



## Pacific Fishery Management Council

---

7700 NE Ambassador Place, Suite 101 Portland, OR 97220-1384  
Phone 503-820-2280 | Toll free 866-806-7204 | Fax 503-820-2299 | [www.pcouncil.org](http://www.pcouncil.org)  
Marc Gorelnik, Chair | Merrick J. Burden, Executive Director

May 16, 2022

Doug Boren  
Pacific Office Regional Director  
Bureau of Ocean Energy Management  
760 Paseo Camarillo  
Camarillo, California 93010

Re: Morro Bay Wind Energy Area Draft Environmental Assessment

Dear Mr. Boren;

The Pacific Fishery Management Council (Council) appreciates the opportunity to comment on the Bureau of Ocean Energy Management's (BOEM) draft Environmental Assessment (Draft EA) for the Morro Bay Wind Energy Area (WEA) and submits the following comments for your consideration. The stated purpose of the Draft EA is to determine if environmental and socioeconomic impacts of site assessment and site characterization activities have been adequately analyzed for future impacts from leasing activities. BOEM is requesting public comment on the adequacy of its environmental analysis and measures to avoid or reduce potential environmental impacts.

The Council is charged with sustainably managing U.S. West Coast fisheries, which includes conserving and enhancing habitats in support of sustainable fisheries and managed species. The Council is one of eight Regional Fishery Management Councils (RFMCs) authorized by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and is responsible for developing management actions that achieve Optimum Yield on a continuing basis for Federal fisheries resources. Optimizing the yield of our nation's fisheries requires safeguarding these resources, their habitats, commercial and recreational fishery participants, and fishing-dependent communities. The Council notes that the Outer Continental Shelf Lands Act (OCSLA) and MSA both contain mandates to responsibly manage ocean resources. We offer the following comments and recommendations focused on fisheries concerns, followed by habitat and ecosystem issues and other concerns.

We remain concerned about the piecemeal approach BOEM is taking in siting of WEAs and the narrow spatial focus applied to analyzing the impacts of offshore wind (OSW) on the marine environment and fisheries managed by the Council. We appreciate the evaluation of how the site assessment and characterization activities could be conducted while minimizing impacts to fishing. However, the scope of those activities is relatively narrow, and the actions should not be viewed in isolation. The potential outcomes of these activities reach more broadly to the eventual development of the Morro Bay WEA, to the effects of development in other areas along the West Coast, and in the context of the President's goal of developing 30 GW of OSW by 2030. We note that the request for comments solidifies the connection between planning activities described in

---

this Draft EA, and construction/operations activities, which will depend on the information contained in the Final EA: “[S]ite characterization activities include shallow hazards assessments, and geological, geotechnical, archaeological, and biological surveys...” (Draft EA Section 3.10.2.1). The Council recognizes that BOEM’s mandate includes the leasing of areas for OSW development and appreciates the challenge of carrying it out in a manner that provides for the requirements of 43 USC §1337(p)(4) (which describes requirements for issuing leases for activities on the Outer Continental Shelf), including preventing interference with other reasonable ocean uses. We are grateful for the continued engagement with the Council and its Advisory Bodies and for the continued explanations of the agency’s decision-making process. However, we remain concerned that some of the most important decisions have been made without a sufficient understanding of related future impacts, including how different areas in the broader Morro Bay area (i.e., outside the Morro Bay WEA) would compare in terms of their consequences to habitat and fisheries. The Council intends to remain engaged in this process and make comments in the future on fisheries, habitat, ecosystem, and research concerns broader than site assessment and site characterization, as those comment opportunities arise.

### **Fisheries Specific Comments**

On January 11, 2022, the Council submitted a comment letter on the scope of the Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) for future commercial wind lease issuance on the Pacific Outer Continental Shelf (OCS) off the coast of Morro Bay, California. A copy of that letter is attached and hereby incorporated by reference (<https://www.pcouncil.org/documents/2022/01/january-2022-letter-to-boem-on-morro-bay-wind-energy-area.pdf>). Based on our review of the Draft EA, it appears that information related to fisheries contained in that letter has not been addressed. Specifically, the following:

- While BOEM lacks the authority to prohibit fishing within developed wind energy areas, the United States Coast Guard (USCG) does have the authority to establish safety zones in and around OSW installations. In the scope of their EA, BOEM **should** include analysis of potential impacts to fishing access and transit resulting from exclusion from all or part of the WEA. We note that other factors may also exclude fishing vessels from wind energy installations. For example, insurance companies may exclude coverage for fishing vessels within wind farms because of impacts to vessel radar systems<sup>1</sup> and other risk factors associated with large scale wind energy installations.
- BOEM incorrectly states that “[r]ecreational fishing is not expected to be negatively affected by OSW development in the Call Area because recreational fishers rarely fish in areas where water is deeper than 200 meters.” This statement **should** be corrected for the Final EA. Recreational fisheries for highly migratory species, such as tuna and billfish, take place in waters deeper than 200 meters and recreational fishermen and women out of Morro Bay have historic reliance on albacore tuna and more recently, bluefin tuna. This means that the recreational fishery for highly migratory species will likely be negatively impacted. These impacts will be felt by charter boat owners and operators, sportfishing landings, live bait providers, fuel docks, and local hotels and restaurants. We note that the

