Port of LONG BEACH
THE GREEN PORT

NOTICE OF PREPARATION / NOTICE OF INTENT TO PREPARE A JOINT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND NOTICE OF PUBLIC SCOPING MEETINGS

Date:	November 30, 2023
CEQA Lead Agency:	Port of Long Beach
CEQA Lead Agency Contact Person:	Allyson Teramoto
Phone Number:	(562) 283-7100
NEPA Lead Agency:	United States Army Corps of Engineers
NEPA Lead Agency Contact Person:	Lisa Mangione
Phone Number:	(805) 585-2150
Project Title:	Pier Wind Terminal Development Project
Harbor Development Permit Application No.:	23-063
USACE File Number:	SPL-2023-00720

Project Location: Outer Harbor, south of the Navy Mole and West Basin, east of Pier 400, north of federal breakwater, west of Main Channel, Southwest Long Beach Harbor Planning District (District 6); Los Angeles County

In accordance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), the City of Long Beach Harbor Department (Port of Long Beach or Port), acting by and through its Board of Harbor Commissioners as the CEQA Lead Agency, and United States Army Corps of Engineers, Los Angeles District (USACE), as the Federal Lead Agency responsible for complying with NEPA, have prepared this Notice of Preparation (NOP) and Initial Study / Notice of Intent (NOI) to seek input on the scope and content of the Environmental Impact Report (EIR) / Environmental Impact Statement (EIS) for the proposed Pier Wind Terminal Development Project (Project). The Initial Study, prepared in accordance with CEQA, describes the proposed Project and provides an initial evaluation of the Project's potential environmental impacts.

Because construction of the Project would result in a discharge of dredged and/or fill material into waters of the United States, would place structures in navigable waters of the United States or consist of work in or affecting navigable waters of the United States, and would require transport of dredged or fill material by vessel or other vehicle for the purpose of dumping the material into ocean waters, USACE authorization is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330), Section 10 of the Rivers and Harbors Act (33 USC 403), and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. Review of the permit applications by the USACE constitutes the proposed federal action (Proposed Federal Action).

Under CEQA and NEPA, this NOP/NOI initiates a 45-day (not including holidays) public scoping period starting on Thursday, November 30, 2023 and ending on Friday, January 19, 2024.

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Purpose of this Notice of Preparation and Notice of Intent: In accordance with State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15082), the Port and USACE have prepared this NOP/NOI to inform agencies and interested parties that a joint EIR/EIS will be prepared for the above-referenced Project. The purpose of an NOP/NOI is to provide sufficient information about the proposed Project and its potential environmental impacts to allow agencies and interested persons the opportunity to provide a meaningful response related to the scope and content of the EIR/EIS, including mitigation measures and alternatives that should be addressed (State CEQA Guidelines 14 CCR Section 15082(b)).

The project description, location, potential environmental impacts, and potential alternatives are summarized below. Responses to the NOP/NOI will be reviewed by the Port and USACE when determining the scope of the EIR/EIS, including issues to be addressed and alternatives to be considered.

Project Description and Location: The proposed Project would include construction of a 400-acre terminal and 30-acre transportation corridor for receiving, staging, and storing wind turbine generator (WTG) components (tower sections, nacelles, and blades) and foundation sub-assemblies, performing final assembly of floating foundations, and integrating WTG components with the floating foundation to create floating offshore wind (OSW) turbine systems that will enable the State of California and federal government to address the global climate crisis and decarbonization of energy resources through the establishment of wind farms off the West Coast. The Project would be located in the Southwest Harbor Planning District (District 6) of the Port of Long Beach just south of the Navy Mole, east of Port of Los Angeles Pier 400, north of the federal breakwater, and west of the Main Channel. The Project would construct new land at the Port that would best meet the land requirements for waterfront facilities necessary for efficient staging, integration, and floating foundation assembly of large floating OSW turbine systems as specified in the California State Lands Commission's 2023 *AB 525 Port Readiness Plan*. The Project would support State and federal OSW energy goals to help tackle the climate crisis, reduce the cost of floating OSW energy, support the Port's Zero Emissions Energy Resilient Operations Program (ZEERO), provide local job opportunities and support developing a domestic offshore wind industry that will provide broader economic benefits to the State and the nation. In-water construction activities would include approximately 50 million cubic yards (CY) of dredging for fill material and surcharge, construction of rock revetment dikes, and construction of a terminal wharf, sinking basin, wet storage areas, and concrete piers adjacent to the transportation corridor. Onshore construction would include grading and compaction, surfacing, transportation corridor improvements, and installation of utilities and signage. It is estimated that construction activities would start in 2027 and last a total of 9 years, with construction completed in phases and operations starting in 2031. Overall construction is expected to be completed in 2035.

EIR/EIS Scope of Analysis, Probable Environmental Effects, Issues: The Initial Study, prepared in accordance with CEQA, describes the proposed Project and provides an initial evaluation of the Project's potential environmental impacts. Based on the Initial Study, it is anticipated that the following environmental resource areas would result in potentially significant/adverse impacts and will be addressed in the EIR/EIS: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. In addition, the potential environmental effects/impacts to the following areas will be evaluated in the EIR/EIS: Environmental justice, Socioeconomics, and Cumulative Impacts from past, present, and reasonably foreseeable future projects. The EIR/EIS will identify feasible mitigation measures to avoid or substantially reduce significant/adverse impacts.

Alternatives: In accordance with the State CEQA Guidelines and NEPA, the EIR/EIS will describe a range of reasonable alternatives to the proposed Project that are capable of meeting most of the Project's objectives and that would avoid or substantially lessen significant effects of the Project. Multiple alternatives to the proposed Project are under consideration, including: No Federal Action (NEPA) / No Project (CEQA), 400-acre terminal with a standard construction schedule, smaller terminal, larger terminal, alternate locations in California, single-lift dike only, and utilization of Pier S. Project alternatives will be further developed during this scoping process. Additional alternatives that may be developed during scoping will also be considered in the EIR/EIS. The EIR/EIS will identify any alternatives that were considered but rejected by the lead agencies as infeasible and briefly explain the reasons why. The EIR/EIS will also identify the environmentally superior alternative. The analysis of each alternative will be conducted at a level of detail consistent with the requirements of CEQA and NEPA.

Document Availability: The NOP/NOI and the CEQA Initial Study can be electronically accessed on the Port of Long Beach website at: https://www.polb.com/ceqa. A copy of the NOP/NOI and CEQA Initial Study will be available for viewing at the following locations:

Port of Long Beach Administration Building
Environmental Planning Division, 7th Floor
415 West Ocean Blvd.
Long Beach, California 90802

Billie Jean King Main Library
200 West Broadway
Long Beach, California 90802

Bret Harte Neighborhood Library
1595 West Willow Street
Long Beach, California 90810

San Pedro Regional Branch Library
931 Gaffey Street
San Pedro, California 90731

Wilmington Branch Library
1300 North Avalon Blvd.
Wilmington, California 90744

Public Review Period: 45 days (not including holidays) – Thursday, November 30, 2023, through Friday, January 19, 2024, at 4 p.m. PST (comments are welcome prior to close of the review period).

Written Comments: Written comments must be submitted in writing and received by the CEQA and NEPA Lead Agencies no later than 4 p.m. PST on Friday, January 19, 2024. Please send comments to:

Mr. Matthew Arms, Director of Environmental Planning, either electronically via email to ceqa@polb.com or by U.S. Mail or courier to Port of Long Beach, 415 W. Ocean Blvd., Long Beach, CA 90802.

Ms. Lisa Mangione, Senior Project Manager, USACE Los Angeles District Regulatory Division, electronically via email to lisa.mangione@usace.army.mil.

All comments on environmental issues received during the public comment period will be considered and addressed in the Draft EIR/EIS.

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Public Open House and Scoping Meeting: Two In-person scoping meetings and open houses will be held to provide information on the proposed Project. Prior to each scoping meeting, an open house will be held from 5 to 6 p.m. in the lobby of the Port Administration Building where members of the public can view exhibits and discuss the proposed Project with representatives of the Project team. The scoping meeting will follow the open house beginning at 6 p.m. During the scoping meeting, an overview of the proposed Project and the EIR/EIS process will be provided. Members of the public will be given an opportunity to provide comments on the scope and content of the EIR/EIS document. The scoping meetings will be recorded and posted for future viewing on the Port's website at https://www.polb.com/ceqa. The format of each open house and scoping meeting will be the same. **Please note there is no public parking available at the Port Administration Building. There are two public parking garages nearby at 101 Magnolia Avenue and 332 West Broadway. The Port does not provide parking validation at this time.*

Open House and Scoping Meeting #1

Date: Wednesday, December 13, 2023 (In-Person)

Time: Open House from 5 to 6 p.m., Scoping Meeting starts at 6 p.m.

Location: Port of Long Beach Administration Building, 415 W. Ocean Blvd., Long Beach, CA 90802 (Open House and Scoping Meeting)

Open House and Scoping Meeting #2

Date: Wednesday, January 10, 2024 (In-Person)

Time: Open House from 5 to 6 p.m., Scoping Meeting starts at 6 p.m.

Location: Port of Long Beach Administration Building, 415 W. Ocean Blvd., Long Beach, CA 90802 (Open House) and Bob Foster Civic Chambers, adjacent to the Port of Long Beach Administration Building in the Long Beach Civic Center, 411 W. Ocean Blvd., Long Beach, CA 90802 (Scoping Meeting)

Interpretation Services: If you require interpretation services to participate in the open house and/or scoping meeting, please contact the Port of Long Beach Environmental Planning Division at (562) 283-7100 or via email at ceqa@polb.com at least three full working days (72 hours) prior to the public scoping meeting date to ensure that reasonable arrangements can be made to provide interpretation services.

Americans with Disabilities Act: The Port of Long Beach provides reasonable accommodations in accordance with the Americans with Disabilities Act of 1990. If special accommodations are needed to participate in the open house and/or public scoping meeting, please contact the Port of Long Beach Environmental Planning Division at (562) 283-7100 or via email at ceqa@polb.com at least three full working days (72 hours) prior to the meeting dates to ensure reasonable arrangements can be made.

Contact Information: Allyson Teramoto, Manager of CEQA/NEPA Practices, Environmental Planning Division, Port of Long Beach, ceqa@polb.com or (562) 283-7100.
Lisa Mangione, Project Manager, United States Army Corps of Engineers, Los Angeles District, lisa.mangione@usace.army.mil or (805) 585-2150.

Signed: _____ **Date:** 11/30/2023

Matthew Arms
Director of Environmental Planning

Initial Study
for the
Pier Wind Terminal Development Project
Port of Long Beach

Prepared for:

Port of Long Beach
415 W. Ocean Boulevard
Long Beach, California 90802

Prepared by:

Aspen Environmental Group
5020 Chesebro Road, Suite 200
Agoura Hills, CA 91301

November 2023

INITIAL STUDY
Prepared in Accordance with the
California Environmental Quality Act of 1970
as Amended
for the
Pier Wind Terminal Development Project

The narrative and attached documents, including the project description, and staff analysis constitute an Initial Study prepared in accordance with the California Environmental Quality Act (CEQA). Based upon the data contained herein, the proposed project has been determined to have potentially significant adverse environmental impacts, and an Environmental Impact Report (EIR) will be prepared.

INITIAL STUDY ISSUED FOR PUBLIC REVIEW: Nov. 30, 2023 – Jan. 19, 2024

BY: DIRECTOR OF ENVIRONMENTAL PLANNING: Martha Lyon

BY: CITY OF LONG BEACH BOARD OF HARBOR COMMISSIONERS

Harbor Development Permit Application No. 23-063

State Clearinghouse No. [TBD]

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADA	Americans with Disabilities Act
AQMP	Air Quality Management Plan
ASR	Application Summary Report
BACT	Best Available Control Technology
BHC	Board of Harbor Commissioners
BMP	Best Management Practice
BOEM	Bureau of Ocean Energy Management
CAA	federal Clean Air Act
CAAP	Clean Air Action Plan
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEMP	California Eelgrass Mitigation Policy
CEPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CERP	Community Emission Reduction Plan
CESA	California Endangered Species Act
CGS	California Geological Survey
CPS	Coastal Pelagic Species
CSLC	California State Lands Commission
CPUC	California Public Utilities Commission
CRP	Coastal Resiliency Plan
CSC	Community Steering Committee
CSLC	California State Lands Commission
CWA	Clean Water Act
CY	cubic yards
DDT	dichlorodiphenyltrichloroethane
DOC	Department of Conservation
DOE	US Department of Energy
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency

FESA	Federal Endangered Species Act
ft	feet
FMP	Fishery Management Plans
g	acceleration due to gravity, where g = 980 cm/s^2
GHG	greenhouse gas
GW	gigawatts
HAPC	Habitat Area of Particular Concern
HCP	Habitat Conservation Plan
HDP	Harbor Development Permit
IGP	Industrial General Permit
IS	Initial Study
LACSD	Sanitation Districts of Los Angeles County
LAHD	Los Angeles Harbor Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LBFD	Long Beach Fire Department
LDIGR	Interim Local Development Intergovernmental Review
LED	light emitting diode
LID	Low Impact Development
M	magnitude (of an earthquake)
MLLW	Mean Lower Low Water
MMPA	Marine Mammal Protection Act
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Communities Conservation Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NREL	National Renewable Energy Laboratory
NSHM	National Seismic Hazards Map
OSHA	Occupational Safety & Health Administration
OSW	offshore wind
PCG	Pacific Coast Groundfish
PGA	peak site acceleration
PM	particulate matter
PMP	Port Master Plan
POLB	Port of Long Beach
POLA	Port of Los Angeles
RORO	roll on/roll-off
RWQCB	Regional Water Quality Control Boards
S&I	staging and integration
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SEA	Significant Ecological Areas
SPMT	self-propelled modular transporter
SQO	sediment quality objectives
SR-1	State Route 1

SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMP	Transportation Management Plan
TSS	total suspended solids
US	United States
USACE	US Army Corps of Engineers
USC	US Code
USDOT	US Department of Transportation
USEPA	US Environmental Protection Agency
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geologic Survey
VMT	vehicle miles traveled
VOC	volatile organic compound
VTS	Vessel Traffic Services
WASSS	Western Anchorage Sediment Storage Site
WTG	wind turbine generator

INTRODUCTION TO THE INITIAL STUDY

The proposed Pier Wind Terminal Development Project (hereinafter, Pier Wind or Project) involves the construction and development of a 400-acre terminal (Pier Wind Terminal) and 30-acre transportation corridor for receiving, staging, and storing wind turbine generator (WTG) components (tower sections, nacelles, and blades) and foundation sub-assemblies, performing final assembly of floating foundations, and integrating WTG components with the floating foundation to create floating offshore wind (OSW) turbine systems. These floating OSW turbine systems would enable the State of California and federal government to address the global climate crisis and decarbonization of energy resources by supporting the development of wind farms off the west coast shores of the US.

This Initial Study (IS) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (14 CCR 15000, et seq). The purpose of the IS is to inform decision-makers, responsible agencies, and the public of the proposed Project, the existing environment that would be affected by the Project, the environmental effects that would occur if the Project is approved, and, if required, identify proposed mitigation measures that would avoid or reduce environmental effects to the extent feasible.

Because construction of the Project would result in a discharge of dredged and/or fill material into waters of the US, would place structures in or consist of work in or affecting navigable waters of the US, and would transport dredged or fill material by vessel or other vehicle for the purpose of dumping the material into ocean waters, United States Army Corps of Engineers (USACE) authorization is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330), Section 10 of the Rivers and Harbors Act (33 USC 403), and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. Review of the permit applications constitutes a major federal action requiring evaluation pursuant to the National Environmental Policy Act (NEPA). Based on the results of this Initial Study, the Port of Long Beach (Port or POLB), acting by and through its Board of Harbor Commissioners (BHC) and the USACE will prepare a joint Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) or EIR/EIS to further identify and evaluate the potential environmental impacts associated with the proposed Pier Wind Terminal Development Project.

1. INTRODUCTION AND PROJECT DESCRIPTION

1.1. Introduction

The proposed Project involves the construction and development of a 400-acre terminal (Pier Wind Terminal) and 30-acre transportation corridor for staging and integration (S&I) (i.e., receiving, staging, storing and assembly) and floating foundation assembly of floating OSW turbine systems to enable the State of California and federal government to address the global climate crisis and decarbonization of energy resources by supporting the development of wind farms off the west coast shores of the US.

Under Section 1215 of the Long Beach City Charter, the BHC is responsible for issuance of building permits (COLB, 2023). Pursuant to the California Coastal Act and the Port's certified Port Master Plan, the BHC is also responsible for issuance of coastal development permits for developments within the Long Beach Harbor District. The Port issues a consolidated building permit and coastal development permit referred to as a "Harbor Development Permit" (HDP).

The issuance of an HDP constitutes a discretionary action subject to CEQA and for which the POLB is the lead agency for the proposed Project in accordance with CEQA.

The conceptual engineering details for the proposed Project are provided in the following document that is hereby incorporated by reference:

> POLB. 2023. *Pier Wind Project Concept Phase Final Conceptual Report* (Conceptual Report). Prepared by Moffatt & Nichol. April. Available at: https://www.polb.com/pierwind

1.2. Background

The Pier Wind Terminal would provide for S&I and foundation assembly sites to support the delivery and assembly of floating OSW turbine systems, which include the WTG components (blades, nacelles, and tower sections) and floating foundations. S&I and foundation assembly sites play a key role in executing the final step in the manufacturing process to assemble the full floating turbine OSW turbine system before it is towed out to the final installation site. The Pier Wind Terminal would provide the crucial infrastructure to meet State and US goals on the environment, energy, and economy by:

- providing the critically needed port facilities to develop floating OSW turbine systems;
- allowing the State to diversify renewable energy resources by harvesting the abundant domestic OSW energy potential off the coast of California, enabling the transition from fossil fuels (including dependence on foreign energy sources) to renewable, zero-carbon domestic energy;
- supporting the development of a domestic OSW industry and new green energy jobs, while achieving economies of scale to help lower the cost of OSW energy.

1.2.1. Port Environmental Goals

The POLB has a strong and long-standing commitment to the environment. In 2005, the POLB established its landmark Green Port Policy to reduce and mitigate harmful effects of Port operations on the local community and the environment. In 2006, the POLB and Port of Los Angeles (POLA) developed the Clean Air Action Plan (CAAP) to reduce or eliminate harmful air emissions, which has resulted in a 91 percent reduction in diesel particulate, 63 percent reduction in nitrogen oxides, and 97 percent reduction in sulfur oxides in comparison to the 2005 baseline. The CAAP

was updated in 2017 to set more ambitious targets of zero emissions cargo handling equipment by 2030 and zero emission heavy-duty drayage trucks by 2035, along with reducing greenhouse gas (GHG) emissions from Port-related sources to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (POLB, 2017). Based on current technology, the primary strategy to transition to zero emissions will be through electrification. The POLB performed a power system assessment and is forecasting an approximately six-fold increase in annual power consumption over the next decade (POLB, 2022). In 2022, the POLB established the Zero Emission, Energy Resilient Operations (ZEERO) Policy to provide a holistic strategy to achieve the POLB's energy and environmental goals in concert with State, federal, and international goals on tackling the climate crisis and decarbonization (ENGIE Impact, 2021). One of the strategic objectives of the ZEERO Policy is to support State and federal efforts to develop OSW. OSW will play a critical role in California's renewable energy portfolio and will help ensure there is sufficient reliable, resilient, renewable energy powering the grid as the POLB's transitions to zero emission operations.

In parallel with the Port's goals, the State of California and federal government have also established goals to transition to renewable energy sources.

1.2.2. Offshore Wind Energy Goals

1.2.2.1. United States

In January 2021, the Biden-Harris Administration issued an Executive Order on Tackling the Climate Crisis at Home and Abroad, establishing policy to invest and build a clean energy economy to achieve net-zero emissions, economy-wide, by no later than 2050 (White House, 2021a). Subsequent actions followed specifically related to the development of OSW as a critical strategy in tackling the climate crisis. In March 2021, the goal to deploy 30 GW of OSW in the US by 2030 and 110 GW by 2050 was established (White House, 2021b). In September 2022, the additional goal of 15 GW of floating OSW in the US by 2035, along with the "Floating Offshore Wind Shot™", an initiative that seeks to reduce the cost of floating OSW by more than 70 percent by 2035, were established (White House, 2022).

1.2.2.2. California

To address the urgent threat of climate change, California passed legislation to mobilize zero-emissions technology and establish zero-emissions renewable energy facilities. Senate Bill (SB) 100 (100 percent Clean Energy Act, De Leon, Chapter 312, Statutes of 2018) requires 100 percent renewable, zero-carbon energy by 2045 to tackle climate change, improve public health, advance energy equity, and support a clean energy economy (CEC, 2021). SB 100 supports previously implemented policies, including Executive Order (EO) B-46-18 (targeting 5 million zero-emission vehicles in California by 2030) and EO N-79-20 (requiring all new cars and passenger trucks to be zero-emission by 2035 and all medium- and heavy-duty vehicles to be zero-emission by 2045).

In March 2021, the SB 100 Joint Agency Report was prepared by the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Air Resources Board (CARB) and outlines scenarios for achieving the SB 100 target for achieving a 2045 goal of powering all retail electricity sold in California and State agency electricity needs with renewable and zero-carbon resources that do not emit climate-altering GHGs. The report finds California will need to roughly triple its current electric power capacity to meet the 2045 target, and diverse renewable and zero-carbon energy generation, including OSW, will be required over the next 25 years.

California Assembly Bill (AB) 525 (Chiu, Chapter 231, Statutes of 2021) was signed into law by the Governor on September 23, 2021, the CEC, in coordination with multiple state, federal, and local agencies, and a wide variety of stakeholders, to develop a strategic plan for OSW energy deployment off the California coast in federal waters. AB 525 states that developing and deploying OSW energy on a larger scale can provide economic and environmental benefits to the State and the nation by helping California meet its renewable energy and climate goals; contributing to a reliable and affordable energy portfolio to serve California's electricity needs; improving air quality, particularly in disadvantaged communities; creating job opportunities, including a skilled long-term construction workforce; and developing an OSW energy supply chain.

In a letter to CARB dated July 22, 2022, Governor Gavin Newsom urged the CEC to establish an OSW planning goal of at least 20 gigawatts (GW) by 2045 and emphasized the State can meet its clean energy goals by building an OSW industry to reduce air pollution, increase energy independence, and provide new economic opportunities to Californians while protecting the natural legacy of the coastline. In August 2022, the CEC published the *Offshore Wind Energy Development off the California Coast, Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045* (OSW Goals Report). The OSW Goals Report indicates OSW is poised to play a vital role in diversifying the State's portfolio of resources, help achieve SB 100 goals, and electrification of other sectors, such as transportation. The OSW Goals Report recommended a preliminary OSW planning goal of 2 to 5 GW by 2030 and 25 GW by 2045 (CEC, 2022). On August 10, 2022, the CEC adopted the planning goals of up to 5 GW by 2030 and 25 GW by 2045.

