

# DEEPWATER PORT LICENSE APPLICATION FOR THE BLUEWATER SPM PROJECT

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## VOLUME II – ENVIRONMENTAL EVALUATION

### Introduction

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## ACRONYMS AND ABBREVIATIONS

bhp	barrels per hour
BWTT	Bluewater Texas Terminal LLC
CFR	Code of Federal Regulation
COMDINST	Commandant's Instruction
DWP	deepwater port
DWPA	Deepwater Port Act
DWPL	deepwater port license
EIA	Energy Information Administration
MARAD	Maritime Administration
MMbpd	Million barrels per day
NEPA	National Environmental Policy Act
Project	Bluewater SPM Project
SPM	Single point mooring
U.S.	United States
USACE	United States of America
U.S.C.	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
VLCC	Very large crude carrier
WOUS	Waters of the United States

## 1 Introduction

Bluewater Texas Terminal LLC (BWTT), is proposing to construct, own, and operate a deepwater port (DWP), associated pipeline infrastructure and booster station, collectively known as the Bluewater SPM Project (Project), to provide a safe and environmental sustainable solution for the export of abundant domestic crude oil supply from major shale basins. The proposed Project helps to fulfill market demand and supports economic growth in the United States of America (U.S.).

The purpose of the proposed Project is to provide a safe and environmentally sustainable solution for the export of abundant domestic crude oil supplies from major shale basins. The proposed Project would help fulfill market demands and support economic growth in the U.S. Projections from the U.S. Energy Information Administration (EIA) 2019 Annual Energy Outlook indicate that the total U.S. crude oil production reached an average of 10.8 million barrels per day (MMbpd) in 2018. By 2023, U.S. crude production is expected to increase by an additional 3.2 MMbpd, or nearly 30%.

BWTT is proposing to construct and operate the proposed Project to allow for the loading of Very Large Crude Carriers (VLCC) at the proposed DWP via two (2) single point mooring (SPM) buoy systems. The proposed Project design would allow for up to two (2) VLCCs, or other crude oil carriers, to moor at two (2) SPM buoy systems. The proposed Project would be capable of loading VLCCs and other crude oil carriers at rates of up to approximately 80,000 barrels per hour (bph) with throughput capacities of approximately 16 VLCCs per month.

## 2 Deepwater Port License

As a proposed DWP, BWTT is filing a Deepwater Port License (DWPL) application to obtain a license to construct, own, and operate the Project pursuant to the Deepwater Port Act of 1974, as amended (DWPA), and in accordance with the U.S. Coast Guard (USCG) and the Maritime Administration's (MARAD) implementing regulations. Under authority delegated to it by the Secretary of the Department of Homeland Security for license processing functions, the USCG has been delegated the primary responsibility for complying with the National Environmental Policy Act (NEPA) under the DWPA. The proposed Project will also require a Department of the Army permit administered by the U.S. Army Corps of Engineers (USACE). It is anticipated that the USACE will coordinate its permitting process in consultation with the USCG as a cooperating agency. A Memorandum of Understanding amongst the agencies relating to the licensing of DWP's was signed by the Assistant Secretary of the Army for Civil Works in 2003.

## 3 NEPA Requirements

NEPA requires all federal agencies to consider the potential environmental consequences of their proposed actions, document the environmental analysis, and make this information available to the public for comment prior to making a permit decision on any major federal action. Issuing permits for construction of the Project will qualify as a major federal action and trigger the requirement for NEPA analysis. Under the DWPA, the USCG will initiate the NEPA process and have federal jurisdiction over the entire Project under NEPA. The USCG and MARAD have determined that an Environmental Impact Statement (EIS) will be prepared to support the NEPA process. As a cooperating agency, the USACE will be provided with the applicable documents submitted as part of the DWPL application to aid in the permitting process in consultation with the USCG.

## 4 Environmental Evaluation

As part of the DWPL application, a complete Environmental Evaluation has been conducted and submitted to the USCG and MARAD for the proposed Project. The Environmental Evaluation assesses the potential environmental effects associated with construction, operations, and decommissioning of the proposed Project. This document has been prepared in anticipation of compliance with NEPA requirements, the Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulation [CFR] Parts 1500-1508), U.S. Department of

Transportation Order 5610.1C Procedures for Considering Environmental Impacts), and USCG policy (Commandant's Instruction [COMDINST] M16475.1D).

The primary objectives of the Environmental Evaluation document are to:

- Provide an environmental analysis sufficient to support the Secretary of Transportation's licensing decision;
- Demonstrate that the DWP would be located, constructed, and operated in a manner that represents the best available technology necessary to prevent or minimize any adverse effects to the environment;
- Aid in the USCG's and MARAD's compliance with NEPA; and
- Facilitate public involvement in the decision-making process.

