## **Interagency Scoping Meeting Report**

Port of Corpus Christi Authority Channel Deepening Project Environmental Impact Statement (SWG-2019-00067)



Hosted Virtually via Cisco WebEx

Thursday, May 14, 2020





#### **Table of Contents**

#### Page

Acronyms and Abbreviations ii	i
INTRODUCTION	L
PROJECT BACKGROUND 1	L
VIRTUAL INTERAGENCY SCOPING MEETING SUMMARY	}

#### List of Attachments

- 1 Interagency Scoping Meeting Agenda
- 2 Interagency Scoping Meeting Participants
- 3 Colonel Timothy Vail Speech
- 4 Port of Corpus Christi Authority and U.S. Army Corps of Engineers Presentations
- 5 Agency Letters Received During Scoping

#### Acronyms and Abbreviations

- EA Environmental Assessment
- EIS Environmental Impact Statement
- NEPA National Environmental Policy Act
- USACE U.S. Army Corps of Engineers
  - VLCC very large crude carriers

#### 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 (USACE) 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 implementing regulations for scoping (40 C.F.R. § 1501.7(a)) require the USACE 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 Council on Environmental Quality's implementing regulations for scoping (40 C.F.R. § 1501.7(b)) also recommend, but do not require, the USACE to:

- Set page limits on environmental documents;
- Set time limits;
- Hold an early scoping meeting or meetings.

This Interagency Scoping Meeting Report has been developed for the USACE to share the types of issues that the cooperating and participating agencies expressed during the interagency scoping meeting.

#### **PROJECT BACKGROUND**

The USACE received a permit application for a Department of the Army 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.

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.

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.

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.

#### VIRTUAL INTERAGENCY SCOPING MEETING SUMMARY

The Interagency Scoping Meeting was hosted virtually by the USACE via Cisco WebEx on May 14, 2020, 9:00 – 11:30 AM. The meeting agenda is included as Attachment 1.

The interagency meeting began with a roll call. The list of participants in included as Attachment 2. A total of 16 state and agency personnel participated in the meeting from the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Coast Guard, the Texas General Land Office, The Texas Parks and Wildlife Department, and the Texas Commission on Environmental Quality.

Roll call was followed by an introduction from Colonel Timothy Vail, Commander, Commander of the USACE, Galveston District. Colonel Vail's speech is included as Attachment 3. Then Sean Strawbridge, PCCA Chief Executive Officer gave an opening statement and Sarah Garza, PCCA's Director of Environmental Planning and Compliance provided an overview of the project, studies completed, and ongoing efforts. Jayson Hudson, USACE Regulatory Project Manager provided a presentation that covered the NEPA process, introduced the project and project team, identification of the Purpose and Need and potential alternatives, and a review of the EIS content and known environmental concerns. These presentations are provided in Attachment 4.

Solicitation of comments and questions from the state and Federal agencies followed. Below provides a summary of the discussion:

#### U.S. Environmental Protection Agency:

Karen McCormick (Marine Coastal Non-Point Source Section Chief):

- Made previous comments about the capacity of the Ocean Dredged Material Disposal Site not enough capacity for material
- Have rectified this issue for the PCCA conducted an ocean survey in February on the site using information from the survey and working with the USACE to expand the sites
- Doing an Environmental Assessment (EA) and updating the Site Management and Monitoring Plan
- Do not want to hold up the EIS process doing an EA so you can refer to the EA in the EIS
- EA and Site Management and Monitoring Plan will be finished in fiscal year 2021
- Ensure all are looking at the site to make sure there are no issues
- PCCA sends information to get acceptance, it goes through Regulatory Regulatory sends the information to EPA for concurrence
- U.S. Environmental Protection Agency is doing all we can to make sure the PCCA can use the Ocean Dredged Material Disposal Site and that the site is available to accept material if it meets the criteria

• If you have any questions reach out to me – want to ensure all is done in a timely manner

#### Paul Kaspar:

- With the level of work done so far am confident will have a comprehensive document and adequate information to address the 404(b)(1)
- Main point of interest is the beneficial use feeder berms and beach restoration and that those are accurately quantified, and the benefits documented

#### U.S. Fish and Wildlife Service:

Mary Kay Skoruppa:

- Submitted a letter with comments
- Our main concerns were mentioned in the presentation so comfortable those will be addressed in the EIS
- Endangered species are an important concern
- Good alternatives covered interested in safer options, especially the deepwater port
- Important to protect ensure habitats that are very vulnerable

#### National Marine Fisheries Service:

Dennis Klemm (Southeast Regional Coordinator for Sea Turtles):

- Inshore habitat has high value/use for sea turtles important to ensure you have all the information
- Passes and jetties are high use areas as well give all these areas a lot of consideration
- For the Biological Opinion will need detailed information on dredging methods/timing, safeguards, dredge type, and where impacts
- From the information provided today it looks like you are on a good path

Rusty Swafford (Gulf of Mexico Branch Chief Habitat Conservation Division):

- Have already identified an Essential Fish Habitat consultation that is required
- Timeline is lines up you know you have to consult on this, do not see any issues

#### **Texas Commission on Environmental Quality:**

Jenna Lueg:

• Will need to know how many impacts to submerged aquatic vegetation – will need to see the wetland restoration plan

#### Texas Parks and Wildlife Department:

Paul Silva:

- Lightering currently there are no crude oil factories to dispense the product so those have to be put in these are interdependent projects
- There are other permits for Harbor Island that include a pipeline running through the Redfish Bay Scientific Area

- Want all aspects of these facilities to be incorporated into the cumulative impacts including staging routes, access lines, etc.
- See the impacts of these interdependent projects affecting the natural resources in the area
- Will need to see mitigation plan for compensation for impacts from the interdependent projects
- Lightering additional crude oil factories developed along the ship channel should be considered in the cumulative impacts for the project

Clark Robertson (PCCA): When is the appropriate time to respond to comments made by an agency? Jayson Hudson (USACE) – This is the scoping for the EIS, in process of developing responses

#### Texas General Land Office:

Amy Nunez:

- Port project is outside the navigation district required lease from the GLO, involves a different process because of the applicant Chapter 61 of the Water Code
- Different timeline than other projects
- Working with the applicant on this big component of this is availability of the Draft EIS before we can move through the Chapter 61 process
- Plays a big role in the leasing process
- Working with the applicant on the requirements and timeline as needed

#### U.S. Coast Guard:

Margaret Brown:

• No comments

The interagency scoping meeting was adjourned by Colonel Timothy Vail at 10:16 AM.

Interagency letters received during the scooping period are included in Attachment 5.

Attachment 1

Interagency Scoping Meeting Agenda

#### **RSVP** Attendees

USACE: Col. Timothy Vail; Jayson Hudson, Joe McMahan; Bob Heinly, Clark Bartee.

Freese and Nichols (EIS Contractor) Lisa Vitale, Tom Dixon, Tony Risko, Dave Buzan, Carl Sepulveda

PCCA: Sean Strawbridge, Clark Robertson, Omar Garcia, Sarah Garza, Beatriz Rivera, Yvonne Dives-Gomez, Dan Koesema, Javier Davila, Nelda Olivo,

AECOM (PCCA Consultant) Ashley Judith, Naser Khan, Rod McCrary, Taylor Nordstrom, Nathan Mezzano. Brandon Hill, Joseph Jandle

USEPA: Paul Kasper, Karen McCormick, Michael Jansky

USFWS: Mary Kay Skruppa, Dawn Gardiner

NMFS: Rusty Swafford, Charrish Stevens, Brian Rosegger, Dennis Klemm

TCEQ: Jenna Lueg

TPWD: Leslie Koza, Jackie Robinson, Paul Silva

TxGLO: Jesse Solis, Amy Nunez, Jason Zeplin

Agenda

- 1. Roll Call
- 2. Introduction by COL Vail.
- 3. PCCA presentation about project
- 4. Corps presentation about process
- 5. Solicitation of Comments/Question from state and federal agencies.

Attachment 2

**Interagency Scoping Meeting Participants** 

#### U.S. Army Corps of Engineers Port of Corpus Christi Authority

#### Environmental Impact Statement Corpus Christi Ship Channel Deepening Project

#### Agency Scoping Meeting Participants

#### Date: May 14, 2020

#### Participants:

Col. Timothy Vail	USACE
Jayson Hudson	USACE
Aron Edwards	USACE
Andrew Smith	USACE
Belinda Kinman	USACE
Bob Heinly	USACE
Clark Bartee	USACE
Joe McMahan	USACE
Sean Strawbridge	PCCA
Sarah Garza	PCCA
Clark Robertson	PCCA
Omar Garcia	PCCA
Beatriz Rivera	PCCA
Dan Koesema	PCCA
Lisa Vitale	FNI
Tom Dixon	FNI
Dave Buzan	FNI
Tony Risko	FNI
Carl Sepulveda	FNI
Connor Stokes	Hollaway
Ashley Judith	AECOM
Rod McCrary	AECOM
Brandon Hill	AECOM
Nathan Mezzano	AECOM
Naser Khan	AECOM
Taylor Nordstrom	AECOM
Chris Martin	AECOM
Joseph Jandle	AECOM

Paul Kaspar	EPA
Jessica Aukamp	EPA
Karen McCormick	EPA
Mary Kay Skoruppa	USFWS
Rusty Swafford	NMFS
Charrish Stevens	NMFS
Dennis Klemm	NMFS
Jenna Lueg	TCEQ
Paul Silva	TPWD
Leslie Koza	TPWD
Jackie Robinson	TPWD
Amy Nunez	GLO
Jesse Solis	GLO
Jason Zeplin	GLO
Alec Robbins	GLO
Margaret Brown	USCG

Attachment 3

**Colonel Timothy Vail Speech** 

#### Virtual Agency Scoping Meeting Department of the Army Permit SWG-2019-00067 Port of Corpus Christi Authority's Corpus Christi Ship Channel Deepening Project

#### INTRODUCTION:

Good Morning all, I am Colonel Timothy Vail, Commander, Commander of the U.S. Army Corps of Engineers, Galveston District. Welcome to today's virtual agency scoping meeting. For the record, let me state that this scoping meeting is being convened at 0911 hrs on May 14, 2020. At this time, I would like to remind everybody to mute your phone lines.

I certainly appreciate the agencies role in the permitting process project and value your attendance here today to consider this application for the Port of Corpus Christi Authority's Corpus Christi Ship Channel Deepening Project. The port is proposing a 14-mile Channel Deepening Project located within the existing Corpus Christi Ship Channel, starting near the southeast side of Harbor Island and extending beyond the currently authorized terminus in deep water in the Gulf of Mexico to accommodate fully laden very large crude carriers (VLCCs) that draft approximately 70 feet generating over 40 million cubic yards of dredged material. The Port of Corpus Christi Authority has proposing to use suitable dredged material to create near-shore feeder berms that will nourish eroded beach areas and to reestablish sand dunes on San Jose Island that were breached by Hurricane Harvey. The project will also restore placement-area erosion, place material in areas breached by Hurricane Harvey, and strengthen a perimeter berm along Harbor Island to absorb waves and ship wakes in order to protect marsh and submerged aquatic vegetation behind the berm. Material judged unsuitable for beneficial use, approximately 13.7 million cubic yards, will be deposited in authorized offshore placement areas.

A Department of the Army permit for this work is being considered under Section 103 Marine Protection, Research, and Sanctuaries Act of the Sections 10 & 14 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

The National Environmental Policy Act, or NEPA, requires the Corps to conduct a public interest review to determine the potential impacts on the public welfare. In addition, NEPA requires all Federal agencies undertaking an action that could significantly impact the quality of the human environment to evaluate the potential impacts of the proposed project and document these potential impacts in an Environmental Impact Statement, or EIS. While the EIS discloses the best available information and is a process separate from the Corps of Engineers public interest review process, they are both necessary in making my decision whether to issue or deny the permit.

As both a Texas and Commander of a District with District partnerships across the region with nonfederal sponsors, it is important to note the Corps is neither a proponent nor opponent of this project. Ultimately we are the decision maker who has to decide if the proposed project is not contrary to the public's best interest. As such, we are trying to gather as much information as possible in a timely manner, to allow us to make an informed decision.

#### Introduction of staff:

I would like to introduce my staff that is here with me today. Mr. Joe McMahan Chief, Regulatory Division, and Clark Bartee, an attorney advisor from our Office of Counsel, Mr. Bob Heinly, Deputy Chief or the Regulatory Division, and Mr. Jayson Hudson, Regulatory Project Manager of the Port of Corpus Christi Channel Deepening permit application.

I trust that all of you have read the Notice of Intent and the Special Public Notice. Copies were

distributed on April 7<sup>th</sup> and April 9<sup>th</sup>, respectively, to individuals, agencies and organizations believed to have an interest in these proceedings. The announcements, mailing list, and a list of those present will be made a part of the record of this scoping meeting.

The deadline for comments will be July 3, 2020. We are currently scheduling the virtual public scoping meetings to accomplish the broader public engagement required under law and will announce them in the coming weeks.

#### In so far as the Purpose of the Scoping Meeting

Let me clarify: today's meeting is to provide the agencies with the opportunity to present your comments and what type of information should be evaluated concerning the scope of the preliminary EIS. I would like to emphasize that the scoping meeting is not a primary, not a caucus, not a set of votes to simply determine the number of people for or against the project.

The decision whether to issue or deny a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the human environment. Consideration will be given to the protection as well as the utilization of important resources. The benefits which reasonably may be expected to accrue if the project is authorized will be balanced against the foreseeable detriments which may result from the work.

All factors which may be relevant will be considered. These include: the needs and welfare of the people; fish and wildlife values, including migratory bird species; threatened and endangered species; historic properties; economics; and fisheries.

The information and issues identified at this scoping meeting along with information and issues provided in letters sent in response to the public notice and all other pertinent data will be considered in the determination of the scope of the EIS and subsequent evaluation of the permit application.

#### **Background:**

A public notice regarding the proposed project was issued on April 7, 2019 to solicit public comments for the proposed project. At that time, based on information provided by the Applicant, a preliminary review indicated that an EIS was required. Based on continuing permit assessment and information brought forth during the initial coordination process, areas of potentially significant impact on the quality of the human environment were further identified. Therefore, the EIS process is being initiated to gather necessary information to be fully evaluated so a permit decision can be made. All comments received to date, including those provided for review during the initial public notice process, will be considered by the Galveston District during EIS preparation.

#### Format of Scoping Meeting:

Next, let me discuss briefly the format of the scoping meeting. Today's meeting will give all agencies an opportunity to comment on the scope of the EIS for the proposed project.

Following a brief description of the proposed project by the Port of Corpus Christi Authority, a brief description of the Department of the Army Permit and NEPA process will be presented by the Regulatory Project Manager. After those are completed, I will begin calling on the agencies to make comments.

Each speaker will be given 15 minutes. Please keep your time to 15 minutes or less. If you do not need the full 15 minutes, help us to move the process along by only using the time you need. We are documenting today's proceeding to ensure that everything presented is included in the official record.

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. You should understand that written comments are just as valid and count the same as verbal comments presented today.

#### **PCCA Presentation**

I now invite Shawn Strawbridge and Sarah Garza, from Port of Corpus Christi Authority, to present an overview of their proposed project.

#### **Regulatory Presentation**

I now invite Jayson Hudson, the Regulatory Project Manager to present on the EIS process.

#### **Solicitation of Comments**

I will now invite the agencies individually to comment. I ask that you state your name and title for the record when providing your comments.

I now call on the Environmental Protection Agency...

I now call on the Fish and Wildlife Service...

I now call on the National Marine Fisheries Service...

I now call on the Texas Parks and Wildlife Department...

I now call on the Texas Commission on Environmental Quality...

I now call on the Texas General Land Office...

#### CONCLUSION

Thank you for your interest in this project and attendance here today to consider this application for Port of Corpus Christi Authority's Corpus Christi Ship Channel Deepening Project. In conclusion, the deadline for comments will be July 3, 2020. We are currently scheduling the virtual public scoping meetings and will announce them in the coming weeks. All statements placed in the record will be given consideration. I thank you for your attendance and the interest that you have shown.

#### THIS SCOPING MEETING IS ADJOURNED AT 1016 HRS MAY 14, 2020.

Attachment 4

Port of Corpus Christi Authority and U.S. Army Corps of Engineers Presentations

Port of Corpus Christi Authority's Corpus Christi Ship Channel Deepening Project (SWG-2019-00067)

Interagency Scoping Meeting

Agenda

- 1. Roll Call
- 2. Introduction by COL Vail.
- 3. PCCA project presentation
- 4. Corps process presentation
- 5. Solicitation of comments from state and federal agencies.

# **Port of Corpus Christi Channel Deepening Project**

Sarah L. Garza | Director of Environmental Planning and Compliance





# About Us | Port of Corpus Christi

## The Energy Port of the Americas

- Independent political subdivision of the State of Texas, governed by 7 commissioners
- Large industrial energy hub and gateway to global markets
- A landowner, a land developer, and a landlord
- Economic development agency specializing in P3s



## About Us | Port of Corpus Christi

The Coastal Bend would rank 7th in industrial investments **(\$54B)** if it were a state.



STATE	PROJECT S	TOTAL CAPEX (millions)
1. Louisiana	1649	\$257,805
2. Texas	6073	\$230,223
3. Pennsylvania	2982	\$83,287
4. Ohio	4943	\$78,696
5. Alaska	28	\$68,791
6. Michigan	2370	\$67,918
7. Georgia	2670	\$52,201
8. Tennessee	1845	\$51,074
9. New York	1679	\$47,439
10. North Carolina	2803	\$47,072



# **Project Overview** Channel Deepening Project (CDP)



PORT CORPUS CHRISTI®

5

## Economic Impact | Port of Corpus Christi Area (PCCA)



6

# Environmental Policy | Port of Corpus Christi



## **Five Key Precepts**

- 1. Air Quality in attainment of national air quality standards
- 2. Water Quality that maintains or improves the health of Coastal Bend ecosystems
- 3. Soils and Sediment protective of human health and the environment
- 4. Wildlife Habitat development, improvements, and replacement when modification to existing habitat is necessary
- **5. Environmental Sustainability** in the development of port facilities and in ongoing port operations



ISO 14001 CERTIFIED

## Project Overview | Channel Deepening Project

## **CDP** information

- Deepen the Corpus Christi Ship Channel (CCSC) from Gulf of Mexico to Harbor Island
- Deepen the CCSC to allow safe navigation of fully loaded VLCCs
- Beneficial use and shoreline restoration with use of dredged material
- Eliminate reverse lightering



# **Reverse Lightering** | Channel Deepening Project





# **Reverse Lightering** | Channel Deepening Project





# Engineering | Channel Deepening Project



### **Design vessel**

- Selected design vessel represents 99% of active world VLCC fleet:
  - Length 1,116 feet
  - Beam: 197 feet
  - Calculated draft: 70.2 feet
- Maximum drafts assume cargo of low density West Texas intermediate crude oil
- Used to determine minimum channel dimensions

## Engineering | Channel Deepening Project

## **Corpus Christi CDP 54 ft vs. CDP channel dimensions**

	CHANNEL SEGMENTS				
DESCRIPTION	SEGMENT 1 OUTER APPROACH	SEGMENT 2 INNER APPROACH	SEGMENT 3 BETWEEN JETTIES	THROUGH HARBOR ISLAND	
Authorized 54 ft. depth / 56 / 77 CDP channel depth (ft. MLLW)		56 / 77	54 / 75	54 / 75	
Authorized 54 ft. width / CDP channel width (ft.)	700 / 640	700 / 640	600 / 540	Varies / Varies	





# Engineering Channel Segments

PORT CORPUS CHRISTI®

13

## **Engineering** | Preferred Channel Dimensions

	STATIONING		DESIGN				
SEGMENT	STATION BEGIN	STATION END	DEPTH* (FT. MLLW)	WIDTH (FT.)	SIDE SLOPES H:V	DESCRIPTION	DREDGE VOLUME (CY)
1	-620+00	-330+00	-77	640	10:1	Outer Channel	9,617,390
2	-330+00	-72+50	-77	640	10:1	Approach Channel	20,308,762
3	-72+50	- 15+08.24	-75	540	3:1	Jetties to Harbor Island Transition Flare	2,105,041
4	-15+08.24	19+48.10	-75	540	3:1	Harbor Island Transition Flare	2,851,897
5	19+48.10	38+16.42	-75	540	3:1	Harbor Island Maneuvering Basin	2,951,614
6	38+16.42	110+00	-75	540	3:1	Corpus Christi Channel	4,020,764
Total Drodge Volumer 41 855 468							11 855 168

Total Dredge Volume: 41,855,468

## Dredged Material | Channel Deepening Project

## **Dredged Material Placement Plan**

- With Coordination from the USACE, State and Federal Resource Agencies, the following inputs were used to develop the DMMP:
  - Use of existing PAs, existing BU sites, and existing ODMDS
  - Incorporating BU placement were feasible
  - Avoiding oyster reef, seagrass, wetlands, etc. as much as possible
  - Ecosystem or habitat-oriented where feasible







# Dredged Material Channel Deepening Project

16

# Studies Completed | Channel Deepening Project

## **Extensive studies to date:**

- Ship Simulations: Phase 1
- Tide and Velocity
- Particle Tracking for Larval Migration
- Shoaling/Maintenance Estimate
- Salinity
- Vessel Wake
- ODMDS Capacity
- Adjacent Structures Assessment
- Wetland Delineation
- Seagrass Surveys
- Cultural Resources Phase 1A



PORT**CORPUS CHRISTI**®

# Ongoing Efforts | Channel Deepening Project

## **Studies in progress:**

- Ship Simulations: Phase 2
- Passing Vessel Analysis
- ODMDS Sampling
- Beach Template Design
- Evaluation of Channel Material with Native Beach Material
- Feeder Berm Sizing and Location
- T&E Surveys



PORT CORPUS CHRISTI®

# Thank You






## CORPUS CHRISTI SHIP CHANNEL DEEPENING PROJECT ENVIRONMENTAL IMPACT STATEMENT (SWG-2019-00067)

#### **INTERAGENCY SCOPING MEETING**

May 14, 2020

#### Jayson Hudson – USACE Regulatory Project Manager



## **OBJECTIVES**

- Overview of relevant laws, rules, regulations and executive orders
- Introduce the project and project team
- Identify Purpose and Need and Potential Alternatives
- Review the EIS content and known environmental concerns





# APPLICABLE LAWS, RULES, REGULATIONS, AND EXECUTIVE ORDERS

#### **US Army Corps Of Engineers**

- Section 10 of the Rivers and Harbors Act of 1899
- Section 14 of the Rivers and Harbors Act of 1899 (408 Permission)
- Section 404 of the Clean Water Act
- Section 103 of Marine Protection, Research and Sanctuaries Act
- Title 41 of the Fixing America's Surface Transportation (FAST) Act
- Executive Order 13807 Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure

#### **Cooperating/Participating**

- Section 401 of the Clean Water Act
- The Coastal Zone Management Act
- Endangered Species Act
- Magnuson–Stevens Fishery Conservation and Management Act
- National Historic Preservation Act





#### FAST41 & E.O. 13807

<u>FAST41</u> - 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.