The federal and State deployment goals will drive the development of the OSW industry and the need for purpose-built port infrastructure to support OSW projects in the Pacific Outer Continental Shelf. Among the items to be included in the *AB 525 Strategic Plan* is a "waterfront facilities improvements plan," including facilities that could support manufacturing of components; S&I and final assembly; and long-term operations and maintenance. The *AB 525 Port Readiness Plan* was developed, providing a detailed assessment of the necessary investments in California ports to support OSW energy activities. The *AB 525 Port Readiness Plan* also identifies economic and workforce development as a key component of OSW energy deployment in the *AB 525 Strategic Plan* (CSLC, 2023).

The *AB 525 Strategic Plan* also includes transmission planning, permitting, and potential impacts on coastal resources, fisheries, Native American and Indigenous peoples, and national defense. As of fall 2023, the CEC is developing the draft *AB 525 Strategic Plan.*

The OSW goals of the US are:

- 30 GW OSW by 2030
- 110 GW OSW by 2050
- 15 GW of *floating* OSW by 2025

California's OSW goals are:

- 5 GW OSW by 2030
- 25 GW OSW by 2045

1.2.3. Offshore Wind Energy

According to the US Department of Energy (DOE), OSW is a critical piece of the equitable transition to net-zero emissions in the US with 2.8 terawatts of potential power nationwide. The CEC OSW Goals Report noted OSW is an abundant domestic source of clean energy production for the US because OSWs tend to be strong, fast, and uniform. The report also noted that California has some of the best OSW energy resources in the world, and OSW turbines have a

high-capacity factor[1] and associated generation profile that complements solar daily and seasonally. Turbines can provide more consistent output during the winter months when solar production is lower and increase the average amount of renewable electricity generation available in the early evening hours as solar generation begins to decline. This can strengthen system reliability and help save on overall system costs as California moves to meet the SB 100 clean energy goals (CEC, 2021).

All WTGs operate in the same basic manner. Wind flows over the airfoil shaped blades of WTGs, causing the turbine blades to spin. The blades are connected to a drive shaft that turns an electric generator to produce electricity. OSWs tend to blow harder and more uniformly than on land. Since higher wind speed can produce significantly more energy/electricity, OSW energy has been increasingly pursued (BOEM, 2023). The National Renewable Energy Lab (NREL) estimates that meeting the national target of 30 GW in OSW by 2030 could provide enough electricity to power 10 million American homes, would help the US avoid up to 78 million metric tons of carbon dioxide equivalent (CO2e) emissions (GHG emissions) that contribute to climate change, and would support as many as 77,000 new jobs (NREL, 2021a).

1.2.4. Floating Offshore Wind Turbine Systems

The anticipated size of floating OSW turbine systems to be installed on the US West Coast would be on the order of 15 MW or larger. Figure 1-1 depicts turbine dimensions, for up to 25 MW floating OSW turbine systems, to be used for planning major port terminals that would support the developing OSW industry (CSLC, 2023). NREL found that building larger turbine systems and maximizing production at one site can lead to significant cost reductions for OSW energy, creating a valuable opportunity for cost savings (NREL, 2021b).

1.2.5. OSW Sites at Ports

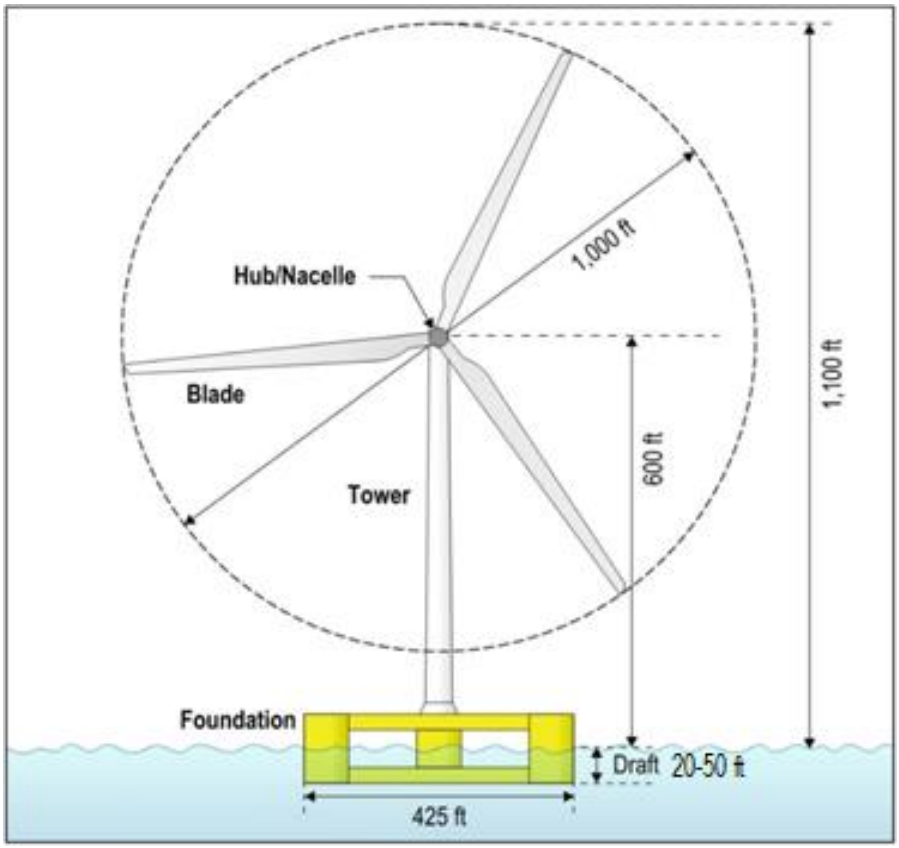
As demonstrated in Europe, the installation of floating OSW turbines has been achieved by utilizing waterfront facilities at ports to manufacture components and transport them to another port terminal site for integration into the floating OSW turbine system. Once assembled, the floating OSW turbine system is towed out to the offshore installation site or wind energy area. Similarly, as indicated in the *AB 525 Port Readiness Plan* (July 2023), ports will play a key role in establishing the floating OSW industry in California.

The Bureau of Ocean Energy Management (BOEM) assessed California ports to identify potential sites that could be used to serve the OSW industry. In the *California Floating Offshore Wind Regional Ports Assessment* (January 2023), BOEM identified the POLB, Port of Humboldt, and POLA as potential ports with sufficient available space to accommodate S&I activities; with direct access to the open ocean with no air height restrictions, such as bridges; and with deep navigation channels (BOEM, 2023). The *AB 525 Port Readiness Plan* determined that three to five 80-acre S&I sites and four 80-acre (minimum) foundation assembly sites are critical to support the production scale required to meet the State's 2045 OSW planning goal of 25 GW and should be developed as soon as possible (CSLC, 2023 – Table 5.5).[2]

[1] A high-capacity factor indicates a ratio of high energy output to the theoretical maximum energy output over a period of time.

[2] Three S&I sites are required if there are no inefficiencies, while five S&I sites are required if all the projected inefficiencies exist (detailed in CSLC, 2023 – Table 5.4). The *AB 525 Port Readiness Plan* assumes four 80-acre S&I sites are required to meet the State's planning goal of 25 GW by 2045 (CSLC, 2023).

Figure 1-1. Floating OSW Turbine System Dimensions (up to 25 MW)



*Draft height before integration is typically 15-25 ft.
Source: CSLC, 2023.

POLB is well-poised to meet the unique requirements to accommodate a terminal for OSW S&I and foundation assembly by creating 400 acres of new land in the Outer Harbor using material dredged from within the POLB. This approach offers flexibility for S&I and foundation assembly in a centralized location, supporting economies of scale crucial for meeting OSW energy goals efficiently and reducing the overall cost of OSW energy. The proposed Project would strategically deepen areas around the Pier Wind Terminal to create a sinking basin, channel, and wet storage at depths necessary to meet operational needs. The terminal would be located in front of the Long Beach International Gateway Bridge and near the entrance to the Port (Queen's Gate) and Main Channel and would provide direct access to the open ocean with no air draft restrictions (i.e., no height limitations). The terminal would also provide enough acreage to accommodate the necessary berth lengths, wet storage areas, and terminal area, ensuring it meets the required production rate needed to meet State and US goals. The proposed Project would meet the physical, regulatory, and environmental requirements to accommodate the largest floating OSW turbine systems being developed.[3]

Anticipated construction and operational activities at the proposed Pier Wind Terminal are provided in Section 1.5, Project Overview.

[3] https://www.youtube.com/watch?v=i2rdYDeh5V4

1.3. Project Location

1.3.1. Regional Context

The POLB is located in the City of Long Beach in southern Los Angeles County. The general area of the Port and adjacent portions of the City of Long Beach and the City of Los Angeles are characterized by diverse industrial and commercial land uses, including marine cargo terminals; light manufacturing and industry; and recreational destinations and commercial operations including sport fishing concessions, hotels, retail shops, and a public boat launch.

The POLB, is one of the world's busiest seaports, is a leading gateway for trade between the US and Asia and in 2022 was the third busiest port in the US. In 2022, the Port handled approximately 9.1 million Twenty-Foot Equivalent Units, which accounts for approximately 20 percent of all cargo containers moving through US ports (POLB, 2023).

Residential areas near the harbor complex along with the neighboring POLA include the communities of Wilmington and San Pedro in the City of Los Angeles and the neighborhoods of West Long Beach and Downtown Long Beach in the City of Long Beach (Figure 1-2).

1.3.2. Project Site and Vicinity

The Port currently comprises 3,020 acres of land and 4,559 acres of water area with 10 designated piers and 80 vessel berths supporting 22 shipping terminals. Containerized cargo is primarily handled at Port terminals; other non-containerized cargoes are also transported through the Port, including dry bulk cargo such as petroleum coke, cement, salt, coal, gypsum; break bulk cargoes such as automobiles and lumber; and liquid bulk cargo such as petroleum products and chemicals.

The Pier Wind Terminal would be located in the Southwest Long Beach Harbor Planning District (District 6) in the Outer Harbor of the Port, south of the Navy Mole and West Basin, east of the POLA Pier 400 marine container terminal, north of the federal breakwater, and west of the Main Channel, Pier F, and Pier J (Figure 1-2). Permitted uses in Planning District 6 include anchorage areas, primary port facilities, hazardous cargo facilities, and ancillary port facilities. Marine container and shipping terminals are to the north, east, and west. The Navy Mole, located to the north of the Project site, includes container terminal operations, existing rail lines, space industry operations, and a fueling dock operated by the US Navy. Portions of the Navy Mole are federally owned by the US Navy and leased to the Port, which then subleases properties to tenant-operators. Pier F and Pier J, located northeast and east of the Project site, respectively, also support rail yard and container terminal operations and include operators such as COSCO Shipping Lines and TTX Company. Long Beach Fire Station 15 is located on Pier F at Berth 202, Pier F Avenue. The federal breakwater is located south of the Project site and separates the Port from the open sea. Terminal Island, part of the POLA, is located west of Navy Way and primarily contains container operations. APM Maersk Terminal is located just west of the Project site.

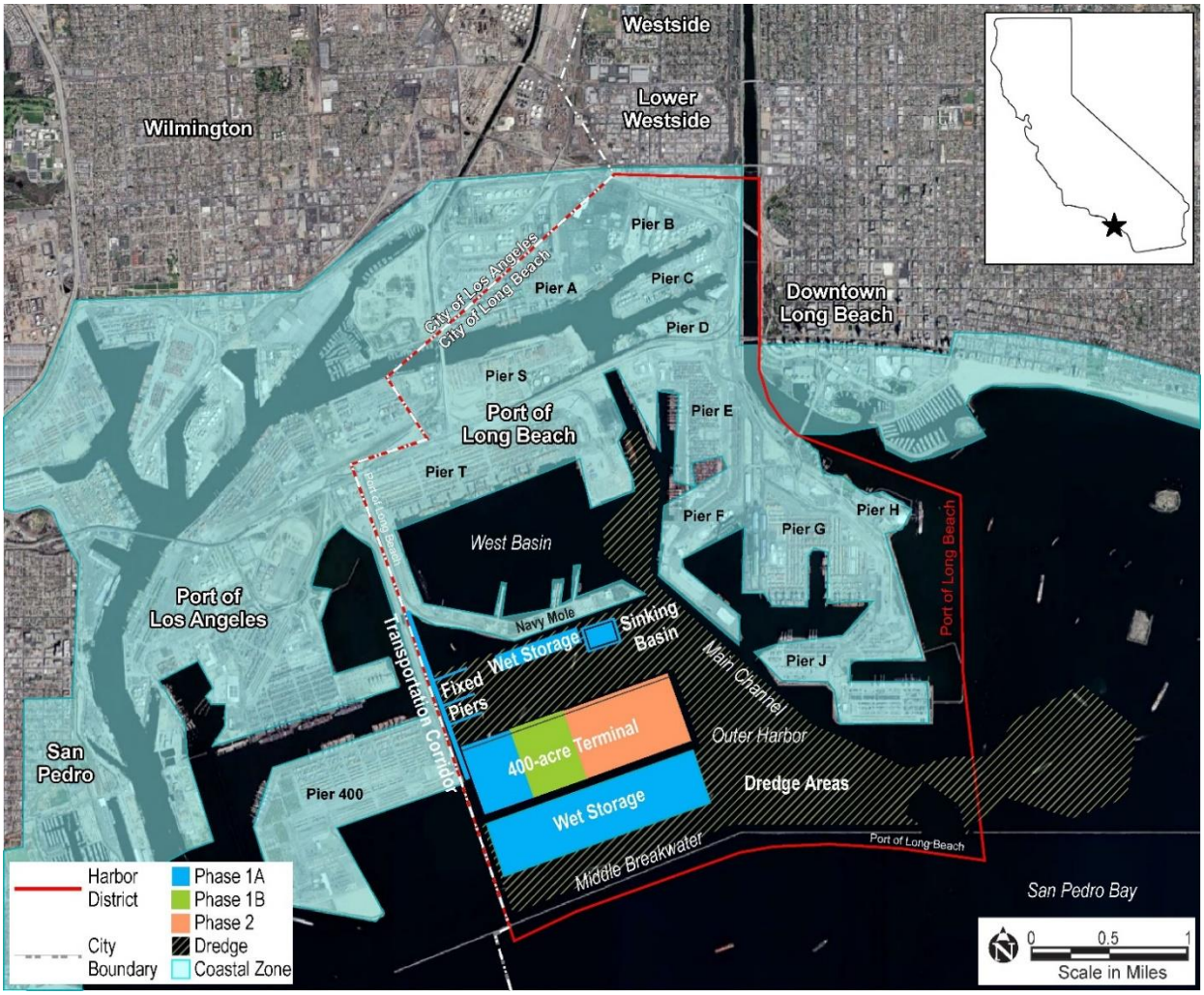
1.3.3. Existing Project Site Conditions

Depths within the Project area vary from -30 ft Mean Lower Low Water (MLLW) in the western area to -70 ft MLLW toward the main channel. The thickness of harbor bottom deposits, consisting of fine-grained soils, varies between a few feet (ft) to more than 15 ft. Below the harbor sediments, medium dense to dense fine sand to silty sand, with intermittent layers of silts and clays, is encountered down to approximately -60 ft to -120 ft MLLW. This layer is underlain by interbedded layers of hard silt/clay and dense to very dense silty sand down to the deepest explored elevation of approximately -170 ft MLLW. For details on wind, wave, and sea level conditions at the Project site, refer to the Conceptual Report (POLB, 2023 – Section 2).

1.4. Project Objectives

Ports are essential to advance the full deployment of floating OSW turbine systems, which require specialized infrastructure to accommodate the large-scale WTG components, floating foundations, and fully assembled floating OSW turbine systems prior to transport for offshore installation. The purpose of the proposed Project is to develop a new OSW terminal for S&I of floating OSW turbine systems and assembly of floating foundations, thereby providing the crucial infrastructure needed to support the OSW industry as identified in the *AB 525 Port Readiness Plan*.

Figure 1-2. Pier Wind Project Location and Vicinity



Per the *AB 525 Port Readiness Plan* three to five 80-acre S&I sites and four 80-acre (minimum) foundation assembly sites are required. As such, the proposed Pier Wind Terminal Development Project is being considered to support State and US goals for the development of OSW power. Siting of the Project at the POLB is needed because the POLB is one of very few existing port sites within California that has the key characteristics of having sufficient available space; direct access to open ocean with no air height restrictions, and deep navigation channels to execute the final step, the vertical integration of all components onto the floating foundation, in the develop-

ment of floating OSW turbine systems before they are towed out to their final installation site. The overall objectives of the proposed Project are to:

- Provide the waterfront facilities at the POLB to support meeting the requirements specified in the *AB 525 Port Readiness Plan* (see Section 1.2.5, OSW Sites at Ports), and to provide for efficient S&I, floating foundation assembly, and maintenance of large floating OSW turbine systems to be deployed off the West Coast of the US.
- Enable California to meet its goal to deploy 25 GW of OSW power by 2045 and the US to meet its goal to deploy 110 GW of OSW power by 2050 and 15 GW of floating OSW power by 2035. Achievement of these goals would facilitate California's and the US transition from fossil fuel dependance to renewable energy, thereby reducing GHG emissions that contribute to climate change.
- Provide for economies of scale to assist in reducing the cost of floating OSW technologies by more than 70 percent by 2035 as set forth in the federal Floating Offshore Wind Shot™ initiative.
- Support the Port's Zero Emissions, Energy Resilient Operations Policy objective to support state and federal efforts to develop and supply renewable energy, which would facilitate achieving POLB goals under the Green Port Policy, Energy Policy, and CAAP 2017 Update.
- Provide opportunities for local job creation for OSW developments to maximize economic benefits for the State and US.

The Project need and objectives outlined above would be used as a basis for developing the purpose and need statement for the EIS, pursuant to NEPA requirements.

1.5. Project Overview

The proposed Project would construct 430 acres of new land for a terminal and transportation corridor in two phases over an approximate duration of 9 years beginning in 2027 with completion expected in 2035.

Analyses of the potential environmental impacts associated with the construction and operation of the proposed Project will be conducted. The actual length of time needed to complete the Project, including the environmental approval and clearance process, project design, government approvals, and associated permitting cannot be specified with certainty at this time; therefore, the various dates and durations should be regarded as showing the relationship among tasks for planning purposes.

1.5.1. Construction

Construction Staging and Laydown Area. A construction staging and laydown area would be provided on Pier S, located within the Port on the eastern portion of Terminal Island (see Figure 1-2). The land created during Phase 1A and Phase 1B could also be used for construction staging/laydown during Phase 2 of the proposed Project (see "Construction Phases" for more details on the activities under each phase).

400-Acre Terminal. As discussed in the Conceptual Report (POLB, 2023 – Attachment B, pp. 5-6; Attachment C, pp. 8-9; and Attachment E, p. 1), a 400-acre terminal would be created from dredged fill material with a rock revetment containment dike. The new terminal would have a length of approximately 7,500 ft and width of approximately 2,350 ft. These dimensions may change slightly based on the results of an ongoing wave study for the Project area. A wharf would be constructed along the northern end of the site to accommodate delivery vessels, floating

foundation transfer operations, WTG integration, and major maintenance activities. The orientation of the terminal with the wharf on the northern end of the site would provide protection from waves originating south of the federal breakwater. Wet storage sites would be located north and south of the terminal, which would be utilized during operations to stage fully assembled floating OSW turbine systems until ocean conditions are appropriate for tow out (Figure 1-2).

Details of the proposed construction activities associated with the development of the proposed Pier Wind Terminal are provided in the Conceptual Report (POLB, 2023) and summarized in this section.

In-Water Construction

Dredge and Fill. Dredging would be conducted to create fill to develop new land for the 400-acre Pier Wind Terminal and 30-acre transportation corridor, as well deepen navigation channels, establish berths, the sinking basin, wet storage sites, and rock dike footprint. Dredged materials would be placed within the rock revetment to build the terminal. The berth pocket (an area next to the wharf where vessels berth) and wet storage areas would be dredged to a depth adequate for OSW operations.

It is estimated that approximately 42 million cubic yards (CY) of fill and up to 8 million CY of surcharge (i.e., sand placed to compress underlying fill) would be needed to create the terminal and transportation corridor. Dredging of approximately 50 million CY of material from various areas within Long Beach Harbor is anticipated to meet fill and surcharge needs, as shown in Figure 1-2 (for additional details see POLB, 2023 – Attachment E, Figure 1). Exact dredging locations would be developed further under technical studies. For planning purposes, it is assumed that out of the 50 million CY of dredge material needed, between 7 to 10 million CY of sand would be needed to meet the engineering requirements for specific phases of the Project. If sufficient sand cannot be sourced within the Long Beach Harbor, then a sand borrow site may need to be identified outside of the harbor boundary.

Wharf. A wharf would be constructed on the north side of the terminal to accommodate a combination of S&I and foundation assembly activities. Constructing the new wharf would require installation of concrete or steel piles. These piles would be installed through the previously placed quarry rock dikes and stone. (POLB, 2023 – Attachment E, p. 7).

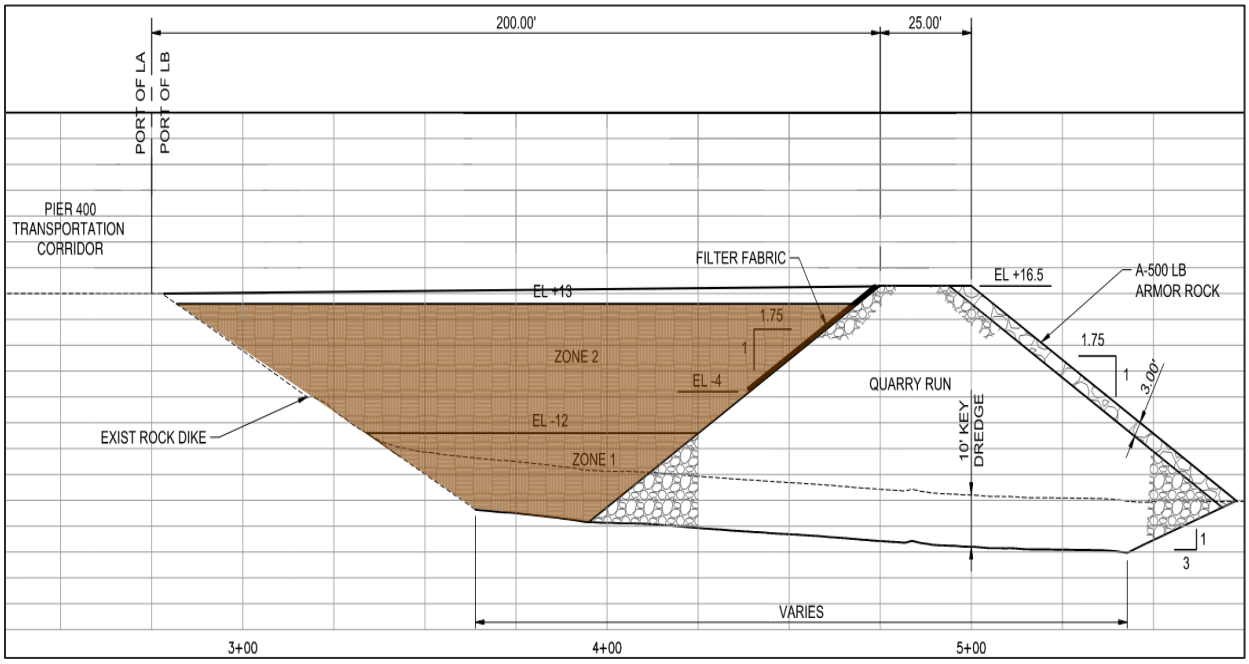
Sinking Basin. To provide for transfer of assembled floating foundations from the terminal into the water (i.e., “float off” operations), approximately 2 million CY would be dredged between the proposed terminal and the Navy Mole to create a sinking basin with a minimum depth of -100 ft MLLW (POLB, 2023 – Attachment B, p. 14).