---

<sup>1</sup>[https://www.boem.gov/sites/default/files/documents/environment/Radar-Interference-Atlantic-Offshore-Wind\\_0.pdf](https://www.boem.gov/sites/default/files/documents/environment/Radar-Interference-Atlantic-Offshore-Wind_0.pdf). And a recent study from the National Academies Press [Wind Turbine Generator Impacts to Marine Vessel Radar](#) |The National Academies Press

document cited by BOEM, in footnote 32, to support its assertion that recreational fishing is rare in areas where water is deeper than 200 meters clearly states, on page 1733, “recreational fisheries are not considered in this analysis.”<sup>2</sup>

- BOEM states that “currently no available information indicates unique fishing grounds within the Call Area that are either marginal or notably valuable.” We disagree with this assertion and **recommend** that BOEM review available data and anecdotal information that would more accurately inform whether and which fishing grounds are valuable to fishermen utilizing the area(s). For example, it could be that potentially impacted fishing grounds are extremely valuable to Morro Bay or Port San Luis harvesters.
- Providing ex-vessel revenues is useful in determining the potential economic loss to commercial harvesters but fails to capture the true economic impact. Members of the dependent fishing community – buyers and processors, fuel docks, marine mechanics, restaurants, etc. could all be negatively impacted. As part of the planning and site characterization evaluation, potential impacts to commercial and recreational fisheries as well as associated industries should be evaluated, using economic input-output models or other methods that reflect the total contribution of fishing to the state/local/regional economy. In addition, it should be recognized that some fisheries, like the groundfish bottom trawl sector, have room for growth; and others, highly migratory species for example, may experience range shifts due to climate change. Wind energy development could lower the potential for growth and expansion, or affect where it occurs.
- On Page 59, the Draft EA states, “Fisheries effort and economic productivity reflect biological productivity and is highest in shallower waters near the coast, generally declining as depth increases.” We agree that the likelihood of conflict with fisheries is generally lower further from shore and for this reason continue to support looking beyond the 1,300-meter contour for areas with lower conflict. However, the shelf break and continental slope are also highly productive areas for many species. We note the April 29, 2022 Call for Information and Nominations-Commercial Leasing for Wind Power Development on the Central Atlantic Outer Continental Shelf (OCS) includes two Call Areas (E and F) which extend to depths between 2,500 and 2,600 meters<sup>3</sup>.
- As we noted in our January 11 letter, fisheries economic productivity is the result of many different factors that extend beyond biological productivity, such as market prices and other factors. When these other considerations are taken into account, areas near the shelf break and in the deep ocean become highly valuable in an economic sense. For example, important groundfish species such as sablefish are found along the outer shelf and slope, while highly migratory species have no economic productivity in shallower waters near the coast but are very valuable.

---

<sup>2</sup> Miller, Rebecca & Field, John & Santora, Jarrod & Monk, Melissa & Kosaka, Rosemary & Thomson, Cynthia. (2017). Spatial valuation of California marine fisheries as an ecosystem service. *Canadian Journal of Fisheries and Aquatic Sciences*. 74. 10.1139/cjfas-2016-0228.

<sup>3</sup> [Federal Register :: Call for Information and Nominations-Commercial Leasing for Wind Power Development on the Central Atlantic Outer Continental Shelf \(OCS\)](#)

- In addition, the place of catch and place of landing/delivery are often different in many fisheries. cursory examination of ex-vessel landings and value to nearby ports do not show the true value of mobile fishing operations that use this area (or deeper) but deliver to *other* ports. For example, vessels from ports in Oregon fish for sablefish within the Morro Bay WEA. This needs to be considered with respect to the Morro Bay WEA.

The Draft EA states that survey vessels for renewable energy projects will have a shore base in Morro Bay. There is limited harbor space, dockage, and land-based facilities available in Morro Bay. It is reasonably foreseeable that infrastructure supporting the seafood industry may be compromised or inaccessible when needed. The Draft EA acknowledges that “marine vessels mobilizing and transiting from ports to the WEA may reduce efficiency of fishing operations due to time delays associated with congestion or avoidance” but then determines those impacts are minor and temporary. We disagree as many fishing operations are time sensitive and getting product off the vessel and delivered to a processor in a timely manner directly affects the quality of that product and could impact the price paid to the fisherman.

Section 3.7 purports to analyze commercial fishing in and around the Morro Bay WEA. However, the data provided in Table 3-9 seems to focus on the area in and around the Humboldt WEA and doesn’t provide any data related to commercial fisheries near the Morro Bay WEA. We note, between 2010 and 2019, an average of a little more than five million pounds of seafood were landed into Morro Bay Port Complex, with ex-vessel revenues averaging \$8.75 million dollars. It bears noting, ex-vessel revenues are dollars paid to local harvesters and does NOT include the downstream economic benefits nor the contributions of the local fishermen and women to local, state, and national food security. Any economic analyses should be conducted by an economist applying vetted and transparent methods, models, and metrics.

