

## HABITAT COMMITTEE REPORT ON MARINE PLANNING

The Habitat Committee (HC) heard a report from Marine Planning Committee (MPC) and HC representative Steve Scheiblauber on recent MPC activities, including the recent MPC meetings and three letters written on behalf of the Council that respond to marine planning activities by the Bureau of Ocean Energy Management and the California State Lands Commission. These include the Morro Bay East and West Extensions, Humboldt Bay Wind Energy Area Call for Information, and the Vandenberg Demonstration Project and Pilot Project. The HC provided edits and comments on those letters, attached.

The HC is unclear on the process for how the HC will engage on future efforts to evaluate and comment on habitat-related concerns on offshore energy development and marine planning issues. The HC would like clarification on how the MPC and HC should engage in commenting to action agencies when external timelines do not overlap with Council meetings. Perhaps this could be achieved through describing specific criteria and circumstances where these advisory bodies have authority to draft comments for Council approval. Also, it would be helpful for the Council to provide guidance on how suggested edits to MPC products by the HC and other advisory bodies will be resolved without another MPC meeting where there is no overlap with Council meetings.

Some issues, such as aquaculture developments in estuaries, are more clearly habitat-related than fishing-related, and therefore it is more appropriate for the HC to draft those comment letters. Along these lines, the Bureau of Ocean Energy Management Notice of Intent for the Programmatic Environmental Impact Statement for Oil Rig Decommissioning in southern California has an open public comment period deadline of September 30. The HC awaits Council direction on whether the HC or the MPC should be the lead on drafting comments, whether those comments should be circulated among both committees and/or all advisory bodies, and the process for approving the letter.

PFMC  
09/10/21



## Pacific Fishery Management Council

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Marc Gorelnik, Chair | Charles A. Tracy, Executive Director

Agenda Item E.1  
Supplemental Attachment 3  
September 2021

### **DRAFT letter on Morro Bay Call Area Extensions**

September \_\_, 2021

Ms. Jean Thurston-Keller  
BOEM California Intergovernmental Renewable Energy Task Force Coordinator  
Bureau of Ocean Energy Management (BOEM)  
Office of Strategic Resources  
760 Paseo Camarillo, Suite 102  
Camarillo, CA 93010

RE: Docket No. BOEM-2021-0044

Dear Ms. Thurston-Keller:

The Pacific Fishery Management Council (Council) appreciates the opportunity to provide comments in response to the Bureau of Ocean Energy Management's (BOEM) Call for Information and Nominations on "Offshore Morro Bay, California, East and West Extensions."

In September of 2018, the Bureau of Ocean Energy Management (BOEM) initiated a Call Area scoping process for offshore wind energy development in Federal waters off Morro Bay, California. The Council provided [comments](#) in January 2019. After consideration of potential conflicts, BOEM modified the initial Call Area with the East and West Extensions. On July 29, 2021, BOEM issued a call for information and nominations, requesting comments on potential offshore wind energy development on areas adjacent to the Morro Bay Call Area previously announced in 2018.

The Council is charged with sustainably managing 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 established by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA). 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 Management Act and MSA both contain mandates to responsibly manage ocean resources.

### 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 (HAPCs) 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 HAPCs for groundfish (rocky reefs, estuaries, canopy kelp, seagrasses, offshore banks, seamounts, canyons) and salmon (including estuaries and marine and estuarine submerged aquatic vegetation).

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.

The proposed West Extension, as well as the original Morro Bay Call Area (Call Area), are located in designated EFH for Pacific Coast groundfish, coastal pelagic species, salmon, and highly migratory species, and both areas overlap considerably with Council-designated rocky reef HAPC (Figure 1). Additionally, the West Extension is completely within the "Big Sur Coast/Port San Luis" EFH Conservation Area (EFHCA), and roughly 50 percent of the main 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 composed 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.

### Habitat, Fish, and the Marine Environment

Some areas may be particularly susceptible to changes in oceanographic processes, such as the West Extension situated in the oxygen minimum zone of the upper slope of the continental shelf (1,000-1,300 m), a unique area where oxygen concentrations are naturally and consistently low. Periodically, these low oxygen waters move onto the shelf and contribute to widespread hypoxic events. [Wind-driven coastal upwelling is a primary driver of productivity in the California Current. As documented in Europe, wind power generation can reduce wind speed downwind of turbine arrays. Disruption of upwelling could also exacerbate deepwater hypoxia, since upwelling \(and downwelling\) processes are a major driver of renewal of oxygen conditions in coastal environments.](#) The potential effects of altered wind speeds on ocean processes in an area as large as the Call Area, in a region dominated by and dependent on upwelling have not been studied. The Council **recommends** that BOEM conduct scientific analyses and/or modeling to assess potential wind-generated effects on ocean processes in this region of the California Current.

