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January 16, 2024

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PIER WIND TERMINAL DEVELOPMENT PROJECT
NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT
SCH #2023110696

Dear Ms. Allyson Teramoto:

The California Department of Fish and Wildlife (Department) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the Port of Long Beach (Port) for the Pier Wind Terminal Development Project (Project), pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that the Department, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

DEPARTMENT ROLE

The Department is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish and Game Code, Section 711.7, subd. [a] & 1802; Public Resources Code, Section 21070; CEQA Guidelines Section 15386, subd. [a]). The Department, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., Section 1802). Similarly for purposes of CEQA, the Department is charged by law

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act in coastal marine waters of California and ensuring fisheries are sustainably managed under the Marine Life Management Act. Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: Port of Long Beach
Objective: The primary objective of the proposed Project is to enable the state 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 United States. The proposed Project will involve the construction and development of a 400-acre Pier Wind Terminal and 30-acre transportation corridor for staging and integration and floating foundation assembly of floating offshore wind turbine systems. For the development of the 400-acres terminal, material dredged within the Port will be used to create 400 acres of new land in the Outer Harbor with a rock revetment containment dike.

Primary Project in-water construction activities include:

- Dredging approximately 50 million cubic yards of material from various areas within the Long Beach Harbor to create fill to develop new land for the 400-acre Pier Wind Terminal and 30-acre transportation corridor, as well as deepen navigation channels, establish berths, a sinking basin, wet storage sites, and rock dike footprint.
- Constructing a wharf on the north side of the terminal via the installation of concrete or steel piles to accommodate staging and integration and foundation assembly activities.
- Constructing a sinking basin by dredging approximately 2 million cubic yards between the proposed terminal and the Navy Mole to provide for transfer of assembled floating foundations from the terminal into the water.
- Constructing a rock revetment structure, comprised of quarry run rock and armor stone from inland quarry from California or Catalina Island and/or Vancouver, Canada, around the entire terminal and along the transportation corridor.
- Constructing an approximately 30-acre transportation corridor using a single-lift rock revetment dike along the eastern edge and approximately 30 acres of fill from dredge activities.
- Installing wick drains and surcharge to accelerate the consolidation and settlement of the foundation and fill material and squeeze out excess water.

- Constructing three fixed piers using concrete piles to allow for pedestrian and vehicular access to wet storage and/or commissioning, testing, and staging for tugs and vessels.
- Constructing two wet storage areas with permanent anchorages and/or fixed structures to provide stability of floating foundations or floating offshore wind turbine systems prior to tow out.

Landside construction activities would commence after the development of new land for the 400-acre Pier Wind Terminal and 30-acre transportation corridor. Primary Project landside construction activities include:

- Grading and compacting the terminal once the fill is consolidated.
- Surfacing the terminal with dense grade aggregate.
- Constructing two concrete bridges supported by concrete piles to connect the transportation corridor to the Navy Mole.
- Installing various utilities including shore power, crane substation, and charging stations; underground power distribution; site lighting; fire protection; potable water; sanity sewer; and natural gas.
- Installing appropriate roads signs along the transportation corridor to meet all applicable local, State, and federal standards.

Location: The Project is located in the Port of Long Beach in Los Angeles County. The Project site is located in the Southwest Long Beach Harbor Planning District in the Outer Harbor of the Port, south of the Navy Mole and West Basin, east of the Port of Los Angeles Pier 400 marine container terminal, north of the federal breakwater, and west of the Main Channel, Pier F, and Pier J.

Timeframe: The proposed Project will occur in two phases over an approximate duration of 9 years, beginning in 2027 with an estimated completion in 2035.

BIOLOGICAL SIGNIFICANCE

Discussion and Comment: Long Beach Harbor (Harbor) waters support many resident and migratory fish and special status wildlife such as seabirds, marine mammals, and sea turtles. Important marine plants such as eelgrass (*Zostera marina*) and canopy kelp (*Macrocystis pyrifera*) support those fish and wildlife species and are common throughout shallow areas and along shorelines of the Harbor. Eelgrass is important as fish nursery habitat throughout the Harbor and supports juvenile and adult fish. Harbor waters also support commercially and recreationally important fish and invertebrate species such as California halibut (*Paralichthys californicus*), California spiny lobster (*Panulirus interruptus*), and the important forage fish Northern anchovy (*Engraulis mordax*).

COMMENTS AND RECOMMENDATIONS

The Department offers the comments and recommendations below to assist the Port in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife resources.