Rock Revetment Dike Structure. A rock revetment structure, comprised of quarry run rock (12-inch diameter and smaller) and armor stone from domestic (inland quarry from California or Catalina Island) and/or international suppliers (e.g., Vancouver, Canada), would surround the entire terminal and extend along the transportation corridor. The perimeter rock revetment would be a multi-lift dike (i.e., dike constructed in multiple earthen layers) with a layer of armor rock on the outer face at the south and east side of the terminal, while the north side and transportation corridor would be a single lift dike (POLB, 2023 – Attachment E, pp. 2-3). In addition, two single-lift dikes (i.e., dike constructed in one single earthen layer) are proposed, one at the 100-acre limit (Phase 1A) and another at the 200-acre limit (Phase 1B), to bisect the total terminal footprint.

Transportation Corridor. An approximately 30-acre transportation corridor would be constructed extending adjacent to and west of the POLA Pier 400 Transportation Corridor. The corridor would accommodate four travel lanes (two in each direction). The connection would start at the Navy Mole extending south over the existing channel (see below for onshore construction activities).

The transportation corridor would be created utilizing a single-lift rock revetment dike along the eastern edge and approximately 30 acres of fill from dredge activities, as shown in Figure 1-3 (dark brown is fill).

Figure 1-3. Pier Wind Transportation Corridor Fill and Dike Cross Section



Source: POLB, 2023 – Attachment H, p. 2. Onshore Construction

Wick Drains and Surcharge. To accelerate the consolidation and settlement of the foundation and fill materials, wick drains and surcharge would be installed to squeeze out excess water. Wick drains would be installed down through the placed sediments to provide horizontal drainage. The Project design assumes 100 acres would be surcharged at a given time. After the first 100-acre settlement period is complete (Phase 1A), the surcharge material would be "rolled" to the next 100 acres (Phase 1B). Once the Phase 1 surcharge duration is complete, the surcharge materials may be temporarily stored at an appropriately permitted location. After Phase 2, surcharge materials would be disposed of at an approved open water sediment placement site as directed in the permit (e.g., WASSS, beach nourishment, open water disposal site). Surcharge material would be approved by regulatory agencies for open water placement (POLB, 2023 – Attachment E, pp. 6-7).

Fixed Piers. Three fixed piers would be constructed east of the transportation corridor, north of the terminal using concrete piles to allow for pedestrian and vehicular access to wet storage and/or commissioning, testing, and staging for tugs and vessels (POLB, 2023 – Attachment H, pp.1-2).

Wet storage. Two areas within the harbor adjacent to the site are designated for wet storage activities. These areas would have permanent anchorages and/or fixed structures to provide stability for storage of floating foundations or floating OSW turbine systems prior to tow out.

Landside Construction

Grading and Compaction. Once the fill is consolidated, the terminal would be graded and compacted.

Surfacing. The terminal would be surfaced with dense grade aggregate to allow for ease of maintenance for re-grading when settlement from heavy loads occurs. Pavement would be applied on the transportation corridor for vehicular lanes and parking lots (POLB, 2023 – Attachment B, p. 31).

Transportation Corridor Improvements. To connect the transportation corridor to the Navy Mole, two concrete bridges supported by concrete piles would be constructed for vehicular traffic (POLB, 2023 – Attachment F). The bridges would start on the Navy Mole and extend over the existing channel, and end on the new Pier Wind transportation corridor. Utilities would be installed on either bridge.

The vehicle lanes and utilities would then continue from the bridges onto the transportation corridor. This corridor would provide access for vehicles, installation of utilities, electrical substations, and space for additional operations, such as offices, warehouses, and parking.

Installation of Utilities. Within the Project site, various utility installations would be required to support the new terminal and transportation corridor (POLB, 2023 – Attachment B, pp. 32-33).

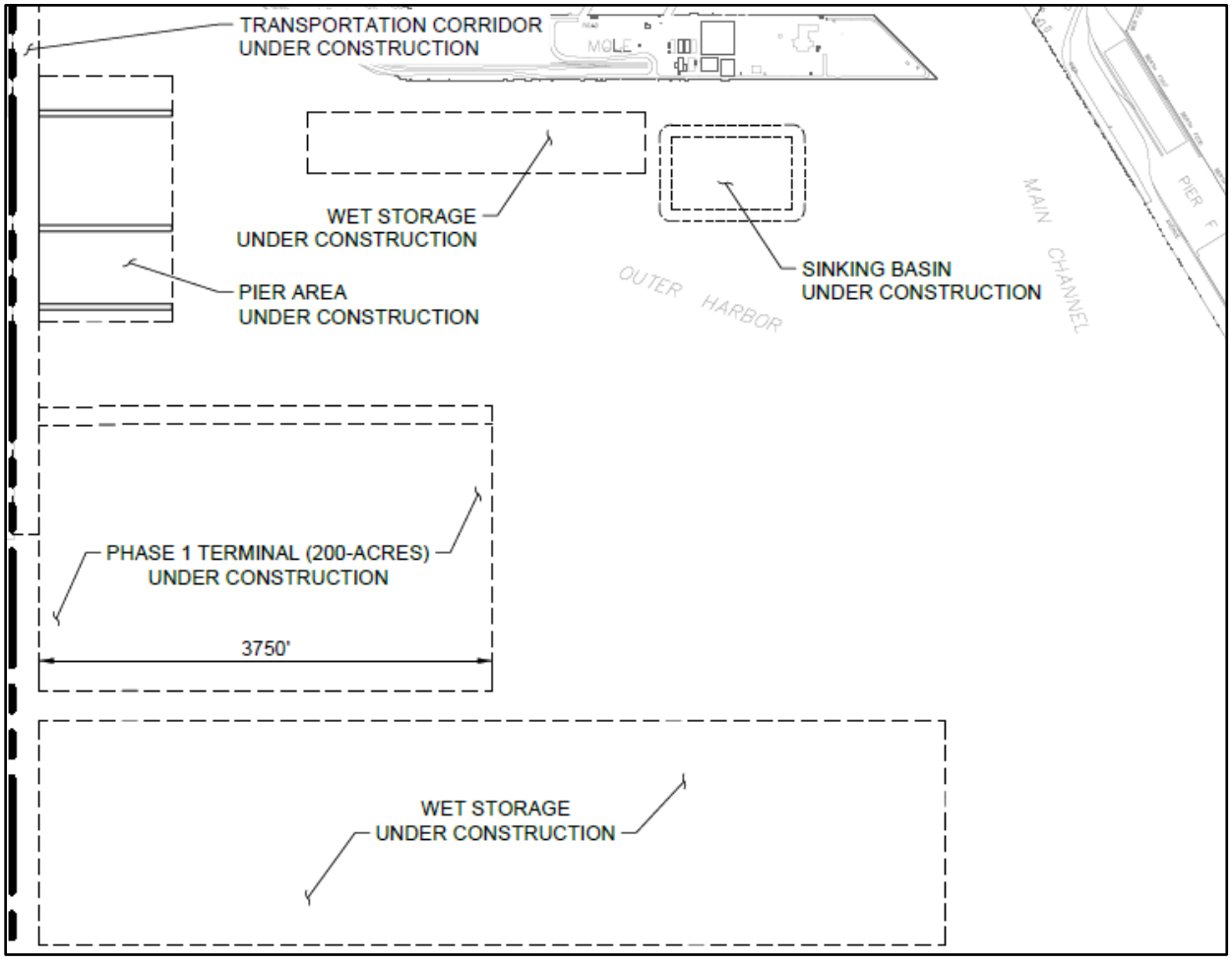
- **Shore Power, Crane Substation, and Charging Stations.** Electrical installations are anticipated to include shore power substations, crane substation(s), shore power outlets for vessels at berth, and charging stations for construction equipment, work trucks, and staff vehicles. Electrical substations and charging stations would primarily be constructed within the 400-acre terminal, but some infrastructure may be constructed on the transportation corridor. An electrical grounding grid (i.e., electrical safety system that connects electrically conductive components to earth) would be installed within the substation and through the entire terminal.
- **Underground Power Distribution.** A radial concrete encased underground duct bank would be installed throughout the Project site (terminal and transportation corridor) for proper power distribution from the new substation(s). Additionally, a ground wire grid would be installed to ground the substation equipment. Power lines are anticipated to tie into the existing distribution lines on the east side of the Navy Mole.
- **Site Lighting.** High mast light towers with light-emitting diode (LED) light fixtures would be installed throughout the new terminal. Additionally, LED lights would be evenly spaced along both sides of the transportation corridor to provide lighting for the road. Lights would operate 24 hours a day, 7 days a week.
- **Fire Protection.** Fire water would be needed to serve new fire hydrants installed at the terminal and along the transportation corridor. A new water main would connect to the existing water main on the Navy Mole and run along the transportation corridor to the terminal.
- **Potable Water.** Potable water would be needed to support various anticipated buildings along the transportation corridor and within the terminal footprint, including for general office use (restrooms, kitchens, etc.). The new potable water supply line would connect to the new water main installed along the transportation corridor to the terminal.
- **Sanitary Sewer.** Sanitary sewer service would be needed to support the various anticipated buildings along the proposed transportation corridor and within the terminal footprint. Sanitary sewer service would be limited to demands from general office use (restrooms, kitchens, etc.). The new sanitary sewer line would connect to the existing sewer line on the Navy Mole.
- **Natural Gas.** A natural gas line, if required, would be installed along the transportation corridor and terminal. The natural gas line would connect to the existing natural gas line on the Navy Mole.

Signage. Appropriate road signs (i.e., street names, traffic signs, etc.) would be installed along the transportation corridor to meet all applicable local, State, and federal standards, as applicable.

Construction Phases

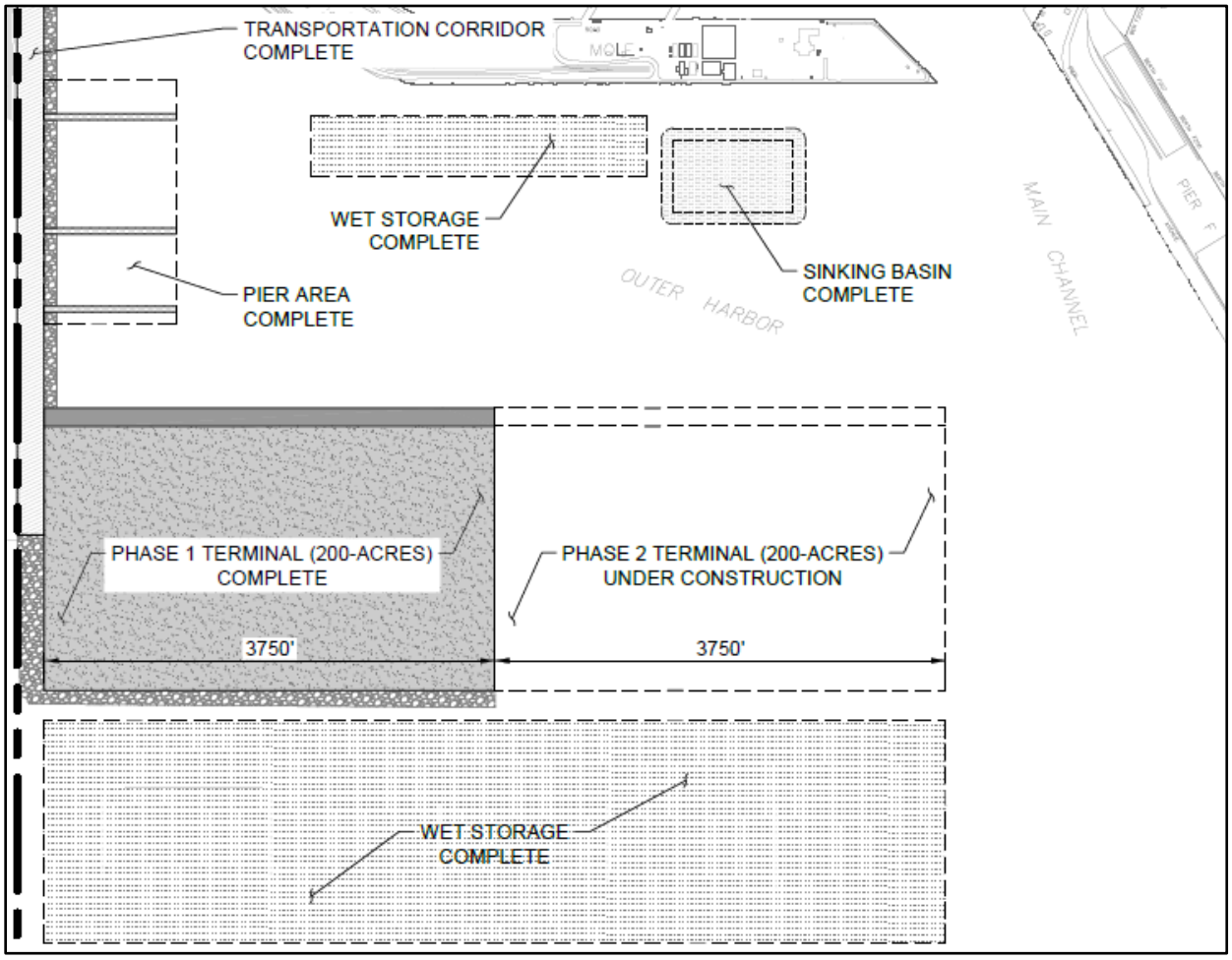
Construction would occur in two phases (Phases 1 and 2), with Phase 1 broken down into two subphases (Phases 1A and 1B) to accommodate a potential OSW developer earlier in the schedule and better assist California in reaching its deployment goals by 2045. The schedule follows the Conceptual Report's "aggressive schedule" as shown in Figures 1-4 and 1-5. However, the expected construction durations mentioned below may vary from the actual construction duration, as not all factors can be accounted for at this time. For additional information on construction activities and durations within each phase, refer to Appendix A (POLB, 2023 – Attachment K).

Figure 1-4. Construction Phase 1A and 1B



Source: POLB, 2023, Attachment J.

Figure 1-5. Construction Phase 2



Source: POLB, 2023 – Attachment J.

Phase 1

Phase 1A. The first 100 acres of the overall 400-acre terminal would be constructed in Phase 1A beginning in 2027. This phase is estimated to be completed within 49 months. Phase 1A construction activities include dredging and filling of sediment to develop the first 100 acres of the western portion of the terminal, transportation corridor, transportation bridges, sinking basin, fixed piers, approximately 50 percent of the wet storage areas, and the wharf on the north side of the terminal.

Phase 1B. Phase 1B would develop an additional 100 acres of terminal land area and the associated wharf. Dredging, filling, grading, and compacting activities would continue, as well as construction of the transportation corridor, rock dike/revetment structure, wharf, wick drains, utilities, and approximately 50 percent of the wet storage areas. This phase is estimated to be completed approximately 6 months following completion of Phase 1A, or 55 months (4.6 years [2027-2031]) from the start of Project construction.

Phase 2

The remaining 200 acres of the terminal and associated wharf would be constructed in Phase 2 as depicted in Figure 1-5. Dredging and filling of sediment; grading and compacting; construction

of the wharf, rock dike/revetment structure, and wick drains; and installation of utilities would continue until Phase 2 is completed. This phase is estimated to be completed within approximately 51 months (4.3 years [2031-2035]) following completion of Phase 1B, or 106 months (8.8 years [2027-2035]) from the start of Project construction.

1.5.1.1. Aggressive Construction Schedule and Workforce

Table 1-1 provides an estimate of the number of workers and duration by activity for each phase of construction based on the Aggressive Construction Schedule discussed in the Conceptual Report (POLB, 2023 – Attachment K).

Table 1-1. Aggressive Construction Schedule and Workforce

Activity	No. of Workers	Duration (months)[1]
Phase 1A		
Fill	75-100	16
Wharf piledriving	100	7
Wharf concrete	100	5
Utilities	30-40	5
Electrical	60-70	12
Uplands	50-75	12
Phase 1B		
Fill	75-100	9
Wharf piledriving	100	7
Wharf concrete	100	5
Utilities	30-40	5
Electrical	60-70	9
Uplands	50-75	12
Phase 2		
Fill	75-100	20
Fill (after dredge and rock fill complete – surcharge removal, wick drains, etc.)	50-75	24
Wharf piledriving	100	12
Wharf concrete	100	8
Utilities	30-40	9
Electrical	60-70	18
Uplands	25-50	24

Source: Moffatt & Nichol, 2023.
[1] Note: Activities may overlap in duration.

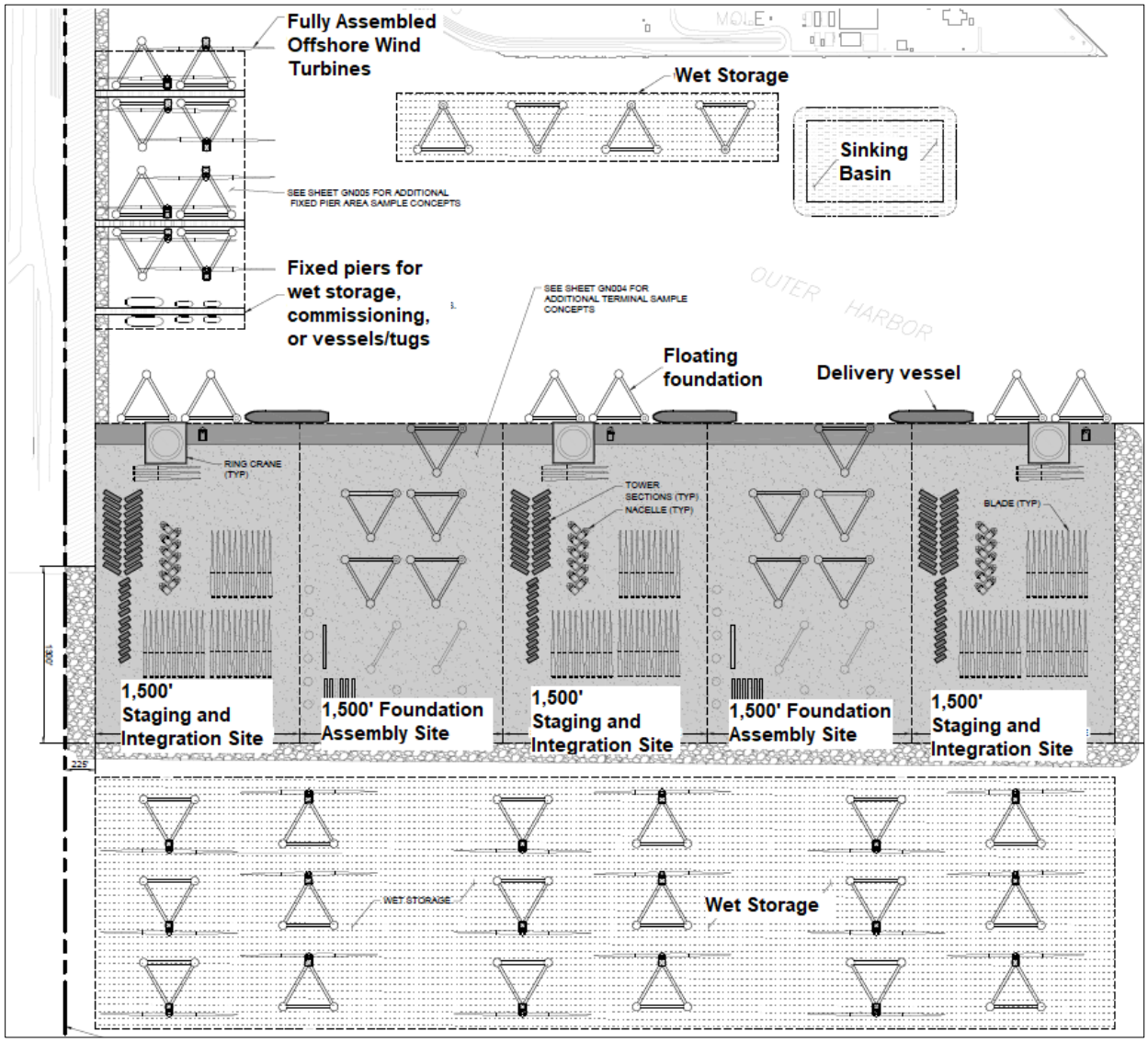
1.5.2. Operations

The newly developed 400 acres of land is expected to be operated as an OSW terminal facility by one or more operators, such as OSW developers or floating foundation assemblers. Figure 1-6 illustrates a potential layout of the Pier Wind Terminal for operations with three S&I and two floating foundation assembly sites. The *AB 525 Port Readiness Plan* identifies four foundation assembly sites needed to meet the State's 25 GW goal by 2045, with the assumption that all manufacturing sites are to be located in California (CSLC, 2023 - p. 57). To date, manufacturing sites for WTG components have not been identified, and as such, the analysis herein assumes manufactured components for the WTGs would be manufactured at other sites and transported

via vessel to the Pier Wind Terminal for final assembly (see Section 1.5.2.1, Vessel Operations). The *AB 525 Port Readiness Plan* identifies S&I sites as the most critical to meet the state and federal goals for OSW; therefore, three S&I sites and two foundation assembly sites are proposed to best accommodate the optimal number of S&I sites to meet State goals (Figure 1-6). Foundation assembly sites located adjacent to the S&I sites would provide for efficient assembly of the floating foundations and moving of fully assembled foundations to S&I sites for final integration with other wind turbine components (see Section 1.5.2.3, Foundation Assembly). Operational activities would depend on the future operator; therefore, operation of the Pier Wind Terminal is discussed generally to capture the anticipated operating activities at the site.

The operational layouts shown are representative of how the site could be operated but are subject to final engineering design and preferences of the operator. The potential environmental impacts associated with the development and operation of OSW farms are not included within the scope of the proposed Project. OSW farms are to be analyzed separately by the respective agencies, as they are considered separate and independent projects pursuant to CEQA.