<u>E.O. 13807</u> - 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 authorizations within 90 days of the ROD.





# **DESCRIPTION OF PERMIT TIMELINE**

- Initial Application Received:
  - January 7, 2019
- Significance Determination (EIS)
  - March 6, 2019
- Revised Application Received:
  - June 5, 2019
- FPISC FAST 41 Designation:
  - June 18, 2019
- Initial Public Notice
  - August 1, 2019
- Notice of Intent
  - April 7, 2020
- Purpose and Need Concurrence
  - March 4, 2020

- Agency Scoping Meeting
  - May 14, 2020
- Notice of Availability of Draft EIS
  - March 15, 2021
- Public Hearing & Comment Period
  - March/April 2021
- Notice of Availability of the Final EIS
  - January 14, 2022
- Notice of Record of Decision
  - April 7, 2022





24

# **EIS TEAM AND ROLES**

Lead Federal Agency for NEPA and FAST-41 U.S. Army Corps of Engineers, Galveston District

<u>Cooperating Agencies</u> Environmental Protection Agency US Fish and Wildlife Service National Marine Fisheries Service US Coast Guard

Participating Agencies Texas Commission On Environmental Quality Texas Parks and Wildlife Department

Applicant Port of Corpus Christi Authority

Environmental Impact Statement Contractor Freese and Nichols, Inc.





25

# **NEPA THIRD-PARTY CONTRACTING**

- Lead Federal agency, project applicant, and environmental consultant enter into an agreement for preparation of NEPA compliance documentation (EIS)
- Project applicant pays environmental consultant for services related to preparation of documentation
- Environmental consultant prepares documentation under direction of the US Army Corps of Engineers
- Lead Federal agency is responsible for:
  - Guiding and participating in NEPA process and EIS preparation
  - Independent evaluation of the EIS prior to approval
  - Takes responsibility for the scope and contents of the EIS







## ENVIRONMENTAL IMPACT STATEMENT PROCESS



#### **SCOPING PROCESS**

The overall goal is to define the scope of issues to be addressed in depth in the analyses that will be included in the EIS. Specifically, the scoping process will:

- Identify people or organizations who are interested in the proposed action;
- 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;
- Determine the roles and responsibilities of lead and cooperating agencies;
- Identify any related Environmental Assessments or EISs;
- Identify gaps in data and informational needs;
- Set time limits for the process and page limits for the EIS;
- Identify other environmental review and consultation requirements so they can be integrated with the EIS;
- Indicate the relationship between the development of the environmental analysis and the agency's tentative decision making schedule.





28

# **EIS CONTENT**

- Introduction, Purpose and Need
- Description and Evaluation of Alternatives
- Affected Environment/ Environmental Consequences
  - General Setting, Physiography, and Topography
  - Geology
  - Physical Oceanography
  - Coastal Processes
  - Water and Sediment Quality
  - Freshwater Inflow

- Hydrology
- Soils
- Energy and Mineral Resources/ Hazardous, Toxic, and Radioactive Waste
- Air Quality
- Noise
- Wetlands & Sea grasses
- Aquatic Resources
- Wildlife Resources
- Threatened and Endangered Species
- Cultural Resources
- Socioeconomic Resources
- Navigation





# **SUPPORTING STUDIES**

### – EIS Appendices

- Ocean Dredged Material Disposal Site Analysis and Site Management and Monitoring Plan
- Air Emissions Analysis
- Clean Water Act 404(b)(1) Evaluation
- Hazardous, Toxic and Radioactive Waste Assessment

- Endangered Species Biological Assessment
- Essential Fish Habitat Assessment
- Texas Coastal Zone Consistency Determination
- Programmatic Agreement





#### PURPOSE AND NEED STATEMENT

**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 affects safety.





#### ALTERNATIVES FROM EARLY SCOPING

- No Action
  - Permit Denial
- Applicant's Preferred Alternative
  - VLCC Capable Channel to Harbor Island
- Channel Alternatives
  - Deep Water Port Facility
- Dredge Material Placement Alternatives
  - Offshore Disposal
  - Beneficial Use
    - Beach/Dune Nourishment
    - Feeder Berms
    - Bird Islands
  - Upland Confined Placement Area





#### **ENVIRONMENTAL CONCERNS FROM EARLY SCOPING**

- Wetlands And Submerged Aquatic Vegetation
- Threatened And Endangered Species
- Essential Fish Habitat
- Archaeological And Cultural Resources
- Water Quality Hypoxia
- Sediment Transport
- Erosion
- Navigation Ship Traffic & Ferry Operations
- Recreation And Recreational Resources
- Hazardous Waste And Materials
- Socioeconomics
- Public Benefit And Needs Of The People
- Cumulative Impacts





## **EIS CONTENT** (structured from early scoping)

- Physical Environment (Soils, Geology, Physical Oceanography)
  - hydrosalinity, RSLC, WQ, hypoxia, sediment transport, erosion
- Ecological and Biological Resources (Vegetation and Habitats, Terrestrial and Aquatic Wildlife)
  - wetlands, SAV, coastal resources, Essential Fish Habitat, T&E
- Human Environment (SocioEc, EJ, Recreation, Navigation, Cultural Resources, HTRW, Noise, Air)
  - ferry, beach impacts, nautical archeology
- Cumulative Impacts





## HYDROLOGY AND RELATED MODELING

- Ship and Tow Analysis
- Tidal Flow
- Salinity
- Vessel Wake
- Channel Maintenance
- Feeder Berms/Shoreline Nourishment
- ODMDS











US Army Corps of Engineers \*

#### **T&E AND COLONIAL NESTING SITES**







US Army Corps of Engineers \* 37

## WOTUS/SAV DELINEATION

- Desktop
  Sources
  (USFWS NWI,
  TPWD
  Seagrass)
- Drone Survey
- Side Scan Sonar
- Ground-Truthed Wading Survey







### SAV DELINEATION – drone survey/ground-truthed







US Army Corps of Engineers \* 39

#### **NOAA COVER TYPES AND BU SITES**







s

### NOAA COVER TYPES AND BU SITES

COVER TYPE	ACRES
Bare Land	440.1
Deciduous Forest	0.9
Developed Low Intensity	0.4
Estuarine Aquatic Bed	44.3
Estuarine Emergent Wetland	125.9
Grassland/Herbaceous	150.5
Open Water	3,181.8
Palustrine Aquatic Bed	2.7
Palustrine Emergent Wetland	30.2
Palustrine Shrub Scrub Wetland	25.8
Unconsolidated Shore	537.1





41

#### **SAV DELINEATION – TPWD data/field verified**







US Army Corps of Engineers \*

### **SAV DELINEATION – TPWD data/field verified**







### WOTUS DELINEATION







US Army Corps of Engineers ®

#### HOW TO SUBMIT WRITTEN COMMENTS

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.

#### Or

#### SWG201900067@usace.army.mil

Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats.





Attachment 5

Agency Letters Received During Scoping

From:	<u>Skoruppa, Mary Kay</u>	
To:	<u>SWG201900067</u>	
Cc:	Montano, Delfinia; Gardiner, Dawn	
Subject:	[Non-DoD Source] USFWS scoping comments for EIS - Port of Corpus Christi	
Date:	Monday, April 27, 2020 3:31:56 PM	
Attachments:	USFWS comments SWG-2019-00067.pdf	
	2020 Nueces County Species List.docx	

Mr. Hudson,

Please see the attached documents with USFWS comments for an EIS to be prepared for the Port of Corpus Christi's Channel Deepening Project (SWG-2019-00067).

Thank you, Mary Kay Skoruppa

Mary Kay Skoruppa

U.S. Fish and Wildlife Service Texas Coastal Ecological Services 4444 Corona Dr., Suite 215 Corpus Christi, TX 78411 Direct 361-225-7314; Mobile 346-815-0009; Main Office 361-994-9005 mary\_kay\_skoruppa@fws.gov <<u>mailto:mary\_kay\_skoruppa@fws.gov</u>>

Note: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties



#### **United States Department of the Interior**



FISH AND WILDLIFE SERVICE Texas Coastal Ecological Services Field Office 4444 Corona Drive Suite 215, Corpus Christi, Texas 78411 Main: (361) 994-9005 Fax: (361) 994-8262

In Reply Refer To: 02ETTX00-2019-I-2117 02ETTX00-2019-CPA-0035

April 27, 2020

Jayson Hudson, Regulatory Project Manager USACE, Galveston District, Regulatory Division P.O. Box 1229 Galveston, TX 77553-1229

Dear Mr. Hudson:

The U.S. Fish and Wildlife Service (Service) is a Cooperating Agency under the National Environmental Policy Act in the FAST-41 planning process for the Corpus Christi Ship Channel (CCSC) Deepening Project (the project), Nueces County, Texas. The project proposes to deepen a portion of the CCSC and extend the terminus of the CCSC an additional 5.5 miles into the Gulf of Mexico. The Port of Corpus Christi Authority (PCCA), the project sponsor/applicant, is requesting authorization from the U.S. Army Corps of Engineers (USACE) to discharge dredged material into waters of the U.S. for this project (SWG-2019-00067). We received and reviewed the PCCA's Stated Purpose and Need, the Coordinated Project Plan (CPP) dated March 24, 2020, and a Notice of Intent to Prepare an Environmental Impact Statement (EIS) dated April 9, 2020. The Service provides the following comments and recommendations in accordance with the Fish and Wildlife Coordination Act ((16 U.S.C. 661-667(e)); the Endangered Species Act (Act) (16 U.S.C. 1531 et seq.); the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.); and the National Environmental Policy Act (42 U.S.C. 4321-4347).

The CPP states that the proposed project will deepen the CCSC to approximately -77 feet mean lower low water (MLLW) from near the southeast side of Harbor Island through the Aransas Pass to the current terminus in the CCSC. The project also proposes to dredge an extension of the current terminus an additional 29,000 feet out into the Gulf of Mexico, also at a depth of approximately -77 feet MLLW. In total, the proposed project will deepen or extend 13.8 miles of CCSC. The project will create approximately 46 million cubic yards of new work dredged material composed of clay and sand, to be placed in offshore disposal sites along Mustang and San Jose islands and in multiple proposed inshore sites in Corpus Christi and Redfish bays. The proposed adverse impacts to submerged aquatic vegetation total 58.5 acres.

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. 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). Finally, the Service requests an examination of the effects of channel deepening on water salinities in the project area. Changes to salinities in Redfish and Corpus Christi bays could affect sea grass distribution and diversity, as well as movements of marine organisms between the Gulf and the bay. Marine organisms such as crabs, shrimp, and fish utilize different salinity regimes and habitat types for different life stages and are important prey for many protected species. For example, blue crabs are a major component of the diets of two critically endangered species, the whooping crane (Grus americana) and Kemp's ridley sea turtle (Lepidochelvs kempii). Therefore, alteration of salinities could affect endangered species.

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.

The Service appreciates the opportunity to provide scoping comments for the planned EIS for the Channel Deepening Project. If you have questions regarding these comments, please contact Mary Kay Skoruppa at 361-225-7314, or by email at mary\_kay\_skoruppa@fws.gov.

Sincerely,

Charles Ardizzone Field Supervisor

Enclosure

cc: Delfinia Montano, Region 2, USFWS, Albuquerque, NM

#### Federally Listed as Threatened and Endangered Species of Texas

April 27, 2020

County-by-County lists containing species information is available at the U.S. Fish and Wildlife Information, Planning, and Conservation (IPaC) system. http://ecos.fws.gov/ipac/.

This list represents species that may be found in counties throughout the state. It is recommended that the field station responsible for a project area be contacted if additional information is needed.

#### DISCLAIMER

This County by County list is based on information available to the U.S. Fish and Wildlife Service at the time of preparation. This list is subject to change, without notice, as new biological information is gathered and should not be used as the sole source for identifying species that may be impacted by a project.

#### **Nueces County**

Green sea turtle	(T)	Chelonia mydas
Gulf Coast jaguarundi	(E)	Herpailurus yagouaroundi cacomitli
Hawksbill sea turtle	(Ew/CHI)	Eretmochelys imbricata
Kemp's Ridley sea turtle	(E)	Lepidochelys kempii
Least tern	(E)	Sterna antillarum
Leatherback sea turtle	(E w/CHI)	Dermochelys coriacea
Loggerhead sea turtle	(T)	Caretta caretta
Northern aplomado falcon	(E)	Falco femoralis septentrionalis
Ocelot	(E)	Leopardus pardalis
Piping plover	(T w/CH)	Charadrius melodus
Red knot	(T)	Calidris canutus ssp. rufa
Slender rush-pea	(E)	Hoffmannseggia tenella
South Texas ambrosia	(E)	Ambrosia cheiranthifolia
West Indian manatee	(T)	Trichechus manatus
Whooping crane	(E w/CH)	Grus americana

#### INDEX

Statewide or areawide migrants are not included by county, except where they breed or occur in concentrations. The whooping crane is an exception; an attempt is made to include all confirmed sightings on this list.

- E = Species in danger of extinction throughout all or a significant portion of its range.
- T = Species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- C = Species for which the Service has on file enough substantial information to warrant listing as threatened or endangered.
- CH = Critical Habitat (in Texas unless annotated I)
- P/ = Proposed ...
- P/E = Species proposed to be listed as endangered.
- P/T = Species proposed to be listed as threatened.
- I = CH designated (or proposed) outside Texas
- protection restricted to populations found in the Ainterior@ of the United States. In Texas, the least tern receives full protection, except within 50 miles (80 km) of the Gulf Coast.



#### Life's better outside.®

Commissioners

S. Reed Morian Chairman Houston

Arch "Beaver" Aplin, III Vice-Chairman Lake Jackson

> James E. Abell Kilgore

> > Oliver J. Bell Cleveland

> > Anna B. Galo Laredo

Jeffery D. Hildebrand Houston

Jeanne W. Latimer San Antonio

Robert L. "Bobby" Patton, Jr. Fort Worth

> Dick Scott Wimberley

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director July 2, 2020

Mr. Jayson Hudson U.S. Army Corps of Engineers Galveston District, Regulatory Branch P.O. Box 1229 Galveston, TX 77553-1229

Re: Permit Application Number SWG-2019-00067 Port of Corpus Christi Authority Special Public Notice

Dear Mr. Hudson:

Texas Parks and Wildlife Department (TPWD) has reviewed the Notice of Intent (NOI) dated April 9, 2020 to prepare an Environmental Impact Statement (EIS) for a major federal action and to solicit comments regarding the proposed EIS scope for permit application number SWG-2019-00067. The proposed project would deepen and extend a portion of the Corpus Christi Ship Channel (CCSC) to accommodate transit of fully laden very large crude carriers (VLCCs) that draft approximately 70 feet. The proposed project would not include the widening of the channel; however, some minor incidental widening of the channel is expected to meet side slope requirements and maintain stability of the channel. The project would be located in the existing channel bottom of the CCSC, from a point southeast of Harbor Island in Port Aransas, Nueces County, Texas and traversing easterly through the Aransas Pass inlet, and then terminating at a point in the Gulf of Mexico approximately 29,000 feet beyond the currently authorized terminus of the CCSC .

The proposed project would span approximately 13.8 miles and 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 elements:

- Deepening a portion of the existing CCSC from the currently authorized depths of -54 to -56 feet mean lower low water (MLLW) to final constructed depths of -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 U.S. for beneficial use sites located in and around Corpus Christi and Redfish Bays.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. Mr. Jones, 401 Coordinator SWG-2020-00228 Page 2 of 14 July 2, 2020

- 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.
- Transport of new work dredged material to the CCSC Improvement Project New Work Ocean Dredged Material Disposal Site (ODMDS).

According to the NOI, the project is needed to safely, efficiently, and economically export current and forecasted crude oil inventories via VLCC. For justification, the NOI states that 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. In addition, the NOI states that current facilities require vessel lightering to fully load a VLCC which increases cost and affects safety.

**Recommendation:** Because the proposed project would not accommodate transit of fully laden VLCCs from any existing crude oil export facilities at the Port of Corpus Christi, any cost- or safety-benefit analysis should be limited to proposed and foreseeable future projects that would accommodate fully laden VLCCs.

Currently, TPWD is aware of two proposed crude oil export facilities with marine terminals located at Harbor Island that would have access to the proposed channel deepening project. This includes one project proposed by Axis Midstream Holdings, LLC (SWG-2018-00789 attached), which does not propose depths to accommodate fully laden VLCCs, and another proposed by the Port of Corpus Christi Authority (SWG-2019-00245 attached) in partnership with Lone Star Ports, LLC, which would accommodate fully laden VLCCs.

By letter dated September 20, 2019 (SWG-2019-00245 attached), TPWD expressed concern that the Lone Star Ports, LLC project was an interdependent part of the Harbor Island Terminal Facility as well as part of a larger action (the proposed channel deepening project). Although Axis Midstream Holdings, LLC. has included a berthing terminal to their project plans to achieve independent utility, TPWD continues to recommend that due to the timing, location, and similarity of these proposed actions, the scope should be expanded to evaluate the environmental consequences of all three projects together (i.e., SWG-2019-00067, SWG-2018-00789, and SWG-2019-00245) in order to adequately assess the combined impacts and reasonable alternatives.