There are two moderate canyon features along the western boundary of the West Extension that may be important for transporting sedimentary material from the upper slope to the lower slope.

The Council **recommends** that BOEM investigate to determine if wind energy farms would interfere with these physiographic processes.

Considering the extensive amount of rocky reef habitat currently mapped in the Santa Lucia region and the complex topography and physiography noted in existing bathymetric data, it is conceivable that additional high-resolution mapping of this region would reveal more rock and greater complexity than is currently identified in existing coarse-scale mapping products. Based on the information currently available for this area, the Council **suggests** that wind energy installations in the West Extension are likely incompatible with the physical and habitat resources there.

#### Fish spawning habitat

The main Call Area and both the West and East Extensions are in the depth range of commercially important deepwater bottom fish. Dover sole, thornyhead and sablefish (DTS complex) adults occupy water depths from 800-1,300 meters. Spawning occurs in depths between 600-1,000 meters. Wind energy development could disrupt fish migration and spawning in these areas. The Council **recommends** that BOEM consult the National Marine Fisheries Service (NMFS) Northwest and Southwest Fisheries Science Centers for survey data on species abundance and spawning habitat in this region, as well as consult fishers for their local knowledge of DTS adult distribution, spawning habitat, and fishing locations in the Call Area and the two proposed extensions. The Council **recommends** that DTS spawning areas be omitted from further consideration as an area for wind energy planning and development.

#### Transmission Cable and Infrastructure

Transmission cables and other offshore wind infrastructure continue to be a primary concern of the Council due to a myriad of potential impacts to EFH, benthic species and sound-sensitive species. Potential adverse effects during installation of infrastructure include vibration and noise generated by subterranean drilling; destruction of habitat features; destruction of ancient deep-sea corals; impacts to fish and mammal species; scouring and plume caused by seafloor trenching and transmission cable burial; habitat damage during installation of mooring anchors; damage from mooring chain sweep; potential acoustic impacts; and impacts of electromagnetic fields from suspended midwater cables.

Based on the information currently available for this area, the Council **suggests** that wind energy installations in the West Extension are likely incompatible with the physical and habitat resources there.

If BOEM decides to move ahead with including the West Extension in the Morro Bay Call Area, then BOEM **should** obtain updated, high-resolution seafloor mapping data for the entire expanded Call Area, followed by observational surveys (in coordination with the National Oceanic & Atmospheric Administration's (NOAA's) Deep Sea Coral Research and Technology Program) in the southwestern portion of the West Extension where NOAA's habitat suitability modeling indicates the potential presence of coral and sponge biogenic habitat. The Council **recommends** that these reconnaissance surveys be conducted in advance of the Area ID stage to identify areas where wind energy farms would be incompatible with the ecological resources and thus eliminated from further consideration and planning efforts.

Where high-resolution seafloor data do not already exist within or shoreward of the final Call Area, BOEM **should** obtain additional seafloor mapping data to identify habitat-compatible and fishing-compatible cable route options. In addition, cable route options should be identified prior to the Area ID stage. Doing so may prevent selecting lease areas that do not have viable cable routes.

### **Fisheries and Fishing**

The Council anticipates that wind farm and transmission cable installations, maintenance, and decommissioning are likely to affect small fishing businesses that participate in fisheries managed under all four of the Council's FMPs, in addition to a suite of state-managed fisheries, including those for high-value crustacean species. The Council notes that vessel monitoring system data addresses a relatively small percent of West Coast fishing trips and **recommends** that BOEM seek aid from the NMFS Northwest and Southwest Fisheries Science Centers to better assess fishing location choices and the social and economic effects of wind farm installations on fishing businesses and coastal economies.