While this may represent four percent of the average annual value statewide and it may be true that the Morro Bay Port Complex “ranked last in ex-vessel landings value among the nine port complexes,” the fishermen and women who call the Morro Bay Port Complex home are wholly reliant on those revenues for their livelihoods. The coastal communities of Morro Bay and Port San Luis/Avila derive significant economic and societal benefits from the fishing industry that has operated in the area for years.

Section 3.7 lists gears and methods that fishermen and women use offshore of California. One important gear type (Drift Gillnet fishery) is not listed, and should be included in the Final EA. This fishery has historic use and dependence on the area in and around the Morro Bay WEA, yet is not mentioned in the Draft EA. It bears noting the Pacific Leatherback Conservation Area, which is closed to Drift Gillnet fishery participants during productive times of the fishing season, is located just above the Morro Bay WEA. Given how the Drift Gillnet fishery operates, installation of buoys for site assessment and characterization will make those areas inaccessible to the fishery.

The Draft EA places great importance on data provided by vessel monitoring system (VMS) and California Department of Fish and Wildlife (CDFW) landing receipts/fish tickets. The Council reminds BOEM that not all fisheries that operate in the area are required to use VMS. CDFW fish tickets require catch to be recorded by Department origin block number. The blocks encompassing

the Morro Bay WEA represent, at a minimum, 10nm x 10nm areas<sup>4</sup>. Knowing that fish were harvested within a 100 square nautical mile area should not be characterized as “spatially explicit information” upon which impacts can be judged. We agree that bottom trawling for groundfish shows the most current activity; however, other fisheries will be affected. For example, the albacore fishery has historically used the area. To fully understand the data that BOEM uses, direct discussions with experienced members of the fishing community are needed. In addition, the Draft EA should reference the National Oceanic and Atmospheric Administration (NOAA) Northwest Fisheries Science Center’s Fishery Resource Analysis and Monitoring (FRAM) Data Warehouse fishing effort data. The FRAM data is the most recent and comprehensive (i.e., best available information) on the spatial distribution of fishing effort and yet the Draft EA shows the distribution of effort using CDFW block data from 1931-2005. The best available information on fishing effort distribution should be included in the Final EA to inform site assessment/characterization activities.

### **Habitat-Specific Comments**

#### **Essential Fish Habitat and Council authorities**

The MSA authorizes the Council to identify, conserve, and enhance essential fish habitat (EFH) for species managed under the Council’s fishery management plans (FMPs). The MSA defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” The MSA includes additional provisions to designate Habitat Areas of Particular Concern (HAPC) for habitats of ecological significance, sensitivity, vulnerability to degradation, or rare occurrence. The Council has identified EFH throughout the Pacific Coast region for species managed under each of its FMPs and has designated HAPC for groundfish (rocky reefs, estuaries, canopy kelp, seagrasses, offshore banks, seamounts, canyons, and areas of interest) and salmon (estuaries, marine and estuarine submerged aquatic vegetation, and other habitat features). The Council has also designated Essential Fish Habitat Conservation Areas (EFHCAs) for groundfish species in its Groundfish FMP, which are spatially discrete areas closed bottom trawl fishing and/or all bottom contact fishing, to protect fragile habitats from the effects of some types of bottom fishing.

The MSA further authorizes the Council to comment on any Federal or state activity that may affect the habitat, including EFH, of a marine or anadromous fishery resource under its authority. Adverse effects on EFH may result from actions occurring within EFH or outside of it and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions.

#### **Habitat, Fish, and the Marine Environment**

The Council finds that the Draft EA lacks sufficient detail on the affected environment and analysis of impacts of future leasing activities, particularly as it relates to seafloor mapping, benthic habitats, and associated species. We realize that the scope of the Draft EA is limited to the issuance of leases within the WEA and does not evaluate potential impacts from construction and operation of commercial wind farms. Nonetheless, because the Morro Bay WEA overlaps substantially with the Big Sur Coast/Por San Luis EFHCA, the likelihood of significant impacts to habitat resources is elevated.

---

<sup>4</sup> [CENTRAL USERGUIDE \(ca.gov\)](http://centraluserguide.ca.gov)

Because of the prevalence of important habitat features in the Morro Bay WEA, the Council **recommends** that BOEM require lessees to conduct detailed seafloor mapping to identify areas with lower risk of impacts to benthic habitats. Mapping should use the Coastal and Marine Ecological Classification Standard (CMECS), or a habitat classification scheme that conforms with CMECS. Further, the Council **urges** BOEM to ensure, through appropriate permit language if necessary, that any seafloor mapping and related data collection conducted by BOEM or lessees be made publicly available. In addition, we urge BOEM to carefully evaluate the mapped habitat features of the Morro Bay WEA prior to establishing lease sale areas. In all cases, any site assessment and characterization activities should avoid disturbance of rocky reef, canyon, and biogenic habitat features.

