS based on comments received and new information learned. Publication of the Final EIS begins the minimum 30-day “wait period,” in which agencies are generally required to wait 30 days before making a final decision on a proposed action.

How will I know when the Draft EIS is issued and where will it be available? A notice of availability and a copy of the Draft EIS will be posted on the Corps’ project web site at <https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>.

What is a Record of Decision (ROD)? The ROD is a concise public document that records a Federal agency’s decision(s) concerning a proposed action for which the agency has prepared an environmental impact statement. The ROD includes: 1) an explanation of the agency’s decision; 2) describes the alternatives the agency considered; and 3) discusses the agency’s plans for mitigation and monitoring, if necessary. The ROD will be provided on the Corps’ project website at <https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Special-Projects-Environmental-Impact-Statements/>

What is the anticipated Schedule for the EIS? <https://publicinput.com/PCCA-Channel-EIS>

What are the opportunities for providing input? Public participation is an important part of developing an EIS under NEPA. Submitting substantive and concise comments during the scoping period is an important role the public plays in the NEPA process, and can influence the scope of analysis for the EIS.

When and how will my comments be considered in preparing the EIS? Formal requests for comment occur during two important phases of an EIS:

- During the Scoping Period, the public is asked to comment on the issues and potential impacts that should be addressed in the EIS. The public is also asked to suggest alternatives to the proposed action that should be considered for evaluation in the EIS.
- Once the Draft EIS is released for public review and comment, the public is given the opportunity to submit comments in written form via the project website and orally at public meetings on the Draft EIS. All comments submitted will be put into the record, analyzed, and considered in determining the scope and potential impacts within the EIS and in making changes to the Draft EIS during the preparation of the Final EIS. The USACE is required to prepare responses to comments submitted on the Draft EIS; comments submitted and response will be included in the Final EIS.

#### How can I make my comments the most effective?

- Be clear, concise, and organized. Decide what you need to say before you begin. Developing an outline, if you have a number of points, is a good idea to help you group your comments in a logical order. Jumping back and forth between several topics reduces the impact of your argument.
- Be specific. Saying that you are against a project will not have as much effect as saying why. It is always a good idea to give as much support as possible to your comments. Include as much factual information as possible. For instance, you can compare how things were, to how they are, to how you believe they will be in the future—and why. Support your statements with explanations, facts, and references, as appropriate.
- Identify possible solutions. Suggestions on reasonable mitigation (conditions to avoid, minimize, or reduce adverse impacts) may help shape a questionable project into a welcome addition to a community. After identifying your concern, whenever possible, suggest possible solutions.

Who makes the final decision whether the proposal is approved or not? No single agency makes a final approval or disapproval for the entire proposal. The proposal will need multiple permit decisions from a variety of federal, state, and local agencies. Permit decisions by federal, state, and local agencies cannot be made until after the EIS process is complete. Each permit has its own regulatory process, timeline and requirements.

Where do I vote on the proposal? The EIS process is not a vote. NEPA is intended to identify and evaluate probable environmental impacts and for the development of mitigation measures that would reduce adverse environmental impacts. An EIS is an impartial, comprehensive document that is used by agency decision-makers for their permitting processes.

Where can more information be found regarding the EIS process? For more detailed information, please see “[A Citizen’s Guide to NEPA](#)” published by the White House Council on Environmental Quality.



# **Appendix C**

## Project Website


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## Port of Corpus Christi Channel Deepening EIS Project

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The Corps invites full public participation to promote open communication on the potential concerns surrounding the draft EIS.

### Update Regarding the June Scoping Meetings

We conducted our first meeting on June 9th utilizing a new technology and we are disappointed that the technology failed. For those of you who joined us, we apologize for the inconvenience. We have spoken with the Port of Corpus Christi Authority and have agreed that this meeting does not meet the intent of public involvement. We have decided to include an additional date for a public scoping meeting and have developed a new method to conduct our meetings.

The public meetings will now be presented online through Cisco Webex to provide information about the proposed Project and to receive public input and comment on the EIS. Information regarding attending the remaining virtual scoping meetings can be found below:

[Click here to read a letter from the US Army Corps of Engineers.](#)

### Thank you for joining us for the June 2020 Virtual Scoping Meetings

**You may still provide your comments through July 3, 2020.**

Get involved by submitting written comments online, emailing **PCCA-channel-EIS@publicinput.com**, texting **855-680-0455** to leave a text message, or calling **855-680-0455** to leave a voice message.

Written comments regarding the proposed EIS scope should be addressed to **Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229**. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: **SWG201900067@usace.army.mil**. Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

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### Special Public Notice Public Scoping Meeting for the Port of Corpus Christi Channel Deepening Project

**NOTICE OF PUBLIC SCOPING MEETING FOR PORT OF CORPUS CHRISTI CHANNEL DEEPENING PROJECT, NUECEC AND ARANSAS COUNTIES, TEXAS  
(DEPARTMENT OF THE ARMY PERMIT NUMBER SWG-2019-00067)**

**PURPOSE OF PUBLIC NOTICE:** To inform you that the U.S. Army Corps of Engineers, Galveston District (Corps) has scheduled a series of Public Scoping Meetings on June 9, 11, 16, and 18, 2020 for an Environmental Impact Statement (EIS), for which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

#### JUN 11 Port of Corpus Christi Channel Deepening Project 2 of 5 (6/11/2020)

Thu, Jun 11 4:00 pm

Participate by phone: **855-680-0455**

Meeting code: 8968

Text **X441** to **855-680-0455**

Email **X441@PublicInput.com**

#### JUN 16 Port of Corpus Christi Channel Deepening Project 3 of 4 (6/16/2020)

Tue, Jun 16 4:00 pm

Participate by phone: **855-680-0455**

Meeting code: 8968

Text **T355** to **855-680-0455**

Email **T355@PublicInput.com**

Past event

**BACKGROUND:** The U.S. Army Corps of Engineers, Galveston District (Corps) received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act from the Port of Corpus Christi Authority (PCCA) (SWG-2019-00067) for the deepening of the Corpus Christi Ship Channel (CCSC). As part of the NEPA process, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Coast Guard will be cooperating agencies in the preparation of the EIS. The Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department will be participating agencies in the preparation of the EIS. The DA permit application was first advertised by a Public Notice issued August 1, 2019.

The proposed Project is located in Port Aransas, Nueces County, Texas (Latitude 27.824019 North; Longitude: 97.054338 West). The proposed Project is needed to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The deepening activities would be completed within the footprint of the authorized PCCA channel width. The proposed Project does not include widening the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and to maintain the stability of the channel.

**SCOPING PROCESS/PUBLIC INVOLVEMENT:** A series of virtual scoping meetings will be held [online at 4:00 p.m. on June 9, 11, 16, and 18, 2020](#). The public meeting will be presented online to provide information about the proposed Project and to receive public input and comment on the draft EIS. Access information, instructions, an opportunity to subscribe to project updates, and additional information regarding this project will be made available prior to the virtual meeting at <https://publicinput.com/PCCA-Channel-EIS>.

The Corps invites full public participation to promote open communication on the potential concerns surrounding the draft EIS. In addition, participation by Federal, State, local agencies and other interested organizations is encouraged. Both oral and written statements will be accepted at the meeting through several channels including a virtual comment portal, telephone, and text message. Materials and visual depictions of the proposed Project and associated impacts will be available.

Each speaker will be given 3 minutes. Please keep your time to 3 minutes or less. If you do not need the full 3 minutes, help us to move the process along by only using the time you need. If you have additional comments that you'd like to submit beyond what you're able to address during your time allotted, please submit them in writing. Written comments are just as valid and count the same as verbal comments presented during the Public Scoping Meeting. Questions for the Port of Corpus Christi related to the proposed Project or the Corps' regulatory and Civil Works process may be submitted to the website referenced above or via email, text or the toll-free number 855-680-0455.

The public meeting will be conducted in English. Those in need of language interpreters should contact the Corps' Public Involvement consultant, Hollaway Environmental Communications Services, Inc. (713) 868-1043, by Friday, June 5, to make arrangements. Every effort will be made to address requests.

Any comments received at the virtual public meeting will be considered by the Corps to assist in determining whether to issue, modify, condition, or deny a permit for the Project. Comments will be considered in the draft EIS analysis pursuant to NEPA and used to help determine the overall public interest of the proposed Project. All comments must be received or postmarked by Thursday, July 3, 2020, (15 calendar days following the public meeting).

**ADDRESSES:** Written comments regarding the proposed EIS scope should be addressed to Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil). Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

**FOR FURTHER INFORMATION CONTACT:** For information about this project, to be included on the mailing list for future updates and meeting announcements, or to receive a copy of the Draft EIS when it is issued, contact Mr. Jayson Hudson, at the Corps at (409) 766-3108, the email address [SWG201900067@usace.army.mil](mailto:SWG201900067@usace.army.mil), or the address provided above.

Continue

Your meeting question or comment

Your name (optional)

Gregory Sevcik

Comment

☒ Moderator can make my comment public

JUN

Past event

## 18 Port of Corpus Christi Channel Deepening Project 4 of 4 (6/18/2020)

Thu, Jun 18 4:00 pm

Text J556 to 855-680-0455

Email [J556@PublicInput.com](mailto:J556@PublicInput.com)

Your meeting question or comment

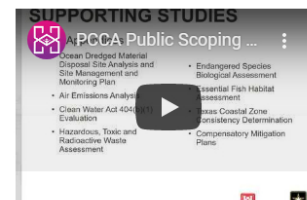
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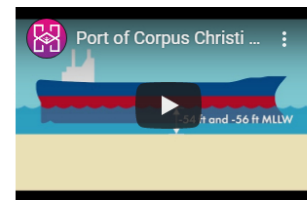
### PCCA Public Scoping Meeting Presentation



### PCCA Channel Deepening



### PCCA Channel Deepening Project EIS Video

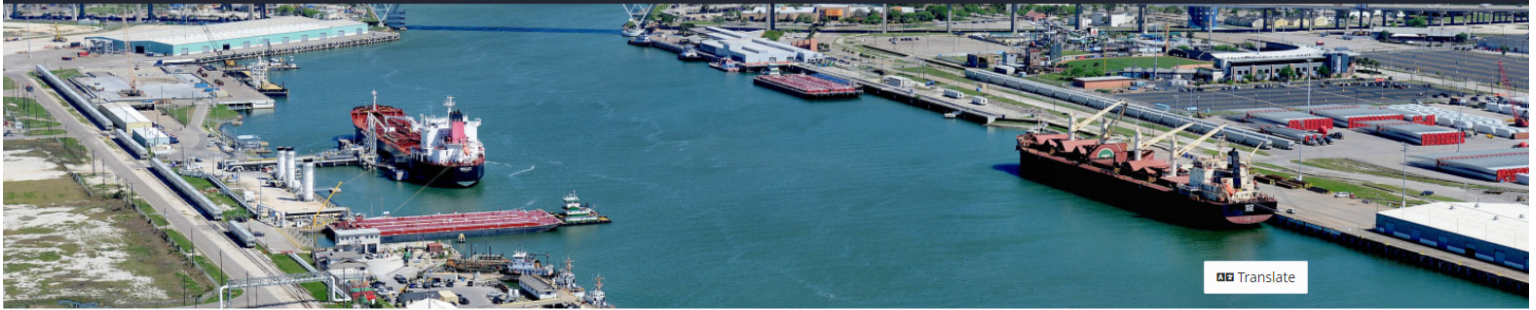


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## Port of Corpus Christi Channel Deepening EIS Project

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#### About the Proposed Project Page

The proposed Project is located within the existing channel bottom of the Corpus Christi Ship Channel starting near the southeast side of Harbor Island, traversing east through the Aransas Pass, and extending into the Gulf of Mexico for an approximate distance of 13.8 miles. To address changing market needs, the proposed Project would deepen this portion of the Corpus Christi Ship Channel beyond the current authorized channel depths of -54 feet and -56 feet mean lower low water to maximum depths of -79 feet and -81 feet mean lower low water to accommodate transit of fully loaded Very Large Crude Carriers with vertical distances between the waterline and the bottom of the hull, or drafts, of approximately 70 feet. An estimated 42 million cubic yards of new work dredged material would be generated as a result of the channel deepening.

Additionally, the proposed Project includes:

- Extending the existing terminus of the authorized channel an additional 29,000 feet into the Gulf of Mexico to reach -80 mean lower low water;
- Expanding the existing Inner Basin at Harbor Island as necessary to accommodate Very Large

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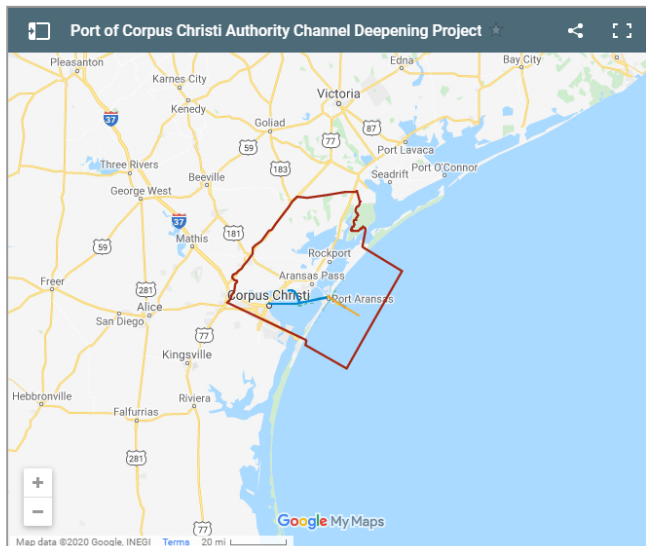
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Crude Carrier turning, including construction of a flare transition from the Corpus Christi Ship Channel with Aransas to meet the turning basin expansion;

- Potential placement of the new work dredged material into Waters of the United States for beneficial use sites located in and around Corpus Christi and Redfish Bays;
- Potential placement of dredged material on San Jose Island for dune restoration;
- Potential placement of dredged material feeder berms for beach to provide restoration along San Jose and Mustang Islands; and
- Transport of new work dredged material to the New Work Ocean Dredged Material Disposal Site.



The proposed Project does not include widening the channel, as the deepening activities would be completed within the footprint of the authorized ship channel width. However, some minor incidental widening would be expected to meet the side slope requirements of the deepened channel.

An evaluation of alternatives to the proposed Project were also considered, including:

- A No Action alternative;
- Alternatives that would avoid, minimize, and compensate for impacts to the environment within the proposed Project footprint;
- Alternatives that would avoid, minimize, and compensate for impacts to the environment outside the footprint;
- Alternatives using alternative practices; and
- Other reasonable alternatives that will be developed through the EIS scoping process

## Documents

- PCCA EIS Frequently Asked Questions.pdf
- PCCA Channel Deepening Project EIS Fact Sheet June 2020.pdf
- PCCA Public meeting change letter.pdf

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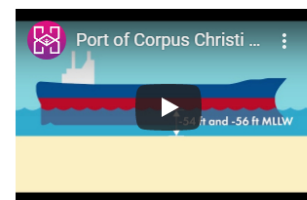
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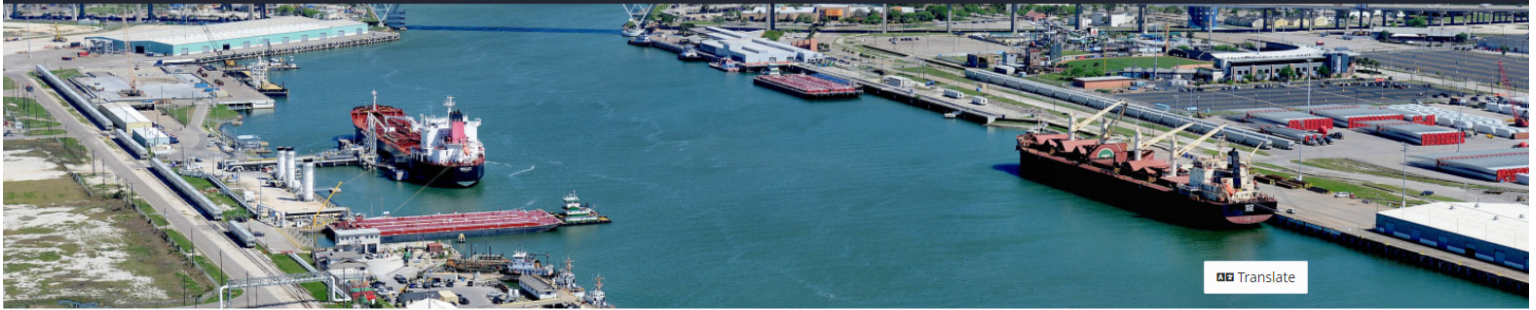
## PCCA Channel Deepening Project EIS Video



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#### Where are we in the EIS process?

An EIS is prepared in a series of steps. The first step, referred to as "Scoping", involves an open process where government and public comments are gathered to define issues that will be analyzed in the EIS. After the Scoping stage, the draft EIS is prepared and is then made available for public and agency review; the project team will then receive and respond to public comments on the draft EIS and prepare the final EIS in consideration of all feedback received during the EIS process. Decisions are not made in an EIS; rather, the EIS analysis serves as one of several factors decisionmakers consider. The decision is announced in the Record of Decision after the final EIS has been published.

We are currently in the Scoping stage of the EIS process. After reviewing comments and constraints identified by the public and coordinating with the appropriate federal, state, regional, and local agencies, our team will then proceed with developing alternatives for future public review in the draft EIS.

#### The EIS Process



#### JUN 11 Port of Corpus Christi Channel Deepening Project 2 of 5 (6/11/2020)

Thu, Jun 11 4:00 pm

Participate by phone: **855-680-0455**

Meeting code: 8968

Text **X441** to **855-680-0455**

Email **X441@PublicInput.com**

#### JUN 16 Port of Corpus Christi Channel Deepening Project 3 of 4 (6/16/2020)

Tue, Jun 16 4:00 pm

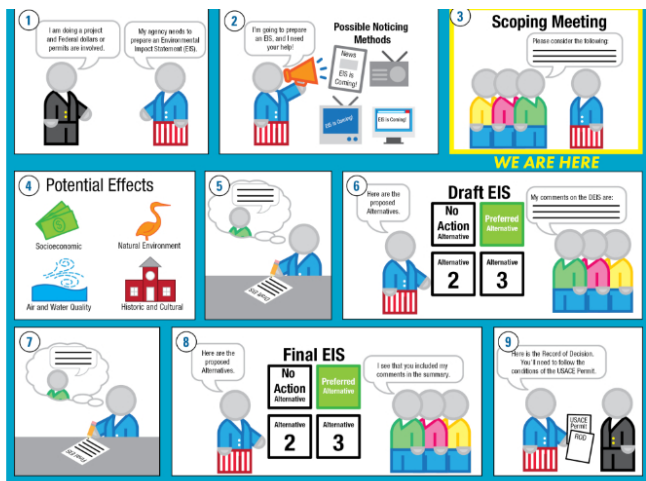
Participate by phone: **855-680-0455**

Meeting code: 8968

Text **T355** to **855-680-0455**

Email **T355@PublicInput.com**

**Past event**



Continue

Your meeting question or comment

Your name (optional)

Gregory Sevcik

Comment

☒ Moderator can make my comment public

JUN

Past event

## 18 Port of Corpus Christi Channel Deepening Project 4 of 4 (6/18/2020)

Thu, Jun 18 4:00 pm

Text J556 to 855-680-0455

Email J556@PublicInput.com

Your meeting question or comment

Your name (optional)

Gregory Sevcik

Comment

☒ Moderator can make my comment public

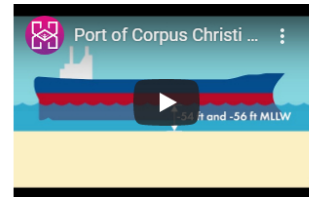
### PCCA Public Scoping Meeting Presentation



### PCCA Channel Deepening



### PCCA Channel Deepening Project EIS Video

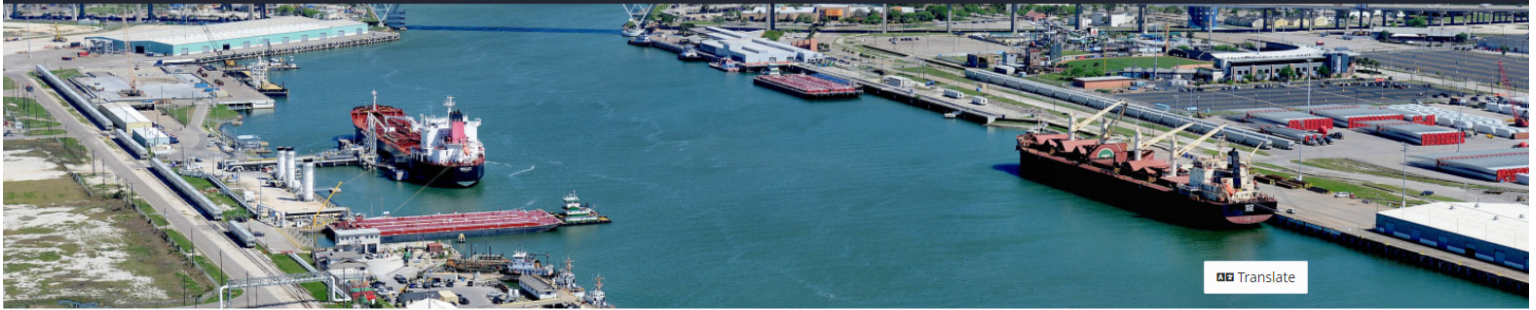


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## Port of Corpus Christi Channel Deepening EIS Project

### Welcome to the Port of Corpus Christi Authority Channel Deepening EIS Project Page!

Thank you for your interest in the Port of Corpus Christi Authority Channel Deepening Project. This project website is intended to give you information about the U.S. Army Corps of Engineers, Galveston District (Corps) Environmental Impact Statement (EIS) that is being prepared to support the proposed Project. We look forward to receiving your feedback.

The proposed Project is needed to safely, efficiently, and economically export current and forecasted crude oil inventories through the Corpus Christi Ship Channel via Very Large Crude Carriers, a common vessel in the world fleet. Crude oil is delivered via pipeline from the Eagle Ford Shale and Permian Basin to multiple locations at the Port of Corpus Christi. Crude Oil inventories exported at the Port of Corpus Christi have increased from 280,000 barrels per day in 2017 to approximately 1.6 million barrels in January 2020 with forecasts increasing to 4.5 million barrels per day by 2030. Current facilities require vessel lightening to fully load Very Large Crude Carriers which increases costs and affects safety.

The Corps invites full public participation to promote open communication on the potential concerns surrounding the draft EIS.

### Update Regarding the June Scoping Meetings

We conducted our first meeting on June 9th utilizing a new technology and we are disappointed that the technology failed. For those of you who joined us, we apologize for the inconvenience. We have spoken with the Port of Corpus Christi Authority and have agreed that this meeting does not meet the intent of public involvement. We have decided to include an additional date for a public scoping meeting and have developed a new method to conduct our meetings.

The public meetings will now be presented online through Cisco Webex to provide information about the proposed Project and to receive public input and comment on the EIS. Information regarding attending the remaining virtual scoping meetings can be found below:

[Click here to read a letter from the US Army Corps of Engineers.](#)

### Thank you for joining us for the June 2020 Virtual Scoping Meetings

**You may still provide your comments through July 3, 2020.**

Get involved by submitting written comments online, emailing **PCCA-channel-EIS@publicinput.com**, texting **855-680-0455** to leave a text message, or calling **855-680-0455** to leave a voice message.

Written comments regarding the proposed EIS scope should be addressed to **Mr. Jayson Hudson, USACE, Galveston District, Regulatory Branch, P.O. Box 1229, Galveston, Texas 77553-1229**. Individuals who would like to electronically provide comments should contact Mr. Hudson by electronic mail at: **SWG201900067@usace.army.mil**. Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.

Home > About the Proposed Project > About the EIS Process > **Get Involved**

#### How do I participate in the EIS process?

You may participate in this process by providing comments for the Project team's consideration. Public involvement is essential in assessing the environmental consequences of the proposed Project and improving the quality of environmental decision making. The Corps is using this meeting to receive the Public's ideas on the potential issues and impacts of the Project on the natural and human environment. These ideas will be addressed in the environmental impacts analysis to help define the scope of the EIS. In addition to these ideas, the Corps specifically seeks the public's input on the problems, opportunities, and potential alternatives that the reservoir expansion improvements may address.

The Corps encourages full public participation to promote open communication on the issues surrounding the EIS for the proposed Project. In addition, participation by federal, state, regional, and local agencies and other interested organizations is encouraged.

#### JUN 11 Port of Corpus Christi Channel Deepening Project 2 of 5 (6/11/2020)

Thu, Jun 11 4:00 pm

Participate by phone: **855-680-0455**

Meeting code: 8968

Text **X441** to **855-680-0455**

Email **X441@PublicInput.com**

#### JUN 16 Port of Corpus Christi Channel Deepening Project 3 of 4 (6/16/2020)

**Past event**

Tue, Jun 16 4:00 pm

Participate by phone: **855-680-0455**

Meeting code: 8968

Text **T355** to **855-680-0455**

Email **T355@PublicInput.com**

## How do I submit comments for the proposed Project?

All comments must be received or postmarked by Friday, July 3, 2020.

Register here to be added to the project mailing list.

First Name\*

Last Name\*

Email\*

Phone

Address

Zip

  
  
☒ Subscribe to updates about this topic  
  

Your meeting question or comment

Your name (optional)

  
  
  
  
☒ Moderator can make my comment public

JUN

Past event

### 18 Port of Corpus Christi Channel Deepening Project 4 of 4 (6/18/2020)

Thu, Jun 18 4:00 pm

Text J556 to 855-680-0455

Email J556@PublicInput.com

Your meeting question or comment

Your name (optional)

  
  
  
  
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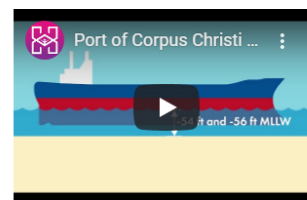
#### PCCA Public Scoping Meeting Presentation



#### PCCA Channel Deepening



#### PCCA Channel Deepening Project EIS Video



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# **Appendix D**

## Meeting Presentations

## Video Links

## PCCA Virtual Public Scoping Meeting Opening Remarks



## PCCA Channel Deepening

### **Port of Corpus Christi Channel Deepening Project**

Presented by  **PORT CORPUS CHRISTI®**

## PCCA Public Scoping Meeting Presentation





# Appendix E

## Comment Database

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
1	1				6/19/2020	Coastal Processes	Concerned that the project is being submitted without looking at the entire project - including the terminal facility, pipeline, and tank farm. If dredging is approved and the terminal is not then there is a "ditch to nowhere".	Email
1	2					Public Involvement	Feel the USACE is allowing the Port to piecemeal the project and that the public meetings are only for show, that the project has already been approved at the top.	Email
1	3					Threatened/Endagered Species	Concerned that the participant list does not include the University of Texas Marine Science Institute, who has the most knowledge about the situation and the environmental damage that will occur.	Email
1	4					Alternatives	Do not support the project and want the terminal to go offshore.	Email
2	1				6/17/2020	Purpose and Need	Request extensions on all applications concerning Harbor Island in the city limits of Port Aransas: SWG-2019-00067, SWG-2019-00245, and SWG-2018-00789.	Email
2	2					All Applicable Resources	So not support the export of oil from Harbor Island due to the environmental sensitivity at the mouth: ship channel, Aransas Channel, Channel, and Lydia Ann Channel. Concerned larval flow from the Gulf of Mexico to Redfish Bay and the health of the sport and commercial fishing industry.	Email
2	3					Tourism/Residential Life	Concerned about Port Aransas economy that is based soley on tourism - fishing, birding, and beach.	Email
2	4					Socioeconomics/Land Use/Recreation/EJ	Concerned the only beneficiaries for the deeper channel are the Port, Lone Star Ports, and Axis Misdstream while the city of Port Aransas receives nothing. Especially since the Port is tax-exempt and pays no property or sales tax to Port Aransas.	Email
2	5					Threatened/Endagered Species	Concerned about what would happen if an oil export facility on Harbor is damaged during a hurricane and the impact to the Redfish Bay estuary.	Email
2	6					HTRW	Concerned about old crude oil contamination that still exists on Harbor Island. in both soil and groundwater.	Email
2	7					Alternatives	Recommend someone dig into the lease agreement with the Carlyle Group and Lone Star Ports.	Email
2	8					Purpose and Need	Believe that the other applications (SWG-2019-00245 and SWG-2018-00789) have to be included, otherwise this application is considered incomplete according to USACE guidelines.	Email
2	9					Navigation/ Transportation	Impacts to traffic and ferry operations need to be looked at - traffic delays due to VLCC operations for turning, maneuvering, and docking.	Email
2	10					Navigation/ Transportation	Impacts to the ferry landings on both sides of the ship channel and possible undermining to the stability of those landings.	Email
2	11					Environmental Concerns	Impacts of oil/chemical spills in and around the Redfish Bay State Scientific area and around the ferry landings.	Email
2	12					Safety and Security	Emergency evacuation in the event of explosions or chemical releases must be addressed.	Email
2	13					Socioeconomics/Land Use/Recreation/EJ	Research needs to be conducted on the Ports overreaching projections for oil export, especially given the high/lows of the Texas oil market.	Email
2	14					Socioeconomics/Land Use/Recreation/EJ	True projections on impacts to the tourist-based economy need to be addressed.	Email
2	15					All Applicable Resources	There is no mention of the desalination plan the Port plans to build, must be addressed.	Email
2	16					Threatened and Endangered Species	Impacts to all threatened and endangered species, as well as their habitats, along with seagrass beds and wetlands, must be factored in.	Email
2	17					Socioeconomics/Land Use/Recreation/EJ	Short and long-term impacts to the health and well being of Port Aransas residents.	Email
3	1				6/16/2020	Purpose and Need Cumulative Impacts	Opposed to the project because it is not a stand along project. A single permit should be required for the entire project: terminal, dredging, and all ancillary impacts to waters of the US. Due to the enormous impacts of the project on the environment, a single EIS should be required to evaluate all direct, indirect, and cumulative impacts.	Email

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
3	2					Marine Resources/EFH	Concerned about the impact of increased turbidity on marine life and the disruption it will casue recreational fishing in the jetties; impacts of offshore channel bottoms and how that will adversely affect benthic species; and indirect impacts of facilitating the construction of a deepwater port and other bay shore developments, which will have much greater impacts.	Email
4	1				6/16/2020	All Applicable Resources	Concerned about the environment if the project is permitted.	Email
4	2					Opposed	Is not in support of the project.	Email
5	1				6/15/2020	Public Involvement	Unhappy with the vitrual scoping meetings: technology failures, comments limited to 3 minutes, no question/answer, people unable to register or get the audio to work. Feel that the USACE should reevaluate these meetings and redo the process with in-person meetings in Port Aransas.	Email
5	2					Public Involvement	The Port is supposed to be acting with transparency, integrity, and accountability (attached a letter from the 26th Legislature).	Email
6	1				6/15/2020	Marine Resources/EFH	Concerned about the location of the project being within a vital connection between the Corpus Christi/Aransas Bay/Gulf of Mexico systems and the marine life and habitats this may impact.	Email
6	2					Navigation/Transportation	CCA Texas recommends that impacts of ship wake erosion on adjacent habitats within the scope of the Project be included in the EIS.	Email
6	3					Marine Resources/EFH	Impacts to migrating fish and larval recruitment from nearshore waters be thoroughly analyzed and studied in the development of an EIS.	Email
6	4					Hydrodynamic Salinity Model Marine Resources/EFH	Concerned about the projected increase in Corpus Christi Bay salinities on oyster reefs.	Email
6	5					All Applicable Resources	Impacts to flora and fauna adjacent to dredge placement areas within the Redfish Bay State Scientific Area must be included in the EIS.	Email
6	6					Purpose and Need	Inclusion of interdependent projects in the development of a singular EIS.	Email
7	1				6/15/2020	Public Involvement	Would like to be added to the mailing list.	Email
8	1				6/15/2020	DMMP	Commenter would like ot know where dirt from the bottom of the channel is to be placed.	Email
9	1				6/12/2020	Opposed	Objects to the proposed project.	Email
9	2					Marine Resources/EFH Wetlands/SAV	Project would be harmful to spawning grounds of marine life in the surrounding estuaries and wetlands.	Email
9	3					Coastal Processes	Concerned about the flooding that would occur during a hurricane.	Email
10	1				6/12/2020	Public Involvement	Expresses concern over the failed scoping meeting, pointing out the Port modified presentation from the first scoping meeting to the second with the removal of the P3s.	Email
11	1				6/11/2020	Public Involvement	Expresses concern over the mode of communication for the scoping meeting.	Email
11	2					Opposed	Opposed to the project.	Email
12	1				6/11/2020	Public Involvement	Expressed concerns regarding the virtual scoping meeting and the link not working and not meeting NEPA requirements.	Email
13	1				6/11/2020	Public Involvement	Expresses concern regarding the technical difficulties during the public meeting, rescheduling without giving a 30 day notice, the time discrepancy, and it failing to meet requirements. Also state the virtual meeting forum does not meet the requirements of the disabled or underprovilged. Feels the meeting shoulds be rescheduled for in person meetings.	Email
13	2					All Applicable Resources Cumulative Impacts	States the project is in danger of violating NEPA Section 101 and 102.	Email
14	1				6/11/2020	Public Involvement	Called Mark Pattilo of the USACE to express concerns that the people of Port Aransas are unable to log-in to the virtual meeting you are running , meeting times have been changed, bad reception, etc. and that a physical meeting should be held.	Email
15	1				6/11/2020	Public Involvement	Expressing concerns over the scoping meetings, time issue and problems and needing to add additional meetings to remedy these issues.	Email
16	1				6/11/2020	Public Involvement	Expressing concerns over the scoping meetings and technical issues experienced. Requesting in person public meetings in Port Aransas. Payment by the applicant for expedited treatment, Covid-19, objection of residents, state, and federal agendies does not remove the USACEs responsibility to include the public in the process.	Email

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
17	1				6/11/2020	Alternatives	Expresses objection for this project an urges it to be taken offshore.	Email
18	1				6/22/2020	Public Involvement	Voice message left expressing concern over the public meeting issues and the meetings needing to be rescheduled for in person meetings.	Voicemail/Text
18	2					Permit Concerns	Believes the port was able to pay the USACE to fast pace the permits and want to see if that was true or not as they have read that in some documents.	Voicemail/Text
19	1				6/11/2020	Public Involvement	Expresses concerns over the public meetings and the fact that Port Aransas has very poor internet service and during peak tourism the internet infrastructure is overloaded and folks unable to get on. These meetings need to be conducted in person.	Email
20	1				6/10/2011	Public Involvement	Requesting in person meeting in Port Aransas so they can attend as a citizen and comment.	Email
21	1				6/10/2011	Public Involvement	Would like to be added to the mailing list.	Email
22	1				6/10/2020	Public Involvement	Expresses concern regarding the technical difficulties during the public meeting and how difficult it was to find instructions for the meeting. Recommends an in person meeting in Port Aransas.	Email
23	1				6/8/2020	Threatened and Endangered Species	Concerned about wakes in the shipping channel including those impacting the Turner birding center where whooping cranes nest and the transit ferry terminals.	Email
23	2					Socioeconomics / Land Use / Recreation / EJ	Economic impacts to Port Aransas and other surrounding communities.	Email
23	3					Wetlands/SAV Migratory Birds/Wildlife	Impacts to seabeds and wildlife in the channel itself.	Email
23	4					DMMP Coastal Processes	Disposal of dredged material. The plan to dispose of dirty material offshore to provide nourishment to the beaches is nonsense.	Email
23	5					Opposed	Opposed to the project.	Email
24	1				6/6/2020	Marine Resources/EFH	Expresses displeasure with the project and the impacts it may have on the marine life.	Email
25	1				6/5/2020	Opposed	Opposed to the project. Concerned that the construction could harm the environment in irreversible ways and that the VLCCs and oil storage could increase the possibility of a crude oil spill that would devastate the environment and tourist industry.	Email
26	1				6/1/2020	Wetlands/SAV Marine Resources/EFH	Concerned about how the ecosystem would change with the project. Specifically the Redfish Bay State Scientific Area where all 5 seagrass species are found, migrating and coastal birds thrive. Afraid the VLCCs will churn up sediments and destroy seagrass. Concerned about impacts to the Port Aransas Nature Preserve.	Email
26	2					Hydrodynamic Salinity Modeling Larval Transport Model	Concerned about how increasing the channel depth would dramatically change the water flow within the entire bay system and affect larval transport and the migration of larval fish and crustaceans.	Email
26	3					Coastal Processes	Concerned about the storm surge risks increasing with the deepening of the channel, as a much greater volume of water will be moving into and out of the bays.	Email
26	4					Alternatives	Placement area locations are in the wrong place, threatening fishing, hunting, birding, boating, tourism and seafood production.	Email
26	5					Purpose and Need	Believe the multiple proposed industrial developments and channel deepening could be taken to an offshore terminal.	Email
27	1				5/31/2020	Public Involvement	Expresses concern that the notices, descriptions, and drafts are not located in easily accessible libraries. Believes the Port is using Covid-19 as a way to get this stuff through without public knowledge or input. Unhappy with the vitrual scoping meetings.	Email
28	1				5/30/2020	Public Involvement	Would like to be added to the mailing list.	Email

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
29	1				5/27/2020	Purpose and Need	This permit is linked to the Harbor Island terminal and pipeline permit and should be included as one large EIS.	Email
29	2					Hydrodynamic Salinity Modeling All Applicable Resources	Bay hydrology will be altered to the detriment of life cycles, habitats and function.	Email
29	3					Threatened and Endangered Species.	Whooping crane critical habitat will be impacted as well as other endangered species	Email
29	4					All Applicable Resources	The term "beneficial use of spoil" is not appropriate as it will damage seagrass, fishery, oysters, and beaches.	Email
29	5					Alternatives	Offshore is a better solution with little damage to the environment.	Email
29	6					Purpose and Need	There is no need for the deeper channel or oil export terminal as the existing inshore development at Ingleside and other offshore projects will take up all of the forecasted oil export capacity over the next 30 years.	Email
29	7					Navigation/Transportation	Bigger ships create bigger displacement impacts in the channel and cause additional damage to shoreline. It also creates a larger volume of water during storm surge that would add to extensive flooding in the region.	Email
29	8					Coastal Processes	Deepening creates vulnerability to Hurricane impacts. This location is ground zero for Cat 4 and larger storms.	Email
29	9					Navigation/Transportation	Concerned about accidents with bigger ships, i.e. oil spill threats to estuaries.	Email
29	10					Socioeconomics/Land Use/Recreation/EJ	Port Aransas is a recreation based economy, not industrial. Fishing, tourism, nature, beach, small town amenities is what drives the economy in Port A. This Permit industrializes and change forever the economic drivers for the befit of a few companies and the Port.	Email
29	11					Permit Concerns	Approval of this Permit will lead to Litigation that will last for years that waste time and energy for all involved.	Email
29	12					Public Involvement	A virtual Public Meeting is no substitute for a in-person public meeting.	Email
30	1				5/27/2020	All Applicable Resources	Concerned about the amount of additional silt that the project will create in the bays and result in negative impacts to seagrass.	Email
30	2					All Applicable Resources	Concerned about the possibility of a catastrophic oil spill.	Email
31	1				5/27/2020	Public Involvement	Expresses concern over the vitrual scoping meetings that were held and does not feel that the USACE is not inviting full public participation. Requests that the scoping meetings be in person.	Email
32	1				5/27/2020	Public Involvement	Asking the USACE when the scoping meetings will be occurring.	Email
33	1				5/23/2020	Marine Resources/EFH	Concerned about the potential impacts on coastal resources within and adjacent to the Aransas Pass Chananel, species including oyster reefs, seagrass, migrating finfish, larval recruitment of shrimp and fish.	Email
33	2					Purpose and Need	This project along with the two facility projects must be considered as on project.	Email
33	3					Public Involvement	Request a public hearing to further address these concerns.	Email
34	1				5/23/2020	Marine Resources/EFH	Concerned about the potential impacts on coastal resources within and adjacent to the Aransas Pass Chananel, species including oyster reefs, seagrass, migrating finfish, larval recruitment of shrimp and fish.	Email
34	2					Purpose and Need	This project along with the two facility projects must be considered as on project.	Email
34	3					Public Involvement	Request a public hearing to further address these concerns.	Email
35	1				5/10/2020	Purpose and Need	Urges the USACE to require the Port application for this project be combined with all proposed projects in the area including the two oil export terminals.	Email
35	2					HTRW	Concerned about contamination on Harbor Island and that it should not be disturbed.	Email
35	3					Public Involvement	Request several public hearings.	Email

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
36	1				5/10/2020	Purpose and Need	Urges the USACE to require the Port application for this project be combined with all proposed projects in the area including the two oil export terminals.	Letter
36	2					HTRW	Concerned about contamination on Harbor Island and that it should not be disturbed.	Letter
36	3					Public Involvement	Request several public hearings.	Letter
37	1				5/8/2020	Public Involvement	The Public Scoping Meeting should be an in person meeting rather than virtual, in order to accommodate those who don't have the ability to participate via the internet, and to ensure that an adequate opportunity for participation in the NEPA process is provided to the public.	Email
37	2					Purpose and Need	<p>It is critical that the DEIS includes purpose and need statements are carefully written in order to clearly meet the requirements of NEPA and the Guidelines. More specifically, the purpose of the applicant's proposed action must not be defined so narrowly as to limit the consideration of alternatives. An honest consideration of alternatives is at the heart of NEPA and the Guidelines. An honest consideration of alternatives requires that the purpose not be narrowly defined.</p> <p>While I agree with the Corps (letter of February 14, 2019) that the actions described in the three separate, but related public notices, constitute a single action, and should all be assessed for purposes of NEPA compliance, I do not agree with the Corp's determination of the appropriate purpose and need statement for the proposed projects. The Corp's purpose and need statement is too narrowly defined to facilitate an alternatives analysis consistent with the intent and spirit of NEPA and the Guidelines. Only a purpose and need statement that allows for consideration of both inshore and offshore oil port alternatives, complies with the intent of NEPA and the Guidelines, in this case, in my opinion.</p>	Email
37	3					All Applicable Resources	EIS must fully address the potential effects of dredged material discharges on Gulf beaches and recreational waters, dunes, seagrasses in estuaries, wetlands, and receiving waters: containment effects.	Email
37	4					All Applicable Resources	EIS must fully address the potential changes in the physical, chemical, biological, and ecological connectivity between the Gulf of Mexico and the entire Corpus Christi Bay/Redfish Bay/Aransas Bay estuary, due to proposed dredging. This includes changes in hydrodynamics, salinity, fisheries recruitment, and storm surge risk.	Email
37	5					All Applicable Resources	The actions proposed under SWG-2019-00067, SWG-2018-00789, and SWG-2019-00245, will have very significant direct, indirect, and cumulative impacts on the visual quality, noise, public safety, human health, and socioeconomics of the small Port Aransas, Texas community. The DEIS should thoroughly assess these potential impacts, as well as impacts to seagrasses, wetlands, estuaries, water quality, beaches, and nearshore habitats.	Email

Port of Corpus Christ Channel Deepening Project  
Public Scoping Comment Database

Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
37	6					Purpose and Need	<p>The purpose and need statement is too specific and does not describe the reason why the channel must accommodate fully laden VLCCs that draft 70 feet (from the original PN). It does not allow for the evaluation of a deeper port alternative.</p> <p>In a Corp letter to the applicant (Feb 14, 2019) that describes the applicant's stated purpose, it is not clear which two purpose statements represents the applicant's proposed purpose of the proposed project. In addition, both statements are too narrowly defined to allow for consideration of other alternatives that could facilitate the needed movement of U.S. Produced crude oil, such as an offshore port alternative.</p> <p>In addition, the Corps stated in their Feb 14, 2019 letter what they determined that the correct purpose and need is, however this purpose and need statement addresses the “piece-meal” approach taken by the applicants, I believe it too is too narrowly defined to allow for consideration of all relevant alternatives. In particular, the Corp's purpose and need statement is written narrowly in a way that excludes consideration of an offshore deepwater oil port alternative.</p> <p>The EIS should describe why the channel must accommodate fully laden VLCCs that draft approximately 70 feet. More importantly, the DEIS should frame the purpose and need more generally based on such a description, to consider whether the ultimate purpose and need could be met with other alternatives, such as an offshore, deepwater port.</p>	Email
37	7					Purpose and Need	Recommend the DEIS address the channel deepening and two terminal projects, as a single project.	Email
37	8					ODMDS HTRW Marine Resources/EFH	Need to determine whether disposal of dredged material at the ODMDS may impact benthic communities, including information regarding potential physical impacts and dredged material testing data for contaminants and contaminant effects. The DEIS should provide such assessment information, including detailed dredged material testing data.	Email
37	9					ODMDS HTRW Water and Sediment Quality	The PN fails to provide information needed to determine whether disposal of dredged material at the ODMDS in the Gulf of Mexico may impact beach sediment quality (grain size) and water quality (water clarity, color) on, and adjacent to, Mustang Island. The PN fails to provide information needed to determine whether disposal of dredged material in the nearshore Gulf of Mexico, just offshore of the beaches of Mustang Island, as “berms”, may impact beach sediment quality and water quality there. The DEIS should provide such assessment information, including dredged material testing data (grain size).	Email
37	10					Water and Sediment Quality	The PN fails to include any data regarding dredged material quality or compatibility with existing beach sand. Deposition of dredged material that is incompatible with the existing beach sand could negatively affect use of the beach. To properly assess the potential impacts of the proposed project on these beaches, information on the quality of the dredged material proposed to be disposed of here (as well as information on the quality of existing beach sand) must be provided in the DEIS.	Email
37	11					Alternatives	Beneficial Use Site SJI - In addition to placement of (hopefully) beach quality sand to restore dunes here, recommend sand fencing and vegetative plantings using appropriate native dune plant species. The DEIS should specify the quality (grain size) of sand proposed to restore dunes here. The DEIS should include a dune restoration alternative that includes appropriate vegetative plantings and sand fencing.	Email



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37	12					HTRW Alternatives	<p>Suitability of dredged material for disposal in aquatic environment: Containment</p> <ul style="list-style-type: none"><li>• Dredged material from the vicinity of Harbor Island my not be suitable for proposed discharge, given that Harbor Island has been clearly documented as being contaminated with petroleum hydrocarbons. The DEIS should provide such assessment information, including detailed dredged material testing data contaminants, especially PAHs). The proposed project almost certainly requires additional dredged material testing as per the appropriate testing manual, and the results (including actual data) should be provided with the DEIS for review and comment by the public.</li><li>• The PN references dredged material testing data that is 16 years old. Dredged material testing data that is more than 5 years old is unacceptable for use in making the decision whether dredged material disposal options proposed are acceptable, or not. In addition, if the area has experienced any oil or other chemical spills in the past 5 years, dredged material testing must have taken place more recently than the spill in order to be representative. The DEIS should include an assessment of the quality of proposed dredged material, as well as the dredged material testing data itself (in an appendix).</li><li>• It is not clear whether the dredged material that was tested are representative of sediment proposed to be dredged adjacent to Harbor Island.</li><li>• The DEIS should include recent dredged material testing data for areas adjacent to Harbor Island, and specifically for areas adjacent to the portion that is known to be contaminated (East of the ferry dock). The PN appears to propose unconfined disposal onto the degrading shoreline of Harbor Island, west of the ferry dock. This would appear to constitute open water unconfined disposal, and the Inland Testing Manual protocols would appear to apply.</li><li>• Recommend dredged material testing data that is less than 5 years old be provided for review.</li></ul>	Email
37	12					DMMP Alternatives	<p>What is the proposed source of the dredged material proposed to be placed in PA4? If it will come from near Harbor Island, this dredged material must all be properly tested for the relevant contaminants of concern that are known to be problems on Harbor Island. The applicant must be required to state where the dredged material will be from, they must be required to provide recent testing data for the appropriate contaminants of concern, and they must demonstrate that water quality criteria will be met at the effluent discharge.</p>	Email

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37	13					Wetlands/SAV	<p>Seageass Impacts:</p> <ul style="list-style-type: none"><li>• The DEIS must address impacts to seagrass from dredged material disposal, directly and indirectly. Including the considerable risk of indirect impacts due to increased light attenuation due to turbidity in the water following dredged material disposal.</li><li>• The applicant significantly underestimated direct, and especially, indirect impacts, to aquatic habitats from dredged material placement. The DEIS must assess and disclose estimates of impacts of dredging and dredged material disposal on seagrasses. Both direct and indirect impacts must be assessed and disclosed. Maps should be recent, and they should be recently ground-truthed.</li><li>• Placement Area Site M4 appears to consist almost entirely of seagrass, most of which will be burried by dredged material. Placement Area Site SS1 appears to directly impact a high number of seagrass, but no details are provided. The DEIS must assess potential impacts to seagrass accurately with the appropriate precision.</li><li>• Must address indirect impacts of dredged material disposal on seagrass including burial and the effects of increased light attenuation (e.g. turbidity).</li><li>• The DEIS should include an alternative based on no dredging or dredged material disposal within 1 km of a seagrass bed, and that dredging and disposal be limited to the period between November 1 and February 28.</li><li>• Because of the sensitivity of seagrasses to burial by dredged material, and to increased light attenuation due to increased TSS, I recommend that all dredged material disposal areas proposed be fully confined.</li><li>• The risk of dredged material placed in unconfined areas being transported away from the disposal area and possibly to nearby seagrass should be evaluated.</li></ul>	Email
37	13					DMMP Alternatives	In addition the DEIS should identify all dredged material effluent discharge points from all disposal facilities, as well as estimates of flow rates and total suspended solids concentrations (or alternately, turbidity or light attenuation). To properly assess the likely impacts of this proposed project on seagrasses in Redfish Bay, the seagrass model (Dunton et al. 2003), should be run for all seagrasses within 1 km of the proposed dredging and discharge locations.	Email
37	14					Threatened and Endangered Species	Due to the projects impacts to seagrass, juvenile green sea turtles in the Port Aransas/Redfish Bay area may impacted. The DEIS needs to include data on sea turtle use of seagrass beds that would be impacted by the applicant's proposed dredged material disposal, including indirect impacts due to increased light attenuation.	Email
37	15					Alternatives All Applicable Resources	The DEIS should disclose estimates of the environmental benefits of "Beneficial Use". The DEIS should include assessments of potential negative impacts of dredged material disposal on Beneficial Use islands and on upland confined disposal sites.	Email
37	16					All Applicable Resources	The DEIS must clearly disclose the likely impacts of proposed dredged material disposal on all aquatic habitats, including emergent wetlands, tidal flats, and shallow open water habitat.	Email

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37	17					DMMP Water and Sediment Quality	Dredged Material Compatibility With Existing Sediments/Soils - Data on the grain size distribution of dredged material to be placed at each site, as well as that of the native surficial sediment, should be provided for review in the DEIS. If these are different, the effects of introducing sediment with a different grain size distribution than the native sediment, should be described, and this information should be provided for review in the DEIS.	Email
37	18					Alternatives	Benefits of Beneficial Use - To facilitate assessments of the potential impacts and benefits of the proposed dredged material disposal at these sites, proposed disposal of dredged material here must be much clearer, and the types, and areas of habitats the dredged material is proposed to be disposed within, must be provided. The applicant's specific proposed actions on the sites needs to be clearly disclosed as well. In particular, the DEIS needs to disclose whether containment of dredged material is proposed, where it is proposed, what it is proposed to consist of, etc.	Email
37	19					Alternatives	Beneficial Use Site M10: It is unclear what types of extuarine aquatic habitat the applicant is proposing to create. Supporting information on compaction, dewatering, subsidence, and relative sea level rise is also required. Information regarding specific habitat type targets and corresponding dredged material elevations need to be disclosed. It is important to disclose the intended habitat targets in the DEIS, so that reviewers can evaluate whether they are proposing to use the correct type of sediment for the habitat goal they state.	Email
37	20					Alternatives	Why is disposal site PA9-S not proposed as beneficial use? What does “dredged material unsuitable for BU” mean? Is the applicant proposing to place contaminated dredged material here? What is the acreage of this proposed destruction of open water habitat, and potentially, seagrass?	Email
37	21					Alternatives	Beneficial Use Site M10: What types of estuarine aquatic habitat is the applicant proposing to create here, and how much of each? Supporting information on compaction, dewatering, subsidence, and relative sea level rise is also required for public review and comment. Finally, the PN should state the habitat goal so reviewers can evaluate whether the specific sediment type they have proposed to place here, is consistent with their stated habitat goal/target.	Email
37	22					Alternatives	Proposed Placement Site M4 will completely destroy a large area of seagrasses by burial with dredged material. In addition, it is unclear whether the applicant is proposing Placement Site M4 as a Beneficial Use site, or an Upland Disposal Site. It is not acceptable to apply a thin layer of dredged material onto the soil surface of a seagrass bed.	Email
37	23					Alternatives	It is unclear whether Placement Site SS1 is a Beneficial Use site, or an Upland Disposal Site. Sheet 15 contains conflicting and confusing information.	Email
37	24					Cumulative Impacts	Cumulative Impacts of Dredged Material Disposal - A complete assessment of the impacts of the proposed dredged material disposal would include an assessment of cumulative impacts of dredged material disposal on these habitats/ecosystems, which is not included in the PN.	Email
37	25					Mitigation	Compensatory Mitigation for Impacts to Aquatic Habitats From Dredged Material Disposal has not been proposed. It is not clear whether the proposed BU activities would fully compensate in-kind for app project impacts. A functional assessment of the impacts of all dredged material disposal, including proposed benefits at BU sites, is required to properly assess the impacts of the proposed project. Currently, it does not appear that proposed BU activities correctly compensate for the proposed project's impacts to aquatic habitats. The DEIS must disclose all this in detail, for review and comment by the public.	Email

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37	26					Hydrodynamic Salinity Modeling All Applicable Resources	Impacts on Connectivity Between the Estuarine and Nearshore Gulf of Mexico Ecosystems - The PN does not acknowledge likely impacts of the proposed project's dredging, to the hydrodynamics, salinity, water quality, and biology/ecology of Corpus Christi Bay, Redfish Bay, and Aransas Bay estuaries, and possibly even Upper Laguna Madre, Nueces Bay, and Copano Bays. The EIS should fully disclose the magnitude of the proposed changes to the pass, and assess all likely impacts of such changes.	Email
37	27					Hydrodynamic Salinity Modeling All Applicable Resources	The proposed dredging will dramatically increase the connectivity of Redfish Bay and Corpus Christi Bay, to the nearshore Gulf of Mexico and have to be acknowledged. The project would have dramatic changes in hydrodynamics of the connection of the coastal bend bays ecosystem and the Gulf which will likely cause changes in the salinity regimes of the bay system and changes to the chemistry, biology, and ecology which need to be addressed in the EIS.	Email
37	28					Coastal Processes All Applicable Resources	The proposed channel deepening will almost certainly cause changes in storm surges. A formal assessment of effects on storm surge needs to be done and the risks of increased storm surge to the ecology of these estuaries.	Email
37	29					All Applicable Resources	The risk of oil spills will increase dramatically as a result of the proposed project. This constitutes an indirect impact of the proposed channel deepening. A complete assessment of the impacts of the proposed project needs to be conducted, an assessment of the relative risk of oils spills without, vs with the proposed project, is required. Oil spills may impact seagrasses, wetlands, tidal flats, shallow water bottom habitat, benthic communities, fish, shellfish, coastal birds, sea turtles, and bottlenose dolphins. Any increase in oil spill frequency or magnitude would increase the risks to these coastal habitats and organisms accordingly.	Email
37	30					Air Quality	The DEIS must disclose the increase in air emissions due to the proposed project, and assess the impacts to air quality.	Email
37	31					Noise	The DEIS must disclose the impacts of the proposed project on noise in the surrounding community, including direct and indirect impacts. Noise from operation of the port facilities, including ships, should be considered.	Email
37	32					Aesthetics	The DEIS must disclose the likely changes in the visual quality in the vicinity of Harbor Island, which will result partly due to the proposed project.	Email
37	33					Socioeconomics/Land Use/Recreation/EJ	The DEIS must disclose the likely socioeconomic effects of the proposed project. Specifically, it will be important to assess and disclose the likely effects of the proposed project on the Port Aransas economy, particularly the tourist economy. Potential changes in property values, social cohesion, and other appropriate socioeconomic indicators should be assessed and disclosed.	Email
37	34					Not Applicable	In view of the Corp's comments in their letter of February 14, 2019, that the actions described in the three separate, but related public notices (SWG-2019-00067, SWG-2018-00789 & SWG-2019-00245) constitute a single action, and should all be assessed for purposes of NEPA compliance, find below my recommendations for the scoping of the EIS, which should include SWG-2018-00789 & SWG-2019-00245.  Commenter provides specific recommendations for SWG-2018-00789.	Email
37	35		Not Applicable	In view of the Corp's comments in their letter of February 14, 2019, that the actions described in the three separate, but related public notices (SWG-2019-00067, SWG-2018-00789 & SWG-2019-00245) constitute a single action, and should all be assessed for purposes of NEPA compliance, find below my recommendations for the scoping of the EIS, which should include SWG-2018-00789 & SWG-2019-00245.  Commenter provides specific recommendations for SWG-2019-00245.	Email			

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38	1				5/5/2020	Public Involvement	Asking the USACE when the scoping meetings will be occurring.	Email
39	1				5/4/2020	Socioeconomics/Land Use/Recreation/EJ	Commenter fully supports the permit application and the Ports efforts to prioritize protection of our waterways – while contributing to local, regional and national economic growth – through the development of projects. The ability to fully load VLCCs near the entrance to the Corpus Christi Ship Channel will go a long way to improving safety and the efficiency of water-borne freight movements. This project will aid in bolstering national energy security through the growth of U.S. crude exports as well as decreasing the national trade deficit.	Email
40	1				4/29/2020	Public Involvement	Urges the USACE to have the scoping meeting in person so affected citizens can attend.	Email
40	2					Purpose and Need	Urges the USACE to require the Port application for this project be combined with all proposed projects in the area including the two oil export terminals.	Email
40	3					Cumulative Impacts	The cumulative impacts of all of the proposed projects must be considered.	Email
40	4					HTRW	Concerned about the contamination on Harbor Island caused by leaking storage tanks.	Email
41	1				4/26/2020	All Applicable Resources	Dredging will harm the wetlands, water and sediment quality, aquatic species, air quality, environment, recreation, create hazardous waste, aesthetics of my backyard, public health and safety, navigation, ferry operation, erosion, and public benefits.	Email
41	2					Alternatives	Believes the VLCC could be located offshore not in the narrow Ship Channel.	Email
42	1				4/21/2020	Cultural Resources	Requesting information on if this project will be close to the USS Lexington NHL. USACE responded with a link to where the project locations are.	Email
43	1				4/20/2020	DMMP Marine Resources/EFH	Concerned about the amount of time the dredging process takes and the disturbance to marine life are immeasurable and where will the dredged material created go?	Email
43	2					All Applicable Resources	Want all the issues and effects to people, plants, marine life addressed to the fullest extent.	Email
43	3					Alternatives	If the loading facility was built offshore these entire conversations would be avoided.	Email
44	1					All Applicable Resources	Concerned about silt and mud that dredging for the project may create and how that will impact the environment.	Email
44	2					All Applicable Resources	The Port has not done enough environmental studies on the impacts and many people	Email
44	3					Alternatives	Commenter wants the project moved offshore.	Email
45	1				4/11/2020	Alternatives	Commenter wants the terminal to be placed offshore as a monobouy.	Email
45	2					All Applicable Resources	Concerned about the problems that dredging creates: suspension of particulates in the water, disposal of spoil, and an utterly changed tidal dynamic, in this case at the funnel end of an estuarine system that is critically vital to the fishery.	Email
45	3					Socioeconomics/Land Use/Recreation/EJ	Concerned about the threat to the fishery impacting fishing and tourism.	Email
45	4					All Applicable Resources	Concerned about accidents or an oil spill at Harbor Island and how that could impact their town and fishery.	Email
46	1				4/11/2020	Alternatives	Concerned that the project will be greenlighted because of the money the Port has dispite scientific evidence.	Email

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46	2					Alternatives	Does not think the port has given any thought to more sensible alternatives such as offshore. Believes the offshore system deserves serious consideration.	Email
46	3					Socioeconomics/Land Use/Recreation/EJ	Concerned about the safety and life for communities that surroung Harbor Island and that the project would kill tourism.	Email
46	4					Marine Resources/EFH	Concerned about impacts to commercial and recreational fisheries.	Email
46	5					Coastal Processes	Concerned about the following inshore issues if the project moves forward: Extreme tides	Email
46	6					Marine Resources/EFH Larval Transport Model	Close proximity to fragile estuaries and larvae/fish transport channels into the bay	Email
46	7					Marine Resources/EFH Larval From Model	Spills only seconds away from estuaries, impossible to cleanup.	Email
46	8					All Applicable Resources	Huge impacts from dredging and management dredging.	Email
46	9					Navigation/Transportation	Location in highly congested area, i.e. ferries, ships, barges, and recreational vessels.	Email
46	10					Threatened and Endangered Species Migratory Birds/Wildlife Resources	Proximity to wildlife and endangered species.	Email
46	11					Coastal Processes	Dumping of 38.8 million cubic yards of dredged clay and sand on our beaches.	Email
47	1				4/10/2020	All Applicable Resources	Concerned about the potential impacts the project will have on the coastal resources within and adjacent to the Aransas Pass Channel	Email
47	2					Public Involvement	Request a public hearing to further address these concerns.	Email
48	1				4/10/2020	Marine Resources/EFH Migratory Birds/Wildlife Resources Wetlands/SAV	Concerned about the environmental risk including mangrooves and shallow water areas adjacent to Harbor Island that are sensitive nursery areas for fish and crustaceans and feeding grounds for shorebirds and whoopoing cranes.	Email
48	2					All Applicable Resources	Concerned of a oil or other hydrocarbon release into the area if there was an accident.	Email
48	3					Navigation/Transportation	Concerned about potential boat accitidents at the intersection of the ship channel.	Email
48	4					Marine Resources/EFH	Concerned the process of dredging will result in a plume of silt that would drift into the system causing damage to the oysters.	Email
48	5					Alternatives	Offshore mooring and loading system is a better way to export crude from south Texas.	Email
49	1				4/10/2020	Opposed	Is not in support of the project.	Email
50	1				4/9/2020	All Applicable Resources	Concerned about the ecological impacts of the project.	Email
50	2					HTRW	Concerned about the channel becoming contaminated on both sidesl	Email
50	3					Alternatives	Would like the project to be taken offshore.	Email
51	1				4/7/2020	Opposed	Commenter is not in favor of the project.	Email
52	1				8/26/2019	Opposed	Commenter is not in favor of the project.	Email
53	1				8/26/2019	All Applicable Resources	Concerned the deepening of the channel will cause irreparable harm to the ecosystem of the immediate area. Besides not knowing the effect it will have larvae marine life that travels the channel, the silting of the ajoining protected estuary nurseries in both Redfish Bay and Lighthouse Lakes are in jeopardy. Besides the protected seagrass, there are 30 state and 22 federal threatened or endangered species in the area.	Email
54	1					Public Involvement	Requests a public hearing on the project.	Email
55	1				6/10/2020	Purpose and Need	The permit is linked to the Port of Corpus Christi to build an export facility on Harbor Island. There is no public benefit. This is private benefit to a public entity at the expense of an entire coast ecosystem and economy.	Letter

