APPENDIX B

Current and Reasonably Foreseeable Planned Actions

1. Introduction

This appendix discusses ongoing and reasonably foreseeable planned actions that could occur in the vicinity of the Proposed Action and may also have impacts to the resources discussed in the Morro Bay Environmental Assessment (EA). The Proposed Action is issuance of commercial wind energy leases within the Morro Bay Wind Energy Area (WEA) that the Bureau of Ocean Energy Management (BOEM) has designated on the Outer Continental Shelf (OCS) in central California. The Morro Bay WEA is defined as an offshore area extending generally 20 miles (mi) offshore to the north of the city of Morro Bay and is approximately 240,898 total acres ((ac), 376 square miles (mi^2)) in size. Water depths across the WEA range from approximately 900–1,300 meters (m) (2,953–4,265 feet (ft)). Planned actions may include those taking place in areas between the WEA and onshore for cable corridors and substation facilities. Those areas on the OCS would later be granted to a lease holder as rights-of-way (ROWs) and/or rights-of-use and easement (RUEs) in support of wind energy development.

BOEM considered ongoing and reasonably foreseeable planned actions that would occur offshore central California, as well as activities that would take place in state waters (Figure 1). However, the geographic boundaries for activities that could interact with marine mammals, sea turtles, fishes, fishing, and birds is beyond this area due to the extensive migration patterns of many species. This section addresses ongoing and planned actions that overlap with this regional area and may occur between the start of Proposed Action activities in 2023 and the completion of decommissioning of meteorological buoys in 2028, contingent on when the leases are issued.

Critical offshore infrastructure in the vicinity of the Morro Bay WEA is shown in Figure 1. Relevant coastal anthropogenic features identified by BOEM while preparing the Morro Bay EA include submarine telecommunication cables, oil & gas platforms and pipelines, and proposed wind energy areas in California State Waters near Vandenberg Space Force Base. The Morro Bay WEA is bordered in the east by the Monterey Bay National Marine Sanctuary. Additionally, the proposed Chumash Heritage National Marine Sanctuary, if officially designated a marine sanctuary in the future by the National Oceanic and Atmospheric Agency (NOAA), would bound the Morro Bay WEA in the southeast. Geospatial data for these coastal features were compiled from the NOAA Marine Cadastre web portal, and the BOEM and California State Lands Commission websites.

2. Ongoing and Reasonably Foreseeable Planned Actions

Ongoing and reasonably foreseeable planned actions include eight types: (1) other renewable energy development activities; (2) military use; (3) marine transportation; (4) fisheries use and management; (5) National Marine Sanctuary planning and management; (6) scientific surveys; and (7) undersea transmission lines and telecommunications cables.