Prior to leasing, broad-scale rapid assessment surveys are needed throughout the Morro Bay WEA and cable corridors to map and identify unique benthic habitats that have not been previously mapped (including seep communities, corals, and high-relief rock). Subsequent, fine-scale surveys are needed to precisely identify areas to avoid during site assessment/characterization activities (grab sampling, benthic sleds, drilling, borings, large buoy anchoring). The information from these surveys may identify large areas of fragile habitats within lease blocks that may warrant the exclusion of one or more lease blocks, thus the need for acquiring this information ahead of leasing.

BOEM has funded region-wide habitat suitability modeling studies of benthic macrofauna, corals, and sponges that are not reflected in the Draft EA (Henkel et al, 2020; Poti et al, 2020). These models should be used to inform survey efforts and site characterization for the Morro Bay WEA and associated cable routes. Additional fish habitat modeling information was developed as part of the Council's Groundfish EFH periodic review process and should be used to inform this phase of BOEM's process. This information is available upon request by contacting Pacific Council staff (contact information below). The Council **recommends** that BOEM include in the Final EA, habitat suitability models for benthic species as well as other relevant information from the Council's most recent Pacific Coast Groundfish EFH review.

#### Specific Comments

- In Section 3.4.1.1 (page 29), a sentence at the end of the paragraph states that “*Special habitats in the region include bacterial mats, submarine canyons, and pockmark fields.*” We **recommend** adding additional habitat features known to be present in the area, including biogenic habitats (e.g., corals and sponges), steep slope terrain, and rocky reef habitat.
- Appendix B section 2.3 includes a statement that “*The Council is required to achieve optimum yield [OY] for public trust marine resources and safeguarding these resources, their habitats, and the fishing communities that rely on their harvest.*” We **recommend** using the phrase “marine fishery resources” instead of “public trust resources” to clarify that the Council’s OY requirement pertains to fishery resources only.
- Appendix B Section 2.3, the following paragraph states that the WEA overlaps 50 percent of the Big Sur/Port San Luis EFHCA. However, it appears a much larger percentage of the WEA overlaps with the EFHCA. We **suggest** that BOEM recalculate the overlap for clarity and precision.

## **Other Comments**

### Cumulative Effects

The Council has significant concerns that the cumulative effects of issuing leases are not being adequately addressed. Leasing leads to development, which presumably leads to issuance of more leases and more OSW development. We recognize the barriers to conducting a coastwide cumulative effects analysis of OSW development. However, an evaluation of the cumulative effects of lease issuance should be achievable and within the scope of this EA. The Council **recommends** that the Final EA should include a cumulative effects analysis of leasing activities that will occur and include an acknowledgement that issuing leases is directly related to eventual OSW construction and development.

### Cultural and Nonmaterial Values

As part of the historic and current social value of resources in the WEA, both tribal and non-tribal fisheries provide a vitally important suite of cultural ecosystem services for those living in the area and those who are visitors. Nonmaterial values of nature and culture are more difficult to describe through metrics than economic or biophysical values,<sup>5</sup> yet nonetheless should be described and analyzed, as required by NEPA. The draft EA does not directly address the value of these cultural and nonmaterial values and instead focuses almost exclusively economic value. We recommend that in the Final EA BOEM address these social nonmaterial values, including a special focus on how local tribes view impacts to their nonmaterial ecosystem services.

### Section 2.2.2 – Marine Navigation

The Draft EA states the “majority of commercial vessels that traverse the Morro Bay WEA carry automated [sic] identification system (AIS) transponders.” BOEM also reviewed 2011 and 2017 AIS vessel information provided by the USCG and found that more vessels traversed the Morro Bay WEA in 2017 than 2011. This makes sense as it wasn’t until 2016 that commercial fishing vessels 65 feet or greater were required to have AIS. However, the vast majority of commercial fishing vessels operating in and around the WEA are under 65 feet, and thus not required to use AIS. BOEM should consider reviewing more recent AIS vessel information to accurately reflect maritime navigation and engage with the commercial fishing industry to get a better understanding of their activity, fishing or traversing, in the Morro Bay WEA.

### Section 3.7.2 – Space-use conflicts and liability

Section 3.7.2 discusses space-use conflicts between data collection buoys and vessels associated with the Proposed Action and fishing operations. The Draft EA states that “[i]f damage to a data collection buoy or its scientific instrumentation occurs because of fishing operations, the fishing vessel captain could be held financially responsible.” We **recommend** BOEM specify those instances in which a vessel captain would be held responsible and limit those either intentional acts or acts involving gross negligence. We also recommend that the developers be held financially responsible for any fishing gear damaged, destroyed, or lost as a result of actions of vessels associated with the Proposed Action. Additionally, BOEM and the lessees **should** coordinate with the fishing community to ensure surveys and site assessment activities avoid conflicts with fisheries. Communication about surveying activities and engagement will enable lessees to time their surveys to avoid high-fishing times, such as season openings, and will help prevent accidents.