**Recommendation:** 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. In addition, the USACE stated in a letter to the POCCA on February 14, 2019 that all three projects are interdependent and should be evaluated as such in the DEIS. The purpose and need statement for the EIS should be consistent with the USACE determination, "to construct a crude export facility on Harbor Island, including supply pipelines and tank farms, and deepen the existing CCSC to accommodate transit of fully laden VLCC's from the Harbor Island Terminal Facility into the Gulf of Mexico to more efficiently move current Mr. Jones, 401 Coordinator SWG-2020-00228 Page 3 of 14 July 2, 2020

and forecasted crude." The purpose and need has been modified; "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." Presently there are no existing export facilities located within phase I of the deepening project so all components necessary to transport the crude oil to VLCC's for export through the CCSC should be considered when evaluating cumulative impacts.

On April 8, 2020, the Galveston District USACE awarded a second contract (phase II) for the Corpus Christi Ship Channel Improvement Project (CCSCIP). The contract will improve approximately 11.9 miles of the CCSC by widening the channel from Harbor Island to approximately 2.7 miles west of La Quinta Channel, to 530 feet wide and deepening it from 47 feet to 54 feet. TPWD is aware of two projects along the CCSC at Ingleside, Texas; Moda Ingleside Oil Terminal, LLC (SWG-1995-02221 attached) and South Texas Gateway Terminal, LLC (SWG-2006-02562 attached) that are constructing ship berths to accommodate large ships up to a VLCC size vessel for crude oil export.

**Recommendation**: 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.

The proposed deepwater port known as Bluewater, Texas, LLC (MARAD-2019-0094 attached) also proposes to construct pipelines, storage tanks, booster pumps and other associated facilities at Harbor Island to fully load VLCCs from two single point mooring buoys in the Gulf of Mexico. The deepwater port project would also accommodate fully laden VLCCs without channel deepening.

**Recommendation:** Fully loading VLCCs from a deepwater port in the Gulf of Mexico should be included in the range of alternatives for the proposed project.

Within the context of the geographic area, the EIS should address numerous important resources that may be affected by the proposed project. 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 federally-listed threatened and endangered sea turtle and bird species, including the Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Whooping Crane (*Grus americana*), Piping Plover (*Charadrius melodus*), and Red Knot (*Calidris canutus*). In addition, the area includes the Mission-Aransas National Estuarine Research

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 4 of 14 July 2, 2020

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. TPWD has identified additional important resources within this geographic extent that include Padre Balli Park and Bob Hall Pier, Packery Flats, Packery Channel, Mustang Island State Park, Francine Cohn Preserve, Shamrock Island, the Aransas Pass (Lydia Ann) Lighthouse, Lighthouse Lakes Paddling Trail, Lighthouse Lakes Park, I.B. Magee Beach Park and Horace Caldwell Pier, Port Aransas Jetties and the Port Aransas Nature Preserve.

A significant concern to TPWD is the 32,000-acre Redfish Bay State Scientific Area (RBSSA) located between San Jose Island and Live Oak Peninsula. Following a multi-agency effort and the resulting publication of the "Seagrass Conservation Plan for Texas" in 1999, the Texas Parks and Wildlife Commission established the RBSSA for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. Because of this designation, the RBBSA has special status, and the importance of seagrass habitat has since been specifically recognized by state law, not just within the RBSSA, but state-wide.

Redfish Bay provides a mosaic of tidal flats, tidal marsh, mangroves, unvegetated shallows, and 14,000-acres of seagrass beds that provide nursey, forage, and cover habitats for many species of fish and wildlife. Outside the Laguna Madre, Redfish Bay represents the most extensive area of pristine seagrass beds and is also the northern range limit for large beds of turtle grass and manatee grass (Pulich and Calnan, 1999). The importance of the shallow water resources of RBSSA to recreational fisheries in Redfish Bay is detailed in recent angler survey data collected from 2013 to 2017. Southern Redfish Bay represents only about 7% of the areal extent of the Corpus Christi Bay Ecosystem, yet survey data indicate that this small area accounted for 18% of the angling trips taken by boat and 21% of the angler hours (time anglers spent fishing) throughout the Corpus Christi Bay Ecosystem. These survey data also indicate that southern Redfish Bay accounted for 37% of spotted seatrout, 31% of red drum, 23% of southern flounder, and 12% of black drum landed throughout the Corpus Christi Bay Ecosystem.

**Recommendation:** 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 users but the surrounding communities that support the activities.

To fully evaluate the environmental impacts from the proposed project, the draft EIS should include information about the following:

• 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

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 5 of 14 July 2, 2020

> 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.

- 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.
- Potential impacts to all federal- and state-listed rare, threatened, and endangered species and their habitats with a five-mile vicinity of the project.
- Potential impacts to Gulf beaches which provide critical wildlife habitat, such as sea turtle nesting areas and avifauna foraging and roosting areas.
- Potential impacts to commercial and recreational fisheries and associated fishing activities, including both terrestrial and aquatic access routes.
- Potential magnitude of individual and cumulative impacts to plankton and zooplankton associated with all phases of the project
- 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.
- Potential for bird and bat collisions into project infrastructure.
- 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.
- Potential impacts to native coastal prairie vegetation, including barrier island, coastal dunes, depressions, and swales.
- Potential impacts from invasive species and an Invasive Plant Species Control Plan that includes rapid colonizers of disturbed sites, such as Brazilian peppertree (Schinus terebinthifolia).
- Potential impacts to public lands and public land uses (e.g., recreation, education, wildlife habitat, conservation, etc.).
- 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.
- A specific schedule for construction that also identifies when specific construction activities would be initiated and when associated restoration activities would be completed.
- 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.
- 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.
- 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
Mr. Jones, 401 Coordinator SWG-2020-00228 Page 6 of 14 July 2, 2020

not assume that onshore and inshore components will be abandoned in place.

- 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.
- 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.
- 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 terrestrial and aquatic habitats.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Potential direct, indirect, temporary, and cumulative impacts to sensitive coastal resources associated with future maintenance and repairs of pipelines.
- On-site stormwater management plan for Harbor Island facilities.

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 7 of 14 July 2, 2020

- Potential environmental impacts resulting from damages to the proposed project facilities by a major hurricane and a Hurricane Response Plan.
- An Operational Spill Response Plan for the release of hazardous material should be included in the EIS.
- 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.
- 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.

#### **Project Recommendations**

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. Due to the interdependence of the crude oil exportation facilities proposed for Harbor Island with the deepening of the CCSC, TPWD will provide recommendations for all aspects of the infrastructure development of these facilities including onshore, inshore and offshore concerns.

#### General Recommendations Upland Construction

**Recommendation:** 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.

- The exclusion fence should be buried at least six inches and be at least 24 inches high.
- The exclusion fence should be maintained for the life of the project and only be removed after the project activities are completed and the disturbed sites have been revegetated or otherwise stabilized.
- Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 8 of 14 July 2, 2020

- Regarding pipeline installation and HDD entry pits, any open trenches or deep excavation areas should be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped.
- For open trenches and excavated areas, escape ramps should be installed at an angle of less than 45 degrees (1:1) in excavated areas that will allow trapped wildlife to climb out on their own.
- If any state-listed species are trapped in trenches or excavated areas, they should be removed by personnel permitted by TPWD to handle state-listed species.

**Recommendation:** 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. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydro-mulching and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats would be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided.

#### Impacts to Terrestrial Vegetation and Wildlife Habitat

The onshore and inshore components of the proposed project consist of a mixture of habitat types and vegetation communities mapped as agricultural land (row crops), coastal prairie, salty prairie, deep sand grassland, huisache woodland or shrubland, deep sand live oak shrubland, and deep sand live oak forest and woodland. In general, current and past vegetation clearing can be a significant threat to native plant communities in an area because disturbed areas are often revegetated with invasive, introduced species.

**Recommendation:** 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.

Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented. Vegetation management should include removing invasive species early while allowing the existing native plants to revegetate disturbed areas. Mr. Jones, 401 Coordinator SWG-2020-00228 Page 9 of 14 July 2, 2020

**Recommendation:** 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.

#### Impacts to Aquatic Habitats

Horizontal directional drilling (HDD) methods, such as those proposed by the applicant, are frequently used to avoid and minimize impacts to aquatic resources. Project plans suggest that HDD methods will primarily be used to avoid impacts associated with waterbody crossings

**Recommendation:** 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. Site specific plans should include preferred access routes and specific protocols and/or guidelines for developing containment and recovery strategies that aim to avoid and minimize secondary impacts from machinery, equipment, foot traffic, and drilling fluid. The plan should also provide protocols and contact information for reporting inadvertent returns to the appropriate state and federal resource agencies. In the event an inadvertent return occurs, an assessment of the impacts and required mitigation should be conducted in consultation with TPWD.

The applicant has not provided sufficient information concerning post-construction restoration of aquatic resources to demonstrate that the impacts will be less than permanent and that there will be no secondary effects from the project. TPWD has concern for the level of restoration success that can be achieved on recent and relict barrier island habitats, especially coastal dune swale complexes, mangrove marshes, and tidal flats.

**Recommendation:** Because tidal flats and coastal dune swales are difficult to replace, these habitats should be avoided to maximum extent practicable.

#### Lighting

Lighting would be required throughout the onshore, inshore, and offshore components of the project during construction, operation, and decommissioning of the deepwater port facility. In addition to navigational beacons, lighting would be used for safety and security around facilities. As proposed, the project would Mr. Jones, 401 Coordinator SWG-2020-00228 Page 10 of 14 July 2, 2020 minimize terminal lighting to safety and navigation requirements and lights would be down shielded and/or directed at the water.

**Recommendation:** 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 heat-sensitive 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).

#### Recommendations under TPWD Code

#### Nongame Birds

State law prohibits any take or possession of nongame birds, including their eggs and nests. Laws and regulations pertaining to state-protection of nongame birds are contained in Chapter 64 of the Texas Parks and Wildlife (TPW) Code. This protection applies to most native bird species, including ground nesting species. Although not documented in the Texas Natural Diversity Database (TXNDD), many bird species which are not listed as *threatened* or *endangered* are protected by Chapter 64 of the TPW Code and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

During the winter, south Texas is the southernmost limit for many migratory birds and it is the northernmost extreme in the breeding season (spring-summer) for other species. Additionally, the proposed project area is in the middle of the Central Migratory Flyway through which millions of birds pass during spring and fall migration. Available food, cover, and water sources provide important stopover habitats for Neo-tropical migrants.

Biologically, this area of south Texas is highly productive and provides a range of habitats including large tracts of undeveloped land, grasslands, prairies, woodlands, marsh, and aquatic habitats. The diversity of habitats is suitable to support a diversity of wildlife species. In particular, the range of habitats provides cover, feeding, nesting and loafing areas for many species of birds; grassland birds, Neotropical migrants, shorebirds, wading birds, and raptors.

**Recommendation:** 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.

Any vegetation clearing (or ground disturbance that would impact ground nesting birds) that would be required to construct the onshore, inshore or offshore infrastructure (terminal, pipelines, booster station, HDD entry/exit pits), improve existing access roads, or create new access roads should be scheduled

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 11 of 14 July 2, 2020

to occur outside of the March 15 - September 15 migratory bird nesting season. Contractors should be made aware of the potential of encountering non-game migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them.

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.

#### State-listed Species

State law prohibits the capture, trap, take or kill (incidental or otherwise) of statelisted species. Laws and regulations pertaining to state-listed endangered or threatened animals are contained in Chapters 67 and 68 of the TPW Code; laws pertaining to endangered or threatened plants are contained in Chapter 88 of the TPW Code. There are penalties, which may include fines and/or jail time in addition to payment of restitution values, associated with take of state-listed species. A copy of TPWD Guidelines for Protection of State-Listed Species, which includes a list of penalties for take of species, can be found on the TPWD website.

For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Program. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647. For the above-listed activities that involve aquatic species please contact the Region 4 Regional Response Coordinator at (361) 825-3246 for the appropriate authorization.

The potential occurrence of state-listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state-listed species. State-listed reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted during vegetation clearing for roads, staging areas, easements, or machinery access corridors.

Please be aware that determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence.

The application documents prepared for proposed project specifically assessed

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 12 of 14 July 2, 2020 potential state-listed species impacts for the inshore component of the project and generally assessed them for the onshore component of the project.

**Recommendation:** 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. These lists are available online at the TPWD Wildlife Diversity website. Please note that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in an area does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presences, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys. The TXNDD data is updated continuously based on new, updated and undigitized records; therefore, TPWD recommends requesting the most recent TXNDD data on a regular basis.

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.

#### Aquatic Resources

In addition to spills, releases, and inadvertent returns of products associated with the construction, operation, or decommissioning of the proposed project, other construction related activities, such as dewatering and maintenance, occurring in or near aquatic habitats (including the GOM and Redfish Bay) may negatively impact fish, shellfish, and other aquatic resources. As the state agency with the primary responsibility for protecting the state's fish and wildlife resources, Chapter 12 Subchapter D of the TPW Code and Chapter 7 Subchapter D of the Water Code authorizes TPWD to investigate fish kills and any type of pollution that may cause loss of fish or wildlife resources, estimate the monetary value of lost resources, and seek restitution or restoration from the party responsible for the fish kill or pollution. Chapter 69 of the Texas Administrative Code (TAC) requires TPWD to actively seek full restitution for and/or restoration of fish, wildlife, and habitat loss occurring as a result of human activities. The restitution value of lost resources can be significant (e.g., at least \$500 for each individual of a threatened species and \$1,000 for each individual

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 13 of 14 July 2, 2020 of an endangered spec

of an endangered species). In addition, the TPW Code makes it a criminal offense to kill any fish or wildlife resources classified as threatened or endangered.

**Recommendation:** 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.

#### Public Lands

The inshore pipeline route would utilize a 100-foot-wide construction corridor that runs parallel to and north of Highway 361, bisects Redfish Bay and the Redfish Bay State Scientific Area (RBSSA), and runs through the length of Lighthouse Lakes Park. Additional temporary work corridors would provide access to the pipeline corridor and to entry and exit points of horizontally directionally drilled (HDD) segments of the pipeline.

Lighthouse Lakes Park provides public access to the state designated Lighthouse Lakes Paddling Trail that was established by TPWD in 1999. The RBSSA was established by the Texas Parks and Wildlife Commission in 1999 for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. Because of this designation, the RBBSA has special status and the importance of seagrass habitat has since been specifically recognized by state law, not just within the RBSSA, but state-wide. As part of this special status, the policies of the Coastal Management Program as specified in Title 31, Texas Administrative Code section 501.29 require compliance with Chapter 26 of the TPW Code when development projects require the use or taking of any public land within a state park, wildlife management area or preserve, such as RBSSA.

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."

Due to the substantial amounts of proposed adverse impacts to many significant resource areas of the Coastal Bend, TPWD recommends that the applicant provide an EIS that fully assesses all direct, indirect, and cumulative impacts of the proposed project and any connected actions. TPWD appreciates the opportunity to provide comments for this project. Questions can be directed to Paul Silva (361-825-3204) or Leslie Koza (361-825-2329) in Corpus Christi.

Mr. Jones, 401 Coordinator SWG-2020-00228 Page 14 of 14 July 2, 2020

Sincerely,

60

Dakus Geeslin Branch Chief, Science and Policy Coastal Fisheries Division

DG:LK:PS

Attachments: SWG-2018-00789 SWG-2019-00245 SWG-2019-00067 letter dated August 28, 2019 SWG-1995-02221 SWG-2006-02562 MARAD-2019-0094

Literature Cited:

Pulich, W.M, Jr. and T. Calnan (eds.). 1999. Seagrass Conservation Plan for Texas. Resource Protection Division. Austin, Texas: Texas Parks and Wildlife Department. 79 pp.



Life's better outside.®

Commissioners

Ralph H. Duggins Chairman Fort Worth

S. Reed Morian Vice-Chairman Houston

Arch "Beaver" Aplin, III Lake Jackson

> Oliver J. Bell Cleveland Anna B. Galo Laredo

Jeanne W. Latimer San Antonio

> James H. Lee Houston

> > Dick Scott Wimberley

Kelcy L. Warren Dallas

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director September 13, 2019

Mr. Dwayne Johnson U.S. Army Corps of Engineers Galveston District, Regulatory Branch 5151 Flynn Parkway, Suite 306 Corpus Christi, TX 78411-4318 Ms. Leslie Savage Texas Railroad Commission P.O. Box 12967 Austin, TX 78711-2967

Re: Permit Application Number SWG-2018-00789 Axis Midstream Holdings, LLC

Dear Mr. Johnson and Ms. Savage:

Texas Parks and Wildlife Department (TPWD) has reviewed the Public Notice (PN) dated August 8, 2019 for permit application number SWG-2018-00789. The applicant requests authorization to construct a series of facilities and pipelines to store, transport and load crude oil into marine transport vessels. The proposed project is located in several towns, waterways, and counties including Taft, Gregory, Ingleside, and Aransas Pass, in San Patricio County, Texas; Aransas Pass and Port Aransas in Nueces County, Texas; and the Gulf Intracoastal waterway (GIWW); Redfish Bay; Corpus Christi Ship Channel (CCSC); and Harbor Island in Nueces County, Texas. Based on the scale of adverse impacts to the important natural resources of the Redfish Bay State Scientific Area, TPWD recommends a more rigorous environmental review and consideration of alternatives in an Environmental Impact Statement.

According to the PN, the proposed project consists of the following components:

- the Midway Tank Farm (Midway Facility) located south of the City of Taft, Texas;
- a 60-acre Aransas Pass Staging Facility (Aransas Facility) located west of the City of Aransas Pass, Texas;
- a pipeline bundle connecting the Midway and Aransas Facilities consisting of one 2-inch fiber optic cable, one 6-inch gas supply (last mile), and two 36-inch crude oil pipelines;
- the Harbor Island Loading Terminal (Harbor Island Terminal) located on the west side of the CCSC on Harbor Island in Port Aransas, Texas; and
- a pipeline bundle connecting the Aransas and Harbor Island Facilities that consists of one 2-inch fiber optic cable, one 6-inch gas supply line, one 16-inch intermix return pipeline; and two 42-inch crude oil pipelines.

#### **Current Site Conditions**

The PN does not adequately describe the current site conditions of the proposed project. Please refer to the current site conditions described in the PN issued on August 20, 2019 for permit application SWG-2019-00067 for a more robust description of the significant resources that occur within the geographic area of the

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800 Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 2 of 8

proposed project. Of particular concern to TPWD is the approximately 14,000-acre Redfish Bay State Scientific Area (RBSSA) located between San Jose Island and Live Oak Peninsula. As described in TPWD's comment letter of December 6, 2018 (Attachment A), the fisheries, seagrasses, and other natural resources of Redfish Bay have ecological significance as well as scientific and educational value, reflected by the state's designation as a State Scientific Area.

The RBBSA has special status because of this designation, and the importance of seagrass habitat has since been specifically recognized by a state criminal prohibition on uprooting seagrass by propeller. As part of this special status, the policies of the Coastal Management Program, as specified in Title 31, Texas Administrative Code section 501.29, require compliance with Chapter 26 of the Texas Parks and Wildlife Code when development projects require the use or taking of any public land within a state park, wildlife management area or preserve, such as RBSSA.

Chapter 26 provides that a department, agency, political subdivision, county, or municipality of this state may not approve any program or project that requires the use or taking of public lands 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." Entities responsible for holding such hearings and making such determinations for the proposed project may include the Texas General Land Office, the Texas Railroad Commission, and/or local navigation districts, such as the POCCA or Aransas County Navigation District (see Attachment A and Attachment B for additional information).

As promulgated in Title 31 Texas Administrative Code Section 57.921, the RBSSA is established "for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value". Based on this language, TPWD believes that the RBSSA is equivalent to a research site as defined in 40 CFR 230.54(a) and may be equivalent to a sanctuary and refuge as defined in 40 CFR 230.40(a).

**Recommendation:** As referenced above, USACE should evaluate the effects of the proposed project on the RBSSA in a manner consistent with all applicable definitions of state designated areas. Furthermore, if USACE issues a permit on this application, USACE should include a special condition requiring compliance with Chapter 26 of the Texas Parks and Wildlife Code.