The Call Area is one of historic importance for albacore and swordfish fisheries. Between 1978 and 2017, the Morro Bay call area accounted for 227.2 metric tons of albacore for commercial harvesters and 8,234 fish for commercial passenger carrying vessels targeting albacore. In recent years there has been a shift in fishing effort of albacore to locations north of the Call Area, but it is unknown whether that is a long-term shift or one related to recent warm-water conditions prevalent in the area (the marine heatwave and El Nino which predominated in the mid-2010s). Likewise, the swordfish fishery was heavily dependent on areas in and around the Call Area. Due to regulatory pressures and the creation of the Pacific Leatherback Sea Turtle Conservation Area, effort has diminished. However, with Deep-Set Buoy Gear likely to be authorized as a gear type for targeting swordfish, it is foreseeable that the area in and around the Call Area will see both an increase in effort and harvest of swordfish. In recent years, Southern California fishermen are documenting increased abundance of Pacific Bluefin Tuna in the Southern California Bight. If that stock is taking a more northerly migratory pattern, it is foreseeable that the waters in and around the Call Area will become important for the California-based Pacific Bluefin fisheries, both commercial and recreational.

The East Extension overlaps with valuable deepwater groundfish fishing grounds. This area was historically important for trawl harvest of dover sole and sablefish and is currently an important area for fixed gear sablefish harvest. Currently there is no large-scale market for groundfish trawl vessels; however, this could change in the future. Historic production from trawl vessels in the Eastern Extension should be considered as a placeholder for future fisheries impacts. According to one commercial fisherman, during 1990-2006, 75 percent of the Morro Bay fleet's landings were from groundfish, one of the top three fisheries for that area.

The Council is concerned that recent fishery management changes made to minimize effects on sensitive species migrations may be compromised by offshore wind installations. In the fall of 2020, the State of California began to manage its commercial Dungeness crab fishery under regulations implementing the Risk Assessment and Mitigation Program (RAMP). In short, RAMP provides the Director of the California Department of Fish and Wildlife with the ability to delay the start of, or close the fishery before its scheduled end date, if there is an elevated risk of entangling humpback whales, blue whales or leatherback sea turtles. There are concerns that a

wind energy farms as large as the Call Area may alter migratory patterns of these, and other, marine species and impact the State's Dungeness crab fishery, often the State's most valuable commercial fishery<sup>1</sup>. The Council **recommends** that BOEM investigate potential impacts to marine mammal and turtle migratory patterns from large offshore wind farms both during the construction phase, during normal operations, and during decommissioning.

The Council expects that for safety and liability reasons, the layout of deep sea moored wind turbines will effectively prevent the use of some or all fishing gear in designated wind energy lease areas. The socioeconomic impacts of these exclusions to Council-managed fisheries and other parts of the human environment may be significant. As you know, spatial data for many fisheries is lacking, making it difficult to estimate the economic impact these projects would have on the fishing industry. Wind energy farms will likely disrupt or displace many fishers from their traditional fishing grounds, causing a reduction in total fishing effort and lost productivity (i.e., economic impact) by having to fish in less productive or less safe areas. Displaced fishers would likely concentrate their efforts immediately outside the wind farm boundary, resulting in increased pressure on fish and habitat in those areas. The Council **recommends** that BOEM directly engage with the fishing community to incorporate their fishing knowledge at this stage in the process by documenting and quantifying fishing locations, effort and value on their fishing grounds, location of past and future fishing, and to better understand the socioeconomic effects of displacing them from their traditional fishing grounds.

Since many Council-managed fisheries are coastwide and considering that BOEM has also identified a Humboldt Wind Energy Area and will likely identify more West Coast areas for wind energy development, the Council **recommends** that BOEM conduct a *coastwide* cumulative effects analysis of all wind energy proposed areas on fisheries, fishing communities, and impacts of domestic seafood production (including port-based fishery-specific facilities and related services).

#### Fisheries management

As BOEM considers the effects of wind energy areas on fishing and fisheries, it will be important to consider the effect of spatial fishing regulations (past and present) on the distribution of fishing effort. As noted above regarding the albacore, swordfish and groundfish trawl fisheries, historical fishery information from logbooks and from direct discussion with local fishermen and processors will identify important fishing areas that won't necessarily be indicated in recent datasets. Fishermen are likely to return to some of these historic fishing grounds and should be consulted about areas they intend to return to and the anticipated economic value of those areas so BOEM can assess future impacts of wind energy farms on the fishing industry.