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55	2					All Applicable Resources	The hydrology of the Corpus Christi, Redfish and Aransas Bays will be altered to the detriment of life cycles, habitats, and function of the plants and animals that depend on their natural function. This Pass is the only major pass for 100 miles, and the communication of waters and quality of these waters between the Bays and Gulf will harm fish, shrimp, crab and the entire recreation-based economy of Port Aransas and surrounding communities.	Email
55	3					Socioeconomics/Land Use/Recreation/EJ	Port Aransas is a recreation-based economy. It is not industrial. Fishing, tourism, nature, beach and small town amenities are what drive the economy of Port Aransas. This permit industrializes and changes forever the economic drivers for the benefit for the few companies and the Port Authority.	Email
55	4					Navigation/Transportation	Larger ships create displacement problems in the Channel, and cause additional damage to the shoreline. Larger ships are going to create larger tsunamis, and create lawsuits from injuries sustained. Bringing larger ships inshore is an accident waiting to happen!	Email
55	5					Alternatives	Offshore is a much better solution.	Email
56	1				6/10/2020	Purpose and Need	All actions in the area need to be linked into one EIS including the two oil export facilities on Harbor Island, and other proposed industrial permits including the desal plant.	Letter
56	2					Marine Resources/EFH Hydrodynamic Salinity Modeling	The hydrology of the Corpus Christ, Red Fish and Aransas Bays will all be altered to the detriment of the life cycles, habitats, and function of the plants and animals the depend on their natural function. This pass is the only major pass for 100 miles and the communication of waters and the quality of these water between the Bays and Gulf will harm fish, endangered species, shrimp, crab, and the entire recreation based economy of Port Aransas and surrounding communities.	Email
56	3					Threatened and Endangered Species	Concerned about the harm to whooping crane critical habitat and other endangered species.	Letter
56	4					Alternatives	Concerned that the beneficial use of spoil will damage seagrass, oysters, fish, and the beaches.	Letter
56	5					Alternatives	Offshore is a much better solution.	Letter
56	6					Socioeconomics/ Land Use/Recreation/ EJ Alternatives	Existing inshore development at Ingleside plus the proposed Offshore projects like P66 will take up all of the forecasted oil export capacity over the next 30 years. There is no need to dig this and build Harbor Island Oil Export.	Letter
56	7					Navigation/ Transportation Coastal Processes	Bigger ships create bigger displacement impacts in the channel and cause additional damage to shoreline. It also creates a larger volume of water during storm surge that would add to extensive flooding in the region. Why create your own problem especially within the City Limits of Port Aransas and its parks are preserves.	Letter
56	8					Coastal Processes	Deepening creates vulnerability to Hurricane impacts. This location is ground zero for Cat 4 and larger storms.	Letter
56	9					Navigation/ Transportation	Bringing bigger ships inshore is an accident waiting to happen. Oil Spill threat to estuaries.	Letter
56	10					Socioeconomics/ Land Use/Recreation/ EJ	Port Aransas is a recreation-based economy. It's not industrial. Fishing, tourism, nature, beach, small town amenities is what drives the economy in Port A. This Permit industrializes and change forever the economic drivers for the befit of a few companies and the Port.	Letter
56	11					Permit Concerns	Approval of this Permit will lead to Litigation that will last for years that waste time and energy for all involved.	Letter
56	12					Public Involvement	Requests an in person scoping meeting for the project.	Letter
57	1				6/10/2020	Navigation/ Transportation	With only two ways in and out of Port Aransas, TX, an oil spill, fire, or collision of these VLCC in this narrow water way could/can result in 10s of thousands of residents and visitors becoming trapped and unable to safely evacuate or shelter from the effects of an incident.	Letter



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57	2	[REDACTED]	[REDACTED]	[REDACTED]		Threatened and Endangered Species	Numerous endangered and threatened species including: the Whooping Crane, Kemp's Ridley and many other species are directly exposed to the impact of planned development.	Letter
57	3					Marine Resources/EFH	Distruption of critical spawning and nursery grounds for fish and shellfish, such a shrimp, crab, redfish, flounder, trout and numerous other sea life that are commercially and recreationally important.	Letter
57	4					Socioeconomics/ Land Use/ EJ	This will have adverse economic impact to local businesses that rely on a healthy marine environment .	Letter
58	1				6/10/2020	Purpose and Need	All actions in the area need to be linked into one EIS including the two oil export facilities on Harbor Island, and other proposed insustrial permits including the desal plant.	Letter
58	2					Marine Resources/EFH Hydrodynamic Salinity Modeling	The hydrology of the Corpus Christ, Red Fish and Aransas Bays will all be altered to the detriment of the life cycles, habitats, and function of the plants and animals the depend on their natural function. This pass is the only major pass for 100 miles and the communication of waters and the quality of these water between the Bays and Gulf will harm fish, endangered species, shrimp, crab, and the entire recreation based economy of Port Aransas and surrounding communities.	Letter
58	3					Threatened and Endangered Species	Concerned about the harm to whooping crane critical habitat and other endangered species.	Letter
58	4					Alternatives	Concerned that the beneficial use of spoil will damage seagrass, oysters, fish, and the beaches.	Letter
58	5					Alternatives	Offshore is a much better solution.	Letter
58	6					Socioeconomics/ Land Use/Recreation/ EJ Alternatives	Existing inshore development at Ingleside plus the proposed Offshore projects like P66 will take up all of the forecasted oil export capacity over the next 30 years. There is no need to dig this and build Harbor Island Oil Export.	Letter
58	7					Navigation/ Transportation Coastal Processes	Bigger ships create bigger displacement impacts in the channel and cause additional damage to shoreline. It also creates a larger volume of water during storm surge that would add to extensive flooding in the region. Why create your own problem especially within the City Limits of Port Aransas and its parks are preserves.	Letter
58	8					Coastal Processes	Deepening creates vulnerability to Hurricane impacts. This location is ground zero for Cat 4 and larger storms.	Letter
58	9					Navigation/ Transportation	Bringing bigger ships inshore is an accident waiting to happen. Oil Spill threat to estuaries.	Letter
58	10					Socioeconomics/ Land Use/Recreation/ EJ	Port Aransas is a recreation-based economy. It's not industrial. Fishing, tourism, nature, beach, small town amenities is what drives the economy in Port A. This Permit industrializes and change forever the economic drivers for the befit of a few companies and the Port.	Letter
58	11					Permit Concerns	Approval of this Permit will lead to Litigation that will last for years that waste time and energy for all involved.	Letter
58	12					Public Involvement	Requests an in person scoping meeting for the project.	Letter
59	1				4/10/2020	Economics	Concerned this project is the most environmentally harmful, most costly, least safe, and otherwise least publically desirable alternative for accomplishing its stated purpose of loading so-called very large crude carrier tanker ships (VLCC's) with crude oil for export. It is not economically viable and would require the wasteful subsidy of hundreds of millions of dollars of public money.	Email
59	2					Socioeconomics/ Land Use/ EJ	This project application was filed by PCCA (1) with aggressive assumptions about future exports of crude oil, and (2) without consideration of better alternatives for loading VLCC's. Both of those underlying assumptions are no longer valid.	Email

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59	3					Alternatives Socioeconomics/ Land Use/ EJ	No public or private interest is sered by an uneconomic project. Without an economically viable purpose, none of the environmental damage this project will cause can be justified. The environmental damage and other harms to the public interest from this project are well documented by the filings by various governmental entities, environmental organizations and public citizens. A careful analysis of this project's economic viability or lack thereof is necessary to a proper EIS "to ensure that all of the issues related to this project are addressed" as stated in the notice for this scoping proceeding.	Email
59	4					Purpose and Need Cumulative Impacts	Have to look at the cumulative harms of the Ports related Harbor Island terminal. These projects should be considered a single project.	Email
59	5					Navigation/Transportation	Bringing VLCC's inshore is an unnecessary risk to navigation and safety.	Email
59	6					Alternatives	The Bluewater Offshore Terminal is a much better alternative to this project for loading VLCC's with crude oil	Email
60	1				4/27/2020	All Applicable Resources	The Service requests that the USACE fully evaluate all potential direct, indirect, and cumulative environmental impacts in the EIS, including federally listed threatened and endangered species, critical habitat, state listed threatened and endangered species, state Species of Greatest Conservation Need, migratory birds, colonial waterbird rookery islands, special aquatic sites, Redfish Bay State Scientific Area, and wetlands. Enclosed is a list of federally protected species for Nueces County for your reference.	Email
60	2					Coastal Processes	The Service requests evaluation of additional impacts to the inshore portions of the proposed project areas, including increased erosion and loss of shoreline stabilization from wakes created by fully laden Very Large Crude Carriers increased vulnerability to oil spills from ship traffic and tropical storms, and a potential loss of uniqueness and aesthetics in the community of Port Aransas and surrounding recreational and fishing areas (i.e., Lighthouse Lakes Paddling Trail, Port Aransas Nature Preserve, Port Aransas Jetties).	Email
60	3					Hydrodynamic Salinity Modeling All Applicable Resources	The Service requests an examination of the effects of channel deepening on water salinities in the project area.	Email
60	4					All Applicable Resources	Please also include potential long-term direct, indirect, and cumulative environmental impacts associated with future maintenance dredging, dredged material disposal, and jetty maintenance/construction. The Service is concerned that if an extension of the Aransas Pass jetty is required, there may be a reduction of longshore transport of sediment to the surrounding beaches. Therefore, future impacts to sediment transport on Mustang and San Jose islands should be included in this evaluation to determine the extent of beach accretion/erosion.	Email
61	1				6/23/2020	Purpose and Need	The permit is linked to the Port of Corpus Christi to build an export facility on Harbor Island. There is no public benefit. This is private benefit to a public entity at the expense of an entire coast ecosystem and economy.	Letter
61	2					All Applicable Resources	The hydrology of the Corpus Christi, Redfish and Aransas Bays will be altered to the detriment of life cycles, habitats, and function of the plants and animals that depend on their natural function. This Pass is the only major pass for 100 miles, and the communication of waters and quality of these waters between the Bays and Gulf will harm fish, shrimp, crab and the entire recreation-based economy of Port Aransas and surrounding communities.	Letter
61	3					Socioeconomics/ Land Use/ Recreation/EJ	Port Aransas is a recreation-based economy. It is not industrial. Fishing, tourism, nature, beach and small town amenities are what drive the economy of Port Aransas. This permit industrializes and changes forever the economic drivers for the benefit for the few companies and the Port Authority.	Letter
61	4					Navigation/ Transportation	Larger ships create displacement problems in the Channel, and cause additional damage to the shoreline. Larger ships are going to create larger tsunamis, and create lawsuits from injuries sustained. Bringing larger ships inshore is an accident waiting to happen!	Letter

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Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
61	5					Alternatives	Offshore is a much better solution.	Letter
62	1				6/18/2020	Purpose and Need	The permit is linked to the Port of Corpus Christi to build an export facility on Harbor Island. There is no public benefit. This is private benefit to a public entity at the expense of an entire coast ecosystem and economy.	Letter
62	2					All Applicable Resources	The hydrology of the Corpus Christi, Redfish and Aransas Bays will be altered to the detriment of life cycles, habitats, and function of the plants and animals that depend on their natural function. This Pass is the only major pass for 100 miles, and the communication of waters and quality of these waters between the Bays and Gulf will harm fish, shrimp, crab and the entire recreation-based economy of Port Aransas and surrounding communities.	Letter
62	3					Socioeconomics/ Land Use/ Recreation/EJ	Port Aransas is a recreation-based economy. It is not industrial. Fishing, tourism, nature, beach and small town amenities are what drive the economy of Port Aransas. This permit industrializes and changes forever the economic drivers for the benefit for the few companies and the Port Authority.	Letter
62	4					Navigation/ Transportation	Larger ships create displacement problems in the Channel, and cause additional damage to the shoreline. Larger ships are going to create larger tsunamis, and create lawsuits from injuries sustained. Bringing larger ships inshore is an accident waiting to happen!	Letter
62	5					Alternatives	Offshore is a much better solution.	Letter
63	1				4/27/2020		Letter to inform the USACE of a change in the authorized agent for the project to Ashley Judith at AECOM.	Letter
64	1				6/23/2020	Environmental Concerns Threatened/Endangered Species	Concerned that the hydrology of the Corpus Christi, Red Fish and Aransas Bays will be altered to the detriment of the life cycles, habitats and function of the plants and animals that depend on natural inflows and outflows.The dredging and ensuing traffic will harm fish, endangered species such as the Whooping Cranes and Piping Plovers, shrimp, crab and the entire recreation-based economies of Port Aransas, Corpus Christi, Rockport and surrounding communities.	Letter
64	2					Threatened and Endangered Species	Whooping crane critical habitat will be harmed. Their main food source, blue crab, will be seriously affected causing harm to Aransas National Wildlife Refuge, Matagorda Island and St. Joe Island.	Letter
64	3					Purpose and Need Cumulative Impacts	This permit is linked to the Port of Corpus Christi permit to build an Oil Export facility on Harbor Island with Lone Star Ports. It is also linked to Axis Midstream Oil Export facility on Harbor Island and their pipeline permit across Redfish Bay. There are other proposed industrial permits including TCEQ intake from and brine discharge permits into Corpus Christi Bay that adds to the complex of actions that should be all linked into one large Environmental Impact Statement (EIS) as it has cumulative impacts for the entire Coastal Bend Region.	Letter
64	4					Alternatives All Applicable Resources	The term "Beneficial Use of Spoil" from the dredging is inappropriate. That spoil will damage sea grasses and oyster beds, two things that actually ameliorate wave and storm damage now, as well as our fish nurseries and beaches. "Beneficial Use" is a term robbed from Conservation and applied instead to the Industrialization of Natural Areas. Please do not greenwash what is happening here. The USAGE and the Port of Corpus Christi are not improving natural ecological systems but degrading them.	Letter
64	5					Alternatives	The VLCCs should be kept offshore as an 80 foot dredging will require expensive regular maintenance while offshore basically requires a pipeline and platform. We imagine this comes with its own set of problems, but it would avoid serious damage to our bays, birds and fisheries.	Letter

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64	6					Navigation / Transportation Coastal Processes	Bigger ships create bigger displacement impacts in the channel and will cause additional damage to the shorelines. The deeper channel creates a larger volume of water during storm surge that will add to extensive flooding in the region. Why create more problems for Port Aransas, Aransas Pass and Corpus Christi?	Letter
64	7					Coastal Processes	Deepening creates more vulnerability when hurricanes come.	Letter
64	8					Socioeconomics / Land Use / Recreation / EJ	Existing development at Ingleside plus the proposed offshore projects like P66 will take up all of the forecasted oil export capacity over the next 30 years. Now, with Covid-19 and climate change downgrading the oil market, is this really something we want to sacrifice our air, water and environment over? There is no public benefit, just private benefit at the expense of an entire coastal ecosystem and economy.	Letter
64	9					Permit Concerns	Approval of this permit will lead to litigation that will last for years and waste time, energy and money for all involved. The oil and gas industry is in a state of flux and evolution. You need to be forward thinking and careful stewards of our natural assets.	Letter
64	10					Public Involvement	Request a regular public meeting as a project this big should not be hurried. Proper public input would be useful for all concerned.	Letter
65	1				6/23/2020	Opposed	Commenter is not in favor of the project and requests the project be declined.	Letter
66	1				6/20/2020	Opposed	Commenter is not in favor of the project.	Letter
66	2					Marine Resources / EFH Migratory Birds / Wildlife Resources Threatened and Endangered Species	Concerned the project will kill many species in the channel between Port Aransas and Harbor Island because of turbidity and pollution.	Letter
66	3					Navigation / Transportation Air Quality HTRW Socioeconomics / Land Use / Recreation / EJ	Effects of VLCC's will be negative: ugliness, pollution, air pollution, increased traffic and safety hazards in the channel that will impact recreational activities	Letter
66	4					Public Involvement	Would like to be added to the mailing list.	Letter
67	1				6/11/2020	Public Involvement	Called Matthew Kimmel of the USACE to express concerns that the people of Port Aransas are unable to log-in to the virtual meeting you are running, meeting times have been changed, bad reception, etc. and that a physical meeting should be held.	Voicemail/Text
68	1				6/22/2020	Purpose and Need	Believes that the 3 permit applications should be combined into one project.	Email
68	2					Cumulative Impacts	Cumulative impacts should be addressed in a rigorous assessment tha includes aquatic resources and al project related impacts.	Email
68	3					Threatened and Endangered Species	Concerned about endangered species.	Email
68	4					All Applicable Resources	Concerned about what impacts the contamination on Harbor Island will have on the water, wildlife, and humans	Email
68	5					Socioeconomics / Land Use / Recreation / EJ	Concerned about the recreational and commercial fish that are crucial to Port Aransas economy.	Email
68	6					Navigation / Transportation	Concerned the VLCC's will be a problem for the ferries.	Email
68	7					Navigation / Transportation Threatened and Endangered Species	Concerned the wakes from the VLCC's will endanger boating, fishermen, shorelines where Whooping Cranes nest.	Email
68	8					Coastal Processes	Concerned about hurricane impacts of the project	Email
68	9					Alternatives	Would like the project to be taken offshore.	Email
69	1				6/23/2020	All Applicable Resources	Concerned that the Port has not considered the importance the ship channel plays in proper functioning of the entire barrier bay side ecosystem.	Email
69	2					HTRW	Dredging and Release of Sediment Toxicants: Concerned about how toxicants would impact the natrual ecosystem. Feel that sediments must be assessed prior to dredging, toxicity tests on released sediment mixtures should be performed on relevant species, and bioaccumulation and biomagnification potential in the local ecosystem must be assessed.	Email

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69	3					Marine Resources / EFH	Channel Deepening and Impacts on Species Recruitment: Modeling should be conducted to understand how recruitment patterns will be impacted.	Email
69	4					Marine Resources / EFH	Channel Deepening and Impacts on Spawning Behavior: Need to understand how increased ship traffic and ship noise pollution will impact spawning behavior.	Email
69	5					Cumulative Impacts	Effects of Desalination via Salinity, Temperature, Oxygen : Concerned about the impacts to the local environment the Harbor Island desalination plant will have.	Email
69	6					Geology and Soils	Concerned about subsidence and how local communities may be put at risk as a result of the project.	Email
69	7					All Applicable Resources	Concerned about the potential risk to the ecosystem in the event of an accident (oil spills, contaminants, etc.)	Email
70	1				6/24/2020	Purpose and Need	Concerned that the Port is trying to pass of one large project as separate projects. Requests that the USACE and other state and federal agencies reject these multiple applications.	Email
70	2					Purpose and Need Cumulative Impacts	Believes each project if kept separately requires an EIS and the cumulative impacts of all shold be addressed.	Email
70	3					Not Applicable	Believes the TCEQ and Texas Railroad Commission should initiate a joint process (to limit the expenses and staff time for agency coordination) for the Section 401 certification, Texas Coastal Management Program consistency determination, and require a hearing on the use of the Redfish Bay State Scientific Area.	Email
70	4					HTRW	Concerned about the contaminated soil on Harbor Island. Attached a letter from the Texas Railroad Commission (January 1, 2015) regarding this issue.	Email
70	5					Marine Resources / EFH	Concerned about the risks to marine species and habitat in Aransas Pass and Redfish Bay including recruitment, nursery habitat, noise, turbidity, light, as a result of the VLCC's, dredging and maintenance dredging.	Email
70	6					Public Involvement	USACE should seek input from the TPWD and GLO once the public meeting has been held.	Email
70	7					HTRW Coastal Processes	Concerned about the incresed risk oil spills of the terminals are authorized and how hurricanes could increase this risk.	Email
70	8					Public Involvement	Request a public hearing on both the permit application to the USACE and the Section 401 certification request to the TCEQ.	Email
70	9					Socioeconomics / Land Use / Recreation / EJ	Concerned about the economic impact and how it will affect residents in Port Aransas which mostly sustain on ecotourism.	Email
71	1				6/25/2020	Propose and Need Alternatives	A Decision and Risk Analysis needs to be performed by the applicant to assess the need, cost (capital and environmental), liabilities and related benefits of the project.  Applicant should show in the EIS beyond certainty that the project is required based on probabilistic production/export forecasts from Permian and Eagleford shale producers and/or Midstream carriers, not a singlehigh number they believe will happen.  The need for and benefit of the project is an important consideration: why do we need to dredge and risk the estuaries? What are the benefits?	Email
71	2					Purpose and Need Alternatives	The applicant needs to account for the two major offshore export facilities currently proposed by Phillips 66 Partners (Bluewater) and Enterprise Midstream (SPOT) currently under review by MARAD and USCG. Combined these facilities can export the 4 MMBOD that PoCC optimistically states.	Email
71	3					Purpose and Need Alternatives	Concerned about if the Executive Orders re3garding US oil expert are reversed and the dredging has already been done, what benefit has been derived?	Email
71	4					Alternatives	Where are the deep pockets for taking on the risks and liabilities associated with this development for an oil loading facility and marine traffic inside this estuary? Does PoCC propose to post a multi-BILLION DOLLAR guarantee or bond to operate this facility or is the federal government expected to be the deep pockets for clean-up and restoration??	Email

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71	5					Cumulative Impacts	USACE should require that the PoCC permit application and EIS be combined with and consideration given to the cumulative impacts of all the proposed projects including SWG-2019-00245 (PoCC-Lone Star Ports oil export terminal) at a minimum.	Email
71	6					Coastal Processes	The potential environmental impacts to the bays connected to the Aransas Pass entrance channel should be addressed including direct impact from a hurricane and the risks and liabilities associated with storm surge and reverse storm surge.	Email
71	7					All Applicable Resources	Concerned about the impacts to migratory birds, threatened and endangered species, seagrass, sea turtles, fish, crabs, oysters.	Email
71	8					HTRW	Concerned about how the Port and USACE will prevent hydrocarbon leaching from the Harbor Island Site since this soil from the berths and turning basin must be dredged to the same depth as the proposed channel depth. Will the Port and USACE monitor every cubic yard of dredged material to ensure no hydrocarbons are included in the spoils before placement? What is the contingency plans if hydrocarbons are found???	Email
71	9					Purpose and Need	Strongly disagree with USACE's preliminary decision that the Harbor Island Site is "fully restored" and that an EIS is not required and separated from the CCSC proposed dredging EIS.	Email
71	10					Cumulative Impacts Alternatives	Believe the USACE will find a large probability ( >70%) that the "need" is not there and doesn't justify the risks associated with these projects. There are better alternatives currently in progress, owned and operated by some of the largest oil and gas midstream companies in the USA, to export whatever Texas shale oil production there should be or allowed. For this project the USACE decision should be "do nothing" and denied.	Email
72	1					Navigation / Transportation	Concerned about tanker wakes overwashing the jetties during high tides.	Email
72	2					Alternatives	Concerned that the deepening will cause serious undermining of the structural integrity of the jetties.	Email
72	3					Alternatives	Concerned that modeling does not take the place of real data and that geological studies need to be done, core samples and hydrology studies.	Email
72	4					Sea Level Rise / Climate Change	Can the USACE guarantee that my property will remain safely above water after all these structural changes?	Email
73	1				7/1/2020	All Applicable Resources	<p>The City requests that the EIS include a study of the impacts this project will have on the marine ecosystem, fisheries habitats, sensitive species, and ultimately on the fishing and eco-tourism in the area.</p> <p>Concerned about critical habitats, the placement of dredge materials in sensitive areas, and those activities that cause alterations to the water chemistry, flow, and quality, have the potential for exponential negative impacts on the marine life using this migration corridor compared to other areas. And how these could negatively affect residents and visitors. In additiona to contaminated soil and groundwater on Harbor Island and those impacts.</p>	Letter
73	2					Purpose and Need Alternatives Cumulative Impacts	<p>The City would like the cumulative impacts of the three interrelated projects to be studied and addressed as part of the EIS, Port of Corpus Christi Authority (PCCA) (SWG-2019-0006 (channel deepening project) and SWG-2019-00245 (export terminal project)) and Axis Midstream Holdings, LLC (SWG-2018-00789 (crude oil pipeline project), and the impacts of the potential conflicts of the interrelated projects.</p> <p>The City requests that USACE's EIS address the impacts of all three interrelated projects—which will necessarily include requiring PCCA to disclose scope of the full project—and address the cumulative impacts of the related projects, as well as the potential conflicts between the projects.</p>	Letter
73	3					HTRW Water and Sediment Chemistry	The City requests that USACE's EIS study the impacts to the environment and marine species due to the placement of dredge material, including the impacts on each chosen location and the chemical analysis of the contaminants in the dredged material, and impacts on water chemistry, flow, and quality.	Letter

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73	4					Marine Resources / EFH Socioeconomics / Land Use / Recreation / EJ	The City requests that USACE’s EIS study the impacts on the marine ecosystem, fisheries habitats, sensitive species, and ultimately on the fishing and eco-tourism in the area and the City’s economy.	Letter
73	5					Marine Resources / EFH	The City requests that USACE’s EIS study the impacts of the dredging and the ultimate presence of VLCCs on the movement of fish and other marine life, particularly in regard to spawning and migration. The City further requests that USACE study the direct and indirect impacts of the channel deepening project on other inlets into the bay.	Letter
73	6					Navigation / Transportation	The City requests that USACE’s EIS study the impacts of the dredging and the ultimate presence of VLCCs and the terminal on public safety, including the impact of VLCCs in an area with high boat traffic.	Letter
73	7					Alternatives All Applicable Resources	The City requests that USACE’s EIS study the potential environmental impacts of the proposal and its alternatives, specifically including the offshore alternative(s), and provide a comparison of the quantified impacts of each alternative, including a clear analysis of why reasonable alternatives were not chosen.	Letter
74	1				7/2/2020	Marine Resources / EFH	Disturbances to this area (e.g. increased salinity, reduced oxygen levels, turbidity, noise, habitat alteration) have the potential to reduce spawning activity and reproductive output of these fishes. Concerned that the project would directly harm local fisheries by reducing the number of fish in the region that are available to be harvested, which would increase the risk of overfishing and collapsing these populations even by maintaining current levels of fishing practices.	Email
74	2					Marine Resources / EFH	Tidal inlets are therefore recognized as essential fish habitat (EFH), areas that are necessary for fish spawning, breeding, feeding or growth to maturity. All these important sportfishes have been identified as having EFH within the Corpus Christi Bay System (Weston Solutions, 2014), which means this issue is directly relevant to the potential impacts of the proposed development activities (e.g. dredging).  The characterization and identification of the Aransas Pass and other tidal inlets as EFH (essential spawning habitat) is due to their disproportional productivity (i.e. many species spawn there and in large numbers), and because these sites are very few and separated by large distances (i.e. represent population bottlenecks) along the coast of Texas. This means that the Aransas Channel is the sole source of productivity (e.g. for spawning, migrating, feeding) and connectivity with the Gulf of Mexico for all the fish and invertebrate populations in this entire region. Therefore, the structure, function, resilience, and productivity of fish populations and fisheries are highly dependent upon the maintenance of this key area for their development and survival. A recent study (Burnsed et al. 2020) highlights the potential impacts of proposed development on the health of this iconic fishery that is also critical for the health and productivity of our cherished estuarine ecosystems.	Email
74	3					Marine Resources / EFH	Concerned about stressors and disturbances caused by development activities (e.g. channel deepening, widening, dredging, desalination, pollution, noise and disturbances from VLCCs, pollution, oil spills) that can reduce the health and productivity of local fish populations and fisheries through reduced spawning activity, reduced egg production, displacement of fish away from the area due to physiological or behavioral stress (e.g. noise pollution or hypoxia), increased mortality of eggs and larvae as well as adults, and other non-fatal or fatal effects.	Email



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74	4					All Applicable Resources	There is much need for more robust baseline information and data to create a scientifically-based, sound, predictive framework to assess the potential of the planned development activities to impact ecosystem health and the livelihoods and well-being of local communities (e.g. Port. Aransas, Rockport, Ingleside). These research activities need to happen before any development is considered. There is a lack of essential baseline data (physical, hydrodynamic, chemical, ecological, socioeconomic) and no science-based predictive framework available to assess/predict with any certainty or accuracy the potential of the planned activities to impact ecosystem health or the subsequent effects on local communities.	
74	5					All Applicable Resources	List of baseline research efforts that are needed now to characterize the existing physical, chemical, ecological, and socioeconomic conditions associated with the Aransas Channel and the Corpus Christi, Redfish, and Aransas Bay systems:  Comprehensive surveys and monitoring efforts to create a realistic hydrodynamic model of the Corpus Christi Bay system (the 2019 study by LRE Water is invalid speculation), which is needed to predict the impacts of deepening, brine discharge associated with desalination, oil spills, and other stressors on the physical, chemical, and environmental dynamics of the system in a highly-resolved manner. Including the following:  • Detailed bottom and habitat mapping of the entire inlet (Ship Channel) and adjacent areas (e.g. Lydia Ann Channel, Corpus Christi Channel, Aransas Channel) to generate an a realistic model grid to model the hydrodynamics of the system.  • Deployment and maintenance of an array of environmental sensors (e.g. data sondes and current meters) at nexus points all around the ship channel, the main channels within the CC bay system, and connecting bay systems to measure and monitor (in fine scales) the current patterns, tides, salinity, temperatures, turbidity, and other physical and hydrodynamic aspects to generate a baseline understanding of the physical environment of the ship channel that is realistic and can actually make valid predictions of brine discharge, dredging, oil spills, and other stressors in and around the actual discharge outfall sites. These data should be collected continuously for at least 2 years to generate a valid, realistic hydrodynamic model.	Email

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74	6					All Applicable Resources	2) Detailed surveys, monitoring, and other research to characterize the spatial and temporal variations in the distribution, abundance, movement, and spawning activity of local fish populations in the Aransas Channel and connecting areas as a means to assess its importance for the productivity of local fisheries and the health of ecosystems within the bay system. This research should include the following activities:  • Acoustic (sonar) surveys, fish collections, tagging studies, egg and larval surveys (with DNA barcoding analysis), passive acoustic monitoring (soundscapes), and other approaches to characterize spatial and temporal variations in the distribution, abundance, and spawning activity of fishes. Such information is required (i.e. input data to run models) to generate a realistic model to predict the potential impacts of dredging, desalination, and other industrial activities on the dispersal and recruitment of marine fishes and invertebrates in the bay systems.  • Deployment and maintenance of an acoustic array to understand how, when, where fish utilize the ship channel, harbor island area, and nearby estuaries and channels for spawning, feeding, and other activities and to understand the ecological connections between various habitats (e.g. the critical link between the estuaries and ship channel for red drum and southern flounder). In particular, this information would improve our understanding of movement and migration patterns between the estuary, channels, and open coast for key species. They would also improve resolution on the locations of Essential Fish Habitat (EFH) for species of ecological and economic importance.	Email
74	7					All Applicable Resources	3) Surveys, monitoring, and modeling of larval recruitment and dispersal in relation to the Aransas ship channel and the bay system, which would include:  • Surveys and monitoring of larval and juvenile recruitment patterns of fishes and invertebrates in relation to habitat and environmental conditions.  • Development of an appropriate, well resolved, validated, 3-dimensional model to examine current flow and larval and early life transport of marine life (after #1 and #2 are completed – see above).	Email
74	8					All Applicable Resources	4) Monitoring and assessments of existing ship traffic (e.g. crude tankers) and associated anthropogenic noise and related disturbances (e.g. turbulence, turbidity) on fish behavior (spawning and feeding) and survival. This is needed, because VLCCs will be transiting daily directly through the principle spawning and migration areas for red drum and southern flounder, which could cause serious negative impacts on their spawning (see de Jong et al. 2020 in references as an example).	Email

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74	9					Marine Resources / EFH Water and Sediment Quality	5. Ecotoxicology studies to understand how desalination, dredging, and other activities that disturb the bottom and re-suspend contaminants and toxicants could impact the health of marine organisms, ecosystem functioning, and human health as well:  • Regional surveys of sediments (i.e. sediment cores) in and around the proposed development areas (e.g. dredged areas and spoil dumping areas) to assess the types and quantities of contaminants and toxic substances that may impact the health and survival of fish populations; examination of contamination load of any sediment and disposal of land-based soil from Harbor Island; evaluation of contamination load at various location along the dredging route.  • Field surveys throughout the bay systems to establish baseline estimates of contaminants in fishes and invertebrates.  • Laboratory experiments that target knowledge gaps related to the effects of relevant environmental stressors on fish growth, development, behavior, and survival. The results will be used develop adverse outcome models related to relevant acute (e.g. oil spill) and chronic (e.g. hypersalinity or contaminants) environmental impact scenarios.	Email	
74	10					Wetlands / WOTUS	6) Monitoring of seagrass, spartina marsh, and mangrove coverage pre-and post within one mile of Harbor Island and other proposed development sites (e.g. Ingleside).	Email	
74	11					Threatened and Endangered Species	7) Characterize area use by endangered species such as sea turtles and whooping cranes.	Email	
74	12					Marine Resources / EFH	8) Characterize oyster reef occurrence, abundance, and impact to larval supply.	Email	
74	13					Coastal Processes	9) Examine how an 80’ deep channel will affect littoral transport along the surf and nearshore zones.	Email	
74	14					Public Involvement	10) Engagement of end-users (resource managers, fishing agencies, guides, private anglers, industry representatives, conservation organizations, city officials, community representatives) to quantify ecosystem service baselines for recreational fishing using standard market driven methods as well as participatory, deliberative methods. These efforts will guide research efforts towards co-created concerns, agendas, and needs to assess the potential social and economic impacts of environmental change associated with proposed industrial development activities.	Email	
75	1					Water and Sediment Quality Marine Resources / EFH	7/2/2020	Concerned about threats to water quality and marine life: diesel and/or oil spills from dredging operations, dredge line leaks, and pollution from ballast release, tank farm drainage, tanker runoff, and dredging.	Email
75	2					Air Quality		Concerned about threats to air quality: Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB; Volatile organic compounds (VOC) discharged from vapor flashing; and sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels	Email
75	3					Navigation/ Transportation		Concerned about threats to shoreline: Erosion due to ship wakes and water displacement and damage to bulkheads, docked boats, and property.	Email
75	4					Migratory Birds / Wildlife Resources Threatened and Endangered Species		Concerned about threats to wildlife: proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters	Email
75	5					Socioeconomics / Land Use / Recreation / EJ Noise		Concerned about threats to local communities: light and noise issues and property damage.	Email
76	1					Coastal Processes Sea Level Rise / Climate Change	7/2/2020	Concerned about shoreline sinking due to channel dredging as a result of water rising from global warming.	Email
76	2					Alternatives		Would like the project to be taken offshore.	Email

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76	3					Water and Sediment Quality Marine Resources / EFH	Concerned about threats to water quality and marine life: diesel and/or oil spills from dredging operations, dredge line leaks, and pollution from ballast release, tank farm drainage, tanker runoff, and dredging.	Email
76	4					Air Quality	Concerned about threats to air quality: Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB; Volatile organic compounds (VOC) discharged from vapor flashing; and sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels	Email
76	5					Navigation/ Transportation	Concerned about threats to shoreline: Erosion due to ship wakes and water displacement and damage to bulkheads, docked boats, and property.	Email
76	6					Migratory Birds / Wildlife Resources Threatened and Endangered Species	Concerned about threats to wildlife: proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters	Email
76	7					Socioeconomics / Land Use / Recreation / EJ Noise	Concerned about threats to local communities: light and noise issues and property damage.	Email
77	1				7/2/2020	DMMP Alternatives	Who is responsible to monitor the diesel and/or oil spills coming from the dredging operations and report to the Federal authority as well as relay such pollution to the public for its own safety?	Email
77	2					Migratory Birds / Wildlife Resources Threatened and Endangered Species	What are the affects from these diesel and/or oil spills coming from the dredging operations have to wildlife and the environment during current and future dredging operations?	Email
77	3					Migratory Birds / Wildlife Resources Threatened and Endangered Species	What authority(ies) monitor leaks from dredge pipes that leak into the bay causing plumes of silt, dredge pipes lying on top of seagrass? What safeguards and monitoring are proposed for environmentally safer operations when deepening POCCSC and La Quinta Ship Channel?  What are the short- and long-term effects to sea grass beds and marine life?	Email
77	4					Environmental	Loss of seagrass beds in Redfish Bay and along the IOB caused by ship wakes: How will this inevitable problem be remedied with or without the deepening of the POCCSC to prevent loss of the vital sea grass beds? Who is responsible for monitoring presently and in the future? What mitigation programs are proposed in the permit?	Email
77	5					Air Quality	Concerned about air borne particulate matter by operations that will blow the material to Ingleside on the Bay. Will this site be used for the POCCSC deepening and are studies included to understand the effects downwind where IOB is located? What contaminates are in these airborne materials and what safeguards are in place to ensure the safety of workers, residents, and all other affected parties, including boaters and recreational fishermen? Have studies been conducted to determine the health risks due to the size of the particulate material? Does this material, originally dredged from the POCCSC, contain toxic, heavy metals and particulate matter toxic to the respiratory system? Who monitors and approves this work and what data do you have regarding short-term and long-term health affects? Will this type of work be conducted in other areas with potential threats to civilian populations or to IOB that is directly affected now? Will PMx air monitors be put in place to regulate and enforce compliance?	Email
77	6					Air Quality	Air quality monitors deployed by IOBCWA have shown a distinct increase in nitrogen oxides (NOx), a pollutant derived from mooring tankers at the MODA terminal as well as from passing vessels and dredging operations. (See Slides #13 & #14) How will volatile organic compounds (VOC) discharges coming from vapor flashing from the tanks to the cargo tankers be contained? What about sulfur oxide (SOx) and particulate matter discharges (PMx) from ships smokestacks and loading operations during dockage levels? What effects will this have on the local communities? Are air monitors required for this permit?	Email

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77	7					HTRW	The Port of Los Angeles restricts docked and moored vessels from releasing toxic byproducts from their smokestacks due to health concerns in their communities. Docked vessels are required to use shore power instead of fuel burning generators. Will shore power be a requirement in the EIS permit?	Email
77	8					Air Quality	Reuters reports on new laws for shipping companies requiring reduced emissions of toxic sulfur fuels that cause premature deaths. (See Slide #15) Are these new global rules in place for ship traffic in POCCSC and if so, what authority regulates and imposes these new fuels law? With an increase in ship traffic forecasted and an increase in docked vessels along CCSC near the Intracoastal Waterway as well as La Quinta Channel, what studies have been conducted to determine the long-term health effects to populations in communities like Port Aransas, Aransas Pass, Ingleside, Ingleside on the Bay, Portland, and Corpus Christi? Will EIS and TCEQ require strict air monitoring in IOB, Port Aransas, Portland, and North Beach Corpus Christi as it pertains to this permit and the resultant increase in vessel traffic and dockage?	Email
77	9					Navigation / Transportation Coastal Processes Socioeconomics / Land Use / Recreation / EJ	Are the wake effects included in the EIS as well as the resulting economic impact to IOB? Is USACE aware of these studies and what is the scope of further studies to prevent serious loss of property and infrastructure due to ship wakes as it relates to sea level rise? The Mott MacDonald Study for IOBCWA describes the future as having a nuisance flood of 2.9' every year increasing to 3.9' return flood period by the year 2040. (See Slide #17 & #18) These flooding events do not consider the larger ships displacement that will be added on top of these flood events. Is USACE aware of this data and have plans for IOB's protection from ship traffic wakes including revetments and breakwater structures? What about the inevitable loss of property and economic loss from overtopping of bulkheads including the loss of property values? (See Slide #19) Has an economic study based upon the effects of ship traffic on local communities been conducted with the proposed permit?	Email
77	10					Navigation / Transportation Sea Level Rise / Climate Change Coastal Processes Socioeconomics / Land Use / Recreation / EJ	We understand that the Port of Corpus Christi has multiple studies regarding La Quinta Channel's deepening and is knowledgeable as to the many issues including the ship wake effect to IOB. Are the wake effects included in the EIS as well as the resulting economic impact to IOB? Is USACE aware of these studies and what is the scope of further studies to prevent serious loss of property and infrastructure due to ship wakes as it relates to sea level rise? The Mott MacDonald Study for IOBCWA describes the future as having a nuisance flood of 2.9' every year increasing to 3.9' return flood period by the year 2040. (See Slide #17 & #18) These flooding events do not consider the larger ships displacement that will be added on top of these flood events. Is USACE aware of this data and have plans for IOB's protection from ship traffic wakes including revetments and breakwater structures? What about the inevitable loss of property and economic loss from overtopping of bulkheads including the loss of property values? (See Slide #19) Has an economic study based upon the effects of ship traffic on local communities been conducted with the proposed permit?	Email
77	11					Wetlands / WOTUS Threatened and endangered Species	Has an environmental impact study been conducted to determine effects to the wetland's species along the POCCSC and adjacent Corpus Christi Bay Waters? Ridley turtles and hosts of protected and threatened birds frequenting this stretch of shoreline are well documented.	Email
77	12					Wetlands / WOTUS Coastal Processes	Examples of erosion adjacent to current bulkheads along the shoreline of IOB are well documented. What studies have been done to eliminate this deleterious impact to wetlands and potential effects to IOB's shoreline?	Email
77	13					All Applicable Resources	The effects from ship displacement cause the IOB drainage systems to be a serious concern. Has this been included in the studies for economic and environmental impacts?	Email
77	14					Cumulative Impacts	What are the cumulative effects to Corpus Christi Bay's Water Quality as impacted from ballast release, drainage from and runoff from industries and discharge?	Email

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77	15					HTRW	Is there a catastrophic pollution control plan for the potential for tanker collisions and spills that includes IOB and Corpus Christi Bay? Is this issue covered by the permit?	Email
77	16					Safety and Security	In the event of an emergency that affects health, safety, and welfare of all concerned residents such as ship collisions, oil spills, and vessel groundings, will there be an emergency alert system in place and required as a condition of the permit?	Email
78	1				7/2/2020	Public Involvement	Requesting information about Alternative #4 - Jayson Huston (USACE) responded providing the Concurrent Point 2 letter.	Email
79	1				7/2/2020	Purpose and Need Alternatives	<p>The USACE must consider alternatives by reference to a broader project purpose than the one provided by the applicant.</p> <p>Suggest the USACE consider a project purpose of economic development in the project area while reducing pollution emissions associated with the port.</p> <p>The USACE should consider other purposes, including considering adopting multiple purposes for this project.</p>	Email
79	2					Economics	The USACE must scrutinize the economic assumptions of the applicant underlying the need for the project.	Email
79	3					Socioeconomics / Land Use / Recreation / EJ	The USACE must take a hard look at socioeconomic impacts, particularly affordable housing, tourism, and community cohesion.	Email
79	4					Sea Level Rise / Climate Change Coastal Processes	The USACE must take a hard look at the indirect impacts of climate change and natural disasters.	Email
79	5					Cumulative Impacts	The USACE must take a hard look at cumulative impacts given the extend of industrial development in the project area.	Email
79	6					Socioeconomics / Land Use / Recreation / EJ Public Involvement	<p>The USACE is obligated to take a hard look at the environmental justice impacts of the proposed project. Specifically consider the impacts on low-income and minority populations.</p> <ul style="list-style-type: none"><li>• Methodology to ensure that environmental justice concerns are adequately considered.</li><li>• USACE must ensure that it engages in adequate outreach to environmental justice communities.</li><li>• The USACE already failed to meet this outreach and environmental Justice obligation in the scoping phase, and need to extend this phase until it can be remedied.</li><li>• The USACE must identify EJ communities potentially affected in the first step of the analysis. The geographic area for identifying EJ communities and then evaluating impacts must be tied to areas affected by the impacts of the project. The demographic in the region show EJ populations. The proposed project is in a region with a substantial history of environmental injustice, and recognized EJ harms.</li><li>• In the second step of the EJ analysis, the USACE must take a hard look at direct, indirect, and cumulative environmental impacts of the proposed project on EJ communities. An EJ analysis must evaluate whether unique factors exist that make EJ populations more susceptible to harmful impacts.</li></ul>	Email
80	1				7/2/2020	All Applicable Resources	Concerned about the impacts to residents, wildlife, seagrass, and waterways themselves as a result of the project.	Email
81	1				7/3/2020	Cultural Resources	An archeological remote-sensing survey of the underwater project area is required. If this work will occur on waters owned and controlled by a state agency or political subdivision of the state, a Texas Antiquities Permit must be obtained from this office prior to initiation of fieldwork. All fieldwork should meet the minimum survey standards for underwater archeology presented in the Texas Administrative Code.	Letter

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81	2					Cultural Resources	A report of investigations is required and should be produced in conformance with the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation office for review. Reports for a Texas Antiquities Permit should also meet the Council of Texas Archeologists Guidelines for Cultural Resources Management Reports. To facilitate review and make project information available through the Texas Archeological Sites Atlas.	Letter
81	3					Cultural Resources	An archaeological survey is required. A report of investigations is required and should be produced in conformance with the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation and submitted to this office for review. Reports for a Texas Antiquities Permit should also meet the Council of Texas Archeologists Guidelines for Cultural Resources Management Reports and the Texas Administrative Code.	Letter
81	4					Cultural Resources	Any buildings 45 years old or older that are located on or adjacent to the tract should be documented with photographs and included in the report. To facilitate review and make project information available through the Texas Archeological Sites Atlas, we appreciate emailing survey area shapefiles to archeological_projects@thc.texas.gov concurrently with submission of the draft report. Please note that this is required for projects conducted under a Texas Antiquities Permit.	Letter
81	5					Cultural Resources	The project will require both terrestrial and underwater archeological surveys. The THC is currently involved in ongoing coordination with the USACE regarding forthcoming archeological investigations.	Letter
82	1				7/3/2020	All Applicable Resources	Please look very closely at the LaQuinta prospective places for the desulfation unit Environmental Studies have shown that this will destroy our base system please be very careful with where you put this and don't destroy l waters that are habitats in Ingleside on the bay.	Email
83	1				7/3/2020	All Applicable Resources	Concerned about the erosing of the shoreline, harm to fish and wildlife, air and water quality, and basic quality of life.	Letter
83	2					Public Involvement	Would like another public meeting to address these issues and concerns.	Letter
84	1				7/3/2020	All Applicable Resources	Concerned about the erosing of the shoreline, harm to fish and wildlife, air and water quality, and basic quality of life.	Email
84	2					Public Involvement	Would like another public meeting to address these issues and concerns.	Email



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85	1				7/3/2020	Purpose and Need	<p>The Channel Deepening Project, the Harbor Island Terminal Project, and the Axis Midstream Pipeline Project must be considered a Single and Complete Project. The projects are interrelated and part of a single overall project.</p> <p>Documentation should be required to demonstrate that other facilities are in the planning, or if any commitments have been made for future projects, that would require use by VLCC's. The EIS must more provide a more in depth analysis of the actual production and export forecasts, rather than relying solely on Applicant's assumptions. Future projects requiring VLCC's may be unlikely given the recent decrease in demand for crude oil. In addition, there are two offshore terminal facilities under review that are capable of handling VLCCs. The EIS must evaluate whether there is a need for the Projects in light of the pending offshore projects.</p> <p>The revised Application does not comply with the USACE's directives regarding the purpose and need of the Project. The Application provides a much narrower purpose and need that confirms the Applicant's overall plan is directly tied to the Terminal Project on Harbor Island. The alteration to the Application – after the USACE has already determined that all three Projects constitute a single and complete project – in order to justify treating the Projects as independent suggests the Applicant is intentionally circumventing the NEPA process. Not only does the Applicant not comply with the USACE's specific instructions, but the Applicant also has not changed its intent for the overall Project.</p> <p>The Terminal Project must be subject to an EIS, along with the Channel Deepening Project and the Pipeline Project. That EIS must necessarily consider all three Projects as a single and complete project. If the USACE determines that the Projects are no longer related and that they no longer need to be considered as a single and complete Project, the USACE must notice to the public.<sup>5</sup> Because this would change a previous determination already issued by USACE, we believe such notice should also provide a detailed legal justification that supports this decision</p>	Email
85	2							

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85	3					DMMP HTRW	<p>It is unclear is how the USACE can permit the discharge of dredged material, when, by the Applicant's own admission, there is a practical alternative that would "require virtually no dredging."</p> <p>Any permitted discharge into waters of the U.S. ("WOTUS") must be the least environmentally damaging practicable alternative available to achieve the project purpose.</p> <p>The EIS should include an evaluation of the project alternatives in the context of the least environmentally damaging discharges in order to demonstrate the Project's compliance with the 404(b)(1) Disposal Site Guidelines. The EIS should address alternatives, including the offshore option, to avoid and minimize the discharge of 17.1 million cubic yards of clay and 29.2 million cubic yards of sand.</p> <p>Even if the USACE determines that the discharge of dredge and fill material, as proposed, is the least environmentally damaging alternative, the EIS must also address the potential impacts of contamination contained in the dredge material (discussed below in Section III(k)).</p>	Email
85	4					Cumulative Impacts	The cumulative impacts of all of the 3 projects must be evaluated together	Email
85	5					Socioeconomics / Land Use / Recreation / EJ All Applicable Resources	<p>Concerned about public interest and the project. Any benefits of the project will be primarily realized by the Port, not the public. The project will also result in long-term damage to the public's interest in healthy bays and fisheries, tourism and sport fishing, seafood production, protection of endangered species, recreation and economic security. The damage to these very public and shared interests far outweighs the benefits gained by the Applicant in deepening the ship channel so two new terminals can be built.</p> <p>The EIS must fully evaluate whether there is a public need for the proposed Projects, whether the need for the Projects can be accomplished through viable alternatives, and whether the proposed Projects will negatively affect the public use of the surrounding area.</p>	Email
85	6					Socioeconomics / Land Use / Recreation / EJ All Applicable Resources	<p>Concerned about wetlands and seagrass that would be affected by the project. The project does not meet the wetland characteristics found by the USACE to be important to the public.</p> <p>Biological function of wetlands will be impacted - feeding, nesting, nursery sites, endangered species.</p> <p>Redfish Bay State Scientific Area falls within the project area that would be impacted and is subject to the procedural requirements of Chapter 26 of the Parks and Wildlife Code.</p>	Email
85	7					All Applicable Resources	<p>The EIS should evaluate not only the impacts of increased salinity due to the discharge of concentrated salt water from the desalination plant but must also evaluate on a quantitative basis the likely effects of the proposed channel enlargement on exchanges of water, salt, organic matter, nutrients, sediment, and organisms between the Bay Systems and the nearshore Gulf of Mexico.</p> <p>The EIS must evaluate on a quantitative basis the increased risk of storm surges during hurricanes, tropical storms and other weather events due to the proposed channel enlargement.</p> <p>The EIS must evaluate the detrimental impacts on the natural wetlands, seagrasses, and scientific research areas when compared to the nonexistent impacts that would result from an offshore option. USACE must further evaluate the locations of seagrasses and wetlands and should not rely solely on the information provided in the Application.</p>	Email

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85	8					Marine Resources / EFH Water and Sediment Quality Wetlands / WOTUS	The EIS must evaluate the potential effect of the proposed Projects on the Aransas Pass inlet and how they may negatively impact migration patterns, salinity, water quality, and marine habitats.	Email
85	9					Marine Resources / EFH	The EIS must evaluate the negative impacts that will occur as a result of the proposed Projects on the Essential Fish Habitat and whether the Applicant has complied with applicable regulations under the MSFCA.	Email
85	10					Cumulative Impacts	The EIS must fully evaluate the impact of the Channel Deepening Project, as well as the cumulative impact of all three Projects, on marine and terrestrial federally-listed endangered species, including the hawksbill sea turtle, green sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, whooping crane, piping plover, and red knot. In addition, the EIS should evaluate the potential impact on this unique ecosystem that is the home for so many other species that are not otherwise protected.	Email
85	11					Water and Sediment Quality Marine Resources / EFH	The EIS must evaluate the extent to which the proposed Channel Deepening Project, with regard to the placement of 57.1 million cubic yards of sand and clay onto the shorelines and authorized placement areas over the next ten years, and the discharge of sediment that will be driven into the Aransas Pass inlet and adjacent Bay Systems during the dredging process, along with the discharge of 96.5 million gallons per day of highly saline wastewater from the proposed desalination plant, will negatively impact water quality in these areas. Finally, the EIS should evaluate not only the impacts of increased salinity due to the discharge of concentrated salt water from the desalination plant but must evaluate, on a quantitative basis, the likely effects of the proposed channel enlargement on exchanges of water, salt, organic matter, nutrients, sediment, and organisms between the Bay Systems and the nearshore Gulf of Mexico.	Email
85	12					Socioeconomics / Land Use / Recreation / EJ Navigation / Transportation	<p>The EIS must evaluate how the change in depth of the CCSC may affect loss of human life, injury to humans, and destruction of homes, boats, marinas, and other infrastructure.</p> <p>The EIS should evaluate how VLCCs will affect boat traffic, boat safety, ferry schedules and related congestion patterns.</p> <p>The EIS must evaluate who will bears financial responsibility should an accident or spill occur related to the Projects. Does Applicant have the financial wherewithal to respond to an oil spill in the Aransas Pass inlet and connected Bay Systems? Has Applicant provided some sort of financial assurance to address environmental cleanup and damage to private property or will taxpayers be on the hook to pay those costs? The EIS must provide a detailed analysis of the Applicant's financial ability to adequately respond to environmental and property damage that may be caused by these proposed Projects.</p>	Email

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85	13					Socioeconomics / Land Use / Recreation / EJ	<p><b>Economics and Recreation:</b></p> <p>The EIS must closely analyze the Projects' impact on recreation near the proposed Terminal Project as well as the VLCC routes and associated wake effects.</p> <p>The Projects and VLCC movement will impact recreational activities near the Terminal Project and along VLCC routes, but will also impact recreational activities throughout the Bay Systems and into the Gulf of Mexico. These impacts must be discussed with reference to fluctuating seasonal use, focusing on those times when recreational use is at its highest. The EIS must also evaluate the impacts on nearby parks and wildlife centers which is known to be occupied by numerous ESA-listed threatened and endangered sea turtle and bird species.</p> <p>The EIS should also specifically look at the negative impacts that the Projects will have on the recreational fishing industry in the region.</p> <p>It is not clear that any additional projects related to VLCCs will come to fruition given the recent decrease in demand for crude oil. If no such need can be demonstrated, it would be a significant waste of tax dollars to permit and construct these Projects. Furthermore, the EIS should conduct a full economic analysis that not only considers impacts on ecotourism, fishing, and recreational activities, but also evaluates the potential negative impact of these Projects will have on existing crude oil storage facilities and other established industries in the area.</p>	Email
85	14					Mitigation All Applicable Resources	<p>The Applicant has only proposed a non-binding summary of its restoration plans to address negative impacts to aquatic resources. A more robust and binding mitigation plan is required and must be made available for public review.</p> <p>The EIS must include a functional assessment of the impacts of all dredged material disposal, including proposed benefits at beneficial use sites, as well as geotechnical analysis, settlement curves, dredging plans, construction sequencing, containment degradation, planting plans, target elevations, sediment budgets and transport modeling, and must evaluate whether appropriate ecological performance standards have been included in the mitigation plan.</p>	Email

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85	15					DMMP All Applicable Resources	<p>The EIS should evaluate the potential impacts of contamination within the material dredged from the CCSC that will be discharged into beneficial use sites or authorized placement areas. The EIS must evaluate how the dredged material will be tested for contaminants prior to placement in order to comply with the Disposal Site Guidelines.</p> <p>Concerned about the adequacy of the information provided by the Applicant with regard to the discharge of dredged material. The EIS must fully evaluate the whether the Applicant has met the legal standards required under EPA's Disposal Site Guidelines.</p> <p>The applicant should conduct a new dredge material feasibility test to confirm the material is still suitable for offshore disposal, beach and dune restoration and BU activities due to the 16-year lapse from the previous test. The applicant should provide the most recent toxicity and bioaccumulation assessment of the dredge material for the resource agencies to review. In addition, the grain size and composition of the BU material should be evaluated for each proposed placement site to ensure characteristics are similar.</p> <p>USACE must evaluate an updated dredge material test evaluating for toxicity and bioaccumulation of the dredge material to demonstrate compliance with the Disposal Site Guidelines.</p> <p>The Applicant must describe the types of estuarine aquatic habitat that will be impacted and the type of habitat that it intends to create through discharge of dredged material, including elevations of the final beneficial use site. Supporting information on compaction, dewatering, subsidence, and relative sea level rise should also be made available for public review and comment and evaluated as part of the EIS.</p> <p>The EIS should evaluate geological surveys along with the proposed discharge of dredged materials to determine the potential impacts on sedimentation patterns, turbidity, erosion, and sediment containment that could impact existing marine habitats, beach fronts, and private property.</p>	Email
85	16					Permit Concerns	<p>USACE must also consider whether the permit applications are consistent with one another.</p> <p>The public is entitled to notice and an opportunity to evaluate the facilities that the Port of Corpus Christi Authority and Axis Midstream actually intend to build. If these Projects are not consistent, the public is left guessing as to what is actually proposed and what the actual impacts will be. Failure to provide an accurate description of what each Project actually intends to construct and how those Projects are connected with one another prevents the public from any meaningful participation in the permitting process.</p> <p>To the extent that the permit applications for the three Projects conflict or are inconsistent, the permit applications must be resubmitted, or at the very least, revised and re-noticed. This concern also reinforces the need to consider the three Projects as a single and complete Project.</p>	Email
86	1						7/3/2020	Cumulative Impacts

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86	2					Purpose and Need	USACE has advised that the Project's interdependence on two other Harbor Island actions necessitates a review of cumulative impacts. NEPA and federal case law require that the totality of impacts from these three proposed projects be reviewed as one whole project in the EIS. Despite the Applicant's failure to address cumulative impacts, the Project, Terminal Facility, and the Pipelines are related, are reasonably foreseeable future actions known to USACE, and according to USACE, these three projects may potentially cause significant environmental effects.	Letter	
87	1				7/3/2020	Cumulative Impacts	Concerned that failure to properly conduct a thorough EIS that covers cumulative impacts in the entire Coastal Bend area will reduce the quality of life for Americans living in, visiting, or working in the Coastal Bend; severely degrade the environment and make it less safe; and hasten depletion of resources while thwarting efforts to enhance renewable resource usage	Email	
87	3					Coastal Processes Hydrodynamic Salinity Modeling	Historical research on impacts of channel deepening must be used to inform modeling. The EIS needs to take into account the following and conduct extensive modeling to ensure that negative and costly impacts are unlikely to occur from the project: 1. Higher tides and increased tidal range 2. Increased height of storm surge 3. Increased frequency of nuisance flooding 4. Increased inland flooding 5. Salinity intrusion into bays and inland waterways 6. Increased sediment concentration due to dredging	Email	
87	4					Socioeconomics / Land Use / Recreation / EJ	Small communities are not fairly treated with regard to industrial development	Email	
87	5					Purpose and Need	A broader project purpose is required in order to examine appropriate alternatives. An alternative purpose of "promoting economic development in and resilience of Coastal Bend communities by protecting them from natural or manmade hazards" would be in better alignment with Ingleside on the Bay's goals as well as the goals articulated in the CBCOG's 2016 Comprehensive Economic Development Strategy (CEDS), which were revised in 2019 to accommodate the concept of resilience. It is important to consider how a more broadlyconceived purpose can HELP existing coastal communities rather than HARM them or make their future less certain, which can lead to lower property values and community blight – an effect currently being observed in coastal communities like ours that are still struggling to recover from Hurricane Harvey.	Email	
87	6					Purpose and Need	The Port of Corpus Christi's economic assumptions must be scrutinized and challenged. Given the current global pandemic the economic projections by the applicant need to be scrutinixed.	Email	
87	7					Socioeconomics / Land Use / Recreation / EJ	Socioeconomic impacts must include those on coastal communities including inpact on property values, shipping emergencies/accidents, oil spills, noise.	Email	
87	8					Cumulative Impacts	Cumulative impacts from all planned activities in Corpus Christi Bay must be considered.	Email	
87	9					Purpose and Need	In the event the channel deepening to 80' moves forward, without knowing full effects of previous channel deepening (which should be done first), there need to be mechanisms to monitor for damages or consequences, along with plans for abandonment or modification.	Email	
88	1					Public Involvement	7/3/2020	Request that a complete, thorough and unbiased EIS be produced in accordance with the NEPA. I and all of the citizens of the City of Ingleside on the Bay, are person(s) "adversely affected or aggrieved by agency action ... entitled to judicial review thereof."	Email
88	2					All Applicable Resources		Who is responsible to monitor the spills and report to the Federal authority as well as relay such pollution to the public for its own safety? What are the affects from these spills to wildlife and the environment during current and future dredging operations?	Email

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88	3					Navigation / Transportation Alternatives Mitigation	Concerned about the cumulative effect of wakes and water movement on the environment and how will this issue be remedied with or without the deepening to prevent loss of seagrass? Who is responsible for monitoring presently and in the future? What mitigation programs are proposed in the permit?	Email
88	4					Air Quality	Concerned about air borne particulate matter by operations that will blow the material to Ingleside on the Bay. Will this site be used for the POCCSC deepening and are studies included to understand the effects downwind where IOB is located? What contaminates are in these airborne materials and what safeguards are in place to ensure the safety of workers, residents, and all other affected parties, including boaters and recreational fishermen? Have studies been conducted to determine the health risks due to the size of the particulate material? Does this material, originally dredged from the POCCSC, contain toxic, heavy metals and particulate matter toxic to the respiratory system? Who monitors and approves this work and what data do you have regarding short-term and long-term health affects? Will this type of work be conducted in other areas with potential threats to civilian populations or to IOB that is directly affected now? Will PMx air monitors be put in place to regulate and enforce compliance?	Email
88	5					Air Quality	Air quality monitors deployed by IOBCWA have shown a distinct increase in nitrogen oxides (NOx), a pollutant derived from mooring tankers at the MODA terminal as well as from passing vessels and dredging operations. (See Slides #13 & #14) How will volatile organic compounds (VOC) discharges coming from vapor flashing from the tanks to the cargo tankers be contained? What about sulfur oxide (SOx) and particulate matter discharges (PMx) from ships smokestacks and loading operations during dockage levels? What effects will this have on the local communities? Are air monitors required for this permit?	Email
88	6					Air Quality HTRW	The Port of Los Angeles restricts docked and moored vessels from releasing toxic byproducts from their smokestacks due to health concerns in their communities. Docked vessels are required to use shore power instead of fuel burning generators. Will shore power be a requirement in the EIS permit?	Email
88	7					Air Quality	Reuters reports on new laws for shipping companies requiring reduced emissions of toxic sulfur fuels that cause premature deaths. (See Slide #15) Are these new global rules in place for ship traffic in POCCSC and if so, what authority regulates and imposes these new fuels law? With an increase in ship traffic forecasted and an increase in docked vessels along CCSC near the Intracoastal Waterway as well as La Quinta Channel, what studies have been conducted to determine the long-term health effects to populations in communities like Port Aransas, Aransas Pass, Ingleside, Ingleside on the Bay, Portland, and Corpus Christi? Will EIS and TCEQ require strict air monitoring in IOB, Port Aransas, Portland, and North Beach Corpus Christi as it pertains to this permit and the resultant increase in vessel traffic and dockage?	Email
88	8					Navigation / Transportation Coastal Processes Socioeconomics / Land Use / Recreation / EJ	Are the wake effects included in the EIS as well as the resulting economic impact to IOB? Is USACE aware of these studies and what is the scope of further studies to prevent serious loss of property and infrastructure due to ship wakes as it relates to sea level rise? The Mott MacDonald Study for IOBCWA describes the future as having a nuisance flood of 2.9' every year increasing to 3.9' return flood period by the year 2040. (See Slide #17 & #18) These flooding events do not consider the larger ships displacement that will be added on top of these flood events. Is USACE aware of this data and have plans for IOB's protection from ship traffic wakes including revetments and breakwater structures? What about the inevitable loss of property and economic loss from overtopping of bulkheads including the loss of property values? (See Slide #19) Has an economic study based upon the effects of ship traffic on local communities been conducted with the proposed permit?	Email



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88	9					Navigation / Transportation Sea Level Rise / Climate Change Coastal Processes Socioeconomics / Land Use / Recreation / EJ	We understand that the Port of Corpus Christi has multiple studies regarding La Quinta Channel's deepening and is knowledgeable as to the many issues including the ship wake effect to IOB. Are the wake effects included in the EIS as well as the resulting economic impact to IOB? Is USACE aware of these studies and what is the scope of further studies to prevent serious loss of property and infrastructure due to ship wakes as it relates to sea level rise? The Mott MacDonald Study for IOBCWA describes the future as having a nuisance flood of 2.9' every year increasing to 3.9' return flood period by the year 2040. (See Slide #17 & #18) These flooding events do not consider the larger ships displacement that will be added on top of these flood events. Is USACE aware of this data and have plans for IOB's protection from ship traffic wakes including revetments and breakwater structures? What about the inevitable loss of property and economic loss from overtopping of bulkheads including the loss of property values? (See Slide #19) Has an economic study based upon the effects of ship traffic on local communities been conducted with the proposed permit?	Email
88	10					Wetlands / WOTUS Threatened and endangered Species	Has an environmental impact study been conducted to determine effects to the wetland's species along the POCCSC and adjacent Corpus Christi Bay Waters? Ridley turtles and hosts of protected and threatened birds frequenting this stretch of shoreline are well documented.	Email
88	11					Wetlands / WOTUS Coastal Processes	Examples of erosion adjacent to current bulkheads along the shoreline of IOB are well documented. What studies have been done to eliminate this deleterious impact to wetlands and potential effects to IOB's shoreline?	Email
88	12					All Applicable Resources	The effects from ship displacement cause the IOB drainage systems to be a serious concern. Has this been included in the studies for economic and environmental impacts?	Email
88	13					Cumulative Impacts	What are the cumulative effects to Corpus Christi Bay's Water Quality as impacted from ballast release, drainage from and runoff from industries and discharge?	Email
88	14					HTRW	Is there a catastrophic pollution control plan for the potential for tanker collisions and spills that includes IOB and Corpus Christi Bay? Is this issue covered by the permit?	Email
88	15					Safety and Security	In the event of an emergency that affects health, safety, and welfare of all concerned residents such as ship collisions, oil spills, and vessel groundings, will there be an emergency alert system in place and required as a condition of the permit?	Email
88	16					Purpose and Need	Many of the statements and predictions on which the permit application was based have significantly change. Construction of infrastructure of any sort to support a theoretical demand that no longer exists is a bad investment and a misuse of public funds.	Email
89	1					7/3/2020	All Applicable Resources	Would like to see the EIS include all the items and concerns listed by Lars M Zetterstorm, COL, in the March 7, 2019 Memorandum for the Record. This USACE memorandum has an array of concerns listed including cumulative impacts.
89	2					Public Involvement	Lists the people that could not login or get to the login page; had failed audio and/or visual; were not able to participate for various technical difficulties.  Believes the public meetings are by design (Port of Corpus Christi design), a way to limit and thwart public knowledge and input. A true public meeting would allow us time to question and raise concerns while looking the Port folks directly in the eye. We would also know who else is in attendance, but that too was kept hidden.	Email