Impacts

The PN describes the following effects of the proposed project:

Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 3 of 8

- 13.94 acres of temporary impacts to waters of the U.S. to construct and install an approximately 19.5-mile-long pipeline bundle connecting the Midway and Aransas Facilities.
- 16.8 acres of permanent impacts to waters of the U.S. to construct the Aransas Facility. The PN specifically describes estuarine wetlands dominated by *Distichlis spicata* (saltgrass) and fringed with *Borrichia frutescens* (sea oxeye daisy).
- 18.58 acres of temporary trench and fill impacts to waters of the U.S. to construct and install the pipeline bundle connecting the Aransas and Harbor Island Facilities. The PN specifically identifies:
  - o 7.81 acres of submerged aquatic vegetation (SAV) mainly comprised of *Halodule wrightii* (shoal grass),
  - o 0.002 acres to small stands of *Spartina alterniflora* (smooth cordgrass),
  - o 10.65 acres of unvegetated tidal sand flats,
  - o 0.42 acre Avicennia germinans (black mangrove), and
  - 0.11 acre of estuarine wetlands dominated by salt grass and oxeye daisy.
- Impacts to the western littoral shoreline of Redfish Bay and the GIWW will be avoided by horizontal directionally drilling under these features.
- No impacts to waters of the U.S. are proposed to construct the Midway Facility or the upland portion of the Harbor Island Facility.
- The Harbor Island Facility would result in the dredging of 70 acres of new work material to construct vessel berths. Dredged material would be placed onsite for shoreline restoration, beneficial use (BU), and/or in a dredged material placement area.

**Recommendation:** TPWD requests the opportunity to review and provide comments for any habitat surveys, including survey methods, summaries, and reports, used to describe the quantitative, qualitative, and spatial attributes of the aquatic resources within the project area.

The applicant has not provided any details about the best management practices (BMPs) or restoration methods that would be used to restore the pipeline route between the Midway and Aransas Facilities.

**Recommendation:** In addition to the General Construction Guidelines provided in Attachment B, the applicant should implement the most recent version of the Upland Erosion Control, Revegetation, and Maintenance Plan and the Wetland and Waterbody Construction and Mitigation Procedures (i.e., Plans and Procedures) issued by the Federal Energy Regulatory Commission (FERC). Even though the proposed pipelines are not under FERC's jurisdiction, these Plans and Procedures provide a common framework of BMPs and restoration procedures that, when properly Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 4 of 8

implemented, provide assurance that the proposed temporary impacts will be temporary.

The impacts proposed within the RBSSA are described as temporary and TPWD strongly disagrees with this assessment. Open cut trenching techniques through SAV, emergent marshes, and tidal flats do not result in temporary impacts. Not only would the proposed trenching activities result in direct impacts but the proposed side-casting of dredged material would burry adjacent aquatic habitats during construction activities, especially in areas where the existing oil and gas channel is less than 150-feet-wide. Merely restoring elevations to pre-construction contours and replanting areas that were previously vegetated does not account for temporal lag or alleviate the risk and uncertainty of project success.

#### Previous coordination

By letter dated December 6, 2018 (Attachment A), TPWD provided the applicant's agent comments and concerns for the proposed project and information describing the importance of the aquatic habitats within the RBSSA. During this preapplication phase of the project, the applicant's agent would not disclose the specific location or layout of the Harbor Island Terminal Facility but described the proposed project as part of the "Harbor Island Project" being planned by the Port of Corpus Christi Authority (POCCA). TPWD recommended that the alternatives considered for the proposed project include those which do not require the siting of an export terminal on Harbor Island as well as those which reduce the sizes and/or numbers of pipelines routed through RBSSA. From the information provided in the PN, it is not clear if an alternatives analysis has been prepared for the proposed project.

**Recommendation:** If the applicant has not already done so, an alternatives analysis should be developed that includes both onsite and offsite alternatives, including but not limited to those described above. TPWD requests the opportunity to review and provide comments for the alternatives analysis.

At a subsequent Joint Evaluation Meeting (JEM), the applicant's agent stated that the route within the POCCA right-of-way (ROW) located just north of the State Highway (SH) 361 Causeway was deemed impracticable due to "constructability issues". The deepwater port project proposed by Bluewater Texas Terminal, LLC (Docket MARAD-2019-0094), which would also originate from the same Midway Facility proposed here, has since identified the POCCA's ROW as their proposed pipeline route for two 30-inch crude oil pipelines serving two single point mooring buoys located in Federal waters of the Gulf of Mexico for the purpose of fully loading very large crude carriers (VLCCs). As a result, TPWD views the POCCA ROW as a viable alternative for consideration in an alternatives analysis. Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 5 of 8

Since the pre-application phase, the following elements of the proposed project, as described in the PN, have changed within the Redfish Bay pipeline route: a 2-inch fiber optic cable has been added to the pipeline bundle, the diameter of the intermix return pipeline has increased from 12 inches to 16 inches, and the width of the work corridor across Redfish Bay has increased from 88 feet to 150 feet. These new increases in the size of the project have not been evaluated and will necessarily increase potential adverse impacts to natural resources, which should be analyzed in a more robust environmental review.

TPWD appreciates the inclusion of turbidity curtains in the PN, as recommended by TPWD.

#### Avoidance and Minimization:

The PN states that impacts have been avoided and minimized in part because the Harbor Island Terminal is located entirely within uplands. The cross-hatched area depicted on Sheet 33 of 39 of the project plans, however, indicates that the shoreline area along the north and northwestern edges of the proposed berthing area will not be avoided, but rather excavated. The PN does not describe these impacts.

**Recommendation:** Aquatic resources located within the proposed berthing area should be described, excavation impacts should be avoided and minimized to the extent practicable, and compensatory mitigation should be provided for any unavoidable impacts.

The PN states that impacts have also been avoided and minimized because the Aransas Facility is located primarily on a previously permitted industrial site. Although this site has been previously impacted by dredge and fill activities, aerial imagery available on Google Earth shows that a number of the tidal flat mosaic features that were present in the 1950's are still intact. Akin to similarly situated habitats along the Live Oak Ridge shoreline, these aquatic features likely support large numbers of waterfowl when inundated and shorebirds during periods of exposure. Because East Beasley Road already provides a direct route to the proposed facility, it is not clear why the project requires access from Farm to Market Road (FM) 140. The proposed emergency access road would partially fill the channel that provides a hydrological connection to the tidal flat mosaic described above and the tidal wetland mitigation project described below. At the roadway channel crossing, the earthen channel would be replaced by three 48-inch box culverts. There is concern that the culverts would alter site hydrology, if not at the time of installation, then later as a consequence of sedimentation and/or biofouling.

**Recommendation:** Onsite and offsite alternatives should be evaluated to further avoid and minimize impacts to functioning aquatic habitats. Unavoidable impacts should be compensated.

Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 6 of 8

#### Mitigation

The PN states that pipeline installation along the southwestern shoreline of Harbor Island would require this section of the shoreline to be stabilized. Therefore, in order to compensate for unavoidable impacts to waters of the U.S., the applicant is proposing to conduct shoreline stabilization along this section of the shoreline. According to Sheet 37 of 39 of the project plans, the project would consist of 14,500 linear feet of earthen levee extending 30 feet above sea level protected by a rock breakwater extending 5 feet above sea level. The PN states that the area leeward of the shoreline project is expected to recover post-construction to form a combination of seagrass, mangrove emergent marsh habitat, but the amount of time required for recovery does not appear to be considered.

The 76-acre project is expected to protect and enhance approximately 36 acres of seagrass habitat. The PN does not quantify the net permanent impacts to special aquatic sites, including tidal flats, and waters of the U.S. that would result from the proposed shoreline stabilization project. The PN does not demonstrate that the material to be dredged from the Harbor Island Facility has been tested for contaminants or is otherwise compatible with the proposed use. Due to a lack of supply in the sediment budgets of many coastal ecosystems, TPWD generally encourages the beneficial use of dredged materials for projects which restore, enhance, or create aquatic habitats. Based on the information provided, the proposed shoreline stabilization project does not demonstrate a net gain in aquatic resource area or function and therefore does not provide adequate compensation for the proposed impacts.

In addition to the shoreline stabilization project, the applicant proposes to restore two acres of tidal wetlands by removing a levee that was constructed for a dredged material placement area (DMPA) authorized by permit number SWG-1996-02083. By depositing levee material into the onsite borrow area from which it came, site elevations would be restored to approximate pre-construction conditions. Levee removal would potentially restore tidal hydrology to an additional 8 acres of land. The PN does not indicate if the DMPA has been tested for contaminants.

#### **Tidal Flats**

The information in the PN does not accurately capture the permanent impacts the proposed project would have on tidal flats. The pipeline installation impacts to tidal flats are not only mischaracterized as temporary, but the proposed shoreline stabilization project directly and permanently impacts an even larger area of tidal flats without providing any compensation for those impacts.

Tidal flats are irregularly inundated shallow water habitats that, with the exception of algal mats, are generally unvegetated and colonized by annelid worms, dipteran larvae, small crustaceans and mollusks, and other macrobenthic infauna. When inundated, tidal flats provide escape and forage habitat to small fish as well as loafing and forage habitat to wading birds and long-legged shorebirds. When Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 7 of 8

exposed, tidal flats provide unique feeding opportunities to shorebirds in general but play a more critical role for smaller shorebirds, such as the state- and federallylisted threatened piping plover (*Charadrius melodus*) and red knot (*Calidris canutus*).

Local status and trend studies estimate that Redfish Bay has lost more than 86% of the estuarine habitats classified as tidal flat since the 1950's (Tremblay et al. 2008, White and Tremblay 1998). Much of that loss has occurred on the islands separating Redfish Bay from Aransas and Corpus Christi Bays and along navigation channels between Harbor Island and the GIWW. While many of these losses are attributed to habitat conversions caused by sea level rise, losses along the east margin of Live Oak Ridge have also been attributed to industrial development along the GIWW. Upland development accounted for as much as 43% of the long-term tidal flat loss. Channelization of the GIWW contributed to another 31% loss of tidal flats to open water, which in turn allowed emergent vegetation to establish in remaining flats accounting for 23% of the long-term gross loss.

**Recommendation:** Because TPWD is not aware of any successful tidal flat restoration techniques or successful tidal flat restoration projects, tidal flat habitats are considered difficult to replace. Therefore, impacts to tidal flats should be avoided and minimized to the extent possible.

Overall, TPWD has concern for the significant individual effects of the proposed project, as well as the cumulative effects of past and reasonably foreseeable future projects, may have on:

- the physical, chemical, and biological characteristics of the aquatic ecosystem (including suspended particulates and turbidity, water quality, normal water fluctuations, threatened and endangered species and their habitats, aquatic organisms in the food web, and other wildlife associated with aquatic ecosystems),
- the significant permanent and unmitigated impacts to special aquatic sites that would result from the project as proposed, and
- the adverse effects on the human use characteristics of these special aquatic sites (including recreational and commercial fisheries, water-related recreation, aesthetics, and preserves such as research sites that are managed for their aesthetic, educational, historical, recreational, or scientific value).

As shown in public notices and news reports, TPWD is aware of several other development projects proposed in this area that should be considered as part of an analysis of cumulative effects.

**Recommendation:** Prior to the issuance of a permit, the applicant should incorporate the above requested modifications and then submit revised project plans for resource agency review. In addition, an Environmental Impact Statement should be undertaken to fully evaluate:

Mr. Johnson and Ms. Savage SWG-2018-00789 September 13, 2019 Page 8 of 8

- the alternatives that were considered when selecting the preferred alternative,
- the direct, indirect and cumulative impacts of the proposed project on the environment including the significant aquatic resources of Redfish Bay and the RBSSA, and
- a compensatory mitigation plan that fully offsets all unavoidable impacts.

TPWD appreciates the opportunity to provide comments and recommendations for this project. Questions can be directed to Ms. Jackie Robinson (361-825-3241) or Ms. Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely,

mile

Robin Riechers Director Coastal Fisheries Division

RR:JR:LK:dh

Attachments

cc: Ms. Jackie Robinson Ms. Leslie Koza

Literature Cited:

- Tremblay, T.A., J.S. Vincent, and T.R. Cabian. 2008. Status and trends of inland wetland and aquatic habitats in the Corpus Christi area. Coastal Bend Bays and Estuary Program, CBBEP - 55, 89 pp.
- White, W.A. and T.A. Tremblay. 1998. Current status and historical trends of selected estuarine and coastal habitats in the Corpus Christi Bay National Estuary Program study area. Corpus Christi Bay National Estuary Program. CCBNEP-29, 161 pp.



December 6, 2018

Life's better outside."

Commissioners

Ralph H. Duggins Chairman Fort Worth

> S. Reed Morian Vice-Chairman Houston

> T. Dan Friedkin Houston

Anna B. Galo Laredo

> Bill Jones Austin

Jeanne W. Latimer San Antonio

> James H. Lee Houston

> > Dick Scott Wimberiey

Kelcy L. Warren Dallas

Lee M. Bass Chairman-Emeritus Fort Worth

Carter P. Smith Executive Director Mr. Richard G Leonhard Project Consulting Services, Inc. 3300 W. Esplanade Avenue South, Suite 500 Metairie, LA 70002

RE: Axis Midstream Redfish to Harbor Island Pipelines

Dear Mr. Leonhard:

As indicated at the Joint Evaluation Meeting (JEM) on October 2, 2018, hosted by the U.S. Army Corps of Engineers (USACE) Corpus Christi Regulatory Field Office, the Texas Parks and Wildlife Department (TPWD) is providing written comments and concerns for the proposed project. TPWD greatly appreciates this timely coordination effort so that information about potential impacts to fish and wildlife resources, as well as recommendations to avoid and minimize those impacts, can be provided and taken into consideration during the early stages of project development.

As proposed at the JEM, the project would consist of two 42-inch pipelines for exporting crude oil, one 12-inch backflow pipeline for maintenance, and one 6-inch gas pipeline for power. As explored for 14 alternative routes, the pipeline route would begin at an existing crude gathering facility in Aransas Pass in San Patricio County, Texas and terminate at an unidentified export terminal on Harbor Island. The majority of these routes would pass through Redfish Bay and the designated Redfish Bay State Scientific Area (RBSSA). Of the alternatives presented, three routes remain under consideration, including a route through the Port of Corpus Christi Authority's (PCCA) right-of-way (ROW) that runs along the northern shoreline of State Highway (SH) 361 and two routes that cross through southern Redfish Bay between SH 361 and the Corpus Christi Ship Channel (CCSC).

Axis Midstream's presented preferred route, which crosses southern Redfish Bay just south of Ransom Island, would avoid and minimize the first 4,500 feet of impacts by horizontally directionally drilling (HDD) under the Aransas Pass shoreline, the Gulf Intracoastal Waterway (GIWW), and adjacent seagrass beds and shallow water habitats. The remainder of the route would employ conventional trenching techniques through approximately 6,000 feet of existing oil and gas channels, approximately 6,500 feet of open waters in Redfish Bay, and upon approaching Harbor Island, up to 7,600 feet of seagrass and other shallow water habitats. Trenching techniques would require an approximately 44-foot-wide trench, with an adjacent corridor measuring approximately 44-feet-wide for the placement of side casted dredged material. According to the impact calculations provided, the project would directly affect approximately 13.1 acres of existing oil and gas channels, approximately 14.2 acres of open water, and approximately 16.6 acres of shallow water resources, including seagrasses. Estimates of indirect impacts, such as those resulting from turbidity, have not been provided.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800 www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Mr. Richard G. Leonhard Axis Midstream; Redfish to Harbor Island Pipelines Page 2 of 3 December 6, 2018

Seagrasses play critical roles in the coastal environment by providing nursery habitat for estuarine fisheries, serving as a major source of organic biomass for coastal food webs, contributing to the stabilization of shorelines and sediments to reduce coastal erosion and improve water clarity, as well as contributing to nutrient cycling and water quality processes. Redfish Bay represents the most extensive area of pristine seagrass beds outside the Laguna Madre and is also the northern range limit for large beds of turtlegrass and manateegrass (Pulich and Calnan, 1999)<sup>1</sup>.

The importance of these shallow water resources to recreational fisheries in Redfish Bay is evidenced by recent angler survey data collected from 2013 to 2017. Southern Redfish Bay (as defined above) represents only about 7% of the areal extent of the Corpus Christi Bay Ecosystem, yet survey data indicate that this small area accounted for 18% of the angling trips taken by boat and 21% of the angler hours (time anglers spent fishing) throughout the Corpus Christi Bay Ecosystem. These survey data also indicate that southern Redfish Bay accounted for 37% of spotted seatrout, 31% of red drum, 23% of southern flounder, and 12% of black drum landed throughout the Corpus Christi Bay Ecosystem.

Following a multi-agency effort and the resulting publication of the "Seagrass Conservation Plan for Texas" in 1999, the Texas Parks and Wildlife Commission established the RBSSA for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value (i.e., seagrass meadow communities). Because of this designation, the RBBSA has special status, and the importance of seagrass habitat has since been specifically recognized by state law, not just within the RBSSA, but state-wide. As part of this special status, the policies of the Coastal Management Program as specified in Title 31, Texas Administrative Code, section 501.29 require compliance with Chapter 26 of the Texas Parks and Wildlife Code when development projects require the use or taking of any public land within a state park, wildlife management area or preserve, such as RBSSA.

Chapter 26 provides that a department, agency, political subdivision, county, or municipality of this state may not approve any program or project that requires the use or taking of public lands 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." Entities responsible for holding such hearings and making such determinations for the proposed project may include the Texas General Land Office, the Texas Railroad Commission, and/or local navigation districts, such as the PCCA or Aransas County Navigation District.

TPWD understands that habitat surveys have not been performed and that the calculated impacts are currently based on desktop estimates. TPWD recommends that habitat surveys be conducted, preferably during the growing period (March – October), so that the entire suite of project impacts can be adequately quantified.

Storage tanks and an export terminal were identified among the infrastructure that would be required to fulfill the basic purpose and need of the proposed project. However, details related to these components have not been provided. To fully evaluate potential impacts Mr. Richard G. Leonhard Axis Midstream; Redfish to Harbor Island Pipelines Page 3 of 3 December 6, 2018

to fish and wildlife resources, all components of the proposed project should be included in the proposed project plans, and all direct and indirect impacts to each aquatic resource type should be quantified.

To ensure that impacts to aquatic resources are avoided and minimized to the extent practicable, an alternatives analysis should include project alternatives that do not require the siting of an export terminal on Harbor Island. Alternatives that reduce the sizes and/or numbers of pipelines routed through RBSSA should also be considered, as well as including additional HDD segments to reduce both direct and indirect impacts.

With respect to the use of turbidity curtains, TPWD continues to recommend their use as a best management practice (BMP) to minimize turbidity, which is known to cause secondary impacts to seagrass beds. This BMP is widely used throughout the state, and TPWD is not aware of any data that supports the assertion made at the JEM that this BMP does not work when properly installed and maintained.

Based on the information provided, TPWD believes that the PCCA ROW route may result in fewer impacts to fish and wildlife resources than the preferred route but may not represent the least damaging practical alternative. Such a determination would need to be made by divisions of the state that would authorize such a project through the RBSSA, but only after the consideration of public comments.

Again, TPWD appreciates the opportunity to provide information about fish and wildlife resources and recommendations that avoid and minimize impacts to those resources. We look forward to continuing this coordination effort, and please feel free to contact Ms. Jackie Robinson (361-825-3241) or Ms. Leslie Koza (361-825-2329) in Corpus Christi for any questions you may have as this process moves forward.

Sincerely. berea Henslin

Rebecca Hensley Regional Director, Ecosystem Resources Program Coastal Fisheries Division

RH:LK:JR:lam

cc: Ms. Emily Edwards, U.S. Army Corps of Engineers, Corpus Christi, Texas

<sup>&</sup>lt;sup>1</sup> Pulich, W.M., Jr. and T. Calnan (eds.). 1999. Seagrass Conservation Plan for Texas. Resource Protection Division. Austin, Texas: Texas Parks and Wildlife Department. 79 pp.