Figure 1-6. Pier Wind Terminal Potential Site Layout



Source: POLB, 2023.

1.5.2.1. Vessel Operations

Operational vessels would transport WTG components to the Project site. The vessels expected to call at the proposed Pier Wind Terminal would consist of delivery vessels and semi-submersible barges (purpose-built smart ballasting barges). Delivery vessels would consist of bulk carriers, including roll-on/roll-off (RORO) vessels, and/or barges transporting the foundation sub-assemblies and WTG components to the terminal. Vessels would be required to plug into shore power in accordance with CARB ruling.

Vessels would primarily transport WTG components to the terminal from other sites in California, Oregon, Washington, or other sites in the US, Asia, or Europe.

1.5.2.2. Staging and Integration (S&I)

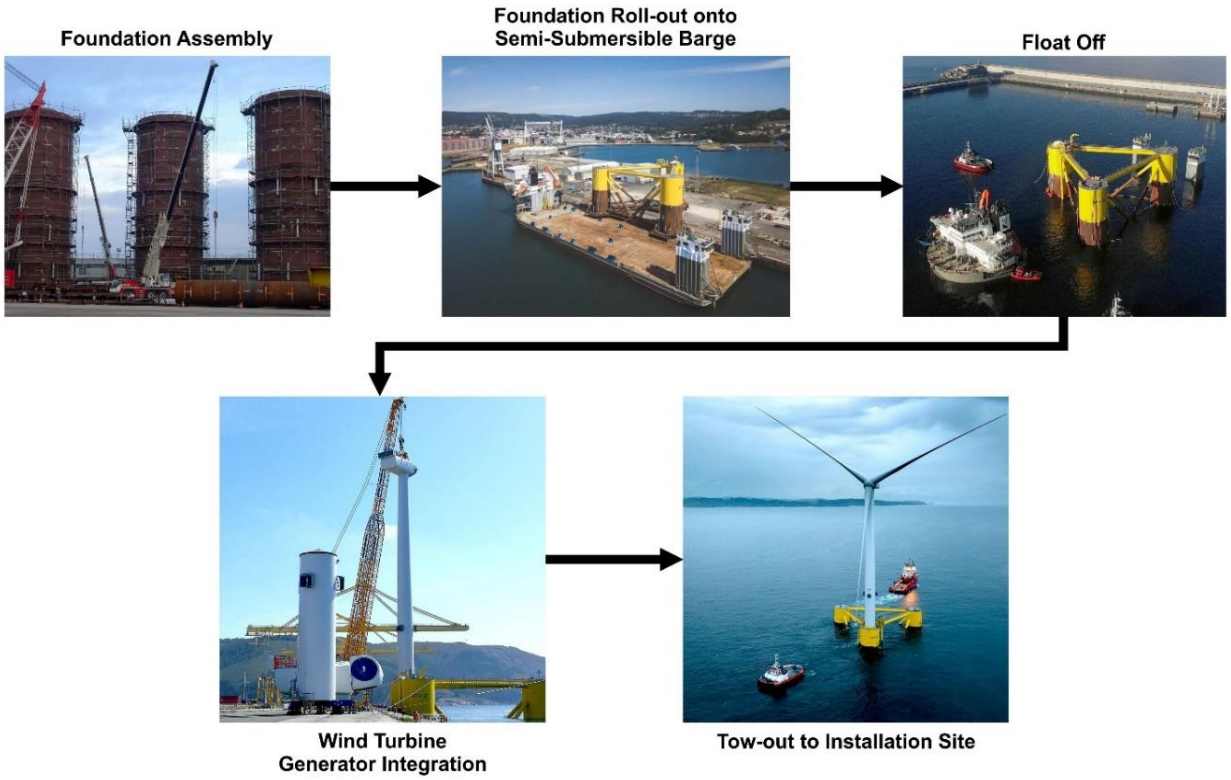
S&I sites at the Pier Wind Terminal would accommodate the delivery and receiving of WTG components such as tower sections, blades, and nacelles. The components would be delivered from a vessel onto the wharf and to the upland storage area via two methods:

1. A vessel-based or wharf-based crane would lift the components from the vessel onto the wharf, or
2. A roll-on/roll-off (RORO) operation where a self-propelled modular transporter (SPMT) would drive onto the vessel, on-board the components, and then transport the components off the vessel onto the wharf. The use of SPMTs is used extensively in the OSW industry due to its ability to handle and efficiently spread significant loads to achieve manageable applied loads on the structure and/or subgrade below.

1.5.2.3. Foundation Assembly

Foundation assembly (i.e., the assembly of foundation subcomponents into a fully assembled foundation) for onshore fabrication of floating OSW turbine foundations would occur at the Pier Wind Terminal (Figure 1-7). A foundation would be progressively assembled toward the wharf such that when the foundation unit is complete, it would be stationed next to the wharf for roll-out onto a semi-submersible barge. The semi-submersible barge would then be moored at the berth and the completed foundation unit would be moved on the semi-submersible barge using SPMTs. The semi-submersible barge would then transport the foundation to a pre-determined deep-water area or the sinking basin and perform a “float-off” operation where the semi-submersible barge ballasts down until the foundation becomes buoyant. The foundation would be towed back to the berth area where it would be outfitted with the wind turbine generator components (tower, nacelle, and blades). These components would likely be placed onto the foundation using a large land-based crawler or ring crane. The fully assembled floating OSW turbine system would then be towed out to the destined OSW farm location for installation or staged in the wet storage area to wait for adequate tow conditions. Floating OSW turbine systems would be towed from the Pier Wind Terminal to the edge of the South Coast Air Basin (SCAB) over-water boundary, at which point the floating OSW turbine systems would be considered part of the OSW farm project(s) and analyzed as part of those projects (i.e., point of delivery). The SCAB over-water boundary is bounded to the north by the southern Ventura County line at the coast and in the south by the southern Orange County line at the coast.

Figure 1-7. Foundation Assembly, Integration, and Tow-out



Photos 1, 2, 4, and 5 by Principle Power. Photo 3 by EDP Renewables.

1.5.2.4. Sinking Basin and Wet Storage

Wet storage sites would be located in water to the north and south of the terminal. Floating OSW turbine systems awaiting tow out would be moored (stored) in the wet storage areas to wait for appropriate tow out times. Wet storage would provide for the storage of up to 18 floating OSW turbine systems. The length of the sinking basin would accommodate both the semi-submersible barge and a semi-submersible heavy lift vessel importing the floating foundations.

A wet storage area would be required to safely moor (store) floating OSW turbine systems to ensure efficient assembly and tow-off during favorable ocean and weather conditions. This space would also allow for diagnostic testing of the units. According to BOEM, large wet storage areas allow for greater turbine assembly rates and acceptable throughput goals (BOEM, 2023).

1.5.2.5. Operations and Maintenance

Major operation and maintenance support activities would potentially consist of towing damaged floating OSW turbine systems back to the Pier Wind Terminal for repair or replacement of major components. The major maintenance activities, such as replacement of a nacelle or blade, cannot be performed in the OSW area and therefore must be performed at the Pier Wind terminal. Major maintenance activities are anticipated to occur on average, approximately once every 10 years for each floating OSW turbine system (CSLC, 2023).

1.5.2.6. Buildings and Support Equipment

Operations at the Pier Wind Terminal would begin once construction of Phase 1A is complete and continue while construction progresses to Phase 1B and Phase 2. The expected operations and equipment requiring power include:

- Warehouse buildings
- Administrative/office building(s)
- On-site material heavy transport
- On-site light material transport
- Construction equipment and tools
- Cranes
- Site lighting
- Vessel shore power and battery charging
- Vehicle and equipment charging
- Miscellaneous electrical loads

Yard transport equipment, including SPMTs, would be utilized in operation of the Pier Wind Terminal. Zero-emissions technologies, such as electrical power from hydrogen fuel cells, may be utilized. A variety of power tools, including arc-welding equipment, would be used at the terminal.

Equipment staging is a key component of the OSW terminal. WTG components such as nacelles would require power while being staged for assembly. In addition, tower sections would require heaters to prevent condensation and moisture buildup. Portable backup power connections and transfer mechanisms would be required to ensure continuity of power flow in the event of outages.

Navy Mole Road would connect to the transportation corridor to provide access for worker vehicles and delivery of equipment via truck to the Pier Wind Terminal. The transportation corridor would also provide facilities such as offices, warehouses, and parking. It would also serve as a utility corridor for water, sewer, stormwater, electrical, natural gas, fiber optic, and telecommunications.

1.5.2.7. Project Operations Workforce

It is estimated that up to 165 workers would be at each S&I site and up to 255 workers at each foundation assembly site during Project operations, for a maximum total of 1,005 workers (based on 3 S&I and 2 foundation assembly sites). According to the CSLC *AB 525 Workforce Development Readiness Plan*, Southern California currently has almost 1.3 million workers employed in positions related to OSW and port infrastructure. Given the large labor market in Southern California and high training capacities, the projected workforce gap would be minimal for the majority of jobs (CSLC, 2023 – pp. 71-72).

1.6. Anticipated Permits and Approvals

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, POLB is the designated Lead Agency for the proposed Project and has principal authority and jurisdiction for CEQA actions and Project approval.

The discretionary actions to be considered by POLB as part of the proposed Project include the following:

- Approval and certification of the environmental impact report required under CEQA; and
- Approval and issuance of a Level III Harbor Development Permit (HDP) in accordance with the certified Port Master Plan.

In addition to the HDP, the approvals or permits from other federal, state, local, and/or regional agencies that may be required to implement the proposed Project include but are not limited to those listed in Table 1-2.

Table 1-2. Permits that May be Required for the Proposed Project

Agency Name	Law, Regulation, or Guidance	Project Applicability and Considerations
Federal Agencies		
USACE	Rivers and Harbors Act Section 10 of 1899	Permit for work and placement of structures in navigable waters of the US.
	Clean Water Act Section 404 of 1977 and 1987 Marine Protection, Research and Sanctuaries Act of 1972 (Ocean Dumping Act)	Requires a permit for dredging or filling (discharges) within waters of the US. Requires authorization for transport of dredged or fill material by vessel or other vehicle for the purpose of dumping the material into ocean waters.
US Environmental Protection Agency (USEPA)	Marine Protection, Research and Sanctuaries Act of 1972 (Ocean Dumping Act)	Regulates disposal of dredge material into the ocean. Applicable to unconfined aquatic disposal of dredged material (if needed) from the Project.
	Clean Air Act Amendments of 1990	Air Quality Conformity Permits during construction associated with construction equipment.
NOAA/National Marine Fisheries Service (NMFS), US Fish and Wildlife Service (USFWS)	Federal Endangered Species Act (ESA) of 1973	Consultation is required for ESA species present in the Project area.
	Magnuson-Stevens Fishery Conservation and Management Act of 1976	Essential fish habitat designation may require consultation.
	Marine Mammal Protection Act 1972	Incidental Harassment Authorization would be required for marine mammals that could be potentially impacted from construction activities.
	National Invasive Species Act of 1996	If presence of invasive species is detected, best management practices may be needed for construction vessels and equipment.
	Noise Control Act of 1972	Incorporate reasonable and feasible noise abatement measures to reduce or eliminate noise impact.
Federal Aviation Administration (FAA)	Title 14 of the Code of Federal Regulations (14 CFR), Part 77.9	Obstruction Evaluation
State Agencies		
Los Angeles Regional Water Quality Control Board (LARWQCB)	Clean Water Act (CWA) Section 401	Water quality certification for water quality impacts related to any construction elements and filling into waters of the US. Issue a National Pollutant Discharge Elimination System (NPDES) permit and/or Waste Discharge Order for sites if there is an effluent discharge. Construction of shoreside components of the proposed Project may also require a General Construction Activity Stormwater Permit as required by the NPDES permit.

Agency Name	Law, Regulation, or Guidance	Project Applicability and Considerations
California Coastal Commission (CCC)	California Coastal Act of 1976 and Coastal Zone Management Act of 1972 and Reauthorization Amendments of 1990	Coastal Development Permits within the Coastal Zone. CCC certifies the Port Master Plan and any amendments. BHC approves the Coastal Development Permit for developments that are consistent with the Port Master Plan as part of the HDP process.
California State Lands Commission (CSLC)	Public Trust Doctrine	CSLC has oversight authority over sovereign lands granted in trust by the Legislature. POLB manages and develops the sovereign lands granted in trust by the Legislature to the City of Long Beach (State Tidelands Trust) in accordance with the Public Trust Doctrine and provisions of the State Tidelands Trust.
California Department of Fish and Wildlife	California Endangered Species Act	2081 Incidental Take Permit
Caltrans	Construction Standards	Compliance with Caltrans Construction Contract Standards and Federal Highway Administration standards.
California Environmental Protection Agency (CEPA)/ California Air Resources Board (CARB)	California Clean Air Act of 1988	Compliance with CARB regulatory program for emission reduction from stationary and mobile sources.
Local Agencies		
POLB	Port Master Plan (PMP)/PMP Update	Assume CCC will approve the PMP amendment and therefore the BHC will issue the Coastal Development Permit as part of the HDP.
City of Long Beach	City of Long Beach Municipal Code	Building, Fire, Electric, Plumbing, and Sanitation Permits anticipated to be required.
POLA	Port Master Plan	City of Los Angeles Harbor Department (LAHD) Coastal Development Permit, LAHD Entitlement, and Harbor Engineer Permit.
City of Los Angeles	City of Los Angeles Municipal Code	Building, Fire, Electric, Plumbing, and Sanitation Permits anticipated to be required.
South Coast Air Quality Management District (SCAQMD)	California Clean Air Act of 1988, Air Quality Management Plan, and air quality rules and regulations	Compliance with SCAQMD permits

Source: POLB, 2023.

2. ENVIRONMENTAL DETERMINATION

2.1. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" and requiring implementation of mitigation as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture & Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology/Soils	☒ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☒ Land Use/Planning	☐ Mineral Resources
☒ Noise	☒ Population/Housing	☒ Public Services
☒ Recreation	☒ Transportation	☒ Tribal Cultural Resources
☒ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

2.2. Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Matthew Arms, Director of Environmental Planning
Port of Long Beach

11/30/23
Date

2.3. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   (a) Earlier Analyses Used. Identify and state where they are available for review.
   (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   (a) the significance criteria or threshold, if any, used to evaluate each question; and
   (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

I. Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☒	☐	☐	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☒	☐	☐	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project have a substantial adverse effect on a scenic vista?

POTENTIALLY SIGNIFICANT IMPACT. The Port's certified Port Master Plan identifies three sensitive views within the POLB: (1) predominant structures visible to the east from downtown Long Beach and along the ocean bluffs, (2) ground-level views along the boundary of Queensway Bay, and (3) ground-level views along Harbor Scenic Drive from the southbound lanes south of Anaheim Street (POLB, 1990). The City of Long Beach General Plan Mobility Element also designates the segment of Ocean Boulevard from Nimitz Road on the west to State Route 1 (SR-1) on the east as a City-designated scenic route (Long Beach, 2013).

Due to the heights of the assembly cranes and floating OSW turbine systems, the Project would be visible from other nearby communities that have designated scenic view locations.

Construction

Project construction activities would temporarily alter the visual character of the Project site, but construction equipment such as dredge vessels, tugboats, dump trucks, cranes, and excavators would generally be consistent with the existing industrial and port-related activities and facilities in the Project area. Therefore, the Project is not expected to result in construction-related aesthetics impacts on designated scenic vistas. However, this topic will be analyzed further in the EIR/EIS.

Operation

As noted above, Project components would be visible from multiple communities having designated scenic view locations, resulting in a potentially significant impact on scenic vistas which will be analyzed further in the EIR/EIS.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

POTENTIALLY SIGNIFICANT IMPACT. There are no scenic resources at the Project site such as trees, rock outcroppings, historic buildings, or other aesthetic resources; therefore, construction and operation of the Project would not damage scenic resources. Also, according to the California Department of Transportation (Caltrans) Scenic Highway Mapping System (Caltrans, 2023), there are no designated State scenic highways within the POLB or the City of Long Beach. The closest State-designated scenic highway is SR-91 beginning at SR-55 east of the Anaheim city limit, which is more than 20 miles to the northeast of the Project site (Caltrans, 2023). Additionally, the Project's assembly cranes and floating OSW turbine systems would not be visible from SR-91 given the viewing distance and obstructions from existing structures and topography. Therefore, the Project would not impact any scenic resources within a designated State scenic highway.

The closest eligible State scenic highway is the segment of SR-1, located approximately 5 miles to the east of the Project site, that follows the coastline from Orange County into Los Angeles County and terminates at SR-22 in the City of Long Beach (Caltrans, 2023). Although the Project would not damage scenic resources within this eligible State scenic highway segment, the Project's assembly cranes and floating OSW turbine systems would be visible from portions of SR-1.

The City of Long Beach General Plan Mobility Element Map 12, Context-Sensitive Street Classification System, identifies scenic routes within the City of Long Beach (Long Beach, 2013). The closest city-designated scenic route to the Project site is Ocean Boulevard from Nimitz Road (western City limit) to SR-1 (eastern City limit), which is located approximately 0.55 mile south of the Project site. Given their considerable heights, the Project's assembly cranes and floating OSW turbine systems would be visible from Ocean Boulevard.

The Project's impact on scenic highways and roads will be analyzed further in the EIR/EIS.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

While Project construction activities would temporarily alter the visual character of the site through the use of construction equipment such as dredge vessels, tugboats, dump trucks, cranes, and excavators, these activities would generally be consistent with the existing industrial and port-related activities and facilities in the immediate Project area and are not expected to conflict with the aesthetics/visual resources plans and policies of other jurisdictions. Therefore, Project construction is not expected to conflict with zoning and other regulations governing scenic quality. This topic will be analyzed further in the EIR/EIS.

Operation

As discussed above under Section I(a), due to the heights of the assembly cranes and floating OSW turbine systems, the Project would be visible from other nearby communities that have plans and policies in place to protect visual resources and coastal views. For example, the General Plan Visual Resources Element for Rancho Palos Verdes (Rancho Palos Verdes, 2018) has designated viewing locations and view corridors from which the Project would be

seen. Other communities including Seal Beach (Seal Beach, 2023) and Huntington Beach (Huntington Beach, 2012) also have plans and policies pertaining to the protection of coastal views. Therefore, the Project's consistency with these and other local plans and policies governing scenic quality will be analyzed in the EIR/EIS.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Project construction is likely to employ a combination of permanent and temporary night lighting with the potential to intrude into nighttime views from beyond the Project boundary, necessitating night lighting control strategies to avoid night lighting impacts and/or inconsistencies with other jurisdictional night lighting control regulations. This topic will be analyzed further in the EIR/EIS.

Operation

Given the extent of the proposed site night lighting (60 150-ft tall light towers, each with 10 to 26 1,500-watt LED fixtures [990 total] with an additional 100 LED lights along the transportation corridor) and the potential need for Federal Aviation Administration (FAA) lighting on floating OSW turbine systems, the potential exists for Project night lighting to intrude into nighttime views from beyond the Project site boundary, necessitating night lighting control strategies to avoid night lighting impacts and/or inconsistencies with other jurisdictional night lighting control regulations. This topic will be analyzed further in the EIR/EIS.

II. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as Shown on the Maps Prepared Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to Non-agricultural use?

NO IMPACT. The Project site is located within the Outer Harbor of the Port comprised of primarily industrial and commercial activities. There is no existing above-water land associated with the Project site. According to the California Department of Conservation's Farmland Mapping and Monitoring Program, the Project site is not within any area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC, 2018). The Project site's location in the Long Beach Outer Harbor suggests that the appropriate Farmland Mapping and Monitoring Program mapping designation would be Water Area. Thus, the Project would have no impact on Farmland.

Mitigation Measures: No mitigation is required.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. The Project site is located within Long Beach Harbor Planning District 6 and zoned "IP – Port-Related Industrial" within the City of Long Beach (POLB, 2022). Permitted uses within Harbor Planning District 6 include anchorage areas, primary port facilities, hazardous cargo facilities, ancillary port facilities. Uses in IP zones include primarily Port-related or water dependent activities, as well as water-oriented commercial and recreational facilities (POLB, 2022). No agricultural use occurs within the Project site and surrounding areas. As such, the Project site is not a part of a Williamson Act contract. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

NO IMPACT. As discussed in Section II(b), the Project site is not located within lands zoned for forest land or timberland. As such, the Project would not cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

Mitigation Measures: No mitigation is required.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. As discussed in Section II(b), the Project site is not located within lands zoned for forest land. The Project would not result in the loss of forest land or convert forest land to non-forest use. No impact would occur.

Mitigation Measures: No mitigation is required.

e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

NO IMPACT. As discussed in Sections II(a) through II(d), the Project site is located in the Outer Harbor of the Port with no land zoned for agricultural or forest uses. The Project would not result in the conversion of Farmland to non-agricultural use, and no impact would occur.

Mitigation Measures: No mitigation is required.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?	☒	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS-THAN-SIGNIFICANT IMPACT. This impact discussion addresses Project consistency with the applicable air quality management plans.

Air Quality Management Plan (AQMP). The federal Clean Air Act (CAA) of 1963 and its subsequent amendments form the basis for the nation's air pollution control effort. The US Environmental Protection Agency (USEPA) is responsible for implementing most aspects of the CAA. Through the authority of the CAA, USEPA establishes the National Ambient Air Quality Standards (NAAQS) for major air pollutants. The CAA delegates enforcement of the NAAQS to the states. In California, the California Air Resources Board (CARB) is responsible for developing and enforcing air pollution regulations designed to attain the NAAQS. The CARB also sets the California Ambient Air Quality Standards (CAAQS), which are often more stringent than the NAAQS. CARB, in turn, delegates to local air agencies the responsibility of monitoring air quality and regulating many emission sources. The South Coast Air Quality Management District (SCAQMD) monitors air quality within the South Coast Air Basin (SCAB), which is comprised of portions of Los Angeles, Riverside and San Bernardino Counties, and Orange County.

For regions that do not attain the NAAQS, the CAA requires the preparation of a State Implementation Plan, detailing how the State will attain the NAAQS within mandated timeframes. In response to this requirement, the SCAQMD develops the AQMP, which is incorporated into the SIP. The AQMP is updated every several years in response to NAAQS revisions, USEPA SIP disapprovals, and attainment demonstration changes. The AQMP uses projections of population growth and trends in energy and transportation demand to predict future emissions and determine control strategies to achieve attainment with the ambient air quality standards.