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89	3					Public Involvement	Requesting another public meeting for this project as well as the other two projects; SWG-2019-00245, Marine Berths on Harbor Island and SWG-2018-00789, Axis Midstream. When the Covid19 crisis lessens, the community most directly affected should be allowed a public meeting here in Port Aransas, Texas.	Email
89	4					Public Involvement	Port slides from the first public meeting were changed for all the following meetings. Concerned the Port is not telling the truth about anything. The narration was also changed and no reference was made about P3s after the first meeting.	Email
90	1				7/3/2020	Hydrodynamic Salinity Modeling	Little attention is paid to changes in hydrodynamics caused by changing the configuration of the inlet. What little mention there is applies primarily to storm surge.	Email
90	2					Hydrodynamic Salinity Modeling Marine Resources / EFH	Concerned about the immigration of larval stages into the estuary from the oceanic spawning grounds. Most parties acknowledge the importance of the process but a detailed assessment of the potential impact of altering the channel configuration is missing and must be addressed in the EIS for this project.  A particularly important part of that process that needs to be considered in detail in the EIS is how the changed channel configuration will affect the tidal excursion (flow of water in and out of the estuary) in the inlet.	Email
90	3					Hydrodynamic Salinity Modeling Coastal Processes	Concern here is that as the Corpus Christi Ship Channel is deepened further (first to the now authorized 54' and then to the requested 75') that those inlets will be less likely to remain open through natural processes and would only remain open through more and more expensive dredging operations. The EIS should address (through a broad scale modeling effort) the effect of the channel deepening on these adjacent inlets and some type of economic assessment of the production loss, and thus economic cost (assuming they cannot be kept open) be developed to count as an offset to the projected economic benefit being ascribed to the project.	Email
90	4					DMMP Alternatives	It is essential that the claim of beneficial use should be critically examined and discarded if shown to not be valid or even exaggerated.	Email
90	5					Alternatives Wetlands / WOTUS Hydrodynamic Salinity Modeling	It is incorrect of the applicant to state that "much of the seagrass no longer appears to be visible within aeriels", implying there is none there. That assessment is simply wrong! Field verification during the summer season would show the seagrass in the area to be strong and healthy.  The EIS should provide a detailed assessment of the entire area affected by the material placement, including the number of acres of seagrass affected not just by the actual placement site but by all material movement occurring during the de-watering process and an estimate of the time for recovery, and an estimate of production lost during that recovery period.  Another potentially negative effect of this placement site is related to the discussion above about tidal excursion. The construction of SS1 will extend the confined channel of the Corpus Christi Ship Channel some distance into Corpus Christi Bay (the exact detail is not clear from the rough illustration in the permit) potentially exacerbating the problem of reduced tidal excursion, and thus further reducing delivery of fish and shrimp larvae to suitable settlement habitat. The modeling effort I requested above should be run with and without site SS1 in place to examine the impact.	Email

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90	6					DMMP Alternatives Wetlands / WOTUS	That area is now an extensive seagrass/sand pocket area that is a highly productive fishing area and the proposal to put material there seems to be trading a productive seagrass meadow for a constructed marsh. The tradeoff may not be net beneficial and given t value of seagrass meadows, seems quite detrimental. The plans imply they will build only a berm to protect the area but 5’ high berms do not create “marsh habitat for native shorebirds and coastal wildlife”. The EIS should provide a detailed assessment of the entire area affected by the material placement, including the number of acres of seagrass affected and an estimate of the time for recovery, and an estimate of production lost during that recovery period.	Email
90	7					DMMP Alternatives Wetlands / WOTUS Migratory Birds / Wildlife Resources Threatened and Endangered Species Socioeconomics / Land Use / Recreation / EJ Water and Sediment Quality	Description of the site neglects to point out that 57 acres of grasslands within the preserve will be impacted. Not only are grasslands critical coastal habitat but the area is an integral part of the Nature Preserve and an area regularly visited by thousands of tourists every year. The disposal area will be unusable for some period of time, possibly years, and will be very unattractive as a tourist draw in a town that almost solely relies on tourism, especially eco-tourism.  The engineering plans do not show any berms or other mechanisms that will contain the dredge material, slurry of water and mud/sand will wash out over the large expanse of sand flat that lies behind the disposal site – where else can it go since the site is being closed off from the ship channel. This has the potential to impact threatened and endangered species habitat and many other birds. Would cover the algal mat with sediment as well.  The EIS should provide a detailed assessment of the entire area affected by the material placement, including the number of acres of mudflat affected, including an estimate of the depth of the mud slurry and an estimate of the time for recovery, and an estimate of production lost (both biological and economic, i.e. tourism) during that recovery period.  A chemical analysis to test for contaminants of the sediments to be deposited should be conducted before disposal and periodically during the process as the dredge moves to new sites.  Site SS2 should be abandoned as a disposal site.	Email
90	8					Alternatives	It is imperative that the EIS critically evaluate the claims of beneficial use of all dredge material placement sites. The applicant consistently claims that the project will not affect any marsh or seagrass since neither of those habitats occur within the immediate construction area, but the issues addressed above are in areas widely separated from the site itself and show the potential for widespread effects of the project. The EIS must address these far-field effects.	Email
90	9					Alternatives	All the issues outlined above are largely avoided of the alternative action of putting the oil export terminal offshore is chosen over the “preferred” action. The EIS (or the applicant) should thoroughly, openly, and honestly explore the alternative actions.  One of the alternative actions is “No Action” and that is the one the Corps should pursue for this reason: there is no demonstrated need for the project.	Email
90	10					Alternatives	A remarkably similar project was proposed in essentially the same location in the mid 1970s. It was for a Deep Draft Inshore Port called “SuperPort”. An EIS was prepared for that project in 1977 and should be referred to for this project. It is imperative for the EIS to assess the older engineering and determine why the need for a wider channel has changed (disappeared). There seems to be a real possibility that the channel slope in the new deeper but not wider channel will not be sufficient and the jetties will ultimately fail and fall into the channel.	Email

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91	1				7/3/2020	Hydrodynamic Salinity Modeling Marine Resources / EFH	Since the proposed area of intense initial and maintenance dredging is critical fish habitat (for spawning, larval transport and egress of adults to spawn in the GOM) special care must be given in the EIS to determine how this will change survival of these critical stages. So they will need to do modelling of transport and movement as well as estimated of the losses to an essential fishery.	Email	
91	2					Alternatives	An EIS completed in 1977 by SWRI for a similar project listed several contaminants in the sediment of the ship channel that are potentially lethal to larval fish. The EIS ins should insure that sediments in the ship channel are evaluated and the potential to harm larval stages is included with a literature review.	Email	
91	3					Hydrodynamic Salinity Modeling Coastal Processes	A study of storm surge changes with the deepening and changed contours is needed to insure the safety of citizens of Port Aransas. This should be evaluated in relation to the surge and egress of storm water during Hurricane Harvey in 2018. Would the deeper channel bring in more water such that if it follows the path of Harvey retreats over the back of Mustang Island and into the heart of Port Aransas.	Email	
91	4					Navigation / Transportation	An evaluation of the safety of boat traffic in the Port Aransas area should be evaluated. How will the deepened channel and increased VLCC traffic affect small fishing boats, tourist boats such as Dolphin cruises, and Party Fishing boats and thus the socioeconomic affects on the City of Port Aransas.	Email	
91	5					Socioeconomics / Land Use / Recreation / EJ	Finally the socioeconomic affect of the Deep Port and terminal at Port Aransas on the citizensand property values and businesses of Port Aransas should be assessed. Is the value of our town devalued by the POCC Deep Port at Harbor Island and if so by how much and how can we recover?	Email	
92	1					7/2/2020	Alternatives	Because the proposed project would not accommodate transit of fully laden VLCCs from any existing crude oil export facilities at the Port, any cost- or safety-benefit analysis should be limited to proposed and foreseeable future projects that would accommodate fully laden VLCCs.	Email
92	2					Purpose and Need	The proposed crude oil export projects at Harbor Island should be included in the scope of the Draft EIS to be consistent with the purpose and need of the channel deepening project. The purpose and need statement for the EIS should be consistent with the USACE determination	Email	
92	3					Alternatives	The proposed crude oil export projects in all phases of the CCSCIP should be included in the scope of the Draft EIS to be consistent with the purpose and need of the channel deepening project.	Email	
92	4					Alternatives	Fully loading VLCCs from a deepwater port in the Gulf of Mexico should be included in the range of alternatives for the proposed project.	Email	
92	5					Socioeconomics / Land Use / Recreation / EJ	Aransas and Corpus Christi Bays provide unique recreational opportunities such as boating, fishing, sailing, kayaking and birdwatching in addition to pristine environmental aesthetics from the existing natural habitats. The EIS should evaluate socioeconomic impacts not only to the recreational uses but the surrounding communities that support the activities.	Email	
92	6					All Applicable Resources	An evaluation of direct, indirect, temporary, and cumulative impacts to sensitive coastal resources that would result from the proposed project. Detailed maps, of all interdependent projects, should include overlays illustrating the location, extent, and type of coastal resources that occur within the vicinity of the projects. This includes all aspects of the projects whether onshore, inshore or offshore.	Email	
92	7					All Applicable Resources	Identify and describe measures that would be taken to avoid and minimize direct, indirect, temporary, and cumulative adverse effects to fish and wildlife and their habitats, including permanent and temporary impacts.	Email	
92	8					Threatened and Endangered Species	Potential impacts to all federal- and state-listed rare, threatened, and endangered species and their habitats with a five-mile vicinity of the project.	Email	
92	9					Threatened and Endangered Species	Potential impacts to Gulf beaches which provide critical wildlife habitat, such as sea turtle nesting areas and avifauna foraging and roosting areas.	Email	

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92	10					Marine Resources / EFH	Potential impacts to commercial and recreational fisheries and associated fishing activities, including both terrestrial and aquatic access routes.	Email
92	11					Marine Resources / EFH	Potential magnitude of individual and cumulative impacts to plankton and zooplankton associated with all phases of the project.	Email
92	12					Cumulative Impacts Marine Resources / EFH	Potential magnitude of individual and cumulative impacts to egg, larval, and adult stages of fish, shellfish, and other aquatic organisms associated with all phases of the project.	Email
92	13					Migratory Birds / Wildlife Resources	Potential for bird and bat collisions into project infrastructure .	Email
92	14					Migratory Birds / Wildlife Resources	Potential impacts (physical removal of nesting habitat and disturbance from human foot traffic and machinery use) to bird nesting areas during construction and operation of the proposed project.	Email
92	15					Ecological Community Types	Potential impacts to native coastal prairie vegetation, including barrier island, coastal dunes, depressions, and swales.	Email
92	16					Ecological Community Types	Potential impacts from invasive species and an Invasive Plant Species Control Plan that includes rapid colonizers of disturbed sites, such as Brazilian peppertree ( <i>Schinus terebinthifolia</i> ).	Email
92	17					All Applicable Resources	Potential impacts to public lands and public land uses (e.g., recreation, education, wildlife habitat, conservation, etc.).	Email
92	18					All Applicable Resources	Potential impacts to public access to local parks, state scientific areas, paddling trails, recreational fishing, bird watching, and other outdoor nature-based activities and the development of a Public Access Plan.	Email
92	20					Navigation/Transportation	Use of disturbed areas or those identified for future construction as staging, parking and equipment storage sites. All access routes of ingress and egress to the project area should be delineated and no travel outside of those boundaries should be authorized.	Email
92	21					Coastal Processes HTRW	An evaluation of additional impacts to the inshore portions of the proposed project areas, including increased erosion and loss of shoreline stabilization from pipeline installation, increased vulnerability to oil spills from crude oil pipelines and booster stations.	Email
92	22					HTRW	An evaluation of impacts associated with the removal of all onshore and inshore components of the proposed project resulting from decommissioning activities. The environmental impact statement should not assume that onshore and inshore components will be abandoned in place.	Email
92	23					Socioeconomics / Land Use / Recreation / EJ Cumulative Impacts	An evaluation of the individual and cumulative effects of temporary and permanent impacts to recreational and commercial fishing activities including traditional access points such as public parks, kayak launch sites and recreational boat ramps, waterbodies and shorelines.	Email
92	24					Socioeconomics / Land Use / Recreation / EJ Cumulative Impacts	An evaluation of direct, indirect, temporary, and cumulative impacts to navigation of commercial, recreational and public vessels (boats and vehicles) that would result from the proposed project.	Email
92	25					Ecological Community Types Cumulative Impacts	An evaluation of individual and cumulative impacts to native woody vegetation from terrestrial land clearing activities that will not be replanted or allowed to re-establish as well as the cumulative effects of unrestored temporary and permanent impacts to tenestrial and aquatic habitats.	Email
92	26					Mitigation	A comprehensive Habitat Restoration Plan that details pre-construction and post-construction surveys, reference sites, methods, timing, material sourcing, duration and extent of monitoring activities, success criteria and adaptive management that will be used to fully restore each terrestrial and aquatic habitat type that may be temporarily affected by the project.	Email
92	27					Mitigation	A comprehensive Compensatory Mitigation Plan that details how unavoidable permanent impacts to aquatic resource functions will be offset in a manner consistent with the Final Mitigation Rule.	Email
92	28					Economics	In addition to abandonment in place, potential impacts and cost estimates associated with decommissioning activities that involve the removal and disposal of onshore and inshore components of the project including pipelines, booster station and other project-related infrastructure.	Email

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92	29					DMMP	A Dredged Material Management Plan for all phases/portions of the project, including decommissioning activities, that includes the size and draft of all equipment that would be used to handle excavated sediments and the minimum water depths located within the work corridors, access routes, and staging areas.	Email
92	30					Coastal Processes	The potential to re-suspend and redistribute contaminants (including sediments) during all phases of the project that includes facility removal during decommissioning activities; an evaluation of impacts associated with those re-suspended particles; and a plan that details the timing and specific measures that would be taken to avoid and minimize those impacts. Use of silt or turbidity barriers that will not entangle wildlife including sea turtles and manatees.	Email
92	31					All Applicable Resources	The potential for facility expansion, such as dredge and fill activities, additional right-of-way, deepening and widening of channels, additional storage tanks or other infrastructure and additional impacts to fish and wildlife habitat.	Email
92	32					All Applicable Resources	Potential direct, indirect, temporary, and cumulative impacts to sensitive coastal resources associated with future maintenance and repairs of pipelines.	Email
92	33					Coastal Processes	On-site stormwater management plan for Harbor Island facilities.	Email
92	34					Coastal Processes	Potential environmental impacts resulting from damages to the proposed project facilities by a major hurricane and a Hurricane Response Plan.	Email
92	35					HTRW	An Operational Spill Response Plan for the release of hazardous material should be included in the EIS.	Email
92	36					Marine Resources / EFH	The original DEIS did not address the discharge of ballast water due to the intention of importing crude oil, this EIS should include protocols for ballast discharge, tank washing and the prevention of aquatic invasive species for export activities.	Email
92	37					HTRW Mitigation	An environmental monitoring program should be evaluated to monitor ecological conditions at various locations within the project limits during both the constructional and operational phases of the deepening of the CCSC to 70 feet. The purpose of the construction phase of the monitoring program would be to measure conditions prevailing immediately prior to, and during construction to permit minimization of harmful environmental changes, as compared to preconstruction conditions. The monitoring program carried on during early operation would be undertaken to evaluate the ecological changes in the project area attributed to development of the crude oil export using fully laden VLCC' s.	Email
92	38					Marine Resources/EFH	TPWD offers the following recommendations and information for the purpose of avoiding and minimizing impacts to fish and wildlife resources, coastal zone uses and recreational activities within the vicinity of the proposed project:  TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from areas to be disturbed. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. (see letter for details)	Email
92	39					Wetlands/SAV	For soil stabilization and/or revegetation of disturbed areas within the proposed project area's onshore and upland inshore sections, TPWD recommends utilizing erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. (see letter for details)	Email
92	40					Ecological Community Types	To the greatest extent practicable, TPWD recommends avoiding and/or minimizing clearing native woody vegetation and native herbaceous communities (e.g.,native grasslands) to construct new access roads or to accommodate heavy equipment access to project sites. Wherever possible, TPWD recommends locating new access roads in previously disturbed areas, including previously cleared right-of-way's (ROWs), utility corridors, etc., or improving existing roads (e.g., private farm and ranch roads). Material and equipment staging areas should be located in previously disturbed upland areas that do not require vegetation clearing.	Email

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92	41					Ecological Community Types	• TPWD recommends referring to the Lady Bird Johnson Wildflower Center Native Plant Database (available online) for regionally adapted native species that would be appropriate for post-construction landscaping of disturbed areas. For herbaceous revegetation efforts, TPWD recommends the exclusive use of a mixture of native grasses and forbs . While some introduced grasses that may be presently growing in or adjacent to the project areas can provide suitable forage for livestock and some species of wildlife with proper management, introduced species typically develop into monotypic stands of vegetation that do not provide high quality grassland habitat able to support a diversity of wildlife species. TPWD recommends that native grasses having the same desirable characteristics as introduced grasses commonly use in revegetation plans be incorporated into project planning and implemented following construction.	Email
92	42					Environmental Concerns	The Inadvertent Returns Contingency Plan should include site specific plans for addressing returns in shallow water habitats that are in and adjacent to submerged or emergent aquatic vegetation and tidal flats. ( <i>see letter for details</i> )	Email
92	43					Alternatives	Because tidal flats and coastal dune swales are difficult to replace, these habitats should be avoided to maximum extent practicable.	Email
92	44					Safety and Security	Particularly for inshore and onshore facilities, TPWD recommends considering appropriate lighting technologies and best management practices (BMPs) described at the International Dark-Sky Association website. Specifically, security lighting within any fenced compounds should be fully down shielded and directed away from vegetation outside of fenced areas. Security lighting around on-ground facilities should also be motion- or heatsensitive to eliminate constant nighttime illumination. For offshore lighting, lights should be shielded to eliminate both skyward and sea surface illumination (which can attract fishes and invertebrates).	Email
92	45					Migratory Birds / Wildlife Resources	The proposed project is located in a region with very diverse habitats that are within the range and suitable habitat for many rare species and migratory birds. TPWD recommends the Draft EIS thoroughly evaluate the proposed project's potential impacts to nongame birds.  If vegetation clearing or ground disturbance must be scheduled to occur during the nesting season, TPWD recommends the areas to be impacted should be surveyed for active nests by a qualified biologist. Nest surveys should be conducted no more than five days prior to the scheduled clearing to ensure recently constructed nests are identified. If active nests are observed during surveys, TPWD recommends a 150-foot buffer of vegetation/undisturbed area remain around the nest until the young have fledged or the nest is abandoned.	Email
92	46					Threatened and Endangered Species	TPWD recommends reviewing the most current TPWD annotated county lists of rare species for Nueces, San Patricio and Aransas counties, as rare species could be present depending upon habitat availability. TPWD recommends the Draft EIS thoroughly evaluate the proposed project's potential impacts to state-listed species in all three project areas; onshore, inshore and offshore. Information provided in future environmental documents should be verified for accuracy and consistency with the most current list. Specific evaluations should be designed to predict project impacts upon natural resources.	Email
92	47					Marine Resources / EFH	Because the project would require work in and in proximity to aquatic habitats, the project should be coordinated with TPWD's Regional Response Coordinator for appropriate authorization(s) and technical guidance to ensure protection of aquatic wildlife.	Email



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92	48					Socioeconomics/Land Use/Recreation/EJ	The inshore pipeline route would utilize a 100-foot-wide construction corridor that runs parallel to and north of Highway 3 61, bisects Redfish Bay and the Redfish Bay State Scientific Area (RBSSA), and runs through the length of Lighthouse Lakes Park. Chapter 26 of the TPW Code provides that a department, agency, political subdivision, county, or municipality of this state may not approve any project that requires the use or taking of public land ( designated and used. prior to the project as a park, public recreation area, scientific area, wildlife refuge, or historic site) unless it holds a public hearing and determines that there is "no feasible and prudent alternative to the use or taking of such land" , and the project "includes all reasonable planning to minimize harm to the land ... resulting from the use or taking."	Email			
93	1					Purpose and Need	The Axis Midstream Pipeline Project, Harbor Island, Terminal and Channel Deepening project are all dependent on and related to each other. A failure to consider these permit applications together would be a failure to meet the intent of NEPA and follow the clear guidelines for NEPA review. All impacts should be evaluated together.	Email			
93	2					Purpose and Need	The Channel Deepening application provides a much narrower purpose and need that confirms the Applicant's overall plan is directly tied to the Terminal Project on Harbor Island. No other terminals currently exist on Harbor Island, and there are no other pending/approved Department of the Army permits whose purpose is to accommodate VLCC's, so the purpose of the Channel Deepening Project is still directly tied to the Terminal Project. If the USACE allows the Applicant to proceed with the Channel Deepening Project, the Applicant will necessarily be committed to develop the Terminal Project due to the functional and economic ties between the two Projects.	Email			
93	3					Cumulative Impacts	Even if the Channel Deepening Project, the Harbor Island Terminal Facility Project, and the Axis Midstream Pipeline Project are not considered a single and complete project (even though they clearly should be, as numerous documents from the USACE itself have already noted), the cumulative impacts of these three projects must be evaluated together.	Email			
93	4					Wetlands / WOTUS	The project will have substantial impacts on WOTUS.	Email			
93	5					Wetlands / WOTUS	Portions of the wetlands that may be impacted by the Channel Deepening Project are part of the Redfish Bay State Scientific Area ("RBSSA").	Email			
93	6					Coastal Processes	The project will impact sedimentation patterns within the Bay Systems. Maybe more importantly, the Projects will undoubtedly impact storm surge, as even more water will be pushed into the Bay Systems. For a region that was devastated by Hurricane Harvey in 2017, the impact on storm surge and safety is of utmost importance to the public interest.	Email			
93	7					Wetlands / WOTUS	The Applicant relied on a 17-year old EIS for a previous channel improvement project and out-of-date Texas Parks and Wildlife seagrass mapping tools. They alone are not reliable sources of the locations of important habitats. There are more current data available on the locations of seagrasses from the TPWD and from scientists at Texas universities. USACE must further evaluate the locations of seagrasses and wetlands and should not rely solely on the information provided in the application.	Email			
93	8					Water and Sediment Quality	Fails to address the impacts of the dredging operations on water quality. USACE must require the Applicant to provide a quantitative analysis and put in place specific permit conditions that address this issue.	Email			
93	9					Coastal Processes Water and Sediment Quality	Must evaluate the extent to which the project dredging and discharge of sediment will be driven into the Aransas Pass inlet and adjacent Bay Systems during the dredging process, along with the discharge of 96.5 million gallons per day of highly saline wastewater from the proposed desalination plant, will negatively impact water quality in these areas.	Email			

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93	10					Coastal Processed	Not only are storm surges likely to increase if the CCSC is deepened as proposed by the Channe lDeepening Project, but the negative impacts of VLCC wake damage on recreational vessels, marinas, jetties, and other infrastructure must also be evaluated. Such impacts are clearly kow to be expected and will be the direct result of the Terminal Project.	Email
94	1				6/16/2020	Public Involvement	Trying to get on to the public meeting and cannot due to it's unavailability. Public meeting should be public.	Voicemail/Text
95	1				6/16/2020	Public Involvement	Port Aransas resident unable to login through the WebEx portal but was unable to hear when dialed into the meeting line.	Voicemail/Text
95	2					Public Involvement	Concerned that the meeting isn't viable because it excludes several demographics including those that are underprivileged don't have access to internet, computer and phone technology.	Voicemail/Text
95	3					Public Involvement	Strongly encourages the meetings be rescheduled in person for later date.	Voicemail/Text
95	4					Public Involvement	Believes there is a violation of the Nepa Act 301 and people's civil rights.The Port's aggressive timeline takes precedent over that of the rights of the citizens.	Voicemail/Text
96	1				6/15/2020	Public Involvement	Signed up and registered but is confused what it means to use WebEx, but on the paperwork, it shows that if I dial this number 408-418-9388, and the event number is 132-508-6035.Wants to confirm if they can use cell phone or has to download WebEx. Thank you. Can be reached at 210-240-7188.	Voicemail/Text
97	1				6/11/2020	Public Involvement/ Alternatives	Unhappy with the virtual scoping meetings: technology failures, muting and unmuting features malfunctioning. Has a list of people who weren't able to connect to the meeting including John Holt. Demands an in-person public meeting.	Voicemail/Text
97	2					Public Involvement	Concerned that the Port of Corpus Christi is not being transparent and trying to enforce the project along with the USACE without the approval of the public. Requests that the Corps responds to the public request not to embark on this project.	Voicemail/Text
97	3					Public Involvement	Noticed the P-3 file was removed and the wording changed on the presentation compared to the June 9th meeting. This is important because the P3 public-private Partnerships isn't being implemented but want the public to believe there aren't any public-private partnership guidelines.	Voicemail/Text
98	1				6/11/2020	Public Involvement	Technological failures: unable to get in the meeting. On the call with Cathy Fulton, Joe Krueger and Pat.	Voicemail/Text
99	1				6/11/2020	Tourism and Residential Life.	Expressing probable cause of technological difficulties in the public meeting: Mentions the huge traffic of tourists and residents(usually ~ 3,500 residents but increased to ~6,500) on the island leading to a heavy burden on the internet service and cellphone service in Port Aransas.	Voicemail/Text
99	2					Alternatives	Enable the public to provide input and requests an in-person meeting due to insufficiency of internet infrastructure or cell phone service in Port Aransas.	Voicemail/Text
100	1				6/9/2020	Alternatives	Former Merchant Marine who believes having an offshore terminal solution awould be a lot better as opposed to putting the businesses against the residence and all along the Coastline. Would like to know the problems with the offshore terminal solution. They seem to be working in Algeria and in Dallas in other places.	Voicemail/Text
100	2					Wetlands/SAV	Analyze the offshore terminal solution before intense detail work is done about Shoreline restoration and always to bed and bath grass beds and all those things. Would like to understand all the time for you to publicize.	
101	1				6/9/2020	Wetlands/SAV	Resident of Ingleside on the bay and parents bought a beach house there in1967. Concerned that the ongoing dredging operations near the intercoastal in the Corpus Christi Ship Channel and Quinta is is causing oil spill from pump barges and numerous dredge line leaks within the Bayfront. Wants to know who watches and controls this because it's a problem to our sea grass in our community.	Voicemail/Text

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101	2					Air Quality	Dirt work is underway across from Isle B causing matter to fall in the communities across our vehicles and our homes. Water truck don't seem to be used and monitored appropriately to reduce pollution. Concerns about whether there are heavy metals and other chemicals being dredged up in prior operations.	Voicemail/Text
101	3					Air Quality	Concerns about whether the measured increase in emissions of toxic materials from ship traffic and tankers will be looked at in the EIS study. Wants to know if the deepening of the channel directly affects storm surge and is relative to *if the* sea level taken into effect. How is the passing vessel study being utilized for the community and other low-lying communities such as Aransas Pass, Rockport, Port Aransas, Portland Flower Bluff, North Beach? How would they be impacted?	Voicemail/Text
101	4					Sea Level Rise/Climate Change	Aware from previous studies that overtopping of our bulkheads occur and would like to know how the relative sea-level will affect the communities.Would like to know what the Corps of Engineers and other entities are doing to help communities understand and manage this problem.	Voicemail/Text
102	1				6/9/2020	Environmental Concerns	Representing the Texas chapter of the Coastal Conservation Association with the intent of highlighting concerns that the project may have on fisheries and habitat of the coastal ecosystems within and adjacent to the proposed work. This non-profit organization comprised of recreational Anglers advise and educate the public on the conservation of Marine Resources while promoting access to public resources to their benefit.	Voicemail/Text
102	2					Threatened and Endangered Species	The project location is within a vital connection between Corpus Christi and our anticipated systems and the Gulf of Mexico. These major base systems are home to numerous species that interest to our membership in addition to their home to varied habitat types, including oyster Reef, seagrass beds, Mudflats, hard structures, Shoreline vegetation in a unique inner title Mosaic of all that aforementioned habitats. Plainly speaking, the project is adjacent to sensitive areas of significant importance to Costa flora and fauna.	Voicemail/Text
102	3					Migratory Birds / Wildlife Resources	CCA Texas requests that the following be analyzed in the development of the EIS: impacts of shipway corrosion on adjacent habitats if the project were to be completed; impacts of dredging activities and increased Channel debt on the lava recruitment from offshore spawning populations of several thousand flounder net shrimp species, blue crabs and red drum. Impacts of dredging on Southern flounder during their annual migration and seasonal Arbor recruitment, the timing of relationships and she residence 25,000 miles . Impact the increased celebrities in Corpus Christi bay on the system on the sustainability of oyster reefs and then finally the inclusion of interdependent projects in the development of a singular environmental impact statement.	Voicemail/Text
102	4					Geology and Soils	The proposed project the construction of a Harbor Island terminal, proposed pipelines and Facilities by access midstream's across sensitive habitat types are interdependent and should be considered in a singular project when it comes to the development of an Eis as their environmental impact will certainly be cumulative and potentially devastating for the Region's natural resources.	Voicemail/Text
103	1				6/9/2020	DMMP	Would like to know who monitors dredge operations and monitors the oil spills going across from Ingleside on the bay. The Dredge line leaks and there's dirt work underway in the system. How will this be enforced in Ford Edge? We have dirt work underway across the Ship Channel on Ingleside the bay and currently been impacted by dust and particulate matter that is falling on our community. Although we get water trucks in the back, blowing dust is a constant problem. And we wonder if there is going to be having another technical difficulty.	Voicemail/Text
104	1				6/5/2020	Socioeconomic/Land Use/Recreation/EJ	Moved to the Corpus Christi area in 2017 and has known the area long before as child. Wants constrictions to the respect of the environment underwater specifically is retained in the PCCA deepening. Concerned that the location where the VLCCs are to be placed based on the Port's design is too close to the ferry line. Wants to know if VLCC is needed on Harbor Island and possibly even a salt water plant.	Voicemail/Text

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104	2					Marine Resorcues/EFH	Believes the harbor will be poisoned and the harbor will be ruined along with entire estuary around it like Galveston Bay and the Houston channel as they're all connected. Fish caught from those places are poisoned beyond belief.	Voicemail/Text
104	3					Tourism and Residential Life.	Believes that tourism and the fishing industry in the city of Port Aransas will be ruined. Believes that Corpus Christi needs Port Aransas to survive.Wants an environmental consideration to accompany dredging the channel from whatever 54 -50-70ft. Wishes a VLCC would not be created on Harbor Islandnext to the Harbor Landing of the fairies which used to be a cruise /Casino terminal as it is beneficial to tourism.	Voicemail/Text
104	4					Alternatives	Suggests Ingleside as the formal Ingleside Naval Air Station or naval base station as it was where training went on for ship participants while Corpus Christi is where air participants where trained. *It closed Ingleside and the 1995 closure but my point is dead. And I know it's mostly privately owned now, especially looking they call it La Quinta terminal and the La Quinta channel. We know all that but who's behind all this LaQuinta and some other oil companies?* Suggests dredging LaQuinta Channel instead of ruining Harbor Island and the entire Estuary around Port Aransas as it has a deep history in fishing. That you are underutilizing it if you go VLCC with it. So get rid of that idea come up with some Alternatives. Desires that Corpus Christi shouldn't be turned Houston or Galveston.	Voicemail/Text
105	1					DMMP	Completely opposed to dredging at any location being the cause of the ruin of the Texas Gulf Coast! Expressed appreciation for the offer to receive texts. Owns two homes in Port Aransas and has been here all their life.	Voicemail/Text
105	2					Coastal Processes	Requests an immediate ceasure to deepening of any channels damage the Texas Coast natural environment.	
106	1					Public Involvement	Technical difficulty: Unable to log into the virtual meeting.	Voicemail/Text
107	1					Public Involvement	Technological difficulty: Unable to hear the Commander Timothy Vail. Wants to know if the meeting will be rescheduled. Would have preferred these meetings to be in-person! Feels that the PCCA and their private partners are doing this during Covid-19 so no one can be able to comment! Feels that constitutinal rights are being violated.	Voicemail/Text
108	1					Public Involvement	Unhappy with the public meetings and feels the public cannot view and comment.	Voicemail/Text
108	2					Public Involvement	States that the Port of Corpus Christi repealed the state guidelines for P3s in December of 2019 at the Port meeting. They now have no guidelines to adhere for P3s, yet in the video they imply there are P3 projects.Hopes USACE will question this fact.	Voicemail/Text
108	3					Public Involvement	Technological diffuctly: Unable to make comments and sat on hold and never got to make a comment. People from the Port also weren't able to login and hosted people trying to login. Demands an in-person meeting.	Voicemail/Text
108	4					DMMP	No mention of the Desalination plant right at Harbor Island, discharge to go into ship channel. No facility on Harbor Island that justifies a \$400,000,000 dredge.	Voicemail/Text
108	5					Permit Concerns	States that this is not a complete project as proposed, the marine terminal SWG-2019-00245 , and Axis Midstream SWG-2018-00789 must be included in a EIS.	Voicemail/Text
108	6					Public Involvement	We have the right to do comments and ask questions in person!i!!! That is our request!!! Don't allow the Port to slither under a rock!	Voicemail/Text
109	1					Public Involvement	Wants the meeting link sent to email as it wasn't sent at registration.	Voicemail/Text
110	1					Socioeconomic	Mentions that in 1977 the Southwest Research Institute prepared an Environmental & Socio-economic Report for the USACE for a similar project by the PCCA to deepen the Channel. Believes that information should help in the current effort.	Voicemail/Text

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111	1				7/4/2020	DMMP	Resident of Corpus Christi for 20+ years requesting that all environmental impacts to water, air, land, wildlife, and local communities be adequately addressed. Concerned about the project impact on water quality and marine life from likely diesel and oil spills from dredging operations, dredge line leaks and pollution from ballast release, tank farm drainage, tanker runoff, and dredging including impact of suspended dredge materials.	Email
111	2					Erosion Concerns	Threats to shoreline due to erosion from larger ship wakes and water displacement as well as damaged to bulkheads, docked boats and property.	Email
111	3					Threatened and Endangeres Species	Threats to wildlife, in particular to shoreline birds due to the proximity of wetlands adjacent to the Corpus Christi bay waters. How much will the reduced hydraulic resistance due to the larger cross section of the ship channel contribute to:larger potential storm surge, particularly for large slowly moving hurricanes with path perpendicular to the coast and landing southward of Corpus Christi.larger inundation frequency for weather driven events combined with a somewhat increased tidal range impacting wetlands and Corpus Christi Bay shorelines in general.	Email
112	1				7/4/2020	Threatened and Endangeres Species	Long-time resident of Corpus Christi requesting that all environmental impacts to water, air, land, wildlife, and local communities be adequately addressed. The following are of particular concern:	Email
112	2					Air Quality	Threats to air quality from blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB; VOCs discharged from vapor flashing; and sulfur oxide discharged from ship smokestacks and loading operations during dockage levels.	Email
112	3					Threatened and Endangered Species	Threats to shoreline due to erosion from ship wakes and water displacement as well as damaged to bulkheads, docked boats and property.Threats to wildlife, in particular to turtles and birds due to the proximity of wetlands adjacent to the Corpus Christi bay waters and of Ridley nesting grounds.	Email
112	4					Noise/Acoustics	Threats to local communities from light and noise pollution and property damage that can result from ship wakes and water displacement.	Email
113	1				7/3/2020	Tourism and Residential Life.	Concerned that failure to properly conduct a thorough EIS that covers cumulative impacts in the entire Coastal Bend area will reduce the quality of life for Americans living in, visiting, or working in the Coastal Bend; severely degrade the environment and make it less safe; and hasten depletion of resources while thwarting efforts to enhance renewable resource usage. Related to Sec. 101 1 [42 USC § 4331] of the National Environmental Policy Act (NEPA) of 1969	Email
113	2					Alternatives	Hopes that more productive purpose is derived to unite efforts toward resiliency for every community in the Coastal Bend.	Email
113	3					Alternatives	Project area must be the Coastal Bend region as a whole or at least the tri-county area. It is important to properly define the project area for this “channel deepening”. However, efforts have been greatly accelerated through streamlined permitting and legislative changes in just the last couple of years. Nueces, San Patricio, and Aransas Counties are 3 of the 11 counties served by the Coastal Bend Council of Governments (CBCOG). At the very least\impacts on San Patricio and Aransas Counties, which immediately adjacent to the proposed Corpus Christi Channel Deepening project, need to be considered in full, along with Nueces.	Email
113	4					Cumulative Impacts	Historical research on impacts of channel deepening must be used to inform modeling. This Environmental Impact Statement needs to take into account the following known effects from deepening ship channels around the world over the last 150 years.	Email

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113	5					Socioeconomics / Land Use / Recreation / EJ	Concerned that small communities might not be fairly treated in regard to industrial development.Extra care should be taken to ensure fair treatment of small communities in the EIS process.	Email
113	6					Alternatives	A broader project purpose is required in order to examine appropriate alternatives. Fears that this project will hasten depletion of resources (without concern for waste, recycling, or pollution) -while thwarting efforts to enhance renewable resource usage.	Email
113	7					Alternatives	An alternative purpose that would allow examination of alternatives such as diversifying the economy by developing renewable energy production sites and methods; creating design and construction training and jobs for community flood protection, such as flood gates, breakwaters, living shorelines, revetments, seawalls;	Email
113	8					Environmental Concerns	The Port of Corpus Christi's economic assumptions must be scrutinized and challenged. It is reckless to assume that projections for global oil consumption needs and demand for greenhouse gas exports based on pre-COVID-19 times have any validity today and moving forward.	Email
113	9					Alternatives	Socioeconomic impacts must include those on coastal communities. Alternatives for routine dredging (such as creating fabric/fiberglass to hold walls in place) need to be a part of this EIS. Concerned that despite job creation, there is a cost of ruining the ambiance and amenities of the area or of putting coastal communities at greater risk.	Email
113	10					Cumulative Impacts	Cumulative impacts from all planned activities in Corpus Christi Bay must be considered. Believes it wasteful to have our State, County, or City spend money on designing and implementing drainage or flood mitigation projects without taking into account the broader federal projects underway – and vice versa – especially when there is evidence to suggest that channel deepening specifically has the potential for broad-reaching impacts on bay systems and estuaries.	Email
113	11					Alternatives	Mechanisms for Halting Channel Deepening should include the assessment of the full effects of previous channel deepening as there need to be mechanisms to monitor for damages, along with plans for abandonment or modification.	Email
113	12					Public Involvement	Suggests that in-person public meetings be implemented due to the digital divide issues.Believes that working together holistically is much more likely that we can arrive at approaches that don't just bring great-paying jobs and profits for a few, but also position the Coastal Bend as a great place to live, work, and play for many without damaging this beautiful part of the world.	Email
113	13				Public Involvement	Concerned about the unmitigated environmental impacts that the proposed project will have to the citizens of the City of Ingleside on the Bay. Requests that an Environmental Impact Statement (EIS) report that addressed vital issues be produced in accordance with the National Environmental Policy Act (NEPA). Who is responsible to monitor the spills and report to the Federal authority as well as relay such pollution to the public for its own safety. Wants to know the effects from these spills to wildlife and the environment during current and future dredging operations? Deep channels cut into the sea grass beds by this volume of ship wake movements are documented by aerial photos. How will this inevitable problem be remedied with or without the deepening of the PCCA to prevent loss of the vital sea grass beds? Who is responsible for monitoring presently and in the future? What mitigation programs are proposed in the permit?	Email	

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114	1				7/3/2020	Air Quality	There is blowing sand and dust particulate matter from dredged material placed on spoil islands. What safeguards are in place to ensure the safety of workers, residents, and all other affected parties, including boaters and recreational fishermen? Does dredged material contain toxic, heavy metals and particulate matter toxic to the respiratory system? Who monitors and approves this work and what data do you have regarding short-term and long-term health affects? Will this type of work be conducted in other areas with potential threats to civilian populations or to Ingleside on the Bay that is directly affected now? Will PMx air monitors be put in place to regulate and enforce compliance?Air quality is a serious concern. IOBCWA in collaboration with Texas A&M Corpus Christi Environmental Sciences have deployed passive air monitors since December 2019. Results show a distinct increase in nitrogen oxides (NOx), a pollutant derived from mooring tankers at the MODA terminal as well as from passing vessels and dredging operations. How will volatile organic compounds (VOC) discharges coming from vapor flashing from the tanks to the cargo tankers be contained? What about sulfur oxide (SOx) and particulate matter discharges (PMx) from ships smokestacks and loading operations during dockage levels? What effects will this have on the local communities? Are air monitors required for this permit?The Port of Los Angeles restricts docked and moored vessels from releasing toxic byproducts from their smokestacks due to health concerns in their communities. Docked vessels are required to use shore power instead of fuel burning generators. Will shore power be a requirement in the permit? In addition, Reuters reports on new laws for shipping companies requiring reduced emissions of toxic sulfur fuels that cause premature deaths. Are these new global rules in place for ship traffic in POCCSC and if so, what authority regulates and imposes these new fuels law? With an increase in ship traffic forecasted and an increase in docked vessels along CCSC near the Intracoastal Waterway as well as La Quinta Channel, what studies have been conducted to determine the long-term health effects to populations in communities like Port Aransas, Aransas Pass, Ingleside, Ingleside on the Bay, Portland, and Corpus Christi? Will strict air monitoring in Ingleside on the Bay, Port Aransas, Portland, and North Beach Corpus Christi as it pertains to this permit and the resultant increase in vessel traffic and dockage be required?	Email



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114	2					Environmental Concerns	Does the Permit consider relative sea level rise and resulting effects, including erosion, bulkhead, and property damage? Saltwater intrusion within McGloin's Bluff complex? In addition, does it take into account the already pressing effects of ship wakes and water displacement with resulting flooding to coastal communities including Ingleside on the Bay? What mitigation plans are in place to resolve these issues?We understand that the Port of Corpus Christi has multiple studies regarding La Quinta Channel's deepening and is knowledgeable as to the many issues including the ship wake effect to Ingleside on the Bay. Are the wake effects included in the EIS as well as the resulting economic impact to Ingleside on the Bay? Is USACE aware of these studies. What is the scope of further studies to prevent serious loss of property and infrastructure due to ship wakes as it relates to sea level rise? The Mott MacDonald Study for IOBCWA describes the future as having a nuisance flood of 2.9' every year increasing to 3.9' return flood period by the year 2040. These flooding events do not consider the larger ships displacement that will be added on top of these flood events. Is USACE aware of this data and have plans for Ingleside on the Bay's protection from ship traffic wakes including revetments and breakwater structures? What mitigation is planned for the inevitable loss of property and economic loss from overtopping of bulkheads including the loss of property values? Has an economic study based upon the effects of ship traffic on local communities been conducted with the proposed permit?An EIS must consider the effects to the wetland's species along the POCCSC and adjacent Corpus Christi Bay Waters? Ridley turtles and hosts of protected and threatened birds frequenting this stretch of shoreline are well documented.Examples of erosion adjacent to current bulkheads along the shoreline of Ingleside on the Bay are well documented. What studies have been done to eliminate this deleterious impact to wetlands and potential effects to Ingleside on the Bay's shoreline?The effects from the passing vessel's displaced water surges (increased by the ships bulbous bow and the resultant form effect) cause the Ingleside on the Bay drainage systems to be overrun and are a serious concern. Has this been included in the studies for economic and environmental impacts?What are the cumulative effects to Corpus Christi Bay's Water Quality as impacted from ballast release, non-point pollution, drainage from and runoff from industries and discharge?Is there a catastrophic pollution control plan for the potential for tanker collisions and spills that includes Ingleside on the Bay and Corpus Christi Bay? Is this issue covered by the permit?In the event of an emergency that affects health, safety, and welfare of all concerned residents such as ship collisions, oil spills, and vessel groundings, will there be an emergency alert system in place and required as a condition of the permit?Once again, I strongly request that a complete, thorough and unbiased	Email
114	3					Socioeconomics / Land Use / Recreation / EJ	The USACE should not be a part of this poorly conceived plan. An EIS will prove that it will cause harm to the regional environment and a closer review of the basis for the application in the first place would show that it will cause harm to the regional economy.	Email
114	4					Public Involvement	Would like to request a public hearing where the applicant should provide adequate proof and analysis that the dredging efforts will not affect the health and property of citizens that live near or on adjacent to the ship channel. Corps to require the PCCA to model the potential differences in storm surge and tide events to be provided to the public.	Email
115	1				7/3/2020	Cumulative Impact	Concerned about the channel deepening project and its future impact on the community of Ingleside on the Bay. Request that studies be done prior to project implementation.	Email
116	1				7/3/2020	Threatened and Endangered Species	Concerned about the destruction of fish & marine habitat. Who will oversee these environmental catastrophes, and what mitigation actions have been proposed?Shrimping: We observe shrimp boats using the channels on a regular basis. What happens to the shrimp and the livelihood of the shrimpers if this project proceeds? What environmental and/or economic studies have been done on this very important local industry?	Email
116	2					Water and Sediment Quality	Water pollution: With increased ship traffic of bigger, deeper & wider ships, the potential for a fuel spill grows exponentially. What mitigation plans have been formulated?	Email

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116	3					Air Quality	Air pollution: Again, bigger, deeper & wider ships naturally increase the potential for degradation of air quality. What plans have been proposed for capturing NOX and VOC discharges? As well as SOX & PMX from docking & loading vessels?	Email
116	4					Noise/Acoustics	Noise pollution: We have for several months experienced almost constant noise levels from dredging & pumping operations. Are there any plans for monitoring & mitigating these noise levels?Dredge Material: Where is all the dredge material going to go? We know that spoil islands have been proposed. Have there been any environmental impact studies on these spoil areas? How much sea grass will be destroyed? Have there been any mitigation plans in this regard?Finally, we are formally requesting public comment hearings so that we may be able to express our concerns either in person or by remote conferencing.	Email
116	5					Threatened and Endangered Species/ Tourism	Requests a comprehensive analysis id factors to be considered in this study.Fears that theeconomic losses hitting tourism and the fishing industry are not being considered.	Email
117	1				7/3/2020	Hydrodynamic Salinity	Regarding the Port of CC's plans to dredge the ship channel to 80 feet deep - the "Channel Deepening project" and dredge to accommodate the large marine vessel traffic, the following are areas that need to be addressed and studied in the Environmental Impact Statement. 1. Threats to water quality (and marine life) a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging	Email
118	1				7/3/2020	Air Quality	Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB. Volatile organic compounds (VOC) discharged from vapor flashing. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels	Email
118	2					Navigation/Transportation	Threats to shoreline: Erosion due to ship wakes and water displacement. Damage to bulkheads, docked boats, and property	Email
118	3					Threatened and Endangered Species	Threats to wildlife:Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters	Email
118	4					Socioeconomics/Land Use/ Recreation/EJ	Threats to local communities. Light and noise issues. Property damage	Email
118	5					Socioeconomics/Land Use/ Recreation/EJ Cumulative Impacts	We live on Bayshore Dr. and love Corpus Christi Bay with the playful dolphin families and bird life, fishing, boating, gorgeous sunsets all the special activities that living in Ingleside on the Bay a great and special place to live. We would like to request that the environmental impacts for the POCC channel deepening project be addressed before proceeding.	Email
119	1				7/3/2020	Environmental	I am particularly interested in how this project will affect us and who is going to protect us: 1. what will happen to our water quality and the fragile marine life ?2. what will happen to our air quality with all the carbons discharged ?3. how will this project affect our shoreline in Ingleside on the Bay ?4. what is the threat to the dolphins and the turtles and birds and ecosystems in the area?5. what will be the effects to our quality of life with the light and noise pollution? Thank you for the opportunity to have our questions answered before proceeding.	Email
119	2					Opposed	Does not consent to permitting PERMIT SWG 2019 00067	Email

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120	1				7/2/2020	Environmental Concerns	Please provide the citizens that actually reside in this area an opportunity to speak out regarding these concerns. Please do NOT allow this permit to move forward. 1. Threats to water quality (and marine life!) a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging 2. Threats to air quality with resultant respiratory irritation and distress to the people a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels 3. Threats to shoreline a. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlife a. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communities a. Light and noise issues b. Property damage Donna & Carol Sent from my 4G	Email
121	1				7/2/2020	Socioeconomics/Land Use/Recreation/EJ	The widening of the channel will have multiple negative impacts to homeowners and businesses in all counties.	Email
122	1				7/2/2020	Environmental Concerns	I second all of Sheila Waltons comments below and add sublimation; a very serious issue of costal shoreline sinking because of channel dredging.Not only is the water rising because of global warming, in addition the channel dredging is causing the shoreline to sink.It is really so sad in that the ship traffic only accounts for 11th in employment in the area and is only 3rd in revenue.All parties could be served much better by deep water off shore man made islands which already exist in the US. That would end the dredging and continued costly maintenance of the channels.This would allow for ever increasing size of vessels and lessen the impact of another Valdez type of incident. The coastal bend is under attach by corporate greed by both chemical and industrial concerns when solutions to the problems are available that would be cheaper in the long run and would help prevent Corpus Christi Bay, Laguna Madre, Red Fish Bay and other prized revenue bearing areas from becoming worse than the Houston Ship Channel of the 1960's.Sincerely, James WaltonOn Jul 2, 2020, at 1:34 PM, Sheila Walton <sheila_walton1@yahoo.com> wrote:Below is a list of potential threats that should be studied and addressed in the Environmental Impact Statement.1. Threats to water quality (and marine life!)a. Diesel and/or oil spills from dredging operationsb. Dredge line leaksc. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging2. Threats to air qualitya. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels3. Threats to shorelinea. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlifea. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communitiesa. Light and noise issues b. Property damage	Email

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Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
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123	1				7/2/2020	Cumulative Impacts	In regards to this permit, I am requesting that all environmental impacts to water, air, land, wildlife, and local communities be addressed. Thank you.Phillip McMulinResident, Ingleside on the Bay	Email
124	1				7/2/2020	Environmental Concerns	Below is a list of potential threats that should be studied and addressed in the Environmental Impact Statement.1. Threats to water quality (and marine life!)a. Diesel and/or oil spills from dredging operationsb. Dredge line leaksc. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging2. Threats to air qualitya. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels3. Threats to shorelinea. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlifea. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communitiesa. Light and noise issues b. Property damage	Email
125	1				7/2/2020	Environmental	I live and own property on the Corpus Christi Ship Channel at 541 Channel View Drive in Port Aransas, Texas. I fish in these waters and eat the fish that I catch. I swim and play at the beach daily. I have many concerns regarding the dredging of the ship channel, some of which are addressed below. Below is a list of potential threats that ought to be studied and addressed in the Environmental Impact Statement. 1. Threats to water quality (and marine life!) a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging 2. Threats to air quality a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB	Email
126	1				7/2/2020	DMMP	My comments on the channel deepening project:  The channel deepening project is unnecessary as better alternatives exist (off shore terminal).  The environmental damage caused by the dredging itself as well as ongoing maintenance dredging as well as additional damage caused by larger ships and more traffic is too costly.  Local air quality will suffer as a result of vessel traffic and loading operations facilitated by the channel deepening project.  The deepening project, allowing larger vessels, will result in damage to the shoreline and bulkheads.  Would the deepening project impact storm surge in the area?  -- Mark Wysocki 720.320.8344 ICE IM: mwysocki1 Yahoo! IM: mark_wysocki	Email

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127	1				7/2/2020	Opposed	OPPOSE  I oppose the dredging to 80 ft and widening of the channel.  There are alternatives of moving the product. "Take it Offshore"  Why should one entity, POCC, decide and demand that their interest in the channel supercedes us all. Will taxes be increased to offset the expenses of moving buried utilities for example.  Will the ferry landing be able to operate the same. Will the structures of the ferry need to be adapted to the changing pressures of the water movement.  What about all the studies already paid for that advised us how to build our structures according to the current conditions. Will our structures still meet the engineering requirements if the channel is deepen. It is a long process. Now that structures were built, will they withstand.  I have read many articles telling me why this is a bad idea. Doing this only benefits profits for the few involved massive oil companies. It does nothing for the people who live and work around the island and surrounding communities. It will put an undue hardship on everyone in the State of Texas and beyond who come to this channel. The enviromental impact could change why people come here. If the fishing is bad, if the beaches are washing up oil residue byproducts and making our beaches ugly. Everyone will want to know if the sand is contaminated. If people stop coming to this area, where will they go. Port Aransas ranks #3 nationally for best destinations. If ferry wait times increase, people spend too much time waiting in line and will hence stop coming.  What concerns me  The Port will never stop industrializing the area.  Light pollution, Noise pollution, increased oil related traffic	Email
128	1				7/2/2020	Ecological Community Types	Please just put a hold on the dredging until we can get better Environmental Studies done. We are all far the industry that is helping our lifestyles, but we also are concerned about our ecosystem please just slow it down until better technology or better information is available	Email
129	1				7/2/2020		Please see my comments contained in the Word Document attached. Respectfully; Encarnacion Serna Jr.	Email

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130	1				7/2/2020	Opposed	I OPPOSE this Permit Application  - A public hearing should be held for this permit application - A full EIS should be carried out - This project should be considered in conjunction with all other permit applications for Harbor Island related to the creation of an oil export terminal and dredging of the Corpus Christi Ship Channel to 80 feet.  Concern Pertaining To Port of Corpus Christi's 80 foot "Channel Deepening" Project :  1. Dredge spoil material may contain toxic material  Dredge spoil "placement areas" WILL negatively impact area's natural resources, negative impacts upon area endangered species (e.g. Whooping Cranes, Kemps Ridley Sea Turtle, Eskimo Curlew)  2. Wakes from larger tankers and increased traffic will increase erosion and damage to area properties and infrastructure along channel  4. Ferry service will be interrupted due to proximity to VLCC tanker turning basin  5. Increased risks of oil spills/toxic pollution/fires near residential and recreational areas  6. Increasing channel depth could increase storm surge and intensity  7. Damages to seagrass beds from initial and maintenance dredging (sediment suspension & light attenuation)  8. Negative impacts upon a tourism economy that is based upon fishing, birding, eco-tourism  9. Negative impacts upon Port Aransas property values/tax base  10. Disruption of migration of fish and crustaceans through Aransas Pass Channel into / from the bay system	Email
131	1				7/2/2020		Dear Mr. Jayson Hudson (USACE, Galveston District, Regulatory Branch),  Attached are my comments regarding the Port of Corpus Christi Channel Deepening EIS Project as of today (7/2/2020).  Feel free to reach out by email if you have any questions or are interested in further discussions about the potential impacts of these projects on the health of local ecosystems, fisheries, and coastal communities. Please note that I've also provided a list of baseline studies that are needed to perform a comprehensive EIS.  Sincerely,  Brad Erisman, PhD Fisheries Ecologist Port Aransas, TX 78373 (Attachment Included)	Email

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132	1				7/2/2020	Opposed	re: PERMIT NUMBER SWG-2019-00067 I OPPOSE this Permit Application On the following grounds. - A public hearing should be held for this permit application - A full EIS should be carried out - This project should be considered in conjunction with all other permit applications for Harbor Island related to the creation of an oil export terminal and dredging of the Corpus Christi Ship Channel to 80 feet. Main Reasons Of Concern Pertaining To Port of Corpus Christi's 80 foot "Channel Deepening" Project : 1. Dredge spoil material may contain toxic material  2. Dredge spoil "placement areas" could negatively impact area's natural resources  3. Wakes from larger tankers and increased traffic will increase erosion and damage to area properties and infrastructure along channel  4. Ferry service will be interrupted due to proximity to VLCC tanker turning basin  5. Increased risks of oil spills/toxic pollution/fires near residential and recreational areas  6. Increasing channel depth could increase storm surge and intensity 7. Damages to seagrass beds from initial and maintenance dredging (sediment suspension & light attenuation)  8. Negative impacts upon a tourism economy that is based upon fishing, birding, eco-tourism  9. Negative impacts upon Port Aransas property values/tax base  10. Disruption of migration of fish and crustaceans through Aransas Pass Channel into / from the bay system  11. Air pollution from oil tankers and historical lack of TCEQ enforcement  12. Altered hydrology of the entire bay system from the creation of 80' deep channel	Email



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133	1				7/2/2020	Opposed	re: PERMIT NUMBER SWG-2019-00067I OPPOSE this Permit Application- A public hearing should be held for this permit application- A full EIS should be carried out- This project should be considered in conjunction with all other permit applications for Harbor Island related to the creation of an oil export terminal and dredging of the Corpus Christi Ship Channel to 80 feet.Main Reasons Of Concern Pertaining To Port of Corpus Christi's 80 foot "Channel Deepening" Project :1. Dredge spoil material may contain toxic materialhttps://www.tceq.texas.gov/assets/public/comm_exec/pubs/gbnep/gbnep-23/gbnep_23_81-111.pdf https://nctc.fws.gov/Pubs2/ci/AransasDredge.pdf https://www.tceq.texas.gov/assets/public/comm_exec/pubs/gbnep/gbnep-23/gbnep_23_81-111.pdf 2. Dredge spoil "placement areas" could negatively impact area's natural resources https://www.tceq.texas.gov/assets/public/comm_exec/pubs/gbnep/gbnep-23/gbnep_23_81-111.pdf https://nctc.fws.gov/Pubs2/ci/AransasDredge.pdfhttps://www.sciencedaily.com/releases/2019/03/190327152854.htm 3. Wakes from larger tankers and increased traffic will increase erosion and damage to area properties and infrastructure along channelhttps://link.springer.com/article/10.1007/s12237-017-0245-y https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5663627/ https://www.sciencedirect.com/science/article/abs/pii/S1001605814600792 4. Ferry service will be interrupted due to proximity to VLCC tanker turning basin https://www.topoquest.com/map.php?lat=27.85218&lon=-97.07089&datum=nad27&zoom=16&map=auto&coord=d&mode=zoomin&size=m http://portofcc.com/wp-content/uploads/PortofCorpusChristi-StrategicPlan-small.pdf pg 64 5. Increased risks of oil spills/toxic pollution/fires near residential and recreational areas https://www.marsh.com/us/insights/research/environmental-risks-at-ports-and-terminals-grow.html http://www.ukmarinesac.org.uk/activities/ports/ph6_2_1.htm https://www.aeroqual.com/ship-pollution-port-air-quality https://www.nrdc.org/sites/default/files/ports2.pdf https://www.youtube.com/watch?v=3GL7Azc5S_U&feature=youtu.be&fbclid=IwAR3Jho14EAL4Wgn4n8BnptsG3FeIBSL6mN6vnYmQwMNIT2V1QafwR1ZQaKs http://ireader.olivesoftware.com/Olive/iReader/SanAntonioExpressNews/SharedArticle.ashx?document=SAEN%5C2019%5C03%5C21&article=Ar01903&fbclid=IwAR3pgASOt_dPo wUVr66eseV_qiy-ue4Fu8MHPdZdUpacVUEJncAeQmHzZBo http://www.texasstandard.org/stories/some-confused-mistrustful-after-conflicting-reports-of-health-hazards-from-deer-park-petrochemical-fire/?fbclid=IwAR0rQf_u6gYCWl1k9wvXCjTzQuW4pZ3Vi0cNcVecTYYbsgLPhuYCEXb4m	Email

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134	1				7/2/2020	Environmental Concerns	To Whom It May Concer: Texas Campaign for the Environment wants to go on record regarding potential threats that ought to be studied and addressed in the Environmental Impact Statement for Permit Number SWG-2019-00067. 1. Threats to water quality and marine life a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging 2. Threats to air quality a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels 3. Threats to shoreline a. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlife a. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communities a. Light and noise issues b. Property damage Robin Schneider Executive Director Texas Campaign for the Environment	Email
135	1				7/2/2020	Threatened and Endangeres Species	I request that all environmental impacts to water, air, land, wildlife, and local communities be addressed in the impact statement. Robert Graham	Email
136	1				7/1/2020	Environmental Concerns	Please consider the following issues as you review the permit for widening and deepening the channels in Corpus Christi Bay and surround areas. 1. Threats to water quality (and marine life!) a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging 2. Threats to air quality a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels 3. Threats to shoreline a. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlife a. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communities a. Light and noise issues b. Property damage	Email

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137	1				7/1/2020	Environmental Concerns	Please consider the following points as you consider approval of the Port of CC request for expanding shipping channels. 1. Threats to water quality (and marine life!) a. Diesel and/or oil spills from dredging operations b. Dredge line leaks c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging 2. Threats to air quality a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and IOB b. Volatile organic compounds (VOC) discharged from vapor flashing c. Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels 3. Threats to shoreline a. Erosion due to ship wakes and water displacement b. Damage to bulkheads, docked boats, and property 4. Threats to wildlife a. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters 5. Threats to local communities a. Light and noise issues b. Property damage Thank you. Wes Williams Ingleside on the Bay, TX	Email
138	1				7/1/2020	Water and Sediment Quality	I live in Ingleside on the bay. Please do not destroy our base system. It is the basis of some of our lives. So please don't let anything happen can let our Waters become contaminated. Thank you for your interest in this matter. Charlotte Lawrence, 4400 Woodhaven, Ingleside on the bay	Email

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139	1				6/30/2020	Environmental Concerns	<p>To whom it may concern,</p> <p>I would like to officially register my comments regarding the Port of Corpus Christi (POCC) Channel Deepening Project and the development of an Environmental Impact Statement (EIS).</p> <p>The Environmental Impact Statement for the proposed project must include studies regarding potential threats to:</p> <p>1. Water (and the marine life within!)</p> <p>a. Diesel and/or oil spills from dredging operations</p> <p>b. Dredge line leaks</p> <p>c. Pollution from ballast release, tank farm drainage, tanker runoff, and dredging</p> <p>2. Air</p> <p>a. Blowing sand and dust particulate matter from containment dikes on the spoil island across from MODA and Ingleside on the Bay</p> <p>b. Volatile organic compounds (VOC) discharged from vapor flashing</p> <p>c.Sulfur oxide and particulate matter discharged from ship smokestacks and loading operations during dockage levels</p> <p>3. Land</p> <p>a. Erosion due to ship wakes and water displacement</p> <p>b. Damage to bulkheads, docked boats, and property</p> <p>4. Wildlife</p> <p>a. Proximity to Ridley turtles and hosts of protected and threatened birds in the wetlands adjacent to the CC Bay waters</p> <p>5. Local Communities</p> <p>a. Light and noise issues</p> <p>b. Property damage</p> <p>In addition to addressing the potential threats to water, air, land, wildlife, and local communities, I ask that the Environmental Impact Statement designate the agency responsible for monitoring the effects of the Channel Deepening Project on each of the afore mentioned entities. Finally, I request that the Environmental Impact Statement additionally identify the agency responsible for oversight to ensure that</p>	Email