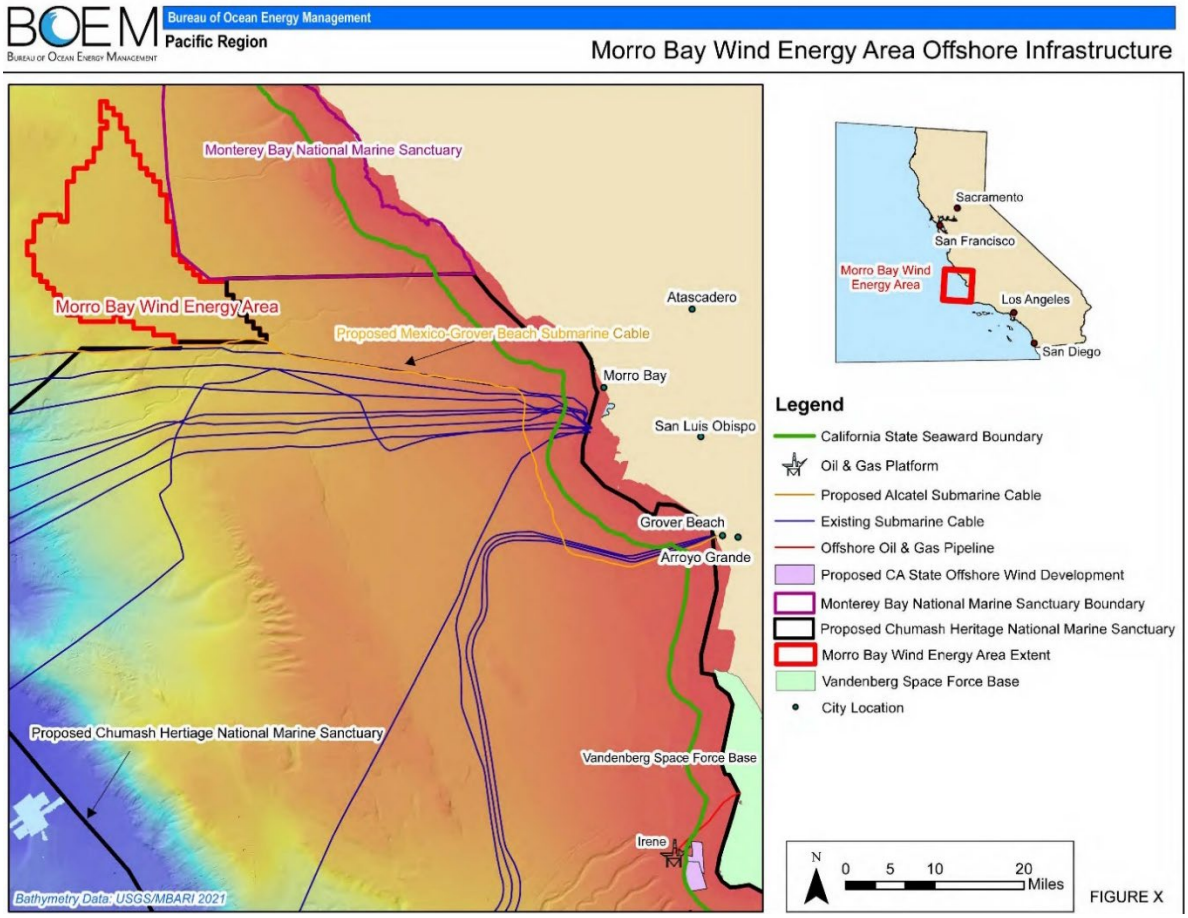

Figure 1: Map of Reasonably Foreseeable Planned Actions in Relation to the Morro Bay Wind Energy Area Offshore Central California

2.1 Other Renewable Energy Development Activities

These activities would include site characterization surveys and site assessment activities similar to the Proposed Action.

The California State Lands Commission is processing two lease applications for offshore floating wind energy projects in California State waters both located offshore the Vandenberg Space Force Base. The two Project Applicants are CADEMO Corporation (CADEMO), a renewable energy development company, and IDEOL USA Inc. (IDEOL), a floating offshore wind technology company and project developer. CADEMO proposes to install and operate four offshore floating wind turbines. CADEMO proposes to examine the performance of two distinct floating foundation platforms (barge and tension-leg). Each wind turbine would be capable of producing 12 to 15 megawatts (MW) of renewable electricity. A combined maximum of 60 MW could be generated from the proposed four wind turbines, which would be connected in a series with electrical inter-array cables. The precise lease area and activities were evaluated through a preliminary environmental assessment released in October, 2021. The State will evaluate further as part of a State Environmental Impact Report process (California State Lands Commission 2021).

BOEM has also written an Environmental Assessment for the Humboldt Wind Energy Area offshore northern California, which is to the north of the Proposed Action. A Finding of No Significant Impact was issued, and if leases are offered in 2022, site assessment and characterization activities would be going on currently with the Proposed Action.

2.2 Military Use

The DoD will continue to conduct military testing and training activities within and in the vicinity of the Morro Bay WEA during the timeframe considered in the EA. Military activities include aviation training, carrier strike group training, and amphibious/Marine expeditionary unit training. Military training and testing activities may be displaced during the execution of site assessment and characterization activities. Modifications to these activities may be necessary to allow for training and readiness requirements. BOEM and lessees will continue coordination with DoD during this period to deconflict activities when practicable.