#### Attachment B

#### Supplemental Recommendations and Information for Permit Application SWG-2018-00789 September 13, 2019

#### **General Construction Recommendations**

Recommendation: In general, for construction activities in uplands, 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. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only be removed after the project activities are completed and the disturbed sites have been revegetated or otherwise stabilized. Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities. Regarding pipeline installation and HDD entry pits, TPWD recommends that any open trenches or deep excavation areas be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated areas, escape ramps should be installed at an angle of less than 45 degrees (1:1) in excavated areas that will allow trapped wildlife to climb out on their own. If any state-listed species are trapped in trenches or excavated areas, they should be removed by personnel permitted by TPWD to handle state-listed species.

**Recommendation:** For soil stabilization and/or revegetation of disturbed areas within the proposed project area's upland sections, TPWD recommends utilizing erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats would be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided.

#### Impacts to Terrestrial Vegetation and Wildlife Habitat

The upland component of the proposed project consists of a mixture of habitat types and vegetation communities mapped as agricultural land (row crops), coastal prairie, salty prairie, deep sand grassland, mesquite mixed shrubland, huisache woodland or shrubland, deep sand live oak shrubland, and deep sand live oak forest and woodland. In general, current and past vegetation clearing can be a significant threat to native plant communities in an area because disturbed areas are often revegetated with invasive, introduced species.

**Recommendation:** 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-ways (ROWs), utility corridors, etc., or improving existing roads (e.g., private farm and ranch roads). Material and equipment staging areas should be located within previously disturbed areas that do not require vegetation clearing.

A portion of the upland pipeline crosses live oak shrubland and live oak forest-woodland habitat (e.g. between MP 16 and 19). Impacts to native uplands would be expected to be long-term (> 6 months to recover).

**Recommendation:** TPWD recommends that established pipeline and utility corridors and previously disturbed areas be used wherever possible. However, in order to preserve a special vegetation community unique to the Live Oak Peninsula, when installing the pipeline through live oak forest, woodland or shrubland habitat on the Live Oak Peninsula, TPWD recommends narrowing the construction ROW to a width of 100 feet. Impacts to the live oaks in this area, many of which are hundreds of years old, will not recover within several growing seasons thus resulting in permanent impacts. Narrowing the construction corridor would assist in minimizing permanent impacts to this unique habitat.

Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented. Vegetation management should include removing invasive species early on while allowing the existing native plants to revegetate disturbed areas.

**Recommendation:** 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 used in revegetation plans be incorporated into project planning and implemented following construction.

#### **State Regulations**

#### Parks and Wildlife Code

#### Nongame Birds

State law prohibits any take or possession of nongame birds, including their eggs and nests. Laws and regulations pertaining to state-protection of nongame birds are contained in Chapter 64 of the Texas Parks and Wildlife (TPW) Code. This protection applies to most native bird species, including ground nesting species. Although not documented in the Texas Natural Diversity SWG-2018-00789 Attachment B Page 3 of 5 September 13, 2019

Database (TXNDD), many bird species which are not listed as threatened or endangered are protected by Chapter 64 of the TPW Code and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

During the winter, south Texas is the southernmost limit for many migratory birds and it is the northernmost extreme in the breeding season (spring-summer) for other species. Additionally, the proposed project area is in the middle of the Central Migratory Flyway through which millions of birds pass during spring and fall migration. Available food, cover, and water sources provide important stopover habitats for Neo-tropical migrants.

Biologically, this area of south Texas is highly productive and provides a range of habitats including large tracts of undeveloped land, grasslands, prairies, woodlands, marsh, and aquatic habitats. The diversity of habitats is suitable to support a diversity of wildlife species. In particular, the range of habitats provides cover, feeding, nesting and loafing areas for many species of birds; grassland birds, Neo-tropical migrants, shorebirds, wading birds, and raptors.

**Recommendation:** 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. Any vegetation clearing (or ground disturbance that would impact ground nesting birds) that would be required to construct the uplands, inshore or offshore infrastructure (tank farm, pipelines, terminal, horizontal directional drilling (HDD) entry/exit pits), improve existing access roads, or create new access roads should be scheduled to occur outside of the March 15-September 15 migratory bird nesting season. Contractors should be made aware of the potential of encountering non-game migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting the 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.

#### State-listed Species

State law prohibits the capture, trap, take or kill (incidental or otherwise) of state-listed species. Laws and regulations pertaining to state-listed endangered or threatened animals are contained in Chapters 67 and 68 of the TPW Code; laws pertaining to endangered or threatened plants are contained in Chapter 88 of the TPW Code. There are penalties, which may include fines and/or jail time in addition to payment of restitution values, associated with take of state-listed species. A copy of TPWD Guidelines for Protection of State-Listed Species, which includes a list of penalties for take of species, can be found on the TPWD website.

SWG-2018-00789 Attachment B Page 4 of 5 September 13, 2019

For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Program. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647. For the above-listed activities that involve aquatic species please contact the TPWD Kills and Spills Team (KAST) for the appropriate authorization.

The potential occurrence of state-listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state-listed species. Statelisted reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted during vegetation clearing for roads, staging areas, easements, or machinery access corridors.

Please be aware that determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence.

**Recommendation:** TPWD recommends reviewing the most current TPWD annotated county lists of rare species for Nueces and San Patricio counties, as rare species could be present depending upon habitat availability. These lists are available online at the TPWD Wildlife Diversity website. Major revisions were made to these lists in April 2019.

The Texas Natural Diversity Database (TXNDD) contains records of rare species occurrences throughout the proposed project area.

**Recommendation:** Please note that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in an area does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presences, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys. The TXNDD data is updated continuously based on new, updated and undigitized records; therefore, TPWD recommends requesting the most recent TXNDD data on a regular basis.

#### Aquatic Resources

Dewatering, maintenance, and construction related activities in aquatic habitats including streams, channels, bays and estuaries may negatively impact fish, shellfish, and other aquatic

SWG-2018-00789 Attachment B Page 5 of 5 September 13, 2019

resources. As the state agency with the primary responsibility for protecting the state's fish and wildlife resources, the TPW Code authorizes the Department to investigate fish kills and any type of pollution that may cause loss of fish or wildlife resources, estimate the monetary value of lost resources, and seek restitution or restoration from the party responsible for the fish kill or pollution through suit in county or district court. The TAC requires the department to actively seek full restitution for and/or restoration of fish, wildlife, and habitat loss occurring as a result of human activities. The restitution value of lost resources can be significant, in particular for species classified as threatened or endangered. Restitution for each individual of a threatened species is at least \$500 and for each individual of an endangered species is at least \$1,000. In addition, the TPW Code makes it a criminal offense to kill any fish or wildlife resources classified as threatened or endangered.

**Recommendation:** Because the project would require work within aquatic habitats, the project may need to be coordinated with the TPWD KAST for appropriate authorization and to ensure protection of aquatic wildlife.

#### Lighting

Lighting may be required during construction and operation of the proposed facilities. Presumably, lighting would be installed at the Midway, Aransas and Harbor Island Facilities and would be used for safety and security.

**Recommendation:** Particularly for onshore facilities, TPWD recommends considering appropriate lighting technologies and best management practices 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 heat-sensitive to eliminate constant nighttime illumination. For lighting over the water, lights should be shielded to eliminate both skyward and water surface illumination (which can attract fishes and invertebrates).



Life's better outside.®

Commissioners

S. Reed Morian Chairman Houston

Arch "Beaver" Aplin, III Vice-Chairman Lake Jackson

> James E. Abell Kilgore

> > Oliver J. Bell Cleveland

Anna B. Galo Laredo

Jeffery D. Hildebrand Houston

Jeanne W. Latimer San Antonio

Robert L. "Bobby" Patton, Jr. Fort Worth

> Dick Scott Wimberley

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director September 20, 2019

Mr. Robert Jones U.S. Army Corps of Engineers Galveston District, Regulatory Branch 5151 Flynn Parkway, Suite 306 Corpus Christi, TX 78411-4318 Ms. Leslie Savage Environmental Services Section Texas Railroad Commission P.O. Box 12967 Austin, TX 78711-2967401

RE: Permit Application Number SWG-2019-00245 Port of Corpus Christi Authority (PCCA)

Dear Mr. Jones and Ms. Savage:

Texas Parks and Wildlife Department (TPWD) has reviewed the Public Notice (PN) dated August 21, 2019 for permit application number SWG-2019-00245. The applicant requests authorization to construct a 64.8-acre crude oil export terminal with vessel berths on Harbor Island that would accommodate up to two very large crude carrier (VLCC) size deep-draft water borne vessels. The project site is located at the confluence of the Aransas Pass, Aransas Channel, Lydia Ann Channel, and the Corpus Christi Ship Channel (CCSC) just north of State Highway (SH) 361 and abutting the Texas Department of Transportation (TxDOT) Ferry Landing at Harbor Island in Port Aransas, Nueces County, Texas.

According to the PN, the applicant proposes to dredge two deep draft vessel berths at a slope of 3:1 to the authorized depth of the CCSC at -54 feet mean lower low water (MLLW), plus 4 feet advanced maintenance dredging, plus 2 feet of allowable over depth, totaling -60 feet MLLW. The project would also include the construction of 725 linear feet of bulkhead, 1,275 feet of cellular wall, breasting structures, jetty platforms, access structures, and associated terrestrial structures. Approximately 6.5 million cubic yards (MCY) of dredged material would be dredged and placed in a dredged material placement area (DMPA).

The proposed project is located at Harbor Island which is the historic flood tidal shoal, or delta, of the Aransas Pass inlet complex that was formed and maintained by natural coastal processes. These coastal processes also play a role in maintaining the shallow water habitats of Redfish Bay, including seagrass beds, emergent marshes, mangroves, oysters, and tidal flats. Redfish Bay supports the most extensive area of pristine seagrass beds outside the Laguna Madre and represents the northern range limit for large beds of turtle grass (*Thalassia testudinum*) and manatee grass (*Syringodium filiforme*; Pulich and Calnan, 1999). In 2000, the Texas Parks and Wildlife Commission established the Redfish Bay State Scientific Area (RBSSA) for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. Mr. Jones and Ms. Savage SWG-2019-00245 September 20, 2019 Page 2 of 5

The importance of the shallow water resources of this tidal inlet complex to recreational fisheries in Redfish Bay is evidenced by angler survey data collected from 2013 to 2017 in southern Redfish Bay, which lies between SH 361 and the CCSC. Southern Redfish Bay represents only 7% of the areal extent of the Corpus Christi Bay Ecosystem, yet survey data indicates that this small area accounted for 18% of the angling trips taken by boat and 32% of the angler hours (time anglers spent fishing) throughout the Corpus Christi Bay Ecosystem. This survey data also indicates that southern Redfish Bay accounted for 37% of spotted seatrout, 31% of red drum, 23% of southern flounder, and 12% of black drum landed throughout the Corpus Christi Bay Ecosystem.

The tidal inlet complex also supports tidal flats which are irregularly inundated shallow water habitats that, with the exception of algal mats, are generally unvegetated and colonized by annelid worms, dipteran larvae, small crustaceans and mollusks, and other macrobenthic infauna. When inundated, tidal flats provide escape and forage habitat to small fish as well as loafing and forage habitat to wading birds and longer-legged shorebirds. When exposed, tidal flats provide unique feeding opportunities to shorebirds in general but play a more critical role for smaller shorebirds, such as the state- and federally-listed threatened piping plover (*Charadrius melodus*) and red knot (*Calidris canutus*).

Since the formation of the Aransas Pass tidal inlet complex, improved navigation channels in the area have since been serially deepened and widened and the tidal inlet has been stabilized by a pair of rock jetties. Dredged material associated with construction and maintenance of the improved inlet and navigation channels has been deposited on parts of Harbor Island, including the proposed project site and other adjacent placement areas (PAs). The site of the proposed terminal historically housed an Exxon and Fina bulk fluids export facilities. Although these facilities have since been removed, there is still concern for contaminants in the soils at the project site. There is also concern for the cumulative effects of this and other projects on the sediment budget of the tidal inlet complex which supports the shallow water habitats of Redfish Bay.

**Recommendations:** Soils should be tested for contaminants to determine appropriate disposal methods and locations. The direct, indirect and cumulative effects of this action, as well as similar and connected actions described below, on the sediment budget and sedimentary processes which sustain this productive ecosystem should be fully evaluated. The beneficial use of appropriate dredged materials should be evaluated using a watershed or landscape level approach that considers the status and trends of local aquatic resources and the predicted effects of relative sea level rise.

Based on the information provided in PNs issued by the U.S. Army Corps of Engineers (USACE) and the information released to the public by the applicant and

Mr. Jones and Ms. Savage SWG-2019-00245 September 20, 2019 Page 3 of 5

its project partners, TPWD is concerned that the proposed project is but one component of a larger action (i.e., SWG-2019-00067), is an interdependent part of a foreseeable future action (as described by Lone Star Ports, LLC), and is a similar action with similar timing and geography to another recently proposed action (i.e., SWG-2018-00789).

**Recommendation:** For the reasons described, the USACE should fully evaluate all of these actions in one or more Environmental Impact Statements (EISs) in accordance with 40 CFR 1508.25.

The PN for this permit application (SWG-2019-00245) describes the purpose of the project as a crude oil export terminal. The PN describes approximately 0.33 acre of permanent fill impacts to palustrine emergent wetlands as a result of the project. No compensatory mitigation has been proposed to offset permanent impacts and multiple best management practices have been identified to minimize secondary impacts. Sheet 15 of 16 of the project plans identifies one 36-inch incoming pipeline, two storage tanks surrounded by a containment berm, a pump facility, access roads, vapor combustion units, pipe racks, firewater pumps, and an operations building/warehouse. A note on Sheet 15 of 16 states "Typical upland facility to be designed and built by others, is included for informational purposes only." Consequently, the impacts associated with those aspects of the project were not described by the applicant.

**Recommendation:** The direct, secondary and cumulative effects of the proposed action, along with those of connected and similar actions, should be fully described and evaluated. Adverse impacts should be avoided and minimized to the extent practicable and unavoidable impacts should be fully compensated.

Information released by the applicant on March 28, 2019 (Attachment A) further describes this facility as a joint venture between the Carlyle Group and the Berry Group for a 200-acre state-of-the-art petroleum export terminal on Harbor Island known as Lone Star Ports, LLC. Because the stated purpose of the project cannot be achieved without a source of crude oil or all the associated infrastructure required to transport, store and pump that crude oil, these components of the crude oil terminal should be considered an interdependent action of the proposed project.

**Recommendation:** The scope of the proposed action should be expanded to include these interdependent or connected actions.

As shown in Attachment B, the Lone Star Ports, LLC website states (boldface type is added for emphasis):

Mr. Jones and Ms. Savage SWG-2019-00245 September 20, 2019 Page 4 of 5

> ... Through a partnership with the Port of Corpus Christi, Lone Star Ports will lead the development and operations of the first U.S. onshore export terminal servicing **fully-laden** Very Large Crude Carriers (VLCC) with the ability to export 2 million barrels of crude oil per vessel.... Martin Midstream is also working with Lone Star Ports to establish an exclusive VLCC solution on Harbor Island....

Based on this description, the proposed action is not only an interdependent part of other foreseeable actions described above, but also part of a larger action recently proposed by the applicant (SWG-2019-00067) that would further deepen and lengthen the authorized CCSC to accommodate fully-laden VLCCs at multiple points on Harbor Island.

As recently described in the PN for application number SWG-2018-00789, Axis Midstream Holdings, LLC. similarly proposes to construct a series of facilities and pipelines to store, transport, and load crude oil at a deep-water terminal at Harbor Island. Considering the timing, location, and similarity of these proposed actions, the scope of the proposed actions should be expanded to evaluate their environmental consequences together in order to adequately assess the combined impacts and reasonable alternatives.

Overall, TPWD has concern for the significant individual effects of the proposed project, as well as the cumulative effects of past and reasonably foreseeable future projects, may have on:

- the physical, chemical, and biological characteristics of the aquatic ecosystem (including suspended particulates and turbidity, water quality, normal water fluctuations, threatened and endangered species and their habitats, aquatic organisms in the food web, and other wildlife associated with aquatic ecosystems),
- the significant permanent and unmitigated impacts to special aquatic sites that would result from the project as proposed, and
- the adverse effects on the human use characteristics of these special aquatic sites (including recreational and commercial fisheries, water-related recreation, aesthetics, and preserves such as research sites that are managed for their aesthetic, educational, historical, recreational, or scientific value).

As shown in public notices and news reports, TPWD is aware of several other development projects proposed in this area that should be considered as part of an analysis of cumulative effects.

Recommendation: Prior to the issuance of permits, the applicant should incorporate the above requested modifications and then submit revised project plans for resource agency review. In addition, an Environmental Impact Statement should be undertaken to fully evaluate: Mr. Jones and Ms. Savage SWG-2019-00245 September 20, 2019 Page 5 of 5

- the alternatives that were considered when selecting the preferred alternative,
- the direct, indirect and cumulative impacts of the proposed project on the environment including the significant aquatic resources of Redfish Bay and RBSSA, and
- a compensatory mitigation plan that fully offsets all unavoidable impacts.

TPWD appreciates the opportunity to provide comments and recommendations for this project. Questions can be directed to Ms. Jackie Robinson (361-825-3241) or Ms. Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely,

Con fictors

Robin Riechers Director of Coastal Fisheries

RR:LK:JR:lam

Attachments -2

Literature Cited:

Pulich, W.M, Jr. and T. Calnan (eds.). 1999. Seagrass Conservation Plan for Texas. Resource Protection Division. Austin, Texas: Texas Parks and Wildlife Department. 79 pp.

# Port of Corpus Christi Commission Approves 50-Year Lease Agreement with Carlyle Group Joint Venture

#### Harbor Island Terminal Complex Will Have Deepest Channel Depth of Any Onshore

#### **Crude Oil Export Facility in the United States**

Corpus Christi, TX, USA – The Port of Corpus Christi Commission

approved today a long-term (50-year) lease agreement with Lone Star Ports, LLC ("Lone Star Ports"), a joint venture between the Carlyle Group and the Berry Group, for approximately 200 acres on Harbor Island to develop a state-of-the-art petroleum export terminal. Featuring the latest in safety, security and environmental technologies, the facility will connect U.S. crude producers with all major international markets.

The lease agreement between the Port of Corpus Christi Authority and Lone Star Ports will provide significant accretive value in the Port's annual operating revenues, and the project is expected to create more high-wage jobs and more economic prosperity for Port Aransas, Nueces County, and throughout Texas.

Lone Star Ports' facility on Harbor Island is designed to be the deepest-draft safe harbor crude export facility in the nation when commissioned. Immediately upon completion, the facility's two docks will have access to the improved 56' ship channel depth, making it the United States' first and only onshore terminal capable of fully loading Suezmax vessels and nearly full loading Very Large Crude Carriers (VLCCs).

Last month, the U.S. Army Corps of Engineers (USACE) awarded the first dredging contract for the Corpus Christi Ship Channel Improvement Project to the largest U.S. dredging company, Great Lakes Dredge and Dock Company (GLDD), to deepen the channel to a depth of 56' from the Channel entrance to Harbor Island, and a planned depth of 54' throughout the rest of the harbor. "This long-term commitment is testament to the significance of the Corpus Christi gateway for American energy exports, which are expected to triple in the next decade," said **Sean Strawbridge, Chief Executive Officer for the Port of Corpus Christi**. "A 50-year lease agreement with the Carlyle Group and the Berry Group jointventure company, Lone Star Ports, is not only complementary to our existing marine terminal infrastructure but also positions the Port of Corpus Christi to be the preferred outlet for US-produced crude exports serving all major global demand centers for generations to come."

"The Carlyle Group is enthusiastic about our shared vision with the Port of Corpus Christi Commission to develop an environmentally safe, world-class facility that will position Corpus Christi as a vital economic engine in Texas and around the globe," said **Ferris Hussein, Managing Director of The Carlyle Group**. "The Harbor Island project would not be possible without the leadership shown by the Port's commission and staff in their ongoing commitment to communities throughout the Coastal Bend region. This partnership is a great vote of confidence in Carlyle and our abilities to deliver generation changing infrastructure projects, and we take that responsibility seriously."

Civil works for this facility repurposing project have been underway for the past year ahead of finalizing a definitive lease agreement, including the demolition of existing dock structures from a previous decades old Exxon crude import terminal on Harbor Island. The execution of this new lease enables the parties to commence major equipment and materials procurements and other construction efforts.