I. Project Level Impacts and Other Considerations

Sensitive Marine Habitats

Comments: Canopy kelp (*Macrocystis pyrifera*), eelgrass (*Zostera* spp.) beds, and rocky reefs are sensitive marine habitats that occur or may occur in the Project area. These habitats have been designated as habitat areas of particular concern (HAPC) within the Pacific Coast Groundfish Fishery Management Plan under the Magnuson-Stevens Fishery Conservation and Management Act. HAPC, a subset of Essential Fish Habitat, are habitats of special importance to fish populations due to their rarity, vulnerability to development and anthropogenic degradation, and/or ability to provide key ecological functions. Canopy kelp and eelgrass have some of the highest primary productivity in the marine environment and provide a significant contribution to the marine and estuarine food webs. Native eelgrass species create large beds beneficial for fish habitat and have been identified as special aquatic sites and given protections by the Clean Water Act. Additionally, the importance of eelgrass protection and restoration, as well as the marine ecological benefits of eelgrass, is identified in the California Public Resources Code (PRC §35630). The Department uses the California Eelgrass Mitigation Policy (CEMP) (NOAA 2014), developed by the National Marine Fisheries Service (NMFS), for guidance on identifying eelgrass impacts, eelgrass mitigation measures and compensation, and for identifying appropriate eelgrass mitigation and donor sites.

In-water Project activities may impact sensitive marine habitats. The NOP mentions that construction of this Project would result in the direct loss of the existing canopy kelp habitat in the Project site's existing rock revetment. Additionally, approximately 0.31 acres of eelgrass was found within 0.25 mile of the Project's dredge area in the vicinity of the Navy Mole according to the 2018 Biological Survey of the Los Angeles and Long Beach Harbors (2018 Biosurvey). Even though construction activities may not directly impact the existing eelgrass bed, indirect impacts may occur from increased turbidity and sedimentation from dredging and filling activities and potential barge shading and anchoring within eelgrass habitat.

Recommendations: The Department recommends that the proposed Project's plans and activities should avoid and minimize potential impacts to sensitive marine habitats, including canopy kelp, eelgrass beds, and rocky reefs, to the greatest extent possible. The Project should avoid and minimize disturbance and damage or

losses of sensitive habitats from dredging, pile driving, and from associated barges and vessels. If sensitive habitats are identified within or adjacent to the Project area and cannot be avoided, the DEIR should include appropriate mitigation measures. Impacts to avoid and minimize may include, at a minimum, barge shading and anchoring within eelgrass habitat, pile driving bottom disturbances, demolition and construction turbidity, sedimentation, and falling debris. The Department recommends the following should sensitive habitats be identified within or adjacent to the Project area:

- To avoid direct sensitive habitat impacts, locate pile driver barges and vessels and all barges anchoring outside of these habitats.
- To avoid scouring of sensitive habitats, anchor chain designs and locations of barge and vessel moorings should avoid sensitive habitat impacts.
- To avoid and minimize sensitive habitat impacts from demolition and construction debris, the Port should use Best Management Practices (BMPs) such as perimeter debris booms. If debris is observed falling into the Harbor water, retrieve debris as soon as possible.
- To minimize sensitive habitat impacts from water turbidity and sedimentation, install silt curtains around pile driving or dredging areas if applicable. Restrict the turbidity plumes to the smallest possible area during all phases of in-water construction.

The Department recommends that an updated eelgrass survey be conducted in accordance with the CEMP to ensure significant changes in eelgrass distribution and density have not occurred since the 2018 Biosurvey. If eelgrass is identified in the Project area, comprehensive pre-and post-construction surveys for eelgrass beds or patches should be conducted consistent with the CEMP. If any unavoidable eelgrass impacts occur, these impacts should be compensated using guidance described within the CEMP. Indirect eelgrass impacts such as shading from new piles should also be avoided. Since pile driving work conducted outside of the peak eelgrass growing period may reduce shading impacts when eelgrass beds may have died back, pile location and time of year for pile driving should be considered to avoid eelgrass and other fish and wildlife impacts generated by pile driving.

If eelgrass or canopy kelp harvest and transplanting is required for mitigation, a Scientific Collecting Permit (SCP) from the Department will be required prior to harvest and transplanting activities. The SCP may include permit conditions such as donor eelgrass and/or kelp surveys, submittal of an eelgrass and/or kelp harvest and transplant plan, limits on number of turions and/or fronds collected, methods for collection and transplanting, notification of activities, and reporting requirements. Please visit the Department's SCP webpage for more information: https://wildlife.ca.gov/Licensing/Scientific-Collecting.