2.3 Marine Transportation

Over the timeframe assessed in the Morro Bay EA of five years, BOEM assumes that shipping and marine transportation activities would increase above the present level. However, due to the 2016 expansion of the Panama Canal, shifts and possibly decreases may also occur in freight transport from Asia to large United States (US) ports along the west coast (Park et al. 2020). The expanded Panama Canal allows larger vessels from Asia to travel directly to the ports along the Atlantic Ocean and bypassing the prior route of US West Coast Ports in route to eastern US cities.

The US Coast Guard is conducting a Port Access Route Study (PARS) to evaluate safe access routes for the movement of vessel traffic proceeding to or from ports or places along the western seaboard of the United States and to determine whether a Shipping Safety Fairway and/or routing measures should be established, adjusted or modified. The PARS will evaluate the continued applicability of, and the need for modifications to, current vessel routing measures. Data gathered during this Pacific Coast PARS may result in the establishment of one or more new vessel routing measures, modification of existing routing measures, or disestablishment of existing routing measures off the Pacific Coast between Washington and California and overlaps with the Project Area. This process will take several years. The US Coast Guard collected public comment through January 25, 2022, through a Federal Register (FR) notice published on July 29, 2021 (86 FR 40791).

2.4 NMFS Scientific Surveys

Each year NOAA's National Marine Fisheries Service (NMFS) conducts several large-scale scientific surveys along the U.S. West Coast to monitor and assess the populations of fishery stocks, marine mammal stocks, and threatened and endangered species, as well as their habitats, in the California Current Large Marine Ecosystem. NMFS (as well as other federal and state resource managers, academic institutions, and research organizations) rely on data from these surveys to assess the current state of the ecosystem, inform sustainable management of fisheries stocks, develop management actions to conserve protected species, and understand and predict the impacts of climate change on living marine resources. In any one year, NMFS conducts approximately eight to twelve large-scale surveys. Some of these surveys are conducted in the Morro Bay WEA. BOEM anticipates continued coordination and

cooperation with NMFS to reduce or avoid conflict between site assessment/site characterization activities and scientific surveys.

2.5 Fisheries Use and Management

The Proposed Action overlaps with the Pacific Fishery Management Council's (PFMC) jurisdiction. The PFMC is responsible for making recommendations for federal fisheries management measures to NMFS for implementation. NMFS also creates and implements some fisheries management measures as part of U.S. obligations under various international fishery agreements. The Council manages fisheries for salmon, groundfish, coastal pelagic species (sardines, anchovies, and mackerel), and highly migratory species (tunas, sharks, and swordfish) from 3 to 200 miles off the coasts of Washington, Oregon, and California (pcouncil.org). The Council works with the International Pacific Halibut Commission to manage Pacific halibut fisheries. The Council's Fishery Ecosystem Plan helps incorporate ecosystem issues into the Council's fishery management plans. The fishery management plans of the Council were established, in part, to manage fisheries to avoid overfishing, which is accomplished through an array of management measures, including annual catch quotas, minimum size limits, and closed areas. The Council is required to achieve optimum yield for public trust marine resources and safeguarding these resources, their habitats, and the fishing communities that rely on their harvest.

The Morro Bay WEA overlaps roughly 50 percent with the Big Sur Coast/Port San Luis Essential Fish Habitat Conservation Areas (EFHCA; NOAA 2020; PFMC 2020). EFHCAs (Figure 2) are spatially discrete areas closed to bottom trawling and, in some cases, other types of bottom contact gear, to protect the important habitat features. The Big Sur Coast/Port San Luis EFHCAs extends from Santa Lucia Bank to Monterey Bay Canyon and encompasses an expansive and geologically complicated region of contiguous rock, mixed substrates, submarine canyons, rocky banks, and steep slope terrain. Further bottom closure areas exist to the western boundary of the Morro Bay WEA while a trawl Rockfish Conservation Area inshore of the Morro Bay WEA was opened to fishing.