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140	1				6/30/2020	Coastal Processes	To the U.S. Army Corps of Engineers, Galveston District. We, the undersigned members of the Executive Committee of the Sierra Club Coastal Bend Group, wanted to comment on the U.S. Army Corps of Engineers, Galveston District Environmental Impact Statement for the Port of Corpus Christi Authority Channel Deepening Project: (1) The Environmental Impact Statement for the Port of Corpus Christi Authority Channel Deepening Project should not be considered in isolation. There are many Port of Corpus Christi projects which are interrelated and are all in service of one goal - the continuing industrialization of Harbor Island. All of the projects will require permitting since none of them make sense in isolation. An EIS should be written which takes all of the projects, and their cumulative and significant deleterious environmental impacts, into account. (2) Some of the projects which are involved, in addition to the channel deepening dredging project, are the desalination plant on Harbor Island, the AXIS Midstream Export facility on Harbor Island, the pipelining through Redfish Bay, Lone Star Ports crude oil terminal on Harbor Island, etc. These should all be part of one EIS, because when the cumulative, synergistic impact is taken into account the result is the destruction of an entire ecosystem that is beloved by all residents of the Coastal Bend. (3) There is a continuing, headlong rush by the Port of Corpus Christi and vested interests of the petroleum industry to turn the Coastal Bend into a huge area of petrochemical plants, pipelines and massive oil tanker ports. There are other examples of such metropolitan areas and rest assured that if the citizens of Corpus Christi were really fully informed of what is going on, they would not be for it by a long shot. The Sierra Club Coastal Bend Group will do everything it can to keep the citizens of this uniquely beautiful area of the United States informed of what is being done by these vested interests that ensures the destruction of everything that we treasure about our community and environment. Members of the Executive Committee of the Sierra Club Coastal Bend Group: James Klein Teresa Klein Teresa Carrillo Lois Huff	Email
141	1				6/24/2020	Threatened and Endangeres Species	I have attached CCA Texas's comments for the Channel Deepening Project draft EIS scope. Thank you for the consideration.	Email
142	1				6/15/2020	Alternatives	Agrees with the rational movement of hydrocarbons in their various forms. It is a statistical certainty that accidental discharge of the products will occur. The least damage of said discharge would be offshore so that the natural bacterial degradation would occur in a large body of water rather than in a confined bay system. It is also much safer to move the hydrocarbon by pipeline than movement by ship after loading in said bay system full of critical habitats. The fewer handlings of the product the less chance of the accidental discharge we all worry about. The logic of the aforementioned reasoning leads one to the conclusion that a pipeline should be built. Therefore the excessive deep dredging and all of it's known and unknown risks can and should be avoided.	Email
143	1				6/4/2020	Socioeconomics/Land Use/ Recreation	The channel being the entrance to the estuary system makes it an important and delicate area for many endangered and protected marine species with Whooping Cranes frequenting this area. The opposition to this and other projects seems to have been characterized as Port A locals who don't want their little town changed. This is untrue & unfair. Port A attracts thousands of visitors from across Texas and much further. The COVID-19 pandemic showed us just how important this area is to so many; the beach was one of the few places people felt they could safely enjoy nature with safe social distancing. Why spoil this delicate pristine area when safer alternatives are obviously available?	Email

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144	1				6/4/2020	Permit Concerns	Project should not be permitted due to several projects proposed for Harbor Island and the ship channel require a comprehensive EIS of the entire Corpus and Aransas Bay system.	Email
145	1				6/1/2020	Threatened amd Endangered Species	The estuaries that are the habitat of several Endangered species including the Whooping Crane will be negatively affected. The detrimental effect on the life cycle of countless plants and animals that live in these estuaries will quickly move up the food chain and ultimately affect humans. It will reduce fishing success, reduce tourism, and reduce the pristine appearance of the scenery. Bigger ships create more problems that will destroy the homogeneous current estuaries.	Email
145	2					Alternatives	Much larger wake causing larger and faster shore erosion, larger volume of water causing more storm surge, and larger volume of water adding to more extensive flooding.For these reasons and many more that I am not mentioning, please save our beautiful Coastal Bend and do not allow this dredging permit. There are other alternatives that are much less damaging.	Email
145	3					All Applicable Resources	It appears that a full EIS for the entire Aransas Bay system will not be accomplished. In view of the environmental degradation that might accompany this project, the EIS should be expanded to cover the entire bay system.	Email
146	1				5/29/2020	Threatened and Endangered Species	This project would allow fully loaded VLCCs in the channel and water displacement would create waves that would wash the bulkheads and jetty, possibly causing loss of life.	Email
146	2					Threatened and Endangered Species	"Beneficial use of Spoil" needs to be addressed with a written of action and subsequesnt EIS. It is problematic as it benefits when sea grass beds and marine larvae are in peril.	Email
146	3					Environmental Concerns	With the 54 ft. dredge depth still in the future, dredge permits should only be considered when this phase is done to realize a better understanding of environmental effects not until a terminal facility permit has been approved.	Email
146	4					Public Involvement	Feel that despite the approval of virtual meetings, the USACE should reevaluate these permit application public meetings and redo the process with in-person meetings and commenting.	Email
146	5					Public Involvement	I submitted comments online when I signed up. He is not addressing previous comments that were submitted. What happened to those?	Email
147	1				6/9/2020	Alternatives	Does anyone know if part of the EIS process is to evaluate the environmental impact of alternatives to the project? i.e. an offshore terminal that total eliminates the reverse lightering process AND the VLCCs entering the channel. 4	Email
147	2					Public Involvement	Unfortunately, some of these slides are too blurry to read. Hopefully they are available elsewhere.  I hope the technical difficulties are resolved for the rest of these virtual meetings...but I agree with the person who said that it might be best to extend the scoping period so that in-person meetings could be held. Are these meetings recorded for later viewing?  This remote meeting setup would be good, if it worked, for those of us who don't live close by, but I think the local residents deserve the chance to comment in person. Only 50 or so viewed this one...I think that number of people could meet safely somewhere.	Email
148	1				6/9/2020	Public Involvement	And the timing of POCCA lawyers sending out Discovery emails concurrently. I feel they are laughing at us.	Email
149	1				6/9/2020	Public Involvement	I'm on virtual meetings all the time, throughout the day. For the next ones you host, two suggestions: 1) Consider using a more modern web conferencing platform like Zoom or GoToWebinar. The cost is negligible for an audience of this size. 2) Try to test calling in as a user and see if it works for the caller and the users on the call. We do this 45 min ahead of the scheduled time.	Email

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150	1				6/9/2020	DMMP	First, the current dredging operations that are undergoing -- that are ongoing near the intercostal and the Corpus Christi Ship Channel as well as (Indiscernible) is causing some issues within our bay front here. First off, we've had some oil spills that have come off some of the pump barges. We also have numerous dredge line leaks. I'm just wondering who actually watches this and controls this because this becomes a problem to our seagrasses and our community.	Email
151	1				6/9/2020	Water and Sediment Quality	Also, there's dirt work underway in the Corpus Christi Ship Channel across from IOB, and we're being impacted by dust and particulate matter that's falling in our communities and across our vehicles and our homes and so forth. Although we see a water truck, it doesn't seem like it's used very often. I'm wondering who is actually monitoring this, and does this dust contain heavy metals or other chemicals that have been dredged up in prior operations.	Meeting Comment
151	2					Air Quality/ HTRW	We're also concerned about the emissions of ship traffic, and I know that loitering makes sense. But we also have tankers that are bored down the street from, and we have actually measured some increase in some toxic materials coming from those ships. Will that be looked at in your EIS study?	Meeting Comment
151	3					Sea Level Rise/Climate Change	We also want to ask about the deepening and the direct effect of what's going to happen with storm surge with this deepening of the channel. Is relative sea level taken into effect. And I know you mentioned that you're going to have a passing vessel study. But how is that being utilized for our community and other low-lying communities such as Aransas Pass, Rockport, Port Aransas, Port of Flour Bluff, North Beach? How are these people -- how would they be impacted?	Meeting Comment
151	4					Sea Level Rise/Climate Change	We do know from previous studies that over-topping of our bulkheads occur now. How is that going to -- how are we going to be more affected with relative sea level, and what is the Corps of Engineers and other entities doing to help us understand and manage this problem. That is my comment. I will send in some written comments in addition to these.	Meeting Comment
151	5					Public Involvement	Okay. This is a really silly process of getting public input. All those people beforehand that couldn't get on have really good things to say. And so this does not -- not achieve the bar of public input. It's ridiculous.	Meeting Comment
152	1				6/11/2020	Marine Resources/EFH	So a couple things. Number one, the 54-foot dredge only took in account Corpus Christi Bay. It didn't even show Aransas Bay as part of this area, scoping area. This 80-foot dredge must take into consideration all of Aransas Bay. Even -- even the Aransas National Wildlife Refuge is related to this inlet as sea crabs and larvae and fish move in and out of this inlet. And the destruction of this inlet to 80 feet is going to have a negative impact over a much broader area. So you definitely need to expand the scope.	Meeting Comment
152	2					Permit Concerns	Secondly, this canal is not being built just for the hell of it. It's being built to service oil export facilities that have also permits by the U.S. Army Corps of Engineers. All of these permits need to be rolled up into one, and the EIS needs to cover not only the channel, but the Access Marine permit, the Lone Star permit, Port of Corpus Christi Permit, the TCEQ Desal permit, the pipeline permits, and everything that is being designed and built to establish this oil export facility that happens to be within the city limits of Port Aransas and right across from the playground at Roberts Point, absolutely industrializing a recreational and a natural area.	Meeting Comment
152	3					Hurricane and Flooding	The fact that the arguments that the Port makes that this was once an industrial area is laughable. My great grandfather was a commissioner of the Port for 30 years. They abandoned Harbor Island on purpose. It's exposed to hurricanes, flood events, it's -- with sea rise, it's becoming an even more perilous location to industrialize. So that's another major point.	Meeting Comment



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152	4					All Applicable Resources	The other one is, in your participating and commenting parties with the state, I would include UTMSI and the Heart Institute at A&M besides just the other state agencies you list. And then I would also include another area of NGOs that should be part of this EIS. And I would include organizations like The Nature Conservancy, the CCA, Aransas Mission, NEAR. There's a lot of people that have a lot of information and resources that can be helpful.	Meeting Comment
152	5					DMMP	In addition to the things that James just mentioned, I realized in your presentation the amount of dredge material to be moved says that it did not include the overdredge material. We've noticed that in the 54-foot dredge already, it's -- they've done every bit of 60 feet. So they need -- you need to up your numbers on the dredge material that is going to be produced.	Meeting Comment
153	1				6/11/2020	Navigation/Transportation	In addition, I think there needs to be navigational studies of a very congested intersection between the Aransas Channel, the entrance channel, the Lydia Ann Channel, and the Corpus Christi Channel. That is a thoroughfare of commerce, recreational fishermen, commercial fishermen, barges, everything. And if that is where it's going to end and where VLCCs are going to turn around, it will be an obstruction to navigation. And we've heard that the possibility, if it does get too congested, then individuals would have to call the harbormaster to get permission to cross the channel and it would be shut down during times of when these ships are coming in and out, as opposed to now where a boater just can move around a ship.	Meeting Comment
153	2					Socioeconomics/Land Use/Recreation/EJ	The -- I think in the economic numbers that the Port of Corpus Christi presented on their video are bullshit, and please write that into my comment. Because they are taking in the entire state's economic numbers of this oil and gas industry. That you need to look at how it is directly affecting the numbers, the dollars, in the tourism industry, the boat makers, the fishing equipment makers, everybody involved in -- whose economics are going to be affected by this.  Also, how this affects this project, deepening the harbor only helps the Port of Corpus Christi and one or two other private businesses that are in partnership with them. And how is it going to reduce the VLCC traffic to the existing private industries who have invested a ton of money on their own, and how the VLCCs at Harbor Island to fill up is an unfair advantage from the private industry. We – we conservatives do not believe that government should be out competing with private industry.	Meeting Comment
153	3					Environmental Concerns	The other thing is, is that I -- everybody keeps touting that the EPA is going to be monitoring things, and -- but in your executive order that you've cited, we've heard that those monitoring things will be restricted and removed. So we need some alternatives at who is going to be monitoring those things and not just trusting the EPA. We need -- if the EPA is designed to take care of our environment, but they're being torn apart and their -- their rules are being lowered; their standards are being lowered. And we need something that has higher standards.	Meeting Comment
153	4					Public Involvement	The first thing I want to say is that when I registered for this, it said that the meeting was at 4:00 p.m. New York time. So the first eight speakers you listed, I believe, were on at 4:00 p.m. New York time, which is 3:00 p.m. our time. I don't believe that you met the public meeting -- oh, I can't remember the words -- the public meeting, what is it, Section 327.11, public notice. The June 9th meeting was a joke. This one when you registered it gave the wrong time. I think you should seriously consider rescheduling all of the meetings so that everybody has a chance to talk.  I'm not happy that the attendee list is hidden. In a public meeting, I would be able to see the other individuals sitting next to me. And I can't see any other attendee except for the ones that are paid to be here. And that is crap. That is not a public meeting.	Meeting Comment

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154	1				6/11/2020	Navigation/Transportation	Other concerns I have specifically about the 80-foot dredge would be ferry traffic to Port Aransas, how that would affect Port Aransas economy. We're a tourist town and a fishing town, and as Tammy said, if we can't have fishing vessels, boat traffic moving in and out, that's going to have a negative impact on Port Aransas economy, which is completely ecotourism.	Meeting Comment
154	2					Cumulative Impacts	Like James King said, I think the cumulative impacts of all of these projects should be considered at once, not one piece at a time. If Corpus -- the Port of Corpus Christi wants to do something with Harbor Island and the Corpus Christi Ship Channel, create an overall picture. Show us what it looks like and then start there. Don't piecemeal this together and drop one bomb on us after the other and try to confuse everybody so that they can't keep up. That's not transparent, and it's not harboring a trusting relationship.	Meeting Comment
154	3					Socioeconomics/Land Use/Recreation/EJ	Additionally, I believe you're in danger of violating the NEPA Act. Section 101 of NEPA states, or sets forth, a national policy to use all practical -- practical means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare to create and maintain conditions under which man and nature exist in productive harmony. In no way, shape or form should the Port's aggressive timeline outweigh that of the citizens' rights to use the land.	Meeting Comment
154	4					Economics	Additional concerns I have would be erosion to bulkheads. The question I have is, the oil export weighed heavier. You talked about how much oil export has went up in the last 12 months or is expected to go up. Does that outweigh the damage that that can cause? I'll send further comments via email.	Meeting Comment
154	5					DMMP	I have two residences right on the Corpus Christi Ship Channel as it intersects the Lydia Ann Ship Channel going back up to Rockport, so I face what has already been some significant dredging in front of our home.  I must -- I guess I can't say this without being sarcastic, but I must tell you that the Port of Corpus Christi is causing me to be more of an expert, for lack of a better choice of words, for someone that builds doors for a living, on trying to protect the property around our two homes. Not just this dredging event that you all are asking for public comment on, but obviously all the balance of industrialization that is going on or being at least anticipated by the Port of Corpus Christi at Harbor Island.	Meeting Comment
155	1				6/11/2020	Public Involvement	And I would also echo earlier comments made, that this is a horrible methodology to get public comments if you really care about them. And to absolutely miss the comments of many folks because of a timing issue that you had, or some other technical issue, is -- is -- I guess it's unforgiveable unless you intend to make that time up later on.  I also think a public forum is significantly more important for such an important -- well, certainly what you all are proposing. And I would hope that you would consider that for -- and I know this may not be part of what you are considering -- but certainly the form is for the upcoming preliminary hearing, or a meeting that you intend to have.	Meeting Comment
155	2					Threatened and Endangered Species	I have 57 seconds left. I wanted to make a comment about the damage that was caused in the dredging in the Miami port that ultimately caused the destruction of over hundreds of thousands of coral heads. Now, I know everyone regrets that that that occurred, but they're dead and they're gone. I understand that the contractor ended up going to prison for falsely stating whatever it is that caused that decision to be made. But I think whoever is making this decision -- and I guess we'll be an expert when it's all over -- needs to consider the dramatic environmental impact that is going to be caused by dredging this. So I'll leave that. My comments are done. Thank you, and I hope you'll consider this.	Meeting Comment

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155	3					Purpose and Need	My first comment is that the purpose and needs statement must allow for the consideration of an alternative based on an offshore port. And my reading of the current purpose and needs statement suggests that it does allow for that, but again, it's very important I think that it does -- that that statement will allow for consideration of an offshore alternative.	Meeting Comment
156	1				6/11/2020	Purpose and Need	My second point is that while that appears to be the case, the existing purpose and needs statement does not reflect a single and complete project, which the Corps wrote a letter on February 19, 2019, basically stating that fact, that this one public notice, which this EIS process is based on, does not represent a single and complete project. The Corps told the applicant that all three of the separate proposed actions under three separate public notices, needed to be considered as a single and complete project. And that is not the case currently.  So the purpose and needs statement is deficient, severely deficient in that respect, and is not consistent with previous core determinations.	Meeting Comment
156	2					DMMP	So moving along, after those two big issues, the EIS should include dredging material testing results and decisions based on those results for public review and comment, particularly all dredge material from on or near Harbor Island, which is known to be contaminated. So depending on the proposed disposal method, those dredge materials need to be tested appropriately according to the correct manual, and that information needs to be made available in the EIS for review and comment. The fact that Harbor Island is known to have been contaminated in the past underscores how important that is.	Meeting Comment
156	3					ODMDS	Let's see. Physical and ecological impacts of the proposed dredge material disposal at in-shore dredge material disposal sites needs to be disclosed. Physical and ecological impacts of proposed dredge material disposal at beneficial use sites needs to be disclosed. The public notice that we previously commented on did not have -- had almost no information regarding what was proposed to be done at the beneficial use sites. That's unacceptable for -- for a public notice, much less any --	Meeting Comment
156	4					Tourism and Residential Life.	I'm stepping outside so I don't get any feedback. I've lived in Port Aransas for 40 years, and there has been nothing to the industry over there for years and years. It's like James said, it's almost laughable that they keep saying that it -- it was. Nothing's been there for years. Our town has grown to multi-million-dollar tourisms and our fisheries and our estuaries and all of our sea life.	Meeting Comment
157	1				6/11/2020	Hurricane and Flooding	And 80-foot dredge, nobody's ever done that anywhere. So how do you know what's going to happen with that? I mean, you know, the tidal effects, when hurricanes come, is it going to flood us more? I just don't know what's going to happen with that.	Meeting Comment
157	2					Navigation/Transportation	You know, the Port of Corpus Christi is 18 miles up the channel. That's the Port of Corpus Christi. We're at the mouth down here at the channel, you know, and then we just have a huge recreation and fisheries and everything else going on. And for them, because they bought a 244-acre piece of property, to all of a sudden want to put four VLCCs, one on	Meeting Comment
157	3					Socioeconomics/Land Use/Recreation/EJ Ecological Community Types	The people of the state of Texas come to Port Aransas and half of them are here right now. I mean, they come here to vacation. This is their vacation spot. And we don't need any industry right there on Harbor Island. Nobody's against oil and gas. We just don't want this project right there on this island because it's going to totally affect so many different things, all the sea life, the turtles.  Aransas where the larvae flow and everything come in. From 150 miles I think we're one of the only places here on the coast that the larvae flow and the crab and the shrimp, they all come in and they all go up into these bays. And if you do that, I mean, if you put a desal or the VLCCs or dredge this -- this dredging product – project which nobody in the United States has ever done, how do you know what that's going to do?	Meeting Comment

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157	4					Permit Concerns	And all these projects that they want to do on Harbor Island, there's so many different ones, they all need to be connected into one permit. Nobody has even mentioned about the desal, you know, the permits for that, access midstream, all of it. So it all needs to be connected together. That's all I have to say about that, and Port Aransas deserves better. And -- and we need to protect what's important to all the people of the state of Texas.	Meeting Comment
157	5					Public Involvement	My name is Cathy Fulton and I live in Port Aransas, Texas. I know that I'm supposed to be saying what I want to recommend for this EIS, but the first thing I'm going to have to recommend and tell you right now is number one -- let's see. I've got a list of at least 20 names, and I already know of three or four people, who still can't get in to even this meeting at the moment. This is going on constantly.  Number two, this should be considered a -- this -- this needs to be stopped. This should all be stopped until such time we can actually meet in public. Number three, I would like to say, scoping meetings are also about allowing questions, not just give our comments. Okay.	Meeting Comment
158	1				6/15/2020	Public Involvement	Moving on, number four, let me just also tell you that at the first meeting back on the 9th, there was a slide up there that said that the Port was an economic development agency specializing in P3s. But then, after I sent Sean Strawbridge and all the Port commissioners and Sarah Garza an email saying, "Well, isn't that interesting that you all claim you specialize in P3s, but you've repealed all your P3 guidelines back at the end of December." The next thing you knew at the next virtual BS meeting, there all the P3 -- slide mention of P3s was removed entirely.	Meeting Comment
158	2					Opposed	Now, I am going to recommend that the U.S. Army Corps of Engineers, that you guys -- I'm going to say this -- are being lied to. And I believe that this all needs to be brought to a stop because of the fact that the Port of Corpus Christi is not being upfront and honest. And this has become a huge waste of time.	Meeting Comment
158	3					Permit Concerns	Moving on, let me also say this. None of these current applications deal -- mention anything about the de-salinization plant that would be right there adjacent to all of this oil production and development. And the problem with that is, is you know, that's a big problem, especially when you're looking at almost 100 million gallons a day of brine being discharged right there in the ship channel. None of this is factored into the -- not even mentioned by the Corps in any of your correspondence, which I have like 500 pages of your correspondence.	Meeting Comment
158	4					Hydrodynamic Salinity Modeling	Let me also say the desktop study that you all mention here, it's just that -- a desktop modeling. Big woo. It's not real. It's fake. And it doesn't account for anything. That should all be thrown out.	Meeting Comment
158	5					Environmental Concerns	The first thing I'd like to say is that this EIS process is being pushed through down our throats. The 54-foot channel has not even been dug. So any damage that could be done to the ecosystem will not be taken into account. The 54-foot dredge should be done first before ever considering an 80-foot dredge.	Meeting Comment
159	1				6/15/2020	All Applicable Resources	UTMSI have plenty of studies that they would like to start, beginning with the consortium of independent stakeholders -- not the Port of Corpus Christi-preferred stakeholders -- but the public preferred stakeholders. And they are planning on meeting in the fall, and they're going to analyze what should and should be studied. And you've had a list of all those things, and instead of one little company making all these decisions, all these scientific and financial experts should be able to contribute to this conversation.	Meeting Comment
159	2					DMMP	Geologic studies on the one-to-three ratio in the entrance channel is unbelievable. We need geologic studies from major institutions who know how to study this. Once again, economic sustainability. The dredge is going to cost \$400 million, from 54 all the way -- well, to the current 60, 54, and then the 80. It's going to be a huge port to process for the U.S. government.	Meeting Comment

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159	3					Purpose and Need	Desal plant does not -- or -- and all your EIS keeps referring to Corpus Christi Bay -- not Aransas Bay, or Copano Bay, or the Aransas National Wildlife section. Your purpose and need says that it's not located in a sensitive area. That's -- that's incorrect. So, yes, you do need to study. It says the proposed project does not require access or proximity to within a special aquatic site. Yes, it does. It's -- it's the junction of three important channels for biological diversity.	Meeting Comment
159	4					Purpose and Need	I'm calling on behalf of TEAC, Texas Energy Advocates Coalition. We support the Port's project for many reasons. First and foremost, while I understand that there's a lot of people that live in Port A and really want to protect the environment -- it's mostly known for a tourist attraction and it's a beautiful place. I live on Copano Bay. And you know, being a part of making sure that everything is done properly and protecting the environment is very important to me as well. However, for the greater good and looking who the partner would be that would partner with Port A, is very important in my opinion. Port has many years of having the great reputation dealing with many, many governmental agencies, and that should be taken into consideration for the fact that the last partners you guys had, maybe you guys weren't so happy with. So looking at the Port and understanding how they do take the environment very carefully into consideration, they have a great track record. But not to mention, let's also talk about the environmental -- I mean the economic impact to the region, not just in Port A.	Meeting Comment
160	1				6/15/2020	Safety and Security	<p>To bring in these big VLLC ships and to be able to have them access through Port A is vital. Earlier, a speaker discussed there is no need for 4.5 barrels coming in. Excuse me, billion barrels. And I -- I don't agree with that. I think it's a matter of national security. I think if you look at the expectation global-wide, there is a huge uptick that's going to happen and we need to be a part of it.</p> <p>If you look at Dynamic Steel (sic) that moved into Sinton, and they also are a great company. They take the environment very seriously and will be a great economic impact for that town. Port A has a great partner in the Port of Corpus Christi.</p> <p>But I also really want to go back and discuss that it is a matter of national security. We do live on one planet. It's important that we take the environment seriously. But when you look - if you'd rather have China or India, two of the biggest polluters on the planet, taking the crude and distributing it from them -- which they do not care anything about the environment whatsoever -- I think we need to look at good partners like the Port of Corpus Christi. We need to look at the environmental impact not just to Port A, but to the entire coastal bend region.</p>	Meeting Comment
160	2					Socioeconomics/Land Use/Recreation/EJ	We need to attract universities that will come to Port -- to Corpus Christi and invest in building great universities so our children will not leave and go to San Antonio or Houston to get a good education, but they can stay right here in Corpus Christi and get a quality education and stay here. It's about developing the coastal bend area, and it's time to do it. The time has come. It's necessary.	Meeting Comment
160	3					Ecological Community Types	I just want to get back on touch with the last comment that I heard. Apparently, she's out of touch with the Port Aransas and the people of Port Aransas. The Port doesn't give us any jobs over here. Sinton is a long ways away. And we do protect our environment, and we do have Texas A&M and we have University of Texas, universities here, and they've been here for years. And they have done study after study on this whole environment and this whole ecosystem, how the larvae come up into the bays, and et cetera and et cetera, you know. It's almost laughable.	Meeting Comment
161	1				6/15/2020	Socioeconomics/Land Use/Recreation/EJ	The fort, the Harbor Island, is 1000 feet from Roberts Point Park where our kids play and everything else. The ferry landing is right there. On your fact sheet, you already list Access Midstream as a company already, or -- an industrial compound already over there. So what's up with that? What facts are those?	Meeting Comment

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161	2					Socioeconomics/Land Use/Recreation/EJ	But anyway, Port Aransas has a huge tourism base, and we --it 's millions and millions of dollars. And it's grown to that because there's -- they took out all those storage tanks and everything off Harbor Island years ago. That's not been anything but a – a gambling ship was there for a few years, and that's all it's ever been for 20, 25 years.	Meeting Comment
161	3					Socioeconomics/Land Use/Recreation/EJ	There's not been anything else there. It does not -- there are not that many jobs that are going to come out of this Port of Corpus Christi on Harbor Island. All that is, is the Barry brothers and the Port of Corpus Christi doing a public-private partnership, which shouldn't be going on.	Meeting Comment
161	4					Tourism and Residential Life.	Yeah. We have a -- all of our employment here is based on tourism, and it's all over the coastal bend on these waters. It's Aransas Pass, it's Rockport, it's Ingleside on the Bay, it's Port Aransas. I mean, we just have millions and millions of people that come here. This is the state of Texas vacation spot. And the Port doesn't pay us any taxes; it never has. And	Meeting Comment
161	5					Public Involvement	I'm the chair of the Planning and Zoning Commission of Ingleside on the Bay, and I'm also a member of the Ingleside on the Bay Coastal Watch Association board of directors. And I appreciate the comments that have come before, especially the last speaker, Jo. But I'll add some additional concerns.  First of all, I'm having trouble finding the slides and the studies and supporting documents that have been mentioned in the PowerPoint. So if maybe that could be made readily available, I'd appreciate that so that we can incorporate some of the information that was shared in our written -- in written comments that we'll also be providing, such as the pilot study you mentioned and the passing vessel analyses that have been going on.	Meeting Comment
162	1				6/15/2020	Public Involvement	I was also wondering how notice is provided to our city of Ingleside on the Bay, when it comes to projects like this. Because I do feel like Ingleside on the Bay, especially, has been left out of some of these important meetings and opportunities for comment. And I wondered how we could see comments that have already been made and will be made as a result of the comment period. So by after July 3rd I'd like to see them, but I like hearing -- or seeing the comments that have been made so far.	Meeting Comment
162	2					Noise/Acoustics	In terms of specific concerns to our city, just in general about the channel deepening, is I would like to say that all cities that are touched by the channel deepening project should be reached out to, and some of the concerns include the dredging disruption to our communities, the noise and the visual impact of seeing dredgers on these -- on these schedules of dredging, to keep the channel deep.	Meeting Comment
162	3					Air Quality	The boating safety has been mentioned but also the air quality from these ever-larger ships. The increased potential for being a terrorist target and explosions and spills. When they're larger, they just sound scarier. So I want to make sure that those are taken into account in the EIS.	Meeting Comment
162	4					Hurricane and Flooding Tourism and Residential Life	And also the potential impact of storm surge from hurricanes. I didn't know if maybe there's even an opportunity here that there would be flood gates installed as part of a channel deepening project, so that we are protecting the bay, the inner bay. I know it may not do much for some of the outlying areas, but in the bay there might be an opportunity. But I'm concerned about this very deep channel of water coming toward us in a storm surge.  So those are just some of them. And I - just in general, I'd love for us to think about the coastal bend as more of a tourism destination rather than a big place for these extremely large ships. And thank you.	Meeting Comment
162	5					Public Involvement	I live in Port Aransas. I have to tell you, these -- this form of public meeting is beyond disturbing. There are so many people that cannot access this. I would beg the Army Corps of Engineers to stop this and reschedule it for a time where we can ask questions and have discussions.	Meeting Comment

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163	1				6/15/2020	Socioeconomics/Land Use/Recreation/EJ Ecological Community Types	I think all of the public comments I've heard to this point are aligned with mine. This was the first time I've heard anybody say, okay, yeah, you should look at the Port as a good neighbor, other than Sean Strawbridge. The Port isn't listening to us, so to that person -- the Port isn't listening to us. We asked for the same things, over and over and over. They spit out some that has nothing to do with our best interests in mind. And I don't mean our, like Port Aransas. I mean, all of these towns on the bay system. The wildlife, the fishing, they talk about money and jobs. How does it impact the environmental tourism jobs? I think that out of the two, the environmental tourism jobs are going to last longer. I mean, certainly you're not seeing news articles (indiscernible) people getting laid off from tourism or fishing guides, or blah-blah-blah, like you're seeing from the big oil companies.	Meeting Comment	
163	2					Marine Resources/EFH Navigation/Transportation	On top of that, the eco-tourism doesn't impact the environment this way. You don't have to have an environmental scoping meeting to go fishing. I'm afraid that the increased traffic from an 80-foot dredge would slow down our fishing. Not just because of larval flow and effect on marine life, but just traffic in this small area. It's a bottleneck getting through here. I don't know if anybody has even been through it to look -- from the Army Corps of Engineers -- to even look and see what it is.  But I invite you down. My god, I'll take you out on the boat or a plane and show you what we're looking at. This is a tiny area. It's right across from our park. I think that as Tammy said, we should really look at the effects that the 60-foot dredge has had on the bay system, fishing, ship wakes, et cetera, before we move on to an 80- foot. I mean, you guys are really putting the cart before the horse here. I know that the Port is trying to push it through, but I do not understand how the Port's agenda can outweigh the citizens' rights.	Meeting Comment	
163	3					Public Involvement	This is a pain to get into. I mean, you're not hearing from that many people. Six people signed up. What about underprivileged people or elderly people? You're not giving them access to these meetings. I think you're probably on the verge of violating civil rights at this point. Thank you.	Meeting Comment	
163	4					Socioeconomics/Land Use/Recreation/EJ	Formerly I lived in Valdez, Alaska. That name should strike the terror into the hearts of any oil company. And you can see the disaster that was created. That was a tourism city. That was a fishing city. And the oil spill in -- in Valdez destroyed both those industries for many, many, many years. So I hope you'll consider that first, economic impact.	Meeting Comment	
164	1					Public Involvement	6/15/2020	This meeting format is not user-friendly to anyone including people who are very familiar with computers. So we had two public officials that have tried to -- tried to weigh in, twice. City -- City officials, Shannon Solimine and Joan Holt. Neither have been able to access this. 4.5 billion gallons of oil, I think you need to recalculate. Things have changed quite a bit in the last month or two.	Meeting Comment
164	2					Socioeconomics/Land Use/Recreation/EJ	Healthcare is the number one industry in the Corpus Christi area. Tourism is the number two industry in the Corpus Christi area. Do not let the Port fool you into thinking they are the economic driver.	Meeting Comment	
164	3					Socioeconomics/Land Use/Recreation/EJ	This -- this project would not eliminate reverse lightering. All it would do is give the Port and their cronies a monopoly and cut off upstream producers who have invested millions in storage and -- and loading.	Meeting Comment	
164	4					Alternatives	And their private money. Are you considering all the proposed projects in this Environmental Impact Statement? Because there are multiple, multiple projects proposed mostly by the Port. The de-salination, dredging, and other de-salination projects up at La Quinta Channel. This is just -- we really need true public meetings where we have more time, where we can ask questions, and where the real public -- not just those with the right computer access --can participate.	Meeting Comment	



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164	5					Public Involvement	In addition, this WebEx has tried to invade some of our people's contact list. That is very disturbing. I was assured that this was not going to happen, and someone just had to deny that access when they were trying to weigh into your meeting. Please rectify these problems. Have public meetings in Port Aransas and consider all the proposed projects and true scientific information, not just desktop modeling.	Meeting Comment
164	6					Socioeconomics/Land Use/Recreation/EJ	I am with Texas Energy Advocates Coalition, and we are a supporter of this project for many reasons. Before I go into why I'm supporting the Port initiative, I want to also state, though, that I do have a home in the area. I live on Copano Bay, right on the water, so the environment and keeping our beaches pristine and watching out for wildlife and taking care of our area is very important to me as well.  However, for the greater good of the region and to look and to see what a great stellar reputation that the Port has had, I feel comfortable in saying that the Port's efforts to prioritize and protect the waterways has always shown that they have that priority, not to mention the fact that they contribute to local, regional, and national income. That's just a fact.  Through the developments though, the Port is proposing this channel to deepen it to 80 feet, given them the capacity to take the fully latent, Very Large Crude Carriers, the VLCC, to Harbor Island.	Meeting Comment
165	1				6/16/2020	Socioeconomics/Land Use/Recreation/EJ	So let's talk about that real quick. Gulf of Mexico and this project is vital. It's a matter of -- first of all, the Port is the number one exporter of (indiscernible). It's a net exporter, and it is on this path to continue to support, not just the economic growth for our region but for the state of Texas.	Meeting Comment
165	2					Safety and Security	It also, though, in my opinion, a matter of national security. We really need to be the provider of our energy needs for us and for the world. This avoids the opportunity for us to have to get into unnecessary wars all over the planet with having to fight wars for oil. We all know that this has been happening.	Meeting Comment
165	3					Safety and Security	There's also several pipeline projects that have also been in the works from Eagle Ford to Permian Basin in that are connecting into the Port or Harbor Island. Therefore, while it's 54-foot channel depth, this deeper port is absolutely necessary, and it's going to also improve the safety and efficiencies of waterborne (indiscernible) as well.	Meeting Comment
165	4					Safety and Security	So you know, there's that, and then there's -- let's go back to the national security issue quickly. We want to take on the national debt, and we should, and this -- having them do this would definitely help secure that, along with taking -- sorry -- along with making sure that we're looking at importing our oil from us and not from other countries like Russia or Saudi Arabia.	Meeting Comment
165	5					Hurricane and Flooding	And lastly, you know, like I said, living in Copano Bay and having a town that was wiped out by Hurricane Harvey, not having any stores or lights in our little town because they were wiped out by Hurricane Harvey. We have still not come back from Hurricane Harvey, and here comes COVID-19. And all I'm saying is that we need to look at different (indiscernible). Stellar record, and it should be considered. It knows how to work with government agencies, and has a long track record (indiscernible). Thank you.	Meeting Comment
165	6					Socioeconomics/Land Use/Recreation/EJ	And I am also a member of the TEAC, the Texas Energy Advocates Coalition. I'm a supporter of the project. I became fascinated with the growth of the Port and how exciting it is for Texas, for our nation. I was really intrigued by it that I decided to pick up and move my family here so we could be a part of it. With all the expansion we're doing with this, it's bringing opportunities for myself, other workers, my children, bringing more money into the schools, just trying to provide a better future for our nature.	Meeting Comment

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166	1				6/16/2020	Safety and Security	And as like Kim said with national security, I think that's real important that we become a country that can support ourselves and also not rely on world trade.But I'm all for it. I'm going to keep it short and sweet. But thank you for holding this, and I'm glad to be a part of it and learn what all is going on.	Meeting Comment
166	2					Socioeconomics/Land Use/Recreation/EJ	Look, I'm also kind of speaking on regards to TEAC. And I've spent a lot of time in this community, all the way back to the days of my employment with the Refinery Terminal Fire Company where I spent a lot of time on some fires on some of the dock facilities there and have been a part of this community for a long time. I'm also a vice president of Emergency Service District Number 1 for (Indiscernible) County. And so the last 15 years I've actually spent in the oil field. I see the values of what this project can do, you know, across the board.	Meeting Comment
167	1				6/16/2020	Mitigation	The one thing that jumps up to my ear is the whole regulatory compliant side of what we want to accomplish here, which also includes, you know, risk mitigation to make it comfortable for the community and all the stakeholders on really document and keeping real-time progress of the project moving forward, where we have some expertise that could help with that process.  I think it's a great thing. I've kind of (indiscernible) exposed and drawn into this, and so we're definitely going to be a support and help any way we can.	Meeting Comment
167	2					Cumulative Impacts	My name is Errol Summerlin. I live at 1017 Downey Drive in Portland, Texas. I plan on submitting some written comments, but wanted to submit these oral comments here today; and I thank you for the opportunity. I tried last time, by the way, and I -- for some reason, you all couldn't unmute me apparently, but that's water under the bridge. The Port of Corpus Christi is the applicant here, and I think it's important to understand their overall objective and obtain the permit and the combined impacts of several initiatives that are interdependent on each other. Without one, it makes no sense to pursue the others.  All of these initiatives culminate at Harbor Island, and the combined impacts and cumulative effects of all of them must be considered in the EIS. Those initiatives include the construction of a large crude oil terminal on Harbor Island that will require unprecedented destruction of Harbor Island with additional dredging and material placement areas, materials that remains contaminated from previous operations on the island, and material that the railroad commission said could not be relocated from one section of the island to another.	Meeting Comment
168	1				6/16/2020	Socioeconomics / Land Use / Recreation / EJ HTRW Cumulative Impacts	It requires the berthing of VLCCs and a narrow channel where vessel traffic is at an all-time high. The emissions from the VLCCs will be 1000 feet from a major recreational hub for residents and visitors to Port Aransas.  It then requires a supply of crude to this new terminal, and that is being conducted under a separate project being undertaken by access midstream that will require additional construction of pipelines through Redfish Bay State Scientific Area to reach the terminal on Harbor Island.  The inclusion of the seawater desalination facility on Harbor Island should also be included in the EIS, as it will include the discharge of brine concentrate into the same channel in which all the other activity is being conducted.  The Port's ultimate objective is to achieve all of these initiatives and their corresponding cumulative impacts must be included in the EIS.	Meeting Comment

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168	2					Cumulative Impacts	Finally, I also believe there is another project that must be included in the analysis, and that's the Port's application for a core permit to widen and deepen the La Quinta Channel. This project will also have serious impacts on the aquatic life and nurseries, and the placement of the dredge material must be considered in conjunction with the dredging activity in the subject EIS. It appears that at least one of the placement areas for the dredge material from La Quinta is also designated as a placement area in this EIS.  The Port of Corpus Christi believes there are no boundaries to what it can do. The Army Corps needs to reel them in and send them a clear message that their power as a navigation district has limitations when they're combined activities impact.	Meeting Comment
168	3					Public Involvement	First of all, I'd like to say that these meetings, there a lot of people that can't get on today for some reason or other, and not everybody has great Wi-Fi or computers or all that, so I think these meetings are really against all -- violating a lot of our rights.	Meeting Comment
169	1				6/16/2020	Alternatives	Secondly, we are not against oil and gas. We're not totally against oil and gas, but Port Aransas is 18 miles from the Port of Corpus Christi. And the Port of Corpus Christi bought that property in Port Aransas. We didn't go up to the Port of Corpus Christi. We're not against everything that Port of Corpus Christi is doing. Harbor Island is just a terrible place for desalination, VLCCs terminal. They'll be on either side of our ferry system, which has been there forever, and it's just a terrible place. We have hurricanes here, and after Hurricane Harvey, you can completely see what happened there.	Meeting Comment
169	2					HTRW Alternatives	So you know, we've grown into – nothing has been on Harbor Island for years, 25 years. I mean, it's -- and it's due to the contamination of the island. It's not just against oil and gas. There's a huge problem with Harbor Island, and it's only 244 acres that the Corpus Christi owns there. And they want to put a desalination plant, four VLCCs berths, what else? A couple other things. But anyway, it's just a terrible spot for it. Scientists have been studying this area for 30 years plus, and they can't all be wrong. They just can't all be wrong.	Meeting Comment
169	3					Socioeconomics/Land Use/Recreation/EJ Marine Resources/EFH	And Port Aransas has grown into a huge destination, a tourist destination with the fisheries, and the estuaries, and all the fish larvae come in through that channel and go up into all the bays, Redfish Bay, up to Rockport, Aransas, Ingleside. And to survive, what they want to do at Harbor Island, it won't survive. And there have been plenty of studies done on this. And I just wish you all would take another look.	Meeting Comment
169	4					Cumulative Impacts	And nobody has done an 80-foot channel, nobody. And so they don't even know what the effects of that is going to be. They haven't even finished the damn 54-foot dredge must less sitting here doing all these permits right now for a damn 80-foot dredge. I mean -- and the millions and millions of dollars it's going to keep that current.	Meeting Comment

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169	5					Public Involvement	<p>And I want to thank you for the opportunity to speak to you all. I think it's a wonderful idea to have a virtual meeting in these times. But unfortunately, it has not been very effective, and many people have had a lot of frustration trying to get on, stay on, speak. I didn't even -</p> <p>- I didn't even hear the first person who spoke, even though she spoke louder the second time you talked to her.</p> <p>So that being said, I think it's very essential that we have a public meeting set up where people can actually come together, voice their opinions, have the support of each member of their community, whether it's from Port Aransas, Aransas Pass, the Coastal Bin area. All of us need to be able to come and make comments.</p>	Meeting Comment
170	1				6/16/2020	Cumulative Impacts	The other thing I would like to say is the Corps really needs to combine all the proposed permits and consider all of the EIS for all the projects as a cumulative impact. It's not just one thing. They all affect each other. And the rest I will write, and also thank you very much for this opportunity to speak.	Meeting Comment
170	2					Navigation/Transportation	I would like to just add. This is not going to be a blast to you about how we don't like these meetings, the way they're being done. I do want to say a few things about what some -- additional things for the EIS. I agree with Errol, Errol Summerlin and his points. I think that -- other thing that EIS needs to consider is the traffic on 361 to and from Harbor Island with the ferry and the wait times because for anybody to say it's not going to affect the ferry system, it is going to affect our ferry system. And that is not a little --that's not a little problem.	Meeting Comment
171	1				6/16/2020	Safety and Security	<p>The stability also of the Harbor Island ferry landing, I have -- I know that (Indiscernible) has already -- had expressed concerned about how that is possibly going to affect the whole stability around the ferry landing that they put a tremendous amount of money into in the last couple years.</p> <p>Also note, there's been no mention of emergency problems or evacuations. If something were to happen on Harbor Island, the ferry will shut down, and people will not be able to get off of the Port Aransas side over here by Roberts Point Park or any way, except the other route. But in a heavy summer weekend, which right now we're having July 4th every weekend right now, there is no way to evacuate this island, absolutely none. And so I think that this is something that's very important for the safety of people visiting, much less the people that live here.</p>	Meeting Comment
171	2					Purpose and Need	<p>I would also like to say it -- this whole thing makes no sense unless it includes the Harbor Island terminal, which is 201900245 and then the access midstream proposal, which is 00789. And the reason it makes no sense is what you're just -- you're building -- you're doing a dredge to nowhere unless you have something to tie it into that, of course, cuts off everybody else upstream.</p> <p>And for those people with the other league that seem to think this is going to be so great, it isn't because it's going to be a small little select few people that are going to be benefitting, and nobody else upstream is going to be benefitting at all.</p>	Meeting Comment
171	3					Alternatives	And I also want to say that there is, again, no -- the draw of water from a larger VLCC going to Moda or L&G, that is a big problem, and it will affect -- it's a big problem. Nobody has even looked at that. And thank you.	Meeting Comment

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171	4					Socioeconomics/Land Use/Recreation/EJ	I am the president of Air Data Solutions, data collection company, and we're also a member of the Texas Energy Advocates Coalition. Thank you for letting me be a part of this. I would just like to say real quickly that I support the Port's channel deepening project. We have seen the impact that the growing volume of trade has provided, not only to our business in the area but also to so many other businesses that are active in this area. And in a time when so many are struggling, the current progress and everything that's happening and being brought about by the Port is very encouraging. So we fully support these projects being discussed and will provide any assistance that we can. Thank you very much.	Meeting Comment
172	1				6/16/2020	Navigation/Transportation	And I live in Port Aransas, Texas, and I, like Jo, am not against oil development. I'm just against any, vehemently opposed to development on Harbor Island.  For one, we've already spoken about the traffic with the ferry and with the recreational fisherman that are out there, the commercial fisherman that are out there, the L&Gs that pass by daily. To add VLCCs turning around there is just like, you know, impossible to imagine and a ludicrous proposal.	Meeting Comment
173	1				6/16/2020	Coastal Processes	The pollution - the light pollution, the noise pollution, everything that's going to come with Harbor Island development is going to affect not only Port Aransas but Aransas Pass, Ingleside, Ingleside on the Bay, and Rockport. We don't just have Corpus Christi Bay. We have Aransas Bay, Redfish Bay, Copano Bay. All of those estuaries are going to be affected by all of this action and pollution.	Meeting Comment
173	2					ODMDS	An 80-foot dredge has not even ever been done, and you all are proposing to take contaminated soil off of Harbor Island and place it out in the Gulf because we can't place it anywhere else because we know it's contaminated. How much sense does that make?	Meeting Comment
173	3					Socioeconomics/Land Use/Recreation/EJ	The only people that are going to profit from this are the Port and the Berry brothers or whoever owns Lonestar, Access, and Midstream, and all of it.  Port Aransas is here for fishing, for beachgoers, for tourism, and Corpus Christi is not giving us any guidance or any help in that regard. Everything they do it seems is against us.  As far as the energy folks that have been coming up all of a sudden, where they came from, who knows. I'm sure the Port put them up to it, but energy is energy. And we all need energy. That's true, but we don't need pollution and ruining another economy just to support a few chosen folks. I don't know. What else can I say? That's all I have to say. I appreciate Mr. Hudson, I think is your name, Jayson Hudson. I appreciate.	Meeting Comment
173	4					Public Involvement	This mode of communication is ridiculous. I understand the virus is here, and we have to be smart, but I think there's plenty of places we could have -- this convention center here in Port Aransas where we could social distance and talk about this in a face-to-face manner, where we could ask questions. We can't even ask questions from anybody because it's a one-sided conversation, me looking at a screen. I'm a real people-person, and it's just not cool. Thank you, sir.	Meeting Comment
173	5					Cumulative Impacts	I'm going to pick up where I left off last time. I didn't get all my comments made, so here we go. The EIS must disclose reasonable estimates of the single and complete projects impacts, including impacts of proposed dredge material disposal on and near seagrass beds, direct, indirect, and secondary impacts must be disclosed.	Meeting Comment

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174	1				6/16/2020	DMMP	Impacts of dredging on near shore reefs in the Gulf of Mexico, the extension of the channel far out in the Gulf. I don't know if there's any reefs along that transect, but somebody sure needs to look because that would be a very significant impact; and it needs to be disclosed if there are any. Impacts of proposed dredge material disposal in the near shore Gulf of Mexico and on beaches, the impacts of that on recreational beaches and adjacent waters.	Meeting Comment
174	2				Ecological Community Types Marine Resources/EFH	Impacts on the degree of coupling between the Gulf of Mexico and Redfish, Aransas,Corpus Christi Bay estuary system, including effects on propagation of storm surge. Impacts of vessel wakes on shoreline erosion; impacts of all project activities on fish and shell fish of this estuary system. Impacts of seagrass impacts caused by the proposed project on finfish, shellfish, and juvenile green sea turtles, which are a listed species.	Meeting Comment	
174	3				Water and Sediment Quality Air Quality	Impacts of the proposed project on water quality and ecology, specifically due to oil spills. Impacts of the proposed project on air quality and the adjacent Port Aransas community.	Meeting Comment	
174	4				Navigation/Transportation Socioeconomics/Land Use/Recreation/EJ	Impacts of the proposed project on navigation safety in the channel between Port Aransas and Harbor Island. Potential impacts on evacuation routes. Impacts of the proposed project on all aspects of socioeconomics of Port Aransas. That's it.	Meeting Comment	
174	5				Alternatives Mitigation	I'm just an interested citizen, and I'm (indiscernible). I appreciate this opportunity. Through my line of work, I'm involved in a lot of public comments, and for as difficult as this digital format is, the other side of it is we hear complaints about how people can't drive (indiscernible); it was at an improper time. I appreciate this opportunity, not having to get off work.But we've discussed -- I've heard a lot of objections to Port City Council and Harbor Island in this project. I kind of wanted to point out what would be the alternative. Right now there's 200 -- there's 2328 miles of oil pipeline and 6318 miles of natural gas pipeline coming into the area. There's authorized \$544 million in channel improvements already in the City Council area. So whereas I would like to see more information in the EIS regarding potential impacts and what those mitigations would be and what it is in the context of the other developments going around, I still would prefer an area that's already as developed as Corpus as opposed to something by the Aransas Wildlife Refuge or the (Indiscernible) Madre, Rio Bravo area.	Meeting Comment	
175	1				6/16/2020	Alternatives	I just -- I can't see where this is not an (indiscernible) situation where people are saying I don't have a disagreement with oil and gas but where else would it be? Would we put it in (Indiscernible) Bay and Port (Indiscernible) and make it their problems? It seems that there's already this much development in the Corpus Christi area with so many between Q-it (phonetic) and Genere (phonetic) and everybody else already in the area that it seems to be the least damaging option to achieve the economic goals that we're trying to achieve.	Meeting Comment

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175	2					Socioeconomics/Land Use/Recreation/EJ Marine Resources/EFH	Anyone who has been to Port Aransas has to realize that that is a very narrow area, and it has already been affected by Hurricane Harvey once. We can't underestimate the chances that, you know, will we hit again. But last year I saw a large ship nearly capsize one of our ferries, and I can't imagine a VLCC coming through there regularly without serious damage to the ferries. So I just don't understand how this is even being thought, how deepening of 80-feet when this narrow pass is really the only major opening for about 100 miles into the Bay of Corpus Christi and	Meeting Comment
176	1				6/16/2020	Cumulative Impacts Threatened and Endangered Species	Endangered species such as our whooping cranes, our piping plovers. I mean, Corpus Christi is known as the birdiest (phonetic) city in the country, and we're talking about doing a great deal of cumulative harm by bringing in so much more into this area, which is, again, this a very cramped, narrow area there.	Meeting Comment
176	2					Wetlands/SAV ODMS	There term beneficial use of soil, which is for the dredging seems inappropriate also. That soil is going to damage seagrasses and oyster beds, two things that actually ameliorate wave and storm damage now as well as aid our fish nurseries and our beaches. When I saw your -- where you're thinking of putting those soils out there, that's going to be contaminated soils coming onto our beaches, and I don't understand how you would even consider that.	Meeting Comment
176	3					Environmental	Don't greenwash what's happening here. Beneficial use is a term robbed from conservation and applied now to the industrialization of our natural areas. The Army Corps of Engineers and the Port of Corpus Christi are not improving our natural ecological systems, but degrading them. So let's just call it what it is. And I've heard some of the comments on national security, but I'm not sure if this doesn't put a target on our backs, frankly. I don't know that it's such a great idea to be doing this	Meeting Comment
176	4					Public Involvement	I mainly just wanted to point out that at normal public meetings -- and I realize this doesn't have to do with the EIS -- but at normal public meetings, we would be able to see who is attending. And I want to know why we are being blocked from seeing everybody that's in attendance. All we can see is the panel people.	Meeting Comment
177	1				6/18/2020	Cumulative Impacts	But moving on, I would like to submit that the memorandum for record by the policy analysis branch that was done on March -- 7th of March, 2019 with various recommendations of why an EIS is required, I would like to submit that that needs to be considered. Everything that's in that memorandum from your department needs to be submitted as part of the EIS. And in particular, the issue with cumulative impacts that addresses other projects that have happened here, like the Lydia Ann, the barge facility and then these future projects like the Occidental Petroleum facility VLCC site. The Buckeye Partners site that is going on right now, the Moda sight that just finished up there and that they're still working on, and all these actually all tie in together at some point. And we need to consider all those cumulative impacts. And that's all I'm going to say. I've already emailed comments in also. Thank you.	Meeting Comment
177	2					Cumulative Impacts	Okay. Jo Kruger, Port Aransas, Texas. This EIS needs to include all the proposed projects for this area, and needs to use real measurements and studies, not desktop calculations and modeling. It needs to establish the effects of not-yet-complete 55-foot dredging projects that have already caused increased noise, light, air pollution, diesel exhaust, backwash, erosion, wake damage and shipping ongestion, as citizens have been concerned from he time this project was first proposed.	Meeting Comment
178	1				6/18/2020	Navigation/Transportation	The EIS should also include the safety issues that are already manifesting since the 55-foot project began: the barge groundings; the barge drowning; tankers losing steering and near- collision with the TxDOT ferry carrying passengers and automobiles. An oil spill accident in the narrow channel entering this area would shut down all traffic.	Meeting Comment
178	2					Alternatives	Full attention should be paid to the alternative -- alternate of an offshore monobuoy, which would render this project completely unnecessary. Also, all these projects should be cumulative and all of them should be considered all together. Increased channel depth could negatively affect larvae transport.	Meeting Comment



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178	3					Wetlands/SAV Marine Resources/EFH	Dredging and trenching causes suspension of silt, clay and coat and blocks light, smothering vital seagrasses. These activities would impact redfish, flounder, sheepshead, trout, blue crabs and many more species including bird populations. Also I am concerned about the dredge spoil and about taking it offshore and dumping it. It's such contaminated soil, and when the last dredge was here and they dumped it offshore it all ended back up on our beaches. And it killed a lot of sea turtles, et cetera. I'm really concerned about that because it really was a problem. Oil spills from loading operations or pipelines, ruptures in neighborhoods or in wetlands would be catastrophic. Emissions from tugs, VLCC, daily operations and burning of vapors. Also, all these have occurred before -- all of this have occurred before the other segments of the 55-foot permitted projects are completed. And here is the Port of Corpus Christi, they want more. They want to do an 80- foot dredge which has never been done anywhere. Thank you.	Meeting Comment
178	4					Public Involvement	My name is Julie Plunkett and I have a house in (indiscernible). And I would like to mention that the last three scoping meetings have been a complete failure, and I really feel that we should have a public meeting. I get it. It's COVID and people want social distancing. But I believe the Army Corps can manage to have a meeting in Port Aransas at the football field or wherever, to be able to hear people who are unable to connect to a WebEx or who are older and are not technical savvy. So I feel like you're doing a disservice because you're not hearing everybody who has something valid to say, because they aren't technical-savvy.	Meeting Comment
179	1				6/18/2020	Cumulative Impacts	The other thing I would like to mention is, in the Code of Federal Regulations, 33 part (Audio cuts out - indiscernible) states in the Part D, content of the application, all activities -- and this is what the Army Corps needs to be looking for when they get an application for permit. All activities which the applicant (indiscernible) to undertake which are reasonably related to the same project and for which a DA permit would be required should be included in the same permit application, meaning we know that the Port of Corpus Christi wants to make shipping berths, and they want the dredge, and all other things. And it says that the U.S. Army Corps of Engineers should reject as incomplete any permit application which fails to comply with this requirement. The fact that you are not looking at the EIS in a cumulative (Audio cuts out - indiscernible) affects (indiscernible) proposed projects is absolutely devastating to Port Aransas. You need to realize how much this can affect our little town. (Indiscernible) does this one (indiscernible) but put all permits together and then add the desalination plant and everything else. I (indiscernible) and I love oil (indiscernible) export the oil.	Meeting Comment
179	2					Alternatives	However, there is a safer way to do it that won't affect our environment, and I think you should take it offshore. Thank you.	Meeting Comment
179	3					HTRW Nosie/Acoustics	Hi. Sarah Searight here. This is not a complete project. Dredging for what? The Port has not been approved for what they are planning on building. Dredging the channel for a VLCC terminal will be a disruption and a never-ending battle. Example, North Carolina Inlet, Ocracoke Inlet, Oregon Inlet, Packery Channel, all are constantly trying -- constantly trying to be kept -- keeping their levels at expense of the state and federal. Carlon Group (phonetic) is not included in this expense and they're not paying the bill anymore. Last year, dredging costs, light, noise, air pollution in Port Aransas which I am an affected person, because it was -- I'm near the channel. I heard everything. I smelled everything.	Meeting Comment

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		Last Name	First Name					
180	1				6/18/2020	Sea Level Rise/Climate Change	I'm handing you a U.S. Corps of Engineers study on the effects of the channel deepening on tide and storm surge, a case study of Wilmington, North Carolina. It's not a pretty picture for the estuaries or industry near the channel and residents of Port Aransas. So in your effects that we have here, on this piece of paper, it's a study that it says the amplifications in both tide, storm and surge is influenced by the reduced hydraulic drag caused by greater mean depths. So the deeper the channel, the bigger the surge, and the more flow of the water that's going to come through and affect all those industries and cause pollution and disaster to the estuaries and the grasses. The same tropical cyclone making landfall today will produce a significant larger water levels than in the 19th century. Since many harbors worldwide have deepened since the 19th century and because many locations worldwide exhibit substantial trends and tide properties, world (indiscernible) 2010, 2015, it's probable that the secular changes in storm surge risk has also occurred in other estuaries to an extent related to tide changes. In the future, local depth changes due to accelerated sea levels, Church, et 2013, and additional developments may further alter storm surge characteristics of flood hazards. Please take it offshore. And this was a document that I pulled off the internet. Funding was by the Office of Naval Research and the U.S. Corps of Engineers 2015. Thank you.	Meeting Comment
180	2					Public Involvement	Okay. So as many people have already said, and I'm sure you've heard before, there's only one reason for (indiscernible) the channel, dredging it to 80 feet, and that is to service a VLCC terminal for (Audio cuts out - indiscernible) Christi Authority. Originally it was only going to go to Harbor Island. That was a problem for them. (Indiscernible) extended over to the Martin Midstream property so then it couldn't be a single-purpose project. (Audio cuts out - indiscernible) shell game with no transparency whatsoever, any notices that are required for this project (indiscernible) in (indiscernible) Aransas or the city where it's going to be. They're posted in obscure locations in (indiscernible) town, out of area. They barely meet the criteria of posting requirements. But it is a constant battle to find out any information about what the Port's trying to do.	Meeting Comment
181	1					HTRW	So let's be clear. It's just to service their oil shipping terminal that they're trying to do. And what it amounts to is them trying to monetize a piece of junk land that they bought that is heavily polluted with hydrocarbons, and which presents its own problem. When they begin disturbing that oil there are deed restrictions against them doing that (indiscernible) of the State of Texas. When they begin disturbing that, there's going to be a bunch of oil (indiscernible) up in the bays and estuaries from that very issue.	Meeting Comment
181	2					Navigation/Transportation	So this really is nothing (Audio cuts out - indiscernible) monetize the piece of (indiscernible) dirt that (indiscernible) there. If it weren't about just trying to transport oil and ship it out of the area, they'd be (indiscernible) shore. But there's no way for them to monetize that. They can't charge tolling fees for the property that they own if it's offshore.	Meeting Comment
181	3					Alternatives Marine Resources/EFH	My understanding is that the Army Corps is responsible to look for the best alternative (indiscernible) least environmental impact, and clearly the best alternative, the one with the least environmental impact, is taking it offshore. When you do that, you reduce all the risks that people are talking about (indiscernible) first of all placing an ongoing financial burden on the taxpayers, having a high risk of doing damage during a storm surge event with another hurricane, high risk of damage to the bay and marine ecosystem, posing a threat to the numerous endangered species in the areas (Audio cuts out - indiscernible) sea turtle, piping (indiscernible) crane poses a threat to humans with the noxious odors, harmful gases and odors.	Meeting Comment
181	4					Alternatives	And last, it has a serious threat to all from the inevitable oil spill that will happen. It's just a matter of time. Just like Deer Park over in Houston, it's just a matter of time before it happens. (Audio cuts out - indiscernible) should be taken offshore. This whole thing should be off the table and we're looking to the Army Corps of Engineers to determine that. Thank you.	Meeting Comment

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		Last Name	First Name					
181	5					Cumulative Impacts	Okay. My name is John Donovan. I'm a director of the Port Aransas Conservancy. Since this is a public scoping session, let's talk about scope. On February 14, 2019, Robert Heinly, Chief of the Policy Analysis branch of USACE Galveston, wrote to Sarah Garza of the Port of Corpus Christi Authority pointing out the interdependent nature of the Port's application to dredge the Corpus Christi Ship Channel, CCSC, to 75 to 80 feet; their application to build a Harbor Island terminal facility; and Access Midstream's application to supply pipelines, a tank farm and adjacent terminal facility. Heinly concluded that, "it is clear that the deepening of the CCSC and the construction of the Harbor Island terminal facility are interdependent and should be considered a single and complete project. "In addition to the Harbor Island terminal facility, the Corps has received a permit application from Access Midstream Holdings to construct a series of pipelines and facilities to transport crude oil for loading onto marine transport vessels at the proposed Harbor Island terminal facility "Considering that Access' proposed project is designed to service single customer, the Harbor Island terminal facility, the Corps concluded that the proposed pipelines and facilities are also interdependent with the Harbor Island terminal facility and the deepened channel. "Considering the interdependent nature of these activities in the context of the Corps' federal control and responsibility, and the fact that the location and configuration of all three of these projects require a Department of the Army permit, the Corps concluded that the permit application does not represent a single and complete project "The single and complete project shal include the deepening of the channel construction of the Harbor Island termina facility; and the pipelines and facilities for Midway tank farm facility in Taft, Texas, to the Harbor Island terminal facility."	Meeting Comment
182	1				6/18/2020	Cumulative Impacts	I urge USACE to require that the scope of the environmental impact study for the Port of Corpus Christi's permit application for deep channel dredging be expanded to include the impacts of all the proposed interconnected projects for Harbor Island, including the Harbor Island terminal facility and the Access Midstream terminal pipelines and tank farm. USACE earlier determined that this would be the proper course of action. However, the Port pushed back strongly and the Corps now seems to have been backed -- to have backed off. I don't wish to cast aspersions, but there is an impression abroad that the Corps is bending over backward to accommodate the Port, who we believe have given the Corps \$200,000 to prepare an EIS to help prepare. We would like to see that impression put to rest as the Corps' EIS is our best hope for analyzing and addressing the issues that the local community has raised regarding the numerous planned Harbor Island projects. Thank you.	Meeting Comment
182	2					Cumulative Impacts	Thank you. I'm Barney Farley. I've been a resident of Port Aransas since 1960. I'll repeat what some other people have said, that this thing about having all these three projects under one umbrella of an EIS is very important. So I see it's on the table, and I'll be curious to see how it shakes out.	Meeting Comment
183	1				6/18/2020	DMMP	Dredge material placement is somehow -- I have no idea what's going to happen with the contaminated soil from Harbor Island. Perhaps it's in writing somewhere, but that's really important as to what they're going to do with that contaminated soil. Now, the dredging -- we talked to -- now the presentation talked about hydrology and its effect. But I kind of doubt that that's a set-in-stone, those findings for that. We know the hydrology will be affected by a deeper channel, but I don't -- I'm not sur anybody knows exactly how. So I believe that those effects are going to be detrimental. We don't know what's going to happen in a hurricane with the deeper thing. A previous speaker addressed that so I don't think it's - it's an exact science how that's going to affect Port Aransas during a hurricane.	Meeting Comment