The Environmental Evaluation analyzes the potential consequences of the proposed Project and the alternatives that have been identified and deemed reasonable. The assessment is based on available data and literature, Project surveys, and desktop studies. In cases where limited data is available, the assessment is based on qualitative judgment through the understanding of the local and regional setting; understanding the proposed actions; and predicting effects from similar actions, agency positions on these, and/or published science. In addition, the Environmental Evaluation proposes measures to mitigate potentially adverse environmental consequences of different Project activities.

The Secretary of Transportation is required by the DWPA to authorize, authorize with conditions, or reject a DWPL application. The Secretary of Transportation, when issuing this decision, must carry out the declared Policy of Congress in the DWPA (33 United States Code [U.S.C.] §1501), which is to:

- "...authorize and regulate the location, ownership, construction, and operation of deepwater ports in waters beyond the territorial limits of the United States;"
- "...provide for the protection of the marine and coastal environment to prevent or minimize any adverse impact which might occur as a consequence of the development of such ports;"
- "...protect the interests of the United States and those of adjacent coastal States in the location, construction, and operation of deepwater ports;"
- "...protect the rights and responsibilities of States and communities to regulate growth, determine land use, and otherwise protect the environment in accordance with law;"
- "...promote the construction and operation of deepwater ports as a safe and effective means of importing oil and natural gas into the United States and transporting oil and natural gas from the outer continental shelf while minimizing tanker traffic and the risks attendant thereto; and"
- "...promote oil and natural gas production on the outer continental shelf by affording an economic and safe means of transportation of outer continental shelf oil and natural gas to the United States mainland."

The Congressional intent is codified in nine requirements set forth in 33 U.S.C. §1503(c), as follows:

- The Applicant is financially responsible and will meet the requirements of the DWPA.
- The Applicant can and will comply with applicable laws, regulations, and license conditions.
- Construction and operation of the deepwater port will be in the national interest and consistent with national security and other national policy goals and objectives, including energy sufficiency and environmental quality.
- The deepwater port will not unreasonably interfere with international navigation or other reasonable uses of the high seas, as defined by treaty, convention, or customary international law.

- The Applicant has demonstrated that the deepwater port will be constructed and operated using best available technology to prevent or minimize adverse impact on the marine environment.
- The Secretary has not been informed, within 45 days of the last public hearing on a proposed license for a designated application area, by the Administrator of the U.S. Environmental Protection Agency (USEPA) that the deepwater port will not conform with all applicable provisions of the Clean Air Act, as amended (42 U.S.C. §7401 et seq.); the Federal Water Pollution Control Act, as amended (33 U.S.C. §1251 et seq.); or the Marine Protection, Research and Sanctuaries Act, as amended (16 U.S.C. §1431 et seq., §1447 et seq.; 33 U.S.C. §1401 et seq., §2801 et seq.).
- The Secretary has consulted with the Secretaries of the Army, State, and Defense to determine their views on the adequacy of the application, and its effect to programs within their respective jurisdictions.
- The Governor of the Adjacent Coastal State or States approves, or is presumed to approve, issuance of the license.
- The Adjacent Coastal State to which the deepwater port is to be directly connected by pipeline has developed or is making at the time the application is submitted, reasonable progress toward developing an approved coastal zone management program pursuant to the Coastal Zone Management Act of 1972 (16 U.S.C. §1451 et seq.).

Based on the Alternatives Analysis presented in Section 2, BWTT has identified two project alternatives (Proposed Project and the Alternative Project) which meet the purpose and need. The Proposed Project and the Alternative Project are analyzed in the Environmental Evaluation, presented within the DWPL application as Volume II, under eleven resource topics. The contents of the Environmental Evaluation are described below.

## 5 Environmental Evaluation Contents

Volume II of the DWPL application contains the Environmental Evaluation for the proposed Bluewater SPM Project. Volume II is organized as follows:

Introduction - The introduction provides a brief introduction to the DWPA and DWPL requirements and the purpose of the Environmental Evaluation

Section 1 – Project Purpose and Need: Section 1 provides a detailed analysis of the Project’s intended purpose and evaluates the economic need for the development of the Project.

Section 2 – Alternatives Analysis: Section 2 summarizes the process and outcome of the Alternatives Analysis. The alternatives analysis is one of nine criteria used to determine a final decision under the DWPA (33 CFR subchapter NN parts 148, 149, 150 and 33 U.S.C. 1503(c)). Pursuant to NEPA, governmental decision-makers must consider reasonable alternatives to a proposed action that would result in a significant environmental effect. The Alternatives Analysis identifies two reasonable project alternatives that are further evaluated for their ability to meet the environmental objectives of the project, the Proposed Project and the Alternative Project.