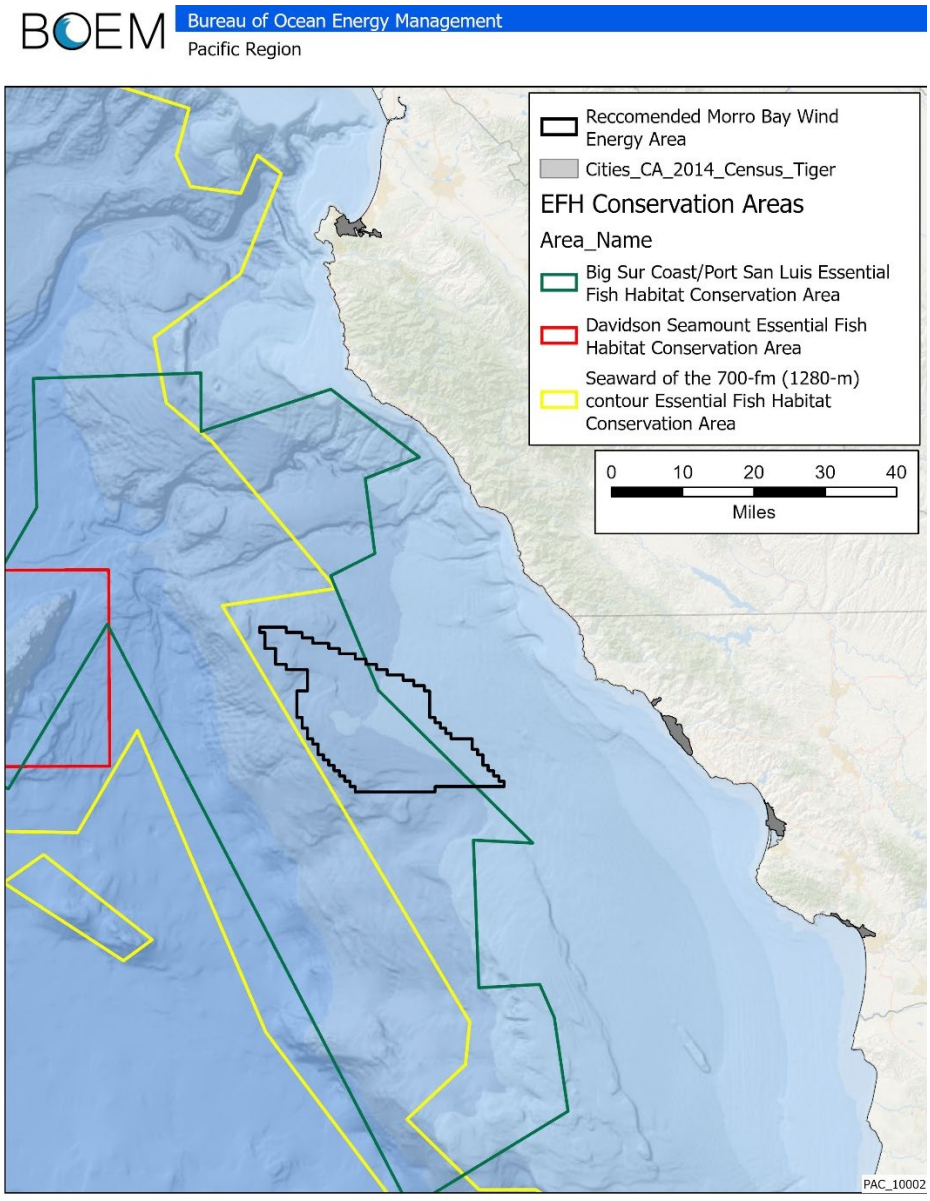

Figure 2: Essential Fish Habitat Conservation Areas

The Council created an Ad Hoc Marine Planning Committee (Committee) in the summer of 2021 to discuss and develop policy for Council consideration regarding offshore wind energy and aquaculture activities along the US West Coast. BOEM notes that the Committee recommends coast wide cumulative effects analysis of all wind energy proposed areas (taking into consideration all areas closed to fishing) on all commercial and recreational fisheries, fishing communities, and impacts to domestic seafood production (including port-based fishery-specific facilities and related services. BOEM anticipates, and is planning for, future coordination with the Committee and Council on this (and other) recommendations concurrent with the EA development and into the foreseeable future.