"This project on Harbor Island is the next pivotal step in directing the growing crude oil production in the United States to global markets via our Port of Corpus Christi," said **Charles W. Zahn, Jr., Port of Corpus Christi Commission Chairman**.

"The Berry Group looks forward to working with the Port of Corpus Christi and our partners at The Carlyle Group to continue to bring jobs and prosperity to Corpus Christi and the Gulf Coast community as we have for the last 65 years," said **Marty Berry, of The Berry Group**.

### About Port Corpus Christi

As a leader in U.S. Crude Oil export ports and a major economic engine of Texas and the nation, Port Corpus Christi is the 4th largest port in the United States in total tonnage. Strategically located on the western Gulf of Mexico with a 36-mile, 47 foot (MLLW) deep channel, Port Corpus Christi is a major gateway to international and domestic maritime commerce. The Port has excellent railroad and highway network connectivity via three North American Class-1 railroads and two major interstate highways. With an outstanding staff overseen by its seven-member commission, Port Corpus Christi is "Moving America's Energy." <u>http://www.portcorpuschristi.com/</u>

#### About The Carlyle Group

The Carlyle Group (NASDAQ: CG) is a global alternative asset manager with \$210 billion of assets under management across 335 investment vehicles as of June 30, 2018. Carlyle's purpose is to invest wisely and create value on behalf of its investors, many of whom are public pensions. Carlyle invests across four segments – Corporate Private Equity, Real Assets, Global Credit and Investment Solutions – in Africa, Asia, Australia, Europe, the Middle East, North America and South America. Carlyle has expertise in various industries, including: aerospace, defense & government services, consumer & retail, energy, financial services, healthcare, industrial, real estate, technology & business services, telecommunications & media and transportation. The Carlyle Group employs more than 1,625 people in 31 offices across six continents. <u>www.carlyle.com</u>

• Join <u>the</u> Energy Port of the Americas on Social Media •

###

Click for PDF of 2019 Carlyle Press Release



**Environmental Responsibility** 

Community

**Economic Benefits** 

Why Harbor Island

News

Contact

## Project Overview

Headquartered in Corpus Christi, TX, Lone Star Ports, LLC (a Carlyle company) is developing a first-of-its-kind crude oil export terminal on Harbor Island. Through a partnership with the Port of Corpus Christi, Lone Star Ports will lead the development and operations of the first U.S. onshore export terminal servicing fully-laden Very Large Crude Carriers (VLCC) with the ability to export 2 million barrels of crude oil per vessel. Based on current market conditions, net U.S. exports associated with the project could exceed \$30 billion per year, connecting American produced energy to the world reducing the U.S. trade deficit and furthering Corpus Christi's position as a global energy leader.

The project is a joint venture between The Carlyle Group and The Berry Group, the largest private employer in the Corpus Christi area.

Martin Midstream is also working with Lone Star Ports to establish an exclusive VLCC solution on Harbor Island.

Lone Star Ports is led by an experienced management team, including Jerry Ashcroft, former CEO of EQT Midstream – Ashcroft has held leadership positions at two of the largest marine terminals in the world.

## Community



## Environmental Responsibility







## Environment

Lone Star Ports is committed to the safe and responsible development of the Harbor Island Export Terminal. We are committed to developing a best-inclass facility that will have a limited footprint, reducing or avoiding environmental impacts throughout all stages of development and



## Community

"After Harvey, the port and a lot of other bigger entities came together for everybody in the community and they really came together and helped everybody out who needed it. It's kind of was surreal how much everybody pitched in to help...It wasn't about business anymore; it was about just



## Economic Benefits

Lone Star Ports is a Texas-Sized project that will help build a better economy and a brighter future for the Coastal Bend region of Texas through tax revenue, creation of highpaying jobs and other economic factors.

According to an economic impact



## Harbor Island

Harbor Island will be the first U.S. onshore export terminal servicing full-laden Very Large Crude Carriers (VLCC) with the ability to export 2 million barrels of crude oil per vessel.

Lone Star Ports has signed indicative agreements with Harvest Midstream and EPIC crude
operation. Harbor Island Terminal will beneficially re-use a former industrial site (avoiding impacts to undeveloped land) and due to its location, it can significantly reduce ship traffic associated with oil exports from other locations within the port region. The Harbor Island location also protects the facility from extreme weather conditions and ocean currents will not create dangerous situations during loading.

MORE »

helping the residents here."

– Amanda Davis, Resident of Corpus Christi

MORE »

study conducted by the Perryman Group, the construction and operation of the Harbor Island Export Terminal will lead to more than 300 permanent jobs in the Corpus Christi region and thousands of indirect jobs across Texas and around the world.

MORE »

pipeline. Once online, these two pipelines will provide connectivity to more than one million barrels per day (mmbbls/d) of crude oil from the Permian and Eagle Ford basins. Additionally, Lone Star Ports is excited about an indicative agreement with Martin Midstream Partners L.P. to provide a single, integrated VLCC solution on Harbor Island.

MORE »

# What They're Saying



© Copyright 2019, Lone Star Ports



August 28, 2019

Mr. Dwavne Johnson U.S. Army Corps of Engineers Life's better outside." Corpus Christi Regulatory Field Office 5151 Flynn Parkway, Suite 306 Corpus Christi, TX 78411-4318

401 Coordinator TCEO, Mail Code 150 P.O. Box 13087 Austin, Texas 78711-3087

Ms. Ashley Chang USEPA, Region 6 1201 Elm Street Dallas, TX 75270

T. Dan Friedkin Houston

Commissioners

Ralph H. Duggins Chairman

> S. Reed Morian Vice-Chairman

Fort Worth

Houston

Anna B. Galo Laredo

> Bill Jones Austin

Jeanne W. Latimer San Antonio

> James H. Lee Houston

> > Dick Scott Wimberley

Kelcy L. Warren Dallas

Lee M. Bass Chairman-Emeritus Fort Worth

Carter P. Smith **Executive Director** 

Permit Application Number SWG-2019-00067 Re: Port of Corpus Christi Authority (PCCA)

Dear Mr. Johnson, 401 Coordinator and Ms. Chang:

Texas Parks and Wildlife Department (TPWD) has reviewed the Public Notice dated August 28, 2019 for permit application number SWG-2019-00067. The applicant proposes to deepen and expand the Corpus Christi Ship Channel (CCSC) near Port Aransas, Nueces County, Texas in order to construct a channel that can accommodate transit of fully laden Very Large Crude Carriers (VLCCs) from multiple locations on Harbor Island into the Gulf of Mexico. The Channel Deepening Project (CDP) would span approximately 13.8 miles from a location near the southeast side of Harbor Island to the -80-foot mean lower low water (MLLW) bathymetric contour in the Gulf of Mexico (GOM). The proposed CDP will 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). Although the proposed project does not explicitly include widening of the channel, minor incidental widening of the channel slope will result to meet the slope requirements and to maintain stability of the channel. Specifically, the applicant requests authorization to:

- deepen a portion of the CCSC from the currently authorized depth of -54 . to -56 feet 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 -80-foot MLLW bathymetric contour,
- expand the existing Inner Basin at Harbor Island as necessary to . accommodate VLCC turning, which includes the construction of a flare transition from the CCSC within Aransas Pass to meet the turning basin expansion,

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512,389,4800 Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 2 of 7

- potential placement of new work dredged material into waters of the U.S. for beneficial use (BU) 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 in feeder berms for beach restoration along San Jose and Mustang Islands, and
- transport of new work dredged material to the CCSC Improvement Project (CCSCIP) New Work (NW) Ocean Dredged Material Disposal Site (ODMDS).

Within the context of the geographic area, the PN describes numerous important resources that may be affected by the proposed project. 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 federally-listed threatened and endangered sea turtle and bird species, including the Whooping Crane (Grus americana), Piping Plover (Charadrius melodus), and Red Knot (Calidris canutus). 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. TPWD has identified additional important resources within this geographic extent that include Padre Balli Park and Bob Hall Pier, Packery Flats, Mustang Island State Park, Francine Cohn Preserve, Shamrock Island, the Aransas Pass (Lydia Ann) Lighthouse, Lighthouse Lakes Paddling Trail, Lighthouse Lakes Park, I.B. Magee Beach Park and Horace Caldwell Pier, and the Port Aransas Nature Preserve.

Of particular concern to TPWD, is the 14,000-acre Redfish Bay State Scientific Area (RBSSA) located between San Jose Island and Live Oak Peninsula. Following a multi-agency effort and the resulting publication of the "Seagrass Conservation Plan for Texas" in 1999, the Texas Parks and Wildlife Commission established the RBSSA for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. Because of this designation, the RBBSA has special status, and the importance of seagrass habitat has since been specifically recognized by state law, not just within the RBSSA, but state-wide.

Redfish Bay provides a mosaic of tidal flats, tidal marsh, mangroves, unvegetated shallows, and extensive seagrass beds that provide nursey, forage, and cover habitats for many species of fish and wildlife. Outside the Laguna Madre, Redfish

Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 3 of 7

Bay represents the most extensive area of pristine seagrass beds and is also the northern range limit for large beds of turtle grass and manatee grass (Pulich and Calnan, 1999). The importance of the shallow water resources of RBSSA to recreational fisheries in Redfish Bay is detailed in recent angler survey data collected from 2013 to 2017. Southern Redfish Bay represents only about 7% of the areal extent of the Corpus Christi Bay Ecosystem, yet survey data indicate that this small area accounted for 18% of the angling trips taken by boat and 21% of the angler hours (time anglers spent fishing) throughout the Corpus Christi Bay Ecosystem. These survey data also indicate that southern Redfish Bay accounted for 37% of spotted seatrout, 31% of red drum, 23% of southern flounder, and 12% of black drum landed throughout the Corpus Christi Bay Ecosystem.

Chapter 26 of Parks and Wildlife Code states that a department, agency, political subdivision, county, or municipality of this state may not approve any program or project that requires the use or taking of public land designated as a park, 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." TPWD considers the RBSSA to be public land designated as a scientific area that is subject to the procedural requirements of Chapter 26. This statute may also apply to other designated public lands that would be impacted by the proposed project.

The PN states that dredging activities will impact 0.11 acre of seagrass and that the placement of dredged material associated with the project will result in 185.9 acres of adverse impacts to special aquatic sites including wetlands and 58.5 acres of submerged aquatic vegetation (SAV). Based on the information provided, these impact estimates are based on desktop estimates which have not been validated by comprehensive habitat surveys. While TPWD appreciates the applicant's desire to beneficially use the dredged material, the project information presented in the PN does not adequately demonstrate how the proposed impact sites will benefit from the proposed fill or how the impacts will be otherwise mitigated.

**Recommendations:** TPWD requests that the applicant:

- Identify and quantify the specific habitat that will be restored or created in order to accurately assess the impacts and the benefits of the project. This should be depicted on the dredge placement area and beneficial use site maps.
- Develop a more detailed mitigation plan that demonstrates functional lift for the types and quantities of the aquatic resources that will be impacted and if the proposed BU placement sites would be able to achieve or exceed the functions currently provided by established aquatic resources. The plan should include BU design details, mitigation success criteria, monitoring requirements and

Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 4 of 7

adaptive management options that include temporal loss of aquatic resource functions.

The proposed placement area M4 is located within the RBSSA and contains vast acres of pristine seagrass beds of all five species of seagrass found in Texas. The applicant proposes to construct a levee Northward along the eastern side of Dagger Island that turns Northwest to follow the channel perpendicular to the shoreline of Ingleside. The applicant proposes to hydraulically place BU material to an elevation of 4 feet to restore marsh habitat within the 702-acre placement area.

**Recommendation:** TPWD would like clarification on use of fill behind the levee. Beneficial use of dredge material to cover existing functional seagrass beds at such a large scale is not recommended, especially within the RBSSA. The goal of the RBSSA is to protect and preserve the seagrass and serve as an educational source to promote the many ecological benefits of seagrass. With larger vessels (VLCC and Suezmax) using the CCSC the proposed geotextile would offer little protection from ship wakes and natural wave impact. The applicant should consider hard structure protection (rock, rip-rap, articulated mat) for the east side of the levee.

The applicant would like to place BU on the southern side of Pelican Island at site M3 to create marsh with the possibility of establishing elevations suitable for seagrass.

**Recommendations:** The TPWD seagrass viewer indicates that there is currently seagrass located in the middle of the proposed BU placement. The applicant should establish elevations suitable for seagrass adjacent to the existing seagrass to create a contiguous bed and create marsh on the eastern and western ends of the placement. This island is a bird rookery and BU placements should not be performed during nesting season if possible.

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 potion that extends into the Aransas Pass inside the jetties is classified as 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 applicant proposes to create a flare transition at the confluence of the CCSC and the Aransas Channel to accommodate VLCC turning but the size of the turning basin diameter had not been determined. At the inner CCSC terminus of the

Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 5 of 7

proposed dredging project, the dredge depth at station 110+00 would be to -75 feet MLLW and would immediately transition to a depth of -47 feet MLLW. The applicant provides no details of the transition design or what precautions will be taken to prevent the channel from sloughing off into the deeper channel.

**Recommendation:** The applicant should provide any new ship simulation modeling that provides information of the requirements for the turning basin diameter. The applicant should provide a description of the transition and design of the channel at station 110+00. This should detail how the channel will be stabilized to prevent sloughing. In addition, the applicant should provide any hydrological modeling conducted that the 28-foot transitional change in depth will have no physical, biological, chemical or ecological impacts to the surrounding area. This would include impacts to fish and invertebrate larvae transportation, salinity regimes, tidal velocities, nutrient and sediment exchange and potential stratification.

TPWD supports and encourages beneficial use of dredge material to restore and/or enhance functional ecosystems or create new rookery islands. The applicant has proposed six offshore feeder berms, one beach and one dune restoration site on San Jose Island as well as three offshore feeder berms and on beach restoration site on Mustang Island. In addition, the applicant proposes to use two offshore dredge material disposal sites to lengthen the jetty approach channel.

**Recommendations:** The applicant should coordinate with U.S. Fish and Wildlife Service to avoid impacts to endangered and threatened birds and conduct beach and dune work outside of bird nesting season. The applicant should also consult with the National Park Service in reference to sea turtles and avoidance during nesting season. The applicant should investigate the opportunity use BU to build a new rookery island in the vicinity.

The applicant proposes to beneficially use dredge material to perform shoreline stabilization activities on both the north and south side of the CCSC. Placement option SS1 is on the north side of the CCSC and has been slowly eroding mainly due to impacts from shipping. The north side has breached several times throughout history due to both shipping and environmental processes, but the breech is now affecting seagrass behind the channel shoreline. Placement option SS2 is on the south side of CCSC along the Port Aransas Nature Preserve/Charlies Pasture boundaries. Hurricane Harvey caused the breech of the CCSC shoreline and subsequent flooding of the critical salt flat habitat utilized by the endangered Piping Plover.

**Recommendation:** The applicant should consider the increase in frequency and size of the future shipping industry, weather impacts and sea level rise when designing and constructing the new shoreline protection features.

Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 6 of 7

The applicant states that the 2003 CCSCIP feasibility report tested the material that is within the footprint of the proposed CDP and found the material was suitable for offshore disposal as well as BU. The proposed CDP dredge materials are not expected to be different than the sediment material currently authorized to be dredged.

**Recommendations:** 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.

Sea turtles and manatees are known to occur within the CCSC and in the surrounding area of the proposed project. The following guidance, which has been coordinated with U.S. Fish and Wildlife Service and the Texas Sea Turtle Stranding and Salvage Network:

#### **Recommendations:**

- If a sea turtle or manatee is observed within the project area during construction activities, the construction activities should be halted, and the animal be allowed to leave on its own volition before resuming construction activities.
- Both project construction and operations employees should:
  - Be advised that sea turtles and/or manatees may approach the proposed project area,
  - 2) Be provided materials, such as a poster, to assist in identifying these animals,
  - 3) Be instructed not to feed or water the animal,
  - Report <u>all</u> manatee sightings to U.S. Fish and Wildlife Service (USFWS) and the Texas Marine Mammal Stranding Network (TMMSN),
    - a) USFWS
      - i. Middle and lower Texas coast: 361-533-6047,
      - ii. Upper Texas coast: 713-542-1861,
    - b) TMMSN hotline: 800-962-6625, and
  - 5) Report only *injured, cold stunned*, or *dead* sea turtles to the Texas Sea Turtle Stranding and Salvage Network (STSS)
    - a) Padre Island National Seashore: 361-949-8173 ext. 226, or
    - b) STSSN hotline: 866-887-8535 (866-TURTLE5).

Mr. Johnson and 401 Coordinator SWG-2019-00067 August 28, 2019 Page 7 of 7

TPWD is concerned that the CDP as described in Permit Application SWG-2019-00067 is not a whole and complete project. The proposed channel without the associated docking facilities and supply pipeline infrastructure to support those facilities does not justify the deepening of the channel. When comparing all of these projects there are some similarities but also some inconsistencies. TPWD is currently reviewing two public notices, Permit Application SWG-2018-00789 Axis Midstream Holdings, LLC and SWG-2019-00245 Port of Corpus Christi Authority for docking facilities on Harbor Island. Axis Midstream has proposed to utilize the same DMPA's as the CDP and their pipelines will be trenched in the bottom of Redfish Bay State Scientific Area, which contains 5 species of seagrass beds that the CDP PN states would be protected with dredge material placement. The PN for the POCCA does not provide information on the supply pipelines for this facility and thus the environmental impacts for the pipelines are unknown. The cumulative effects of the approval and construction of these projects, as well as other proposed projects such as the Bluewater Texas Deepwater Terminal Project, should be assessed.

The PN states that a previous review of the application concluded that an Environmental Impact Statement (EIS) is required for the proposed project. Due to the substantial amounts of proposed adverse impacts to many significant resource areas of the Coastal Bend, TPWD agrees that an EIS should be undertaken to fully assess all direct, indirect, and cumulative impacts of the proposed project and any connected actions. Questions can be directed to Paul Silva (361-825-3204) or Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely,

That

Dakus Geeslin Chief, Science and Policy Resources Branch Coastal Fisheries Division

DG:LK:PS

References

Pulich, W. M., Jr. and T. Calnan (eds.). 1999. Seagrass Conservation Plan for Texas. Resource Protection Division. Austin, Texas: Texas Parks and Wildlife Department. 79 pp.



March 9, 2020

#### Life's better outside.®

Commissioners

S. Reed Morian Chairman Houston

Arch "Beaver" Aplin, III Vice-Chairman Lake Jackson

> James E. Abell Kilgore

> > Oliver J. Bell Cleveland

Anna B. Galo Laredo

Jeffery D. Hildebrand Houston

Jeanne W. Latimer San Antonio

Robert L. "Bobby" Patton, Jr. Fort Worth

> Dick Scott Wimberley

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director Mr. Mark Pattillo U.S. Army Corps of Engineers Galveston District, Regulatory Branch 5151 Flynn Parkway, Suite 306 Corpus Christi, TX 78411-4318 401 Coordinator TCEQ, Mail Code 150 P.O. Box 13087 Austin, TX 78711-3087

Re: Permit Application Number SWG-1995-02221 Moda Ingleside Oil Terminal, LLC

Dear Mr. Pattillo and 401 Coordinator:

Texas Parks and Wildlife Department (TPWD) has reviewed the Public Notice (PN) dated February 6, 2020 for permit application number SWG-1995-02221. According to the PN, the applicant proposes to expand an existing marine basin by approximately 32.8 acres for a total of 43 acres including side slopes, construct new berthing structures, and improve existing berthing structures. The project would result in approximately 8.86 acres of impacts to seagrass and 0.95 acre of emergent wetlands in Corpus Christi Bay, north of the Corpus Christi Ship Channel (CCSC) at 262 Coral Sea Road (Formerly Naval Station Ingleside), in Ingleside, San Patricio County, Texas.

#### Project site description

The project site is located at the former Naval Station Ingleside site that was developed by the U.S. Navy. At present, an approximately 75-foot-wide pier extends approximately 1,500 feet from the shoreline bulkhead separating the larger East Ship Basin from the smaller West Ship Basin. Both ship basins were permitted to a depth of -54.0 feet at mean lower low water (MLLW) plus -2.0 feet of allowable over-dredge and -2.0 feet of advanced maintenance.