The Department recommends that the DEIR includes an analysis of how much hard substrate is present within the Project area. The analysis should include a delineation between the types of hard substrates (i.e., rocky reefs, rock revetment, and/or rip rap) present within the Project area.

Pile Driving and Sound Criteria

Comments: Underwater noise associated with pile driving activities may cause temporary or permanent impacts to fish and invertebrates, such as temporary movement out of the Project area, barotrauma injury, or mortality. The Department relies on guidance from the Fisheries Hydroacoustic Working Group to set safe sound pressure level (SPL) criteria for pile driving activities (Fisheries Hydroacoustic Working Group 2008). The SPL dual criteria include a peak level of 206 dB and a cumulative sound exposure (SEL) level of 187 dB for fish 2 grams and heavier or a cumulative SEL of 183 dB for fish less than 2 grams. Additionally, the NOP states that the installation of concrete or steel piles would be accomplished using vibratory and impact hammers. These pile driving construction activities may impact water quality, releasing contaminants from sediments into the water and/or creating turbidity that could harm fish.

Recommendations: The Department recommends using a vibratory hammer for pile driving to the greatest extent feasible, or an alternative technology that produces the least amount of noise. If an impact hammer must be used (e.g., due to pile material, refusal at bedrock), multiple minimization measures are needed to reduce sound levels. The Department recommends the following be included as mitigation measures in the DEIR:

- A sound attenuation and monitoring plan should be submitted to the resource agencies for review prior to initiating pile driving activities.
- A wood, or similar material, cushion block should be used between the pile and hammer during all pile driving using an impact hammer.
- To further reduce hydroacoustic impacts to fish and marine mammals, a bubble curtain should be used during all impact pile driving to reduce sound below levels that have been shown to cause injury and/or mortality.
- Underwater sound level monitoring should be conducted during pile driving. If SPLs and SELs exceed agreed upon levels as per the Interim Criteria for Injury to Fish, work should cease and additional steps should be taken to reduce the underwater noise to acceptable levels.

The Department recommends that the Port uses a silt curtain, when possible, to control turbidity during high turbidity generating activities caused by an impact hammer. Additionally, high turbidity generating activities should be conducted when there are no strong outgoing tides since this could exacerbate turbid conditions and negatively impact marine life.

Marine Mammal and Sea Turtle Monitoring

Comments: Harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), other species of marine mammals, and sea turtles may be present or occur within the Project area. Project activities, particularly noise from pile driving, could impact these animals if they are present.

Recommendations: The Department recommends that the Port prepare and implement a marine mammal and sea turtle monitoring plan that includes, but is not limited to:

- Establishment of an underwater exclusion zone as a designated focus area for species protection to allow animals to evacuate the area prior to commencement of pile-driving activities.
- Pile driving should not occur while marine mammals or sea turtles are present within the exclusion zone.
- Preconstruction monitoring to update the occurrence and use of the area by marine mammals and turtles.
- Monitoring of marine mammals and sea turtles by an experienced observer immediately prior to and during all pile driving activities.

The Department recommends that the Port consult with the National Marine Fisheries Service and U.S. Fish and Wildlife Service regarding the above recommendation and any other necessary avoidance and mitigation measures to reduce impacts to marine mammals and sea turtles.

Dredged Fill Material

Comments: The proposed Project identifies the need for 50 million cubic yards of material from various areas within the Harbor to create fill to develop new land for Pier Wind Terminal. The NOP notes that if sufficient sediment cannot be sourced within the Harbor, a sand borrow site may need to be identified outside of the Harbor boundary. Additionally, the NOP states that for planning purposes, it is assumed that between 7 and 10 million cubic yards would be dredged from a sand borrow site or may require deeper dredging within the Harbor. Potential sand borrow sites are not detailed in the NOP.

Additionally, contaminated or high silt and organic content sediments should not be placed in the marine environment that are not compatible with existing native sediment. High silt content sediments may cause marine soft substrates to be compacted and unsuitable for subtidal benthic and epibenthic invertebrates. Compatible sediments are required for healthy marine invertebrate habitat needed for forage of the higher trophic levels such as fish and shorebirds.

Recommendation: The Department recommends that all fill material for this Project is retrieved within the Harbor via dredging to ensure the use of compatible sediments. The DEIR should include the location of any potential sand borrow sites, in addition to the Harbor, for the Project's proposed dredging activities. Additionally, the DEIR should include any plans the Port may have for the use of incompatible or contaminated sediments. Plans should include but not be limited to upland disposal or capping of sediments.