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		Last Name	First Name						
183	2					Marine Resources/EFH	Okay. This dredging at Harbor Island for the berth at Harbor Island and for the 80- foot, I figure that's going to last at least a solid year. And in that time, there's going to be four seasons, and one entire cycle of the marine life cycle take place in the middle of all that dredging and everything else that's going on there. Also the construction of the terminal That's a disruption to marine life. I don't care what anybody says, it's a fact. We know these things, you know. Okay. We've seen them before and yeah, they're definitely having an effect on marine life.	Meeting Comment	
183	3					Cumulative Impacts	Okay. There's a desal plant proposed. If that goes through I think the Corps of Engineers should consider that. It's not their - - their bailiwick but they should add that in as a further impact later on down the line. We know that those discharges are going to have an effect, plus all the other desalts that are proposed for this area. Okay. This project contributes nothing to Port Aransas. There's not one thing in the project that enhances our ability to have a quality of life here. It doesn't enhance the fishing or the birding, or the hunting or anything else. It's all contra -- it's all antagonistic to what we have, and we want to preserve. So we're asking for some help from the Corps of Engineers today to do the right thing on this EIS project. Thank you.	Meeting Comment	
183	4					Environmental Concerns	Hi. My name is Maggie Sheldon, and I'm a full-time resident of Port Aransas. I am preparing my written comments for this scoping process, and among other things, those comments will address concerns for the health and safety of the people of Port Aransas and our visitors, from environmental pollution, accidents and/or attacks, and tidal flows from hurricanes in the event that this channel in dredged much deeper. Additionally, my comments will address my concerns for the economic, social, aesthetic, and environmental impacts on marine life that the Port's heavy industrialization plan will have on my small barrier island.	Meeting Comment	
184	1					6/18/2020	Navigation/Transportation	According to this application, the proposed channel deepening is needed to accommodate transit of fully-laden, very large crude carriers that draft approximately 70 feet. There is presently no associated infrastructure for a VLCC to dock and/or fully load at Harbor Island. As we all know, there are two pending applications with the Corps to build two marine terminals on either side of the ferry. The one for Access Midstream has plans to accommodate (indiscernible) maxes, and the other one from the Port has plans to berth two VLCCs. However, both of those plans including the one 245, 2019-245 which was recently resubmitted, only planned to dredge the ship berths to 54 feet. So my question is, where, exactly are these VLCCs with the 70-foot draft going to anchor to become fully laden? Can a 54-foot berth accommodate a VLCC?	Meeting Comment
184	2						Cumulative Impact	The applicant goes to great length to talk about the benefits of fully-laden VLCCs in this presentation, but never once do they state where these vessels will dock and get fully loaded. Why won't the applicant show us the grand plan? The deepening is either connected to something that can accept and fully load (indiscernible) VLCC or it is not. If it is connected to something, like two marine terminals and a desal plant, then the Port's grand plan with all the components should be studied for cumulative impact. If it is not connected to anything, then the channel deepening project will be unnecessary because it will not accomplish its intended use, which is to accommodate VLCCs and have them fully loaded.	Meeting Comment
184	3					Hydrodynamic Salinity Modeling ODMDS	In addition, from listening to these presentation, I have two other questions. One, I want to know will the ODMDS site for this plan also be evaluated to see if it can accommodate the dredge from the other plan placement from 2019-245? And this presentation that the Port did, said that they did a salinity study and I want to know if the salinity study that they mentioned included the anticipated 96 million gallons of brine that they anticipate to pump into the channel on a daily basis. And that's all I have. Thank you very much.	Meeting Comment	

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		Last Name	First Name					
184	4					Cumulative Impacts	Great. Good afternoon. My name is Ben Rhem. That's R-h-e-m. I'm an attorney with the law firm of Jackson Walker, representing the Port Aransas Conservancy. We will also provide detailed written comments, but I want to address some concerns now. First, the channel deepening project along with the Port's Harbor Island terminal project and the Access Midstream pipeline and terminal project must be considered a single and complete project, and reviewed under a single EIS. The Corps is already well-aware that the applicant's overall purpose is to achieve the ability to load VLCCs at Harbor Island. Loading VLCCs at Harbor Island can only be accomplished if all three projects are approved. In fact, as previously noted, the Corps has already determined that these three projects are a single and complete project as explained in Robert Heinly's February 14, 2019 letter. This determination was supported by the NEPA implementation guidelines, internal policy memos, and U.S. Supreme Court precedent. If the Corps reverses course and allows these project to be treated as independent projects, it would be an improper segmentation to divulge regulatory scrutiny. Federal courts have already determined that manipulation -- and I quote -- "manipulation of a project design to conform to a concept of independent utility undermines the underlying purpose of NEPA." The law here is clear. Even if the Corps determines that the project is not a single and complete project, which they are, the Corps still is required under its own NEPA procedures to analyze the direct, indirect, and cumulative impacts of all federal interests within the purview of the NEPA statute. The U.S. Supreme Court has held that environmental consequences of all related pending proposals must be considered together.	Meeting Comment
185	1				6/18/2020	Alternatives	Secondly, the goal of loading VLCCs can be achieved through an alternative. Instead of causing significant environmental and economic damage to Port Aransas, Corpus Christi, Redfish Bay which is a state-designated scientific area, and the surrounding region, the EIS must also evaluate the merits of offshore options, the buoy system, and the platform terminal system. The analysis provided in the application is cursory at best, and that information does not allow the Corps to meet its requirements to take a hard look at the impacts of the proposed project and reasonable alternatives. Thirdly, I want to discuss the disposal of dredge materials. The proposed channel deepening project will require the dredging of 46 million cubic yards of sand and clay which must be disposed of in accordance with EPA and Corps guidelines. However, the EPA has already stated in its comments that the information provided by the applicant does not -- and I quote -- "does not sufficiently enable the Corps to make a legally defensible permit decision in regard to compliance with the 404(b)(1) guidelines for the specification of disposal sites for dredged or fill materials." The permit application for all three projects had to be withdrawn because applicant refused to provide information requested by the Corps. The applicant then attempted to segment these projects to avoid the EIS, and rushed to get its permits. And now the EPA notes that the application is not sufficient to obtain a legally-defensible permit. I'm going to be done in one more sentence. All three applications need to go back to the drawing board, provide all of the required information, and be considered a single and complete project so that the public has a chance to meaningfully participate in the permitting process. Thank you.	Meeting Comment
185	2					Navigation/Transportation Air Quality	Well first, I wanted to say that I do live on Copano Bay in Taft, Texas. And I -- I'm going to refrain from commenting on the last caller because I'm not sure where they all come together or not. But I do want to talk about the Port's record on air quality and working with TCEQ, and also the amount of vessels that will come into the area. There'll be much more traffic with the vessels that are going to come into the area -- already have it. And with the project being approved, it would actually lessen the amount of ships that are going to be in the area which will probably reduce the ability to have potential accidents and traffic as well. But also, most importantly, move (indiscernible) emissions as well being released by having multiple ships in the area	Meeting Comment

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		Last Name	First Name					
186	1				6/18/2020	Marine Resources/EFH	I also want to talk about, as a resident there, how for me it's important to look at -- you know, we talk about the sea turtles and protecting the wildlife and fishing. But when we talk about going to an offshore terminal, that's fine if you want to get into that discussion. However, why are sea turtles in Port A more important than sea turtles out offshore? And so my point is, is that I think that all sea turtles are important, and I think we need to look at the partner that we are trying to work with more than the project.	Meeting Comment
186	2					Socioeconomics/Land Use/Recreation/EJ	<p>When we look at the Port, who is also a government agency, we would believe looking at their past record that they are going to work with other agencies to the letter of what they need to be in compliance with. If the Port should sell, for some reason, that property because they just deem that it's too much work, they don't want us to move in (indiscernible) Port A, what happens if they sell that property to maybe another company that doesn't have the track record that the Port of Corpus Christi does. What happens to it then, when you have a company that purchases and they're outside of the United States, and they really don't care about what's happening in Port (indiscernible).</p> <p>My point is, is that maybe there's some common ground to try to figure out how do we accept the Port going here, and looking at them being a good partner and trying to roll up our sleeves and working together. Because with what's happening in the area, oil and gas is going to continue and the Port of Corpus Christi and the whole entire region needs this oil and gas. I've heard many residents say they're not against oil and gas, and I'm so happy to hear that, because we need it in the region and it's going to happen. But now, it's more of, you're not going to stop the progress. It's now, who do we want to partner with? And I'm sorry but the Port of Corpus Christi to me is the best partner we could be looking for. And they do bring -- a caller said there is nothing for them in Port A to get out of it. That is not true at all. There will be a lot of economic impact to Port A and the region, and we need to stop thinking about, it's just Port A. It's actually the coastal bend region.</p>	Meeting Comment
186	3					Cumulative Impacts	<p>My name is Kathryn Masten and I live in Ingleside on the Bay. This EIS needs to take into account the following known impacts from deepening ship channels around the world over the last 150 years: higher tides and increased tidal range; increased height of storm surge; increased frequency of nuisance flooding; increased inland flooding, which was a surprise to me; salinity intrusion into bays, inland waterways, and groundwater sources; increased sediment concentration due to dredging. Using historical data from the National Archives, Dr. Stephen Tawk (phonetic) of Portland State University has modeled why ecological disasters have occurred in the areas like Wilmington, North Carolina, which was mentioned earlier, and the Ems River estuary bordering the Netherlands and Germany, he concluded that deepening ship channels over time causes dramatic changes in estuary hydrodynamics.</p> <p>Here are just two quotes from the Smithsonian Magazine in 2018. "As container ships have grown ever larger, ports worldwide have dredged channels ever deeper, to 50 feet or more for the ports of New York, Baltimore, Norfolk, Charleston and Miami. Feasibility studies for those projects, including analyses by the Army Corps of Engineers, examine the economic prospects and some of the environmental impacts, but have dismissed the effect of channel deepening on the tide changes, flooding, and storm surge. Over more than -- more than a century time frame we have greatly altered the underwater topography of our harbors and estuaries. "We have literally moved mountains of dirt, exploded sea mounts, straightened valleys and created superhighways for superlatively large ships. These alterations to our harbors are ubiquitous worldwide with effects that we haven't fully considered or even mapped out, in many cases."</p>	Meeting Comment

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Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type	
		Last Name	First Name						
187	1				6/18/2020	All Applicable Resources	Some of us are preparing grant proposals for flood mitigation funding through the General Land Office, FEMA, and others, to protect the coastal bend from flooding and storm surge. These effects will likely be futile against an 80-foot deep cannon blasting the saltwater ocean into our bays in the next hurricane. Redfish Bay, Corpus Christi Bay, all are part of an estuary system that doesn't just protect the wildlife. It protects the human inhabitants and industries both alongside and inland from the coast. The Corps needs to bring in the right scientists, such as Dr. Tawk, to do the right studies.	Meeting Comment	
187	2					Public Involvement	Also, the deadline for comments should be extended to accommodate face-to-face meetings in the coastal communities of the coastal ben including Port Aransas and Ingleside on the Bay, and there should be opportunities for Q&A and to review some of the studies ahead of time, particularly on the subjects that I mentioned, but on many more. So if you could make those available, that would be great. Thank you.	Meeting Comment	
187	3					Public Involvement	Hi. My name is Crystal White. I am a longtime resident of San Pat County and have been involved in our local community and I come from the energy industry as well, born and raised here. And I have seen and experienced the Port's history with keeping their community at their best interest with environmental efforts, with getting their local industries involved, especially when it comes to their environmental -- environmental initiatives, and -- which I know this community truly appreciates.	Meeting Comment	
188	1					6/18/2020	Socioeconomics/Land Use/Recreation/EJ	And also, I just want to talk about the job creation. Just being a young citizen, how important that is to keep our local graduates here. Because if we do not have this essential infrastructure set up, which is definitely needed by the supply and demand, they will be going to other, larger cities and moving away.	Meeting Comment
188	2						Socioeconomics/Land Use/Recreation/EJ	And this is a great opportunity because I'm going to expand on Kim's earlier statements that the partnership with the Port is exactly what this project needs because of the value that they put on the environment through these large projects. And then also, I am a citizen in Sinton, and we have a very similar project going on with the country's third-largest steel mill. And we chose them to come to our community because of their longstanding efforts to adhere to the environmental regulations and that is a very big mission of theirs through all of their assets throughout the country. And so the job creation that they are providing for our local economy and the surrounding areas is -- is very important for the growth, for our local community and our future generations.  And so I just come on behalf of a citizen and the growth of this project and its true benefits and what it's going to do for many future generations, and definitely keeping the wildlife as a very high priority. If anyone will do that, the Port's commitment is top compared to other potential investors that do not have our best interests at heart. Thank you very much for your time. I appreciate it.	Meeting Comment
188	3						Socioeconomics/Land Use/Recreation/EJ	Thank you. My name is Jane Gimler, president and CEO of the Associated Builders and Contractors, the Texas Coastal Bend chapter. I also am a resident here in Nueces County. I came from San Patricio recently. Just want to express today that our association supports this project, and we support several of our members that will be and have been working on this process with the Port of Corpus Christi. This project is so important to the entire coastal bend, with creations of jobs and in return create a big economic impact for our area. We look forward to the growth, not only for the coastal bend, but for our members as well.	Meeting Comment
189	1						6/18/2020	Environmental Concerns	We also believe in the Port of Corpus Christi's track record on the environmental safety. They have been leaders in complying with the environmental rules and regulations, and that we appreciate and we support. And that's -- thank you for your time today and thank you for allowing me to make my comments. Thank you.



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Letter ID	Comment ID	Commenter		Commenter Contact Information	Date Received	Category	Comment	Type
		Last Name	First Name					
189	2					Public Involvement Purpose and Need	<p>Thanks. I wanted to comment on the purpose for this project. In scoping, the Corps said that -- quoted the purpose of this project as being the need to export increasing amounts of oil. And I wanted to ensure that the Corps takes into account the current projections of oil production and development, which are much different than what the agency is -- has shown in its presentation.</p> <p>In May, the Energy Information Agency projected that production is going to sharply fall to only 11.7 million barrels a day in 2020. And in 2021 it would fall further, to 10.9 million barrels a day. The S&amp;P Global Platts show that U.S. exports could drop from around 4 million barrels a day that were taking place in February 2020, to as low as 2.7 million barrels a day in December 2021 due to the current COVID situation and changes in the oil markets. It's important that the Corps takes into account these critical differences, because there may be no reason at all to dredge the port if there is going to be no need for additional exports. And if there's no reason to dredge, there's no reason to put these critical ecosystems, species, and humans at risk for a project that is going to serve no purpose. Thank you so much for your time.</p>	Meeting Comment
190	1				6/18/2020	Cumulative Impacts	<p>Okay. I want to supplement my previous verbal and written commitment -- comments -- with some additional comments. First and foremost, I want to bring up the issue of cost/benefit analysis, which is important in NEPA. And I want to emphasize the importance of properly taking into account the infinite loss of future ecosystem services that probably will occur with this project. And that's important, and it's subtle, because traditionally, traditional economic and cost/benefit analysis doesn't do that. But there's been a lot of work in the last 20 years on this, and I know the Corps knows all about it. So just make sure you properly account for the loss of natural capital, the loss of ecosystem services, because once those are gone a lot of times they're gone forever. And they're not gone for 20 years like a typical project lifespan. They are gone forever. And that's a very, very important concept.</p>	Meeting Comment
191	1				6/18/2020	Cumulative Impacts	<p>The issues -- in the case of -- if you properly deal with the single and complete project issue, there are two other projects then that have to be considered in the EIS. And just a couple of the really critical issues in those other two projects that aren't currently reflected in this scoping process.</p>	Voicemail/Text
191	2					ODMDS	<p>One is this proposal to dispose of dredge material from Harbor Island in the ODMDS without having properly sampled it. It's outrageous. We need to look at it very carefully. It's probably illegal, and anyway, it needs to be in the EIS. And the data, the proper data, the correctly-sampled data, need to be there for people to review and comment on.</p>	Meeting Comment
191	3					Alternatives	<p>The second thing is, on the Acces Midstream, the pipeline alignment alternatives should be considered that would not have the pipelines running through the seagrass beds. There are other ways you could run those pipelines, and those alternatives absolutely must be considered. Three, cumulative impacts. Other people have touched on that. I had previously touche on it. It's extremely important to this EIS. There are so many things going on in this ecosystem. They all need to be captured under the cumulative impacts assessment for this EIS. And cumulative impact assessment is almost never done correctly. Please get it right. Thank you.</p>	Meeting Comment

## **Appendix F**

### **Public Scoping Meeting Transcripts**

## Scoping Meeting

*June 6, 2020*

TRANSCRIPT OF AUDIO FILE

PCCA SCOPING MEETING

JUNE 9, 2020

1           MR. HUDSON: Good afternoon, everyone.  
2       We sincerely apologize for the technical delay  
3       that we've been having. I think our issues have  
4       been resolved, and we will now get started with  
5       tonight's public meeting. Thank you all for your  
6       patience. We apologize.

7           And we sincerely apologize for the  
8       technical delay that we've been having. I think  
9       our issues have been resolved, and we will now  
10      get started with tonight's public meeting. Thank  
11      you all for your patience. We apologize.

12           On behalf of the project team, we thank  
13      you for your time and interest in the Port of  
14      Corpus Christi Authority's Channel Deepening  
15      Project Environmental Impact Statement or EIS.

16           My name is Jayson Hudson. I am the U.S.  
17      Army Corps of Engineers Regulatory Project  
18      Manager for the Department of the Army permit  
19      application.

20           The overall goal of public scoping is to  
21      define the issues to be addressed in depth in the  
22      analysis that will be included in the EIS. That  
23      is why we're here today. We want to hear from  
24      you about the issues you would like for us to  
25      address in the draft EIS, and we appreciate

1 everyone taking the time to join us today.

2 Before we proceed with our agenda, I  
3 would like to acknowledge the project team  
4 members in attendance today. From the U.S. Army  
5 Corps of Engineers, we are joined by Joe McMahan,  
6 Chief of Regulatory, and Bob Hindley, Deputy  
7 Chief of Regulatory.

8 From the Port of Corpus Christi  
9 Authority, we are joined by Sean Strawbridge,  
10 Chief Executive Officer; Omar Garcia, Chief  
11 External Affairs Officer; Sarah Garza, Director  
12 of Environmental Planning and Compliance; Dan  
13 Koesema, Director of Channel Development; Lisa  
14 Hinojosa, Communications Manager; Beatrice  
15 Riviera, Environmental Engineer; Yvonne Dives-  
16 Gomez, Permitting Specialist, and several team  
17 members from the Port's consulting firm, AE COM  
18 (phonetic).

19 From the Corps EIS contractor team, we  
20 are joined by Lisa Vitalie (phonetic), Tony Risco  
21 (phonetic), and Tom Dixon from Freese and  
22 Nichols, as well as Leslie Hollaway and Connor  
23 Stokes from Hollaway Environmental and  
24 Communication Services, who will also be  
25 assisting me today.

1           During the meeting today, Colonel Vail,  
2   Commander of the U.S. Army Corps of Engineers  
3   Galveston District, will provide opening remarks  
4   followed by presentations about the proposed  
5   project from the Corps and the Port of Corpus  
6   Christi Authority.

7           Following the presentations, you will be  
8   provided with an opportunity to present comments  
9   to the project team. At any time during the  
10   meeting today, you may sign up to provide verbal  
11   comments by calling (855) 680-0455 and pressing  
12   \*3 when prompted. If you are already joining us  
13   by phone, simply press \*3 to sign up.

14           Speakers will be called on to provide  
15   comments in the order in which they have signed  
16   up. We will also announce upcoming speakers in  
17   groups of five, so you are aware of when you will  
18   be called to speak.

19           Following the meeting today, you have  
20   the option to written comments online through the  
21   project website and by texting or calling the  
22   project phone number, (855) 680-0455. I repeat,  
23   that number is (855) 680-0455.

24           Due to the nature of today's virtual  
25   meeting, the formal public commenting portion of



1 the meeting will be conducted in the following  
2 way, first federal, state, and local elected  
3 officials who wish to make a verbal comment will  
4 be called on to do so. Then anyone else who has  
5 signed up to make a verbal comment will be given  
6 the same opportunity.

7 I will then call on each member of the  
8 public who has signed up to speak by their name  
9 or the last four digits of their phone number.  
10 Each speaker will be given three minutes to make  
11 their comments. When it is your turn to speak,  
12 please mute your computer audio to avoid  
13 feedback. A countdown timer will be displayed on  
14 the meeting broadcast screen for each speaker to  
15 indicate the remaining time. As your time ends,  
16 please be courteous to the other members of the  
17 public who wish to provide comments and quickly  
18 wrap up your comments to ensure that everyone who  
19 would like to speak has the opportunity.

20 If you do not need the entire time  
21 allotted, help us to include everyone by only  
22 using the time you need. If you complete your  
23 comments in less than three minutes, we will  
24 restart the clock for the next speaker.  
25 Remaining time cannot be reserved or transferred

1 to another speaker.

2 Please keep in mind that we reserve the  
3 right to mute your microphone if this instruction  
4 is not followed.

5 We ask that you support us in conducting  
6 a respectful, orderly, and courteous meeting. We  
7 want to be sure we get all of your comments  
8 recorded, and we need your cooperation to do so.  
9 Here are a few ground rules for the meeting  
10 today.

11 Since this meeting is being held  
12 virtually, we will keep all participant  
13 microphones muted during the meeting to avoid any  
14 background noise that may make the presentation  
15 difficult to hear. Comments submitted by  
16 federal, state, and local elected officials will  
17 be presented to the project team first. If you  
18 are an elected official and plan to provide  
19 comments today, please call the project team at  
20 (409) 789-9993 with your name and position. I  
21 repeat, that number is (409) 789-9993.

22 We will not respond today to the  
23 comments submitted. However, all comments made  
24 today will be documented and considered in the  
25 draft EIS as it's finalized.

1           When it is your opportunity to speak,  
2     please state and spell your first and last name  
3     for the record. Just a reminder, you may not  
4     defer your time to others.

5           The public scoping meeting will adjourn  
6     at 7 o'clock tonight. If you do have any  
7     additional comments that you would like to submit  
8     beyond what you are able to address during your  
9     comment period, please submit them in writing or  
10    by calling at (855) 680-0455 after the meeting.

11           We will now begin the presentation  
12    portion of the meeting with opening remarks from  
13    Colonel Timothy Vail, Commander of the U.S. Army  
14    Corps of Engineers Galveston District.

15           COLONEL VAIL: (Not audible)

16           Welcome to today's scoping meeting, the  
17    Department of the Army's Permit SWG 2019 00067,  
18    to deepen the Corpus Christi Ship Channel.

19           Particularly as we respond to COVID,  
20    it's important to emphasize the critical role the  
21    public plays in this permitting process and that  
22    Corps values your attendance here today as we  
23    consider this application.

24           The Port of Corpus Christi Authority is  
25    proposing to deepen a 14-mile stretch of the

1 existing Corpus Christi Ship Channel in order to  
2 accommodate fully-laden, Very Large Crude  
3 Carriers that draft approximately 70 feet. The  
4 Army Corps of Engineers is neither a proponent  
5 nor an opponent of this project. We will  
6 ultimately decide if the proposed project is not  
7 contrary to the public's best interest.

8 In order to make that decision, we must  
9 gather as much information as possible within an  
10 appropriate permitting time period. This meeting  
11 will give individuals the opportunity to comment  
12 on the scope of the environmental impact  
13 statement, or EIS, for the proposed project, and  
14 all comments become part of the official record.

15 After the Port of Corpus Christi  
16 Authority provides a brief description of the  
17 proposed project, we will provide an overview of  
18 the Department of the Army permit procedure and  
19 the National Environmental Policy Act process.  
20 Then we'll begin calling on the individuals who  
21 signed up in advance to submit their comments.

22 Today's meeting is not a vote for or  
23 against this project. It's an opportunity for  
24 you to comment on the types of information that  
25 should be evaluated to develop the scope of the

1 environmental impact statement. In determining  
2 the scope of the environmental impact statement  
3 and evaluation of the permit application, we will  
4 be considering all relevant factors identified  
5 during scoping and in response to the public  
6 notice, including the needs and welfare of the  
7 people and the project's impact on fish and  
8 wildlife, historic properties, fisheries,  
9 economic activity, navigation, safety and  
10 recreational use.

11 As both a Texan and the Commander of the  
12 Galveston District, I'd like to thank you for  
13 participating in this process by attending this  
14 meeting. The information and issues identified  
15 during this meeting, along with the information  
16 and issues provided in written comments, will all  
17 be considered in the determination and the scope  
18 of the EIS and subsequent evaluation of the  
19 permit application.

20 MR. HUDSON: Thank you, Colonel Vail.  
21 We will now proceed with the Port of Corpus  
22 Christi Authority Channel Deepening Project  
23 presentation, describing the proposed project.

24 (Recording played)

25 NARRATOR: Hello. Thank you for

1 taking the time to learn more about the Port of  
2 Corpus Christi Authority's, or PCCA's, channel  
3 deepening project. This presentation will  
4 provide a brief overview of the project including  
5 the purpose, engineering design considerations,  
6 and completed and ongoing studies to support the  
7 project.

8 As the Energy Port of the Americas,  
9 the Port of Corpus Christi Authority is an  
10 independent political subdivision governed by  
11 seven commissioners. The Port develops property  
12 and leases it to support energy trade in the  
13 global market.

14 To give national perspective to the  
15 size of the Port of Corpus Christi, if the Port  
16 were a state, it would rank seventh in industrial  
17 investment in terms of total capital expenses at  
18 \$54 billion.

19 The Port of Corpus Christi Authority  
20 is requesting permit authorization from the U.S.  
21 Army Corps of Engineers, known as USACE, to  
22 conduct dredge and fill activities to deepen a  
23 portion of the existing Corpus Christi Ship  
24 Channel as well as a 5.5 mile extension of the  
25 ship channel to the natural minus 80 foot

1 bathometric contour in the Gulf of Mexico. The  
2 project would deepen the channel from the western  
3 portion of Harbor Island into the Gulf of Mexico,  
4 an overall distance of approximately 13.8 miles.  
5 The proposed project channel limits are shown  
6 here in yellow.

7               The Port of Corpus Christi's  
8 economic impact for the state of Texas is \$19  
9 billion, providing over 98,000 jobs in the region  
10 and generating \$446 million in local and state  
11 taxes. This channel deepening project is  
12 expected to have a \$257 million economic impact.

13              The Port of Corpus Christi has  
14 implemented an environmental policy which was  
15 adopted by the Port Commission in 2016. This  
16 policy serves to ensure growth in a responsible  
17 and sustainable manner. Every project or  
18 operation is evaluated against this policy to  
19 ensure it meets all five precepts. This project  
20 is no exception, and you will note throughout  
21 this presentation how different aspects of the  
22 project have been developed supporting these  
23 precepts.

24              The Port of Corpus Christi's  
25 proximity to Texas shale plays combined with the



1 current and forecasted port infrastructure, make  
2 the Port an attractive location for efficiently  
3 exporting crude oil by Very Large Crude Carriers,  
4 also known as VLCCs.

5 Exports have quintupled since 2017  
6 and are projected to triple again by 2030. The  
7 project is needed to accommodate the transit of  
8 fully-laden VLCCs that have a draft of  
9 approximately 70 feet. The deepening activities  
10 would be completed within the footprint of the  
11 authorized Corpus Christi Ship Channel width.  
12 The proposed project does not include widening of  
13 the channel, however, some minor incidental  
14 widening of the channel slopes is expected to  
15 meet side slope requirements and to maintain the  
16 stability of the channel. This will also  
17 minimize environmental impacts.

18 Dredged material removed from the  
19 channel will be used to restore shorelines,  
20 create aquatic habitats, and protect eroding  
21 shorelines and seagrass habitats. The project  
22 will also reduce the number of lightering vessels  
23 traveling in and out of the port, effectively  
24 lowering emissions and reducing operational risks  
25 of crude transfers that are currently occurring

1 outside of the Port.

2 This is a depiction of the process  
3 utilized by large tankers to load crude oil when  
4 calling at the Port of Corpus Christi. The  
5 existing channel depth requires crude carriers to  
6 depart partially loaded from the Port, or that  
7 VLCCs remain offshore while smaller tankers  
8 transfer their cargo to the larger VLCCs from  
9 inshore, a process known as reverse lightering.

10 The inefficiency of this process is  
11 compounded when some of these smaller vessels,  
12 Suezmax vessels for instance, being used in the  
13 lightering process, are also not fully loaded  
14 while traversing the channel.

15 As exports increase, the number of  
16 lightering vessels and carriers will also  
17 increase, adding to shipping delays and  
18 congestion, which will affect all industries.  
19 These delays and congestion will increase the  
20 cost of transportation, which in turn will  
21 increase the cost of crude oil, with the ultimate  
22 consequence of making U.S. crude oil less  
23 competitive in the global market.

24 Deepening the channel will allow for  
25 the VLCCs to travel in and out of the port fully

1 loaded, ultimately allowing for more efficient  
2 movement of U.S.-produced crude oil, and meeting  
3 current and forecasted demand in support of  
4 national energy security and national trade  
5 objectives. The reduction in the number of  
6 vessel trips will lower costs, man hours,  
7 operational risks, and air emissions.

8           The dimensions of the design vessel  
9 play an important role in determining the depth  
10 of the proposed channel. The analysis included  
11 the three largest classes of liquid-bulk crude  
12 oil tankers from the current worldwide fleet, as  
13 well as vessels on order to be constructed. The  
14 selected vessel design, known as VLCCs, represent  
15 32 percent of the current number of crude  
16 vessels, and 54 percent by dead weight tonnage.  
17 VLCCs also represent 45 percent of the current  
18 order book for crude carriers.

19           The typical VLCC vessel size has  
20 been extremely stable in the past 25 years.  
21 Therefore, significant change in size in the  
22 foreseeable future is not expected. You can see  
23 here the average dimensions of the 99th  
24 percentile vessel, with the draft based on West  
25 Texas intermediate crude oil density values.

1 These values were selected for the project study  
2 to determine the minimum channel dimensions for  
3 the proposed channel deepening.

4 Here is a concise summary of the  
5 current authorized channel depths and widths  
6 compared to the proposed project channel depths  
7 and widths. As previously discussed, the  
8 deepened channel design was based on the 99th  
9 percentile of VLCC vessel characteristics. Those  
10 characteristics, in conjunction with design  
11 factors such as currents, wind, wave effects,  
12 ship speed, navigational traffic patterns, and  
13 ship maneuverability, were used to determine the  
14 optimal channel depths and widths. The study on  
15 the optimal depth and width applied the design  
16 characteristics of the World Association for  
17 Waterborne Transport Infrastructure, known as  
18 PIANC, and Army Corps of Engineers guidelines for  
19 channels, to calculate the channel depths and  
20 widths as shown in the table.

21 PIANC is a global organization that  
22 has been providing guidance and technical advice  
23 for sustainable waterborne transportation  
24 infrastructure to ports, marinas, and waterways  
25 since 1885.

1 Both one-way and two-way vessel  
2 traffic designs were considered. One-way traffic  
3 was ultimately decided upon to reduce the amount  
4 of dredging needed for the proposed project and  
5 reduce future channel maintenance dredging  
6 volumes.

7 Portions of the channel have been  
8 divided into segments, depending on the referred  
9 design channel depths, widths, and slopes.

10 Segments 1 and 2 will be excavated to minus 77  
11 feet of the mean lower low water level, or MLLW,  
12 while segments 3 through 6 will be deepened from  
13 the currently authorized depth of minus 54 feet  
14 MLLW to minus 75 feet MLLW.

15 Segment 1, referred to as the outer  
16 channel, is the new entrance channel extension to  
17 the existing minus-80-foot bathometric contour in  
18 the Gulf of Mexico.

19 Segment 2 continues inbound,  
20 deepening the existing authorized minus-56-foot  
21 channel to the same proposed dimensions as the  
22 outer channel.

23 Segments 3 through 6 are the inbound  
24 portions of work encompassing the Harbor Island  
25 transition flair, Harbor Island junction, and

1 inner Corpus Christi channel.

2 A breakdown of anticipated new work  
3 dredging volumes by segment is displayed here.  
4 The design depths do not include the additional  
5 two feet of advanced maintenance dredging and two  
6 feet of over-dredge allowance. However, the  
7 total dredge volume by segment does include the  
8 advanced maintenance and over-dredge allowance  
9 volumes.

10 As shown in the last row, the total  
11 estimated dredge volume from the channel  
12 deepening project is just under 42 million cubic  
13 yards.

14 The dredged material management  
15 plan, or DMMP, should consider the most cost-  
16 effective and implementable alternatives that  
17 weigh economics, engineering, and the  
18 environment. Agency and public input was used to  
19 develop the DMMP, which included using existing  
20 placement areas, beneficial use sites, and ocean-  
21 dredged material disposal site known as ODMDS.  
22 Wherever feasible, environmental impacts to  
23 existing oyster habitats, seagrass, wetlands, and  
24 other ecosystems was avoided.

25 The DMMP for the project proposes a

1 series of existing upland placement areas and new  
2 and existing beneficial use sites to optimize the  
3 use of the new work dredged materials as much as  
4 possible. Specifically the material will be used  
5 to expand upland placement areas and beneficial  
6 use sites as well as address shoreline repair  
7 needs within Redfish Bay, Corpus Christi Bay, and  
8 the Gulf of Mexico in the vicinity of the  
9 channel.

10 13.8 million cubic yards of dredged  
11 material are planned to be placed in the new work  
12 ODMDS located approximately 3.4 miles offshore.  
13 The material is mostly comprised of non-  
14 structural clays which are not beneficial for  
15 construction of berms or dikes. Preliminary  
16 modeling using USACE's MP Fate modeling confirms  
17 that there is enough capacity within the ODMDS  
18 for disposal of the entire 13.8 million cubic  
19 yards without exceeding the limiting mounding  
20 height of 11 feet within the ODMDS.

21 The planning effort focused on  
22 existing placement areas and beneficial use sites  
23 as new upland placement opportunities are  
24 limited. As mentioned, the initial beneficial  
25 use concepts were generated by considering

1 existing agency restoration plans such as the  
2 Texas General Land Office's Texas Coastal  
3 Resiliency Master Plan, storm damage caused by  
4 Hurricane Harvey, and beneficial use features  
5 implemented elsewhere on the Gulf Coast.

6 Input was also gathered from  
7 federal, state, and local resource agencies, and  
8 used to help shape the direction of the DMMP.  
9 Thirteen initiatives were ultimately decided on,  
10 eleven of which were beneficial-use features  
11 aimed to achieve a variety of shoreline  
12 restoration, land loss restorations, marsh cell  
13 expansion, and gulf-side shoreline initiatives.

14 The figure shown here summarizes the  
15 placement areas included in the DMMP. Green  
16 areas create and restore estuarine, aquatic, and  
17 marsh habitats, and provide beach and dune  
18 renourishment on the gulf side. Yellow areas  
19 expand and repair existing placement areas,  
20 restore eroded shorelines or provide protection  
21 to seagrass areas.

22 The feeder berms, shown in blue,  
23 offshore of San Jose Island and Mustang Island,  
24 will nourish beach shorelines through the natural  
25 sediment transport process.



1 Preliminary modeling was performed  
2 to determine impacts on hydrodynamics, salinity,  
3 shoaling and vessel wake, and ODMDS capacity as a  
4 result of the proposed channel deepening. A  
5 desktop study of cultural resources was conducted  
6 along with wetland delineations and seagrass  
7 surveys for placement options within the bay.  
8 Tidal increases were observed to have a minimal  
9 impact on the tidal range for the area, logging  
10 in at less than an inch in Redfish Bay and less  
11 than a half inch in Aransas Copano, Corpus  
12 Christi, and Nueces bays.

13 Velocity changes were considered  
14 negligible, as it represents 12 percent on  
15 average speeds and 14 percent on peak speeds.  
16 Shoaling analysis concluded an increase of  
17 399,000 cubic yards of maintenance material  
18 entering the channel system per year. This will  
19 result in a maintenance dredging cycle frequency  
20 increase from once every 2.5 years to once every  
21 1.9 years.

22 Using the Delft3D modeling system,  
23 the maximum salinity impact would still register  
24 within the optimum salinity ranges for some of  
25 the most prolific aquatic flora and fauna,

1 resulting in no negative impacts to these  
2 species.

3 A ship simulation study was  
4 performed by the Aransas-Corpus Christi pilots to  
5 evaluate the feasibility of the channel  
6 expansion, identify optimum channel dimensions  
7 for safe and efficient operations, and to  
8 determine any operation constraints that might be  
9 required for safe operation. The simulation  
10 confirmed the validity of the proposed design for  
11 the approach channel and the inner channel.

12 Vessel wake studies showed reduced  
13 sediment mobilization along adjoined shorelines  
14 due to the reduced number of vessel transits per  
15 year, from 792 to 528 as a result of the channel  
16 deepening.

17 Wetland delineation surveys and  
18 field work were performed to determine the  
19 acreage of existing wetland ecosystems and  
20 natural seagrass habitats within the proposed  
21 placement sites. Adverse impacts are expected on  
22 approximately 244 acres of delineated wetlands.

23 Wetlands that are distributed as a  
24 result of placement operations will be replaced  
25 in kind. The proposed restoration of the DMMP

1 provides for approximately 1100 acres of restored  
2 aquatic habitat which greatly exceeds the actual  
3 adverse impacts of 244 acres. A preliminary  
4 report has been submitted to the U.S. Army Corps  
5 of Engineers, and the Port of Corpus Christi  
6 Authority is looking forward to consulting with  
7 the state historic preservation officer on  
8 additional studies.

9               The Port will continue to study this  
10 proposed project to ensure the most informed  
11 design. A passing vessel analysis is in process  
12 and further ship simulations are anticipated for  
13 mid-June to potentially reduce the channel width  
14 in the inner channel and to study effects of  
15 further 3-D current modeling when applied to the  
16 simulation.

17               The Port of Corpus Christi Authority  
18 is actively working with the U.S. Environmental  
19 Protection Agency and the U.S. Army Corps of  
20 Engineers to refine the sampling and analysis  
21 plan for material testing related to ODMDS  
22 approval. Design of the most effective placement  
23 template for beach re-nourishment is ongoing with  
24 continued analysis of channel material for sand  
25 placement to best mimic that of native beach

1 materials.

2 Feeder berms offshore of San Jose  
3 Island and Mustang Island are still being  
4 evaluated for sizing and location to maximize the  
5 amount of material contributed to beaches as a  
6 result of the natural sediment transport process.

7 Thank you for taking the time to  
8 learn more about the Port of Corpus Christi  
9 Authority's channel deepening project. This  
10 concludes the presentation.

11 (Recording stopped)

12 MR. HUDSON: As a reminder, you may sign  
13 up at any time during this meeting to provide  
14 verbal comments by calling (855) 680-0455 and  
15 pressing \*3 when prompted. If you have already  
16 joined us by phone, simply press \*3 to sign up.

17 And now, we will provide information  
18 about the U.S. Army Corps of Engineers EIS  
19 process, including the purpose and need,  
20 potential project alternatives, as well as an  
21 overview of the known environmental concerns.

22 (Recording played)

23 MR. HUDSON: Hello. My name is  
24 Jayson Hudson, and I am the Corps Regulatory  
25 Project Manager for the Port of Corpus Christi

1 Authority's channel deepening EIS. I will  
2 present to you an overview of the Corps EIS  
3 process and the results of our early scoping for  
4 the channel deepening EIS.

5 The objectives of my presentation  
6 are to provide you an overview of the relevant  
7 laws, introduce the Corps project team, and  
8 describe some of the content of the EIS as well  
9 as some of the alternatives and environmental  
10 concerns that have been identified.

11 The Port Authority's permit  
12 application is subject to Sections 10 and 14 of  
13 the Rivers and Harbors Act, Section 404 of the  
14 Clean Water Act, Section 103 of the Marine  
15 Protection Research and Sanctuaries Act, Title 41  
16 of the Fixing America's Surface Transportation,  
17 or FAST, Act, and Executive Order 13807.

18 The project must also be coordinated  
19 with state and federal agencies pursuant to  
20 Section 401 of the Clean Water Act, the Coastal  
21 Zone Management Act, the Endangered Species Act,  
22 the Magnuson-Stevens Fishery Conservation and  
23 Management Act, and the National Historic  
24 Preservation Act.

25 Title 41 of FAST, often referred to

1 as FAST41, standardizes interagency consultation  
2 and coordination practices and requires that a  
3 schedule for these practices be established and  
4 published on the federal Permitting Improvement  
5 Steering Council permit performance website.

6 Executive Order 13807 requires  
7 federal agencies to process environmental reviews  
8 and authorization decisions for major  
9 infrastructure projects as one federal decision.  
10 That means that all federal agencies with review  
11 responsibilities for major infrastructure  
12 projects must develop a single EIS and sign a  
13 single record of decision, or ROD.

14 The EIS team is comprised of the  
15 Corps as the lead federal agency, with the  
16 Environmental Protection Agency, the National  
17 Marine Fisheries Service, the U.S. Coast Guard,  
18 and the U.S. Fish and Wildlife Service as  
19 cooperating agencies in the development of the  
20 EIS.

21 Several state agencies, including  
22 the Texas Commission on Environmental Quality,  
23 Texas Parks and Wildlife Department, Texas  
24 Historical Commission, and Texas General Land  
25 Office are also participating or commenting on

1 the development of the EIS.

2 The Environmental Impact Statement  
3 contractor is Freese and Nichols, Incorporated,  
4 and the applicant is the Port of Corpus Christi  
5 Authority.

6 Due to limited resources, the Corps  
7 regulatory program utilizes a third-party  
8 contractor process to develop an EIS. In this  
9 process, the lead federal agency, applicant, and  
10 environmental consultant enter into an agreement  
11 where the applicant contracts and pays for the  
12 environmental consultant who prepares the EIS  
13 under the direction of the Corps.

14 As you can see in the diagram, the  
15 Corps directs the environmental consultant on the  
16 development of the EIS independent of the  
17 applicant. It's important to emphasize that  
18 ultimately, the Corps is responsible for the  
19 development and content of the EIS.

20 Here we have a timeline of major  
21 milestones for this project. The Port Authority  
22 submitted their application on January 7th of  
23 2019, and the Corps concluded an EIS would be  
24 required in March. Subsequent to that, the  
25 project was designated a FAST41 project in June

1 of 2019 and initial public notice was published  
2 in August.

3 After coordinating with the  
4 cooperating agencies, the Corps developed a  
5 purpose and need for the project in March of  
6 2020, which we will discuss later in the  
7 presentation. The notice of intent to develop  
8 the EIS was published in April of 2020.

9 The draft EIS is scheduled to be  
10 provided to the public in March of 2021, with a  
11 public hearing and comment period in March and  
12 April of the same year. The final EIS is  
13 scheduled to be provided to the public in January  
14 of 2022, followed by a permit decision which will  
15 be documented in a record of decision in April of  
16 2022.

17 This EIS flowchart shows the  
18 sequential process for developing and publishing  
19 an EIS. We are currently in the scoping stage of  
20 the EIS, where we are soliciting your input. The  
21 information and issues identified during scoping,  
22 along with the information and issues provided in  
23 letters sent in response to the public notice,  
24 and all other pertinent data, will be considered  
25 in the determination of the scope of the EIS and



1 the subsequent permit decision which is  
2 documented in a record of decision.

3 The scoping process is an integral  
4 step in the development of an EIS, with the  
5 overall goal of defining the scope of issues to  
6 be addressed in-depth in the analysis. The  
7 scoping process helps the Corps identify people  
8 and organizations that may be affected or have  
9 interest in the project, as well as identifying  
10 the roles and responsibilities of state and  
11 federal agencies.

12 The scoping process also helps  
13 identify significant issues that may have not  
14 already been identified, as well as eliminate  
15 issues that will not be significant or have  
16 already been addressed. The scoping process can  
17 also aid the identification and gaps in data and  
18 information as well as identify related studies  
19 that may be applicable.

20 Listed here are the typical sections  
21 of an EIS. The first chapter will provide an  
22 introduction to the project and the Corps' stated  
23 purpose and need for the project. The second  
24 chapter describes the alternatives to the  
25 applicant's proposed project and the subsequent

1 chapters assess the impacts of all of the  
2 alternatives evaluated. The assessments will  
3 cover a wide range of environmental impacts  
4 including the cumulative impacts.

5 In addition, studies that support  
6 the analysis will be provided in the appendices  
7 of the EIS. This may include, but not limited  
8 to, ocean dredged material disposal site  
9 analysis, Endangered Species Act assessments,  
10 cultural resource studies, hydrology and  
11 hydraulic studies, as well as compensatory  
12 mitigation plans.

13 The Corps is required by regulation  
14 to restate the purpose for the project from the  
15 public interest perspective. The Corps, after  
16 coordinating with cooperating agencies, developed  
17 two purpose statements: a basic purpose and an  
18 overall purpose.

19 The basic purpose is developed to  
20 determine if a project requires siting in or  
21 proximity to a special aquatic site such as  
22 wetlands and seagrasses. Based on the Corps'  
23 basic project purpose, shown here, the project  
24 was determined not to require siting in or  
25 proximity to a special aquatic site such as

1 wetlands and seagrasses. Therefore, it is  
2 presumed that an alternative that does not affect  
3 special aquatic sites is available.

4 The overall purpose is developed to  
5 identify and screen alternatives to the  
6 applicant's proposed project. The Corps has  
7 determined that the overall project purpose from  
8 the public interest perspective, is to safely,  
9 efficiently, and economically export current and  
10 forecasted crude oil inventories via Very Large  
11 Crude Carriers, a common vessel in the world  
12 fleet.

13 Crude oil is delivered via pipeline  
14 from the Eagle Ford and Permian Basins to  
15 multiple locations at the Port of Corpus Christi.  
16 Crude oil inventories exported at the Port of  
17 Corpus Christi have increased from 280,000  
18 barrels per day in 2017 to 1,650,000 barrels in  
19 January of 2020, with forecasts increasing to  
20 4,500,000 barrels per day by 2030. Current  
21 facilities require vessel lightering to fully  
22 load a VLCC, which increases cost and affects  
23 safety.

24 Alternatives that were identified  
25 during the initial public notice, which is an

1 early scoping step, include the no action  
2 alternative which in this case would be permit  
3 denial; the applicant's preferred alternative; as  
4 well as alternatives to the deepening of the  
5 channel such as a deep-water port facility. It  
6 is not uncommon in complex projects such as this  
7 one to have alternatives developed for  
8 subcomponents of the project: in this case,  
9 alternatives to the proposed dredge material  
10 placement options, such as offshore disposal,  
11 beneficial use, and upland placement.

12 In addition to the alternatives that  
13 were identified during the public notice, several  
14 environmental concerns were raised. Many of the  
15 comments received focused on impacts to wetlands  
16 and seagrasses as well as threatening endangered  
17 species. Additional comments were received on  
18 navigation safety and recreational use of the  
19 area.

20 I thank you for your interest in the  
21 development of the EIS for the Port of Corpus  
22 Christi Authority's channel deepening project. I  
23 look forward to receiving your comments and  
24 suggestions. We will be accepting scoping  
25 comments through July 3, 2020. If you would like

1 to submit written comments, you may do so at the  
2 mailing address or electronic email address shown  
3 on your screen.

4 (Recording stopped)

5 MR. HUDSON: That concludes the  
6 presentation portion of today's scoping meeting.  
7 We will now begin the commenting period. As a  
8 reminder, you may sign up at any time during the  
9 meeting to provide verbal comments by calling  
10 (855) 680-0455 and pressing \*3 when prompted. If  
11 you're already joining us by phone, simply press  
12 \*3 to sign up.

13 Speakers will be called on to provide  
14 comments in the order in which they have signed  
15 up. We will announce upcoming speakers in groups  
16 of five, so you are aware of when you will be  
17 called to speak.

18 First, Federal, State, and local elected  
19 officials who wish to make a verbal comment will  
20 be called on to do so. Then anyone else who has  
21 indicated a desire to speak will be given the  
22 same opportunity. I will then call on each  
23 member of the public who has signed up to speak  
24 by the name or the last four digits of your phone  
25 number in the order that you signed up.

1           When it is your turn to speak, please  
2       mute your computer audio to avoid feedback. Each  
3       speaker will be given three minutes to make their  
4       comments. When it is your turn to speak, please  
5       mute your computer audio to avoid feedback. A  
6       countdown timer will be displayed on the meeting  
7       broadcast screen for each speaker to indicate  
8       their remaining time. As your time ends, please  
9       be courteous to the other members of the public  
10      who wish to provide comments and quickly wrap up  
11      your comments, to ensure that everyone who would  
12      like to speak has the opportunity to do so.

13           If you do not need the entire time  
14      allotted, help us to include everyone by only  
15      using the time you need. If you complete your  
16      comments in less than three minutes, we will  
17      restart the clock for the next speaker.

18           Please keep in mind that we reserve the  
19      right to mute your microphone if this instruction  
20      is not followed.

21           If you do not wish to provide a comment  
22      today but would still like to submit comments to  
23      the project team, there are other ways to do so.

24           All written comments received during the  
25      formal commenting period through July 3, 2020,

1 will carry the same weight as the comments  
2 submitted today. You do not have to submit a  
3 comment today, and you will be heard just as  
4 clearly as those who spoke today.

5           You may submit written comments through  
6 a variety of methods: online through the project  
7 website, by email to PCCA-Channel-  
8 EIS@publicinput.com, or you may text your comment  
9 to (855) 680-0455; or you may dial that number  
10 and leave a voicemail message. You may also  
11 submit comments by mail directly to me at the  
12 address that I provided on the last slide, or you  
13 may email directly to me at  
14 SWG201901027@USACE.Army.Mil. This information is  
15 provided on the project website for you.

16           In order for your comments to be  
17 considered, it must be postmarked no later than  
18 July 3, 2020. This information is also provided  
19 on the public website.

20           We will begin with comments from public  
21 officials.

22           Connor, do we have any public officials  
23 who wish to provide comments today?

24           MR. STOKES: Hi, Jayson. We currently  
25 do not have any public officials that have signed

1 up to provide comments.

2 MR. HUDSON: Thank you. Who are our  
3 first five public speakers?

4 MR. STOKES: We currently have two  
5 speakers in the queue. Those are speakers with  
6 call-in numbers ending in 5476 and 2146.

7 I will now call on speaker -- caller  
8 with the number ending in 5476. Your phone has  
9 been unmuted, and you may begin providing your  
10 comments.

11 (No audible response)

12 Call-in number ending in 5476, you may  
13 now begin providing comments. Please state your  
14 first and last name as well as spelling before  
15 beginning.

16 (No audible response)

17 Again, call-in number 5476, you may now  
18 begin providing comment.

19 Okay. We will move on to our next  
20 speaker ending in phone number 2146. I'll now  
21 unmute your microphone so you can begin to  
22 provide comment.

23 (No audible response)

24 Call-in number 2146, your microphone is  
25 unmuted, and you may begin speaking.



1 (No audible response)

2 As a reminder, please check your own  
3 mute button on your device, if you are not able  
4 to be heard.

5 MR. HUDSON: Please bear with us a  
6 moment. We seem to be having another technical  
7 difficulty.

8 (Pause)

9 MR. STOKES: I'll try calling user  
10 ending in 5476 again. Your microphone is  
11 unmuted, and you may begin providing your  
12 comments.

13 (Pause)

14 We apologize everyone. It appears that  
15 the comments are coming through on the phone  
16 number that folks have called into, but they're  
17 not being heard through the WebEx platform.  
18 We're working to resolve this right now. Please  
19 be patient with us. Again, we apologize for the  
20 technical difficulties.

21 (Pause)

22 Okay. We -- sorry for the delay. We  
23 believe we have the issue resolved.

24 Caller, phone number ending in 2146, I  
25 apologize if you've already spoken, but you

1 should be good to go to provide comments at this  
2 time.

3 MR. NYE: Okay. I'll start again.

4 (Audio echo)

5 It's not on my end I don't think because  
6 I only have one phone and not using my computer.  
7 Can you hear me now?

8 MR. STOKES: We can.

9 MR. NYE: Hello.

10 MR. STOKES: We can hear you. Please  
11 say your name, and you may begin with your  
12 comments. I apologize for the feedback.

13 MR. NYE: Okay. My name is Patrick  
14 Nigh. That's spelled P-a-t-r-i-c-k, N-y-e. I  
15 live in Ingleside on the bay, and my parents  
16 bought a beach house here in 1967.

17 My comments have to do with several  
18 things. First, the current dredging operations  
19 that are undergoing -- that are ongoing near the  
20 intercostal and the Corpus Christi Ship Channel  
21 as well as (Indiscernible) is causing some issues  
22 within our bay front here.

23 First off, we've had some oil spills  
24 that have come off some of the pump barges. We  
25 also have numerous dredge line leaks. I'm just

1 wondering who actually watches this and controls  
2 this because this becomes a problem to our  
3 seagrasses and our community.

4           Also, there's dirt work underway in the  
5 Corpus Christi Ship Channel across from IOB, and  
6 we're being impacted by dust and particulate  
7 matter that's falling in our communities and  
8 across our vehicles and our homes and so forth.  
9 Although we see a water truck, it doesn't seem  
10 like it's used very often.

11           I'm wondering who is actually monitoring  
12 this, and does this dust contain heavy metals or  
13 other chemicals that have been dredged up in  
14 prior operations.

15           We're also concerned about the emissions  
16 of ship traffic, and I know that loitering makes  
17 sense. But we also have tankers that are bored  
18 down the street from, and we have actually  
19 measured some increase in some toxic materials  
20 coming from those ships. Will that be looked at  
21 in your EIS study?

22           We also want to ask about the deepening  
23 and the direct effect of what's going to happen  
24 with storm surge with this deepening of the  
25 channel. Is relative sea level taken into

1 effect. And I know you mentioned that you're  
2 going to have a passing vessel study. But how is  
3 that being utilized for our community and other  
4 low-lying communities such as Aransas Pass,  
5 Rockport, Port Aransas, Port of Flour Bluff,  
6 North Beach? How are these people -- how would  
7 they be impacted?

8 We do know from previous studies that  
9 over-topping of our bulkheads occur now. How is  
10 that going to -- how are we going to be more  
11 affected with relative sea level, and what is the  
12 Corps of Engineers and other entities doing to  
13 help us understand and manage this problem.

14 That is my comment. I will send in some  
15 written comments in addition to these. Thank you  
16 for your time.

17 MR. STOKES: Thank you, Mr. Nye, for  
18 your comments. Those have been recorded  
19 (indiscernible) for the scoping meeting.

20 We would like to, at this time, go back  
21 to caller with phone number ending in 5476 so  
22 your comments may be heard on the record as well.  
23 I apologize if you are no longer in the queue,  
24 but if you are able to call back in, we would  
25 like to acknowledge your comments at this time.

1 (No audible response)

2 (Pause)

3 MR. STOKES: Again (audio echo).

4 I apologize for the echo again.

5 Caller number ending in 5476, we'd like  
6 to record your comments on the record at this  
7 time if you're still available.

8 UNIDENTIFIED MALE: Yes, thank you.

9 (Audio echo)

10 MR. STOKES: (Audio echo)

11 I apologize. Caller ending in 5476, you  
12 may now proceed. Please provide your first and  
13 last name before beginning.

14 UNIDENTIFIED MALE: (Audio echo)

15 MR. STOKES: You may need to mute your  
16 computer microphone before speaking.

17 (Audio echo)

18 We'll attempt one more try for call-in  
19 number 5476. Please -- please try again at this  
20 time.

21 UNIDENTIFIED MALE: (Audio echo)

22 Can you hear me?

23 MR. STOKES: I sincerely apologize for  
24 the technical difficulties we're again, everyone.  
25 Again, we apologize. We will -- we will make

1 sure that these issues are resolved prior to our  
2 upcoming meetings on June 11th, June 16th, and  
3 June 18th. We understand if you won't be able to  
4 submit verbal comments at that time, but we do  
5 encourage everyone to continue sending comments  
6 through the project phone number and leaving on  
7 voicemail messages, written comments to the  
8 project email address, as well as any text  
9 comments to the project phone number as well.

10           Once again, we sincerely apologize for  
11 these technical difficulties that we've been  
12 having here this evening.

13           MR. HUDSON: Well, everybody. I  
14 appreciate you bearing through some of the  
15 technical difficulties. We are going to go ahead  
16 and adjourn the meeting at this time. I would  
17 like to take the opportunity to remind you that  
18 we are continuing to accept comments in writing,  
19 by email, by text. You can leave a voicemail at  
20 the telephone number. We will conduct three  
21 additional meetings to this one, hopefully with  
22 technical issues resolved.

23           But at this point I thank you for your  
24 participation today and the interest that you  
25 have shown in the proposed project. I officially

1 adjourn the public scoping meeting today. Thank  
2 you.

3 (END OF VIDEO FILE)  
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1 CERTIFICATE OF TRANSCRIPTIONIST

2 I certify that the foregoing is a true  
3 and accurate transcript of the digital recording  
4 provided to me in this matter.

5 I do further certify that I am neither a  
6 relative, nor employee, nor attorney of any of  
7 the parties to this action, and that I am not  
8 financially interested in the action.

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Julie Thompson, CET-1036



## Scoping Meeting

*June 11, 2020*

TRANSCRIPT OF AUDIO FILE

PCCA SCOPING MEETING

JUNE 11, 2020

1           MR. HUDSON: Good afternoon. On behalf  
2 of the project team, we thank you for your time  
3 and interest in the Port of Corpus Christi  
4 Authority's Channel Deepening Project  
5 Environmental Impact Statement or EIS.

6           My name is Jayson Hudson. I am the U.S.  
7 Army Corps of Engineers Regulatory Project  
8 Manager for the Department of the Army permit  
9 application.

10           If you are rejoining us from our June  
11 9th public scoping meeting, I thank you for  
12 rejoining us and apologize for the technical  
13 difficulties during that meeting.

14           The overall goal of public scoping is to  
15 define the issues to be addressed in depth in the  
16 analysis that will be included in the EIS. That  
17 is why we're here today. We want to hear from  
18 you about the issues you would like for us to  
19 address in the EIS, and we appreciate everyone  
20 taking the time to join us.

21           Before we proceed with our agenda, I  
22 would like to acknowledge the project team  
23 members in attendance today. From the U.S. Army  
24 Corps of Engineers, I am joined by Joe McMahan,  
25 the Chief of Regulatory, and Bob Hindley

1 (phonetic), the Deputy Chief of Regulatory.

2 From the Port of Corpus Christi  
3 Authority, we are joined by Sean Strawbridge,  
4 Chief Executive Officer; Omar Garcia, Chief  
5 External Affairs Officer; Sarah Garza, Director  
6 of Environmental Planning and Compliance; Dan  
7 Koesema, Director of Channel Development; Lisa  
8 Hinojosa, Communications Manager; Beatrice  
9 Riviera, Permitting Specialist -- I'm sorry --  
10 Environmental Engineer; Yvonne Dives-Gomez,  
11 Permitting Specialist; Adrianna Escamilla,  
12 Government Affairs Specialist, and several team  
13 members from the Port's consulting firm, AE COM  
14 (phonetic).

15 From the Corps EIS contractor team, we  
16 are joined by Lisa Vitalie (phonetic), Tony Risco  
17 (phonetic), and Tom Dixon from Freese and  
18 Nichols, as well as Leslie Hollaway and Connor  
19 Stokes from Hollaway Environmental and  
20 Communication Services, who will be assisting me  
21 today.

22 During the meeting today, Colonel  
23 Timothy Vail, Commander of the U.S. Army Corps of  
24 Engineers Galveston District, will provide  
25 opening remarks followed by presentations about

1 the proposed project from the Corps and the Port  
2 of Corpus Christi Authority.

3 After the presentations, you will be  
4 provided with the opportunity to speak directly  
5 to the project team. If you did not sign up to  
6 speak when you registered for today's meeting,  
7 you may do so at any time during the meeting by  
8 using the "raise hand" feature located next to  
9 your name in the WebEx participant list. Please  
10 see the screen for additional instruction about  
11 using the raise hand feature through WebEx.  
12 Please note that you must access the WebEx portal  
13 online to sign up to speak today.

14 Speakers will be called on to provide  
15 comments in the order in which they have signed  
16 up. We will announce upcoming speakers in groups  
17 of five, so you are aware of when you will be  
18 called to speak.

19 For individuals who have only called in  
20 through the phone line, you have the option to  
21 submit written comments through mail, online  
22 through the project website, and by texting or  
23 calling the project phone number, (855) 680-0455.  
24 I repeat, that number is (855) 680-0455.

25 We will now begin the presentation

1 portion of the meeting with opening remarks from  
2 Colonel Timothy Vail, Commander of the U.S. Army  
3 Corps of Engineers District.

4 COLONEL VAIL: Hello. I'm Colonel  
5 Timothy Vail, Commander of the Galveston District  
6 for the U.S. Army Corps of Engineers. Welcome to  
7 today's scoping meeting, the Department of the  
8 Army's Permit SWG 2019 00067, to deepen the  
9 Corpus Christi Ship Channel.

10 Particularly as we respond to COVID,  
11 it's important to emphasize the critical role the  
12 public plays in this permitting process and that  
13 Corps values your attendance here today as we  
14 consider this application.

15 The Port of Corpus Christi Authority is  
16 proposing to deepen a 14-mile stretch of the  
17 existing Corpus Christi Ship Channel in order to  
18 accommodate fully-laden, Very Large Crude  
19 Carriers that draft approximately 70 feet. The  
20 Army Corps of Engineers is neither a proponent  
21 nor an opponent of this project. We will  
22 ultimately decide if the proposed project is not  
23 contrary to the public's best interest.

24 In order to make that decision, we must  
25 gather as much information as possible within an

1 appropriate permitting time period. This meeting  
2 will give individuals the opportunity to comment  
3 on the scope of the environmental impact  
4 statement, or EIS, for the proposed project, and  
5 all comments become part of the official record.

6 After the Port of Corpus Christi  
7 Authority provides a brief description of the  
8 proposed project, we will provide an overview of  
9 the Department of the Army permit procedure and  
10 the National Environmental Policy Act process.  
11 Then we'll begin calling on the individuals who  
12 signed up in advance to submit their comments.

13 Today's meeting is not a vote for or  
14 against this project. It's an opportunity for  
15 you to comment on the types of information that  
16 should be evaluated to develop the scope of the  
17 environmental impact statement. In determining  
18 the scope of the environmental impact statement  
19 and evaluation of the permit application, we will  
20 be considering all relevant factors identified  
21 during scoping and in response to the public  
22 notice, including the needs and welfare of the  
23 people and the project's impact on fish and  
24 wildlife, historic properties, fisheries,  
25 economic activity, navigation, safety and

1 recreational use.

2 As both a Texan and the Commander of the  
3 Galveston District, I'd like to thank you for  
4 participating in this process by attending this  
5 meeting. The information and issues identified  
6 during this meeting, along with the information  
7 and issues provided in written comments, will all  
8 be considered in the determination and the scope  
9 of the EIS and subsequent evaluation of the  
10 permit application.

11 MR. HUDSON: Thank you, Colonel Vail.  
12 We will now proceed with the Port of Corpus  
13 Christi Authority Channel Deepening Project  
14 presentation, describing the proposed project.

15 (Recording played)

16 NARRATOR: Hello. Thank you for  
17 taking the time to learn more about the Port of  
18 Corpus Christi Authority's, or PCCA's, channel  
19 deepening project. This presentation will  
20 provide a brief overview of the project including  
21 the purpose, engineering design considerations,  
22 and completed and ongoing studies to support the  
23 project.

24 As the Energy Port of the Americas,  
25 the Port of Corpus Christi Authority is an



1 independent political subdivision governed by  
2 seven commissioners. The Port develops property  
3 and leases it to support energy trade in the  
4 global market.

5 To give national perspective to the  
6 size of the Port of Corpus Christi, if the Port  
7 were a state, it would rank seventh in industrial  
8 investment in terms of total capital expenses at  
9 \$54 billion.

10 The Port of Corpus Christi Authority  
11 is requesting permit authorization from the U.S.  
12 Army Corps of Engineers, known as USACE, to  
13 conduct dredge and fill activities to deepen a  
14 portion of the existing Corpus Christi Ship  
15 Channel as well as a 5.5 mile extension of the  
16 ship channel to the natural minus 80 foot  
17 bathometric contour in the Gulf of Mexico. The  
18 project would deepen the channel from the western  
19 portion of Harbor Island into the Gulf of Mexico,  
20 an overall distance of approximately 13.8 miles.  
21 The proposed project channel limits are shown  
22 here in yellow.

23 The Port of Corpus Christi's  
24 economic impact for the state of Texas is \$19  
25 billion, providing over 98,000 jobs in the region

1 and generating \$446 million in local and state  
2 taxes. This channel deepening project is  
3 expected to have a \$257 million economic impact.