SCAQMD has prepared AQMPs in 1997, 2003, 2007, 2012, 2016, and most recently in 2022. Each iteration of the AQMP builds on the previous AQMP. The 2022 AQMP addresses requirements for meeting the 70 parts per billion ozone standard and focuses on nitrogen oxide (NOx), a precursor to ozone, control measures; SCAQMD addressed other ozone and particulate matter standards in prior AQMPs. Many of the 2022 AQMP attainment strategies rely on research and development, demonstrations, and incentives to facilitate the widespread deployment of

zero-emissions and low NOx technologies. AQMP attainment strategies include mobile source control measures and clean fuel programs enforced at the federal and state levels on engine manufacturers and stationary source control measures implemented through the New Source Review permitting program administered by SCAQMD. Permits to Construct and Permits to Operate issued by the SCAQMD establish stationary source permit conditions to ensure compliance with the SCAQMD rules and regulations. Compliance with applicable SCAQMD rules and air permitting program requirements, for projects that otherwise are within the growth projections for the SCAB, indicates that a project would not conflict with the applicable air quality plan.

Clean Air Action Plan (CAAP). In 2006, the Boards of Harbor Commissioners of the ports of Long Beach and Los Angeles adopted the San Pedro Bay Ports CAAP as a means of complying with the SCAQMD's AQMP strategies for the region. The CAAP was designed to reduce the health risks posed by air pollution from all port-related emission sources, specifically ships, trains, trucks, terminal equipment, and harbor craft, such as tugboats. The 2017 CAAP Update contains strategies to reduce emissions from sources in and around the ports, plan for zero emissions infrastructure, encourage freight efficiency, and address energy resources (POLB, 2017). Project activities would be required to comply with all applicable strategies of the CAAP, including construction Best Management Practices (BMPs). The Port's Air Quality BMPs would be made enforceable through the Harbor Development Permit, and compliance with BMPs would ensure that construction and operational practices and emissions would conform with the CAAP.

Community Emission Reduction Plan (CERP). The Community Emissions Reduction Plan (CERP) for Wilmington, Carson, and West Long Beach was adopted by the South Coast AQMD pursuant to 2017 Assembly Bill (AB) 617 to reduce air pollution and improve public health in communities experiencing disproportionate burdens from exposure to air pollutants (SCAQMD, 2019). The CERP was developed in partnership and collaboration between the Community Steering Committee, which is made up of local community members and land use and public health agencies, the SCAQMD, and the CARB. Together they identified refineries, ports, neighborhood truck traffic, oil drilling and production, railyards, and schools, childcare centers, and homes as air quality priorities to be addressed and identified actions to reduce emissions and/or exposures.

The following specific actions identified in the CERP may be relevant to the Project:

- Ports: Action 2: Reduce Emissions from Ships and Harbor Craft. Ships utilized during operation of the proposed Project, depending on ship type, would be subject to POLB requirements (CAAP and SCAQMD Memorandum of Understanding) and CARB At Berth regulation, requiring reduced emissions strategies, such as shore power (California Code of Regulations [CCR] Title 17 sections 93130 through 93130.22). Harbor craft utilized during the construction and operational phases of the Project would be subject to POLB requirements (CAAP and SCAQMD Memorandum of Understanding) and CARB Commercial Harbor Craft regulation, including fuel requirements, data collection, and upgrading to Tier 4 engine requirements (CCR Title 13 section 2299.5 and Title 17 section 93118.5).
- Ports: Action 3: Reduce Emissions from Port Equipment (Cargo Handling Equipment) and Drayage Trucks. Proposed Project operations would utilize cargo handling equipment such as cranes, which are subject to POLB requirements and CARB requirements for portable equipment. Trucks visiting the Project would be subject to CARB requirements for idling trucks, and the applicable provisions of the CARB Truck and Bus Regulation.
- Neighborhood Truck Traffic: Action 1: Reduce Truck Idling. Trucks visiting the proposed Project would be subject to CARB requirements, which require limiting idling to 5 minutes (CCR Title 13 section 2485).

- Neighborhood Truck Traffic: Action 2: Reduce Emissions from Heavy-Duty Trucks. Trucks visiting the proposed Project would be subject to the CARB Truck and Bus Regulation, which requires that truck fleets meet certain particulate emissions requirements by a range of phase-in dates (CCR Title 13 section 2025).

As noted above, AQMP attainment strategies include control measures and clean fuel programs that are enforced at the federal and state levels on engine manufacturers; stationary source control measures are enforced via SCAQMD's permitting program. Proposed Project construction and operational activities would be required to comply with all applicable CAAP strategies and air quality regulations, ensuring that the proposed Project would not obstruct implementation of the AQMP, the CAAP, or the CERP. Therefore, impacts would be less than significant and will not be evaluated further in the EIR/EIS.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

POTENTIALLY SIGNIFICANT IMPACT. Air emissions would be generated both during the construction and operation of the proposed Project. Construction would include in-water activities such as dredging, terminal construction, wharf and pier construction, rock revetment dike construction, and transportation corridor construction. Onshore construction would include grading and compaction, surfacing, transportation corridor improvements, installation of utilities, and building construction. Operational activities would include delivery of WTG components and other materials via vessel and truck, onshore S&I, floating foundation assembly, assembly of OSW turbine systems, tow-out of floating OSW turbine systems, and maintenance. Operation of the Pier Wind Terminal would begin once construction of Phase 1A is complete and continue during construction of Phase 1B and Phase 2.

The magnitude and impacts of emissions from construction, operation, and concurrent construction and operational activities cannot be determined at this time and requires further evaluation. In addition, cumulative impacts may result from individually minor but collectively significant projects. Therefore, emissions will be quantified and their impacts on air quality will be evaluated further in the EIR/EIS.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

POTENTIALLY SIGNIFICANT IMPACT. Given the anticipated utilization of diesel equipment, proposed Project construction and operational activities have the potential to expose nearby sensitive receptors, such as nearby residential receptors, and nearby off-site workers to localized air pollution in the form of criteria pollutants and toxic air contaminants from engine exhaust. The magnitude of these impacts cannot be determined at this time and requires further evaluation. Therefore, impacts will be evaluated further in the EIR/EIS.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

POTENTIALLY SIGNIFICANT IMPACT. Odors from construction and operation of the proposed Project would mostly be similar to the odors produced from surrounding terminal operations and would be primarily associated with exhaust from diesel equipment. However, dredging activities associated with construction have the potential to bring to the surface contaminated sediments and marine organisms. The subsequent decay and/or exposure of these materials to air could generate odors. Although the distances between proposed Project emission sources and the nearest sensitive receptors (i.e., more than 1 mile) are usually sufficient to allow for adequate dispersion of these odors, given the large amount of anticipated dredging activities this issue will be further evaluated in the EIR/EIS.

IV. Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☒	☐	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☒	☐	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Special-Status Plants

NO IMPACT. The Project area is within and adjacent to a developed port in a highly urbanized area. The land-based portion of the Project area consists primarily of paved and disturbed surfaces surrounding industrial port facilities. Disturbed, degraded, weedy terrestrial vegetation is present nearby along the Navy Mole and no special-status plants are expected to be present. No candidate, sensitive, or special-status plant species are known to occur in the Project area and there is no habitat that would support such species. No impacts would occur to special-status plants.

Special-Status Wildlife

POTENTIALLY SIGNIFICANT IMPACT. The Project area provides habitat for numerous special-status wildlife species. Eleven special-status bird species (i.e., listed by US Fish and Wildlife Service [USFWS] or the California Department of Fish and Wildlife [CDFW]) were observed within the Port Complex (POLA/POLB) during the 2018 Biological Survey of the Los Angeles and Long Beach Harbors (2018 Biosurvey; POLA/POLB, 2021). Three of the special-status species, brown pelican (*Pelecanus occidentalis)*, elegant tern (*Thalasseus elegans)*, and double-crested cormorant (*Phalacrocorax auratus*) were among the most abundant avian species in the 2013 and 2018 Biosurveys (POLA/POB, 2021). The POLA Pier 400 site, located approximately 1.0 mile from the Project area, provides an important nesting area for all three special-status tern species (elegant tern; California least tern [*Sterna antillarum browni*]; and Caspian tern [*Hydroprogne caspia*]), which have nested at the site every year since comprehensive biological surveys began in the Port Complex in year 2000. Additionally, the breakwaters have consistently supported large numbers of foraging brown pelicans and black oystercatchers (*Haematopus palliates*). Several other special-status avian species were observed within the Port Complex during the 2018 Biosurvey that are protected at nesting sites but are not known to breed within the Port Complex. Accordingly, there is no sensitive habitat for these species in the Port Complex. They include California gull (*Larus californicus*), long-billed curlew (*Numenius americanus*), whimbrel (*Numenius phaeopus*), marbled godwit (*Limosa fedoa*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), and common loon (*Gavia immer*).

All marine mammals are protected under the Marine Mammal Protection Act (MMPA). California sea lions (*Zalophus californianus*) have consistently been the most abundant species within the Port Complex, followed by harbor seals (*Phoca vitulina*), common dolphins (*Delphinus delphis*), and bottlenose dolphins (*Tursiops2-12 truncatus*). Bottlenose and common dolphins are most frequently observed in the open water of the Outer Harbor, and during the 2018 Biosurvey, a gray whale mother-calf pair was observed in the vicinity of Cabrillo Beach in the POLA. Outside the breakwater, a variety of marine mammals use nearshore waters. The most common whale species is the gray whale (*Eschrichtius robustus*) which migrates between summer feeding grounds in the northern Pacific Ocean and winter calving grounds in the eastern tropical Pacific Ocean. Outside of the harbor in nearshore waters extending into the Santa Barbara Channel, other common whales include blue (*Balaenoptera musculus*), humpback (*Megaptera novaeangliae*), and fin (*Balaenoptera physalus*) whales (National Park Service 2023).

Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Coastal Pelagic Species (CPS) and Pacific Coast Groundfish (PCG) Fishery Management Plans (FMP) identify Essential Fish Habitat (EFH) within tidal waters (PFMC, 2019, 2020). Twelve managed species were captured during the 2018 Biosurvey, including four fish species under the CPS FMP and eight species under the PCG FMP. Of the four CPS FMP species, only northern anchovy (*Engraulis mordax*) appears to use the Port Complex during both the day and night, as Pacific sardine (*Sardinops sagax*), jack mackerel (*Trachurus symmetricus*), and Pacific mackerel (*Scomber japonicus*) were captured almost exclusively at night. These pelagic species appear to use the Port Complex as a nursery habitat before larger individuals move offshore, as published length at maturity data indicate that the majority of fish captured for all four species were juveniles. Eight species managed under the PCG FMP were captured during the 2018 Biosurvey with the most abundant species being the California scorpionfish (*Scorpaena gutatta*), vermillion rockfish (*Sebastes miniatus*), California skate (*Raja inornate*), and gopher rockfish (*Sebastes carnatus*), while only single individuals of bocaccio (*Sebastes paucispinis*), brown rockfish (*Sebastes auriculatus*), English sole (*Parophrys vetulus*), and Pacific sanddab (*Citharichthys sordidus*) were captured. Past biological surveys of the Port Complex have documented a total of 16 managed species, although their abundance was consistently low and varied from year to year. A fish species not managed under the MSA but has been protected

from both commercial and sport fishing since 1982 is the giant sea bass (*Stereolepis gigas*). Giant sea bass were first recorded in the Port Complex in 2013 with two individuals captured during trawls, and one juvenile captured during the 2018 Biosurvey (POLA/POB, 2021).

While no sea turtles have been observed within San Pedro Bay during any of the past San Pedro Bay Harbor-wide biological surveys, several species occur in southern California (POLB, 2021). Therefore, it is unlikely, but possible that sea turtles may be occasional visitors to the Outer Harbor areas of San Pedro Bay. Turtle species present in the eastern Pacific Ocean include loggerhead, green, leatherback, and olive ridley sea turtles. Loggerhead sea turtles (*Caretta caretta*), federally listed as threatened, are found in all temperate and tropical waters throughout the world and are the most abundant species of sea turtle found in US coastal waters. Leatherback sea turtles (*Dermochelys coriacea*), federally listed as endangered, migrate to the eastern Pacific, including waters off California, from the western Pacific and Central America. They peak in abundance in August along the California central coast, particularly Monterey Bay, but are uncommon in southern California. Olive ridley sea turtles (*Lepidochelys olivacea*), federally listed as threatened, are found in tropical regions of the Pacific, Indian, and Atlantic Oceans. In the Pacific, large nesting populations occur in Mexico and Costa Rica. They are very rarely encountered in southern California. Green sea turtles (*Chelonia mydas*) are the most commonly occurring species in southern California waters with several small resident populations recognized in the southern California Bight. They are federally listed as threatened and are found in all temperate and tropical waters throughout the world. They primarily remain near the coastline and around islands and live in bays and protected shores, especially in areas with seagrass beds. In the eastern north Pacific, green turtles have been sighted from Baja California to southern Alaska, but most commonly occur south from San Diego (NOAA Fisheries, 2023). Studies of green sea turtles conducted near the Seal Beach National Wildlife Refuge and adjacent San Gabrial River, which is in the Project area, noted a resident green sea turtle population (NOAA Fisheries, 2023).

Impacts to special-status wildlife may result from both construction and operations impacts as discussed below.

Underwater sound would be generated both during the construction phases and during the operation. Depending on the overlapping of activities, construction and operations could occur simultaneously as well. Construction and operational activities that generate underwater sound would involve:

- In-water construction activities (dredging, wharf and dock, rock revetment, and transportation corridor activities) and
- Operational activities (vessel delivery of materials, tow-out of floating OSW turbine systems, assembly, and maintenance).

Pile driving to construct the wharf, docks, and moorings would generate the most sound. Pile driving sound is high amplitude and impulsive with the potential to injure and harass fish, marine mammals, and sea turtles. Impacts from pile driving are likely to extend beyond the immediate Project area. Wharf construction would require extensive pile driving. Pile driving would occur both in water and through deposited fill. The Project would likely require multiple pile driving operations, with some pile driving occurring simultaneously. Fixed piers for wet storage and tugboats are likely to require impact driving of octagonal precast concrete piles in water. There may be other pile driving to construct temporary structures and mooring dolphins (i.e., group of pilings to assist in securing a ship to a pier or other structure). These may use vibratory and impact pile driving methods.

The rock revetment structure would require placement of quarry rock and armor stone, and would be constructed to surround the entire terminal and extend along the transportation

corridor to the Navy Mole. Underwater noise levels due to the placement of rocks during revetment construction may affect marine mammals and fishes.

The National Oceanic Atmospheric Administration's (NOAA) National Marine Fisheries Services (NMFS) (2018, 2020, and 2023) provides guidance and thresholds for addressing noise impacts to fish, sea turtles, and marine mammals. The CDFW also uses this methodology to address impacts to fish. Caltrans (2020) has published the Hydroacoustic Guidance Manual that addresses methods to assess hydroacoustic impacts in response to the NMFS thresholds and guidance. The Caltrans guidance manual includes a compendium of underwater sound levels to assist in prediction of sound impacts. These sound levels can be input to tools developed by NMFS to predict various sound impacts to marine species, including the NMFS Multi-Species Pile Driving Calculator (available at https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance - NMFS, 2020). Evaluation and quantification of the Project's construction and operational underwater sound impacts will be necessary, and this topic will be analyzed further in the EIR/EIS.

Dredging is not expected to result in any long-term impacts to water quality; however, short-term impacts to water quality could occur via temporary increases in turbidity during dredging and filling activities. The primary concerns are impacts related to sediment plumes that consist of elevated total suspended solids (TSS) in the water column. Elevated TSS temporarily reduces light transmittance, which can affect animal behavior, limit photosynthesis, and may reduce foraging by marine mammals, birds, and fish in the vicinity. While animals may avoid the area during construction, given the anticipated duration of construction (9 years), construction activities conducted during the nesting season (April through August) may have the potential to adversely affect foraging by sensitive bird species. In addition, nighttime lighting during construction, as well as the addition of lighting for nighttime operations also has the potential to affect sensitive nesting bird species by increasing predation.

The new terminal is expected to be operated as a floating OSW terminal facility by one or more operators, such as OSW developers or floating OSW foundation assemblers. The vessels expected to operate at the facility would include delivery vessels, RORO vessels, semi-submersible barges, tug, and pilot vessels. Delivery vessels would consist of bulk carriers, including roll-on/roll-off vessels, and/or barges transporting the foundation and WTG components to the terminal. Multiple vessels would be utilized for tow-out of the floating OSW turbine systems to their designated locations. Use of these various vessels would have the potential to affect marine species due to increased noise levels potentially leading to behavioral changes and harassment, and possibly ship strikes that could lead to injury or death. On the new terminal, various equipment would be utilized to support OSW S&I and foundation assembly which would produce noise potentially affecting species in the vicinity. Additionally, installation of approximately 60, 150-ft-tall high mast light towers throughout the new terminal could affect biological resources (i.e., birds) by creating elevated perches for predatory species.

The land-based portion of the Project area consists primarily of paved and disturbed surfaces surrounding the industrial port facilities. Disturbed, degraded, weedy terrestrial vegetation is present nearby along the Navy Mole; however, no special-status wildlife species are expected to be present in those areas due to lack of suitable habitat. The nearest large block of terrestrial open space habitat is located approximately 5 miles west on the Palos Verdes Peninsula.

Onshore construction would include grading, compaction, and surfacing, and could potentially create surface run-off that may increase turbidity, sedimentation, and potential release of contaminants into receiving waters, which could affect marine species.

In-water and onshore construction activities, as well as operational activities and their potential effects on sensitive or special status marine species would be potentially significant and will be analyzed further in the EIR/EIS.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

POTENTIALLY SIGNIFICANT IMPACT. There is no riparian habitat in the Project area or in the vicinity; however, the County of Los Angeles has established Significant Ecological Areas (SEAs) to preserve and protect a variety of biological communities. The only SEA present in the vicinity of the Project area is POLA Pier 400 which supports a California least tern nesting site associated with Terminal Island and is located approximately 1.0 mile southwest of the Project area. The Project is not anticipated to impact riparian habitat or SEAs and no further evaluation of these topics is required.

The Project area is in an area designated as EFH for CPS and PGS, and construction of the terminal and wharf may result in the direct loss of approximately 400 acres of water column and deep water (> 23 ft deep) soft-bottom benthic habitat, approximately 30 acres of water column for the transportation corridor fill, and approximately 15.4 acres of shallow water habitat (< 23 ft deep). In addition, overwater structures such as piers and bridges may increase shading and result in the loss of open water habitat. Dredging and fill activities would have adverse effects on marine biota through resuspension of sediments and disturbance of benthic communities, while the loss of water column habitat and the decrease of open water habitat would affect foraging for managed fish species, marine mammals, and birds.

The PCG FMP also identifies canopy kelp and eelgrass habitat as a Habitat Area of Particular Concern (HAPC). The seagrass HAPC includes those waters, substrate, and other biogenic features associated with eelgrass species (*Zostera* spp.), widgeon grass (*Ruppia maritima*), or surfgrass (*Phyllospadix* spp.). The 2018 Biosurvey documented approximately 0.31 acres of eelgrass within 0.25 mile of the Project dredge area, in the vicinity of the Navy Mole. Construction activities may not directly impact the existing eelgrass bed; however, increased turbidity and sedimentation from dredging and filling activities may indirectly affect the eelgrass bed by reducing light penetration and photosynthesis. This resource is managed via the California Eelgrass Mitigation Policy (CEMP) that includes specific guidelines for monitoring, as well as appropriate responses and measures for activities that threaten eelgrass vegetated habitats (NOAA Fisheries, 2014). Canopy kelp HAPC includes those waters, substrate, and other biogenic habitat associated with canopy-forming kelp species (e.g., *Macrocystis* spp. and *Nereocystis* sp.). The existing rock revetment in the Project area supports a narrow fringe of canopy kelp, and construction would result in the direct loss of the existing canopy kelp habitat.

As such, in-water construction activities would result in potentially significant impacts to sensitive natural communities and will be analyzed further in the EIR/EIS.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?

POTENTIALLY SIGNIFICANT IMPACT. The Project area is a developed, industrial seaport in an urban environment. The National Wetlands Inventory classifies the Project area as estuarine and marine deepwater habitat (USFWS, 2023), and canopy kelp supported by the existing rock revetment along Navy Way would be directly impacted. No other wetlands are present in the Project area. The Project would result in the dredge and fill of jurisdictional Waters of the US

and Waters of the State, which would require permits under Section 401 and 404 of the Clean Water Act and the Porter-Cologne Water Quality Control Act.

Nearby eelgrass beds are considered a special aquatic site (vegetated shallows) pursuant to the Clean Water Act Section 404(b)(1) Guidelines (40 CFR Part 230.43) and are considered by NMFS to be a HAPC, a subset of EFH under the MSA. Nearby eelgrass habitat may be indirectly impacted by increased turbidity and sedimentation from dredging and filling activities.

No impact to state or federally protected wetlands would occur, and this topic will not be addressed in the EIR/EIS. However, Project-related impacts to canopy kelp, eelgrass beds, and jurisdictional waters will be analyzed further in the EIR/EIS.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

POTENTIALLY SIGNIFICANT IMPACT. The Project area is within and adjacent to a developed port in a highly urbanized area. The existing land-based portion of the Project area consists primarily of paved and disturbed surfaces surrounding industrial port facilities. Disturbed, degraded, weedy terrestrial vegetation is present nearby along the Navy Mole and on Pier S. This vegetation may be used by small wildlife; however, it is fragmented from other vegetated areas and could only be used for localized movement. No terrestrial wildlife corridors overlap with the Project area. The nearest large block of terrestrial open space habitat is located approximately 5 miles west on the Palos Verdes Peninsula.

Some fish species such as white croaker (*Genyonemus lineatus*), Pacific sardine (*Sardinops sagax*), topsmelt (*Atherinops affinis*), and queenfish (*Seriphus politus*) may move in and out of San Pedro Bay for spawning and foraging, but there are only a few fishes in southern California with true migrations (e.g., salmonids and white sturgeon), and they are not known to occur in the vicinity of San Pedro Bay (POLA, 2021; POLA/POLB, 2021). Therefore, the Project would not interfere with migratory fishes. Project construction could result in avoidance of construction areas by resident fish species; however, these effects are expected to be temporary.

Construction and operational activities within the Project area would not block or interfere with migration or movement of any of the species covered under the Migratory Bird Treaty Act because the Project area is primarily open water and lacks nesting habitat. While birds may be temporarily deterred from the Project area during construction due to noise and increased activity, birds could continue to fly over the Project area and in the vicinity. The nearest wildlife nesting area is the designated California least tern nesting site located at Pier 400 approximately 1.0 mile southwest of the Project area; the Project would have no direct or indirect impacts to the nesting site area although species-level impacts may occur. Given the absence of wildlife corridors and nesting habitat, the Project's impacts on the movement of any native resident or migratory bird species would be less than significant, and no mitigation is required.