Fisheries stock assessments and management measures depend largely on NMFS annual at-sea surveys fisheries. These scientific surveys are conducted on decades-old survey routes. Disruption or displacement of survey routes by wind energy farms would have direct consequences to stock

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<sup>1</sup> In 2018, the most recent year for which there is publicly available information, the California's commercial Dungeness crab fishery landed 18,805,62 lbs generating \$63,554,342 in ex-vessel revenues (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171073&inline>). Morro Bay and Avila commercial harvesters landed 168,474 lbs producing ex-vessel revenues of \$956,082 (or roughly 20% of all ex-vessel revenues to those two Ports). See - <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171084&inline>

assessments and fisheries management. Fisheries research and survey routes **should** be among the criteria that eliminate areas from further consideration as wind energy farms and should be considered at this stage in the process.

### Summary of Council comments

The direct and indirect effects of wind energy areas on fisheries, habitats, socioeconomic, and ecological resources should inform all wind energy area planning processes, and should do so *in advance of* the leasing, permitting, and construction phases of wind energy development.

The Council recommends that BOEM exclude from further consideration the West Extension and areas identified as spawning habitat for sablefish and dover sole, other ecologically sensitive resources, and important fishing grounds. Additional precautionary measures include establishing buffer zones to protect resources and fishing, where indicated; using location and design criteria to further minimize impacts to fishery resources from wind energy projects and cable routes; and any activities associated with the establishment or maintenance of those structures.

In ~~addition~~ summary, the Council offers the following recommendations:

- Before advancing to the Area ID stage for any Call Area, investigate whether wind energy farms could exacerbate hypoxic events occurring on the shelf by accelerating the wind and upwelling in the project area or conversely reduce winds speed downwind from wind farms enough to reduce upwelling critical to ocean productivity.
- The Council is of the opinion that ocean energy structures are incompatible in rocky environments, EHFCAs and HAPCs, and believes that these areas should be eliminated from Call Areas or otherwise avoided.
- The West Extension of the Morro Bay Call Area includes important physical and biological resources with existing habitat protections. The development of energy infrastructure may be incompatible with these important physical and biological resources.
- If the West Extension is designated, determine whether wind energy farms could interfere with the physiographic process of sediment transport in the moderate canyons there.
- Obtain updated, high-resolution seafloor mapping data for the entire expanded Call Area and data on biogenic species in the West Extension (if designated). Surveys should be conducted in advance of the Area ID stage for any Call Area process.
- Consult with NMFS Northwest and Southwest Fisheries Science Centers on DTS species abundance and spawning habitat in the Call Area and proposed Extensions.
- Consult pot fishermen for their local knowledge of DTS adult distribution, spawning habitat, and fishing locations in the Call Area and proposed Extensions.
- Exclude known spawning areas from further consideration as wind energy areas.
- Obtain seafloor mapping data to identify habitat-compatible and fishing-compatible cable route options and do so prior to the Area ID stage.

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- Investigate potential impacts to marine mammal migratory patterns from large offshore wind farms both during the construction phase, during normal operations, and during decommissioning.
- Directly engage with the fishing community at this stage in the process before further decisions are made, to incorporate and quantify their fishing knowledge of their fishing grounds for fishing effort, economic value, displacement effects of past, present and future fishing.
- Conduct a coastwide cumulative effects analysis of the totality of wind energy areas on fisheries, fishing communities, and impacts of domestic seafood production (including portside fishery-related facilities and services) at various scales.
- Assess the full effect of wind energy areas on fishing by incorporating the effect of spatial fishing regulations (past and present) on the distribution of fishing effort, historic logbook data (prior to spatial fishing regulations). Fisheries research and survey routes should be among the criteria at this stage in the process that eliminate areas from further consideration as wind energy farms.
- Consult with NMFS Northwest and Southwest Fisheries Science Centers to better identify fishing location choices in the region and the potential effects of wind farm installations on small fishing businesses, seafood processors and the port businesses that rely on the seafood industry.

#### **Future Engagement and Consultation with the Council**

The Council recently convened an ad hoc Marine Planning Committee (MPC) composed of members from its existing advisory bodies to directly engage on ocean energy development and other emerging ocean industries. The Council, through the MPC, intends to stay fully engaged in BOEM's process going forward. The Council appreciates BOEM's participation in recent informational webinars. We look forward to working with BOEM to ensure that fishery and fish habitat concerns are fully considered throughout the process.