Section 3 – Project Description and Framework for Environmental Evaluation: Section 3 provides a detailed description of the Proposed Project and the Alternative Project and outlines the framework of the Environmental Evaluation

Section 4 – Water Quality: Section 4 presents the existing conditions of the Project area and the anticipated water quality impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to water quality.

Section 5 – Wetlands and Waters of the U.S. (WOUS): Section 5 presents the existing conditions of the Project area and the anticipated WOUS impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to wetlands and WOUS.

Section 6 – Aquatic Environment: Section 6 presents the existing conditions of the Project area and the anticipated aquatic environment impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning including impacts to freshwater aquatic areas, benthic habitats, estuarine habitats, and open water habitat. This section also presents proposed mitigation measures to minimize impacts to aquatic environments.

Section 7 – Commercial and Recreational Fisheries: Section 7 presents the existing conditions of the Project area and the anticipated fishery impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to fisheries.

Section 8 – Wildlife and Protected Species: Section 8 presents the existing conditions of the Project area and the anticipated wildlife impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning, including terrestrial, aquatic, threatened and endangered species, migratory birds, sea turtles, and marine mammals. This section also presents proposed mitigation measures to minimize impacts to wildlife.

Section 9 – Cultural Resources: Section 9 presents the existing conditions of the Project area and the anticipated cultural resources impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to cultural resources.

Section 10 – Socioeconomics: Section 10 presents the existing conditions of the Project area and the anticipated socioeconomic impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to the socioeconomic climate of the surrounding areas.

Section 11 – Geological Resources: Section 11 presents the existing conditions of the Project area and the anticipated geologic and soil impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to geological resources.

Section 12 – Coastal Zone Use, Recreation, And Aesthetics: Section 12 presents the existing conditions of the Project area and the anticipated coastal zone impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to the Coastal Zone as well as recreation and aesthetics of the surrounding area.

Section 13 – Meteorology, Air Quality, And Noise: Section 13 presents the existing conditions of the Project area and the anticipated air quality and noise impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to air quality and noise.

Section 14 – Navigation, Safety and Security: Section 14 presents the existing conditions of the Project area and the anticipated navigational and safety/security impacts of the Proposed Project and the Alternative Project construction, operation, and decommissioning. This section also presents proposed mitigation measures to minimize impacts to navigation and safety/security.

Section 15 – Environmental Evaluation Summary: Section 15 presents a summary of the preceding environmental evaluation of the Proposed Project and Alternative Project. This section also discusses which of the alternatives is the least environmental damaging practicable alternative for the Bluewater SPM Project.

Section 16 – Cumulative Impact Analysis: Section 16 this section presents cumulative impacts of the Proposed Project on the environment resulting from incremental impacts of an action in conjunction with other past, present, and reasonably foreseeable future actions.

Section 17 – List of Preparers: Section 17 includes a detailed list of all entities and individuals involved in the development of this Environmental Evaluation.

Volume II Appendices:

Multiple survey reports and technical studies were conducted on behalf of the Project and are included within the Environmental Evaluation as appendices. Below is a comprehensive list of appendices included within the Environmental Evaluation.

- Appendix A: Construction, Operation, and Decommissioning Procedures
- Appendix B: Agency Coordination, Governing Laws, and Regulations
- Appendix C: Sediment Chemistry Assessment
- Appendix D: Temporary Suspended Solids Modeling Analysis
- Appendix E: Onshore Wetland Delineation Report
- Appendix F: Inshore Wetland Delineation Report
- Appendix G: Alternative Wetland Constraints Desktop Analysis
- Appendix H: Conceptual Mitigation Summary
- Appendix I: Aquatic Resources Survey Report
- Appendix J: Essential Fish Habitat Assessment
- Appendix K: Marine Mammal Protection Act Assessment
- Appendix L: Benthic Survey Report
- Appendix M: Onshore T&E Species Report
- Appendix N: Inshore and Offshore T&E Species Report
- Appendix O: Inshore State Listed T&E Species Report
- Appendix P: Draft Biological Assessment
- Appendix Q: Unanticipated Discoveries Plan
- Appendix R: Alternative Cultural Resources Constraints Desktop Analysis
- Appendix S: Noise Analysis
- Appendix T: Air Dispersion Modeling Report
- Appendix U: Ichthyoplankton Plankton Assessment
- Appendix V: Draft Best Management Practices Plan

Due to the sensitive nature and confidential location information, the Onshore Cultural Resources Survey Report, Inshore Terrestrial Cultural Resources Survey Report, and Nautical Cultural Resources Report are included in Volume III, Confidential Appendices.