4 The Port of Corpus Christi has  
5 implemented an environmental policy which was  
6 adopted by the Port Commission in 2016. This  
7 policy serves to ensure growth in a responsible  
8 and sustainable manner. Every project or  
9 operation is evaluated against this policy to  
10 ensure it meets all five precepts. This project  
11 is no exception, and you will note throughout  
12 this presentation how different aspects of the  
13 project have been developed supporting these  
14 precepts.

15 The Port of Corpus Christi's  
16 proximity to Texas shale plays combined with the  
17 current and forecasted port infrastructure, make  
18 the Port an attractive location for efficiently  
19 exporting crude oil by Very Large Crude Carriers,  
20 also known as VLCCs.

21 Exports have quintupled since 2017  
22 and are projected to triple again by 2030. The  
23 project is needed to accommodate the transit of  
24 fully-laden VLCCs that have a draft of  
25 approximately 70 feet. The deepening activities

1 would be completed within the footprint of the  
2 authorized Corpus Christi Ship Channel width.  
3 The proposed project does not include widening of  
4 the channel, however, some minor incidental  
5 widening of the channel slopes is expected to  
6 meet side slope requirements and to maintain the  
7 stability of the channel. This will also  
8 minimize environmental impacts.

9 Dredged material removed from the  
10 channel will be used to restore shorelines,  
11 create aquatic habitats, and protect eroding  
12 shorelines and seagrass habitats. The project  
13 will also reduce the number of lightering vessels  
14 traveling in and out of the port, effectively  
15 lowering emissions and reducing operational risks  
16 of crude transfers that are currently occurring  
17 outside of the Port.

18 This is a depiction of the process  
19 utilized by large tankers to load crude oil when  
20 calling at the Port of Corpus Christi. The  
21 existing channel depth requires crude carriers to  
22 depart partially loaded from the Port, or that  
23 VLCCs remain offshore while smaller tankers  
24 transfer their cargo to the larger VLCCs from  
25 inshore, a process known as reverse lightering.

1           The inefficiency of this process is  
2     compounded when some of these smaller vessels,  
3     Suezmax vessels for instance, being used in the  
4     lightering process, are also not fully loaded  
5     while traversing the channel.

6           As exports increase, the number of  
7     lightering vessels and carriers will also  
8     increase, adding to shipping delays and  
9     congestion, which will affect all industries.  
10    These delays and congestion will increase the  
11    cost of transportation, which in turn will  
12    increase the cost of crude oil, with the ultimate  
13    consequence of making U.S. crude oil less  
14    competitive in the global market.

15          Deepening the channel will allow for  
16    the VLCCs to travel in and out of the port fully  
17    loaded, ultimately allowing for more efficient  
18    movement of U.S.-produced crude oil, and meeting  
19    current and forecasted demand in support of  
20    national energy security and national trade  
21    objectives. The reduction in the number of  
22    vessel trips will lower costs, man hours,  
23    operational risks, and air emissions.

24          The dimensions of the design vessel  
25    play an important role in determining the depth

1 of the proposed channel. The analysis included  
2 the three largest classes of liquid-bulk crude  
3 oil tankers from the current worldwide fleet, as  
4 well as vessels on order to be constructed. The  
5 selected vessel design, known as VLCCs, represent  
6 32 percent of the current number of crude  
7 vessels, and 54 percent by dead weight tonnage.  
8 VLCCs also represent 45 percent of the current  
9 order book for crude carriers.

10 The typical VLCC vessel size has  
11 been extremely stable in the past 25 years.  
12 Therefore, significant change in size in the  
13 foreseeable future is not expected. You can see  
14 here the average dimensions of the 99th  
15 percentile vessel, with the draft based on West  
16 Texas intermediate crude oil density values.  
17 These values were selected for the project study  
18 to determine the minimum channel dimensions for  
19 the proposed channel deepening.

20 Here is a concise summary of the  
21 current authorized channel depths and widths  
22 compared to the proposed project channel depths  
23 and widths. As previously discussed, the  
24 deepened channel design was based on the 99th  
25 percentile of VLCC vessel characteristics. Those

1 characteristics, in conjunction with design  
2 factors such as currents, wind, wave effects,  
3 ship speed, navigational traffic patterns, and  
4 ship maneuverability, were used to determine the  
5 optimal channel depths and widths. The study on  
6 the optimal depth and width applied the design  
7 characteristics of the World Association for  
8 Waterborne Transport Infrastructure, known as  
9 PIANC, and Army Corps of Engineers guidelines for  
10 channels, to calculate the channel depths and  
11 widths as shown in the table.

12 PIANC is a global organization that  
13 has been providing guidance and technical advice  
14 for sustainable waterborne transportation  
15 infrastructure to ports, marinas, and waterways  
16 since 1885.

17 Both one-way and two-way vessel  
18 traffic designs were considered. One-way traffic  
19 was ultimately decided upon to reduce the amount  
20 of dredging needed for the proposed project and  
21 reduce future channel maintenance dredging  
22 volumes.

23 Portions of the channel have been  
24 divided into segments, depending on the referred  
25 design channel depths, widths, and slopes.

1 Segments 1 and 2 will be excavated to minus 77  
2 feet of the mean lower low water level, or MLLW,  
3 while segments 3 through 6 will be deepened from  
4 the currently authorized depth of minus 54 feet  
5 MLLW to minus 75 feet MLLW.

6 Segment 1, referred to as the outer  
7 channel, is the new entrance channel extension to  
8 the existing minus-80-foot bathometric contour in  
9 the Gulf of Mexico.

10 Segment 2 continues inbound,  
11 deepening the existing authorized minus-56-foot  
12 channel to the same proposed dimensions as the  
13 outer channel.

14 Segments 3 through 6 are the inbound  
15 portions of work encompassing the Harbor Island  
16 transition flair, Harbor Island junction, and  
17 inner Corpus Christi channel.

18 A breakdown of anticipated new work  
19 dredging volumes by segment is displayed here.  
20 The design depths do not include the additional  
21 two feet of advanced maintenance dredging and two  
22 feet of overdredge allowance. However, the total  
23 dredge volume by segment does include the  
24 advanced maintenance and overdredge allowance  
25 volumes.

1           As shown in the last row, the total  
2     estimated dredge volume from the channel  
3     deepening project is just under 42 million cubic  
4     yards.

5           The dredged material management  
6     plan, or DMMP, should consider the most cost-  
7     effective and implementable alternatives that  
8     weigh economics, engineering, and the  
9     environment. Agency and public input was used to  
10    develop the DMMP, which included using existing  
11    placement areas, beneficial use sites, and ocean-  
12    dredged material disposal site known as ODMDS.  
13    Wherever feasible, environmental impacts to  
14    existing oyster habitats, seagrass, wetlands, and  
15    other ecosystems was avoided.

16          The DMMP for the project proposes a  
17    series of existing upland placement areas and new  
18    and existing beneficial use sites to optimize the  
19    use of the new work dredged materials as much as  
20    possible. Specifically the material will be used  
21    to expand upland placement areas and beneficial  
22    use sites as well as address shoreline repair  
23    needs within Redfish Bay, Corpus Christi Bay, and  
24    the Gulf of Mexico in the vicinity of the  
25    channel.



1                   13.8 million cubic yards of dredged  
2 material are planned to be placed in the new work  
3 ODMDS located approximately 3.4 miles offshore.  
4 The material is mostly comprised of non-  
5 structural clays which are not beneficial for  
6 construction of berms or dikes. Preliminary  
7 modeling using USACE's MP Fate modeling confirms  
8 that there is enough capacity within the ODMDS  
9 for disposal of the entire 13.8 million cubic  
10 yards without exceeding the limiting mounding  
11 height of 11 feet within the ODMDS.

12                   The planning effort focused on  
13 existing placement areas and beneficial use sites  
14 as new upland placement opportunities are  
15 limited. As mentioned, the initial beneficial  
16 use concepts were generated by considering  
17 existing agency restoration plans such as the  
18 Texas General Land Office's Texas Coastal  
19 Resiliency Master Plan, storm damage caused by  
20 Hurricane Harvey, and beneficial use features  
21 implemented elsewhere on the Gulf Coast.

22                   Input was also gathered from  
23 federal, state, and local resource agencies, and  
24 used to help shape the direction of the DMMP.  
25 Thirteen initiatives were ultimately decided on,

eleven of which were beneficial-use features aimed to achieve a variety of shoreline restoration, land loss restorations, marsh cell expansion, and gulf-side shoreline initiatives.

The figure shown here summarizes the placement areas included in the DMMP. Green areas create and restore estuarine, aquatic, and marsh habitats, and provide beach and dune renourishment on the gulf side. Yellow areas expand and repair existing placement areas, restore eroded shorelines or provide protection to seagrass areas.

The feeder berms, shown in blue, offshore of San Jose Island and Mustang Island, will nourish beach shorelines through the natural sediment transport process.

Preliminary modeling was performed to determine impacts on hydrodynamics, salinity, shoaling and vessel wake, and ODMDS capacity as a result of the proposed channel deepening. A desktop study of cultural resources was conducted along with wetland delineations and seagrass surveys for placement options within the bay. Tidal increases were observed to have a minimal impact on the tidal range for the area, logging

1 in at less than an inch in Redfish Bay and less  
2 than a half inch in Aransas Copano, Corpus  
3 Christi, and Nueces bays.

4 Velocity changes were considered  
5 negligible, as it represents 12 percent on  
6 average speeds and 14 percent on peak speeds.

7 Shoaling analysis concluded an increase of  
8 399,000 cubic yards of maintenance material  
9 entering the channel system per year. This will  
10 result in a maintenance dredging cycle frequency  
11 increase from once every 2.5 years to once every  
12 1.9 years.

13 Using the Delft3D modeling system,  
14 the maximum salinity impact would still register  
15 within the optimum salinity ranges for some of  
16 the most prolific aquatic flora and fauna,  
17 resulting in no negative impacts to these  
18 species.

19 A ship simulation study was  
20 performed by the Aransas-Corpus Christi pilots to  
21 evaluate the feasibility of the channel  
22 expansion, identify optimum channel dimensions  
23 for safe and efficient operations, and to  
24 determine any operation constraints that might be  
25 required for safe operation. The simulation

1 confirmed the validity of the proposed design for  
2 the approach channel and the inner channel.

3 Vessel wake studies showed reduced  
4 sediment mobilization along adjoined shorelines  
5 due to the reduced number of vessel transits per  
6 year, from 792 to 528 as a result of the channel  
7 deepening.

8 Wetland delineation surveys and  
9 field work were performed to determine the  
10 acreage of existing wetland ecosystems and  
11 natural seagrass habitats within the proposed  
12 placement sites. Adverse impacts are expected on  
13 approximately 244 acres of delineated wetlands.

14 Wetlands that are distributed as a  
15 result of placement operations will be replaced  
16 in kind. The proposed restoration of the DMMP  
17 provides for approximately 1100 acres of restored  
18 aquatic habitat which greatly exceeds the actual  
19 adverse impacts of 244 acres. A preliminary  
20 report has been submitted to the U.S. Army Corps  
21 of Engineers, and the Port of Corpus Christi  
22 Authority is looking forward to consulting with  
23 the state historic preservation officer on  
24 additional studies.

25 The Port will continue to study this

1 proposed project to ensure the most informed  
2 design. A passing vessel analysis is in process  
3 and further ship simulations are anticipated for  
4 mid-June to potentially reduce the channel width  
5 in the inner channel and to study effects of  
6 further 3-D current modeling when applied to the  
7 simulation.

8                   The Port of Corpus Christi Authority  
9 is actively working with the U.S. Environmental  
10 Protection Agency and the U.S. Army Corps of  
11 Engineers to refine the sampling and analysis  
12 plan for material testing related to ODMDS  
13 approval. Design of the most effective placement  
14 template for beach re-nourishment is ongoing with  
15 continued analysis of channel material for sand  
16 placement to best mimic that of native beach  
17 materials.

18                   Feeder berms offshore of San Jose  
19 Island and Mustang Island are still being  
20 evaluated for sizing and location to maximize the  
21 amount of material contributed to beaches as a  
22 result of the natural sediment transport process.

23                   Thank you for taking the time to  
24 learn more about the Port of Corpus Christi  
25 Authority's channel deepening project. This

1 concludes the presentation.

2 (Recording stopped)

3 MR. HUDSON: Thank you. As a reminder,  
4 if you have not registered to speak during the  
5 meeting today and would like to, you may do so at  
6 any time by using the raise hand feature located  
7 next to your name in the WebEx participant list.  
8 Please note that you must access the WebEx portal  
9 online if you signed up to speak tonight.

10 And now, we will provide information  
11 about the U.S. Army Corps of Engineers EIS  
12 process, including the purpose and need,  
13 potential project alternatives, as well as an  
14 overview of the known environmental concerns.

15 (Recording played)

16 MR. HUDSON: Hello. My name is  
17 Jayson Hudson, and I am the Corps Regulatory  
18 Project Manager for the Port of Corpus Christi  
19 Authority's channel deepening EIS. I will  
20 present to you an overview of the Corps EIS  
21 process and the results of our early scoping for  
22 the channel deepening EIS.

23 The objectives of my presentation  
24 are to provide you an overview of the relevant  
25 laws, introduce the Corps project team, and

1 describe some of the content of the EIS as well  
2 as some of the alternatives and environmental  
3 concerns that have been identified.

4           The Port Authority's permit  
5 application is subject to Sections 10 and 14 of  
6 the Rivers and Harbors Act, Section 404 of the  
7 Clean Water Act, Section 103 of the Marine  
8 Protection Research and Sanctuaries Act, Title 41  
9 of the Fixing America's Surface Transportation,  
10 or FAST, Act, and Executive Order 13807.

11           The project must also be coordinated  
12 with state and federal agencies pursuant to  
13 Section 401 of the Clean Water Act, the Coastal  
14 Zone Management Act, the Endangered Species Act,  
15 the Magnuson-Stevens Fishery Conservation and  
16 Management Act, and the National Historic  
17 Preservation Act.

18           Title 41 of FAST, often referred to  
19 as FAST41, standardizes interagency consultation  
20 and coordination practices and requires that a  
21 schedule for these practices be established and  
22 published on the federal Permitting Improvement  
23 Steering Council permit performance website.

24           Executive Order 13807 requires  
25 federal agencies to process environmental reviews

1 and authorization decisions for major  
2 infrastructure projects as one federal decision.  
3 That means that all federal agencies with review  
4 responsibilities for major infrastructure  
5 projects must develop a single EIS and sign a  
6 single record of decision, or ROD.

7           The EIS team is comprised of the  
8 Corps as the lead federal agency, with the  
9 Environmental Protection Agency, the National  
10 Marine Fisheries Service, the U.S. Coast Guard,  
11 and the U.S. Fish and Wildlife Service as  
12 cooperating agencies in the development of the  
13 EIS.

14           Several state agencies, including  
15 the Texas Commission on Environmental Quality,  
16 Texas Parks and Wildlife Department, Texas  
17 Historical Commission, and Texas General Land  
18 Office are also participating or commenting on  
19 the development of the EIS.

20           The Environmental Impact Statement  
21 contractor is Freese and Nichols, Incorporated,  
22 and the applicant is the Port of Corpus Christi  
23 Authority.

24           Due to limited resources, the Corps  
25 regulatory program utilizes a third-party



1 contractor process to develop an EIS. In this  
2 process, the lead federal agency, applicant and  
3 environmental consultant enter into an agreement  
4 where the applicant contracts and pays for the  
5 environmental consultant who prepares the EIS  
6 under the direction of the Corps.

7 As you can see in the diagram, the  
8 Corps directs the environmental consultant on the  
9 development of the EIS independent of the  
10 applicant. It's important to emphasize that  
11 ultimately, the Corps is responsible for the  
12 development and content of the EIS.

13 Here we have a timeline of major  
14 milestones for this project. The Port Authority  
15 submitted their application on January 7th of  
16 2019, and the Corps concluded an EIS would be  
17 required in March. Subsequent to that, the  
18 project was designated a FAST41 project in June  
19 of 2019 and initial public notice was published  
20 in August.

21 After coordinating with the  
22 cooperating agencies, the Corps developed a  
23 purpose and need for the project in March of  
24 2020, which we will discuss later in the  
25 presentation. The notice of intent to develop

1 the EIS was published in April of 2020.

2 The draft EIS is scheduled to be  
3 provided to the public in March of 2021, with a  
4 public hearing and comment period in March and  
5 April of the same year. The final EIS is  
6 scheduled to be provided to the public in January  
7 of 2022, followed by a permit decision which will  
8 be documented in a record of decision in April of  
9 2022.

10 This EIS flowchart shows the  
11 sequential process for developing and publishing  
12 an EIS. We are currently in the scoping stage of  
13 the EIS, where we are soliciting your input. The  
14 information and issues identified during scoping,  
15 along with the information and issues provided in  
16 letters sent in response to the public notice,  
17 and all other pertinent data, will be considered  
18 in the determination of the scope of the EIS and  
19 the subsequent permit decision which is  
20 documented in a record of decision.

21 The scoping process is an integral  
22 step in the development of an EIS, with the  
23 overall goal of defining the scope of issues to  
24 be addressed in-depth in the analysis. The  
25 scoping process helps the Corps identify people

1 and organizations that may be affected or have  
2 interest in the project, as well as identifying  
3 the roles and responsibilities of state and  
4 federal agencies.

5           The scoping process also helps  
6 identify significant issues that may have not  
7 already been identified, as well as eliminate  
8 issues that will not be significant or have  
9 already been addressed. The scoping process can  
10 also aid the identification and gaps in data and  
11 information as well as identify related studies  
12 that may be applicable.

13           Listed here are the typical sections  
14 of an EIS. The first chapter will provide an  
15 introduction to the project and the Corps' stated  
16 purpose and need for the project. The second  
17 chapter describes the alternatives to the  
18 applicant's proposed project and the subsequent  
19 chapters assess the impacts of all of the  
20 alternatives evaluated. The assessments will  
21 cover a wide range of environmental impacts  
22 including the cumulative impacts.

23           In addition, studies that support  
24 the analysis will be provided in the appendices  
25 of the EIS. This may include, but not limited

1 to, ocean dredged material disposal site  
2 analysis, Endangered Species Act assessments,  
3 cultural resource studies, hydrology and  
4 hydraulic studies, as well as compensatory  
5 mitigation plans.

6           The Corps is required by regulation  
7 to restate the purpose for the project from the  
8 public interest perspective. The Corps, after  
9 coordinating with cooperating agencies, developed  
10 two purpose statements: a basic purpose and an  
11 overall purpose.

12           The basic purpose is developed to  
13 determine if a project requires siting in or  
14 proximity to a special aquatic site such as  
15 wetlands and seagrasses. Based on the Corps'  
16 basic project purpose, shown here, the project  
17 was determined not to require siting in or  
18 proximity to a special aquatic site such as  
19 wetlands and seagrasses. Therefore, it is  
20 presumed that an alternative that does not affect  
21 special aquatic sites is available.

22           The overall purpose is developed to  
23 identify and screen alternatives to the  
24 applicant's proposed project. The Corps has  
25 determined that the overall project purpose from

1 the public interest perspective, is to safely,  
2 efficiently, and economically export current and  
3 forecasted crude oil inventories via Very Large  
4 Crude Carriers, a common vessel in the world  
5 fleet.

6                   Crude oil is delivered via pipeline  
7 from the Eagle Ford and Permian Basins to  
8 multiple locations at the Port of Corpus Christi.  
9 Crude oil inventories exported at the Port of  
10 Corpus Christi have increased from 280,000  
11 barrels per day in 2017 to 1,650,000 barrels in  
12 January of 2020, with forecasts increasing to  
13 4,500,000 barrels per day by 2030. Current  
14 facilities require vessel lightering to fully  
15 load a VLCC, which increases cost and affects  
16 safety.

17                   Alternatives that were identified  
18 during the initial public notice, which is an  
19 early scoping step, include the no action  
20 alternative which in this case would be permit  
21 denial; the applicant's preferred alternative; as  
22 well as alternatives to the deepening of the  
23 channel such as a deep-water port facility. It  
24 is not uncommon in complex projects such as this  
25 one to have alternatives developed for

1 subcomponents of the project: in this case,  
2 alternatives to the proposed dredge material  
3 placement options, such as offshore disposal,  
4 beneficial use, and upland placement.

5 In addition to the alternatives that  
6 were identified during the public notice, several  
7 environmental concerns were raised. Many of the  
8 comments received focused on impacts to wetlands  
9 and seagrasses as well as threatening endangered  
10 species. Additional comments were received on  
11 navigation safety and recreational use of the  
12 area.

13 I thank you for your interest in the  
14 development of the EIS for the Port of Corpus  
15 Christi Authority's channel deepening project. I  
16 look forward to receiving your comments and  
17 suggestions. We will be accepting scoping  
18 comments through July 3, 2020. If you would like  
19 to submit written comments, you may do so at the  
20 mailing address or electronic email address shown  
21 on your screen.

22 (Recording stopped)

23 MR. HUDSON: That concludes the  
24 presentation portion of today's scoping meeting.  
25 We will now begin the commenting period. As a

1 reminder, if you have not registered to speak  
2 during the meeting today and would like to, you  
3 may do so at any time by using the raise hand  
4 feature located next to your name in the WebEx  
5 participant list.

6 Please note that you must have access to  
7 the WebEx portal online to sign up to provide a  
8 comment.

9 The commenting portion of today's  
10 meeting will be conducted in the following way.  
11 First, federal, state, and local elected  
12 officials who wish to speak will be called on to  
13 do so. Then anyone else who has indicated a  
14 desire to speak will be given the same  
15 opportunity. I will then call on each member of  
16 the public who has signed up to speak by the name  
17 used during the meeting registration.

18 Each speaker will be given three minutes  
19 to make their comments. When it is your turn to  
20 speak, please mute your computer audio to avoid  
21 feedback. A countdown timer will be displayed on  
22 the meeting broadcast screen for each speaker to  
23 indicate their remaining time. As your time  
24 ends, please be courteous to the other members of  
25 the public who wish to provide comments and

1 quickly wrap up your comments, to ensure that  
2 everyone who would like to speak has the  
3 opportunity. If you do not need the entire time  
4 allotted, help us to include everyone by only  
5 using the time you need. If you complete your  
6 comments in less than three minutes, we will  
7 restart the clock for the next speaker.  
8 Remaining time cannot be reserved or transferred  
9 to another speaker.

10 Please keep in mind that we reserve the  
11 right to mute your microphone if this instruction  
12 is not followed.

13 We ask that you support us in conducting  
14 a respectful, orderly, and courteous meeting. We  
15 want to be sure we get all of your comments  
16 recorded, and we need your cooperation to do so.  
17 Here are a few ground rules for the meeting  
18 today.

19 Since the meeting is being held  
20 virtually, we will keep all participant  
21 microphones muted to avoid any background noise  
22 that may make the presentation difficult to hear.  
23 When it is your turn to speak, Connor will notify  
24 you when your microphone has been unmuted.  
25 Please make sure you have also unmuted your phone



1 too.

2           When it is your opportunity to speak,  
3 please state and spell your first and last name.  
4 We will not respond today to comments submitted.  
5 However, all comments made today will be  
6 documented and reflected in the development of  
7 the EIS.

8           Just a reminder, you may not defer your  
9 time to others. The public scoping meeting will  
10 adjourn at 7:00 p.m. today. If you have  
11 additional comments that you would like to submit  
12 beyond what you are able to address during your  
13 comment period, please submit them in writing or  
14 by calling (855) 680-0455.

15           Speakers will be called on to provide  
16 comments in the order in which they have signed  
17 up. We will announce upcoming speakers in groups  
18 of five, so you are aware of when you will be  
19 called to speak.

20           If you do not wish to provide a comment  
21 today but would like to submit comments to the  
22 project team, there are other ways to do so. You  
23 have the option to submit comments through mail,  
24 online through the project website, and by  
25 texting or calling the project number with your

1     comments. Project number is (855) 680-0455. I  
2     repeat, that number is (855) 680-0455.

3             All comments received during the formal  
4     commenting period through July 3rd will carry the  
5     same weight as the comments submitted today. You  
6     do not have to submit a comment today. You will  
7     be heard just as clearly as those who speak  
8     today.

9             Additional information about submitting  
10    comments is provided on the project website.

11            We will begin with comments from public  
12    officials.

13            Connor, do we have any public officials  
14    who wish to provide comment today?

15            MR. STOKES: Thank you, Jayson. We do  
16    have one public official who has signed up to  
17    speak today: Council Member Joan Holt from the  
18    City of Port Aransas. However, Council Member  
19    Holt is no longer signed on with us today, so we  
20    can proceed with comments from the general  
21    public.

22            MR. HUDSON: Okay. Thank you. Connor,  
23    who are our first five speakers?

24            MR. STOKES: Absolutely. And just to  
25    clarify, the -- if you would like to at any point

1 during this period use the raise hand feature to  
2 indicate that you would like to make a comment  
3 today, that is located at the bottom of the  
4 participant list as opposed to next to -- next to  
5 your name.

6 Our first five speakers today are  
7 Elizabeth Pianta (phonetic), Lisa Turcott  
8 (phonetic), Mark Gross (phonetic), Jo Kruger, and  
9 Stacy Bartlett.

10 Our first three speakers on that list  
11 are also no longer signed in with us today, so we  
12 will begin our comments with Jo Kruger. And  
13 actually, Mr. Kruger, it looks like you're not  
14 connected to audio. So we will move on to Stacy  
15 Bartlett.

16 Stacy, your microphone has been unmuted  
17 and you can begin providing comments at this  
18 time.

19 Again, Stacy Bartlett, your microphone  
20 has been unmuted and you can begin providing  
21 comments at this time.

22 We'll move on to our next five speakers.  
23 Those are Kathy Fulton, Pat Coclinberg  
24 (phonetic), James King, Tammy King, and Cara  
25 Denney.

1           We will begin with Kathy Fulton. Kathy,  
2 your microphone has been unmuted and you can  
3 begin providing comments at this time.

4           Again, as a reminder, please make sure  
5 that your own device is unmuted, so you can be  
6 heard throughout the WebEx platform.

7           Kathy, your microphone has been unmuted  
8 and you can begin providing comments at this  
9 time.

10           We'll move on to our next speaker on the  
11 list, Pat Coclinberg. Your microphone has been  
12 unmuted and you can begin providing comments at  
13 this time.

14           MS. COCLINBERG: Can you hear me?

15           MR. STOKES: Yes. We can hear you.

16           MS. COCLINBERG: I'm going to actually  
17 write my comments, so you can pass on to the next  
18 person.

19           MR. STOKES: Okay. Thank you so much.  
20 Your microphone has been muted at this time.  
21 We'll move along to the next speaker.

22           James King, your microphone has been  
23 unmuted and you can begin providing comments at  
24 this time.

25           MR. KING: Can you hear me?

1 MR. STOKES: Yes, sir.

2 MR. KING: Okay. This is a really silly  
3 process of getting public input. All those  
4 people beforehand that couldn't get on have  
5 really good things to say. And so this does not  
6 -- not achieve the bar of public input. It's  
7 ridiculous.

8 So a couple things. Number one, the 54-  
9 foot dredge only took in account Corpus Christi  
10 Bay. It didn't even show Aransas Bay as part of  
11 this area, scoping area. This 80-foot dredge  
12 must take into consideration all of Aransas Bay.  
13 Even -- even the Aransas National Wildlife Refuge  
14 is related to this inlet as sea crabs and larvae  
15 and fish move in and out of this inlet. And the  
16 destruction of this inlet to 80 feet is going to  
17 have a negative impact over a much broader area.  
18 So you definitely need to expand the scope.

19 Secondly, this canal is not being built  
20 just for the hell of it. It's being built to  
21 service oil export facilities that have also  
22 permits by the U.S. Army Corps of Engineers. All  
23 of these permits need to be rolled up into one,  
24 and the EIS needs to cover not only the channel,  
25 but the Access Marine permit, the Lone Star

1 permit, Port of Corpus Christi Permit, the TCEQ  
2 De-sal permit, the pipeline permits, and  
3 everything that is being designed and built to  
4 establish this oil export facility that happens  
5 to be within the city limits of Port Aransas and  
6 right across from the playground at Roberts  
7 Point, absolutely industrializing a recreational  
8 and a natural area.

9           The fact that the arguments that the  
10 Port makes that this was once an industrial area  
11 is laughable. My great grandfather was a  
12 commissioner of the Port for 30 years. They  
13 abandoned Harbor Island on purpose. It's exposed  
14 to hurricanes, flood events, it's -- with sea  
15 rise, it's becoming an even more perilous  
16 location to industrialize. So that's another  
17 major point.

18           The other one is, in your participating  
19 and commenting parties with the state, I would  
20 include UTMSI and the Heart Institute at A&M  
21 besides just the other state agencies you list.  
22 And then I would also include another area of  
23 NGOs that should be part of this EIS. And I  
24 would include organizations like The Nature  
25 Conservancy, the CCA, Aransas Mission, NEAR

1 (phonetic). There's a lot of people that have a  
2 lot of information and resources that can be  
3 helpful.

4 Thank you.

5 MR. STOKES: Thank you for your  
6 comments, Mr. King. Your microphone is now on  
7 mute. We will move along to our next speaker.

8 Tammy King, your microphone is now  
9 unmuted and you can begin providing comments at  
10 this time.

11 MS. KING: Yes. Can you hear me?

12 MR. STOKES: Yes, ma'am.

13 MS. KING: In addition to the things  
14 that James just mentioned, I realized in your  
15 presentation the amount of dredge material to be  
16 moved says that it did not include the overdredge  
17 material. We've noticed that in the 54-foot  
18 dredge already, it's -- they've done every bit of  
19 60 feet. So they need -- you need to up your  
20 numbers on the dredge material that is going to  
21 be produced.

22 In addition, I think there needs to be  
23 navigational studies of a very congested  
24 intersection between the Aransas Channel, the  
25 entrance channel, the Lydia Ann Channel, and the

1 Corpus Christi Channel. That is a thoroughfare  
2 of commerce, recreational fishermen, commercial  
3 fishermen, barges, everything. And if that is  
4 where it's going to end and where VLCCs are going  
5 to turn around, it will be an obstruction to  
6 navigation.

7 And we've heard that the possibility, if  
8 it does get too congested, then individuals would  
9 have to call the harbormaster to get permission  
10 to cross the channel and it would be shut down  
11 during times of when these ships are coming in  
12 and out, as opposed to now where a boater just  
13 can move around a ship.

14 The -- I think in the economic numbers  
15 that the Port of Corpus Christi presented on  
16 their video are bullshit, and please write that  
17 into my comment. Because they are taking in the  
18 entire state's economic numbers of this oil and  
19 gas industry. That you need to look at how it is  
20 directly affecting the numbers, the dollars, in  
21 the tourism industry, the boat makers, the  
22 fishing equipment makers, everybody involved in  
23 -- whose economics are going to be affected by  
24 this.

25 Also, how this affects this project,



1     deepening the harbor only helps the Port of  
2     Corpus Christi and one or two other private  
3     businesses that are in partnership with them.  
4     And how is it going to reduce the VLCC traffic to  
5     the existing private industries who have invested  
6     a ton of money on their own, and how the VLCCs at  
7     Harbor Island to fill up is an unfair advantage  
8     from the private industry. We -- we  
9     conservatives do not believe that government  
10    should be out competing with private industry.

11           The other thing is, is that I --  
12    everybody keeps touting that the EPA is going to  
13    be monitoring things, and -- but in your  
14    executive order that you've cited, we've heard  
15    that those monitoring things will be restricted  
16    and removed. So we need some alternatives at who  
17    is going to be monitoring those things and not  
18    just trusting the EPA. We need -- if the EPA is  
19    designed to take care of our environment, but  
20    they're being torn apart and their -- their rules  
21    are being lowered; their standards are being  
22    lowered. And we need something that has higher  
23    standards. I --

24           MR. STOKES: Thank you for your  
25    comments, Ms. King. We will need to move along

1 to the next commenter at this time.

2 Our next speaker is Cara Denney. Your  
3 microphone is now unmuted and you can begin  
4 providing comments at this time.

5 MS. DENNEY: Can you hear me?

6 MR. STOKES: Yes.

7 MS. DENNEY: Okay. Great. The first  
8 thing I want to say is that when I registered for  
9 this, it said that the meeting was at 4:00 p.m.  
10 New York time. So the first eight speakers you  
11 listed, I believe, were on at 4:00 p.m. New York  
12 time, which is 3:00 p.m. our time. I don't  
13 believe that you met the public meeting -- oh, I  
14 can't remember the words -- the public meeting,  
15 what is it, Section 327.11, public notice. The  
16 June 9th meeting was a joke. This one when you  
17 registered it gave the wrong time. I think you  
18 should seriously consider rescheduling all of the  
19 meetings so that everybody has a chance to talk.

20 I'm not happy that the attendee list is  
21 hidden. In a public meeting, I would be able to  
22 see the other individuals sitting next to me.  
23 And I can't see any other attendee except for the  
24 ones that are paid to be here. And that is crap.  
25 That is not a public meeting.

1           Other concerns I have specifically about  
2   the 80-foot dredge would be ferry traffic to Port  
3   Aransas, how that would affect Port Aransas  
4   economy. We're a tourist town and a fishing  
5   town, and as Tammy said, if we can't have fishing  
6   vessels, boat traffic moving in and out, that's  
7   going to have a negative impact on Port Aransas  
8   economy, which is completely ecotourism.

9           Like James King said, I think the  
10   cumulative impacts of all of these projects  
11   should be considered at once, not one piece at a  
12   time. If Corpus -- the Port of Corpus Christi  
13   wants to do something with Harbor Island and the  
14   Corpus Christi Ship Channel, create an overall  
15   picture. Show us what it looks like and then  
16   start there. Don't piecemeal this together and  
17   drop one bomb on us after the other and try to  
18   confuse everybody so that they can't keep up.  
19   That's not transparent, and it's not harboring a  
20   trusting relationship.

21           Additionally, I believe you're in danger  
22   of violating the NEPA Act. Section 101 of NEPA  
23   states, or sets forth, a national policy to use  
24   all practical -- practical means and measures,  
25   including financial and technical assistance, in

1 a manner calculated to foster and promote the  
2 general welfare to create and maintain conditions  
3 under which man and nature exist in productive  
4 harmony. In no way, shape or form should the  
5 Port's aggressive timeline outweigh that of the  
6 citizens' rights to use the land.

7 Additional concerns I have would be  
8 erosion to bulkheads. The question I have is,  
9 the oil export weighed heavier. You talked about  
10 how much oil export has went up in the last 12  
11 months or is expected to go up. Does that  
12 outweigh the damage that that can cause?

13 I'll send further comments via email.

14 MR. STOKES: Thank you for your  
15 comments. Your microphone is now on mute.

16 Our next speaker -- I guess our next  
17 five speakers, and we will circle back to a few  
18 of the folks that I know are still online with us  
19 and may have had some audio issues initially.  
20 Those next five speakers are Sam Steves, Kenneth  
21 Teague, and then we will circle back to Jo  
22 Kruger, Stacy Bartlett, and Kathy Fulton.

23 Sam, at this time your microphone is  
24 unmuted and you can begin providing comments at  
25 this time.

1           MR. STEVES: Greetings. I want to  
2 confirm that you can hear me all right.

3           MR. STOKES: We can hear you.

4           MR. STEVES: Thank you. I'll be on mute  
5 then. My name is Sam. You asked me to spell my  
6 last name, S-t-e-v-e-s. I have two residences  
7 right on the Corpus Christi Ship Channel as it  
8 intersects the Lydia Ann Ship Channel going back  
9 up to Rockport, so I face what has already been  
10 some significant dredging in front of our home.

11           I must -- I guess I can't say this  
12 without being sarcastic, but I must tell you that  
13 the Port of Corpus Christi is causing me to be  
14 more of an expert, for lack of a better choice of  
15 words, for someone that builds doors for a  
16 living, on trying to protect the property around  
17 our two homes. Not just this dredging event that  
18 you all are asking for public comment on, but  
19 obviously all the balance of industrialization  
20 that is going on or being at least anticipated by  
21 the Port of Corpus Christi at Harbor Island.

22           And I would also echo earlier comments  
23 made, that this is a horrible methodology to get  
24 public comments if you really care about them.  
25 And to absolutely miss the comments of many folks

1 because of a timing issue that you had, or some  
2 other technical issue, is -- is -- I guess it's  
3 unforgiveable unless you intend to make that time  
4 up later on.

5 I also think a public forum is  
6 significantly more important for such an  
7 important -- well, certainly what you all are  
8 proposing. And I would hope that you would  
9 consider that for -- and I know this may not be  
10 part of what you are considering -- but certainly  
11 the form is for the upcoming preliminary hearing,  
12 or a meeting that you intend to have.

13 I have 57 seconds left. I wanted to  
14 make a comment about the damage that was caused  
15 in the dredging in the Miami port that ultimately  
16 caused the destruction of over hundreds of  
17 thousands of coral heads. Now, I know everyone  
18 regrets that that that occurred, but they're dead  
19 and they're gone. I understand that the  
20 contractor ended up going to prison for falsely  
21 stating whatever it is that caused that decision  
22 to be made. But I think whoever is making this  
23 decision -- and I guess we'll be an expert when  
24 it's all over -- needs to consider the dramatic  
25 environmental impact that is going to be caused

1 by dredging this. So I'll leave that. My  
2 comments are done. Thank you, and I hope you'll  
3 consider this.

4 MR. STOKES: Thank you for your  
5 comments. Our next speaker is Kenneth Teague.

6 Kenneth, your microphone is now unmute  
7 and you can begin providing comments at this  
8 time.

9 MR. TEAGUE: Hello. Can you hear me?

10 MR. STOKES: Yes.

11 Okay. Again, my name is Kenneth Teague,  
12 K-e-n-n-e-t-h, last name Teague, T-e-a-g-u-e.

13 My first comment is that the purpose and  
14 needs statement must allow for the consideration  
15 of an alternative based on an offshore port. And  
16 my reading of the current purpose and needs  
17 statement suggests that it does allow for that,  
18 but again, it's very important I think that it  
19 does -- that that statement will allow for  
20 consideration of an offshore alternative.

21 My second point is that while that  
22 appears to be the case, the existing purpose and  
23 needs statement does not reflect a single and  
24 complete project, which the Corps wrote a letter  
25 on February 19, 2019, basically stating that

1 fact, that this one public notice, which this EIS  
2 process is based on, does not represent a single  
3 and complete project. The Corps told the  
4 applicant that all three of the separate proposed  
5 actions under three separate public notices,  
6 needed to be considered as a single and complete  
7 project. And that is not the case currently.

8 So the purpose and needs statement is  
9 deficient, severely deficient in that respect,  
10 and is not consistent with previous core  
11 determinations.

12 So moving along, after those two big  
13 issues, the EIS should include dredging material  
14 testing results and decisions based on those  
15 results for public review and comment,  
16 particularly all dredge material from on or near  
17 Harbor Island, which is known to be contaminated.  
18 So depending on the proposed disposal method,  
19 those dredge materials need to be tested  
20 appropriately according to the correct manual,  
21 and that information needs to be made available  
22 in the EIS for review and comment. The fact that  
23 Harbor Island is known to have been contaminated  
24 in the past underscores how important that is.

25 Let's see. Physical and ecological



1 impacts of the proposed dredge material disposal  
2 at in-shore dredge material disposal sites needs  
3 to be disclosed. Physical and ecological impacts  
4 of proposed dredge material disposal at  
5 beneficial use sites needs to be disclosed. The  
6 public notice that we previously commented on did  
7 not have -- had almost no information regarding  
8 what was proposed to be done at the beneficial  
9 use sites. That's unacceptable for -- for a  
10 public notice, much less any --

11 MR. STOKES: Thank you for your  
12 comments. We will need to move on to the next  
13 speaker at this time.

14 We will circle back to Jo Kruger.

15 Jo, your microphone is now unmuted and  
16 you can begin providing comments at this time.

17 MS. KRUGER: Okay. Can -- can you hear  
18 me? Okay.

19 MR. STOKES: We can hear you.

20 MS. KRUGER: Okay. I'm stepping outside  
21 so I don't get any feedback. I've lived in Port  
22 Aransas for 40 years, and there has been nothing  
23 to the industry over there for years and years.  
24 It's like James said, it's almost laughable that  
25 they keep saying that it -- it was. Nothing's

1    been there for years. Our town has grown to  
2    multi-million-dollar tourisms and our fisheries  
3    and our estuaries and all of our sea life.

4           And 80-foot dredge, nobody's ever done  
5    that anywhere. So how do you know what's going  
6    to happen with that? I mean, you know, the tidal  
7    effects, when hurricanes come, is it going to  
8    flood us more? I just don't know what's going to  
9    happen with that.

10           You know, the Port of Corpus Christi is  
11   18 miles up the channel. That's the Port of  
12   Corpus Christi. We're at the mouth down here at  
13   the channel, you know, and then we just have a --  
14   a huge recreation and fisheries and everything  
15   else going on. And for them, because they bought  
16   a 244-acre piece of property, to all of a sudden  
17   want to put four VLCCs, one on each side of the  
18   ferry, which it's going to destruct -- you know,  
19   it's going to cause major jams with our ferry. I  
20   mean, I can't -- I can't even -- I can't even  
21   picture that, on each side of the ferry. It's  
22   just going to cause havoc on Port Aransas.

23           The people of the state of Texas come to  
24   Port Aransas and half of them are here right now.  
25   I mean, they come here to vacation. This is

1     their vacation spot. And we don't need any  
2     industry right there on Harbor Island. Nobody's  
3     against oil and gas. We just don't want this  
4     project right there on this island because it's  
5     going to totally affect so many different things,  
6     all the sea life, the turtles.

7             (Audio cut out - indiscernible) Aransas  
8     where the larvae flow and everything come in.  
9     From 150 miles I think we're one of the only  
10    places here on the coast that the larvae flow and  
11    the crab and the shrimp, they all come in and  
12    they all go up into these bays. And if you do  
13    that, I mean, if you put a desal or the VLCCs or  
14    dredge this -- this dredging product -- project  
15    which nobody in the United States has ever done,  
16    how do you know what that's going to do?

17            And all these projects that they want to  
18    do on Harbor Island, there's so many different  
19    ones, they all need to be connected into one  
20    permit. Nobody has even mentioned about the  
21    desal, you know, the permits for that, access  
22    midstream, all of it. So it all needs to be  
23    connected together.

24            That's all I have to say about that, and  
25    Port Aransas deserves better. And -- and we need

1 to protect what's important to all the people of  
2 the state of Texas. Thank you.

3 MR. STOKES: Thank you for your  
4 comments. Your microphone is now back on mute.

5 Our next speaker, Stacy Bartlett.  
6 Stacy, your microphone is now unmute and you can  
7 begin providing comments at this time.

8 Again, Stacy, your microphone is now off  
9 mute and you -- you can begin providing comments  
10 at this time.

11 Okay. We'll move on to the next  
12 speaker. Kathy Fulton, your microphone is now  
13 unmuted and you can begin providing comments at  
14 this time.

15 Kathy, your microphone is now unmuted  
16 and you can begin providing comments at this  
17 time.

18 Okay. I apologize if anyone is having  
19 audio issues on their side of things, making it  
20 difficult for us to hear. We sincerely apologize  
21 about that.

22 But with that, Jayson, that concludes  
23 our registered speakers for today.

24 MR. HUDSON: Thank you, Connor.

25 At this time, the commenting period is

1 ending. All statements placed in the record will  
2 be given consideration. It should be noted that  
3 comments on the proposed project can be submitted  
4 at any time during the NEPA process, but only  
5 those submitted during this and the previous  
6 formal scoping periods will be included in the  
7 summary reports and will be guaranteed to be  
8 addressed in the final environmental --

9 MR. STOKES: Jayson?

10 MR. HUDSON: Yes.

11 MR. STOKES: My apologies. We do have  
12 one more speaker.

13 MR. HUDSON: Good. Thank you, Connor.

14 MR. STOKES: Errol Summerland  
15 (phonetic), you are the next speaker. At this  
16 time, your microphone is now unmuted and you can  
17 begin providing comments.

18 Again, Errol Summerland, your microphone  
19 is now unmuted and you can begin providing  
20 comments at this time.

21 Okay. I guess we're having some more  
22 audio issues.

23 Jayson, please go ahead.

24 MR. HUDSON: Thank you, Connor. All  
25 statements placed in the record will be given

1 consideration. I would like to remind you that  
2 comments on the proposed project can be submitted  
3 at any time during the NEPA process, but only  
4 those submitted during this and the previous  
5 formal scoping period will be included in the  
6 summary reports and will be guaranteed to be  
7 addressed in the final environmental impact  
8 statement.

9 Thank you for your participation today  
10 and your interest that you have shown in the  
11 proposed project. If we don't have any  
12 additional speakers, I will adjourn the scoping  
13 meeting.

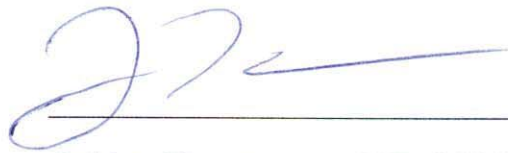
14 Okay. We will adjourn the scoping  
15 meeting. Thank you.

16 (END OF VIDEO FILE)  
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## 1 CERTIFICATE OF TRANSCRIPTIONIST

2 I certify that the foregoing is a true  
3 and accurate transcript of the digital recording  
4 provided to me in this matter.

5 I do further certify that I am neither a  
6 relative, nor employee, nor attorney of any of  
7 the parties to this action, and that I am not  
8 financially interested in the action.  
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13 Julie Thompson, CET-1036  
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## Scoping Meeting

*June 15, 2020*



TRANSCRIPT OF AUDIO FILE

PCCA SCOPING MEETING

JUNE 15, 2020

1           MR. HUDSON: Good afternoon. On behalf  
2 of the project team, we thank you for your time  
3 and interest in the Port of Corpus Christi  
4 Authority's Channel Deepening Project  
5 Environmental Impact Statement or EIS.

6           My name is Jayson Hudson. I am the U.S.  
7 Army Corps of Engineers Regulatory Project  
8 Manager for the Department of the Army permit  
9 application.

10           If you are rejoining us from our June 9,  
11 2020, public scoping meeting, I thank you for  
12 rejoining us and apologize for the technical  
13 difficulties during that meeting.

14           The overall goal of public scoping is to  
15 define the issues to be addressed in depth in the  
16 analysis that will be included in the EIS.  
17 That's why we're here today. We want to hear  
18 from you about the issues you would like for us  
19 to address in the EIS, and we appreciate everyone  
20 taking the time to join us today.

21           Before we proceed with our agenda, I  
22 would like to acknowledge the project team  
23 members in attendance today. From the U.S. Army  
24 Corps of Engineers, we are joined by Joe McMahan,  
25 Chief of Regulatory, and Bob Hindley, Deputy

1 Chief of Regulatory.

2 From the Port of Corpus Christi  
3 Authority, we are joined by Omar Garcia, Chief of  
4 External Affairs Officer; Sarah Garza, Director  
5 of Environmental Planning and Compliance; Nelda  
6 Olivio, Director of Government Affairs; Dan  
7 Koesema, Director of Channel Development;  
8 Beatrice Riviera, Environmental Engineer, as well  
9 as several team members from the Port's  
10 consulting firm, AE COM (phonetic).

11 From the Corps EIS contractor team, we  
12 are joined by Lisa Vitalie (phonetic), Tony Risco  
13 (phonetic), and Tom Dixon from Freese and  
14 Nichols, as well as Leslie Hollaway and Connor  
15 Stokes from Hollaway Environmental and  
16 Communication Services, who will be assisting me  
17 today.

18 During the meeting today, Colonel Vail,  
19 Commander of the U.S. Army Corps of Engineers  
20 Galveston District, will provide opening remarks  
21 followed by presentations about the proposed  
22 project from the Corps and the Port of Corpus  
23 Christi Authority.

24 After the presentations, you will be  
25 provided with the opportunity to speak directly

1 to the project team. If you did not sign up to  
2 speak when you registered for today's meeting,  
3 you may do so at any time during the meeting by  
4 using the raise hand feature located at the  
5 bottom of the WebEx participant list. Please see  
6 the screen for additional instructions about  
7 using the raise hand feature through WebEx.  
8 Please note that you must access the WebEx portal  
9 online to sign up to speak today.

10 Speakers will be called on to provide  
11 comments in the order in which they have signed  
12 up. We will announce upcoming speakers in groups  
13 of five, so you are aware of when you will be  
14 called to speak.

15 For individuals who have only called in  
16 through the phone line, you have the option to  
17 submit written comments through mail, online  
18 through the project website, and by texting or  
19 calling the project phone number, (855) 680-0455.  
20 I repeat, that number is (855) 680-0455.

21 We will now begin the presentation  
22 portion of the meeting with opening remarks from  
23 Colonel Timothy Vail, Commander of the U.S. Army  
24 Corps of Engineers District.

25 COLONEL VAIL: Hello. I'm Colonel

1 Timothy Vail, Commander of the Galveston District  
2 for the U.S. Army Corps of Engineers. Welcome to  
3 today's scoping meeting, the Department of the  
4 Army's Permit SWG 2019 00067, to deepen the  
5 Corpus Christi Ship Channel.

6 Particularly as we respond to COVID,  
7 it's important to emphasize the critical role the  
8 public plays in this permitting process and that  
9 Corps values your attendance here today as we  
10 consider this application.

11 The Port of Corpus Christi Authority is  
12 proposing to deepen a 14-mile stretch of the  
13 existing Corpus Christi Ship Channel in order to  
14 accommodate fully-laden, Very Large Crude  
15 Carriers that draft approximately 70 feet. The  
16 Army Corps of Engineers is neither a proponent  
17 nor an opponent of this project. We will  
18 ultimately decide if the proposed project is not  
19 contrary to the public's best interest.

20 In order to make that decision, we must  
21 gather as much information as possible within an  
22 appropriate permitting time period. This meeting  
23 will give individuals the opportunity to comment  
24 on the scope of the environmental impact  
25 statement, or EIS, for the proposed project, and

1 all comments become part of the official record.

2 After the Port of Corpus Christi  
3 Authority provides a brief description of the  
4 proposed project, we will provide an overview of  
5 the Department of the Army permit procedure and  
6 the National Environmental Policy Act process.  
7 Then we'll begin calling on the individuals who  
8 signed up in advance to submit their comments.

9 Today's meeting is not a vote for or  
10 against this project. It's an opportunity for  
11 you to comment on the types of information that  
12 should be evaluated to develop the scope of the  
13 environmental impact statement. In determining  
14 the scope of the environmental impact statement  
15 and evaluation of the permit application, we will  
16 be considering all relevant factors identified  
17 during scoping and in response to the public  
18 notice, including the needs and welfare of the  
19 people and the project's impact on fish and  
20 wildlife, historic properties, fisheries,  
21 economic activity, navigation, safety and  
22 recreational use.

23 As both a Texan and the Commander of the  
24 Galveston District, I'd like to thank you for  
25 participating in this process by attending this

1 meeting. The information and issues identified  
2 during this meeting, along with the information  
3 and issues provided in written comments, will all  
4 be considered in the determination and the scope  
5 of the EIS and subsequent evaluation of the  
6 permit application.

7 MR. HUDSON: Thank you, Colonel Vail.  
8 We will now proceed with the Port of Corpus  
9 Christi Authority Channel Deepening Project  
10 presentation, describing the proposed project.

11 (Recording played)

12 NARRATOR: Hello. Thank you for  
13 taking the time to learn more about the Port of  
14 Corpus Christi Authority's, or PCCA's, channel  
15 deepening project. This presentation will  
16 provide a brief overview of the project including  
17 the purpose, engineering design considerations,  
18 and completed and ongoing studies to support the  
19 project.

20 As the Energy Port of the Americas,  
21 the Port of Corpus Christi Authority is an  
22 independent political subdivision governed by  
23 seven commissioners. The Port develops property  
24 and leases it to support energy trade in the  
25 global market.

1                   To give national perspective to the  
2 size of the Port of Corpus Christi, if the Port  
3 were a state, it would rank seventh in industrial  
4 investment in terms of total capital expenses at  
5 \$54 billion.

6                   The Port of Corpus Christi Authority  
7 is requesting permit authorization from the U.S.  
8 Army Corps of Engineers, known as USACE, to  
9 conduct dredge and fill activities to deepen a  
10 portion of the existing Corpus Christi Ship  
11 Channel as well as a 5.5 mile extension of the  
12 ship channel to the natural minus 80 foot  
13 bathometric contour in the Gulf of Mexico. The  
14 project would deepen the channel from the western  
15 portion of Harbor Island into the Gulf of Mexico,  
16 an overall distance of approximately 13.8 miles.  
17 The proposed project channel limits are shown  
18 here in yellow.

19                  The Port of Corpus Christi's  
20 economic impact for the state of Texas is \$19  
21 billion, providing over 98,000 jobs in the region  
22 and generating \$446 million in local and state  
23 taxes. This channel deepening project is  
24 expected to have a \$257 million economic impact.

25                  The Port of Corpus Christi has



1 implemented an environmental policy which was  
2 adopted by the Port Commission in 2016. This  
3 policy serves to ensure growth in a responsible  
4 and sustainable manner. Every project or  
5 operation is evaluated against this policy to  
6 ensure it meets all five precepts. This project  
7 is no exception, and you will note throughout  
8 this presentation how different aspects of the  
9 project have been developed supporting these  
10 precepts.

11 The Port of Corpus Christi's  
12 proximity to Texas shale plays combined with the  
13 current and forecasted port infrastructure, make  
14 the Port an attractive location for efficiently  
15 exporting crude oil by Very Large Crude Carriers,  
16 also known as VLCCs.

17 Exports have quintupled since 2017  
18 and are projected to triple again by 2030. The  
19 project is needed to accommodate the transit of  
20 fully-laden VLCCs that have a draft of  
21 approximately 70 feet. The deepening activities  
22 would be completed within the footprint of the  
23 authorized Corpus Christi Ship Channel width.  
24 The proposed project does not include widening of  
25 the channel, however, some minor incidental

1 widening of the channel slopes is expected to  
2 meet side slope requirements and to maintain the  
3 stability of the channel. This will also  
4 minimize environmental impacts.

5 Dredged material removed from the  
6 channel will be used to restore shorelines,  
7 create aquatic habitats, and protect eroding  
8 shorelines and seagrass habitats. The project  
9 will also reduce the number of lightering vessels  
10 traveling in and out of the port, effectively  
11 lowering emissions and reducing operational risks  
12 of crude transfers that are currently occurring  
13 outside of the Port.

14 This is a depiction of the process  
15 utilized by large tankers to load crude oil when  
16 calling at the Port of Corpus Christi. The  
17 existing channel depth requires crude carriers to  
18 depart partially loaded from the Port, or that  
19 VLCCs remain offshore while smaller tankers  
20 transfer their cargo to the larger VLCCs from  
21 inshore, a process known as reverse lightering.

22 The inefficiency of this process is  
23 compounded when some of these smaller vessels,  
24 Suezmax vessels for instance, being used in the  
25 lightering process, are also not fully loaded

1 while traversing the channel.

2                   As exports increase, the number of  
3 lightering vessels and carriers will also  
4 increase, adding to shipping delays and  
5 congestion, which will affect all industries.  
6 These delays and congestion will increase the  
7 cost of transportation, which in turn will  
8 increase the cost of crude oil, with the ultimate  
9 consequence of making U.S. crude oil less  
10 competitive in the global market.

11                  Deepening the channel will allow for  
12 the VLCCs to travel in and out of the port fully  
13 loaded, ultimately allowing for more efficient  
14 movement of U.S.-produced crude oil, and meeting  
15 current and forecasted demand in support of  
16 national energy security and national trade  
17 objectives. The reduction in the number of  
18 vessel trips will lower costs, man hours,  
19 operational risks, and air emissions.

20                  The dimensions of the design vessel  
21 play an important role in determining the depth  
22 of the proposed channel. The analysis included  
23 the three largest classes of liquid-bulk crude  
24 oil tankers from the current worldwide fleet, as  
25 well as vessels on order to be constructed. The

1 selected vessel design, known as VLCCs, represent  
2 32 percent of the current number of crude  
3 vessels, and 54 percent by dead weight tonnage.  
4 VLCCs also represent 45 percent of the current  
5 order book for crude carriers.

6 The typical VLCC vessel size has  
7 been extremely stable in the past 25 years.  
8 Therefore, significant change in size in the  
9 foreseeable future is not expected. You can see  
10 here the average dimensions of the 99th  
11 percentile vessel, with the draft based on West  
12 Texas intermediate crude oil density values.  
13 These values were selected for the project study  
14 to determine the minimum channel dimensions for  
15 the proposed channel deepening.

16 Here is a concise summary of the  
17 current authorized channel depths and widths  
18 compared to the proposed project channel depths  
19 and widths. As previously discussed, the  
20 deepened channel design was based on the 99th  
21 percentile of VLCC vessel characteristics. Those  
22 characteristics, in conjunction with design  
23 factors such as currents, wind, wave effects,  
24 ship speed, navigational traffic patterns, and  
25 ship maneuverability, were used to determine the

1 optimal channel depths and widths. The study on  
2 the optimal depth and width applied the design  
3 characteristics of the World Association for  
4 Waterborne Transport Infrastructure, known as  
5 PIANC, and Army Corps of Engineers guidelines for  
6 channels, to calculate the channel depths and  
7 widths as shown in the table.

8 PIANC is a global organization that  
9 has been providing guidance and technical advice  
10 for sustainable waterborne transportation  
11 infrastructure to ports, marinas, and waterways  
12 since 1885.

13 Both one-way and two-way vessel  
14 traffic designs were considered. One-way traffic  
15 was ultimately decided upon to reduce the amount  
16 of dredging needed for the proposed project and  
17 reduce future channel maintenance dredging  
18 volumes.

19 Portions of the channel have been  
20 divided into segments, depending on the referred  
21 design channel depths, widths, and slopes.  
22 Segments 1 and 2 will be excavated to minus 77  
23 feet of the mean lower low water level, or MLLW,  
24 while segments 3 through 6 will be deepened from  
25 the currently authorized depth of minus 54 feet

1 MLLW to minus 75 feet MLLW.

2 Segment 1, referred to as the outer  
3 channel, is the new entrance channel extension to  
4 the existing minus-80-foot bathometric contour in  
5 the Gulf of Mexico.

6 Segment 2 continues inbound,  
7 deepening the existing authorized minus-56-foot  
8 channel to the same proposed dimensions as the  
9 outer channel.

10 Segments 3 through 6 are the inbound  
11 portions of work encompassing the Harbor Island  
12 transition flair, Harbor Island junction, and  
13 inner Corpus Christi channel.

14 A breakdown of anticipated new work  
15 dredging volumes by segment is displayed here.  
16 The design depths do not include the additional  
17 two feet of advanced maintenance dredging and two  
18 feet of over-dredge allowance. However, the  
19 total dredge volume by segment does include the  
20 advanced maintenance and over-dredge allowance  
21 volumes.

22 As shown in the last row, the total  
23 estimated dredge volume from the channel  
24 deepening project is just under 42 million cubic  
25 yards.

1           The dredged material management  
2 plan, or DMMP, should consider the most cost-  
3 effective and implementable alternatives that  
4 weigh economics, engineering, and the  
5 environment. Agency and public input was used to  
6 develop the DMMP, which included using existing  
7 placement areas, beneficial use sites, and ocean-  
8 dredged material disposal site known as ODMDS.  
9 Wherever feasible, environmental impacts to  
10 existing oyster habitats, seagrass, wetlands, and  
11 other ecosystems was avoided.

12           The DMMP for the project proposes a  
13 series of existing upland placement areas and new  
14 and existing beneficial use sites to optimize the  
15 use of the new work dredged materials as much as  
16 possible. Specifically the material will be used  
17 to expand upland placement areas and beneficial  
18 use sites as well as address shoreline repair  
19 needs within Redfish Bay, Corpus Christi Bay, and  
20 the Gulf of Mexico in the vicinity of the  
21 channel.

22           13.8 million cubic yards of dredged  
23 material are planned to be placed in the new work  
24 ODMDS located approximately 3.4 miles offshore.  
25 The material is mostly comprised of non-

1 structural clays which are not beneficial for  
2 construction of berms or dikes. Preliminary  
3 modeling using USACE's MP Fate modeling confirms  
4 that there is enough capacity within the ODMDS  
5 for disposal of the entire 13.8 million cubic  
6 yards without exceeding the limiting mounding  
7 height of 11 feet within the ODMDS.

8           The planning effort focused on  
9 existing placement areas and beneficial use sites  
10 as new upland placement opportunities are  
11 limited. As mentioned, the initial beneficial  
12 use concepts were generated by considering  
13 existing agency restoration plans such as the  
14 Texas General Land Office's Texas Coastal  
15 Resiliency Master Plan, storm damage caused by  
16 Hurricane Harvey, and beneficial use features  
17 implemented elsewhere on the Gulf Coast.

18           Input was also gathered from  
19 federal, state, and local resource agencies, and  
20 used to help shape the direction of the DMMP.  
21 Thirteen initiatives were ultimately decided on,  
22 eleven of which were beneficial-use features  
23 aimed to achieve a variety of shoreline  
24 restoration, land loss restorations, marsh cell  
25 expansion, and gulf-side shoreline initiatives.



1           The figure shown here summarizes the  
2 placement areas included in the DMMP. Green  
3 areas create and restore estuarine, aquatic, and  
4 marsh habitats, and provide beach and dune  
5 renourishment on the gulf side. Yellow areas  
6 expand and repair existing placement areas,  
7 restore eroded shorelines or provide protection  
8 to seagrass areas.

9           The feeder berms, shown in blue,  
10 offshore of San Jose Island and Mustang Island,  
11 will nourish beach shorelines through the natural  
12 sediment transport process.

13           Preliminary modeling was performed  
14 to determine impacts on hydrodynamics, salinity,  
15 shoaling and vessel wake, and ODMDS capacity as a  
16 result of the proposed channel deepening. A  
17 desktop study of cultural resources was conducted  
18 along with wetland delineations and seagrass  
19 surveys for placement options within the bay.  
20 Tidal increases were observed to have a minimal  
21 impact on the tidal range for the area, logging  
22 in at less than an inch in Redfish Bay and less  
23 than a half inch in Aransas Copano, Corpus  
24 Christi, and Nueces bays.

25           Velocity changes were considered

1 negligible, as it represents 12 percent on  
2 average speeds and 14 percent on peak speeds.  
3 Shoaling analysis concluded an increase of  
4 399,000 cubic yards of maintenance material  
5 entering the channel system per year. This will  
6 result in a maintenance dredging cycle frequency  
7 increase from once every 2.5 years to once every  
8 1.9 years.

9                   Using the Delft3D modeling system,  
10 the maximum salinity impact would still register  
11 within the optimum salinity ranges for some of  
12 the most prolific aquatic flora and fauna,  
13 resulting in no negative impacts to these  
14 species.

15                   A ship simulation study was  
16 performed by the Aransas-Corpus Christi pilots to  
17 evaluate the feasibility of the channel  
18 expansion, identify optimum channel dimensions  
19 for safe and efficient operations, and to  
20 determine any operation constraints that might be  
21 required for safe operation. The simulation  
22 confirmed the validity of the proposed design for  
23 the approach channel and the inner channel.

24                   Vessel wake studies showed reduced  
25 sediment mobilization along adjoined shorelines

1 due to the reduced number of vessel transits per  
2 year, from 792 to 528 as a result of the channel  
3 deepening.

4 Wetland delineation surveys and  
5 field work were performed to determine the  
6 acreage of existing wetland ecosystems and  
7 natural seagrass habitats within the proposed  
8 placement sites. Adverse impacts are expected on  
9 approximately 244 acres of delineated wetlands.

10 Wetlands that are distributed as a  
11 result of placement operations will be replaced  
12 in kind. The proposed restoration of the DMMP  
13 provides for approximately 1100 acres of restored  
14 aquatic habitat which greatly exceeds the actual  
15 adverse impacts of 244 acres. A preliminary  
16 report has been submitted to the U.S. Army Corps  
17 of Engineers, and the Port of Corpus Christi  
18 Authority is looking forward to consulting with  
19 the state historic preservation officer on  
20 additional studies.

21 The Port will continue to study this  
22 proposed project to ensure the most informed  
23 design. A passing vessel analysis is in process  
24 and further ship simulations are anticipated for  
25 mid-June to potentially reduce the channel width

1 in the inner channel and to study effects of  
2 further 3-D current modeling when applied to the  
3 simulation.