---

<sup>5</sup> Diaz et al. Assessing Nature’s Contributions to People. Science. 19 January 2018,

### Section 2.2.3 – Offshore Infrastructure

The last bullet point references information collected through the Marine Renewable Energy Working Group. The documents contained in the link provided in the Draft EA are at least 10 years old and it appears that this group has not produced any information since then. The Council recommends that BOEM identify this data gap in the Final EA and disclose any efforts to update information pertaining to offshore infrastructure.

### Section 2.2.4.11 – Decommissioning

The Draft EA states that any anchors deployed during site assessment and site characterization activities will be left on the seafloor. We recommend lessees be required to plan for the removal of any anchoring systems, especially if there is potential they could create safety concerns for gear types which operate on or near the bottom.

### Upwelling

The Draft EA acknowledges the importance of upwelling to the productivity of the California Current Large Marine Ecosystem, an eastern boundary current system. While site assessment and site characterization activities are unlikely to impact upwelling, there is concern that wake effect from OSW farms can reduce upwelling.

- A December 2021 study<sup>6</sup> requested by the California Ocean Protection Council evaluates potential upwelling effects resulting from the installation of wind turbines offshore of Morro Bay, Diablo Canyon, and Humboldt Call Areas. The model shows about a five percent reduction in wind speeds found in the lee of wind farms, which in this model leads to an approximately 10 to 15 percent decrease in upwelled volume transport and resulting nutrient supply to the coastal zone in the vicinity of the Morro Bay and Diablo Canyon Call Areas.
- A February 2022 study<sup>7</sup> that analyzes the potential impact of OSW farms through decreasing sea surface wind speed on the shear forcing and its consequences for the ocean dynamics are investigated. This could inform potential impacts to upwelling, ocean stratification, and prevailing currents in the California Current.

We consider the potential impact of wind wakes on the productivity of the California Current to be a foundational issue which should be completely understood before any permits are issued, and definitely prior to issuance of a construction and operations plan. In the first part of the last century, hydroelectric energy was thought to be the answer to fulfilling our energy demands. Today, there is a push to remove dams because of the environmental harm done to those ecosystems and the iconic salmon runs all along the west coast that are in danger of extirpation.

### Section 3.5 - Protected Species.

Section 3.5 discusses several protected species. Regarding leatherback sea turtles, the Draft EA acknowledges the likelihood of occurrence; but qualifies it by stating that high numbers of such

---

<sup>6</sup> [https://www.opc.ca.gov/webmaster/media\\_library/2022/02/C0210404\\_FinalReport\\_12312021.pdf](https://www.opc.ca.gov/webmaster/media_library/2022/02/C0210404_FinalReport_12312021.pdf)

<sup>7</sup> [Frontiers | Emergence of Large-Scale Hydrodynamic Structures Due to Atmospheric Offshore Wind Farm Wakes | Marine Science \(frontiersin.org\)](#). Also, a news story on the study - [Offshore wind farms reshape the North Sea \(hereon.de\)](#)



occurrences are unlikely. In December of 2020, NOAA Fisheries identified leatherback sea turtles as one of nine national Species in the Spotlight<sup>8</sup>. They noted that according to a new survey<sup>9</sup>, leatherbacks that forage off the U.S. West Coast may go extinct within a few decades. Fisheries that operate in or near the Morro Bay WEA are managed to account for leatherback sea turtle presence and interactions. One example is the regulatory program managing California's commercial Dungeness crab fishery. If a fishery participant entangles a leatherback sea turtle, a management action is required which could result in the closure of that fishing zone<sup>10</sup>. If a leatherback sea turtle is found to be within a fishing zone, the fishery shall not open in that zone unless the Director demonstrates another management action protects leatherback sea turtles<sup>11</sup>. In October of 2021, an adult male leatherback turtle was tagged with a satellite-linked transmitter. The data provided by that individual showed that it moved very close to the Morro Bay WEA, if not within the boundary, over the following month<sup>12</sup>. We **recommend** BOEM re-evaluate potential impacts of leatherback sea turtles acknowledging that any occurrence could have population-wide impacts and threaten the continued existence of the species. We also call to BOEM's attention a recent study that shows sea turtles can experience temporary hearing loss from an excess of underwater noise<sup>13</sup>. Construction activities and increased vessel use, such as that expected during site assessment and site characterization activities, could generate such underwater noise.