Please note that the Council's meeting schedule and opportunities for its advisory bodies to inform the Council do not necessarily align with public comment periods of other public processes. We appreciate your consideration of our comments if issues should arise outside the public comment window.

The Council looks forward to reviewing BOEM's National Environmental Policy Act document as it pertains to fishing activities on the West Coast, finding development options that minimize impacts to ecological and fisheries resources, and to achieving the long-term goal of responsible development of this industry.

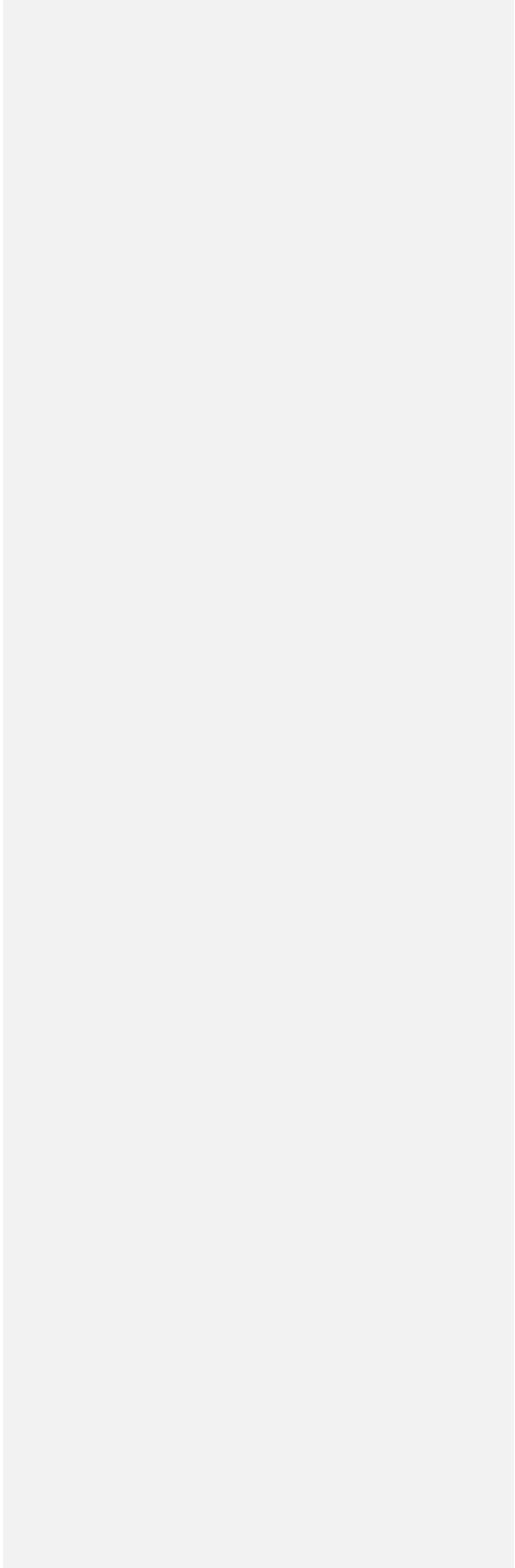
Sincerely,

Charles A. Tracy  
Executive Director



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Cc: Council Members



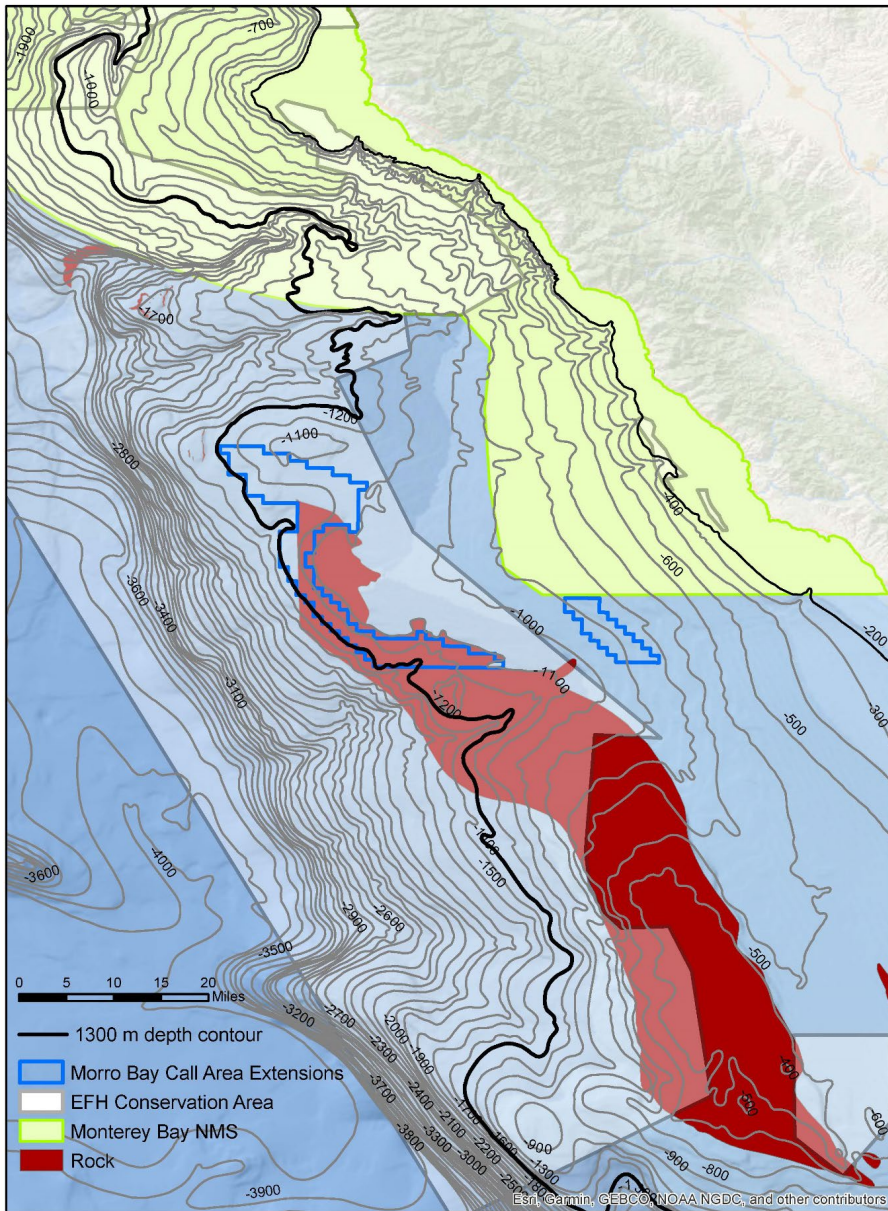


Figure 1: Overlay of rocky reef Habitat Area of Particular Concern and the Big Sur Coast/Port San Luis EFH Conservation Area, with Morro Bay West Extension



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Agenda Item E.1  
Supplemental Attachment 4  
September 2021

### DRAFT letter on Humboldt Bay Wind Energy Area

September XX, 2021

Regional Supervisor  
Office of the Environment  
Bureau of Ocean Energy Management  
760 Paseo Camarillo Suite 102  
Camarillo, CA 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 28, 2021, BOEM designated the Humboldt Call Area as a Wind Energy Area (WEA). The WEA begins at 21 miles offshore the City of Eureka in northern California and is approximately 132,369 acres (206.8 square miles).

As required by the National Environmental Policy Act, BOEM will conduct an Environmental Assessment (EA) of the WEA, ~~per the National Environmental Policy Act (NEPA)~~. As part of BOEM's scoping process, the agency is seeking public comments through September 13, 2021 on what should be considered as part of the EA. The EA will consider potential environmental consequences of site characterization activities (e.g., survey activities and core samples) and site assessment activities (e.g., installation of meteorological buoys) associated with issuing wind energy leases in the WEA. The EA will also consider project easements associated with each potential lease issued, and grants for subsea cable corridors through state tidelands. As described in the Northern California Area Identification Memorandum, "BOEM will conduct further analysis under the Outer Continental Shelf Lands Act and NEPA at subsequent stages of its regulatory process, including if and when leases are offered for sale, and if and when wind energy facilities are proposed on any leases."

The Pacific Fishery Management Council (Council) is charged with sustainably managing 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 Management Act and Magnuson-Stevens Fishery Conservation and Management Act both contain mandates to responsibly manage ocean resources.

It is not clear the extent to which BOEM has been engaging with members of the fishing community in the Humboldt Bay area. BOEM should prioritize engagement with the fishing industry as it moves forward with site characterization and lease issuance activities.