4 The Port of Corpus Christi Authority  
5 is actively working with the U.S. Environmental  
6 Protection Agency and the U.S. Army Corps of  
7 Engineers to refine the sampling and analysis  
8 plan for material testing related to ODMDS  
9 approval. Design of the most effective placement  
10 template for beach re-nourishment is ongoing with  
11 continued analysis of channel material for sand  
12 placement to best mimic that of native beach  
13 materials.

14 Feeder berms offshore of San Jose  
15 Island and Mustang Island are still being  
16 evaluated for sizing and location to maximize the  
17 amount of material contributed to beaches as a  
18 result of the natural sediment transport process.

19 Thank you for taking the time to  
20 learn more about the Port of Corpus Christi  
21 Authority's channel deepening project. This  
22 concludes the presentation.

23 (Recording stopped)

24 MR. HUDSON: Thank you. As a reminder,  
25 if you have not registered to speak during the

1 meeting today and would like to, you may do so at  
2 any time by using the raise hand feature located  
3 at the bottom of the WebEx participant list.  
4 Please note that you must access the WebEx portal  
5 online to sign up to speak tonight.

6 And now, we will provide information  
7 about the U.S. Army Corps of Engineers EIS  
8 process, including the purpose and need,  
9 potential project alternatives, as well as an  
10 overview of the known environmental concerns.

11 (Recording played)

12 MR. HUDSON: Hello. My name is  
13 Jayson Hudson, and I am the Corps Regulatory  
14 Project Manager for the Port of Corpus Christi  
15 Authority's channel deepening EIS. I will  
16 present to you an overview of the Corps EIS  
17 process and the results of our early scoping for  
18 the channel deepening EIS.

19 The objectives of my presentation  
20 are to provide you an overview of the relevant  
21 laws, introduce the Corps project team, and  
22 describe some of the content of the EIS as well  
23 as some of the alternatives and environmental  
24 concerns that have been identified.

25 The Port Authority's permit

1 application is subject to Sections 10 and 14 of  
2 the Rivers and Harbors Act, Section 404 of the  
3 Clean Water Act, Section 103 of the Marine  
4 Protection Research and Sanctuaries Act, Title 41  
5 of the Fixing America's Surface Transportation,  
6 or FAST, Act, and Executive Order 13807.

7 The project must also be coordinated  
8 with state and federal agencies pursuant to  
9 Section 401 of the Clean Water Act, the Coastal  
10 Zone Management Act, the Endangered Species Act,  
11 the Magnuson-Stevens Fishery Conservation and  
12 Management Act, and the National Historic  
13 Preservation Act.

14 Title 41 of FAST, often referred to  
15 as FAST41, standardizes interagency consultation  
16 and coordination practices and requires that a  
17 schedule for these practices be established and  
18 published on the federal Permitting Improvement  
19 Steering Council permit performance website.

20 Executive Order 13807 requires  
21 federal agencies to process environmental reviews  
22 and authorization decisions for major  
23 infrastructure projects as one federal decision.  
24 That means that all federal agencies with review  
25 responsibilities for major infrastructure

1 projects must develop a single EIS and sign a  
2 single record of decision, or ROD.

3 The EIS team is comprised of the  
4 Corps as the lead federal agency, with the  
5 Environmental Protection Agency, the National  
6 Marine Fisheries Service, the U.S. Coast Guard,  
7 and the U.S. Fish and Wildlife Service as  
8 cooperating agencies in the development of the  
9 EIS.

10 Several state agencies, including  
11 the Texas Commission on Environmental Quality,  
12 Texas Parks and Wildlife Department, Texas  
13 Historical Commission, and Texas General Land  
14 Office are also participating or commenting on  
15 the development of the EIS.

16 The Environmental Impact Statement  
17 contractor is Freese and Nichols, Incorporated,  
18 and the applicant is the Port of Corpus Christi  
19 Authority.

20 Due to limited resources, the Corps  
21 regulatory program utilizes a third-party  
22 contractor process to develop an EIS. In this  
23 process, the lead federal agency, applicant, and  
24 environmental consultant enter into an agreement  
25 where the applicant contracts and pays for the

1 environmental consultant who prepares the EIS  
2 under the direction of the Corps.

3 As you can see in the diagram, the  
4 Corps directs the environmental consultant on the  
5 development of the EIS independent of the  
6 applicant. It's important to emphasize that  
7 ultimately, the Corps is responsible for the  
8 development and content of the EIS.

9 Here we have a timeline of major  
10 milestones for this project. The Port Authority  
11 submitted their application on January 7th of  
12 2019, and the Corps concluded an EIS would be  
13 required in March. Subsequent to that, the  
14 project was designated a FAST41 project in June  
15 of 2019 and initial public notice was published  
16 in August.

17 After coordinating with the  
18 cooperating agencies, the Corps developed a  
19 purpose and need for the project in March of  
20 2020, which we will discuss later in the  
21 presentation. The notice of intent to develop  
22 the EIS was published in April of 2020.

23 The draft EIS is scheduled to be  
24 provided to the public in March of 2021, with a  
25 public hearing and comment period in March and



1 April of the same year. The final EIS is  
2 scheduled to be provided to the public in January  
3 of 2022, followed by a permit decision which will  
4 be documented in a record of decision in April of  
5 2022.

6 This EIS flowchart shows the  
7 sequential process for developing and publishing  
8 an EIS. We are currently in the scoping stage of  
9 the EIS, where we are soliciting your input. The  
10 information and issues identified during scoping,  
11 along with the information and issues provided in  
12 letters sent in response to the public notice,  
13 and all other pertinent data, will be considered  
14 in the determination of the scope of the EIS and  
15 the subsequent permit decision which is  
16 documented in a record of decision.

17 The scoping process is an integral  
18 step in the development of an EIS, with the  
19 overall goal of defining the scope of issues to  
20 be addressed in-depth in the analysis. The  
21 scoping process helps the Corps identify people  
22 and organizations that may be affected or have  
23 interest in the project, as well as identifying  
24 the roles and responsibilities of state and  
25 federal agencies.

1                   The scoping process also helps  
2 identify significant issues that may have not  
3 already been identified, as well as eliminate  
4 issues that will not be significant or have  
5 already been addressed. The scoping process can  
6 also aid the identification and gaps in data and  
7 information as well as identify related studies  
8 that may be applicable.

9                   Listed here are the typical sections  
10 of an EIS. The first chapter will provide an  
11 introduction to the project and the Corps' stated  
12 purpose and need for the project. The second  
13 chapter describes the alternatives to the  
14 applicant's proposed project and the subsequent  
15 chapters assess the impacts of all of the  
16 alternatives evaluated. The assessments will  
17 cover a wide range of environmental impacts  
18 including the cumulative impacts.

19                   In addition, studies that support  
20 the analysis will be provided in the appendices  
21 of the EIS. This may include, but not limited  
22 to, ocean dredged material disposal site  
23 analysis, Endangered Species Act assessments,  
24 cultural resource studies, hydrology and  
25 hydraulic studies, as well as compensatory

1 mitigation plans.

2                   The Corps is required by regulation  
3 to restate the purpose for the project from the  
4 public interest perspective. The Corps, after  
5 coordinating with cooperating agencies, developed  
6 two purpose statements: a basic purpose and an  
7 overall purpose.

8                   The basic purpose is developed to  
9 determine if a project requires siting in or  
10 proximity to a special aquatic site such as  
11 wetlands and seagrasses. Based on the Corps'  
12 basic project purpose, shown here, the project  
13 was determined not to require siting in or  
14 proximity to a special aquatic site such as  
15 wetlands and seagrasses. Therefore, it is  
16 presumed that an alternative that does not affect  
17 special aquatic sites is available.

18                   The overall purpose is developed to  
19 identify and screen alternatives to the  
20 applicant's proposed project. The Corps has  
21 determined that the overall project purpose from  
22 the public interest perspective, is to safely,  
23 efficiently, and economically export current and  
24 forecasted crude oil inventories via Very Large  
25 Crude Carriers, a common vessel in the world

1 fleet.

2                   Crude oil is delivered via pipeline  
3 from the Eagle Ford and Permian Basins to  
4 multiple locations at the Port of Corpus Christi.  
5 Crude oil inventories exported at the Port of  
6 Corpus Christi have increased from 280,000  
7 barrels per day in 2017 to 1,650,000 barrels in  
8 January of 2020, with forecasts increasing to  
9 4,500,000 barrels per day by 2030. Current  
10 facilities require vessel lightering to fully  
11 load a VLCC, which increases cost and affects  
12 safety.

13                   Alternatives that were identified  
14 during the initial public notice, which is an  
15 early scoping step, include the no action  
16 alternative which in this case would be permit  
17 denial; the applicant's preferred alternative; as  
18 well as alternatives to the deepening of the  
19 channel such as a deep-water port facility. It  
20 is not uncommon in complex projects such as this  
21 one to have alternatives developed for  
22 subcomponents of the project: in this case,  
23 alternatives to the proposed dredge material  
24 placement options, such as offshore disposal,  
25 beneficial use, and upland placement.

1                   In addition to the alternatives that  
2                   were identified during the public notice, several  
3                   environmental concerns were raised. Many of the  
4                   comments received focused on impacts to wetlands  
5                   and seagrasses as well as threatening endangered  
6                   species. Additional comments were received on  
7                   navigation safety and recreational use of the  
8                   area.

9                   I thank you for your interest in the  
10                  development of the EIS for the Port of Corpus  
11                  Christi Authority's channel deepening project. I  
12                  look forward to receiving your comments and  
13                  suggestions. We will be accepting scoping  
14                  comments through July 3, 2020. If you would like  
15                  to submit written comments, you may do so at the  
16                  mailing address or electronic email address shown  
17                  on your screen.

18                  (Recording stopped)

19                  MR. HUDSON: That concludes the  
20                  presentation portion of today's scoping meeting.  
21                  We will now begin the commenting period. As a  
22                  reminder, if you have not registered to speak  
23                  during the meeting today and would like to, you  
24                  may do so at any time by using the raise hand  
25                  feature located at the bottom of the WebEx

1 participant list.

2 Please note that you must access the  
3 WebEx portal online to sign up to provide a  
4 comment.

5 Due to the nature of today's virtual  
6 meeting, the formal public commenting portion of  
7 today's meeting will be conducted in the  
8 following way. First, Federal, State, and local  
9 elected officials who wish to speak will be  
10 called on to do so. Then anyone else who has  
11 indicated a desire to speak will be given the  
12 same opportunity. I will call on each member of  
13 the public who has signed up to speak by the name  
14 they used during the meeting registration.

15 Each speaker will be given three minutes  
16 to make their comments. When it is your turn to  
17 speak, please mute your computer audio to avoid  
18 feedback. A countdown timer will be displayed on  
19 the meeting broadcast screen for each speaker to  
20 indicate their remaining time. As your time  
21 ends, please be courteous to the other members of  
22 the public who wish to provide comments and  
23 quickly wrap up your comments, to ensure that  
24 everyone who would like to speak has the  
25 opportunity to do so.

1           If you do not need the entire time  
2 allotted, help us to include everyone by only  
3 using the time you need. If you complete your  
4 comments in less than three minutes, we will  
5 restart the clock for the next speaker.

6 Remaining time cannot be reserved or transferred  
7 to another speaker.

8           Please keep in mind that we reserve the  
9 right to mute your microphone if this instruction  
10 is not followed.

11           We ask that you support us  
12 (indiscernible) orderly, and courteous meeting.  
13 We want to be able to get all of your comments  
14 recorded, and we need your cooperation to do so.  
15 Here are a few ground rules for the meeting  
16 today.

17           Since this meeting is being held  
18 virtually, we will keep all participant  
19 microphones muted to avoid any background noise  
20 that may make the presentation difficult to hear.  
21 When it is your turn to speak, Connor will notify  
22 you when your microphone has been unmuted.  
23 Please make sure you have also unmuted your phone  
24 too.

25           When it is your opportunity to speak,

1 please state and spell your first and last name.

2 We will not respond today to the  
3 comments submitted. However, all comments made  
4 today will be documented and reflected in the  
5 development of the EIS.

6 Just a reminder, you cannot defer your  
7 time to others. The public scoping meeting will  
8 adjourn at 7:00 p.m. today. If you have  
9 additional comments that you would like to submit  
10 beyond what you are able to address during the  
11 comment period, please submit them in writing or  
12 by calling (855) 680-0455.

13 Speakers will be called on to provide  
14 comments in the order in which they have signed  
15 up. We will announce upcoming speakers in groups  
16 of five, so you are aware of when you will be  
17 called on.

18 If you do not wish to provide a comment  
19 today but would still like to submit comments to  
20 the project team, there are other ways to do so.  
21 You have the option to submit comments through  
22 mail, online through the project site, or by  
23 texting or calling the project number, (855) 680-  
24 0455. I repeat, that number is (855) 680-0455.

25 All comments received during the formal



1     commenting period through July 3, 2020, will  
2     carry the same weight as the comments submitted  
3     today. You do not have to submit a comment  
4     today, and you will be heard just as clearly as  
5     those who spoke today.

6             Additional information about submitting  
7     comments is provided on the project website.

8             We will begin with comments from public  
9     officials. Connor, do we have any public  
10    officials who wish to provide comments today?

11            MR. STOKES: Thank you, Jayson. We do  
12    not have any public officials that have signed up  
13    to provide comments.

14            MR. HUDSON: Thank you. We will  
15    continue with the comments from the public.

16            Connor, who are our first five speakers?

17            MR. STOKES: We currently only have six  
18    public who have signed up to provide comments, so  
19    I'll go ahead and name off six.

20            Those speakers are Kathy Fulton, Tammy  
21    King, Kim Belato (phonetic), Crystal White, Jo  
22    Kruger, and Kathryn Masten.

23            We will begin now with Kathy Fulton.  
24    Kathy, your microphone has now been unmuted and  
25    you can begin providing comments at this time.

1 MS. FULTON: Hello? Can you hear me?

2 Hello?

3 MR. STOKES: We can hear you.

4 MS. FULTON: Hello? Did he say he can  
5 hear me?

6 MR. STOKES: We can hear you, Kathy.

7 MS. FULTON: Hello?

8 MR. HUDSON: Yes, ma'am. We can hear  
9 you.

10 MS. FULTON: Hello?

11 MR. STOKES: You -- we can hear you,  
12 Kathy.

13 MS. FULTON: I'm sorry. My name is  
14 Kathy Fulton and I live in Port Aransas, Texas.  
15 I know that I'm supposed to be saying what I want  
16 to recommend for this EIS, but the first thing  
17 I'm going to have to recommend and tell you right  
18 now is number one -- let's see. I've got a list  
19 of at least 20 names, and I already know of three  
20 or four people, who still can't get in to even  
21 this meeting at the moment. This is going on  
22 constantly.

23 Number two, this should be considered a  
24 -- this -- this needs to be stopped. This should  
25 all be stopped until such time we can actually

1 meet in public.

2           Number three, I would like to say,  
3 scoping meetings are also about allowing  
4 questions, not just give our comments. Okay.

5           Moving on, number four, let me just also  
6 tell you that at the first meeting back on the  
7 9th, there was a slide up there that said that  
8 the Port was an economic development agency  
9 specializing in P3s. But then, after I sent Sean  
10 Strawbridge and all the Port commissioners and  
11 Sarah Garza an email saying, "Well, isn't that  
12 interesting that you all claim you specialize in  
13 P3s, but you've repealed all your P3 guidelines  
14 back at the end of December." The next thing you  
15 knew at the next virtual BS meeting, there all  
16 the P3 -- slide mention of P3s was removed  
17 entirely.

18           Now, I am going to recommend that the  
19 U.S. Army Corps of Engineers, that you guys --  
20 I'm going to say this -- are being lied to. And  
21 I believe that this all needs to be brought to a  
22 stop because of the fact that the Port of Corpus  
23 Christi is not being upfront and honest. And  
24 this has become a huge waste of time.

25           Moving on, let me also say this. None

1 of these current applications deal -- mention  
2 anything about the de-salinization plant that  
3 would be right there adjacent to all of this oil  
4 production and development. And the problem with  
5 that is, is you know, that's a big problem,  
6 especially when you're looking at almost 100  
7 million gallons a day of brine being discharged  
8 right there in the ship channel. None of this is  
9 factored into the -- not even mentioned by the  
10 Corps in any of your correspondence, which I have  
11 like 500 pages of your correspondence.

12 Let me also say the desktop study that  
13 you all mention here, it's just that -- a desktop  
14 modeling. Big woo. It's not real. It's fake.  
15 And it doesn't account for anything. That should  
16 all be thrown out.

17 Finally, I want to say, Jo Ellen Kruger  
18 is here and she'll -- she can speak through my  
19 computer. Thank you.

20 MR. STOKES: Thank you for your  
21 comments. Your microphone is now on mute.

22 Our next speaker is Tammy King.

23 Tammy, your microphone is now unmuted  
24 and you can begin providing comments at this  
25 time.

1 MS. KING: Okay. Thank you. The first  
2 thing I'd like to say is that this EIS process is  
3 being pushed through down our throats. The 54-  
4 foot channel has not even been dug. So any  
5 damage that could be done to the ecosystem will  
6 not be taken into account. The 54-foot dredge  
7 should be done first before ever considering an  
8 80-foot dredge.

9 UTMSI have plenty of studies that they  
10 would like to start, beginning with the  
11 consortium of independent stakeholders -- not the  
12 Port of Corpus Christi-preferred stakeholders --  
13 but the public preferred stakeholders. And they  
14 are planning on meeting in the fall, and they're  
15 going to analyze what should and should be  
16 studied. And you've had a list of all those  
17 things, and instead of one little company making  
18 all these decisions, all these scientific and  
19 financial experts should be able to contribute to  
20 this conversation.

21 Geologic studies on the one-to-three  
22 ratio in the entrance channel is unbelievable.  
23 We need geologic studies from major institutions  
24 who know how to study this. Once again, economic  
25 sustainability. The dredge is going to cost \$400

1 million, from 54 all the way -- well, to the  
2 current 60, 54, and then the 80. It's going to  
3 be a huge port to process for the U.S.  
4 government.

5 Desal plant does not -- or -- and all  
6 your EIS keeps referring to Corpus Christi Bay --  
7 not Aransas Bay, or Copano Bay, or the Aransas  
8 National Wildlife section.

9 Your purpose and need says that it's not  
10 located in a sensitive area. That's -- that's  
11 incorrect. So, yes, you do need to study. It  
12 says the proposed project does not require access  
13 or proximity to within a special aquatic site.  
14 Yes, it does. It's -- it's the junction of three  
15 important channels for biological diversity.

16 The last -- another thing is, your  
17 forecast saying that the -- there's going to be  
18 4.5 barrels (sic) a day by 2030. Obviously, this  
19 current economic cycle has proven that that will  
20 cause a glut in global and economy and there's  
21 not a need for 4.5 billion barrels a day. So  
22 this is a false -- a false sense of economics, a  
23 false way of economics. You need to reanalyze  
24 that.

25 The ship simulations, right now the

1 pilots of Port of Corpus Christi are doing actual  
2 unrestricted tests. Why -- why do ship  
3 simulations, when you can measure the actual  
4 consequences of the wave action and other issues  
5 as ferry traffic gets congested and recreational  
6 traffic gets slowed down to a crawl.

7 And thank you very much.

8 MR. STOKES: Thank you for your  
9 comments. Your microphone has now been placed on  
10 mute.

11 Our next speaker, Kim Belato, your  
12 microphone is now unmuted and you can begin  
13 providing comments at this time.

14 MS. BELATO: I'm talking on behalf of  
15 the Texas Alliance -- I'm sorry, of the -- which  
16 is Texas Energy Advocates Coalition, supports the  
17 project in Harbor Island.

18 Some of the reasons why it --

19 MR. STOKES: Excuse me. Sorry for  
20 interrupting, Kim, but you're coming through very  
21 faint. If you could try to get closer to the  
22 microphone if at all possible.

23 MS. BELATO: Is this better?

24 MR. STOKES: Yes. That's better.

25 MS. BELATO: Okay. Thank you. So I'm

1 calling on behalf of TEAC, Texas Energy Advocates  
2 Coalition. We support the Port's project for  
3 many reasons.

4 First and foremost, while I understand  
5 that there's a lot of people that live in Port A  
6 and really want to protect the environment --  
7 it's mostly known for a tourist attraction and  
8 it's a beautiful place. I live on Copano Bay.  
9 And you know, being a part of making sure that  
10 everything is done properly and protecting the  
11 environment is very important to me as well.

12 However, for the greater good and  
13 looking who the partner would be that would  
14 partner with Port A, is very important in my  
15 opinion. Port has many years of having the great  
16 reputation dealing with many, many governmental  
17 agencies, and that should be taken into  
18 consideration for the fact that the last partners  
19 you guys had, maybe you guys weren't so happy  
20 with.

21 So looking at the Port and understanding  
22 how they do take the environment very carefully  
23 into consideration, they have a great track  
24 record. But not to mention, let's also talk  
25 about the environmental -- I mean the economic



1 impact to the region, not just in Port A.

2 To bring in these big VLLC ships and to  
3 be able to have them access through Port A is  
4 vital. Earlier, a speaker discussed there is no  
5 need for 4.5 barrels coming in. Excuse me,  
6 billion barrels. And I -- I don't agree with  
7 that. I think it's a matter of national  
8 security. I think if you look at the expectation  
9 global-wide, there is a huge uptick that's going  
10 to happen and we need to be a part of it.

11 If you look at Dynamic Steel (sic) that  
12 moved into Sinton, and they also are a great  
13 company. They take the environment very  
14 seriously and will be a great economic impact for  
15 that town. Port A has a great partner in the  
16 Port of Corpus Christi.

17 But I also really want to go back and  
18 discuss that it is a matter of national security.  
19 We do live on one planet. It's important that we  
20 take the environment seriously. But when you  
21 look -- if you'd rather have China or India, two  
22 of the biggest polluters on the planet, taking  
23 the crude and distributing it from them -- which  
24 they do not care anything about the environment  
25 whatsoever -- I think we need to look at good

1 partners like the Port of Corpus Christi. We  
2 need to look at the environmental impact not just  
3 to Port A, but to the entire coastal bend region.  
4 We need to attract universities that will come to  
5 Port -- to Corpus Christi and invest in building  
6 great universities so our children will not leave  
7 and go to San Antonio or Houston to get a good  
8 education, but they can stay right here in Corpus  
9 Christi and get a quality education and stay  
10 here.

11 It's about developing the coastal bend  
12 area, and it's time to do it. The time has come.  
13 It's necessary.

14 MR. STOKES: Thank you for your  
15 comments. Your microphone has now been placed  
16 back on mute.

17 Our next speaker, Crystal White, is no  
18 longer in attendance with us today so we will  
19 move on to the next speaker, Jo Kruger. Jo, I am  
20 now unmuting your microphone and you can begin  
21 placing comments at this time.

22 MS. KRUGER: Hello. Can you hear me?

23 MR. STOKES: Yes.

24 MS. KRUGER: Okay. I just want to get  
25 back on touch with the last comment that I heard.

1     Apparently, she's out of touch with the Port  
2     Aransas and the people of Port Aransas. The Port  
3     doesn't give us any jobs over here. Sinton is a  
4     long ways away. And we do protect our  
5     environment, and we do have Texas A&M and we have  
6     University of Texas, universities here, and  
7     they've been here for years. And they have done  
8     study after study on this whole environment and  
9     this whole ecosystem, how the larvae come up into  
10    the bays, and et cetera and et cetera, you know.  
11    It's almost laughable.

12               The fort, the Harbor Island, is 1000  
13    feet from Roberts Point Park where our kids play  
14    and everything else. The ferry landing is right  
15    there.

16               On your fact sheet, you already list  
17    Access Midstream as a company already, or -- an  
18    industrial compound already over there. So  
19    what's up with that? What facts are those?

20               But anyway, Port Aransas has a huge  
21    tourism base, and we -- it's millions and  
22    millions of dollars. And it's grown to that  
23    because there's -- they took out all those  
24    storage tanks and everything off Harbor Island  
25    years ago. That's not been anything but a -- a

1 gambling ship was there for a few years, and  
2 that's all it's ever been for 20, 25 years.  
3 There's not been anything else there.

4 It does not -- there are not that many  
5 jobs that are going to come out of this Port of  
6 Corpus Christi on Harbor Island. All that is, is  
7 the Barry brothers and the Port of Corpus Christi  
8 doing a public-private partnership, which  
9 shouldn't be going on.

10 Yeah. We have a -- all of our  
11 employment here is based on tourism, and it's all  
12 over the coastal bend on these waters. It's  
13 Aransas Pass, it's Rockport, it's Ingleside on  
14 the Bay, it's Port Aransas. I mean, we just have  
15 millions and millions of people that come here.  
16 This is the state of Texas vacation spot. And  
17 the Port doesn't pay us any taxes; it never has.  
18 And it's ridiculous to sit there and say that  
19 you're going to bring in a great partnership with  
20 the Port.

21 They don't need to be here on Harbor  
22 Island. We have hurricanes here. We have people  
23 here. We have the environment. We have the  
24 larvae flow coming here, and blah-blah-blah. I  
25 couldn't spit it out.

1           MR. STOKES: Thank you for your  
2 comments. We will now move on to the next  
3 speaker. We have had one additional speaker who  
4 has registered since naming the first six. That  
5 is Cara Denney.

6           Our next speaker, however, is Kathryn  
7 Masten. Kathryn, your microphone is now unmuted  
8 and you can begin providing comments at this  
9 time.

10           MS. MASTEN: Okay. My name is Kathryn  
11 Masten, K-a-t-h-r-y-n, M-a-s-t-e-n. And I'm the  
12 chair of the Planning and Zoning Commission of  
13 Ingleside on the Bay, and I'm also a member of  
14 the Ingleside on the Bay Coastal Watch  
15 Association board of directors. And I appreciate  
16 the comments that have come before, especially  
17 the last speaker, Jo. But I'll add some  
18 additional concerns.

19           First of all, I'm having trouble finding  
20 the slides and the studies and supporting  
21 documents that have been mentioned in the  
22 PowerPoint. So if maybe that could be made  
23 readily available, I'd appreciate that so that we  
24 can incorporate some of the information that was  
25 shared in our written -- in written comments that

1 we'll also be providing, such as the pilot study  
2 you mentioned and the passing vessel analyses  
3 that have been going on.

4 I was also wondering how notice is  
5 provided to our city of Ingleside on the Bay,  
6 when it comes to projects like this. Because I  
7 do feel like Ingleside on the Bay, especially,  
8 has been left out of some of these important  
9 meetings and opportunities for comment. And I  
10 wondered how we could see comments that have  
11 already been made and will be made as a result of  
12 the comment period. So by after July 3rd I'd  
13 like to see them, but I like hearing -- or seeing  
14 the comments that have been made so far.

15 In terms of specific concerns to our  
16 city, just in general about the channel  
17 deepening, is I would like to say that all cities  
18 that are touched by the channel deepening project  
19 should be reached out to, and some of the  
20 concerns include the dredging disruption to our  
21 communities, the noise and the visual impact of  
22 seeing dredgers on these -- on these schedules of  
23 dredging, to keep the channel deep.

24 The boating safety has been mentioned  
25 but also the air quality from these ever-larger

1 ships. The increased potential for being a  
2 terrorist target and explosions and spills. When  
3 they're larger, they just sound scarier. So I  
4 want to make sure that those are taken into  
5 account in the EIS.

6 And also the potential impact of storm  
7 surge from hurricanes. I didn't know if maybe  
8 there's even an opportunity here that there would  
9 be flood gates installed as part of a channel  
10 deepening project, so that we are protecting the  
11 bay, the inner bay. I know it may not do much  
12 for some of the outlying areas, but in the bay  
13 there might be an opportunity. But I'm concerned  
14 about this very deep channel of water coming  
15 toward us in a storm surge.

16 So those are just some of them. And I -  
17 - just in general, I'd love for us to think about  
18 the coastal bend as more of a tourism destination  
19 rather than a big place for these extremely large  
20 ships. And thank you.

21 MR. STOKES: Thank you for your  
22 comments. Your microphone is now placed back on  
23 mute.

24 Our next speaker, Cara Denney, your  
25 microphone is now unmuted and you can begin

1 providing comments at this time.

2 MS. DENNEY: Can you hear me?

3 MR. STOKES: Yes.

4 MS. DENNEY: It's Cara Denney, C-a-r-a,  
5 D-e-n-n-e-y. I live in Port Aransas. I have to  
6 tell you, these -- this form of public meeting is  
7 beyond disturbing. There are so many people that  
8 cannot access this. I would beg the Army Corps  
9 of Engineers to stop this and reschedule it for a  
10 time where we can ask questions and have  
11 discussions.

12 I think all of the public comments I've  
13 heard to this point are aligned with mine. This  
14 was the first time I've heard anybody say, okay,  
15 yeah, you should look at the Port as a good  
16 neighbor, other than Sean Strawbridge.

17 The Port isn't listening to us, so to  
18 that person -- the Port isn't listening to us.  
19 We asked for the same things, over and over and  
20 over. They spit out some PR BS that has nothing  
21 to do with our best interests in mind. And I  
22 don't mean our, like Port Aransas. I mean, all  
23 of these towns on the bay system. The wildlife,  
24 the fishing, they talk about money and jobs. How  
25 does it impact the environmental tourism jobs? I



1 think that out of the two, the environmental  
2 tourism jobs are going to last longer. I mean,  
3 certainly you're not seeing news articles  
4 (indiscernible) people getting laid off from  
5 tourism or fishing guides, or blah-blah-blah,  
6 like you're seeing from the big oil companies.

7           On top of that, the eco-tourism doesn't  
8 impact the environment this way. You don't have  
9 to have an environmental scoping meeting to go  
10 fishing. I'm afraid that the increased traffic  
11 from an 80-foot dredge would slow down our  
12 fishing. Not just because of larval flow and  
13 effect on marine life, but just traffic in this  
14 small area. It's a bottleneck getting through  
15 here. I don't know if anybody has even been  
16 through it to look -- from the Army Corps of  
17 Engineers -- to even look and see what it is.  
18 But I invite you down.

19           My god, I'll take you out on the boat or  
20 a plane and show you what we're looking at. This  
21 is a tiny area. It's right across from our park.

22           I think that as Tammy said, we should  
23 really look at the effects that the 60-foot  
24 dredge has had on the bay system, fishing, ship  
25 wakes, et cetera, before we move on to an 80-

1 foot. I mean, you guys are really putting the  
2 cart before the horse here.

3 I know that the Port is trying to push  
4 it through, but I do not understand how the  
5 Port's agenda can outweigh the citizens' rights.

6 This is a pain to get into. I mean,  
7 you're not hearing from that many people. Six  
8 people signed up. What about underprivileged  
9 people or elderly people? You're not giving them  
10 access to these meetings. I think you're  
11 probably on the verge of violating civil rights  
12 at this point.

13 Thank you.

14 MR. STOKES: Thank you for your  
15 comments. We do have one additional speaker at  
16 this time, Ms. Lupe Daly (phonetic). Your  
17 microphone is now unmuted and you can begin  
18 providing comments at this time.

19 MS. DALY: All right. Thank you.

20 UNIDENTIFIED FEMALE: Wait, wait, wait.  
21 Check. Can you hear her?

22 MS. DALY: Can you hear me?

23 MR. STOKES: We can hear you.

24 UNIDENTIFIED FEMALE: Hello?

25 MS. DALY: Yeah. They can hear me.

1           My name is Lupe Daly. Formerly I lived  
2   in Valdez, Alaska. That name should strike the  
3   terror into the hearts of any oil company. And  
4   you can see the disaster that was created. That  
5   was a tourism city. That was a fishing city.  
6   And the oil spill in -- in Valdez destroyed both  
7   those industries for many, many, many years. So  
8   I hope you'll consider that first, economic  
9   impact.

10           This meeting format is not user-friendly  
11   to anyone including people who are very familiar  
12   with computers. So we had two public officials  
13   that have tried to -- tried to weigh in, twice.  
14   City -- City officials, Shannon Solimine and Joan  
15   Holt. Neither have been able to access this.

16           4.5 billion gallons of oil, I think you  
17   need to recalculate. Things have changed quite a  
18   bit in the last month or two.

19           Healthcare is the number one industry in  
20   the Corpus Christi area. Tourism is the number  
21   two industry in the Corpus Christi area. Do not  
22   let the Port fool you into thinking they are the  
23   economic driver.

24           This -- this project would not eliminate  
25   reverse lightering. All it would do is give the

1 Port and their cronies a monopoly and cut off  
2 upstream producers who have invested millions in  
3 storage and -- and loading.

4 UNIDENTIFIED FEMALE: And private money.

5 MS. DALY: And their private money. Are  
6 you considering all the proposed projects in this  
7 Environmental Impact Statement? Because there  
8 are multiple, multiple projects proposed mostly  
9 by the Port. The de-salination, dredging, and  
10 other de-salination projects up at La Quinta  
11 Channel. This is just -- we really need true  
12 public meetings where we have more time, where we  
13 can ask questions, and where the real public --  
14 not just those with the right computer access --  
15 can participate.

16 In addition, this WebEx has tried to  
17 invade some of our people's contact list. That  
18 is very disturbing. I was assured that this was  
19 not going to happen, and someone just had to deny  
20 that access when they were trying to weigh into  
21 your meeting.

22 Please rectify these problems. Have  
23 public meetings in Port Aransas and consider all  
24 the proposed projects and true scientific  
25 information, not just desktop modeling.

1           Thank you.

2           MR. STOKES: Thank you for your  
3 comments. Your microphone has now been placed  
4 back on mute.

5           At this time, Jayson, that is all of the  
6 speakers who have signed up to provide comments  
7 today.

8           MR. HUDSON: Thank you, Connor. Since  
9 we've gone through all commenters who have signed  
10 up, at this time the formal commenting period has  
11 ended. Thank you.

12           All statements placed in the record will  
13 be given consideration. It should be noted that  
14 comments on the proposed project can be submitted  
15 at any time during the NEPA process, but only  
16 those submitted during this and the previous  
17 formal scoping periods will be included in the  
18 summary reports and will be guaranteed to be  
19 addressed in the final Environmental Impact  
20 Statement.

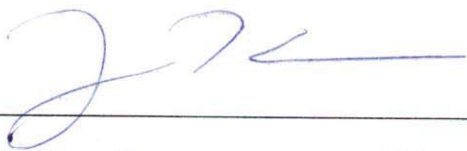
21           I thank you for your participation today  
22 and the interest you have shown in the proposed  
23 project. The public scoping meeting is adjourned  
24 at 5:01.

25           (END OF VIDEO FILE)

## 1 CERTIFICATE OF TRANSCRIPTIONIST

2 I certify that the foregoing is a true  
3 and accurate transcript of the digital recording  
4 provided to me in this matter.

5 I do further certify that I am neither a  
6 relative, nor employee, nor attorney of any of  
7 the parties to this action, and that I am not  
8 financially interested in the action.  
9

10  
11   
12 \_\_\_\_\_

13 Julie Thompson, CET-1036  
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## Scoping Meeting

*June 16, 2020*

TRANSCRIPT OF AUDIO FILE

PCCA SCOPING MEETING

JUNE 16, 2020



1           MR. HUDSON: Good afternoon. On behalf  
2 of the project team, we thank you for your time  
3 and interest in the Port of Corpus Christi  
4 Authority's Channel Deepening Project  
5 Environmental Impact Statement or EIS.

6           Hello. My name is Jayson Hudson. I am  
7 the U.S. Army Corps of Engineers Regulatory  
8 Project Manager for the Department of the Army  
9 permit application.

10           If you are rejoining us from our June 9,  
11 2020, public scoping meeting, I thank you for  
12 rejoining us and apologize for the technical  
13 difficulties during that meeting.

14           The overall goal of public scoping is to  
15 define the issues to be addressed in depth in the  
16 analysis that will be included in the EIS.  
17 That's why we're here today. We want to hear  
18 from you about the issues you would like for us  
19 to address in the EIS, and we appreciate everyone  
20 taking the time to join us today.

21           Before we proceed with our agenda, I  
22 would like to acknowledge the project team  
23 members in attendance today. From the U.S. Army  
24 Corps of Engineers, we are joined by Joe McMahan,  
25 Chief of Regulatory, and Bob Hindley, Deputy

1 Chief of Regulatory Division.

2 From the Port of Corpus Christi  
3 Authority, we are joined by Sean Strawbridge,  
4 Chief Executive Officer; Omar Garcia, Chief  
5 External Affairs Officer; Sarah Garza, Director  
6 of Environmental Planning and Compliance; Dan  
7 Koesema, Director of Channel Development; Nelda  
8 Olivio, Director of Government Affairs; Lisa  
9 Hinojosa, Communications Manager; Beatrice  
10 Riviera, Environmental Engineer, and several team  
11 members from the Port's consulting firm, AE COM  
12 (phonetic).

13 From the Corps EIS contractor team, we  
14 are joined by Lisa Vitalie (phonetic), Tony Risco  
15 (phonetic), and Tom Dixon from Freese and  
16 Nichols, as well as Leslie Hollaway and Connor  
17 Stokes from Hollaway Environmental and  
18 Communication Services, who will be assisting me  
19 today.

20 During the meeting today, Colonel  
21 Timothy Vail, Commander of the U.S. Army Corps of  
22 Engineers Galveston District, will provide  
23 opening remarks followed by presentations about  
24 the proposed project from the Corps and the Port  
25 of Corpus Christi Authority.

1           After the presentations, you will be  
2 provided with the opportunity to speak directly  
3 to the project team. If you did not sign up to  
4 speak when you registered for today's meeting,  
5 you may do so at any time during the meeting by  
6 using the raise hand feature located at the  
7 bottom of the WebEx participant list. Please see  
8 the screen for additional instructions about  
9 using the raise hand feature through WebEx.  
10 Please note that you must access the WebEx portal  
11 online to sign up to speak today.

12           Speakers will be called on to provide  
13 comments in the order in which they have signed  
14 up. We will announce upcoming speakers in groups  
15 of five, so you are aware of when you will be  
16 called to speak.

17           For individuals who have only called in  
18 through the phone line, you have the option to  
19 submit written comments through mail, online  
20 through the project website, and by texting or  
21 calling the project phone number, (855) 680-0455.  
22 I repeat, that number is (855) 680-0455.

23           We will now begin the presentation  
24 portion of the meeting with opening remarks from  
25 Colonel Timothy Vail, Commander of the U.S. Army

1 Corps of Engineers Galveston District.

2 COLONEL VAIL: Hello. I'm Colonel  
3 Timothy Vail, Commander of the Galveston District  
4 for the U.S. Army Corps of Engineers. Welcome to  
5 today's scoping meeting, the Department of the  
6 Army's Permit SWG 2019 00067, to deepen the  
7 Corpus Christi Ship Channel.

8 Particularly as we respond to COVID,  
9 it's important to emphasize the critical role the  
10 public plays in this permitting process and that  
11 Corps values your attendance here today as we  
12 consider this application.

13 The Port of Corpus Christi Authority is  
14 proposing to deepen a 14-mile stretch of the  
15 existing Corpus Christi Ship Channel in order to  
16 accommodate fully-laden, Very Large Crude  
17 Carriers that draft approximately 70 feet. The  
18 Army Corps of Engineers is neither a proponent  
19 nor an opponent of this project. We will  
20 ultimately decide if the proposed project is not  
21 contrary to the public's best interest.

22 In order to make that decision, we must  
23 gather as much information as possible within an  
24 appropriate permitting time period. This meeting  
25 will give individuals the opportunity to comment

1 on the scope of the environmental impact  
2 statement, or EIS, for the proposed project, and  
3 all comments become part of the official record.

4 After the Port of Corpus Christi  
5 Authority provides a brief description of the  
6 proposed project, we will provide an overview of  
7 the Department of the Army permit procedure and  
8 the National Environmental Policy Act process.  
9 Then we'll begin calling on the individuals who  
10 signed up in advance to submit their comments.

11 Today's meeting is not a vote for or  
12 against this project. It's an opportunity for  
13 you to comment on the types of information that  
14 should be evaluated to develop the scope of the  
15 environmental impact statement. In determining  
16 the scope of the environmental impact statement  
17 and evaluation of the permit application, we will  
18 be considering all relevant factors identified  
19 during scoping and in response to the public  
20 notice, including the needs and welfare of the  
21 people and the project's impact on fish and  
22 wildlife, historic properties, fisheries,  
23 economic activity, navigation, safety and  
24 recreational use.

25 As both a Texan and the Commander of the

1 Galveston District, I'd like to thank you for  
2 participating in this process by attending this  
3 meeting. The information and issues identified  
4 during this meeting, along with the information  
5 and issues provided in written comments, will all  
6 be considered in the determination and the scope  
7 of the EIS and subsequent evaluation of the  
8 permit application.

9 MR. HUDSON: Thank you, Colonel Vail.  
10 We will now proceed with the Port of Corpus  
11 Christi Authority Channel Deepening Project  
12 presentation, describing the proposed project.

13 (Recording played)

14 NARRATOR: Hello. Thank you for  
15 taking the time to learn more about the Port of  
16 Corpus Christi Authority's, or PCCA's, channel  
17 deepening project. This presentation will  
18 provide a brief overview of the project including  
19 the purpose, engineering design considerations,  
20 and completed and ongoing studies to support the  
21 project.

22 As the Energy Port of the Americas,  
23 the Port of Corpus Christi Authority is an  
24 independent political subdivision governed by  
25 seven commissioners. The Port develops property

1 and leases it to support energy trade in the  
2 global market.

3 To give national perspective to the  
4 size of the Port of Corpus Christi, if the Port  
5 were a state, it would rank seventh in industrial  
6 investment in terms of total capital expenses at  
7 \$54 billion.

8 The Port of Corpus Christi Authority  
9 is requesting permit authorization from the U.S.  
10 Army Corps of Engineers, known as USACE, to  
11 conduct dredge and fill activities to deepen a  
12 portion of the existing Corpus Christi Ship  
13 Channel as well as --

14 MR. STOKES: I apologize for the audio  
15 issues. We're going to go ahead and restart the  
16 video.

17 NARRATOR: Hello. Thank you for  
18 taking the time to learn more about the Port of  
19 Corpus Christi Authority's, or PCCA's, channel  
20 deepening project. This presentation will  
21 provide a brief overview of the project including  
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2 independent political subdivision governed by  
3 seven commissioners. The Port develops property  
4 and leases it to support energy trade in the  
5 global market.

6 To give national perspective to the  
7 size of the Port of Corpus Christi, if the Port  
8 were a state, it would rank seventh in industrial  
9 investment in terms of total capital expenses at  
10 \$54 billion.

11 The Port of Corpus Christi Authority  
12 is requesting permit authorization from the U.S.  
13 Army Corps of Engineers, known as USACE, to  
14 conduct dredge and fill activities to deepen a  
15 portion of the existing Corpus Christi Ship  
16 Channel as well as a 5.5 mile extension of the  
17 ship channel to the natural minus 80 foot  
18 bathometric contour in the Gulf of Mexico. The  
19 project would deepen the channel from the western  
20 portion of Harbor Island into the Gulf of Mexico,  
21 an overall distance of approximately 13.8 miles.  
22 The proposed project channel limits are shown  
23 here in yellow.

24 The Port of Corpus Christi's  
25 economic impact for the state of Texas is \$19



1 billion, providing over 98,000 jobs in the region  
2 and generating \$446 million in local and state  
3 taxes. This channel deepening project is  
4 expected to have a \$257 million economic impact.

5           The Port of Corpus Christi has  
6 implemented an environmental policy which was  
7 adopted by the Port Commission in 2016. This  
8 policy serves to ensure growth in a responsible  
9 and sustainable manner. Every project or  
10 operation is evaluated against this policy to  
11 ensure it meets all five precepts. This project  
12 is no exception, and you will note throughout  
13 this presentation how different aspects of the  
14 project have been developed supporting these  
15 precepts.

16           The Port of Corpus Christi's  
17 proximity to Texas shale plays combined with the  
18 current and forecasted port infrastructure, make  
19 the Port an attractive location for efficiently  
20 exporting crude oil by Very Large Crude Carriers,  
21 also known as VLCCs.

22           Exports have quintupled since 2017  
23 and are projected to triple again by 2030. The  
24 project is needed to accommodate the transit of  
25 fully-laden VLCCs that have a draft of

1 approximately 70 feet. The deepening activities  
2 would be completed within the footprint of the  
3 authorized Corpus Christi Ship Channel width.  
4 The proposed project does not include widening of  
5 the channel, however, some minor incidental  
6 widening of the channel slopes is expected to  
7 meet side slope requirements and to maintain the  
8 stability of the channel. This will also  
9 minimize environmental impacts.

10 Dredged material removed from the  
11 channel will be used to restore shorelines,  
12 create aquatic habitats, and protect eroding  
13 shorelines and seagrass habitats. The project  
14 will also reduce the number of lightering vessels  
15 traveling in and out of the Port, effectively  
16 lowering emissions and reducing operational risks  
17 of crude transfers that are currently occurring  
18 outside of the Port.

19 This is a depiction of the process  
20 utilized by large tankers to load crude oil when  
21 calling at the Port of Corpus Christi. The  
22 existing channel depth requires crude carriers to  
23 depart partially loaded from the Port, or that  
24 VLCCs remain offshore while smaller tankers  
25 transfer their cargo to the larger VLCCs from

1 inshore, a process known as reverse lightering.

2           The inefficiency of this process is  
3 compounded when some of these smaller vessels,  
4 Suezmax vessels for instance, being used in the  
5 lightering process, are also not fully loaded  
6 while traversing the channel.

7           As exports increase, the number of  
8 lightering vessels and carriers will also  
9 increase, adding to shipping delays and  
10 congestion, which will affect all industries.  
11 These delays and congestion will increase the  
12 cost of transportation, which in turn will  
13 increase the cost of crude oil, with the ultimate  
14 consequence of making U.S. crude oil less  
15 competitive in the global market.

16           Deepening the channel will allow for  
17 the VLCCs to travel in and out of the Port fully  
18 loaded, ultimately allowing for more efficient  
19 movement of U.S.-produced crude oil, and meeting  
20 current and forecasted demand in support of  
21 national energy security and national trade  
22 objectives. The reduction in the number of  
23 vessel trips will lower costs, man hours,  
24 operational risks, and air emissions.

25           The dimensions of the design vessel

1 play an important role in determining the depth  
2 of the proposed channel. The analysis included  
3 the three largest classes of liquid-bulk crude  
4 oil tankers from the current worldwide fleet, as  
5 well as vessels on order to be constructed. The  
6 selected vessel design, known as VLCCs, represent  
7 32 percent of the current number of crude  
8 vessels, and 54 percent by dead weight tonnage.  
9 VLCCs also represent 45 percent of the current  
10 order book for crude carriers.

11 The typical VLCC vessel size has  
12 been extremely stable in the past 25 years.  
13 Therefore, significant change in size in the  
14 foreseeable future is not expected. You can see  
15 here the average dimensions of the 99th  
16 percentile vessel, with the draft based on West  
17 Texas intermediate crude oil density values.  
18 These values were selected for the project study  
19 to determine the minimum channel dimensions for  
20 the proposed channel deepening.

21 Here is a concise summary of the  
22 current authorized channel depths and widths  
23 compared to the proposed project channel depths  
24 and widths. As previously discussed, the  
25 deepened channel design was based on the 99th

1 percentile of VLCC vessel characteristics. Those  
2 characteristics, in conjunction with design  
3 factors such as currents, wind, wave effects,  
4 ship speed, navigational traffic patterns, and  
5 ship maneuverability, were used to determine the  
6 optimal channel depths and widths. The study on  
7 the optimal depth and width applied the design  
8 characteristics of the World Association for  
9 Waterborne Transport Infrastructure, known as  
10 PIANC, and Army Corps of Engineers guidelines for  
11 channels, to calculate the channel depths and  
12 widths as shown in the table.

13 PIANC is a global organization that  
14 has been providing guidance and technical advice  
15 for sustainable waterborne transportation  
16 infrastructure to ports, marinas, and waterways  
17 since 1885.

18 Both one-way and two-way vessel  
19 traffic designs were considered. One-way traffic  
20 was ultimately decided upon to reduce the amount  
21 of dredging needed for the proposed project and  
22 reduce future channel maintenance dredging  
23 volumes.

24 Portions of the channel have been  
25 divided into segments, depending on the referred

1 design channel depths, widths, and slopes.

2 Segments 1 and 2 will be excavated to minus 77  
3 feet of the mean lower low water level, or MLLW,  
4 while segments 3 through 6 will be deepened from  
5 the currently authorized depth of minus 54 feet  
6 MLLW to minus 75 feet MLLW.

7 Segment 1, referred to as the outer  
8 channel, is the new entrance channel extension to  
9 the existing minus-80-foot bathometric contour in  
10 the Gulf of Mexico.

11 Segment 2 continues inbound,  
12 deepening the existing authorized minus-56-foot  
13 channel to the same proposed dimensions as the  
14 outer channel.

15 Segments 3 through 6 are the inbound  
16 portions of work encompassing the Harbor Island  
17 transition flair, Harbor Island junction, and  
18 inner Corpus Christi channel.

19 A breakdown of anticipated new work  
20 dredging volumes by segment is displayed here.

21 The design depths do not include the additional  
22 two feet of advanced maintenance dredging and two  
23 feet of overdredge allowance. However, the total  
24 dredge volume by segment does include the  
25 advanced maintenance and overdredge allowance

1 volumes.

2 As shown in the last row, the total  
3 estimated dredge volume from the channel  
4 deepening project is just under 42 million cubic  
5 yards.

6 The dredged material management  
7 plan, or DMMP, should consider the most cost-  
8 effective and implementable alternatives that  
9 weigh economics, engineering, and the  
10 environment. Agency and public input was used to  
11 develop the DMMP, which included using existing  
12 placement areas, beneficial use sites, and ocean-  
13 dredged material disposal site known as ODMDS.  
14 Wherever feasible, environmental impacts to  
15 existing oyster habitats, seagrass, wetlands, and  
16 other ecosystems was avoided.

17 The DMMP for the project proposes a  
18 series of existing upland placement areas and new  
19 and existing beneficial use sites to optimize the  
20 use of the new work dredged materials as much as  
21 possible. Specifically the material will be used  
22 to expand upland placement areas and beneficial  
23 use sites as well as address shoreline repair  
24 needs within Redfish Bay, Corpus Christi Bay, and  
25 the Gulf of Mexico in the vicinity of the

1 channel.

2 13.8 million cubic yards of dredged  
3 material are planned to be placed in the new work  
4 ODMDS located approximately 3.4 miles offshore.  
5 The material is mostly comprised of non-  
6 structural clays which are not beneficial for  
7 construction of berms or dikes. Preliminary  
8 modeling using USACE's MP Fate modeling confirms  
9 that there is enough capacity within the ODMDS  
10 for disposal of the entire 13.8 million cubic  
11 yards without exceeding the limiting mounding  
12 height of 11 feet within the ODMDS.

13 The planning effort focused on  
14 existing placement areas and beneficial use sites  
15 as new upland placement opportunities are  
16 limited. As mentioned, the initial beneficial  
17 use concepts were generated by considering  
18 existing agency restoration plans such as the  
19 Texas General Land Office's Texas Coastal  
20 Resiliency Master Plan, storm damage caused by  
21 Hurricane Harvey, and beneficial use features  
22 implemented elsewhere on the Gulf Coast.

23 Input was also gathered from  
24 federal, state, and local resource agencies, and  
25 used to help shape the direction of the DMMP.



1 Thirteen initiatives were ultimately decided on,  
2 eleven of which were beneficial-use features  
3 aimed to achieve a variety of shoreline  
4 restoration, land loss restorations, marsh cell  
5 expansion, and gulf-side shoreline initiatives.

6 The figure shown here summarizes the  
7 placement areas included in the DMMP. Green  
8 areas create and restore estuarine, aquatic, and  
9 marsh habitats, and provide beach and dune  
10 renourishment on the gulf side. Yellow areas  
11 expand and repair existing placement areas,  
12 restore eroded shorelines or provide protection  
13 to seagrass areas.

14 The feeder berms, shown in blue,  
15 offshore of San Jose Island and Mustang Island,  
16 will nourish beach shorelines through the natural  
17 sediment transport process.

18 Preliminary modeling was performed  
19 to determine impacts on hydrodynamics, salinity,  
20 shoaling and vessel wake, and ODMDS capacity as a  
21 result of the proposed channel deepening. A  
22 desktop study of cultural resources was conducted  
23 along with wetland delineations and seagrass  
24 surveys for placement options within the bay.  
25 Tidal increases were observed to have a minimal

1 impact on the tidal range for the area, logging  
2 in at less than an inch in Redfish Bay and less  
3 than a half inch in Aransas Copano, Corpus  
4 Christi, and Nueces bays.

5 Velocity changes were considered  
6 negligible, as it represents 12 percent on  
7 average speeds and 14 percent on peak speeds.  
8 Shoaling analysis concluded an increase of  
9 399,000 cubic yards of maintenance material  
10 entering the channel system per year. This will  
11 result in a maintenance dredging cycle frequency  
12 increase from once every 2.5 years to once every  
13 1.9 years.

14 Using the Delft3D modeling system,  
15 the maximum salinity impact would still register  
16 within the optimum salinity ranges for some of  
17 the most prolific aquatic flora and fauna,  
18 resulting in no negative impacts to these  
19 species.

20 A ship simulation study was  
21 performed by the Aransas-Corpus Christi pilots to  
22 evaluate the feasibility of the channel  
23 expansion, identify optimum channel dimensions  
24 for safe and efficient operations, and to  
25 determine any operation constraints that might be

1 required for safe operation. The simulation  
2 confirmed the validity of the proposed design for  
3 the approach channel and the inner channel.

4 Vessel wake studies showed reduced  
5 sediment mobilization along adjoined shorelines  
6 due to the reduced number of vessel transits per  
7 year, from 792 to 528 as a result of the channel  
8 deepening.

9 Wetland delineation surveys and  
10 field work were performed to determine the  
11 acreage of existing wetland ecosystems and  
12 natural seagrass habitats within the proposed  
13 placement sites. Adverse impacts are expected on  
14 approximately 244 acres of delineated wetlands.

15 Wetlands that are distributed as a  
16 result of placement operations will be replaced  
17 in kind. The proposed restoration of the DMMP  
18 provides for approximately 1100 acres of restored  
19 aquatic habitat which greatly exceeds the actual  
20 adverse impacts of 244 acres. A preliminary  
21 report has been submitted to the U.S. Army Corps  
22 of Engineers, and the Port of Corpus Christi  
23 Authority is looking forward to consulting with  
24 the state historic preservation officer on  
25 additional studies.

1                   The Port will continue to study this  
2 proposed project to ensure the most informed  
3 design. A passing vessel analysis is in process  
4 and further ship simulations are anticipated for  
5 mid-June to potentially reduce the channel width  
6 in the inner channel and to study effects of  
7 further 3-D current modeling when applied to the  
8 simulation.

9                   The Port of Corpus Christi Authority  
10 is actively working with the U.S. Environmental  
11 Protection Agency and the U.S. Army Corps of  
12 Engineers to refine the sampling and analysis  
13 plan for material testing related to ODMDS  
14 approval. Design of the most effective placement  
15 template for beach re-nourishment is ongoing with  
16 continued analysis of channel material for sand  
17 placement to best mimic that of native beach  
18 materials.

19                   Feeder berms offshore of San Jose  
20 Island and Mustang Island are still being  
21 evaluated for sizing and location to maximize the  
22 amount of material contributed to beaches as a  
23 result of the natural sediment transport process.

24                   Thank you for taking the time to  
25 learn more about the Port of Corpus Christi

1 Authority's channel deepening project. This  
2 concludes the presentation.

3 (Recording stopped)

4 MR. HUDSON: As a reminder, if you have  
5 not registered to speak during the meeting today  
6 and would like to, you may do so at any time by  
7 using the raise hand feature located at the  
8 bottom of the WebEx participant list. Please  
9 note that you must access the WebEx portal online  
10 if you signed up to speak tonight.

11 And now, we will provide information  
12 about the U.S. Army Corps of Engineers EIS  
13 process, including the purpose and need,  
14 potential project alternatives, as well as an  
15 overview of the known environmental concerns.

16 (Recording played)

17 MR. HUDSON: Hello. My name is  
18 Jayson Hudson, and I am the Corps Regulatory  
19 Project Manager for the Port of Corpus Christi  
20 Authority's channel deepening EIS. I will  
21 present to you an overview of the Corps EIS  
22 process and the results of our early scoping for  
23 the channel deepening EIS.

24 The objectives of my presentation  
25 are to provide you an overview of the relevant

1 laws, introduce the Corps project team, and  
2 describe some of the content of the EIS as well  
3 as some of the alternatives and environmental  
4 concerns that have been identified.

5 The Port Authority's permit  
6 application is subject to Sections 10 and 14 of  
7 the Rivers and Harbors Act, Section 404 of the  
8 Clean Water Act, Section 103 of the Marine  
9 Protection Research and Sanctuaries Act, Title 41  
10 of the Fixing America's Surface Transportation,  
11 or FAST, Act, and Executive Order 13807.

12 The project must also be coordinated  
13 with state and federal agencies pursuant to  
14 Section 401 of the Clean Water Act, the Coastal  
15 Zone Management Act, the Endangered Species Act,  
16 the Magnuson-Stevens Fishery Conservation and  
17 Management Act, and the National Historic  
18 Preservation Act.

19 Title 41 of FAST, often referred to  
20 as FAST41, standardizes interagency consultation  
21 and coordination practices and requires that a  
22 schedule for these practices be established and  
23 published on the federal Permitting Improvement  
24 Steering Council permit performance website.

25 Executive Order 13807 requires

1 federal agencies to process environmental reviews  
2 and authorization decisions for major  
3 infrastructure projects as one federal decision.  
4 That means that all federal agencies with review  
5 responsibilities for major infrastructure  
6 projects must develop a single EIS and sign a  
7 single record of decision, or ROD.

8 The EIS team is comprised of the  
9 Corps as the lead federal agency, with the  
10 Environmental Protection Agency, the National  
11 Marine Fisheries Service, the U.S. Coast Guard,  
12 and the U.S. Fish and Wildlife Service as  
13 cooperating agencies in the development of the  
14 EIS.

15 Several state agencies, including  
16 the Texas Commission on Environmental Quality,  
17 Texas Parks and Wildlife Department, Texas  
18 Historical Commission, and Texas General Land  
19 Office are also participating or commenting on  
20 the development of the EIS.

21 The Environmental Impact Statement  
22 contractor is Freese and Nichols, Incorporated,  
23 and the applicant is the Port of Corpus Christi  
24 Authority.

25 Due to limited resources, the Corps

1 regulatory program utilizes a third-party  
2 contractor process to develop an EIS. In this  
3 process, the lead federal agency, applicant, and  
4 environmental consultant enter into an agreement  
5 where the applicant contracts and pays for the  
6 environmental consultant who prepares the EIS  
7 under the direction of the Corps.

8 As you can see in the diagram, the  
9 Corps directs the environmental consultant on the  
10 development of the EIS independent of the  
11 applicant. It's important to emphasize that  
12 ultimately, the Corps is responsible for the  
13 development and content of the EIS.

14 Here we have a timeline of major  
15 milestones for this project. The Port Authority  
16 submitted their application on January 7th of  
17 2019, and the Corps concluded an EIS would be  
18 required in March. Subsequent to that, the  
19 project was designated a FAST41 project in June  
20 of 2019 and initial public notice was published  
21 in August.

22 After coordinating with the  
23 cooperating agencies, the Corps developed a  
24 purpose and need for the project in March of  
25 2020, which we will discuss later in the



1 presentation. The notice of intent to develop  
2 the EIS was published in April of 2020.

3 The draft EIS is scheduled to be  
4 provided to the public in March of 2021, with a  
5 public hearing and comment period in March and  
6 April of the same year. The final EIS is  
7 scheduled to be provided to the public in January  
8 of 2022, followed by a permit decision which will  
9 be documented in a record of decision in April of  
10 2022.

11 This EIS flowchart shows the  
12 sequential process for developing and publishing  
13 an EIS. We are currently in the scoping stage of  
14 the EIS, where we are soliciting your input. The  
15 information and issues identified during scoping,  
16 along with the information and issues provided in  
17 letters sent in response to the public notice,  
18 and all other pertinent data, will be considered  
19 in the determination of the scope of the EIS and  
20 the subsequent permit decision which is  
21 documented in a record of decision.

22 The scoping process is an integral  
23 step in the development of an EIS, with the  
24 overall goal of defining the scope of issues to  
25 be addressed in-depth in the analysis. The

1     scoping process helps the Corps identify people  
2     and organizations that may be affected or have  
3     interest in the project, as well as identifying  
4     the roles and responsibilities of state and  
5     federal agencies.

6             The scoping process also helps  
7     identify significant issues that may have not  
8     already been identified, as well as eliminate  
9     issues that will not be significant or have  
10    already been addressed. The scoping process can  
11    also aid the identification and gaps in data and  
12    information as well as identify related studies  
13    that may be applicable.

14            Listed here are the typical sections  
15    of an EIS. The first chapter will provide an  
16    introduction to the project and the Corps' stated  
17    purpose and need for the project.

18            The second chapter describes the  
19    alternatives to the applicant's proposed project  
20    and the subsequent chapters assess the impacts of  
21    all of the alternatives evaluated. The  
22    assessments will cover a wide range of  
23    environmental impacts including the cumulative  
24    impacts.

25            In addition, studies that support

1 the analysis will be provided in the appendices  
2 of the EIS. This may include, but not limited  
3 to, ocean dredged material disposal site  
4 analysis, Endangered Species Act assessments,  
5 cultural resource studies, hydrology and  
6 hydraulic studies, as well as compensatory  
7 mitigation plans.

8 The Corps is required by regulation  
9 to restate the purpose for the project from the  
10 public interest perspective. The Corps, after  
11 coordinating with cooperating agencies, developed  
12 two purpose statements: a basic purpose and an  
13 overall purpose.

14 The basic purpose is developed to  
15 determine if a project requires siting in or  
16 proximity to a special aquatic site such as  
17 wetlands and seagrasses. Based on the Corps'  
18 basic project purpose, shown here, the project  
19 was determined not to require siting in or  
20 proximity to a special aquatic site such as  
21 wetlands and seagrasses. Therefore, it is  
22 presumed that an alternative that does not affect  
23 special aquatic sites is available.

24 The overall purpose is developed to  
25 identify and screen alternatives to the

1 applicant's proposed project. The Corps has  
2 determined that the overall project purpose from  
3 the public interest perspective, is to safely,  
4 efficiently, and economically export current and  
5 forecasted crude oil inventories via Very Large  
6 Crude Carriers, a common vessel in the world  
7 fleet.

8                   Crude oil is delivered via pipeline  
9 from the Eagle Ford and Permian Basins to  
10 multiple locations at the Port of Corpus Christi.  
11 Crude oil inventories exported at the Port of  
12 Corpus Christi have increased from 280,000  
13 barrels per day in 2017 to 1,650,000 barrels in  
14 January of 2020, with forecasts increasing to  
15 4,500,000 barrels per day by 2030. Current  
16 facilities require vessel lightering to fully  
17 load a VLCC, which increases cost and affects  
18 safety.

19                   Alternatives that were identified  
20 during the initial public notice, which is an  
21 early scoping step, include the no action  
22 alternative which in this case would be permit  
23 denial; the applicant's preferred alternative; as  
24 well as alternatives to the deepening of the  
25 channel such as a deep-water port facility. It

1 is not uncommon in complex projects such as this  
2 one to have alternatives developed for  
3 subcomponents of the project: in this case,  
4 alternatives to the proposed dredge material  
5 placement options, such as offshore disposal,  
6 beneficial use, and upland placement.

7 In addition to the alternatives that  
8 were identified during the public notice, several  
9 environmental concerns were raised. Many of the  
10 comments received focused on impacts to wetlands  
11 and seagrasses as well as threatening endangered  
12 species. Additional comments were received on  
13 navigation safety and recreational use of the  
14 area.

15 I thank you for your interest in the  
16 development of the EIS for the Port of Corpus  
17 Christi Authority's channel deepening project. I  
18 look forward to receiving your comments and  
19 suggestions. We will be accepting scoping  
20 comments through July 3, 2020. If you would like  
21 to submit written comments, you may do so at the  
22 mailing address or electronic email address shown  
23 on your screen.