#### Section 3.8.1.1 – Economic Importance of Ocean Recreation and Tourism

Importance is more than just economics, as fisheries contribute to culture and identity as well as economies. The author of *The Rise and Fall of Commercial Fishing in Morro Bay* wrote, "Not only is the fishing industry of Morro Bay a powerful link to the past, but it is also an integral part of the city's identity and provides a great sense of pride for its local residents."<sup>14</sup> We would be remiss if we didn't highlight comments made over 40 years ago during a public hearing held by the South Central Regional Coastal Commission. The following "amenities" were highlighted by the City of Morro Bay as being offered to tourists: boat builders, sport fishing accommodations, marinas, piers, commercial fishing operations, an aquarium, a museum of natural history, and 38 motels with 745 rooms to accommodate about 2,600 guests<sup>15</sup>. The allure of the area's fishing heritage continues to be a draw for tourists to the area to watch local fishermen ply their trade and to sample their catch in the restaurants on the waterfront. We expect the activities which are economically important to the area, ingrained in the fabric of community, and integral to the area's identity will be protected and promoted.

We appreciate the opportunity to provide comments and look forward to continued engagement with BOEM on OSW energy planning. Please contact Kerry Griffin on Council staff ([Kerry.griffin@noaa.gov](mailto:Kerry.griffin@noaa.gov)) if you have any questions.

---

<sup>8</sup> [Pacific Leatherback Turtles off the West Coast Disappearing, New Survey Shows | NOAA Fisheries](#)

<sup>9</sup> [A long-term decline in the abundance of endangered leatherback turtles, \*Dermochelys coriacea\*, at a foraging ground in the California Current Ecosystem - ScienceDirect](#)

<sup>10</sup> 14 CCR §132.8(c)(1)(B)(3)

<sup>11</sup> 14 CCR §132.8(c)(2)(B)(2)(c)

<sup>12</sup> See Page 8 of Available Data for November 19 meeting of the California Dungeness Crab Fishing Gear Working Group. Available at [2021-22 Risk Assessment: Available Data \(ca.gov\)](#)

<sup>13</sup> [Potential impacts of floating wind turbine technology for marine species and habitats - ScienceDirect](#)

<sup>14</sup> [Hidden History Final Project - Copy \(historicalmorrobay.org\)](#)

<sup>15</sup> [A Timeline – Historical Society of Morro Bay \(historicalmorrobay.org\)](#)

Sincerely,

A handwritten signature in black ink that reads "Marc Gorelnik". The signature is written in a cursive, flowing style.

Marc Gorelnik,  
Council Chairman

KFG:acl

Enclosure: PFMC January 2022 Letter to BOEM re: Morro Bay Wind Energy Area

Cc: Council Members  
Mike Conroy  
Susan Chambers  
Correigh Greene  
Scott Heppell



## Pacific Fishery Management Council

---

7700 NE Ambassador Place, Suite 101 Portland, OR 97220-1384  
Phone 503-820-2280 | Toll free 866-806-7204 | Fax 503-820-2299 | [www.pcouncil.org](http://www.pcouncil.org)  
Marc Gorelnik, Chair | Merrick J. Burden, Executive Director

January 11, 2022

Office of the Environment  
Bureau of Ocean Energy Management  
760 Paseo Camarillo  
Camarillo, California 93010

To Whom It May Concern:

On October 19, 2018, the Bureau of Ocean Energy Management (BOEM) published in the Federal Register a Call for Information and Nominations for Commercial Leasing for Wind Power Development on the Outer Continental Shelf (OCS) Offshore California. BOEM delineated three geographically distinct Call Areas: Morro Bay and Diablo Canyon off the Central Coast, and Humboldt off the North Coast. On July 29, 2021, BOEM delineated two extensions of the Morro Bay Call Area, known as the East and West Extensions and published in the Federal Register the “Commercial Leasing for Wind Power Development on the Outer Continental Shelf (OCS) Offshore Morro Bay, California – Call for Information and Nominations”. On November 12, 2021, BOEM issued a press release announcing it had designated the Morro Bay Wind Energy Area (WEA). The WEA is located approximately 20 miles offshore the central California coastline and contains approximately 240,898 acres (376 square miles).

BOEM will prepare an Environmental Assessment (EA), per the National Environmental Policy Act (NEPA), to consider potential impacts from site characterization activities (e.g., biological, archeological, geological, and geophysical surveys and core samples) and site assessment activities (e.g., installation of meteorological buoys) off central California. As part of BOEM’s scoping process, the agency is seeking public comments through January 11, 2022, on what should be considered as part of the EA. In particular, BOEM is seeking input on site assessment and site characterization activities, which include a variety of scientific surveys to gather data on the environment in the WEA, as well as other uses of the OCS in the vicinity.

The Pacific Fishery Management Council (Council) is charged with sustainably managing U.S. West Coast fisheries, which includes conserving and enhancing habitats in support of sustainable fisheries and managed species. The Council develops management actions for Federal fisheries off Washington, Oregon, and California, and is required to achieve optimum yield for public trust marine resources. Optimizing the yield of our nation’s fisheries requires safeguarding these resources, their habitats, and the fishing communities that rely on their harvest. The Council notes that the Outer Continental Shelf Lands Act and Magnuson-Stevens Fishery Conservation and Management Act both contain mandates to responsibly manage ocean resources.