Some marine mammals such as California sea lion, harbor seal, common dolphin, and bottlenose dolphin move in and out of the San Pedro Bay to rest and forage, but there are no known breeding areas or marine mammal migration corridors within San Pedro Bay, including the Project area. However, several whale species, such as the gray whale and blue whale make seasonal migrations along the southern California coast, which includes areas adjacent to San Pedro Bay, and could be affected by construction and operational activities associated with increased vessel traffic. Project-related impacts to these species could be potentially significant and will be analyzed further in the EIR/EIS.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. The City of Long Beach Municipal Code (LMBC Section 14.28.060) prohibits the cutting, trimming, pruning, removing, or in any way interfering with the natural growth of any tree planted along City streets or on other City property without having first obtained a permit from the Director of Public Works. The Los Angeles County Code prohibits the removal or destruction of natural vegetation on sloping terrain without written approval (Section 12.28.030); of trees, plants, or flowers growing on any beach (Section 17.12.190); or of any soil, rock, sand, or gravel from any beach (Section 17.12.200). The Project does not include removal of any trees or terrestrial vegetation protected by City or County ordinances and the beach environment would not be impacted. The Project would not conflict with these City and County ordinances.

Los Angeles County Code (Section 12.20.010) prohibits the disposal of petroleum products in the Pacific Ocean or into the waters of any lagoon, bay, inlet, tributary, beach, tideland, or submerged land. Petroleum products would be used as part of Project construction to fuel and maintain construction and dredging equipment and vessels, which may potentially impact water quality if spills occur. The Project would include measures to prevent, manage, and report spills, and the Project would not conflict with the Los Angeles County Code. Impacts related to spills are further discussed in Section IX, Hazards and Hazardous Materials, and Section X, Hydrology and Water Quality.

Los Angeles County Code (Section 22.102) requires that development be designed to avoid and minimize impacts to SEAs, as designated in the County General Plan. The only SEA present in the vicinity of the Project area is the California least tern nesting area at Pier 400 within the POLA, which is located approximately 1.0 mile southwest of the Project area. No impacts would occur within a County designated SEA and the Project would not conflict with the Los Angeles County Code.

The Project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

Mitigation Measures: No mitigation is required.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?

NO IMPACT. The Project area is not located within an adopted Natural Communities Conservation Plan (NCCP) or Habitat Conservation Plan (HCP) (CDFW, 2023; USWFS, 2023). The County of Los Angeles has established SEAs to preserve and protect a variety of biological communities. The only SEA present in the vicinity of the Project area is the California least tern nesting area at Pier 400 within the POLA, which is located approximately 1.0 mile southwest of the Project area. As such, the Project would have no impact on NCCPs, HCPs, California least tern SEA, or POLB Master Plan.

Mitigation Measures: No mitigation is required.

V. Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☒	☐	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5 [§15064.5 generally defines* historical resource *under CEQA]?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves the construction and development of a terminal and transportation corridor to support the delivery and assembly of components of floating OSW turbines. Construction activities associated with the creation of 430 acres of land including dredging and excavation for utility connections have the potential to impact cultural resources that meet the definition of a historical resource, which could result in a potentially significant impact. As such, this topic will be analyzed further in the EIR/EIS.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves the construction and development of a terminal and transportation corridor. To create the new 430 acres of land, approximately 50 million CY of material would be dredged, which has the potential to impact marine cultural resources that meet the definition of an archaeological resource, which could result in a potentially significant impact. Additionally, excavation for utility connections could uncover unknown cultural resources. As such, this topic will be analyzed further in the EIR/EIS.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

POTENTIALLY SIGNIFICANT IMPACT. Dredging and excavation for utility connections have the potential to impact human remains. As such, this topic will be analyzed further in the EIR/EIS.

VI. Energy

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

During construction activities, the Project would consume energy in the form of diesel and gasoline fuels, as well as electricity for on-road vehicles, off-road equipment, and marine vessel engines. The Project is designed to be constructed as efficiently as possible, but fuel and electricity consumption would be necessary for successful development of the terminal facilities.

Operation

The Project would introduce new operational activities and maintenance personnel to the POLB and would increase on-site electricity use due to the proposed installation and use of electrical shore power substations and charging stations. The Project may also increase long-term transportation fuel consumption associated with the transport of WTG components and tow-out of the floating OSW turbine systems.

Potential impacts on energy resources from these construction and operational activities cannot be determined at this time and require further evaluation. Therefore, these impacts will be evaluated further in the EIR/EIS.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Project construction would use fuel and electricity in equipment, vessels, and vehicles used to construct the new terminal and transportation corridor. These activities would be subject to the POLB energy initiatives and Green Port initiatives (such as the zero-emissions program) (POLB, 2017a and 2017b).

Operation

Operation of the proposed Project would include the operation of new terminal facilities, transport vessels, tugboats, on-site equipment, and vehicles which would consume energy. Although the Project would increase on-site energy use, it would also facilitate the deployment of extensive clean electrical generation through the use of the floating OSW turbine systems.

State, regional, and local plans that set goals for renewable energy and energy efficiency have been developed. However, no regulations or requirements have been adopted by relevant public agencies to implement those plans for specific projects. Nevertheless, measures contained in state and local plans, strategies, policies, and regulations may directly or indirectly affect the proposed Project's construction and operational activities. The proposed Project's consistency with such plans, policies, or regulations will be evaluated and discussed in the EIR/EIS.

VII. Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☒	☐	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☒	☐	☐	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐

*Geology and Soils question (d) reflects the current 2016 California Building Code (CBC), which is based on the International Building Code (2015), effective January 1, 2017. The CBC is updated every three years.
Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

POTENTIALLY SIGNIFICANT IMPACT. No Alquist-Priolo zoned faults cross or are in the immediate vicinity of the Project (CGS, 2023). The closest Alquist-Priolo zoned fault is the Newport-Inglewood fault, located approximately 4.5 miles northeast of the Project site. However, two known active faults, the Palos Verses fault zone, and Compton Blind Thrust, are in close

proximity to the Project site, and the potentially active THUMS-Huntington Beach fault traverses the Project site. The Palos Verdes fault zone, located approximately 0.5 miles west of the Project site, is an active northwest-southeast trending right-lateral strike-slip fault that involves onshore and offshore sections that traverses the Port and the Palos Verdes peninsula in a general northwest to southeast manner (Brothers et al., 2015). The Compton Blind Thrust is a buried thrust fault that extends below the western Los Angeles Basin with shallower parts of the thrust fault below the Palos Verdes Peninsula. The upper trace of the buried fault thrust ramp is mapped approximately 1.2 miles east of the Project site.

The THUMS-Huntington Beach fault is mapped as splaying southeastward from the Palos Verdes fault zone and crossing the through the approximate center of the Project site in an approximate northwest to southeast trend; however, interpretations of the character and activity of this fault differ on fundamental issues (LAHD, 2013). One interpretation indicates a normal fault that dips east and is downthrown on the east, a second interpretation shows the fault dipping west and is downthrown on the west and merges at depth with the Palos Verdes fault zone, and a third interpretation indicates this fault is part of a large blind thrust fault (the Wilmington Blind Thrust) (LAHD, 2013). The presence of this potentially active fault traversing the Project site results in a potential for adverse effects due to fault rupture. As such, this topic will be analyzed further in the EIR/EIS.

ii) Strong seismic ground shaking?

LESS-THAN-SIGNIFICANT IMPACT. The Project is located in a seismically active area of southern California with numerous on- and off-shore active faults capable of generating large earthquakes and significant seismic ground shaking in the Project area. On-shore faults in the Project area include the Palos Verdes fault zone, Newport-Inglewood fault zone, Santa Monica fault, Hollywood fault, Malibu Coast fault, Sierra Madre fault zone, Elsinore fault zone, Puente Hills Blind Thrust, and Lower Elysian Park Blind Thrust (USGS and CGS, 2023; USGS, 2023a). Offshore faults in the Project area include the offshore sections of the Palos Verdes and Newport-Inglewood fault zones, San Diego Trough fault, THUMS-Huntington Beach fault, San Clemente fault, Oceanside fault, Coronado Bank, and Catalina fault, and San Pedro Basin fault (USGS, 2023a). The Project site may experience strong to very strong ground shaking from a large earthquake on any of these faults.

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the Project area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Project area. The intensity of earthquake-induced ground motions is commonly described using peak site acceleration (PGA), which is the maximum acceleration experienced by a particle on the Earth's surface during the course of an earthquake (measured in terms of fractions of the acceleration due to gravity [g, 9.8 m/sec^2]). The 2014 USGS National Seismic Hazards Map (NSHM) was used to estimate approximate peak ground accelerations (PGAs) in the Project area for probable earthquake events (USGS, 2023b). The NSHM depicts peak ground accelerations with a 2 percent probability of exceedance in 50 years, which corresponds to a return interval of 2,475 years for a maximum considered earthquake. The estimated peak ground accelerations range from 0.6 to 0.8 g which represent a potential for strong to severe ground shaking at the Project site. Strong to severe ground shaking could cause damage to Project structures and components resulting in adverse impacts to workers or the public.

The exposure of people and structures to seismic ground shaking is a potential risk with or without the Project and cannot be avoided. Implementation of geotechnical design recommendations in the Project design would reduce potential adverse impacts due to seismically induced ground shaking. The preliminary geotechnical input for the Project provides recommendations for design earthquake parameters for three levels of earthquakes: an operating level earthquake

of magnitude (M) 6.5, a contingency level earthquake of M7.3, and a design level earthquake of M7.3 (POLB, 2023 – Attachment F). The final geotechnical investigation report(s) for the Project would include detailed seismic design parameters to be incorporated into Project engineering design. Additionally, incorporation of modern standard engineering and safety standards in Project design, and compliance with Port engineering criteria and current federal, State, and local Building Codes would minimize adverse effects to people and structures. Emergency planning and coordination would also reduce injuries to on-site personnel during seismic activity. With incorporation of emergency planning and compliance with current regulations and standard engineering practices, this impact is considered less than significant.

Mitigation Measures: No mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

LESS-THAN-SIGNIFICANT IMPACT. Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments, and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 ft of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects. In addition, densification of the soil resulting in vertical settlement of the ground can also occur. This phenomenon can result in damage to infrastructure, including foundations. The CGS maps most of the onshore areas near the Project site as liquefaction zones (CGS, 2023). The preliminary geotechnical desktop study for the Project (POLB, 2023 – Attachment F) indicates that the portions of the granular dredge fill materials used to create Project land areas below the water line are potentially liquefiable and would be subject to seismically induced settlement. Seismically induced settlement primarily occurs after earthquake induced ground shaking when liquefied soils reconsolidate in a more compacted form due to the release of excess fluid pressure in the sediment pore spaces caused by the ground shaking, thus leading to ground settlement. The extent of ground surface settlement depends on several factors such as characteristics of the soil, level and duration of shaking, and extent of the liquefaction zone (POLB, 2023 – Attachment F).

Seismically induced liquefaction could also potentially lead to lateral spreading of soil beneath Project components in the Outer Harbor along or near to the water's edge. Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the force of the earthquake may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

Liquefaction and liquefaction related phenomena including seismically induced settlement and lateral spreading could result in adverse impacts to Project components, workers, and the public. However, the required geotechnical investigation for the on- and offshore portions of the Project would include seismic analysis and recommendations for design measures to reduce impacts related to liquefaction phenomena. Liquefaction impacts would be further reduced to less than significant by implementation of geotechnical design recommendations and compliance with all applicable Port, federal, State, and local building guidelines and regulations.

Mitigation Measures: No mitigation is required.

iv) Landslides?

POTENTIALLY SIGNIFICANT IMPACT. The slope stability of an area is influenced by the steepness of the slope, the relative strength of the underlying rock material, and the thickness and cohesion of the overlying sediment. The steeper the slope and/or the less strong the rock, the more likely the area is susceptible to landslides. An indication of unstable slopes is the presence of old or recent landslides or debris flows. The CGS does not map any earthquake-induced landslide zones within the POLB or POLA (CGS, 2023). The onshore portions of the Project are located on primarily flat terrain that would not be subject to seismically induced or naturally triggered landslides. The Project includes substantial offshore dredging 5 to 60 ft from the existing topography (POLB, 2021- Appendix C, 2023- Attachment E). Dredging near to existing free face wharfs, piers, and other structures could undermine these structures resulting in slope failures and damage or collapse of these structures. Additionally, deep offshore dredging of the unconsolidated offshore sediments could create unstable slopes on the harbor floor resulting in underwater slope failures during Project construction or operation. This could result in a potentially significant adverse impact and therefore landslide and slope stability will be analyzed further in the EIR/EIS.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS-THAN-SIGNIFICANT IMPACT. Construction of the onshore portion of the Project, including pile driving, grading, and excavation would disturb surface soils which could result in erosion at the Project site. Construction vehicles and equipment may degrade and disturb soils, which may subsequently be transported by wind and/or surface water runoff (in response to precipitation), accelerating the erosion processes. Under the State of California Construction General Permit, the Project would be required develop a Project-specific Stormwater Pollution Prevention Plan (SWPPP) which would identify BMPs to reduce or avoid effects associated with erosion.

Most above water and onshore Project surfaces would be armored (rock) or covered impervious surfaces (aggregate) that would not contribute substantially to surface erosion. The Project would also be required to develop a post-construction stormwater plan to satisfy the local Low Impact Development (LID) standards and/or Industrial General Permit (IGP). Additionally, the Project would be required to comply with and implement stormwater measures, guidelines, and design features from the POLB Stormwater Design Manual (POLB, 2023a). Compliance with SWPPP requirements, post-construction stormwater plans, and POLB Stormwater Design Manual guidelines reduces impacts related to project triggered erosion to less than significant.

Mitigation Measures: No mitigation is required.

c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

POTENTIALLY SIGNIFICANT IMPACT. The potential for liquefaction and liquefaction related phenomena, such as lateral spreading and seismically induced settlement, is discussed above in Section VII (a)(iii). Impacts related to liquefaction are reduced to less than significant through implementation of geotechnical design recommendations, standard engineering practices, and compliance with Port, State, federal, and local building codes and regulations.

Land subsidence is a gradual settling or sudden sinking of the ground surface due to removal or displacement of subsurface earth materials. The principal causes of subsidence in California are compaction associated with human withdrawal of fluids such as groundwater or petroleum. Most of the Port area, including the Project site, is mapped as an area of land subsidence due to oil extraction (USGS, 2023c). The Project would not include extraction of groundwater or petroleum

products and would therefore not create or contribute to land subsidence. Thus, there would be no impact related to subsidence.

The potentially significant impact of landslides and slope failures related to Project dredging activities is discussed in Section VII(a)(iv) and will be analyzed further in the EIR/EIS.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

LESS-THAN-SIGNIFICANT IMPACT. Expansive soils are characterized by their potential shrink-swell characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals are known to expand with changes in moisture content. The higher the percentage of expansive clay minerals present in near surface soils, the higher the potential for substantial expansion. Sediments with expansive clay minerals that are continuously saturated, such as underwater sediments, will not undergo shrink-swell changes. Soils and sediments with expansive clay could result in adverse impacts to Project structures such as cracking and distress of foundations, and structures, or differential settlement. Sediments in the onshore portions of the Project consist primarily of sandy artificial fill, however varying amounts of expansive clay may be present within the fill. The required site-specific geotechnical investigation for the onshore portion of the Project would identify any expansive soils and appropriate engineering design measures to reduce impacts would be incorporated as part of Project design. Recommendations from the onshore geotechnical investigation regarding expansive soils would be implemented in final Project design in compliance with federal, State, and Port design guidelines (POLB, 2023 – Attachment B).

Structures of the offshore portion of the Project, including the Pier Wind Terminal, transportation corridor, wharf, and fixed piers, may be constructed of dredged materials containing expansive clay or placed upon harbor sediments containing expansive clay. The Project would comply with the required Project-specific offshore geotechnical investigation's recommendations and final design requirements regarding expansive soils, including requirements related to fill placement and engineering. The preliminary engineering criteria for fill placement from the Pier Wind Project Final Conceptual Report – Dredge, Fill, and Sediment Management Plan (POLB, 2023 – Attachment E) requires that all fill material with less than 50 percent sand must be placed below elevation -10 ft MLLW and that material placed above -10 ft MLLW, including surcharge, must have the highest sand content available. Additionally, design and construction of the offshore portions of the Project would comply with appropriate local, State, and federal regulations regarding design and construction (POLB, 2023 – Attachment B), including design measures to reduce impacts of expansive soils/sediments.

Compliance with geotechnical recommendations, standard engineering practices, and design guidelines and regulations would minimize impacts related to expansive soils. Therefore, the impact would be less than significant.

Mitigation Measures: No mitigation is required.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

NO IMPACT. The Project would require sanitary sewer service for a variety of buildings and uses during operations. Domestic wastewater such as from kitchens and restrooms, would be disposed of using new connections to the existing Sanitation Districts of Los Angeles County (LACSD) municipal wastewater collection system in the Project area. If industrial processes that

generate wastewater occur as part of the development of the Pier Wind Terminal, these processes would be evaluated individually to determine if the wastewater generated by these processes could be sent directly to the sanitary sewer system, or if on-site pre-treatment would be needed. The Project does not involve the installation of a septic tank or alternative wastewater disposal system; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

POTENTIALLY SIGNIFICANT IMPACT. Dredging for the Project would encounter unconsolidated Quaternary marine deposits of the San Pedro Shelf consisting of soft fine-grained materials on the harbor bottom underlain by interbedded layers of sand, silt, and clay with minor amounts of gravel and seashells (POLB, 2023 – Attachment F; POLB, 2021). Although a records search conducted in 2019 for the POLB Deep Draft Navigation Study (2021) by the Natural History Museum of Los Angeles County for vertebrate paleontology records did not identify fossil localities at that Project site, it did identify fossil localities in the harbor area from the same sedimentary deposits that likely occur at depth at and near the Project site. Shallow excavations and dredging in younger Quaternary sediments are unlikely to encounter significant fossil specimens, however, deeper dredging, such as in and near the main channel and in the proposed sinking basin area, could potentially encounter significant fossils. Therefore, offshore dredging has the potential to impact paleontological resources. As such, this topic will be analyzed further in the EIR/EIS.

Onshore portions of the Project are underlain by artificial fill with no potential for paleontological resources; therefore, there would be no impact from onshore excavation during Project construction on paleontological resources.

VIII. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

POTENTIALLY SIGNIFICANT IMPACT. The proposed Project would result in direct GHG emissions from construction and operational equipment exhaust such as vessels, tugboats, haul trucks, worker vehicles, and on-site equipment, as well as indirect GHG emissions from on-site electricity consumption. The magnitude of GHG emissions cannot be determined at this time and requires further evaluation. Therefore, GHG emissions will be quantified, and impacts evaluated in the EIR/EIS.

b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

POTENTIALLY SIGNIFICANT IMPACT. State, regional, and local plans set goals for the reduction of GHG emissions. GHG emissions reduction measures contained in state and local plans, strategies, policies, and regulations may directly or indirectly affect the proposed Project's construction and operational activities. The proposed Project's consistency with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions will be evaluated and discussed in the EIR/EIS.

IX. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☒	☐	☐	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Construction of the Project would not use significant quantities of hazardous materials, and would involve limited transport, use, storage, or disposal of hazardous materials. Project construction would use materials such as fuels, lubricants, solvents, and other vehicle and equipment maintenance fluids; however, these materials are not acutely hazardous. Hazardous materials would be transported, used, stored, and disposed of in accordance with applicable rules, regulations, and local standard protocols designed to protect the environment, workers, and the public. The storage, handling, and disposal of these materials are subject to regulation and oversight by various authorities, including the California Department of Toxic Substances

Control (DTSC), USEPA, Occupational Safety & Health Administration (OSHA), Los Angeles County Fire Department, and Los Angeles County Health Department. Minor spills or releases of hazardous materials could occur due to improper handling and/or storage practices during Project construction. Improperly maintained equipment could leak fluids during construction and while parked. Spills and leaks of hazardous materials during construction could potentially result in soil contamination, or contamination of Long Beach Harbor. The California State Water Resources Control Board (SWRCB) GeoTracker database and the DTSC EnviroStor database were reviewed for information regarding properties/facilities located within approximately 0.5-mile of the Project site. The Long Beach Naval Complex (LBNC) was identified on the EnviroStor database; numerous listings for the LBNC were identified on the GeoTracker database (DTSC, 2023b; SWRCB, 2023). The LBNC is comprised of two military installations including the Naval Station Long Beach and Long Beach Naval Shipyard located in the West Basin of the POLB. The LBNC is located directly adjacent to dredge areas, and within 0.5-mile of the proposed 400-acre terminal. These above-mentioned sites have a history of soil and groundwater contamination at the site as a result of legacy Navy operations. During in-water construction, the extensive level of dredging could potentially encounter contaminated soils. Construction of the Project could potentially create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. This topic will be analyzed further in the EIR/EIS.

Operation

Project operation would not require the use of significant quantities of hazardous materials, and it would involve only minimal transport, usage, storage, or disposal of hazardous materials. Operation of the Project would encompass a wide range of activities and involve an increase in Project-generated roadway and vessel traffic. Operation of the Project could potentially create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. This topic will be analyzed further in the EIR/EIS.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

POTENTIALLY SIGNIFICANT IMPACT. During Project construction or operation, spills of hazardous materials could occur due to improper handling and/or storage practices which could potentially cause soil contamination or contamination of Long Beach Harbor. As described in Section IX(a), the Project could potentially create a significant hazard to the public or environment through accidental release of hazardous materials. This topic will be analyzed further in the EIR/EIS.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. There are no schools within 0.25-mile of the Project site. The closest schools are Cesar Chavez Elementary School and Edison Elementary School located approximately 1.2 miles northeast and 1.4 miles northeast of the closest Project dredging area, respectively. Construction and operation of the Project are not expected to result in the release of significant hazardous emissions. The Project would handle limited quantities of hazardous or acutely hazardous materials, substances, or waste. Hazardous materials would be handled and disposed of per standard operating procedures (SOPs) and BMPs. No impact to existing schools due to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste would occur.

Mitigation Measures: No mitigation is required.

d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. Pursuant to Government Code Section 65962.5, the Project is not among the sites listed on the DTSC Hazardous Waste and Substances Site (Cortese) List (DTSC, 2023a). Implementation of the Project would not create a hazard to the public or the environment related to existing listed hazardous waste sites compiled pursuant to Government Code Section 65962.5. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

POTENTIALLY SIGNIFICANT IMPACT. The Project site is not located within 2 miles of a public or public use airport and therefore would not result in excessive airport noise for people working in the Project area (see also Section XIII, Noise). However, considering the large cranes required to assemble the floating OSW turbine systems, and expected heights of 1,100 ft, multiple airports in the Project area could be impacted, creating a safety hazard. Airport-related safety hazards will be analyzed further in the EIR/EIS.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

As discussed in Section XVII(d), Project construction is anticipated to encroach upon and cause temporary disruptions to public roadways, specifically Navy Mole Road. A construction Transportation Management Plan (TMP) would be prepared to minimize impacts on emergency response and evacuation during construction. However, due to the number of truck trips associated with the Project, impacts could be potentially significant. This topic will be analyzed further in the EIR/EIS.