24 (Recording stopped)

25 MR. HUDSON: Thank you. That concludes

1 the presentation portion of today's scoping  
2 meeting. We will now begin the commenting  
3 period. As a reminder, if you have not  
4 registered to speak during the meeting today and  
5 would like to, you may do so at any time by using  
6 the raise hand feature located at the bottom of  
7 the WebEx participant list.

8 Please note that you must have access to  
9 the WebEx portal online to sign up and provide a  
10 comment.

11 Due to the nature of today's virtual  
12 meeting, the formal public commenting portion of  
13 today's meeting will be conducted in the  
14 following way. First, federal, state, and local  
15 elected officials who wish to speak will be  
16 called on to do so. Then anyone else who has  
17 indicated a desire to speak will be given the  
18 same opportunity. I will call on each member of  
19 the public who has signed up to speak by the name  
20 used during the meeting registration.

21 Each speaker will be given three minutes  
22 to make their comments. When it is your turn to  
23 speak, please mute your computer audio to avoid  
24 feedback. A countdown timer will be displayed on  
25 the meeting broadcast screen for each speaker to

1 indicate the remaining time. As your time ends,  
2 please be courteous to the other members of the  
3 public who wish to provide comments and quickly  
4 wrap up your comments, to ensure that everyone  
5 who would like to speak has the opportunity.

6 If you do not need the entire time  
7 allotted, help us to include everyone by only  
8 using the time you need. If you complete your  
9 comments in less than three minutes, we will  
10 restart the clock for the next speaker.

11 Remaining time cannot be reserved or transferred  
12 to another speaker.

13 Please keep in mind that we reserve the  
14 right to mute your microphone if this instruction  
15 is not followed.

16 We ask that you support us in conducting  
17 a respectful, orderly, and courteous meeting. We  
18 want to be sure we get all of your comments  
19 recorded, and we need your cooperation to do so.  
20 Here are a few ground rules:

21 Since the meeting is being held  
22 virtually, we will keep all participant  
23 microphones muted to avoid any background noise  
24 that may make the presentation difficult to hear.  
25 When it is your turn to speak, Connor will notify

1 you when your microphone has been unmuted.

2 Please make sure that you have also unmuted your  
3 phone too.

4 When it's your opportunity to speak,  
5 please state and spell your first and last name.

6 We will not respond today to comments  
7 submitted. However, all comments made today will  
8 be documented and reflected in the development of  
9 the EIS.

10 Just a reminder, you may not defer your  
11 time to others. The public scoping meeting will  
12 adjourn no later than 7:00 p.m. today. If you  
13 have additional comments that you would like to  
14 submit beyond what you are able to address during  
15 your comment period, please submit them in  
16 writing or by calling (855) 680-0455.

17 Speakers will be called on to provide  
18 comments in the order in which they have signed  
19 up. We will announce upcoming speakers in groups  
20 of five, so you are aware of when you will be  
21 called to speak.

22 If you do not wish to provide a comment  
23 today but would like to submit comments to the  
24 project team, there are other ways to do so. You  
25 have the option to submit comments through mail,



1 online through the project website, and by  
2 texting or calling the project phone number,  
3 (855) 680-0455. I repeat, that number is (855)  
4 680-0455.

5 All comments received during the formal  
6 commenting period through July 3rd will carry the  
7 same weight as the comments submitted today. You  
8 do not have to submit a comment today, and you  
9 will be heard just as clearly as those who speak  
10 today. Additional information about submitting  
11 comments is provided on the project website.

12 We will begin with comments from public  
13 officials.

14 Connor, do we have any public officials  
15 that wish to provide comment today?

16 MR. STOKES: Thank you, Jayson. We do  
17 not have any public officials that have signed up  
18 to comment today.

19 MR. HUDSON: Okay, Connor. Will you  
20 call the first five public speakers, please.

21 MR. STOKES: Our first five speakers are  
22 Kim Belato, Lisa Turcotte, Amanda Marbach,  
23 Kenneth Teague, and Danny Tate.

24 Our first speaker is Kim Belato.

25 Kim, your microphone is now unmuted, and

1 you can begin providing comments at this time.

2 MS. BELATO: Thank you. My name is Kim  
3 Belato. I'm (indiscernible) coalition, and I'm a  
4 supporter of this project for many reasons.  
5 First --

6 MR. STOKES: My apologies, Kim. I'm  
7 sorry for interrupting. Your microphone is  
8 coming -- or your audio is coming through very  
9 faintly. If you could try to get closer to the  
10 microphone or speak a little bit louder.

11 MS. BELATO: Is that better?

12 MR. STOKES: That is better. Yes,  
13 ma'am.

14 MS. BELATO: My name is Kim Belato. I  
15 am with Texas Energy Advocates Coalition, and we  
16 are a supporter of this project for many reasons.  
17 Before I go into why I'm supporting the Port  
18 initiative, I want to also state, though, that I  
19 do have a home in the area. I live on Copano  
20 Bay, right on the water, so the environment and  
21 keeping our beaches pristine and watching out for  
22 wildlife and taking care of our area is very  
23 important to me as well.

24 However, for the greater good of the  
25 region and to look and to see what a great

1 stellar reputation that the Port has had, I feel  
2 comfortable in saying that the Port's efforts to  
3 prioritize and protect the waterways has always  
4 shown that they have that priority, not to  
5 mention the fact that they contribute to local,  
6 regional, and national income. That's just a  
7 fact.

8 Through the developments though, the  
9 Port is proposing this channel to deepen it to 80  
10 feet, given them the capacity to take the fully  
11 latent, Very Large Crude Carriers, the VLCC, to  
12 Harbor Island.

13 So let's talk about that real quick.  
14 Gulf of Mexico and this project is vital. It's a  
15 matter of -- first of all, the Port is the number  
16 one exporter of (indiscernible). It's a net  
17 exporter, and it is on this path to continue to  
18 support, not just the economic growth for our  
19 region but for the state of Texas.

20 It also, though, in my opinion, a matter  
21 of national security. We really need to be the  
22 provider of our energy needs for us and for the  
23 world. This avoids the opportunity for us to  
24 have to get into unnecessary wars all over the  
25 planet with having to fight wars for oil. We all

1 know that this has been happening.

2           There's also several pipeline projects  
3 that have also been in the works from Eagle Ford  
4 to Permian Basin in that are connecting into the  
5 Port or Harbor Island. Therefore, while it's 54-  
6 foot channel depth, this deeper port is  
7 absolutely necessary, and it's going to also  
8 improve the safety and efficiencies of waterborne  
9 (indiscernible) as well.

10           So you know, there's that, and then  
11 there's -- let's go back to the national security  
12 issue quickly. We want to take on the national  
13 debt, and we should, and this -- having them do  
14 this would definitely help secure that, along  
15 with taking -- sorry -- along with making sure  
16 that we're looking at importing our oil from us  
17 and not from other countries like Russia or Saudi  
18 Arabia.

19           And lastly, you know, like I said,  
20 living in Copano Bay and having a town that was  
21 wiped out by Hurricane Harvey, not having any  
22 stores or lights in our little town because they  
23 were wiped out by Hurricane Harvey. We have  
24 still not come back from Hurricane Harvey, and  
25 here comes COVID-19. And all I'm saying is that

1 we need to look at different (indiscernible).

2 Stellar record, and it should be  
3 considered. It knows how to work with government  
4 agencies, and has a long track record  
5 (indiscernible). Thank you.

6 MR. STOKES: Thank you very much for  
7 your comments.

8 Our next speaker, Lisa Turcotte, is no  
9 longer in attendance, so we'll move on to the  
10 next speaker, Amanda Marbach.

11 Amanda, your microphone is now unmuted,  
12 and you can begin providing comments at this  
13 time.

14 MS. MARBACH: Hello, everyone. Can you  
15 hear me?

16 MR. STOKES: Yes, ma'am. We can hear  
17 you.

18 MS. MARBACH: Okay. My name is Amanda  
19 Marbach, A-m-a-n-d-a, M-a-r-b-a-c-h. And I am  
20 also a member of the TEAC, the Texas Energy  
21 Advocates Coalition. I'm a supporter of the  
22 project. I became fascinated with the growth of  
23 the Port and how exciting it is for Texas, for  
24 our nation. I was really intrigued by it that I  
25 decided to pick up and move my family here so we

1 could be a part of it.

2 With all the expansion we're doing with  
3 this, it's bringing opportunities for myself,  
4 other workers, my children, bringing more money  
5 into the schools, just trying to provide a better  
6 future for our nature.

7 And as like Kim said with national  
8 security, I think that's real important that we  
9 become a country that can support ourselves and  
10 also not rely on world trade.

11 But I'm all for it. I'm going to keep  
12 it short and sweet. But thank you for holding  
13 this, and I'm glad to be a part of it and learn  
14 what all is going on.

15 MR. STOKES: Thank you for your  
16 comments. Your microphone is now back on mute.

17 Our next speaker is Kenneth Teague.

18 Kenneth, your microphone is now unmuted,  
19 and you can begin providing comments at this  
20 time.

21 As a reminder, please make sure your own  
22 device is placed off mute as well.

23 Kenneth, you can begin providing  
24 comments at this time. Again, Kenneth, we can  
25 hear some audio coming through your microphone.

1 You can begin providing comments at this time.

2 Okay. We'll move on to our next  
3 speaker, Danny Tate.

4 Danny, your microphone is now unmuted,  
5 and you can begin providing comments at this  
6 time.

7 MR. TEAGUE: Okay. Can you hear me?

8 MR. STOKES: Yes.

9 MR. TEAGUE: Okay. Look, I'm also kind  
10 of speaking on regards to TEAC. And I've spent a  
11 lot of time in this community, all the way back  
12 to the days of my employment with the Refinery  
13 Terminal Fire Company where I spent a lot of time  
14 on some fires on some of the dock facilities  
15 there and have been a part of this community for  
16 a long time. I'm also a vice president of  
17 Emergency Service District Number 1 for  
18 (Indiscernible) County. And so the last 15 years  
19 I've actually spent in the oil field. I see the  
20 values of what this project can do, you know,  
21 across the board.

22 The one thing that jumps up to my ear is  
23 the whole regulatory compliant side of what we  
24 want to accomplish here, which also includes, you  
25 know, risk mitigation to make it comfortable for

1 the community and all the stakeholders on really  
2 document and keeping real-time progress of the  
3 project moving forward, where we have some  
4 expertise that could help with that process.

5 I think it's a great thing. I've kind  
6 of (indiscernible) exposed and drawn into this,  
7 and so we're definitely going to be a support and  
8 help any way we can. Thank you so much.

9 MR. STOKES: Thank you for your  
10 comments.

11 Our next five speakers are Errol  
12 Summerlin (phonetic), Joe Kruger, Pat  
13 Coeckelenbergh, Kathy Fulton, and Don Cummins.

14 We'll begin with Errol Summerlin --  
15 excuse me. Your microphone is now unmuted, and  
16 you can begin providing comments at this time.

17 MR. SUMMERLIN: Yes. Thank you. My  
18 name is Errol Summerlin. I live at 1017 Downey  
19 Drive in Portland, Texas. I plan on submitting  
20 some written comments, but wanted to submit these  
21 oral comments here today; and I thank you for the  
22 opportunity.

23 I tried last time, by the way, and I --  
24 for some reason, you all couldn't unmute me  
25 apparently, but that's water under the bridge.



1           The Port of Corpus Christi is the  
2     applicant here, and I think it's important to  
3     understand their overall objective and obtain the  
4     permit and the combined impacts of several  
5     initiatives that are interdependent on each  
6     other. Without one, it makes no sense to pursue  
7     the others.

8           All of these initiatives culminate at  
9     Harbor Island, and the combined impacts and  
10    cumulative effects of all of them must be  
11    considered in the EIS. Those initiatives include  
12    the construction of a large crude oil terminal on  
13    Harbor Island that will require unprecedented  
14    destruction of Harbor Island with additional  
15    dredging and material placement areas, materials  
16    that remains contaminated from previous  
17    operations on the island, and material that the  
18    railroad commission said could not be relocated  
19    from one section of the island to another.

20           It requires the berthing of VLCCs and a  
21    narrow channel where vessel traffic is at an all-  
22    time high. The emissions from the VLCCs will be  
23    1000 feet from a major recreational hub for  
24    residents and visitors to Port Aransas.

25           It then requires a supply of crude to

1 this new terminal, and that is being conducted  
2 under a separate project being undertaken by  
3 access midstream that will require additional  
4 construction of pipelines through Redfish Bay  
5 State Scientific Area to reach the terminal on  
6 Harbor Island.

7 The inclusion of the seawater  
8 desalination facility on Harbor Island should  
9 also be included in the EIS, as it will include  
10 the discharge of brine concentrate into the same  
11 channel in which all the other activity is being  
12 conducted.

13 The Port's ultimate objective is to  
14 achieve all of these initiatives and their  
15 corresponding cumulative impacts must be included  
16 in the EIS.

17 Finally, I also believe there is another  
18 project that must be included in the analysis,  
19 and that's the Port's application for a core  
20 permit to widen and deepen the La Quinta Channel.  
21 This project will also have serious impacts on  
22 the aquatic life and nurseries, and the placement  
23 of the dredge material must be considered in  
24 conjunction with the dredging activity in the  
25 subject EIS. It appears that at least one of the

1 placement areas for the dredge material from La  
2 Quinta is also designated as a placement area in  
3 this EIS.

4 The Port of Corpus Christi believes  
5 there are no boundaries to what it can do. The  
6 Army Corps needs to reel them in and send them a  
7 clear message that their power as a navigation  
8 district has limitations when they're combined  
9 activities impact (indiscernible) --

10 MR. STOKES: Thank you very much for  
11 your comments. I apologize for cutting you off,  
12 but we'll need to move on to our next speaker.

13 Our next speaker is Jo Kruger.

14 Ms. Kruger, I do not see you on our  
15 attendee list. However, I know you provided  
16 commented through Kathy Fulton's phone on our  
17 previous meeting, so I will now unmute  
18 Ms. Fulton's microphone for your comments.

19 Kathy, if Ms. Kruger is not with you,  
20 please let us know.

21 UNIDENTIFIED FEMALE: There you go, Jo.

22 MS. KRUGER: Okay. You can hear me?

23 MR. STOKES: Yes.

24 MS. KRUGER: Okay. First of all, I'd  
25 like to say that these meetings, there a lot of

1 people that can't get on today for some reason or  
2 other, and not everybody has great Wi-Fi or  
3 computers or all that, so I think these meetings  
4 are really against all -- violating a lot of our  
5 rights.

6           Secondly, we are not against oil and  
7 gas. We're not totally against oil and gas, but  
8 Port Aransas is 18 miles from the Port of Corpus  
9 Christi. And the Port of Corpus Christi bought  
10 that property in Port Aransas. We didn't go up  
11 to the Port of Corpus Christi. We're not against  
12 everything that Port of Corpus Christi is doing.  
13 Harbor Island is just a terrible place for  
14 desalination, VLCCs terminal. They'll be on  
15 either side of our ferry system, which has been  
16 there forever, and it's just a terrible place.  
17 We have hurricanes here, and after Hurricane  
18 Harvey, you can completely see what happened  
19 there.

20           So you know, we've grown into -- nothing  
21 has been on Harbor Island for years, 25 years. I  
22 mean, it's -- and it's due to the contamination  
23 of the island. It's not just against oil and  
24 gas. There's a huge problem with Harbor Island,  
25 and it's only 244 acres that the Corpus Christi

1 owns there. And they want to put a desalination  
2 plant, four VLCCs berths, what else? A couple  
3 other things. But anyway, it's just a terrible  
4 spot for it. Scientists have been studying this  
5 area for 30 years plus, and they can't all be  
6 wrong. They just can't all be wrong.

7           And Port Aransas has grown into a huge  
8 destination, a tourist destination with the  
9 fisheries, and the estuaries, and all the fish  
10 larvae come in through that channel and go up  
11 into all the bays, Redfish Bay, up to Rockport,  
12 Aransas, Ingleside. And to survive, what they  
13 want to do at Harbor Island, it won't survive.  
14 And there have been plenty of studies done on  
15 this. And I just wish you all would take another  
16 look.

17           And nobody has done an 80-foot channel,  
18 nobody. And so they don't even know what the  
19 effects of that is going to be. They haven't  
20 even finished the damn 54-foot dredge must less  
21 sitting here doing all these permits right now  
22 for a damn 80-foot dredge. I mean -- and the  
23 millions and millions of dollars it's going to  
24 keep that current.

25           So I just wish these meetings -- oh, see

1     you later.

2                 MR. STOKES: Thank you very much for  
3     your comments. Our next speaker is Pat  
4     Coeckelenbergh.

5                 Pat, your microphone is now unmuted, and  
6     you can begin providing comments at this time.

7                 MS. COECKELENBERGH: Can you hear me?

8                 MR. STOKES: Yes. We can hear you.

9                 MS. COECKELENBERGH: Oh, you can hear  
10    me. Okay, good. I was about to say, well,  
11    that's (indiscernible).

12                Hi. My name is Pamela Coeckelenbergh.  
13    That's spelled C-o-e-c-k-e-l-e-n-b-e-r-g-h. And  
14    I want to thank you for the opportunity to speak  
15    to you all. I think it's a wonderful idea to  
16    have a virtual meeting in these times. But  
17    unfortunately, it has not been very effective,  
18    and many people have had a lot of frustration  
19    trying to get on, stay on, speak. I didn't even  
20    -- I didn't even hear the first person who spoke,  
21    even though she spoke louder the second time you  
22    talked to her.

23                So that being said, I think it's very  
24    essential that we have a public meeting set up  
25    where people can actually come together, voice

1 their opinions, have the support of each member  
2 of their community, whether it's from Port  
3 Aransas, Aransas Pass, the Coastal Bin area. All  
4 of us need to be able to come and make comments.

5 The other thing I would like to say is  
6 the Corps really needs to combine all the  
7 proposed permits and consider all of the EIS for  
8 all the projects as a cumulative impact. It's  
9 not just one thing. They all affect each other.

10 And the rest I will write, and also  
11 thank you very much for this opportunity to  
12 speak.

13 MR. STOKES: Thank you for your  
14 comments. Your microphone is now back on mute.

15 Our next speaker is Kathy Fulton.

16 Kathy, your microphone is now unmuted,  
17 and you can begin providing comment.

18 MS. FULTON: Okay. And thank you. I  
19 would like to say that Ken Teague contacted me  
20 and he said if you would please go back to him.  
21 He's on a computer now. And Lisa Turcotte is  
22 also with us, so if you want to let her speak at  
23 some point.

24 I would like to just add. This is not  
25 going to be a blast to you about how we don't

1     like these meetings, the way they're being done.  
2     I do want to say a few things about what some --  
3     additional things for the EIS.

4             I agree with Errol, Errol Summerlin and  
5     his points. I think that -- other thing that EIS  
6     needs to consider is the traffic on 361 to and  
7     from Harbor Island with the ferry and the wait  
8     times because for anybody to say it's not going  
9     to affect the ferry system, it is going to affect  
10    our ferry system. And that is not a little --  
11    that's not a little problem.

12            The stability also of the Harbor Island  
13    ferry landing, I have -- I know that  
14    (Indiscernible) has already -- had expressed  
15    concerned about how that is possibly going to  
16    affect the whole stability around the ferry  
17    landing that they put a tremendous amount of  
18    money into in the last couple years.

19            Also note, there's been no mention of  
20    emergency problems or evacuations. If something  
21    were to happen on Harbor Island, the ferry will  
22    shut down, and people will not be able to get off  
23    of the Port Aransas side over here by Roberts  
24    Point Park or any way, except the other route.  
25    But in a heavy summer weekend, which right now



1 we're having July 4th every weekend right now,  
2 there is no way to evacuate this island,  
3 absolutely none. And so I think that this is  
4 something that's very important for the safety of  
5 people visiting, much less the people that live  
6 here.

7 I would also like to say it -- this  
8 whole thing makes no sense unless it includes the  
9 Harbor Island terminal, which is 201900245 and  
10 then the access midstream proposal, which is  
11 00789. And the reason it makes no sense is what  
12 you're just -- you're building -- you're doing a  
13 dredge to nowhere unless you have something to  
14 tie it into that, of course, cuts off everybody  
15 else upstream.

16 And for those people with the other  
17 league that seem to think this is going to be so  
18 great, it isn't because it's going to be a small  
19 little select few people that are going to be  
20 benefitting, and nobody else upstream is going to  
21 be benefitting at all.

22 And I also want to say that there is,  
23 again, no -- the draw of water from a larger VLCC  
24 going to Moda or L&G, that is a big problem, and  
25 it will affect -- it's a big problem. Nobody has

1 even looked at that. And thank you.

2 MR. STOKES: Thank you for your  
3 comments. Your microphone is now back on mute.

4 Our next speaker is Don Cummins.

5 Don, your microphone is now unmuted, and  
6 you can begin providing comments at this time.

7 MR. CUMMINS: Thank you.

8 (Indiscernible) m-m-i-n-s. I am the president of  
9 Air Data Solutions, data collection company, and  
10 we're also a member of the Texas Energy Advocates  
11 Coalition. Thank you for letting me be a part of  
12 this.

13 I would just like to say real quickly  
14 that I support the Port's channel deepening  
15 project. We have seen the impact that the  
16 growing volume of trade has provided, not only to  
17 our business in the area but also to so many  
18 other businesses that are active in this area.  
19 And in a time when so many are struggling, the  
20 current progress and everything that's happening  
21 and being brought about by the Port is very  
22 encouraging.

23 So we fully support these projects being  
24 discussed and will provide any assistance that we  
25 can. Thank you very much.

1 MR. STOKES: Thank you for your  
2 comments. Your microphone is now back on mute.

3 At this time we will circle back to Lisa  
4 Turcotte and then Kenneth Teague.

5 Kathy, your microphone has now been  
6 unmuted.

7 MS. TURCOTTE: Hello. This is Lisa  
8 Turcotte. Can you hear me?

9 MR. STOKES: Yes.

10 MS. TURCOTTE: My name is Lisa Turcotte.  
11 That's Lisa, L-i-s-a, Turcotte, T-u-r-c-o-t-t-e.  
12 And I live in Port Aransas, Texas, and I, like  
13 Jo, am not against oil development. I'm just  
14 against any, vehemently opposed to development on  
15 Harbor Island.

16 For one, we've already spoken about the  
17 traffic with the ferry and with the recreational  
18 fisherman that are out there, the commercial  
19 fisherman that are out there, the L&Gs that pass  
20 by daily. To add VLCCs turning around there is  
21 just like, you know, impossible to imagine and a  
22 ludicrous proposal.

23 The pollution - the light pollution, the  
24 noise pollution, everything that's going to come  
25 with Harbor Island development is going to affect

1 not only Port Aransas but Aransas Pass,  
2 Ingleside, Ingleside on the Bay, and Rockport.  
3 We don't just have Corpus Christi Bay. We have  
4 Aransas Bay, Redfish Bay, Copano Bay. All of  
5 those estuaries are going to be affected by all  
6 of this action and pollution.

7 An 80-foot dredge has not even ever been  
8 done, and you all are proposing to take  
9 contaminated soil off of Harbor Island and place  
10 it out in the Gulf because we can't place it  
11 anywhere else because we know it's contaminated.  
12 How much sense does that make?

13 The only people that are going to profit  
14 from this are the Port and the Berry brothers or  
15 whoever owns Lonestar, Access, and Midstream, and  
16 all of it.

17 Port Aransas is here for fishing, for  
18 beachgoers, for tourism, and Corpus Christi is  
19 not giving us any guidance or any help in that  
20 regard. Everything they do it seems is against  
21 us.

22 As far as the energy folks that have  
23 been coming up all of a sudden, where they came  
24 from, who knows. I'm sure the Port put them up  
25 to it, but energy is energy. And we all need

1 energy. That's true, but we don't need pollution  
2 and ruining another economy just to support a few  
3 chosen folks.

4 I don't know. What else can I say?  
5 That's all I have to say. I appreciate  
6 Mr. Hudson, I think is your name, Jayson Hudson.  
7 I appreciate.

8 This mode of communication is  
9 ridiculous. I understand the virus is here, and  
10 we have to be smart, but I think there's plenty  
11 of places we could have -- this convention center  
12 here in Port Aransas where we could social  
13 distance and talk about this in a face-to-face  
14 manner, where we could ask questions. We can't  
15 even ask questions from anybody because it's a  
16 one-sided conversation, me looking at a screen.  
17 I'm a real people-person, and it's just not cool.  
18 Thank you, sir.

19 MR. STOKES: Thank you for your  
20 comments. Your microphone is now back on mute.

21 Our next speaker is Kenneth Teague. We  
22 also have one additional speaker who has signed  
23 up, Kate Lindacougel. But first we will call on  
24 Mr. Teague.

25 Your microphone is not unmuted, and you

1 can begin to provide comments at this time.

2 MR. TEAGUE: Can you hear me?

3 MR. STOKES: Yes. We can hear you.

4 MR. TEAGUE: Okay. I want to let you  
5 know that I was on the phone and the WebEx, and  
6 nobody actually clearly stated that you couldn't  
7 give comments on the phone if you were on the  
8 WebEx. But apparently you cannot because my  
9 phone remained muted earlier.

10 So at any rate, my name is Kenneth  
11 Teague, K-e-n-n-e-t-h. Last name Teague, T-e-a-  
12 g-u-e. I'm going to pick up where I left off  
13 last time. I didn't get all my comments made, so  
14 here we go.

15 The EIS must disclose reasonable  
16 estimates of the single and complete projects  
17 impacts, including impacts of proposed dredge  
18 material disposal on and near seagrass beds,  
19 direct, indirect, and secondary impacts must be  
20 disclosed.

21 Impacts of dredging on near shore reefs  
22 in the Gulf of Mexico, the extension of the  
23 channel far out in the Gulf. I don't know if  
24 there's any reefs along that transect, but  
25 somebody sure needs to look because that would be

1 a very significant impact; and it needs to be  
2 disclosed if there are any.

3           Impacts of proposed dredge material  
4 disposal in the near shore Gulf of Mexico and on  
5 beaches, the impacts of that on recreational  
6 beaches and adjacent waters.

7           Impacts on the degree of coupling  
8 between the Gulf of Mexico and Redfish, Aransas,  
9 Corpus Christi Bay estuary system, including  
10 effects on propagation of storm surge.

11           Impacts of vessel wakes on shoreline  
12 erosion; impacts of all project activities on  
13 fish and shell fish of this estuary system.

14           Impacts of seagrass impacts caused by  
15 the proposed project on finfish, shellfish, and  
16 juvenile green sea turtles, which are a listed  
17 species.

18           Impacts of the proposed project on water  
19 quality and ecology, specifically due to oil  
20 spills.

21           Impacts of the proposed project on air  
22 quality and the adjacent Port Aransas community.

23           Impacts of the proposed project on  
24 navigation safety in the channel between Port  
25 Aransas and Harbor Island.

1           Potential impacts on evacuation routes.  
2           Impacts of the proposed project on all aspects of  
3           socioeconomics of Port Aransas. That's it.

4           MR. STOKES: Thank you for your  
5           comments. Your microphone is now back on mute.

6           We do have two additional speakers at  
7           this time. Kate Lindacougel (phonetic) and  
8           Margaret Duran.

9           Kate, your microphone is now unmuted,  
10          and you can begin providing comments at this  
11          time.

12          MS. LINDACOUGEL: Okay. My name is Kate  
13          Lindacougel, L-i-n-d (audio cuts off) g-e-l.

14          I'm just an interested citizen, and I'm  
15          (indiscernible). I appreciate this opportunity.  
16          Through my line of work, I'm involved in a lot of  
17          public comments, and for as difficult as this  
18          digital format is, the other side of it is we  
19          hear complaints about how people can't drive  
20          (indiscernible); it was at an improper time. I  
21          appreciate this opportunity, not having to get  
22          off work.

23          But we've discussed -- I've heard a lot  
24          of objections to Port City Council and Harbor  
25          Island in this project. I kind of wanted to



1 point out what would be the alternative.

2 Right now there's 200 -- there's 2328  
3 miles of oil pipeline and 6318 miles of natural  
4 gas pipeline coming into the area. There's  
5 authorized \$544 million in channel improvements  
6 already in the City Council area.

7 So whereas I would like to see more  
8 information in the EIS regarding potential  
9 impacts and what those mitigations would be and  
10 what it is in the context of the other  
11 developments going around, I still would prefer  
12 an area that's already as developed as Corpus as  
13 opposed to something by the Aransas Wildlife  
14 Refuge or the (Indiscernible) Madre, Rio Bravo  
15 area.

16 I just -- I can't see where this is not  
17 an (indiscernible) situation where people are  
18 saying I don't have a disagreement with oil and  
19 gas but where else would it be? Would we put it  
20 in (Indiscernible) Bay and Port (Indiscernible)  
21 and make it their problems? It seems that  
22 there's already this much development in the  
23 Corpus Christi area with so many between Q-it  
24 (phonetic) and Genere (phonetic) and everybody  
25 else already in the area that it seems to be the

1 least damaging option to achieve the economic  
2 goals that we're trying to achieve.

3 That's all I have. Thank you.

4 MR. STOKES: Thank you for your  
5 comments. Your microphone is now back on mute.

6 Our next speaker is Margaret Duran.

7 Margaret, your microphone is now  
8 unmuted, and you can begin providing comments at  
9 this time.

10 MS. DURAN: All right. Can you hear me?

11 MR. STOKES: Yes. Yes, we can.

12 MS. DURAN: Yes. Anyone who has been to  
13 Port Aransas has to realize that that is a very  
14 narrow area, and it has already been affected by  
15 Hurricane Harvey once. We can't underestimate  
16 the chances that, you know, will we hit again.

17 But last year I saw a large ship nearly  
18 capsize one of our ferries, and I can't imagine a  
19 VLCC coming through there regularly without  
20 serious damage to the ferries. So I just don't  
21 understand how this is even being thought, how  
22 deepening of 80-feet when this narrow pass is  
23 really the only major opening for about 100 miles  
24 into the Bay of Corpus Christi and Redfish and  
25 Aransas Bays. The hydrology will be damaged for

1 the lifecycles of the larvae coming through there  
2 that depend on the inflows and outflows of the  
3 currents. That kind of dredging and ensuing  
4 traffic is going to harm fish.

5           Endangered species such as our whooping  
6 cranes, our piping plovers. I mean, Corpus  
7 Christi is known as the birdiest (phonetic) city  
8 in the country, and we're talking about doing a  
9 great deal of cumulative harm by bringing in so  
10 much more into this area, which is, again, this a  
11 very cramped, narrow area there.

12           There term beneficial use of spoil,  
13 which is for the dredging seems inappropriate  
14 also. That spoil is going to damage seagrasses  
15 and oyster beds, two things that actually  
16 ameliorate wave and storm damage now as well as  
17 aid our fish nurseries and our beaches.

18           When I saw your -- where you're thinking  
19 of putting those spoils out there, that's going  
20 to be contaminated spoils coming onto our  
21 beaches, and I don't understand how you would  
22 even consider that.

23           Don't greenwash what's happening here.  
24 Beneficial use is a term robbed from conservation  
25 and applied now to the industrialization of our

1 natural areas. The Army Corps of Engineers and  
2 the Port of Corpus Christi are not improving our  
3 natural ecological systems, but degrading them.  
4 So let's just call it what it is.

5 And I've heard some of the comments on  
6 national security, but I'm not sure if this  
7 doesn't put a target on our backs, frankly. I  
8 don't know that it's such a great idea to be  
9 doing this concentration in one area where we  
10 could be the target for terrorists in the future.  
11 And again, we are a ground-zero for large  
12 hurricanes.

13 So let's really consider what they're  
14 trying to do here. We're a tourist area, a  
15 natural area --

16 MR. STOKES: Thank you for your  
17 comments. I apologize for cutting you off, but  
18 we must keep to the three-minute time limit.

19 Jayson, at this time, that concludes our  
20 registered speakers for today.

21 MR. HUDSON: Thank you, Connor.

22 Since we've gone through all the  
23 commenters who have signed up, at this time the  
24 formal commenting period of the meeting has  
25 ended. Thank you.

1           Just a reminder that all statements  
2 placed in the record will be given consideration.  
3 It should be noted that comments on the proposed  
4 project can be submitted at any time during the  
5 NEPA process, but only those submitted during  
6 this and the previous formal scoping periods will  
7 be included in the summary reports and will be  
8 guaranteed to be addressed in the final  
9 environmental impact statement.

10           Our final virtual public meeting is  
11 Thursday, June 18th. Comments will be accepted  
12 through July 3, 2020.

13           I thank you for your participation today  
14 and your interest that you have shown in the  
15 proposed project. The public meeting is  
16 adjourned at 5:13. Thank you.

17           (END OF VIDEO FILE)  
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## 1 CERTIFICATE OF TRANSCRIPTIONIST

2 I certify that the foregoing is a true  
3 and accurate transcript of the digital recording  
4 provided to me in this matter.

5 I do further certify that I am neither a  
6 relative, nor employee, nor attorney of any of  
7 the parties to this action, and that I am not  
8 financially interested in the action.

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Julie Thompson, CET-1036

## Scoping Meeting

*June 18, 2020*

TRANSCRIPT OF AUDIO FILE

PCCA SCOPING MEETING

JUNE 18, 2020



1           MR. HUDSON: Good afternoon. On behalf  
2 of the project team, we thank you for your time  
3 and interest in the Port of Corpus Christi  
4 Authority's Channel Deepening Project  
5 Environmental Impact Statement or EIS.

6           Hello. My name is Jayson Hudson. I am  
7 the U.S. Army Corps of Engineers Regulatory  
8 Project Manager for the Department of the Army  
9 permit application.

10           If you are rejoining us from our June 9,  
11 2020, public scoping meeting, I thank you for  
12 rejoining us and apologize for the technical  
13 difficulties during that meeting.

14           The overall goal of public scoping is to  
15 define the issues to be addressed in depth in the  
16 analysis that will be included in the EIS.  
17 That's why we're here today. We want to hear  
18 from you about the issues you would like for us  
19 to address in the EIS, and we appreciate everyone  
20 taking the time to join us today.

21           Before we proceed with our agenda, I  
22 would like to acknowledge the project team  
23 members in attendance today. From the U.S. Army  
24 Corps of Engineers, I am joined by Bob Hindley,  
25 Deputy Chief of Regulatory Division.

1           From the Port of Corpus Christi  
2 Authority, we are joined by Clark Robertson,  
3 Chief Operating Officer; Omar Garcia, Chief  
4 External Affairs Officer; Sarah Garza, Director  
5 of Environmental Planning and Compliance; Dan  
6 Koesema, Director of Channel Development; Nelda  
7 Olivio, Director of Government Affairs; Lisa  
8 Hinojosa, Communications Manager; Beatrice  
9 Riviera, Environmental Engineer, and several team  
10 members from the Port's consulting firm, AE COM  
11 (phonetic).

12           From the Corps EIS contractor team, we  
13 are joined by Lisa Vitalie (phonetic), Tony Risco  
14 (phonetic), and Tom Dixon from Freese and  
15 Nichols, as well as Leslie Hollaway and Connor  
16 Stokes from Hollaway Environmental and  
17 Communication Services, who will be assisting me  
18 today.

19           During the meeting today, Colonel  
20 Timothy Vail, Commander of the U.S. Army Corps of  
21 Engineers Galveston District, will provide  
22 opening remarks followed by presentations about  
23 the proposed project from the Corps and the Port  
24 of Corpus Christi Authority.

25           After the presentations, you will be

1 provided with the opportunity to speak directly  
2 to the project team. If you did not sign up to  
3 speak when you registered for today's meeting,  
4 you may do so at any time during the meeting by  
5 using the raise hand feature located at the  
6 bottom of the WebEx participant list. Please see  
7 the screen for additional instructions about  
8 using the raise hand feature through WebEx.  
9 Please note that you must access the WebEx portal  
10 online to sign up to speak today.

11           Speakers will be called on to provide  
12 comments in the order in which they have signed  
13 up. We will announce upcoming speakers in groups  
14 of five, so you are aware of when you will be  
15 called to speak.

16           For individuals who have only called in  
17 through the phone line, you have the option to  
18 submit written comments through mail, online  
19 through the project website, and by texting or  
20 calling the project phone number, (855) 680-0455.  
21 I repeat, that number is (855) 680-0455.

22           We will now begin the presentation  
23 portion of the meeting with opening remarks from  
24 Colonel Timothy Vail, Commander of the U.S. Army  
25 Corps of Engineers District.

1 COLONEL VAIL: Hello. I'm Colonel  
2 Timothy Vail, Commander of the Galveston District  
3 for the U.S. Army Corps of Engineers. Welcome to  
4 today's scoping meeting, the Department of the  
5 Army's Permit SWG 2019 00067, to deepen the  
6 Corpus Christi Ship Channel.

7 Particularly as we respond to COVID,  
8 it's important to emphasize the critical role the  
9 public plays in this permitting process and that  
10 Corps values your attendance here today as we  
11 consider this application.

12 The Port of Corpus Christi Authority is  
13 proposing to deepen a 14-mile stretch of the  
14 existing Corpus Christi Ship Channel in order to  
15 accommodate fully-laden, Very Large Crude  
16 Carriers that draft approximately 70 feet. The  
17 Army Corps of Engineers is neither a proponent  
18 nor an opponent of this project. We will  
19 ultimately decide if the proposed project is not  
20 contrary to the public's best interest.

21 In order to make that decision, we must  
22 gather as much information as possible within an  
23 appropriate permitting time period. This meeting  
24 will give individuals the opportunity to comment  
25 on the scope of the environmental impact

1 statement, or EIS, for the proposed project, and  
2 all comments become part of the official record.

3 After the Port of Corpus Christi  
4 Authority provides a brief description of the  
5 proposed project, we will provide an overview of  
6 the Department of the Army permit procedure and  
7 the National Environmental Policy Act process.  
8 Then we'll begin calling on the individuals who  
9 signed up in advance to submit their comments.

10 Today's meeting is not a vote for or  
11 against this project. It's an opportunity for  
12 you to comment on the types of information that  
13 should be evaluated to develop the scope of the  
14 environmental impact statement. In determining  
15 the scope of the environmental impact statement  
16 and evaluation of the permit application, we will  
17 be considering all relevant factors identified  
18 during scoping and in response to the public  
19 notice, including the needs and welfare of the  
20 people and the project's impact on fish and  
21 wildlife, historic properties, fisheries,  
22 economic activity, navigation, safety and  
23 recreational use.

24 As both a Texan and the Commander of the  
25 Galveston District, I'd like to thank you for

1 participating in this process by attending this  
2 meeting. The information and issues identified  
3 during this meeting, along with the information  
4 and issues provided in written comments, will all  
5 be considered in the determination and the scope  
6 of the EIS and subsequent evaluation of the  
7 permit application.

8 MR. HUDSON: Thank you, Colonel Vail.  
9 We will now proceed with the Port of Corpus  
10 Christi Authority Channel Deepening Project  
11 presentation, describing the proposed project.

12 (Recording played)

13 NARRATOR: Hello. Thank you for  
14 taking the time to learn more about the Port of  
15 Corpus Christi Authority's, or PCCA's, channel  
16 deepening project. This presentation will  
17 provide a brief overview of the project including  
18 the purpose, engineering design considerations,  
19 and completed and ongoing studies to support the  
20 project.

21 As the Energy Port of the Americas,  
22 the Port of Corpus Christi Authority is an  
23 independent political subdivision governed by  
24 seven commissioners. The Port develops property  
25 and leases it to support energy trade in the

1 global market.

2 To give national perspective to the  
3 size of the Port of Corpus Christi, if the Port  
4 were a state, it would rank seventh in industrial  
5 investment in terms of total capital expenses at  
6 \$54 billion.

7 The Port of Corpus Christi Authority  
8 is requesting permit authorization from the U.S.  
9 Army Corps of Engineers, known as USACE, to  
10 conduct dredge and fill activities to deepen a  
11 portion of the existing Corpus Christi Ship  
12 Channel as well as a 5.5 mile extension of the  
13 ship channel to the natural minus 80 foot  
14 bathometric contour in the Gulf of Mexico. The  
15 project would deepen the channel from the western  
16 portion of Harbor Island into the Gulf of Mexico,  
17 an overall distance of approximately 13.8 miles.  
18 The proposed project channel limits are shown  
19 here in yellow.

20 The Port of Corpus Christi's  
21 economic impact for the state of Texas is \$19  
22 billion, providing over 98,000 jobs in the region  
23 and generating \$446 million in local and state  
24 taxes. This channel deepening project is  
25 expected to have a \$257 million economic impact.

1           The Port of Corpus Christi has  
2     implemented an environmental policy which was  
3     adopted by the Port Commission in 2016. This  
4     policy serves to ensure growth in a responsible  
5     and sustainable manner. Every project or  
6     operation is evaluated against this policy to  
7     ensure it meets all five precepts. This project  
8     is no exception, and you will note throughout  
9     this presentation how different aspects of the  
10    project have been developed supporting these  
11    precepts.

12           The Port of Corpus Christi's  
13    proximity to Texas shale plays combined with the  
14    current and forecasted port infrastructure, make  
15    the Port an attractive location for efficiently  
16    exporting crude oil by Very Large Crude Carriers,  
17    also known as VLCCs.

18           Exports have quintupled since 2017  
19    and are projected to triple again by 2030. The  
20    project is needed to accommodate the transit of  
21    fully-laden VLCCs that have a draft of  
22    approximately 70 feet. The deepening activities  
23    would be completed within the footprint of the  
24    authorized Corpus Christi Ship Channel width.  
25    The proposed project does not include widening of



1 the channel, however, some minor incidental  
2 widening of the channel slopes is expected to  
3 meet side slope requirements and to maintain the  
4 stability of the channel. This will also  
5 minimize environmental impacts.

6 Dredged material removed from the  
7 channel will be used to restore shorelines,  
8 create aquatic habitats, and protect eroding  
9 shorelines and seagrass habitats. The project  
10 will also reduce the number of lightering vessels  
11 traveling in and out of the port, effectively  
12 lowering emissions and reducing operational risks  
13 of crude transfers that are currently occurring  
14 outside of the Port.

15 This is a depiction of the process  
16 utilized by large tankers to load crude oil when  
17 calling at the Port of Corpus Christi. The  
18 existing channel depth requires crude carriers to  
19 depart partially loaded from the Port, or that  
20 VLCCs remain offshore while smaller tankers  
21 transfer their cargo to the larger VLCCs from  
22 inshore, a process known as reverse lightering.

23 The inefficiency of this process is  
24 compounded when some of these smaller vessels,  
25 Suezmax vessels for instance, being used in the

1     lightering process, are also not fully loaded  
2     while traversing the channel.

3                 As exports increase, the number of  
4     lightering vessels and carriers will also  
5     increase, adding to shipping delays and  
6     congestion, which will affect all industries.  
7     These delays and congestion will increase the  
8     cost of transportation, which in turn will  
9     increase the cost of crude oil, with the ultimate  
10    consequence of making U.S. crude oil less  
11    competitive in the global market.

12                Deepening the channel will allow for  
13    the VLCCs to travel in and out of the port fully  
14    loaded, ultimately allowing for more efficient  
15    movement of U.S.-produced crude oil, and meeting  
16    current and forecasted demand in support of  
17    national energy security and national trade  
18    objectives. The reduction in the number of  
19    vessel trips will lower costs, man hours,  
20    operational risks, and air emissions.

21                The dimensions of the design vessel  
22    play an important role in determining the depth  
23    of the proposed channel. The analysis included  
24    the three largest classes of liquid-bulk crude  
25    oil tankers from the current worldwide fleet, as

1 well as vessels on order to be constructed. The  
2 selected vessel design, known as VLCCs, represent  
3 32 percent of the current number of crude  
4 vessels, and 54 percent by dead weight tonnage.  
5 VLCCs also represent 45 percent of the current  
6 order book for crude carriers.

7           The typical VLCC vessel size has  
8 been extremely stable in the past 25 years.  
9 Therefore, significant change in size in the  
10 foreseeable future is not expected. You can see  
11 here the average dimensions of the 99th  
12 percentile vessel, with the draft based on West  
13 Texas intermediate crude oil density values.  
14 These values were selected for the project study  
15 to determine the minimum channel dimensions for  
16 the proposed channel deepening.

17           Here is a concise summary of the  
18 current authorized channel depths and widths  
19 compared to the proposed project channel depths  
20 and widths. As previously discussed, the  
21 deepened channel design was based on the 99th  
22 percentile of VLCC vessel characteristics. Those  
23 characteristics, in conjunction with design  
24 factors such as currents, wind, wave effects,  
25 ship speed, navigational traffic patterns, and

1 ship maneuverability, were used to determine the  
2 optimal channel depths and widths. The study on  
3 the optimal depth and width applied the design  
4 characteristics of the World Association for  
5 Waterborne Transport Infrastructure, known as  
6 PIANC, and Army Corps of Engineers guidelines for  
7 channels, to calculate the channel depths and  
8 widths as shown in the table.

9 PIANC is a global organization that  
10 has been providing guidance and technical advice  
11 for sustainable waterborne transportation  
12 infrastructure to ports, marinas, and waterways  
13 since 1885.

14 Both one-way and two-way vessel  
15 traffic designs were considered. One-way traffic  
16 was ultimately decided upon to reduce the amount  
17 of dredging needed for the proposed project and  
18 reduce future channel maintenance dredging  
19 volumes.

20 Portions of the channel have been  
21 divided into segments, depending on the referred  
22 design channel depths, widths, and slopes.  
23 Segments 1 and 2 will be excavated to minus 77  
24 feet of the mean lower low water level, or MLLW,  
25 while segments 3 through 6 will be deepened from

1 the currently authorized depth of minus 54 feet  
2 MLLW to minus 75 feet MLLW.

3 Segment 1, referred to as the outer  
4 channel, is the new entrance channel extension to  
5 the existing minus-80-foot bathometric contour in  
6 the Gulf of Mexico.

7 Segment 2 continues inbound,  
8 deepening the existing authorized minus-56-foot  
9 channel to the same proposed dimensions as the  
10 outer channel.

11 Segments 3 through 6 are the inbound  
12 portions of work encompassing the Harbor Island  
13 transition flair, Harbor Island junction, and  
14 inner Corpus Christi channel.

15 A breakdown of anticipated new work  
16 dredging volumes by segment is displayed here.  
17 The design depths do not include the additional  
18 two feet of advanced maintenance dredging and two  
19 feet of overdredge allowance. However, the total  
20 dredge volume by segment does include the  
21 advanced maintenance and overdredge allowance  
22 volumes.

23 As shown in the last row, the total  
24 estimated dredge volume from the channel  
25 deepening project is just under 42 million cubic

1 yards.

2                   The dredged material management  
3 plan, or DMMP, should consider the most cost-  
4 effective and implementable alternatives that  
5 weigh economics, engineering, and the  
6 environment. Agency and public input was used to  
7 develop the DMMP, which included using existing  
8 placement areas, beneficial use sites, and ocean-  
9 dredged material disposal site known as ODMDS.  
10 Wherever feasible, environmental impacts to  
11 existing oyster habitats, seagrass, wetlands, and  
12 other ecosystems was avoided.

13                   The DMMP for the project proposes a  
14 series of existing upland placement areas and new  
15 and existing beneficial use sites to optimize the  
16 use of the new work dredged materials as much as  
17 possible. Specifically the material will be used  
18 to expand upland placement areas and beneficial  
19 use sites as well as address shoreline repair  
20 needs within Redfish Bay, Corpus Christi Bay, and  
21 the Gulf of Mexico in the vicinity of the  
22 channel.

23                   13.8 million cubic yards of dredged  
24 material are planned to be placed in the new work  
25 ODMDS located approximately 3.4 miles offshore.

1 The material is mostly comprised of non-  
2 structural clays which are not beneficial for  
3 construction of berms or dikes. Preliminary  
4 modeling using USACE's MP Fate modeling confirms  
5 that there is enough capacity within the ODMDS  
6 for disposal of the entire 13.8 million cubic  
7 yards without exceeding the limiting mounding  
8 height of 11 feet within the ODMDS.

9 The planning effort focused on  
10 existing placement areas and beneficial use sites  
11 as new upland placement opportunities are  
12 limited. As mentioned, the initial beneficial  
13 use concepts were generated by considering  
14 existing agency restoration plans such as the  
15 Texas General Land Office's Texas Coastal  
16 Resiliency Master Plan, storm damage caused by  
17 Hurricane Harvey, and beneficial use features  
18 implemented elsewhere on the Gulf Coast.

19 Input was also gathered from  
20 federal, state, and local resource agencies, and  
21 used to help shape the direction of the DMMP.  
22 Thirteen initiatives were ultimately decided on,  
23 eleven of which were beneficial-use features  
24 aimed to achieve a variety of shoreline  
25 restoration, land loss restorations, marsh cell

1 expansion, and gulf-side shoreline initiatives.

2           The figure shown here summarizes the  
3 placement areas included in the DMMP. Green  
4 areas create and restore estuarine, aquatic, and  
5 marsh habitats, and provide beach and dune  
6 renourishment on the gulf side. Yellow areas  
7 expand and repair existing placement areas,  
8 restore eroded shorelines or provide protection  
9 to seagrass areas.

10           The feeder berms, shown in blue,  
11 offshore of San Jose Island and Mustang Island,  
12 will nourish beach shorelines through the natural  
13 sediment transport process.

14           Preliminary modeling was performed  
15 to determine impacts on hydrodynamics, salinity,  
16 shoaling and vessel wake, and ODMDS capacity as a  
17 result of the proposed channel deepening. A  
18 desktop study of cultural resources was conducted  
19 along with wetland delineations and seagrass  
20 surveys for placement options within the bay.  
21 Tidal increases were observed to have a minimal  
22 impact on the tidal range for the area, logging  
23 in at less than an inch in Redfish Bay and less  
24 than a half inch in Aransas Copano, Corpus  
25 Christi, and Nueces bays.



1                   Velocity changes were considered  
2 negligible, as it represents 12 percent on  
3 average speeds and 14 percent on peak speeds.  
4 Shoaling analysis concluded an increase of  
5 399,000 cubic yards of maintenance material  
6 entering the channel system per year. This will  
7 result in a maintenance dredging cycle frequency  
8 increase from once every 2.5 years to once every  
9 1.9 years.

10                   Using the Delft3D modeling system,  
11 the maximum salinity impact would still register  
12 within the optimum salinity ranges for some of  
13 the most prolific aquatic flora and fauna,  
14 resulting in no negative impacts to these  
15 species.

16                   A ship simulation study was  
17 performed by the Aransas-Corpus Christi pilots to  
18 evaluate the feasibility of the channel  
19 expansion, identify optimum channel dimensions  
20 for safe and efficient operations, and to  
21 determine any operation constraints that might be  
22 required for safe operation. The simulation  
23 confirmed the validity of the proposed design for  
24 the approach channel and the inner channel.

25                   Vessel wake studies showed reduced

1 sediment mobilization along adjoined shorelines  
2 due to the reduced number of vessel transits per  
3 year, from 792 to 528 as a result of the channel  
4 deepening.

5 Wetland delineation surveys and  
6 field work were performed to determine the  
7 acreage of existing wetland ecosystems and  
8 natural seagrass habitats within the proposed  
9 placement sites. Adverse impacts are expected on  
10 approximately 244 acres of delineated wetlands.

11 Wetlands that are distributed as a  
12 result of placement operations will be replaced  
13 in kind. The proposed restoration of the DMMP  
14 provides for approximately 1100 acres of restored  
15 aquatic habitat which greatly exceeds the actual  
16 adverse impacts of 244 acres. A preliminary  
17 report has been submitted to the U.S. Army Corps  
18 of Engineers, and the Port of Corpus Christi  
19 Authority is looking forward to consulting with  
20 the state historic preservation officer on  
21 additional studies.

22 The Port will continue to study this  
23 proposed project to ensure the most informed  
24 design. A passing vessel analysis is in process  
25 and further ship simulations are anticipated for

1 mid-June to potentially reduce the channel width  
2 in the inner channel and to study effects of  
3 further 3-D current modeling when applied to the  
4 simulation.

5                   The Port of Corpus Christi Authority  
6 is actively working with the U.S. Environmental  
7 Protection Agency and the U.S. Army Corps of  
8 Engineers to refine the sampling and analysis  
9 plan for material testing related to ODMDS  
10 approval. Design of the most effective placement  
11 template for beach re-nourishment is ongoing with  
12 continued analysis of channel material for sand  
13 placement to best mimic that of native beach  
14 materials.

15                   Feeder berms offshore of San Jose  
16 Island and Mustang Island are still being  
17 evaluated for sizing and location to maximize the  
18 amount of material contributed to beaches as a  
19 result of the natural sediment transport process.

20                   Thank you for taking the time to  
21 learn more about the Port of Corpus Christi  
22 Authority's channel deepening project. This  
23 concludes the presentation.

24                   (Recording stopped)

25                   MR. HUDSON: Thank you. As a reminder,

1 if you have not registered to speak during the  
2 meeting today and would like to, you may do so at  
3 any time by using the raise hand feature located  
4 at the bottom of the WebEx participant list.  
5 Please note that you must access the WebEx portal  
6 online if you signed up to speak tonight.

7 And now, we will provide information  
8 about the U.S. Army Corps of Engineers EIS  
9 process, including the purpose and need,  
10 potential project alternatives, as well as an  
11 overview of the known environmental concerns.

12 (Recording played)

13 MR. HUDSON: Hello. My name is  
14 Jayson Hudson, and I am the Corps Regulatory  
15 Project Manager for the Port of Corpus Christi  
16 Authority's channel deepening EIS. I will  
17 present to you an overview of the Corps EIS  
18 process and the results of our early scoping for  
19 the channel deepening EIS.

20 The objectives of my presentation  
21 are to provide you an overview of the relevant  
22 laws, introduce the Corps project team, and  
23 describe some of the content of the EIS as well  
24 as some of the alternatives and environmental  
25 concerns that have been identified.

1                   The Port Authority's permit  
2 application is subject to Sections 10 and 14 of  
3 the Rivers and Harbors Act, Section 404 of the  
4 Clean Water Act, Section 103 of the Marine  
5 Protection Research and Sanctuaries Act, Title 41  
6 of the Fixing America's Surface Transportation,  
7 or FAST, Act, and Executive Order 13807.

8                   The project must also be coordinated  
9 with state and federal agencies pursuant to  
10 Section 401 of the Clean Water Act, the Coastal  
11 Zone Management Act, the Endangered Species Act,  
12 the Magnuson-Stevens Fishery Conservation and  
13 Management Act, and the National Historic  
14 Preservation Act.

15                   Title 41 of FAST, often referred to  
16 as FAST41, standardizes interagency consultation  
17 and coordination practices and requires that a  
18 schedule for these practices be established and  
19 published on the federal Permitting Improvement  
20 Steering Council permit performance website.

21                   Executive Order 13807 requires  
22 federal agencies to process environmental reviews  
23 and authorization decisions for major  
24 infrastructure projects as one federal decision.  
25 That means that all federal agencies with review

1 responsibilities for major infrastructure  
2 projects must develop a single EIS and sign a  
3 single record of decision, or ROD.

4                   The EIS team is comprised of the  
5 Corps as the lead federal agency, with the  
6 Environmental Protection Agency, the National  
7 Marine Fisheries Service, the U.S. Coast Guard,  
8 and the U.S. Fish and Wildlife Service as  
9 cooperating agencies in the development of the  
10 EIS.

11                   Several state agencies, including  
12 the Texas Commission on Environmental Quality,  
13 Texas Parks and Wildlife Department, Texas  
14 Historical Commission, and Texas General Land  
15 Office are also participating or commenting on  
16 the development of the EIS.

17                   The Environmental Impact Statement  
18 contractor is Freese and Nichols, Incorporated,  
19 and the applicant is the Port of Corpus Christi  
20 Authority.

21                   Due to limited resources, the Corps  
22 regulatory program utilizes a third-party  
23 contractor process to develop an EIS. In this  
24 process, the lead federal agency, applicant, and  
25 environmental consultant enter into an agreement

1 where the applicant contracts and pays for the  
2 environmental consultant who prepares the EIS  
3 under the direction of the Corps.

4 As you can see in the diagram, the  
5 Corps directs the environmental consultant on the  
6 development of the EIS independent of the  
7 applicant. It's important to emphasize that  
8 ultimately, the Corps is responsible for the  
9 development and content of the EIS.

10 Here we have a timeline of major  
11 milestones for this project. The Port Authority  
12 submitted their application on January 7th of  
13 2019, and the Corps concluded an EIS would be  
14 required in March. Subsequent to that, the  
15 project was designated a FAST41 project in June  
16 of 2019 and initial public notice was published  
17 in August.

18 After coordinating with the  
19 cooperating agencies, the Corps developed a  
20 purpose and need for the project in March of  
21 2020, which we will discuss later in the  
22 presentation. The notice of intent to develop  
23 the EIS was published in April of 2020.

24 The draft EIS is scheduled to be  
25 provided to the public in March of 2021, with a

1 public hearing and comment period in March and  
2 April of the same year. The final EIS is  
3 scheduled to be provided to the public in January  
4 of 2022, followed by a permit decision which will  
5 be documented in a record of decision in April of  
6 2022.

7                   This EIS flowchart shows the  
8 sequential process for developing and publishing  
9 an EIS. We are currently in the scoping stage of  
10 the EIS, where we are soliciting your input. The  
11 information and issues identified during scoping,  
12 along with the information and issues provided in  
13 letters sent in response to the public notice,  
14 and all other pertinent data, will be considered  
15 in the determination of the scope of the EIS and  
16 the subsequent permit decision which is  
17 documented in a record of decision.

18                   The scoping process is an integral  
19 step in the development of an EIS, with the  
20 overall goal of defining the scope of issues to  
21 be addressed in-depth in the analysis. The  
22 scoping process helps the Corps identify people  
23 and organizations that may be affected or have  
24 interest in the project, as well as identifying  
25 the roles and responsibilities of state and



1 federal agencies.

2           The scoping process also helps  
3 identify significant issues that may have not  
4 already been identified, as well as eliminate  
5 issues that will not be significant or have  
6 already been addressed. The scoping process can  
7 also aid the identification and gaps in data and  
8 information as well as identify related studies  
9 that may be applicable.

10           Listed here are the typical sections  
11 of an EIS. The first chapter will provide an  
12 introduction to the project and the Corps' stated  
13 purpose and need for the project.

14           The second chapter describes the  
15 alternatives to the applicant's proposed project  
16 and the subsequent chapters assess the impacts of  
17 all of the alternatives evaluated. The  
18 assessments will cover a wide range of  
19 environmental impacts including the cumulative  
20 impacts.

21           In addition, studies that support  
22 the analysis will be provided in the appendices  
23 of the EIS. This may include, but not limited  
24 to, ocean dredged material disposal site  
25 analysis, Endangered Species Act assessments,

1 cultural resource studies, hydrology and  
2 hydraulic studies, as well as compensatory  
3 mitigation plans.

4 The Corps is required by regulation  
5 to restate the purpose for the project from the  
6 public interest perspective. The Corps, after  
7 coordinating with cooperating agencies, developed  
8 two purpose statements: a basic purpose and an  
9 overall purpose.

10 The basic purpose is developed to  
11 determine if a project requires siting in or  
12 proximity to a special aquatic site such as  
13 wetlands and seagrasses. Based on the Corps'  
14 basic project purpose, shown here, the project  
15 was determined not to require siting in or  
16 proximity to a special aquatic site such as  
17 wetlands and seagrasses. Therefore, it is  
18 presumed that an alternative that does not affect  
19 special aquatic sites is available.

20 The overall purpose is developed to  
21 identify and screen alternatives to the  
22 applicant's proposed project. The Corps has  
23 determined that the overall project purpose from  
24 the public interest perspective, is to safely,  
25 efficiently, and economically export current and

1 forecasted crude oil inventories via Very Large  
2 Crude Carriers, a common vessel in the world  
3 fleet.

4                   Crude oil is delivered via pipeline  
5 from the Eagle Ford and Permian Basins to  
6 multiple locations at the Port of Corpus Christi.  
7 Crude oil inventories exported at the Port of  
8 Corpus Christi have increased from 280,000  
9 barrels per day in 2017 to 1,650,000 barrels in  
10 January of 2020, with forecasts increasing to  
11 4,500,000 barrels per day by 2030. Current  
12 facilities require vessel lightering to fully  
13 load a VLCC, which increases cost and affects  
14 safety.

15                   Alternatives that were identified  
16 during the initial public notice, which is an  
17 early scoping step, include the no action  
18 alternative which in this case would be permit  
19 denial; the applicant's preferred alternative; as  
20 well as alternatives to the deepening of the  
21 channel such as a deep-water port facility. It  
22 is not uncommon in complex projects such as this  
23 one to have alternatives developed for  
24 subcomponents of the project: in this case,  
25 alternatives to the proposed dredge material

1 placement options, such as offshore disposal,  
2 beneficial use, and upland placement.

3 In addition to the alternatives that  
4 were identified during the public notice, several  
5 environmental concerns were raised. Many of the  
6 comments received focused on impacts to wetlands  
7 and seagrasses as well as threatening endangered  
8 species. Additional comments were received on  
9 navigation safety and recreational use of the  
10 area.

11 I thank you for your interest in the  
12 development of the EIS for the Port of Corpus  
13 Christi Authority's channel deepening project. I  
14 look forward to receiving your comments and  
15 suggestions. We will be accepting scoping  
16 comments through July 3, 2020. If you would like  
17 to submit written comments, you may do so at the  
18 mailing address or electronic email address shown  
19 on your screen.

20 (Recording stopped)

21 MR. HUDSON: That concludes the  
22 presentation portion of today's scoping meeting.  
23 We will now begin the commenting period. As a  
24 reminder, if you have not registered to speak  
25 during the meeting today and would like to, you

1 may do so at any time by using the raise hand  
2 feature located at the bottom of the WebEx  
3 participant list.

4 Please note that you must have access to  
5 the WebEx portal online to sign up and provide a  
6 comment.

7 Due to the nature of today's virtual  
8 meeting, the formal public commenting portion of  
9 today's meeting will be conducted in the  
10 following way. First, federal, state, and local  
11 elected officials who wish to speak will be  
12 called on to do so. Then anyone else who has  
13 indicated a desire to speak will be given the  
14 same opportunity. I will call on each member of  
15 the public who has signed up to speak by the name  
16 used during the meeting registration.

17 Each speaker will be given three minutes  
18 to make their comments. When it is your turn to  
19 speak, please mute your computer audio to avoid  
20 feedback. A countdown timer will be displayed on  
21 the meeting broadcast screen for each speaker to  
22 indicate the remaining time. As your time ends,  
23 please be courteous to the other members of the  
24 public who wish to provide comments and quickly  
25 wrap up your comments, to ensure that everyone

1 who would like to speak has the opportunity.

2 If you do not need the entire time  
3 allotted, help us to include everyone by only  
4 using the time you need. If you complete your  
5 comments in less than three minutes, we will  
6 restart the clock for the next speaker.

7 Remaining time cannot be reserved or transferred  
8 to another speaker.

9 Please keep in mind that we reserve the  
10 right to mute your microphone if this instruction  
11 is not followed.

12 We ask that you support us in conducting  
13 a respectful, orderly, and courteous meeting. We  
14 want to be sure we get all of your comments  
15 recorded, and we need your cooperation to do so.  
16 Here are a few ground rules:

17 Since the meeting is being held  
18 virtually, we will keep all participant  
19 microphones muted to avoid any background noise  
20 that may make the presentation difficult to hear.  
21 When it is your turn to speak, Connor will notify  
22 you when your microphone has been unmuted.  
23 Please make sure that you have also unmuted your  
24 phone device.

25 Please get as close to your microphone

1 as possible to ensure we can hear you.

2 When it's your opportunity to speak,  
3 please state and spell your first and last name.

4 We will not respond today to comments  
5 submitted. However, all comments made today will  
6 be documented and reflected in the development of  
7 the EIS.

8 Just a reminder, you may not defer your  
9 time to others. The public scoping meeting will  
10 adjourn no later than 7:00 p.m. today. If you  
11 have additional comments that you would like to  
12 submit beyond what you are able to address during  
13 your comment period, please submit them in  
14 writing or by calling (855) 680-0455.

15 Speakers will be called on to provide  
16 comments in the order in which they have signed  
17 up. We will announce upcoming speakers in groups  
18 of five, so you are aware of when you will be  
19 called to speak.

20 If you do not wish to provide a comment  
21 today but would like to submit comments to the  
22 project team, there are other ways to do so. You  
23 have the option to submit comments through mail,  
24 online through the project website, and by  
25 texting or calling the project number, (855) 680-