The Humboldt Area ID Memo aggregates all fisheries together for discussion. However, the assessment of impacts should be broken out by fishery and be done in such a way to show trends over time. This will allow for a more robust and useful analysis of impacts to fisheries. The California Department of Fish and Wildlife (CDFW) has identified the following fisheries as potentially impacted within the WEA: sablefish, Pacific hake, spot prawn, coastal pelagic species finfish, krill, California halibut (mostly nearshore), Pacific halibut, and hagfish. An initial CDFW depth analysis suggests that given the OCS location of the WEA, some commercial fisheries may not experience notable preclusion from fishing grounds as a result of wind energy development in the area. However, fishing representatives of the Ad Hoc Marine Planning Committee (MPC) state that numerous fisheries operate in and around the Humboldt WEA. Nearshore fisheries including market squid, sardine, Dungeness crab could be directly impacted by site assessment and characterization activities. ~~Other concerns include possible impacts to:~~

In addition, the proposed Humboldt WEA overlaps the Mad River Rough Patch Essential Fish Habitat Conservation Area (EFHCA) for Pacific groundfish. This and several other newly designated or modified EFHCAs are not included in the online mapping tool (California Offshore Wind Energy Gateway) that appears to be informing the wind energy siting process. The groundfish EFHCAs were updated in 2020 under Amendment 28 of the Pacific Groundfish FMP, replacing EFHCAs designated in 2006 under Amendment 19. (NOAA Fisheries 2020). The Mad River Rough Patch EFHCA was proposed through a collaborative effort of fishing industry and environmental representatives which identified significant ecological resources there. The area is characterized by a rocky ridge, complex topography, diverse habitats and abundant fauna. Research dives conducted by MBARI and inventoried by the NOAA Deep Sea Coral and Technology Program, identified an abundance of corals, sponges and sea pens (*pennatulids*).

EFHCA and HAPC designations signify the ecological significance of this portion of the WEA and the need for protective measures from activities that can damage the habitats of Council-managed species and structure-forming invertebrates. It is the Council's opinion that the EFHCA and major rocky structures elsewhere in the area are not appropriate for wind energy installations and should be eliminated from the Humboldt WEA configuration. The Council recommends that BOEM use existing information or conduct high-resolution seafloor mapping and benthic fauna surveys around this feature as soon as possible to refine the delineation of the Humboldt WEA to avoid prominent rocky areas.

The MPC assembled the following comments, applicable to site characterization activities and lease issuance to be undertaken as part of BOEM's OSW planning process. The MPC considered many other comments not included below that apply more directly to the construction and operation of wind turbines and transmission cables. We appreciate consideration of these issues as BOEM develops its Environmental Assessment for site characterization activities and lease issuance. Please contact Mr. Kerry Griffin (kerry.griffin@noaa.gov) of my staff with any questions.

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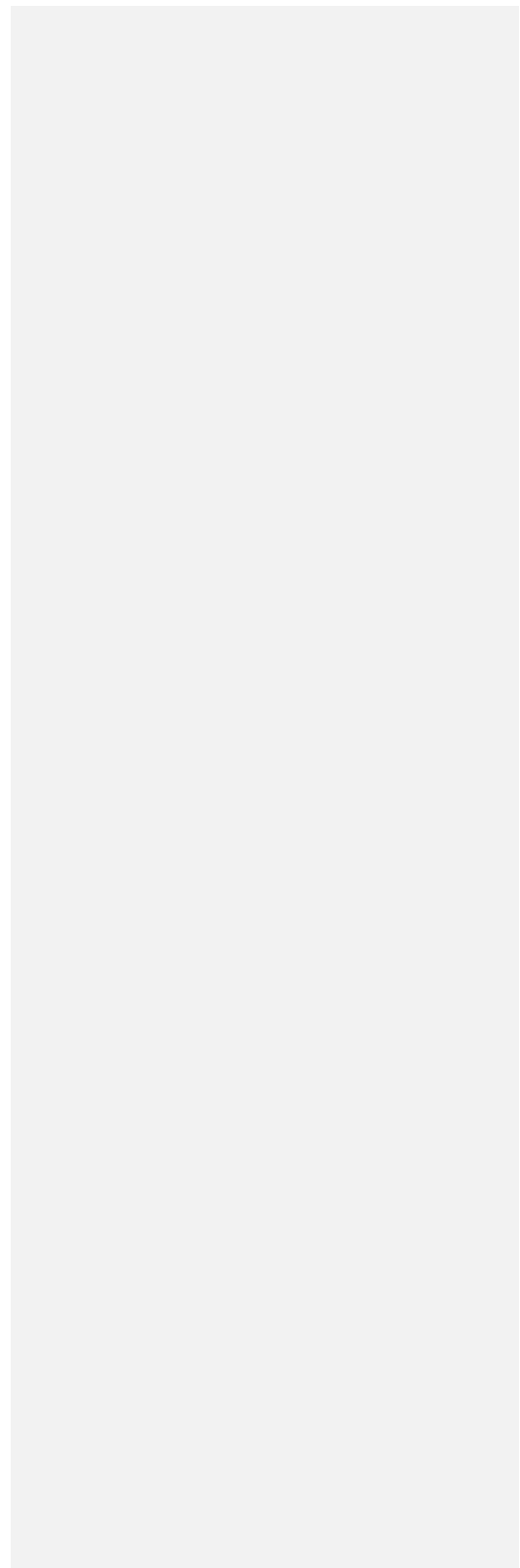
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Sincerely,