National Oceanic and Atmospheric Administration (NOAA) Fisheries uses stock assessments to monitor the condition of nearly 500 fish stocks. Fishery managers use the results of stock assessments to evaluate the status of fish stocks and set the amounts of fish that commercial and recreational fisheries

can sustainably harvest from a stock in one year. Stock assessments of fish on the west coast region involve both the Northwest and Southwest Fisheries Science Centers within the NOAA. These Centers collect data to inform the stock assessments from at-sea surveys every year. In Fiscal Year 2021 the Centers completed 5 surveys (NOAA Fisheries 2022).

See Section 4.3.3 of the Morro Bay EA for consultation descriptions with the National Marine Fisheries Service.

2.6 National Marine Sanctuary Planning and Management

The National Oceanic and Atmospheric Administration (NOAA) is initiating a process to consider designating a portion of waters along and offshore of the central coast of California as a national marine sanctuary that encompasses approximately 7,000 mi^2. NOAA is initiating this process based on the area's qualities and boundaries described in the 2015 nomination and excluding any geographical overlap of the boundaries proposed for the Morro Bay 399 Area, as described in the November 10, 2021 Federal Register notice (86 FR 62512 and https://sanctuaries.noaa.gov/chumash-heritage). The purpose and need for the designation is to fulfill the purposes and policies outlined in the National Marine Sanctuary Act, which includes identifying and designating as national marine sanctuaries areas of the marine environment which are of special national significance; providing authority for comprehensive and coordinated conservation and management of these marine areas; and protecting the resources of these areas.

2.7 Scientific Surveys and Buoys

Several agencies and non-governmental groups participate voluntarily in the research project entitled *Expanding Pacific Research and Exploration of Submerged Systems* to fulfill their individual missions related to earthquake science, fisheries management, and informing conservation and energy development decisions offshore the US West Coast. NOAA, US Geological Survey, and Monterey Bay Aquarium Research Institute led several survey efforts to collect bathymetry, high-resolution geophysical data, biological, and sediment core samples between 2017 and 2021 of the Morro Bay WEA (Walton et al. 2021, Cochrane et al. 2022). No surveys are planned for the future.

Central and Northern California Ocean Observing System (CeNCOOS) is a US Government-accredited, regional source for high-quality data, integrated information, and diverse expertise to inform wise and sustainable use of the ocean off central and northern California (cencoos.org). CeNCOOS maintains and publishes long-term oceanographic datasets from the California/Oregon border south to Point Conception. In central California, California Polytechnic State University operates nearshore ocean observing stations coupled with High-Frequency Radar and Harmful Algal Bloom Measurements. Glider deployments regularly transect to the north offshore from Monterey Bay. Water quality stations near Morro Bay use Sea Bird data loggers and sensors to measure temperature, conductivity, pressure (depth/tidal height), fluorescence, turbidity, and dissolved oxygen. A meteorological station measures standard parameters such as wind speed/direction, relative humidity, air temperature, pressure, and shortwave (solar) radiation.

Buoys are currently deployed near the Proposed Action area with historical datasets and current conditions available at NOAA's National Data Buoy Center (https://www.ndbc.noaa.gov). Buoy 46028 is the closest to the Morro Bay WEA and is anchored 55 nautical miles northwest of Morro Bay.

2.8 Undersea Transmission Lines and Telecommunication Cables

Submarine cables include fiber-optic cables and trans-Pacific cables exist with landings to the south of the Morro Bay WEA (Figure 1). Please note the cables in Figure 1 come from NOAA dated 2018. Cables have been removed since that time and the Joint Cable Commission confirmed that this map shows additional cables that are no longer present. Planning is currently underway for a new cable to be installed along the southern border of the Morro Bay WEA; the installation timeframe for this project is still under consideration.

3. References

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