At the outset, we appreciate that BOEM acknowledged our comment letter in response to the 2021 Call for Information and Nominations on the Morro Bay East and West Extensions. We also submitted a comment in response to the Humboldt WEA designation and many of the comments

---

raised in that letter are applicable here. Like the Humboldt Area Identification (Area ID) Memo, the Morro Bay Area ID Memo aggregates all fisheries together for discussion. For example, the sablefish fishery is prosecuted using different gear types (trawl, pot, long line, etc.); and the relative impact of the WEA may differ, based on the gear type used. The assessment of impacts should be broken out by fishery and gear type, and be done in such a way to show trends over time. To accurately reflect potential impacts, BOEM should look beyond the last decade for information regarding fisheries in the area, as the recent ten-year period has been a time of tremendous change for many West Coast fisheries and future years should be quite different from this time period. For example, Amendment 28 to our Pacific Coast Groundfish Fishery Management Plan, adopted in 2019, implemented changes to the groundfish fishery by providing increased access to productive fishing grounds where fish populations have rebounded in recent years. Incorporating fishery-data from years earlier than the recent ten-year period could be used to estimate potential impacts post-Amendment 28.

Amendment 28 also established additional protections for high valued benthic habitats, by prohibiting bottom trawling in known areas of rocky reefs, undersea canyons, and biogenic habitats. While most of the specific potential impacts to marine habitats will be considered on a project-specific basis, the potential impacts of site characterization, surveys, and transmission cables should be considered as part of the site assessment and characterization activities.

Section VI of the Morro Bay Area ID Memo<sup>1</sup> (Memo) discusses Considerations for Area Identification. Commercial and recreational fishing are listed as one of the uses found to interact most with potential offshore development in and around Morro Bay. BOEM outlines its internal analysis on fishing activities in subsection 1 and we address some of the information below:

- While BOEM lacks the authority to prohibit fishing within wind energy areas, the United States Coast Guard (USCG) does have the authority to establish safety zones in and around offshore wind installations. In the scope of their EA, BOEM should include analysis of potential impacts to fishing access and transit resulting from exclusion from all or part of the WEA. We note that other factors may also exclude fishing vessels from wind energy installations. For example, insurance companies may exclude coverage for fishing vessels within wind farms because of impacts to vessel radar systems<sup>2</sup> and other risk factors associated with large scale wind energy installations.
- BOEM incorrectly states that “[r]ecreational fishing is not expected to be negatively affected by offshore wind development in the Call Area because recreational fishers rarely fish in areas where water is deeper than 200 meters.” Recreational fisheries for highly migratory species, such as tuna and billfish, take place in waters deeper than 200 meters and recreational fishermen and women out of Morro Bay have historic reliance on albacore tuna and more recently, bluefin tuna. This means that the recreational fishery for highly migratory species will likely be negatively impacted. These impacts will be

---

<sup>1</sup> <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Area-ID-CA-Morro-Bay.pdf>

<sup>2</sup> [https://www.boem.gov/sites/default/files/documents/environment/Radar-Interference-Atlantic-Offshore-Wind\\_0.pdf](https://www.boem.gov/sites/default/files/documents/environment/Radar-Interference-Atlantic-Offshore-Wind_0.pdf)

felt by charter boat owners and operators, sportfishing landings, live bait providers, fuel docks and local hotels and restaurants.

- BOEM states that “currently no available information indicates unique fishing grounds within the Call Area that are either marginal or notably valuable.” We question this assertion and suggest that BOEM review available data and anecdotal information that would more accurately inform whether and which fishing grounds are valuable to fishermen utilizing the area(s). For example, it could be that potentially impacted fishing grounds are extremely valuable to Morro Bay or Port San Luis harvesters.
- Providing ex-vessel revenues is useful in determining the potential economic loss to commercial harvesters; but fails to capture the true economic impact. Members of the dependent fishing community – buyers and processors, fuel docks, marine mechanics, restaurants, etc., could all be negatively impacted. As part of the planning and site characterization evaluation, potential impacts to commercial and recreational fisheries as well as associated industries should be evaluated.
- Atop page 16 the following statement is made, “Fisheries economic productivity reflects biological productivity and is highest in shallower waters near the coast, declining as depth increases.” The Memo includes a reference for this claim (as footnote 34), but there is no footnote 34 in the Memo. Fisheries economic productivity is the result of many different factors that extend beyond biological productivity, such as market prices and other factors. When these other considerations are taken into account, areas near the shelf break and in the deep ocean become highly valuable in an economic sense. For example, important groundfish species such as sablefish are found along the outer shelf and slope, while highly migratory species have no economic productivity in shallower waters near the coast but are very valuable.