Operation

As discussed in Section XVII(d), the operation of the Project is not anticipated to result in temporary disruptions to public roadways or emergency access ways. The anticipated increase in truck trips and employee-generated automobile trips would be accommodated by planned roadway improvements, and thereby would not cause disruptions to emergency response or evacuation. The Project site would be served by four additional vehicle travel lanes dedicated to the facility. Adequate queuing and staging for trucks, provisions for fire lane clearance, and access for emergency vehicles would be provided pursuant to Port requirements. However, due to the size of the Project, impacts could be potentially significant. This topic will be analyzed further in the EIR/EIS.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

NO IMPACT. There are no wildlands within the Project site or in the general Project vicinity. According to the California Department of Forestry and Fire Protection (CAL FIRE) map of High

Fire Severity Zones in the Local Responsibility Area for the State of California, the Project is located outside the State Responsibility Area (CAL FIRE, 2023). The US Department of Agriculture Forest Service Fire Modeling Institute produced the latest wildfire hazard potential dataset in 2020, in which wildfire hazard potential is classified into the following five classes with corresponding values of one through five, respectively: very low, low, moderate, high, and very high (USFS, 2020). Values of zero and one correspond to non-burnable lands or water (USFS, 2020). Wildfire hazard potential is an index based on wildfire simulation modeling that depicts the relative potential for wildfire that would be difficult for suppression resources to contain (USFS, 2020). The POLB and the Long Beach Harbor District are classified almost entirely as non-burnable or water (USFS, 2020). A small portion of the dredge area is classified as “very low” wildfire hazard potential with the rest classified as “non-burnable” or “water” (USFS, 2020). Dredge areas are located within the Long Beach Harbor and no increased fire hazard is expected. The Project would not expose people or structures, either directly or indirectly, to significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

X. Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☒	☐	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☒	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☒	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☒	☐	☐	☐
iv) impede or redirect flood flows?	☒	☐	☐	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

The Clean Water Act (CWA; 33 U.S.C. Section 1251 et seq.) was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the US. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is delegated to, and administered by, California's nine Regional Water Quality Control Boards (RWQCB). In addition, the State Water Resources Control Board (SWRCB) regulates the NPDES stormwater program. The Project would fall under the jurisdiction of the Los Angeles RWQCB (LARWQCB) and the SWRCB.

Stormwater discharges from individual properties within the Harbor District are regulated by individual and general permits, including the Los Angeles and Ventura Counties Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit, in accordance with state and federal regulations.

Following storm events, the quality of surface water may be degraded due to loading from petroleum hydrocarbons, chlorinated compounds such as polychlorinated biphenyls (PCBs), the pesticide residue dichlorodiphenyltrichloroethane (DDT), metals, semi-volatile organic compounds (VOCs), and other particulate matter (PM) associated with industrial land uses and runoff from roadways, as well as runoff from the larger upstream watersheds. Discharges from select storm drain outfalls into the harbor are monitored routinely in accordance with the Regional MS4 NPDES permit.

Water and sediment quality within the San Pedro Bay Port Complex has been extensively studied for many years and has improved considerably since the 1960s as a result of pollution control measures. Water quality in the Port continues to be monitored through ongoing monitoring and special study sampling programs. Marine water and sediment quality in the Port is affected primarily by climate, circulation (including tidal currents), biological activity, surface runoff including release of contaminants from soil and pollutant loadings related to industrial activities within the Harbor District as well as runoff from the upstream watersheds. Suspension of bottom sediments, such as from dredging or ship propeller disturbance, can also temporarily affect water quality through release of suspended sediments and by reducing dissolved oxygen concentrations. Sediments within the San Pedro Bay Port Complex vary spatially, but mainly consist of silt with smaller amounts of sand and clay (MBC and Merkel & Associates, 2016). Sediment quality within the San Pedro Bay Port Complex is assessed as part of the various ongoing programs, including the Port's participation in the Regional Monitoring Coalition as well as through the Port's Biosurvey program, using California's sediment quality objectives (SQOs). The SQOs are based on a multiple-lines-of-evidence approach that includes sediment toxicity, sediment chemistry, and benthic community condition.

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

The Project includes construction of a 400-acre marine terminal and 30-acre transportation corridor in existing open water through the placement of fill (dredged material) within a rock revetment containment dike. Dredging of approximately 50 million CY of material from various areas within Long Beach Harbor is anticipated to meet fill and surcharge needs. A wharf would be constructed on the north side of the terminal, which would require installation of concrete or steel piles. In-water construction activities that involve dredging and excavation of existing fill, pile driving, rock revetment placement, and in water infrastructure would cause potentially significant short-term increases in suspended sediments and turbidity, decreases in dissolved oxygen, increases in nutrients, and increases in dissolved contaminants (e.g., heavy metals and organic chemicals) in areas where contaminated sediments may occur. The Project would be subject to compliance with the requirements of an NPDES Stormwater Construction General Permit for construction activities. Additionally, dredging activities in support of the Project would be conducted in compliance with applicable USACE and Los Angeles Regional Water Quality Control Board permits. Compliance with the NPDES requirements, including preparation of a Construction SWPPP, would reduce the volume of sediment in discharged runoff from the site during construction. Implementation of BMPs, such as using perimeter BMPs, would reduce the potential for sediment and stormwater runoff containing pollutants from entering the harbor during dredging and construction. While BMPs and mitigation will reduce impacts, the potential impacts to water quality from construction will be analyzed further in the EIR/EIS to fully assess the dredge material management plan and construction plan.

Operation

Operations at the new terminal would include activities to deliver OSW components, assemble floating foundations, assemble WTGs, in water wet storage of fully assembled floating OSW turbine systems, and vessel activities to support OSW. Operation of terminal facilities would not result in any direct waste discharges to the harbor; however, such activities have the potential to introduce contaminants through runoff from storm events and spills. In addition, increased truck and auto activities associated with the Project could increase the amount of particulate and chemical pollutants settling from the air and brought in by vehicles. Vessels are not expected to be a direct source of pollutants as the Port prohibits discharge of polluted water or refuse to the harbor. However, spills are possible, and new vessel calls would add to the incremental discharges of vessels in the harbor. The POLB has developed a Stormwater Design Manual to promote LID concepts, such as rainwater harvesting, evapotranspiration and biofiltration, infiltration, and conventional stormwater treatment controls. While stormwater management and other stormwater discharges would be required to comply with Port's Stormwater Design manual, terminal specific design specifications are not currently available and therefore the potential for operations to impact water quality will be considered as part of the EIR/EIS. In addition, the EIR/EIS will analyze the specific controls on floating OSW turbine systems and other structures in wet storage.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

NO IMPACT. The general regional groundwater flow pattern in the vicinity of the Harbor District is southward and westward from the Central Coastal Plain toward the ocean. Groundwater elevations are typically below sea level due to historic over-pumping of groundwater. The local groundwater is classified as saline in some areas of the Harbor District due to seawater intrusion. Groundwater quality within the Harbor District sometimes reflects contaminant inputs from historical and ongoing industrial operations.

Existing beneficial uses for the groundwater basin underlying areas within the Harbor District (West Coast Sub-basin; Sub-basin 4-11-03) include Industrial Service Supply, Industrial Process Supply, and Agricultural Supply (LARWQCB, 2019). The groundwater beneath the Harbor District is currently not considered potable water and is outside of a California Department of Water Resources recognized groundwater basin. It would likely not be considered a potable water source in the future due to salinity. As a result, the LARWQCB has not designated a municipal beneficial use for groundwater in the Harbor District area. Municipal beneficial use is defined as uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply. Instead, potable (drinking) water is provided to the area by the Metropolitan Water District.

The Project site is currently open marine waters and therefore not used for groundwater recharge. Additionally, the Project would not affect any fresh groundwater supplies, drinking water supplies, or aquifers. No impact would occur.

Mitigation Measures: No mitigation is required.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

The Project includes extensive dredging that has the potential to result in siltation. Soil disturbance would occur during Project construction and may result in erosion during storm events. The Project would be subject to compliance with the requirements of an NPDES Stormwater Construction General Permit for construction activities. Compliance with the NPDES requirements, including preparation of a Construction SWPPP, would reduce the volume of sediment in discharged runoff from the site during construction. Implementation of BMPs, such as using perimeter BMPs, would reduce the potential for sediment and stormwater runoff containing pollutants from entering the harbor. However, as details regarding construction planning and erosion control plans are not yet available, potential impacts from construction will be analyzed further in the EIR/EIS.

Operation

Upon completion of construction activities, the terminal would be fully paved and include stormwater capture and control systems. Therefore, operation of the Project would not have the potential to result in erosion or on-site or off-site siltation. Impacts would be less than significant.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

POTENTIALLY SIGNIFICANT IMPACT. The Project would substantially alter the existing topography and drainage patterns in the harbor by constructing a new 400-acre terminal and 30-acre transportation corridor. The terminal's location in the Harbor would preclude the possibility of offsite flooding. The new terminal, however, would increase the amount of surface runoff that could result in flooding on-site. While the terminal and stormwater systems would likely be designed to minimize flooding and accommodate future rain events, terminal designs are not yet available to be analyzed. On-site flooding will therefore be analyzed further in the EIR/EIS.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

POTENTIALLY SIGNIFICANT IMPACT. The proposed Project would substantially alter the existing topography and drainage patterns in the harbor by constructing a new 400-acre terminal and 30-acre transportation corridor. While the design of the terminal and transportation corridor would likely minimize flooding, the new terminal would include the construction of new stormwater drainage systems, as none currently exist in the Project location. Runoff quantity and quality will be analyzed further in the EIR/EIS.

iv) impede or redirect flood flows?

POTENTIALLY SIGNIFICANT IMPACT. As noted above, the Project would alter the existing drainage pattern on-site and flood flows are not yet available for analysis. As such, impacts related to flow patterns will be assessed in the EIR/EIS.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

LESS-THAN-SIGNIFICANT IMPACT.

Flooding and Sea Level Rise

Per current Federal Emergency Management Agency (FEMA) mapping for the Project area, the Project site is located within FEMA Special Flood Hazard Zone AE, in which there is a one percent annual chance of flooding (i.e., the 100-year flood zone). Construction would take place immediately following Project approval, and sea-level rise in the short term would be negligible during the construction phase, contributing no additional impact. While the impacts from flooding are not expected due to terminal design, the area is susceptible to sea-level rise such that there is a potential for future impacts due to sea-level rise. To consider the effects of future sea-level rise in combination with a 100-year storm surge, the POLB completed a Climate Adaptation and Coastal Resiliency Plan (CRP) in 2016 with updates in December 2022 to reflect the updated State of California Sea-Level Rise Guidance (OPC, 2018; POLB, 2022). The terminal site would be designed for a minimum site elevation of +16.5 ft MLLW on the north side and +18.5 ft MLLW on the south side to accommodate the medium-high risk aversion of +4.3 ft of sea-level rise and considering the 100-year storm surge (7.61 ft) as indicated in the 2022 POLB update to the CRP. Therefore, no overtopping related to sea-level rise or storm surge are expected and the impact would be less than significant.

Tsunamis and Seiches

The Project site could potentially be affected by a tsunami, a large wave(s) produced by an undersea disturbance such as an earthquake or landslide or a seiche, which is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, or lake.

The California Geological Survey Tsunami Hazard Area Map for the County of Los Angeles shows that the POLB is within the tsunami hazard area (State of California, 2021). In 2007, Moffatt & Nichol prepared the *Tsunami Hazard Assessment for the Ports of Los Angeles and Long Beach Final Report* which analyzes such hazards using a tsunami hazard assessment model developed specifically for the POLB and San Pedro Bay port complex. This study evaluated several tsunami scenarios and determined that impacts from a tsunami would be equal to or more severe than those from a seiche, but that tsunami maximum water levels would not exceed deck elevations in berths in the POLB including Pier C (Moffatt & Nichol, 2007). The report concluded that large earthquakes (e.g., ~M7.5) are very infrequent and have not occurred in the offshore area of California within historical times, and that a large and locally generated tsunami would not likely occur more than once every 10,000 years, resulting in limited inundation (Moffatt & Nichol, 2007). Furthermore, not every large earthquake is expected to generate a tsunami based on historical occurrences of tsunami and seismic activity worldwide (Moffatt & Nichol, 2007).

The Joint Institute for the Study of the Atmosphere and NOAA/Pacific Marine Environmental Laboratory modeled 322 possible earthquake scenarios. The study determined that a magnitude 9.3 earthquake could generate a tsunami with potentially substantial impact on the POLB (i.e., worst case scenario tsunami) (Uslu et al., 2010). Large tsunamis have historically caused heavy damage to waterfronts, vessels, moorings, piers, and docks (Uslu et al., 2010). If a tsunami were to occur, the outermost portions of the coast and Port would be impacted first. Waves generated by a tsunami are likely to dissipate and weaken as they travel inland past the federal breakwater and into the Port complex. The City of Long Beach's Hazard Mitigation Plan (2017) also finds that the tsunami threat to the City is considered extremely low. If a tsunami were to occur, the southern boundary of the Port may be susceptible to a run up of 12 ft. As noted

above, the design elevation of the terminal is +16.5 ft MLLW on the north side and +18.5 ft MLLW on the south side which would protect on-terminal infrastructure and assets from a 12-foot run up. However, vessels and turbines and other infrastructure in wet storage may be affected in the case of a tsunami and could release pollutants if damaged during an event. In case of a tsunami or seiche event during construction, dredged material may be released from the containment revetment. However, the early warning system and relative low risk of a tsunami and seiche in the POLB would result in impacts that are less than significant.

Mitigation Measures: No mitigation is required.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

LESS-THAN-SIGNIFICANT IMPACT. The *Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) establishes water quality standards for ground and surface waters within the Los Angeles region, which includes the City of Long Beach, and is the basis for the LARWQCB's regulatory programs (California Water Boards, 2014).

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan (Department of Water Resources [DWR], 2014). The City of Long Beach is located within the Coastal Plain of Los Angeles – West Coast groundwater basin, which is designated as a Very Low priority basin (DWR, 2020). Therefore, no groundwater sustainability plan has been established for this basin. However, the Water Replenishment District of Southern California developed the Groundwater Basins Master Plan, which identifies projects and programs to enhance basin replenishment, increase reliability of groundwater resources, and improve and protect groundwater quality in the Los Angeles West Coast and Central groundwater basins (Water Replenishment District of Southern California, 2016).

The Project would not affect groundwater. No new land uses are proposed that would involve increased demand for groundwater supplies. Project construction and operation would comply with NPDES program requirements established by the LARWQCB. As such, the Project would be completed in accordance with a Construction SWPPP and would not conflict with or obstruct implementation of the LARWQCB's Basin Plan or Water Replenishment District of Southern California's Groundwater Basins Master Plan. Impacts would be less than significant.

Mitigation Measures: No mitigation is required.

XI. Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☒	☐	☐	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project physically divide an established community?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves the construction and development of the 400-acre Pier Wind Terminal and transportation corridor for S&I and foundation assembly of floating OSW turbine systems. Given the scale of construction, and the location of the Project within an active port, the Project could have potentially significant impacts to an established community. This topic will be analyzed further in the EIR/EIS.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves constructing a 400-acre terminal and 30-acre transportation corridor at the Port to support S&I of WTG components, assembly of foundations, staging of floating OSW turbine systems, and tow out. A land use policy consistency analysis will be conducted in the EIR/EIS to assess the Project's consistency with applicable land use policy and regulatory guidance documents, including the Coastal Zone Management Act, Long Beach General Plan, and Port's certified Port Master Plan. The analysis will also evaluate effects on sensitive land uses along the Project transport routes such as residences, schools, and recreational resources. Given the diverse land uses surrounding the POLB, and the extensive development that would occur under the Project, there is a potential for the Project to conflict with the existing applicable land use plans and regulations. A final determination of the Project's conformance cannot be determined at this stage. Therefore, this impact is potentially significant. This topic will be analyzed further in the EIR/EIS.

XII. Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

NO IMPACT. The Project site is located within the Outer Harbor of the Port which includes predominately industrial and commercial land uses. According to the California Geological Survey San Gabriel Valley P-C Region Showing MRZ-2 Areas and Active Mine Operations map, the Project site is not within a Mineral Resource Zone (MRZ) where geologic data indicate the presence of significant mineral resources (CGS, 2010). Additionally, the existing Project site is not utilized for mineral resource extraction. Therefore, the Project would have no impact on the availability of a known mineral resource that would be of value to the region and the residents of the State.

Mitigation Measures: No mitigation is required.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NO IMPACT. According to the California Department of Conservation Geologic Energy Management Division Well Finder map, a small portion of the Project site that would include the wet storage and sinking basin areas is within the Wilmington Oil Field. However, this area does not contain any oil wells (DOC, 2023). Although there are nearby oil wells outside of the Project area, the Project would not increase the rates of existing oil extraction or affect production and abandonment plans for the oil wells. As such, the Project would neither result in a land use conflict with the existing oil extraction nor would it preclude future oil extraction on underlying deposits. No impact on the availability of a locally important mineral resources would occur.

Mitigation Measures: No mitigation is required.

XIII. Noise

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

The Project site is in an area that is zoned for industrial uses, which is characterized by periodic increases in noise levels associated with adjacent container terminal and industrial uses. The nearest residential areas appear to be live-a-board boat harbors approximately 1.5 miles to the west in Fish Harbor, hotels along with possible live-a-board boats approximately 1.6 miles to the east on Queensway Bay, and live-a-board boat harbors approximately 1.9 miles to the north on the Cerritos Channel. Other noise sensitive Port-related office or administration uses may also be in closer proximity to the Project site. Though all noise sensitive uses are expected to be relatively distant from the Project site, due to the size of the Project and the length of time construction will occur, construction activities at the Project, particularly those involving pile driving, could generate substantial noise levels affecting people residing in these areas on a periodic basis, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Operation

Due to size and scope of the operational activities, the Project could result in increased noise levels above existing conditions at noise sensitive uses in the Project vicinity due to an increase in Project-generated roadway traffic and/or due to the assembly and testing of floating OSW turbine systems on the Project site and in surrounding waters, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

POTENTIALLY SIGNIFICANT IMPACT. As with noise, construction of the Project may result in a temporary generation of groundborne vibration or noise levels. The Project site is in an area that is zoned for industrial uses, which is characterized by periodic groundborne vibration and noise associated with adjacent container terminal and industrial uses. Demolition and construction activities, including pile driving, could generate excessive groundborne vibration or groundborne noise levels on a periodic basis at noise sensitive uses in the Project vicinity, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The Project is not within 2 miles of a public airport. The closest airport, Long Beach Airport, is located approximately 9 miles to the northeast of the Project site. The Project is not located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport. Therefore, this topic will not be discussed in the EIR/EIS.

Mitigation Measures: No mitigation is required.

XIV. Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☒	☐	☐	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

POTENTIALLY SIGNIFICANT IMPACT. Growth inducement is defined by the State CEQA Guidelines as the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly (e.g., by proposing new homes and/or businesses) or indirectly (e.g., through extension of roads or other infrastructure). Although the Project does not include the construction of new homes or businesses, it includes the construction of a transportation corridor to provide access for vehicles, utilities, parking, offices, and warehouses. The transportation corridor would connect to existing vehicular lanes on the Navy Mole and would accommodate a future operator at the Pier Wind Terminal. The transportation corridor would not directly induce substantial unplanned growth because the proposed infrastructure would exclusively serve the Pier Wind Terminal.

The Project would require up to 100 workers for each construction activity during all phases of construction (see Table 1-1, Aggressive Construction Schedule and Workforce), and require up to 1,005 workers during operations (see Section 1.5.2.7, Project Operations Workforce). According to the CSLC *AB 525 Workforce Development Readiness Plan*, Southern California has almost 1.3 million workers employed in positions related to OSW and port infrastructure. However, construction- and operation-related activities could induce population growth if a substantial number of workers move to the area from outside of the Greater Los Angeles area, such as out-of-state workers with experience in other OSW projects. Additionally, training programs would be needed to address skill gaps in high-demand OSW occupations and may attract potential workers (CSLC, 2023). Therefore, population growth could occur in areas where training programs are held, particularly near community colleges, universities, local union chapters, and other similar institutions. The Project would generate jobs for the local workforce in communities adjacent to the Port and may cause indirect growth associated with increased business transactions. Thus, the Project may have growth-inducing impacts and economic impacts, which could result in a potentially significant impact. The Project's potential socioeconomic growth-inducing impacts will be analyzed further in the EIR/EIS.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

POTENTIALLY SIGNIFICANT IMPACT. The Project site is located within the Outer Harbor of the Port and would require dredging to create the Pier Wind Terminal. No housing or residential uses

occur within the Project site or the Port. However, as discussed in Section XIV(a), construction and operation of the Project may induce population growth in areas and may increase the demand for short-term housing during construction and long-term housing during operations if workers relocate to the area, which could result in a potentially significant impact. The Project's potential to exceed the capacity of short-term temporary and permanent housing will be analyzed further in the EIR/EIS.

XV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☒	☐	☐	☐
b. Police protection?	☒	☐	☐	☐
c. Schools?	☒	☐	☐	☐
d. Parks?	☒	☐	☐	☐
e. Other public facilities?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection?

POTENTIALLY SIGNIFICANT IMPACT. The Long Beach Fire Department (LBFD) would be responsible for providing emergency fire response services to the Project site. LBFD Station 15 (Berth 202, Pier F Avenue) and Station 24 (111 Pier S Avenue, San Pedro) are the nearest fire stations to the Project site, located approximately 0.4 mile northeast and 1.5 mile north, respectively.

Construction

Construction of the transportation corridor could result in temporary disruptions to public roadways, such as lane closures and changes in traffic conditions on the Navy Mole, which may affect emergency response times. A construction TMP would be prepared to minimize impacts on emergency access during construction (see Section XVII(d), Transportation). However, construction disruptions to emergency service responders could result in a potentially significant impact and will be analyzed further in the EIR/EIS.

Operation

The Project would include fire suppression and emergency response systems, such as on-site fire hydrants as required by LBFD. The suppression and emergency response systems would be designed in accordance with fire department recommendations and other applicable design standards. These on-site safety systems are expected to support existing fire response services. However, as discussed in Section XIV(a), Population and Housing, Project activities could induce population growth if a substantial number of workers move to the area or if trainees move to local educational institutions to gain OSW workforce training. Population growth could potentially require expanded fire protection facilities to maintain acceptable service ratios and

response times, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

b. Police Protection?

POTENTIALLY SIGNIFICANT IMPACT. The Long Beach Police Department West Patrol Division (1835 Santa Fe Avenue, Long Beach), located approximately 2.1 miles northeast, would be responsible for patrolling and responding to incidents in the Port of Long Beach and Project site (LBPD, 2023). Other agencies responsible for security at the Port include the US Coast Guard, Customs and Border Protection, and Homeland Security.