Based on aerial imagery and project documents, the project site is bounded on its eastern edge by an existing docking facility with industrialized uplands and on its western edge by the incorporated community of Ingleside on the Bay. Within the project boundary a 500 to 600-foot band of shallow seagrass habitat skirts the natural shoreline of an approximately 500-acre undeveloped tract, 268 acres of which has historically served as a buffer between industrial activities at the project site and the residents of Ingleside on the Bay. Landward of the bulkhead, uplands previously disturbed by naval activities have been reclaimed for industrial use. The undeveloped uplands consist of a rare mosaic of Texas Coastal Bend Live Oak – Redbay Woodlands and Interdune Swale pothole wetlands, the ecological value of which have been described by Collins (1987) and Carr (1992).

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 2 of 7

## Previous amendment

The existing site plan for the East Basin (Sheet 3 of 23) identifies a single berth (Berth 2A) that parallels more than 1,000 linear feet of shoreline bulkhead and appears to overlap the area labeled "Existing West Basin". The existing site plan for the West Basin (Sheet 2 of 23) identifies an existing pier extending from an existing bulkhead. Nearshore, the westward expansion of the basin terminates at the western terminus of the existing bulkhead. Single berths are located on either side of the pier (Berths 4 and 5) and a 1,170-foot-diameter turning basin is located west of the pier and adjacent to the CCSC. These site plans appear to include modifications proposed in a PN dated February 5, 2019 that recently expanded the West Basin by 18.2 acres to accommodate Suezmax vessels.

By letter dated March 8, 2019 TPWD expressed concerns regarding indirect and cumulative adverse effects to the large area of seagrass located westward of the previously proposed 18.2-acre West Basin expansion (See attached SWG-1995-02221 TPWD letter 2019). Through additional agency coordination, the applicant offered to install articulated matting along the top slope of the basin expansion to minimize indirect seagrass impacts. The applicant also offered to monitor the area for a period of five years to document the effectiveness of the articulated matting.

#### Purpose and need

According to the PN, the purpose and need of the currently proposed amendment is to provide the maritime infrastructure necessary to accommodate the increasing business and larger ships using the Moda Ingleside Oil Terminal. From the information provided, it is not clear if the increase in business and larger ships will also require any new onshore components, such as pipelines, tanks, and other related infrastructure.

**Recommendation:** If new onshore facilities are associated with this project, USACE should determine if the project scope should be expanded to include these connected actions.

## Proposed amendment

For the East Basin, the proposed project description and site plan (Sheet 5 of 23) identifies modifications to Berth 2A that include moving the existing fender line approximately 38 feet waterward of its current location, the construction of a 35-foot by 70-foot platform extending from the bulkhead to the proposed fender line, and the installation of four breasting dolphins and four protection dolphins.

For the West Basin, the proposed project description and site plan (Sheet 4 of 23) identifies no changes to the existing Berths 4 and 5 located on either side of the existing pier. Proposed modifications would extend the existing bulkhead westward by constructing approximately 491 linear feet of new bulkhead, install

Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 3 of 7

38 barge dolphins to establish a single barge berth paralleling the existing bulkhead shoreward of Berth 5 (Berth 7A) and construct two barge berths located perpendicular to the proposed bulkhead extension (Berths 7B and 7C). At the western terminus of the bulkhead extension, Berths 8 and 9 would consist of a sheetpile causeway, pile-supported approach, an 80- by 120-foot pile-supported loading platform, 12 breasting dolphins and nine mooring dolphins. Within the vicinity of the Berths 7A, 7B, and 7C, existing bay bottom would be dredged to a depth of -15 feet mean lower low water (MLLW) with a 2-foot allowable overdredge. The remainder of the 32.8-acre West Basin expansion would be dredged to a depth of -54 feet MLLW and an additional 2-foot allowable over-dredged and 2-foot advanced maintenance. To stabilize the dredge side slope, the project would install approximately 1,350 linear feet of 44-foot-wide articulated block mattress along the top edge of the slope. Based on the information provided it is not clear if the proposed articulated block mattress would fill additional seagrass habitat. It is also unclear if the applicant has considered other options to protect avoided shallow water resources abutting the western boundary of the project.

**Recommendation:** The applicant should identify the various stabilization options considered to avoid and minimize impacts to neighboring aquatic resources.

#### *Proposed impacts*

According to information provided in the PN, the proposed project expansion will impact approximately 8.86 acres of seagrass and 0.95 acre of estuarine emergent wetlands. Based on the information provided, TPWD is unable to fully evaluate the potential impacts that the proposed project would have on fish and wildlife resources. The project plans provided in the PN do not identify the locations or extents of any aquatic habitats within the vicinity of the project area and do not describe those habitats in terms of composition or cover. It is TPWD's understanding that a portion of the emergent wetlands along this shoreline were planted to mitigate impacts resulting from the Naval Station Ingleside project.

**Recommendation:** The project plans should be revised to include the location, extent, composition, and relative cover of each aquatic resource within the vicinity of the proposed project, including areas of shallow open water (i.e., less than 6 feet deep) and deep open water (i.e., 6 feet deep or greater). Areas that have been established, re-established, or enhanced for mitigation purposes should also be identified. Revised project plans should be submitted for resource agency review and public comment.

Seagrass beds and estuarine emergent marshes are comprised of rooted vascular aquatic plants that reduce erosion by dampening wave action and stabilizing sediments in shallow tidal waters. These plant communities are also major Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 4 of 7

contributors of organic matter to the food web, playing a vital role in nutrient cycling within the bay system. Seagrass and estuarine emergent marsh also provide essential nursery habitat and forage habitat for commercially, recreationally, and ecologically important finfish and shellfish. Seeds, leaves, and rhizomes from these plants provide direct food sources for fish, sea turtles, and birds. Emergent estuarine marshes also provide excellent water quality services to the adjacent bay by filtering contaminants, such as nutrients, bacteria, and sediments from runoff.

The applicant has stated that impacts have been avoided and minimized by project alterations, design changes, the addition of stabilization features (i.e., articulated block mattress) to protect nearby resources, and the implementation of best management practices into the project construction requirements. The project documents do not identify the location, dimensions, or status of Berths 1, 3, or 6 and it is not clear if these areas were evaluated in the on-site alternatives analysis to avoid and minimize impacts to special aquatic sites, including mitigation areas.

**Recommendation:** Complete project plans that identify the location and dimensions of Berths 1, 3, and 6, as well as any foreseeable improvements or changes to these berths, should be submitted for resource agency review and public comment. Berths 1, 3, and 6 should be included in the evaluation of on-site alternatives to avoid and minimize impacts to special aquatic sites and TPWD requests the opportunity to review and provide comments on the Alternatives Analysis.

#### *Compensatory mitigation*

To compensate for 8.86 acres of direct impacts to submerged aquatic vegetation (SAV) and 0.95 acre of wetlands impacts (consisting of 0.80 acre of direct impacts and 0.15 acre indirect impacts), the applicant proposes out-of-kind preservation of a 50-acre area of woodlands within the undeveloped upland tract described above and in-kind establishment of not less than 9.3 acres of SAV by planting seagrass within a 13.3-acre site with 70% seagrass cover.

#### Out-of-kind preservation

The conceptual mitigation plan identifies the out-of-kind preservation of a 50-acre area of uplands within the woodland/pothole wetland mosaic described above. The preserved area would form an approximately 400-foot-wide corridor along the length of the western property boundary abutting the residents of Ingleside on the Bay. This corridor is within the 268-acre buffer that the previous property owner avoided for the benefit of the neighboring incorporated city. The conceptual plan does not identify the location or extent of any jurisdictional aquatic resources within this corridor and based on TPWD's working knowledge of the site, the density of potholes decreases across the property from east to west.

Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 5 of 7

The conceptual mitigation plan suggests that TPWD has previously provided comments in support of preserving this habitat at this location. For context, TPWD's comments were made in response to impacts proposed to pothole wetlands and not for impacts to tidally influenced habitats. Specifically, TPWD letter dated September 8, 2014 for permit application SWG-2014-00381 (See attached) stated that TPWD recommends in-kind establishment to compensate for unavoidable impacts to pothole wetlands but may consider a preservation alternative because Live Oak – Redbay Forest and Interdune Swale communities may be difficult to replace.

TPWD prefers in-kind over out-of-kind compensation strategies to adequately replace the lost functions and services of the resources that would be impacted. While the woodland/pothole mosaic provides rare habitat with significant conservation value, it does not offset the functional losses that would result from the proposed project amendment.

#### In-kind establishment

The applicant is working with the Port of Corpus Christi Authority (POCCA) to identify a mitigation site on submerged lands within POCCA's jurisdiction. POCCA has approved approximately 1,600 acres along the shoreline of Indian Point in Corpus Christi Bay for habitat creation and enhancement projects. The project would consist of a breakwater constructed at the -4.0 - to -4.5-foot NAVD 88 contour and 9.3 acres of seagrass would be planted within a 13.3-acre area shoreward of the breakwater on three-foot centers.

The mudflats along this shoreline have historically supported piping plover and other shorebirds. Because the proposed project would alter the hydrological dynamics shoreward of the breakwater, there is potential for impacts to mudflats through habitat conversion.

**Recommendation:** The applicant should coordinate with U.S. Fish and Wildlife Service to identify a site that avoids and minimizes impacts to piping plover and their designated critical habitat to the extent practicable.

Overall, the conceptual mitigation plan does not provide adequate compensation to offset the proposed impacts.

**Recommendation:** A permittee-responsible compensatory mitigation project, or projects, should be developed to fully offset the suite of lost functions and services provided by the aquatic resources to be impacted. This can be achieved by developing an in-kind project that restores or enhances degraded habitat or establishes new habitat at a ratio that accounts for temporal losses of functions and reduces the uncertainty of project success. TPWD typically recommends that aquatic resource

Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 6 of 7

> impacts be compensated through in-kind replacement at a minimum ratio of 3:1 and 2:1 for seagrass and estuarine marsh, respectively. Out-of-kind strategies and enhancement should be provided at higher ratios. The mitigation ratio for preservation, because it will not result in a net gain of aquatic resource functions, should be even higher to compensate for the net loss and should be done in conjunction with restoration, establishment, or enhancement projects.

## Sea turtles and manatees

Sea turtles and stray manatees are attracted to the deep waters and adjacent vegetated shallows of the CCSC for thermal refuge and forage habitats. Therefore, TPWD continues to recommend that the applicant implement the following guidance which has been coordinated with U.S. Fish and Wildlife Service (USFWS) and the Texas Sea Turtle Stranding and Salvage Network (STSSN).

#### **Recommendation:**

Both project construction and operations employees should:

- 1. be advised that sea turtles and/or manatees may approach the proposed project area,
- 2. be provided materials, such as a poster, to assist in identifying these animals,
- 3. be instructed not to feed or water the animal,
- 4. report manatee sightings to U.S. Fish and Wildlife Service (USFWS) and the Texas Marine Mammal Stranding Network (TMMSN),
  - a. USFWS
    - i. middle and lower Texas coast: 361-533-6047,
    - ii. upper Texas coast: 713-542-1861,
  - b. TMMSN hotline: 800-962-6625, and
- 5. report dead, injured or cold stunned sea turtles to the Texas Sea Turtle Stranding and Salvage Network (STSSN) at
  - a. Padre Island National Seashore: 361-949-8173 ext. 226, or
  - b. STSSN hotline: 866-887-8535 (866-TURTLE5).

#### Beneficial use of dredged material

The PN states that potential dredged material placement areas (DMPAs) for future dredging, including maintenance, would include all Federally authorized and constructed, upland confined, DMPAs, Good Hope, Dagger Island, and Beneficial Use Sites as available. All 3.9 million cubic yards of new work material resulting from the proposed project will be placed at Berry Island.

In addition to restoring or creating coastal resources that have been lost due to historic and ongoing impacts associated with relative sea level rise, erosion, Mr. Pattillo and 401 Coordinator SWG-1995-02221 March 9, 2020 Page 7 of 7

hydrological alterations, and sediment budgets, the beneficial use of dredged material can also conserve the disposal capacity within existing DMPAs. If suitable, these valuable sediments should be retained and used to address the habitat needs of fish and wildlife resources within the system.

**Recommendation:** The applicant is encouraged to explore beneficial uses of suitable dredged materials that will benefit fish and wildlife resources within the vicinity of the project.

TPWD appreciates the opportunity to provide comments and recommendations for this project. Questions can be directed to Ms. Jackie Robinson (361-825-3241) or Ms. Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely,

Jable:

Dakus Geeslin Chief, Science and Policy Resources Branch Coastal Fisheries Division

DG:LK:JR

References:

- Carr, B. 1992. Naval Station Ingleside Summary of a brief botanical survey: Texas Parks and Wildlife Department, Texas Natural Heritage Program, Austin, Texas, 7p.
- Collins, K.D. 1987. The distribution, status, and ecological value of inland pothole wetlands associated with live oak brush community in South Texas: U.S. Fish and Wildlife Service, Ecological Services, Corpus Christi, Texas, 23p.



July 8, 2019

#### Life's better outside.®

Commissioners

Ralph H. Duggins Chairman Fort Worth

S. Reed Morian Vice-Chairman Houston

Arch "Beaver" Aplin, III Lake Jackson

> Oliver J. Bell Cleveland

> > Anna B. Galo Laredo

Jeanne W. Latimer San Antonio

> James H. Lee Houston

> > Dick Scott Wimberley

Kelcy L. Warren Dallas

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director Mr. Dwayne Johnson U.S. Army Corps of Engineers Corpus Christi Regulatory Field Office 5151 Flynn Parkway, Suite 306 Corpus Christi, TX 78411-4318 401 Coordinator TCEQ, Mail Code 150 P.O. Box 13087 Austin, Texas 78711-3087

## Re: Permit Application Number SWG-2006-02562 South Texas Gateway Terminal, LLC

Dear Mr. Johnson:

Texas Parks and Wildlife Department (TPWD) has reviewed the Public Notice for permit application number SWG-2006-02562, dated June 6, 2019. The applicant requests authorization to:

- Hydraulically and/or mechanically dredge approximately 4.2 million cubic yards of material within a 71.92-acre area for the construction of a vessel berthing basin, installation of pile-supported structures (including loading platforms, walkways, breasting dolphins, and mooring dolphins) totaling approximately 1.98 acres, and discharge of riprap totaling approximately 16.98 acres into non-vegetated navigable waters of the US. The basin will berth two vessels at a time, up to a Very Large Crude Carrier (VLCC) size vessel;
- Install a dredge flair at the intersection of the Gulf Intracoastal Waterway (GIWW) and the Corpus Christi Ship Channel (CCSC) that would be required to safely moor vessels; and
- 3) Upland site development that includes construction of facilities, storage tanks, and a new upland confined dredged material placement area (DMPA).

The project site is located in the CCSC and adjacent to the GIWW at the confluence of Redfish Bay and Corpus Christi Bay at the southeastern tip of Live Oak Peninsula in Ingleside, San Patricio County, Texas.

#### Project site

The PN states that the applicant has avoided and minimized impacts to the extent practicable by selecting a site that previously supported an industrial port facility and by evaluating on-site alternatives. Dredging activities would result in approximately 0.44 acres of unavoidable direct impacts to submerged aquatic vegetation (SAV). The PN states that the applicant is evaluating a plan to provide compensatory mitigation for these unavoidable impacts. The PN does not indicate how indirect impacts to adjacent seagrass beds will be avoided and minimized.

Recommendations: The applicant should:

- Follow best management practices while dredging to avoid turbidity impacts, such as using silt curtains and scheduling dredging operations to a period outside the growing season when seagrasses are dormant, and
- Identify measures that will be implemented to avoid and minimize indirect impacts caused by the repeated ingress and egress of ships utilizing the new berth.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Mr. Johnson, 401 Coordinator SWG-2006-02562 Page 2 of 3 July 8, 2019

Sea turtles and manatees are known to occur within the Corpus Christi Ship Channel within the vicinity of the proposed project. The following guidance has been coordinated with U.S. Fish and Wildlife Service and the Texas Sea Turtle Stranding and Salvage Network:

## **Recommendations:**

- If a sea turtle or manatee is observed within the project area during construction activities, the construction activities should be halted, and the animal be allowed to leave the area on its own volition before resuming construction activities.
- Both project construction and operations employees should:
  - 1) Be advised that sea turtles and/or manatees may approach the proposed project area,

2) Be provided materials, such as a poster, to assist in identifying these animals,

- 3) Be instructed not to feed or water the animal,
- 4) Report all manatee sightings to U.S. Fish and Wildlife Service (USFWS) and Texas Marine Mammal Stranding Network (TMMSN),
  - a) USFWS
    - i) middle and lower Texas coast: 361-533-6047,
    - ii) upper Texas coast: 713-542-1861,
  - b) TMMSN hotline: 800-962-6625, and
- 5) Report only *injured, cold stunned*, or *dead* sea turtles to the Texas Sea Turtle Stranding and Salvage Network (STSSN) at
  - a) Padre Island National Seashore: 361-949-8173 ext. 226, or
  - b) STSSN hotline: 866-887-8535 (866-TURTLE5).

#### Mitigation site

Pending agreements and land purchases, the applicant proposes to offset impacts by improving tidal exchange in a 60-acre tidal system that includes tidal channels, tidal wetlands, mangroves, SAV, and algal flats. According to the PN, proposed hydrological improvements would occur across a 230-acre estuarine complex that would increase estuarine vegetation by at least 1.5 acres and improve or increase SAV within the 230-acre complex.

TPWD is familiar with the proposed mitigation site and has previously expressed concern for hydrological changes associated with a previously proposed project (SWG-2006-01397 letter attached) that would have converted algal flats and seasonal wigeon grass (*Ruppia maritima*) beds within the 230-acre mosaic to emergent vegetation and seagrass. The state and federally threatened piping plover (*Charadrius melodus*) has been documented in these algal flats and the lagoon feature supports migrating waterfowl, such as Northern pintails. TPWD stands by our previous comments concerning hydrological changes at this site.

**Recommendation:** The applicant should identify a compensatory mitigation project that does not involve the creation of aquatic habitats at the expense of existing functioning habitats.

Mr. Johnson, 401 Coordinator SWG-2006-02562 Page 3 of 3 July 8, 2019

Upland placement areas

The proposed project plans identify multiple dredged material placement areas (PAs). In addition to existing sites (Good Hope PA, U.S. Army Corps of Engineers PAs 10 and 13, Berry Island PA, and one on-site PA), the project proposes to use TPWD's beneficial use site which aims to stabilize and restore a portion of the Dagger Island chain that protects the shallow aquatic habitats of Redfish Bay. The applicant also proposes to construct three new PAs in the undeveloped uplands abutting the proposed compensatory mitigation site. TPWD has previously expressed concern for potential impacts to the high quality Live Oak – Redbay Woodlands and associated grasslands located at this site (SWG-2006-01397).

TPWD appreciates the applicant's effort to use dredged material beneficially. If beneficial use sites are unable to receive all of the dredged material produced by the project, TPWD prefers that any new PAs required for the project are sited in previously disturbed areas and designed in such a way that benefits fish and wildlife resources.

**Recommendation:** The applicant should investigate additional opportunities to beneficially use dredged material within the vicinity of the project. New placement areas, if required, should be sited in previously disturbed areas to avoid and minimize impacts to high quality habitats.