The Southern California Dredged Material Management Team (DMMT) is comprised of four regulatory agencies (i.e., United States Army Corps of Engineers, United States Environmental Protection Agency, Los Angeles Regional Water Quality Control Board, and California Coastal Commission), and responsible for managing dredging activities and reviewing technical issues associated with proposed dredging and dredged material disposal projects. All proposals for sediment placement should be reviewed by the DMMT prior to placement.

Commercial and Recreational Fisheries

Comments: The Port supports important and valuable commercial and recreational fisheries, including California halibut (*Paralichthys californicus*), California spiny lobster (*Panulirus interruptus*), and the Northern anchovy (*Engraulis mordax*). Dredging, underwater noise, and increased vessel traffic from the Project's construction and maintenance activities can adversely affect both commercial and recreational fishing. Dredging poses the risk of releasing contaminants into the water, leading to bioaccumulation that impacts the health of fish and consequently, the fishing industry. Pile driving introduces noise and vibrations that alter fish behavior, potentially changing catch rates for recreational anglers and affecting the productivity of commercial fisheries. Increased vessel traffic in the Port throughout the initial construction phase and during operation of the Pier Wind Terminal can significantly impact both commercial and recreational fishing. The increased traffic may disrupt navigation and accessibility of fishing routes, causing delays or challenges in reaching fishing grounds. Commercial fishing operations could encounter logistical hurdles and heightened competition for space and loss of fishing area, affecting overall efficiency and profitability. Similarly, recreational fishing boats could face safety concerns and crowded conditions, elevating the risk of collisions. Understanding the potential impacts of these operations is crucial for sustainable management and conservation efforts within the fishing industry.

Recommendation: The Department recommends that the DEIR includes the following:

- A comprehensive impact analysis of both commercial and recreational fishing activities should be conducted to assess the potential impact of increased ship traffic resulting from the construction of, and future activities of, the Pier Wind Terminal. The analysis related to these fishing activities should consider

possible interactions among commercial and recreational fishing vessels, construction and maintenance vessels, and any military vessels utilizing the port. The analysis should consider the effects that could arise both during the construction phase and the subsequent post-construction/operational phase. This involves shifting the attention of the analysis from construction activities to the procedures involved in launching and storing the wind turbines once the terminal is operational.

- An assessment of additional vessels in the Port that includes a comprehensive assessment of how many, and what size, vessels will be needed to support offshore wind activities. The assessment should also include where those vessels will be anchored or moored in the Port, and how that might impact the Port's ability to host transient fishing vessels.
- An economic impact analysis that includes the economic impacts associated with any potential Harbor closures and increased Port congestion to the commercial and recreational fishing fleet, fish processing plants, and other fishing related industries.
- A temporally explicit Port usage assessment that details when, both during the year and during an average day, the Port is most highly used by the commercial and recreational fishing industry.
- An assessment of the potential impacts to important commercial and recreational fish species, and prey species, inside the Port from increased dredging activity and additional infrastructure placed in the Harbor.

Invasive Species Impacts

Comments: Disturbance of the bottom sediments from potential pile construction or anchoring may redistribute non-native species that compete with native species. This could cause widespread adverse impacts to eelgrass and the marine ecology. The invasive alga *Caulerpa taxifolia* is listed as a federal noxious weed under the U.S. Plant Protection Act and while deemed eradicated in 2006 is monitored for potential future emergence. Another invasive alga species found recently in Newport Bay and San Diego Bay is *Caulerpa prolifera* (*C. prolifera*), which is also a potential threat to growth and expansion of native eelgrass beds and other native algae. *C. prolifera* can grow as deep as 50 meters and appears to be more tolerant of low light environments than most other macroalgae.

Recommendations: The Department recommends including a pre-construction *Caulerpa Spp.* survey as a mitigation measure in the DEIR, as appropriate in any area of the Project site 50 meters or less in depth, to identify potential existence of invasive *Caulerpa Spp.* as described in the Caulerpa Control Protocol https://media.fisheries.noaa.gov/2021-12/caulerpa-control-protocol-v5.pdf (October 2021). Any sightings of *Caulerpa Spp.* should be reported within 24 hours to the

Department (Caulerpa@wildlife.ca.gov), and NMFS at 562-980-4037 (nmfs.wcr.caulerpa@noaa.gov).

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by the Department. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

The Department appreciates the opportunity to comment on the NOP to assist the Port in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Leslie Hart, Environmental Scientist at R7CEQA@wildlife.ca.gov.

Sincerely,

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