Construction

The Project would construct a 400-acre terminal and 30-acre transportation corridor. Construction activities could cause temporary disruptions to public roadways, such as Navy Mole Road, particularly during construction of the transportation corridor and installation of utility connections. Therefore, construction may potentially affect service ratios, response times, and other police department performance objectives within affected routes, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Operation

Operations would support S&I of OSW turbine components, foundation assembly, temporary storage and testing, and float-off. Additional police protection may periodically be required to manage traffic or respond to calls during operations. Additionally, as discussed in Section XIV(a), Population and Housing, Project activities could induce population growth if a substantial number of workers move to the area or if trainees move to local educational institutions to gain OSW workforce training. Therefore, operations may potentially affect service ratios and other police department performance objectives, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

c. Schools?

POTENTIALLY SIGNIFICANT IMPACT. According to the CSLC *AB 525 Workforce Development Readiness Plan*, Southern California has almost 1.3 million workers employed in positions related to OSW and port infrastructure. However, construction- and operation-related activities could induce population growth if a substantial number of workers move to the area from outside of the Greater Los Angeles area, such as out-of-state workers with experience in other OSW projects. Additionally, training programs would be needed to address skill gaps in high-demand OSW occupations and may attract potential workers (CSLC, 2023). An increase in workers with school-age children, as well as trainees enrolling in OSW-related programs, may result in new or physically expanded school facilities, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

d. Parks?

POTENTIALLY SIGNIFICANT IMPACT. As discussed in Section XIV(a), Population and Housing, the Project could result in population growth that could increase the demand for parks, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

e. Other Public Facilities?

POTENTIALLY SIGNIFICANT IMPACT. The nearest recreational facilities to the Project site are located within Queensway Bay and include South Shore Launch Ramp (approximately 1.6 miles northeast), Harborlight Landing/Harborlight Yacht Club (approximately 1.5 miles northeast), Harry Bridges Memorial Park (approximately 1.5 miles northeast), and Pier H (approximately

1.8 miles northeast) (POLB, 2019). As discussed in Section XIV(a), Population and Housing, the Project could induce population growth if a substantial number of workers move to the area from outside of the Greater Los Angeles area. A potential increase in population may increase the demand for nearby public recreational facilities, which could result in a potentially significant impact. Impacts related to the physical deterioration of recreational facilities will be analyzed further in the EIR/EIS.

XVI. Recreation

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☐	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

POTENTIALLY SIGNIFICANT IMPACT. The Project is located in the Outer Harbor of the Port and is bordered to the north and east by Terminal Island. Construction and operation of the Project would preclude future in-water recreational uses such as boating and recreational fishing within the Project area, which could result in a potentially significant impact. Therefore, impacts associated with the loss of future recreational land uses will be analyzed further in the Land Use section of the EIR/EIS.

The nearest recreational facilities to the Project site are located within Queensway Bay and include South Shore Launch Ramp (approximately 1.6 miles northeast), Harborlight Landing/ Harborlight Yacht Club (approximately 1.5 miles northeast), Harry Bridges Memorial Park (approximately 1.5 miles northeast), and Pier H (approximately 1.8 miles northeast) (POLB, 2019). As discussed in Section XIV(a), Population and Housing, the Project could induce population growth if a substantial number of workers move to the area from outside of the Greater Los Angeles area. A potential increase in population may increase the demand for nearby public recreational facilities, which could result in a potentially significant impact. Impacts related to the physical deterioration of recreational facilities will be analyzed further in the Public Services section of the EIR/EIS.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

POTENTIALLY SIGNIFICANT IMPACT. The Project would not include the construction of recreational facilities. However, the Project could induce population growth that may indirectly require the construction or expansion of recreational facilities, which could result in a potentially significant impact. Impacts related to the construction or expansion of recreational facilities will be analyzed further in the Public Services section of the EIR/EIS.

XVII. Transportation

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b. Conflict or be inconsistent with California Environmental Quality Act (CEQA) Guidelines §15064.3, subdivision (b)?	☒	☐	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
d. Result in inadequate emergency access?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

The Project would construct 430 acres of new land for a terminal and transportation corridor in two phases over a period of approximately 9 years under the Aggressive Scenario (see Table 1-1). Project completion is expected in 2035 to meet the State's goal to deploy 25 gigawatts (GW) of OSW power by 2045, and federal goals to deploy 15 GW of OSW power by 2035. The construction of the Project would result in passenger vehicle (automobile) and haul truck trips during all 9 years of construction. Construction worker passenger vehicle (automobile) trips would occur in the morning and early evening hours at the beginning and end of employee shifts. Truck trips associated with materials and equipment deliveries to the Project site would be distributed throughout the workday, but volumes may vary at different phases of the Project.

Dredged fill material would primarily be used to construct the 430 acres of new land for a terminal and transportation corridor. For planning purposes, it is assumed that between 7 and 10 million CY of sand would be dredged from a sand borrow site—location to be identified—or may require deeper dredging within Long Beach Harbor. Truck and auto trips would occur along roadways accessing the Project site during each work shift. Construction trips could originate in the local area, as well as the greater Los Angeles region. Construction-related trips would utilize regional freeways (likely converging onto the I-710 freeway) to access Seaside Freeway/Navy Way and the Project site.

As detailed in Table 1-1, Aggressive Construction Schedule and Workforce, and the Aggressive Construction Schedule discussed in the Conceptual Report (POLB, 2023 – Attachment K, p. 4), the Project would generate a maximum of 485 one-way worker commute trips during the overlap between construction Phases 1A and 1B, with material and equipment deliveries spread throughout the day. Therefore, the worst-case scenario peak hour trips (between 7:00 a.m. to 9:00 a.m., and 4:00 p.m. to 6:00 p.m.) would be 485 one-way trips. The number of average daily trips during construction is anticipated to be lower. All construction-related trips would occur on

regional and local roadways that connect to the Project site; they would fluctuate during the construction period.

The Project would not likely conflict with any City of Long Beach or Los Angeles County program, plan, ordinance, or policy related to transit, bicycle, or pedestrian facilities in the vicinity of the Project site or along local roadways (not including programs or plans that pertain to vehicle miles traveled, which is addressed in Section XVII(b)). However, construction for the Project is anticipated to be approximately eight years under the most aggressive scenario. Due to the size of the Project and the length of time construction would occur, the ground transportation activities during the construction period could generate substantial traffic for long periods of time, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Operation

The Project includes construction of a new transportation corridor. The transportation corridor would be constructed adjacent to and west of the POLA Pier 400 Transportation Corridor. The connection would start at Navy Mole Road and extend south over the existing channel. The corridor would provide two vehicle travel lanes in each direction. Three fixed piers would be constructed east of the transportation corridor, north of the terminal, using concrete piles to allow for pedestrian and vehicular access to wet storage and/or commissioning, testing, and staging for tugs and vessels (POLB, 2023 – Attachment H, pp.1-2).

To date, manufacturing sites for WTG components have not been identified; as such, the analysis assumes components for the WTGs would be manufactured at other sites and transported via vessel to the Pier Wind Terminal for final assembly (see Section 1.5.2.1, Vessel Operations). It is assumed that up to 165 workers would be at each S&I site and up to 255 workers at each foundation assembly site during Project operations, for a maximum total of 1,005 workers. There would be a maximum of 1,005 daily worker commute roundtrips during Project operations. Therefore, worst-case scenario peak hour trips (between 7:00 a.m. to 9:00 a.m., and 4:00 p.m. to 6:00 p.m.) would be 1,005trips. Where the Project operates multiple shifts per day, the number of trips during the peak period would be reduced.

Due to the size of the Project, the ground transportation activities during operation could generate substantial traffic, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS and will include traffic analysis to comply with City of Long Beach's Traffic Impact Analysis Guidelines (Long Beach, 2020) and Caltrans guidance (Caltrans, 2020).

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Per the City of Long Beach's Traffic Impact Analysis Guidelines, Section 2.2.2, Presumption of Less Than Significant Impact for Residential and Office Projects in Low-VMT Areas (Long Beach, 2020), POLB is located in an area where average vehicle miles traveled (VMT) per employee is more than 15 percent higher than the average VMT per employee for Los Angeles County. The threshold of significance related to VMT per employee in the City of Long Beach is 15 percent below the Los Angeles County average for projects in industrial zones consistent with the General Plan land use designation. Construction for the Project is anticipated to take approximately nine years. Due to the size of the Project and the length of time construction would occur, the ground transportation activities during the construction period could generate

substantial traffic for long periods of time, which could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Operation

Per the City of Long Beach Beach's, Traffic Impact Analysis Guidelines, Section 2.2.2, Presumption of Less Than Significant Impact for Residential and Office Projects in Low-VMT Areas, POLB is located in an area where average VMT per employee is more than 15 percent higher than the average VMT per employee for Los Angeles County (Long Beach, 2022). The threshold of significance related to VMT per employee in the City of Long Beach is 15 percent below the Los Angeles County average for projects in industrial zones consistent with the General Plan land use designation. Given that there is the potential for the Project to exceed the threshold of significance for this impact criterion, the Project could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Ground Transportation

The Project includes construction of approximately 430 acres of new land (terminal and transportation corridor) within POLB located immediately east of Pier 400 in the Port of Los Angeles. The Navy Mole would connect to the Pier Wind Terminal via two concrete bridges that would extend over the existing channel and connect to the proposed transportation corridor. Construction of this access road would occur in an early phase of the Project and would be used to provide access to the Project site for employees and materials during the construction period as well as during Project operations. When construction work within or adjacent to the existing Navy Mole Road occurs, temporary traffic controls such as signs, cones, lights, warning beacons, warning signs, etc. will be necessary. Temporary traffic control during construction will meet the requirements of the *California Manual on Traffic Control Devices* (Caltrans, 2014), the *Work Area Traffic Control Handbook* (WATCH Manual), Americans with Disabilities Act (ADA), and any additional requirements of the City of Long Beach. However, due to the size of the Project and the length of time construction will occur, the Project could result in a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Marine Transportation

Dredging would be conducted to create fill to develop new land for the 430-acre Pier Wind Terminal and transportation corridor as well deepen navigation channels, establish berths, the sinking basin, wet storage sites, and rock dike footprint. Dredged materials would be placed within a rock revetment to build the terminal. Dredging would be completed by three hydraulic dredges and three mechanical dredges operated at times simultaneously 24 hours a day, 7 days a week. Other construction activities involving vessels include construction of the wharf, dredging at the Sinking Basin, construction of a rock revetment dike structure, installation of wick drains and surcharge, and construction of transportation corridor.

The use of up to the six dredges noted above for construction activities would be required in the Main Channel, Outer Harbor, Middle Breakwater, Sinking Basin, Bravo Anchorage, and adjacent areas of the Port. Although all construction vessel traffic would be subject to Vessel Traffic Services (VTS), the service that monitors vessel traffic in the POLB, and the other existing monitoring systems, the placement and use of six barges in these main traffic areas could be a

potentially significant impact to vessel traffic patterns. In addition, some construction activities are scheduled near the main entrance to POLB, the Queens Gate, which could also require a temporary change in vessel traffic patterns. Therefore, construction activities have the potential to change vessel transportation patterns and locations that could result in an increase in safety risk at the POLB, which could result in a potentially significant impact. The feasibility of mitigation including revisions or updates to existing policies and procedures and to construction vessel requirements to ensure safe operations will need to be assessed. This topic will be analyzed further in the EIR/EIS.

Operation

Ground Transportation

As shown in the Conceptual Report (POLB, 2023 – Attachment J, p. 126), the access road on the transportation corridor would have paved lanes and shoulders. The maximum longitudinal slope of the access road would be 5 percent. Paved driving surfaces for internal circulation on the Pier Wind Terminal would have a maximum cross slope of 0.5 percent. The access road on the transportation corridor would be straight for most of its length but would curve to meet Navy Mole Road at a right angle. The type of intersection control would be analyzed as part of the EIR/EIS. All new roadways would be designed to meet applicable American Association of State Highway and Transportation Officials, Caltrans, and City standards. However, due to the size of the Project, impacts could be potentially significant. This topic will be analyzed further in the EIR/EIS.

Marine Transportation

Operational vessels would transport WTG components to the Project site and tow floating OSW turbine systems to wet storage areas or out to sea to final destinations. The vessels expected to call at the proposed Pier Wind Terminal would consist of delivery vessels and semi-submersible barges. Delivery vessels would consist of bulk carriers and/or barges transporting the foundation raw materials and WTG components to the facility. Due to the unknown needs of the future OSW developer, vessel traffic scenarios have not been developed at this time; therefore, impacts could be potentially significant. However, with the continued use of the existing VTS, safety systems, and vessel monitoring systems noted above, the change in traffic volumes from operations would not be expected to result in a substantial incremental change to vessel safety owing to the large number of vessels currently transiting the area on a daily basis. Potential impacts for vessel transportation for the operational phase of the Project will need to be discussed to determine if existing systems will reduce impacts to less than significant. This topic will be analyzed further in the EIR/EIS.

d. Would the project result in inadequate emergency access?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Ground Transportation

As discussed in Section IX(f), Project construction is anticipated to encroach upon and cause temporary disruptions to public roadways, specifically Navy Mole Road. A construction TMP would be prepared to minimize impacts on emergency access during construction. Major improvements to roadways in the surrounding area, including a full grade separation of Seaside Avenue (SR-47) and Navy Way and replacement of the roadway deck on the Vincent Thomas Bridge are planned to occur within the next 5 years. If Project construction is expected to overlap with those or other planned roadway improvements, the TMP will consider the associated temporary lane reductions and detour routes. However, due to the number of truck trips

associated with the Project, impacts could be potentially significant. This topic will be analyzed further in the EIR/EIS.

Marine Transportation

As discussed above, the use of up to six dredges in the main channel areas could potentially create vessel transportation issues. Similarly, if vessel traffic routes are obstructed, this could result in inadequate emergency access during construction, which could be a potentially significant impact. This topic will be analyzed further in the EIR/EIS.

Operation

Ground Transportation

As discussed in Section IX(f), the operation of the Project is not anticipated to result in temporary disruptions to public roadways or emergency access ways. The anticipated increase in truck trips and employee-generated automobile trips would be accommodated by the surrounding roadway network and thereby would not cause disruptions to emergency access. The Project site would be served by four additional travel lanes (two northbound and two southbound) dedicated to the facility. Adequate queuing and staging for trucks, provisions for fire lane clearance, and access for emergency vehicles would be provided pursuant to Port requirements. However, due to the size of the Project, impacts could be potentially significant. This topic will be analyzed further in the EIR/EIS.

Marine Transportation

As discussed above, due to the unknown needs of the future OSW developer, vessel traffic scenarios have not been developed at this time; therefore, impacts could be potentially significant. These impacts will need to be discussed to determine if existing systems would reduce impacts to less than significant. This topic will be analyzed further in the EIR/EIS.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☒	☐	☐	☐
ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves the construction and development of a terminal and transportation corridor to support the delivery and assembly of components of floating OSW turbine systems. To create the new 430 acres of land, approximately 50 million CY of material would be dredged from various areas within Long Beach Harbor. Construction activities, including dredging and utility connections have the potential to impact cultural resources that meet the definition of a historical resource, which could result in a potentially significant impact. Additionally, the Project is subject to Assembly Bill (AB) 52 Tribal Consultation, which will be conducted as part of the CEQA process. As such, this topic will be analyzed further in the EIR/EIS.

ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves the construction and development of a terminal and transportation corridor. To create the new 430 acres of land, approximately 50 million CY of material would be dredged from various areas within Long Beach Harbor. Construction activities, including dredging and utility connections have the potential to impact cultural resources that the lead agency may find significant, which could result in a potentially significant impact. Additionally, the Project is subject to AB 52 Tribal Consultation, which will be conducted as part of the CEQA process. As such, this topic will be analyzed further in the EIR/EIS.

XIX. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☒	☐	☐	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☒	☐	☐	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☒	☐	☐	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

POTENTIALLY SIGNIFICANT IMPACT. The Project may require the installation of various utility systems to support the Pier Wind Terminal operations and transportation corridor. Anticipated utilities include shore power and crane substations, charging stations, underground power distribution lines, site lighting, fire water, potable water, sanitary sewer, and natural gas. Construction and installation of these utilities, as well as the potential for expanded utility services, may cause significant environmental effects. This topic will be analyzed further in the EIR/EIS.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

Water would be used during construction, including dust suppression and installation of the subbase and base work for paving and hardscapes once the Pier Wind Terminal is constructed. Up to 3 million gallons of water a day are estimated to be used during the nine-year construction

period but would fluctuate depending on construction phase. This topic will be analyzed further in the EIR/EIS.

Operation

Water would be required during operations for tugboats, domestic water use, sanitary wastewater, and concrete production for foundations throughout the life of the Project. While water supplies are expected to be sufficient for these activities, this topic will be analyzed further in the EIR/EIS.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

LESS-THAN-SIGNIFICANT IMPACT.

Construction

Wastewater generated during construction would be limited to municipal uses such as restrooms for construction workers. Dredged material would be placed in the Project footprint to develop the terminal and would not be disposed of or treated by the wastewater treatment provider. Therefore, impacts would be less than significant, and this topic will not be analyzed further in the EIR/EIS.

Operation

Long Beach Water Department delivers over 40 million gallons of wastewater per day to the Sanitation Districts of Los Angeles County for treatment. The Long Beach Water Reclamation Plant, which serves the City of Long Beach, treats approximately 18 million gallons per day of wastewater (Long Beach Water Department, 2023). The Project would require sanitary sewer service that would be limited to wastewater associated with building use (i.e., restrooms, kitchens, etc.). No industrial wastewater would be generated during operations since OSW components would not be manufactured on site. The estimated sanitary wastewater generated during operations is approximately 3,300 gallons per day at the S&I sites and approximately 5,100 gallons per day at the foundation assembly sites. Therefore, the amount of wastewater generated by the Project would make up a small percentage of the total daily average capacity of the local wastewater treatment provider. Impacts would be less than significant, and this topic will not be analyzed further in the EIR/EIS.

Mitigation Measures: No mitigation is required.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

POTENTIALLY SIGNIFICANT IMPACT.

Construction

The Project would temporarily generate waste associated with construction activities, primarily from surcharge disposal. Dredging would not require disposal of any dredged materials, as all dredged material would be used as fill for the Pier Wind Terminal. Approximately 8 million CY of surcharge would be used during Phases 1A and 1B. Upon completion, surcharge materials would be temporarily stored at the WASSS. After Phase 2, surcharge materials would be disposed of at an approved open water sediment placement site. The potential impacts associated with sediment placement during construction will be analyzed further in the EIR/EIS.

Operation

Solid waste generated during operations is expected to be limited to materials such as packaging materials, municipal trash, and recyclable waste. The anticipated volumes of solid waste would not be in excess of the capacity of a permitted landfill. The impact would be less than significant, and this topic will not be analyzed further in the EIR/EIS.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

LESS-THAN-SIGNIFICANT IMPACT.

Construction

The Project's construction activities would be required to comply with all applicable regulations pertaining to solid waste disposal. These regulations include but are not limited to AB 939, California Waste Management Act, which requires each city in the state to divert at least 50 percent of their solid waste from landfill disposal through source reduction, recycling and composting (CalRecycle, 2023); LBMC Chapter 8.6, Solid Waste, Recycling, and Litter Prevention; California Health and Safety Code Part 13 Title 42, Public Health and Welfare; and U.S.C. Chapter 39, Solid Waste Disposal. In addition, waste would be disposed of or recycled according to the California Green Building Standards Code and the City of Long Beach Construction and Demolition Debris Recycling Program (City of Long Beach, 2007).

Operation

Project operations would continue to comply with federal, State, and local statues and regulations related to solid waste. Impacts regarding compliance with federal, state, and local solid waste would be less than significant. This topic will not be analyzed further in the EIR/EIS.

Mitigation Measures: No mitigation is required.

XX. Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. According to the California Department of Forestry and Fire Protection (CAL FIRE), the Project site and entire City of Long Beach is not located within a High Fire Risk Area (CAL FIRE, 2007). Furthermore, the Project site and the Long Beach Harbor District are listed almost entirely as "non-burnable" or "water" on the US Forest Service (USFS) Wildfire Hazard Potential website (USFS, 2020). A small portion of the dredge area is classified as "very low" wildfire hazard potential, with the rest classified as "non-burnable" or "water" (USFS, 2020). Therefore, wildfire impacts would not occur. There are no wildfire response plans applicable to the Project site. No impact regarding emergency response or evacuation related to wildfires would occur.

Mitigation Measures: No mitigation is required.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

NO IMPACT. Refer to Section XX(a). Additionally, to ensure fire protection during operations, fire water would be located on site to provide fire suppression for the various proposed buildings and service all fire hydrants throughout the site. Firewater service would be provided by a new line from Navy Mole Road. Therefore, Project occupants would not be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. No impact would occur.

Mitigation Measures: No mitigation is required.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

NO IMPACT. Refer to Sections XX(a) and XX(b). The Project would not require installation or maintenance of infrastructure that may exacerbate fire risk. No impacts related to fire risk would occur.

Mitigation Measures: No mitigation is required.

d. Would the project expose people or structures to significant risks, including down-slope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

NO IMPACT. Refer to Sections XX(a) and XX(b). The Project site is almost entirely located in a "not burnable" or "water" area, as designated by the USFS Wildfire Hazard Potential website (USFS, 2020). No impacts to people or structures would occur due to risk from post-fire slope instability or drainage changes.

Mitigation Measures: No mitigation is required.

XXI. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☒	☐	☐	☐
c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

Discussion

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

POTENTIALLY SIGNIFICANT IMPACT. As previously discussed, the Project may have potentially significant impacts related to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, GHG Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. These impacts have the potential to substantially degrade the quality of the environment.

As discussed in Section IV, Biological Resources, the Project may have potentially significant impacts on fish and wildlife habitat and populations, animal communities, and rare and endangered animals, which have the potential to substantially reduce habitat, cause populations to drop below self-sustaining levels, and substantially reduce the number or restrict the range of special-status species. Lastly, as discussed in Section V, Cultural Resources, the Project may have potentially significant impacts on marine cultural resources, which have the potential to eliminate important examples of the major periods of history or prehistory. These topics will be analyzed further in the EIR/EIS.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)

POTENTIALLY SIGNIFICANT IMPACT. As previously discussed, the Project may have potentially significant impacts related to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, GHG Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. These impacts have the potential to be cumulatively considerable when viewed in connection with the effects of past, current, and probable future projects. This topic will be analyzed further in the EIR/EIS.

c. Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?

POTENTIALLY SIGNIFICANT IMPACT. As previously discussed, the Project may result in potentially significant impacts related to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, GHG Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. These impacts have the potential to cause adverse effects on humans. These topics will be analyzed further in the EIR/EIS.

3. REPORT PREPARATION

A consultant team headed by Aspen Environmental Group prepared this document under the direction of the Port of Long Beach. The preparers and technical reviewers of this document are presented below.

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