TPWD appreciates the opportunity to provide comments and recommendations for this project. The above-referenced comment letter for permit application SWG-2006-01397 dated October 12, 2018 is enclosed. Questions can be directed to Jackie Robinson (361-825-3241) or Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely. a Dearl Rebecca Hensley

Regional Director, Ecosystem Resources Program Coastal Fisheries Division

RH:LK:JR



August 2, 2019

#### Life's better outside.®

Commissioners

Ralph H. Duggins Chairman Fort Worth

S. Reed Morian Vice-Chairman Houston

Arch "Beaver" Aplin, III Lake Jackson

> Oliver J. Bell Cleveland

Anna B. Galo Laredo

Jeanne W. Latimer San Antonio

> James H. Lee Houston

> > Dick Scott Wimberley

Kelcy L. Warren Dallas

Lee M. Bass Chairman-Emeritus Fort Worth

T. Dan Friedkin Chairman-Emeritus Houston

Carter P. Smith Executive Director U.S. Department of Transportation Docket Management Facility West Building, Ground Floor, Room W12-140 1200 New Jersey Avenue SE Washington, DC 20590-0001

Mr. Roddy C. Bachman
Commandant (CG-OES-2)
Attn: Vessel and Facility Operating Standards Division US Coast Guard STOP 7509
2703 Martin Luther King Jr. Avenue SE
Washington, DC 20593-7509

 Re: Deepwater Port License Application: Bluewater Texas Terminal, LLC Notice of intent; notice of public meeting; request for comments.
 Docket No. MARAD-2019-0094

Dear Mr. Bachman:

Texas Parks and Wildlife Department (TPWD) has received a notice of intent (NOI) to prepare an environmental impact statement (EIS) for the proposed ownership, construction, operation, and eventual decommissioning of an offshore deepwater port that would be located in Federal waters approximately 15 nautical miles (17.26 statute miles) off the coast of "San Patricio [*sic*] County", Texas in the Gulf of Mexico (GOM) to export domestically produced crude oil. The proposed project involves the design, engineering, and construction of a deepwater port that includes approximately 56.48 miles of pipeline infrastructure and a booster station. The deepwater port would allow for up to two very large crude carriers (VLCCs), or other crude oil carriers, to simultaneous load crude oil at a rate of 40,000 barrels per hour (bph). Single vessel loading operations would be capable of loading up to approximately 80,000 bph. The facility is expected to service 16 VLCCs per month. The project would consist of offshore, inshore, and onshore components.

## **Offshore Components**

Offshore components would include approximately 27.13 miles of two new 30inch-diameter crude oil pipelines, two SMP buoy systems, two pipeline end manifold (PLEM) systems, and two caternary anchor leg mooring (CALM) systems. Each pipeline would extend from the Mean High Tide (MHT) line of the GOM on San Jose Island and terminate at a pipeline end manifold (PLEM) system connected to an SPM buoy system located approximately 15 nautical miles off the coast of San Jose and Matagorda Islands (Aransas County, Texas) in approximately

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800

www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 2 of 12

89 feet of water in Bureau of Ocean and Energy Management Outer Continental Shelf Matagorda Island Area TX4 lease blocks 698 and 699 of the GOM. Each SPM buoy system and associated PLEM system would be attached to the seafloor by a CALM system comprised of a symmetrically arranged six-leg anchor dual chain configuration extending to twelve 72-inch-diameter pile anchors installed on the seafloor. A vessel would connect to a SPM buoy system via mooring hawsers attached to a rotating table affixed to the SPM buoy system. A moored vessel would transfer crude oil from the SPM buoy system using a floating hose equipped with a marine break-away coupling and strobe lights at 15-foot intervals for detection at night and low-light conditions.

# **Inshore Components**

Inshore components would extend from the MHT line of the GOM on San Jose Island to the MHT line of the western shoreline of Redfish Bay via the Port of Corpus Christi Authority right-of-way that parallels the north side of Highway 361. Inshore components would cross San Jose Island, Lydia Ann Channel, Aransas Channel, Harbor Island, Lighthouse Lakes Park, Stedman Island, Redfish Bay, and the Gulf Intracoastal Waterway. Infrastructure would include approximately 7.15 miles of two new 30-inch-diameter crude oil pipelines connecting to the onshore facility, an approximately 19-acre booster station on Harbor Island and a connection to the offshore pipeline at the interface of San Jose Island and the Gulf of Mexico.

# **Onshore Components**

Onshore infrastructure that would connect the inshore components of the project to a planned multi-use terminal located south of the City of Taft in San Patricio County, Texas consists of approximately 22.20 miles of two new 30-inch-diameter crude oil pipelines. The planned multi-use terminal will consist of multiple inbound and outbound crude oil pipelines, including the two outbound pipelines that would make up the onshore components of this project.

# Scope of Environmental Impact Analysis

Based on the information provided, TPWD has concern for potential direct, indirect, and cumulative impacts to emergent wetlands, tidal flats, submerged aquatic vegetation, unvegetated shallow water habitats, marine soft bottoms, native coastal prairies, woodlands, colonial waterbird nesting areas, Gulf beaches, coastal dunes, barrier islands, a public park, a state scientific area, commercial and recreational fishing, wildlife viewing, as well as federal- and state-listed threatened and endangered species and their habitats. To address these concerns, TPWD recommends the Draft EIS include detailed descriptions and evaluations for all phases (construction, operation, and decommissioning) of the project relative to the following:

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 3 of 12

- An evaluation of direct, indirect, temporary, and cumulative impacts to sensitive coastal resources that would result from the proposed project. Detail Project Maps, as provided in Volume I Appendix A, should include overlays illustrating the location, extent, and type of coastal resources that occur within the vicinity of the project.
- 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.
- Potential impacts to all federal- and state-listed rare, threatened, and endangered species and their habitats with a five-mile vicinity of the project.
- Potential impacts to Gulf beaches which provide critical wildlife habitat, such as sea turtle nesting areas and avifauna foraging and roosting areas.
- Potential impacts to commercial and recreational fisheries and associated fishing activities, including both terrestrial and aquatic access routes.
- Potential magnitude of individual and cumulative impacts to egg, larval, and adult states of fish, shellfish, and other aquatic organisms associated with all phases of the project.
- Potential for bird and bat collisions into project infrastructure.
- 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.
- Potential impacts to native coastal prairie vegetation, including barrier island, coastal dunes, depressions, and swales.
- Potential impacts from invasive species and an Invasive Plant Species Control Plan that includes rapid colonizers of disturbed sites, such as Brazilian peppertree (*Schinus terebinthifolia*).
- Potential impacts to public lands and public land uses (e.g., recreation, education, wildlife habitat, conservation, etc.).
- 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.
- A specific schedule for construction that also identifies when specific construction activities would be initiated and when associated restoration activities would be completed.
- An evaluation of impacts associated with the removal of all offshore, 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.
- 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.

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 4 of 12

- 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 terrestrial and aquatic habitats.
- A comprehensive Habitat Restoration Plan that details pre-construction 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- On-site stormwater management plan.
- Potential environmental impacts resulting from damages to the proposed project facilities by a major hurricane and A Hurricane Response Plan.

# **Recommendations**

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.

# General Recommendations

# Upland Construction

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 5 of 12

**Recommendation:** 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.

- The exclusion fence should be buried at least six inches and be at least 24 inches high.
- The exclusion fence should be maintained for the life of the project and only be removed after the project activities are completed and the disturbed sites have been revegetated or otherwise stabilized.
- Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.
- Regarding pipeline installation and HDD entry pits, any open trenches or deep excavation areas should be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped.
- For open trenches and excavated areas, escape ramps should be installed at an angle of less than 45 degrees (1:1) in excavated areas that will allow trapped wildlife to climb out on their own.
- If any state-listed species are trapped in trenches or excavated areas, they should be removed by personnel permitted by TPWD to handle state-listed species.

**Recommendation:** 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. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats would be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided.

# Impacts to Terrestrial Vegetation and Wildlife Habitat

The onshore and inshore components of the proposed project consists of a mixture of habitat types and vegetation communities mapped as agricultural land (row crops), coastal prairie, salty prairie, deep sand grassland, huisache woodland or shrubland, deep sand live oak shrubland, and deep sand live oak forest and woodland. In general, current and past vegetation clearing can be a significant threat to native plant communities in an area because disturbed areas are often revegetated with invasive, introduced species. Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 6 of 12

> **Recommendation:** 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-ways (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.

Volume II, Section 8.2.6.1.3 indicates that construction impacts to native uplands would be long-term (> 6 months to recover) but would be expected to return to preconstruction conditions within three growing seasons. A portion of the onshore pipeline crosses live oak shrubland, live oak forest-woodland habitat (e.g. between MP 19.6 and 20.8). The material provided in Volume I indicates that the proposed onshore and inshore pipeline infrastructure would use established pipeline and utility corridors and previously disturbed areas to the greatest extent practicable.

**Recommendation:** TPWD appreciates that established pipeline and utility corridors and previously disturbed areas would be used wherever possible. However, in order to preserve a special vegetation community unique to the Live Oak Peninsula, when installing the pipeline through live oak forest, woodland or shrubland habitat on the Live Oak Peninsula, TPWD recommends narrowing the construction corridor to a width of 100 feet. Impacts to the live oaks in this area, many of which are hundreds of years old, will not recover within three growing seasons, thus resulting in permanent impacts. Narrowing the construction corridor would assist in minimizing permanent impacts to this unique habitat.

Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented. Vegetation management should include removing invasive species early on while allowing the existing native plants to revegetate disturbed areas.

**Recommendation:** 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

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 7 of 12

> native grasses having the same desirable characteristics as introduced grasses commonly use in revegetation plans be incorporated into project planning and implemented following construction.

## Impacts to Aquatic Habitats

Horizontal directional drilling (HDD) methods, such as those proposed by the applicant, are frequently used to avoid and minimize impacts to aquatic resources. Project plans suggest that HDD methods will primarily be used to avoid impacts associated with waterbody crossings

**Recommendation:** 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. Site specific plans should include preferred access routes and specific protocols and/or guidelines for developing containment and recovery strategies that aim to avoid and minimize secondary impacts from machinery, equipment, foot traffic, and drilling fluid. The plan should also provide protocols and contact information for reporting inadvertent returns to the appropriate state and federal resource agencies. In the event an inadvertent return occurs, an assessment of the impacts and required mitigation should be conducted in consultation with TPWD.

The applicant has not provided sufficient information concerning post-construction restoration of aquatic resources to demonstrate that the impacts will be less than permanent and that there will be no secondary effects from the project. TPWD has concern for the level of restoration success that can be achieved on recent and relict barrier island habitats, especially coastal dune swale complexes, mangrove marshes, and tidal flats.

**Recommendation:** Because tidal flats and coastal dune swales are difficult to replace, these habitats should be avoided to maximum extent practicable.

# **Lighting**

Lighting would be required throughout the onshore, inshore, and offshore components of the project during construction, operation, and decommissioning of the deepwater port facility. In addition to navigational beacons, lighting would be used for safety and security around facilities. As proposed, the project would minimize terminal lighting to that required for safety and navigation and lights would be down-shielded and/or directed at the water.

**Recommendation:** 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.

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 8 of 12

> 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).

# **State Regulations**

# Parks and Wildlife Code

# Nongame Birds

State law prohibits any take or possession of nongame birds, including their eggs and nests. Laws and regulations pertaining to state-protection of nongame birds are contained in Chapter 64 of the Texas Parks and Wildlife (TPW) Code. This protection applies to most native bird species, including ground nesting species. Although not documented in the Texas Natural Diversity Database (TXNDD), many bird species which are not listed as *threatened* or *endangered* are protected by Chapter 64 of the TPW Code and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

During the winter, south Texas is the southernmost limit for many migratory birds and it is the northernmost extreme in the breeding season (spring-summer) for other species. Additionally, the proposed project area is in the middle of the Central Migratory Flyway through which millions of birds pass during spring and fall migration. Available food, cover, and water sources provide important stopover habitats for Neo-tropical migrants.

Biologically, this area of south Texas is highly productive and provides a range of habitats including large tracts of undeveloped land, grasslands, prairies, woodlands, marsh, and aquatic habitats. The diversity of habitats is suitable to support a diversity of wildlife species. In particular, the range of habitats provides cover, feeding, nesting and loafing areas for many species of birds; grassland birds, Neotropical migrants, shorebirds, wading birds, and raptors.

**Recommendation:** 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.

Any vegetation clearing (or ground disturbance that would impact ground nesting birds) that would be required to construct the onshore, inshore or offshore infrastructure (terminal, pipelines, booster station, HDD entry/exit pits), improve existing access roads, or create new access roads should be

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 9 of 12

> scheduled to occur outside of the March 15-September 15 migratory bird nesting season. Contractors should be made aware of the potential of encountering non-game migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them.

> 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.

## State-listed Species

State law prohibits the capture, trap, take or kill (incidental or otherwise) of statelisted species. Laws and regulations pertaining to state-listed endangered or threatened animals are contained in Chapters 67 and 68 of the TPW Code; laws pertaining to endangered or threatened plants are contained in Chapter 88 of the TPW Code. There are penalties, which may include fines and/or jail time in addition to payment of restitution values, associated with take of state-listed species. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, can be found on the TPWD website.

For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Program. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647. For the above-listed activities that involve aquatic species please contact the Region 4 Regional Response Coordinator at (361) 825-3246 for the appropriate authorization.

The potential occurrence of state-listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state-listed species. State-listed reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted during vegetation clearing for roads, staging areas, easements, or machinery access corridors.

Please be aware that determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence.

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 10 of 12

The application documents prepared for proposed project specifically assessed potential state-listed species impacts for the inshore component of the project and generally assessed them for the onshore component of the project.

**Recommendation:** 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. These lists are available online at the TPWD Wildlife Diversity website. Major revisions were made to these lists in April 2019.

Throughout Volume II, Section 8, data from the TXNDD was cited as the source for determining the potential for rare species to occur in in the project area. Volume II, Section 15.3.8.1 cites the lack of TXNDD occurrence data to support the conclusion of the project having no effect on 18 state-listed species. This is an incorrect application of TXNDD data.

**Recommendation:** Please note that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in an area does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presences, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and **cannot be used as presence/absence data**. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys. The TXNDD data is updated continuously based on new, updated and undigitized records; therefore, TPWD recommends requesting the most recent TXNDD data on a regular basis.

Volume II, Section 8.2.2.8 states that review of the TXNDD resulted in occurrences of federally listed species but no state listed species were listed within two miles of the project area. However, Appendix O reports the TXNDD record of a state-listed Texas horned lizard along State Highway 361 on Harbor Island adjacent to the project area.

**Recommendation:** 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.

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 11 of 12

#### Aquatic Resources

In addition to spills, releases, and inadvertent returns of products associated with the construction, operation, or decommissioning of the proposed project, other construction related activities, such as dewatering and maintenance, occurring in or near aquatic habitats (including the GOM and Redfish Bay) may negatively impact fish, shellfish, and other aquatic resources. As the state agency with the primary responsibility for protecting the state's fish and wildlife resources, Chapter 12 Subchapter D of the TPW Code and Chapter 7 Subchapter D of the Water Code authorizes TPWD to investigate fish kills and any type of pollution that may cause loss of fish or wildlife resources, estimate the monetary value of lost resources, and seek restitution or restoration from the party responsible for the fish kill or pollution. Chapter 69 of the Texas Administrative Code (TAC) requires TPWD to actively seek full restitution for and/or restoration of fish, wildlife, and habitat loss occurring as a result of human activities. The restitution value of lost resources can be significant (e.g., at least \$500 for each individual of a threatened species and \$1,000 for each individual of an endangered species). In addition, the TPW Code makes it a criminal offense to kill any fish or wildlife resources classified as threatened or endangered.

**Recommendation:** Because the project would require work in and in proximity to aquatic habitats, the project should be coordinated with TPWD's Region 4 Regional Response Coordinator (361-825-3246) for appropriate authorization(s) and technical guidance to ensure protection of aquatic wildlife.

## Public Lands

The inshore pipeline route would utilize a 100-foot-wide construction corridor that runs parallel to and north of Highway 361, bisects Redfish Bay and the Redfish Bay State Scientific Area (RBSSA), and runs through the length of Lighthouse Lakes Park. Additional temporary work corridors would provide access to the pipeline corridor and to entry and exit points of horizontally directionally drilled (HDD) segments of the pipeline.

Lighthouse Lakes Park provides public access to the state designated Lighthouse Lakes Paddling Trail that was established by TPWD in 1999. The RBSSA was established by the Texas Parks and Wildlife Commission in 1999 for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value. Because of this designation, the RBBSA has special status and the importance of seagrass habitat has since been specifically recognized by state law, not just within the RBSSA, but state-wide. As part of this special status, the policies of the Coastal Management Program as specified in Title 31, Texas Administrative Code section 501.29 require compliance with Chapter 26 of the TPW Code when development projects require the use or taking of any public land within a state park, wildlife management area or preserve, such as RBSSA.

Mr. Bachman Docket No. MARAD-2019-0094 August 2, 2019 Page 12 of 12

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."

TPWD appreciates the opportunity to comment and provide recommendations concerning the scope of the Draft EIS and for the avoidance and minimization of impacts to state fish and wildlife resources. Questions can be directed to Ms. Jackie Robinson (361-825-3241) or Ms. Leslie Koza (361-825-2329) in Corpus Christi.

Sincerely Senster Rebecca Hensley

Repecca Hensley Regional Director, Ecosystem Resources Program Coastal Fisheries Division

RH:LK:JR

From:	noreply@thc.state.tx.us
То:	SWG201900067; reviews@thc.state.tx.us
Subject:	[Non-DoD Source] Section 106 Submission
Date:	Friday, July 3, 2020 11:06:43 AM

<Blockedhttps://xapps.thc.state.tx.us/106Review/Images/THCtrans.png>

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas THC Tracking #202014182 Port of Corpus Christi Channel - SWG-2019-00067

,TX

Dear Jayson Hudson:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Jeff Durst, Amy Borgens and Hansel Hernandez, has completed its review and has made the following determinations based on the information submitted for review:

# Archeology Comments

• An archeological remote-sensing survey of the underwater project area is required. You may obtain lists of archeologists in Texas through the Council of Texas Archeologists <Blockedhttps://counciloftexasarcheologists.org/Contractors-List> and the Register of Professional Archaeologists <Blockedhttps://rpa.memberclicks.net/index.php? option=com\_mcdirectorysearch&view=search&id=2000292#/> . Please note that other qualified archeologists not included on these lists may be used. 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

<Blockedhttps://texreg.sos.state.tx.us/public/readtac\$ext.TacPage?

sl=R&app=9&p\_dir=&p\_rloc=&p\_tloc=&p\_ploc=&pg=1&p\_tac=&ti=13&pt=2&ch=28&rl= 6> . 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 <Blockedhttps://www.nps.gov/history/local-law/arch\_stnds\_7.htm> 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 <Blockedhttps:// www.thc.texas.gov/public/upload/CTAguidelines.pdf> and the Texas Administrative Code, Chapters 26 <Blockedhttps://www.sos.state.tx.us/tac/index.shtml> and 28 <Blockedhttps://texreg.sos.state.tx.us/public/readtac\$ext.TacPage? sl=R&app=9&p\_dir=&p\_rloc=&p\_tloc=&pg=1&p\_tac=&ti=13&pt=2&ch=28&rl= 9> . 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 <<u>mailto:archeological\_projects@thc.texas.gov</u>> concurrently with submission of the draft report. • An archeological survey is required. You may obtain lists of archeologists in Texas through the Council of Texas Archeologists <Blockedhttps://counciloftexasarcheologists.org/Contractors-List> and the Register of Professional Archaeologists. <Blockedhttps://rpa.memberclicks.net/index.php?

option=com\_mcdirectorysearch&view=search&id=2000292#/> Please note that other qualified archeologists not included on these lists may be used. If this work will occur on land owned or 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 Archeological Survey Standards for Texas.

<Blockedhttps://www.thc.texas.gov/public/upload/publications/CTA-Intensive-Survey-Standards-2020.pdf> 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 <Blockedhttps://www.nps.gov/history/local- law/arch\_stnds\_7.htm> 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 <Blockedhttps://www.thc.texas.gov/public/upload/CTAguidelines.pdf> and the Texas Administrative Code

<Blockedhttps://www.sos.state.tx.us/tac/index.shtml> . In addition, 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 <<u>mailto:archeological\_projects@thc.texas.gov</u>> concurrently with submission of the draft report. Please note that this is required for projects conducted under a Texas Antiquities Permit.

We have the following comments: The Corpus Christi Channel Deepening Project will require both terrestrial and underwater archeological surveys. The THC is currently involved in ongoing coordination with the USACE regarding forthcoming archeological investigations.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: Jeff.Durst@thc.texas.gov, amy.borgens@thc.texas.gov, hansel.hernandez@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit Blockedhttp://thc.texas.gov/etrac-system.

# Sincerely,

<Blockedhttp://www.thc.texas.gov/public/upload/images/reviewerSignatures/68.png>

for Mark Wolfe, State Historic Preservation Officer Executive Director, Texas Historical Commission

Please do not respond to this email.