We also wish to address the analysis under Subsection 2 (Marine Navigation). That subsection begins with the statement that the “majority of commercial vessels that traverse the Call Area carry automated identification system (AIS) transmitters. BOEM conducted a review of 2011 and 2017 AIS vessel information provided to BOEM from the USCG.” Beginning in 2016, commercial fishing vessels 65 feet or greater were required to have AIS. However, the vast majority of commercial fishing vessels operating in and around the WEA are under 65 feet, and thus not required to use AIS. BOEM should include all commercial and recreational fishing vessels in this subsection, not just those with AIS.

Finally, the Council recommends the items described in the attached table should be included in the scope of the EA. We appreciate your consideration of our comments. Please contact Kerry Griffin ([Kerry.griffin@noaa.gov](mailto:Kerry.griffin@noaa.gov); 503-820-2409) if you have any questions.

Page 4

Sincerely,

A handwritten signature in black ink, appearing to read "Merrick J. Burden", is written over a light-colored rectangular background.

Merrick J. Burden  
Executive Director

MC:ael

Enclosure: Summary Table of Issues to Include in Scope of Environmental Assessment

Cc: Council Members  
Susan Chambers  
Mike Conroy  
Doug Boren  
Necy Sumait

### Summary Table of Issues to Include in Scope of Environmental Assessment

Scoping Issue	Rationale
Benthic habitat	<p>The WEA is located in designated essential fish habitat (EFH) for Pacific Coast groundfish, coastal pelagic species, salmon, and highly migratory species, and overlaps considerably with Council-designated rocky reef Habitat Areas of Particular Concern (HAPC). Additionally, the West Extension is completely within the “Big Sur Coast/Port San Luis” EFH Conservation Area (EFHCA), and roughly 50 percent of the original Call Area is in that EFHCA. The EFHCA 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. As evidenced by the EFHCA and HAPC designations, this region is comprised of ecologically important habitat features. By definition, the EFHCA and HAPC designations convey the need for protection from human activities, including wind energy installations, that can impact seafloor habitats for Council-managed species.</p>
Whale, sea turtle, and bird migrations	<p>The high use of much of the shelf and shelf break as both a foraging area and a migratory corridor is a concern. The potential for disruption of along-shore movement especially of seabirds and marine mammals is something with little information and reasonable potential for significant impacts. Telemetry data gathered from tagged leatherback sea turtles indicate they may inhabit waters within or near the WEA. The EA scope should include characterization of migration pathways and use by birds, whales, sea turtles and other marine life. This should include characterization of timing windows of activities for use and migration</p>
Commercial Fishing Activities	<p>Consideration should be given to commercial fishing activities as BOEM conducts site characterization activities. The Morro Bay Area Identification Memorandum aggregates all fisheries together for discussion. For example, the sablefish fishery is prosecuted using different gear types (trawl and non-trawl); and the relative impact of the WEA may differ. The assessment of impacts should be broken out by fishery and be done in such a way to show trends over time. To accurately reflect potential impacts, BOEM should look beyond the last decade. Amendment 28 to our Groundfish Fishery Management Plan, adopted in 2019, implemented changes to the groundfish fishery by providing increased access to productive fishing grounds where fish populations have rebounded. Incorporating fishery-data from earlier years, could be used to estimate potential impacts post-Amendment 28. The California Department of Fish and Wildlife (CDFW) has preliminarily identified the following primary fisheries operating Inside the WEA: groundfish, HMS sharks and tunas, opah, Pacific hagfish, sablefish, Chinook salmon, and swordfish. The primary fisheries operating adjacent to the WEA that could be affected by the transmission cable during construction and operation: Dungeness crab, Coastal Pelagic Species, lobster, market squid, nearshore elasmobranchs (e.g., angel shark), pink shrimp, rock crab, sea urchin, spot prawns, surf perch, and white sea bass.</p>
Core Samples	<p>Cables support the Block Island OSW facility (East Coast) were originally buried at a depth of 4-6 feet. Shifting sediment caused sections of the cable to become unburied and in October of last year. The operator of the wind farm stated its intent to rebury the cables at a depth of 25 - 50 feet. Given ocean conditions along the Central Coast of California - it is foreseeable that cables will need to be buried at similar depths. Any EA needs to account for core samples being taken from that depth - as opposed to something shallower (i.e., five feet as the original Block Island cables - and the proposed burial depth for the Vandenberg projects)</p>

<p>Community and Socio-Economic Impacts</p>	<p>There is concern that a future wind farm could negatively impact fishing activity, which would have ripple effects across the community. Processing plants could be forced to curtail operations and lay off employees, which would decrease economic activity and potentially the local tax base. The EA scope should include a thorough evaluation and characterization of the socio economics of the coastal communities that derive revenues from commercial fishing and processing.</p>
<p>Recreational fishing activities</p>	<p>Sport fishermen (albacore tuna, salmon, rockfish, etc.) may be affected by site characterization activities, especially in terms of transit to and from fishing grounds. Sport fishing is an important economic driver in the area and consideration should be given to minimizing impacts to the sport fishing fleet. The scope of the EA should include locations, number of trips, revenues and revenue multipliers, and characterization of how recreational fishing may be impacted by the presence of a wind farm.</p>