Chuck Tracy  
Executive Director

KFG:xxx

Cc:



**Summary of Issues to Include in Scope of Environmental Assessment**

Scoping Issue	Rationale
Recreational fishing activities	<p><del>Sport fishermen</del><u>The sport fishing community</u> (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>
Benthic habitat	<p><del>Hard bottom</del><u>Rocky bottom habitats, and corals and sponges</u> are present in part of the Humboldt <del>Bay area</del><u>WEA</u>. <del>Special care should be afforded to</del><u>These</u> habitats <del>that</del> may be sensitive to seismic testing, drilling, or other site characterization activities <u>and should be avoided, as should the Mad River Essential Fish Habitat Conservation Areas</u>. The EA scope should include consideration of Essential Fish Habitat Conservation Areas (EFHCAs) and Habitat Areas of Particular Concern, both of which <del>which</del> indicate <u>especially important sensitive</u> habitat for <del>dozens of</del><u>several</u> species of groundfish and other fishery resources.</p>
Whale 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 <del>something with little information and reasonable</del><u>not well understood, and there is</u> potential for significant impacts. The EA scope should include characterization of migration pathways and use by birds, whales, and other marine life. This should include characterization of timing windows for use and migration.</p>
Commercial Fishing Activities	<p>Much of the Humboldt WEA is in actively fished trawl grounds. Several trawlers in Eureka derive most of their winter income from the area in the WEA, and three trawlers from Brookings, OR also fish extensively in that area. One Eureka trawl captain described the area in the Humboldt WEA as, “some of the best grounds on the west coast for dover, blackcod, long spine &amp; short spine thornyheads”. Consideration should be given to commercial fishing activities as BOEM conducts site characterization activities.</p> <p>The Northern California Area Identification Memorandum aggregates all fisheries together for discussion. However, the assessment of impacts should be broken out by fishery and be done in such a way to show trends over time. This will allow for a more robust and useful analysis of impacts to fisheries. The California Department of Fish and Wildlife (CDFW) has identified the following fisheries as potentially impacted within the WEA:</p>

	<p>albacore, sablefish, Pacific hake, spot prawn, krill, California halibut (mostly nearshore), Pacific halibut, groundfish, and hagfish. However, given the OCS location of the WEA, a depth analysis reveals that many commercial fisheries are not likely to experience notable preclusion from fishing grounds as a result of wind energy development in the area. Nearshore fisheries including market squid, sardine, salmon, sea cucumber, coastal pelagic species, and Dungeness crab could be directly impacted by transmission cable construction and operation.</p>
Core Samples	<p>Cables supporting 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 <a href="#">developer (Orsted) company</a> stated it intended to rebury the cables at a depth of 25 - 50 feet. Given ocean conditions along the North 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>
Community and Socio-Economic Impacts	<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>



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September 2021

September \_\_\_\_ 2021

California State Lands Commission  
Attention: Eric Gillies  
100 Howe Ave., Suite 100-South  
Sacramento, CA 95825-8202

RE: Docket No. BOEM-2021-0044

Dear Mr. Gillies:

The Pacific Fishery Management Council (Council) appreciates the opportunity to comment on The California State Lands Commission (CSLC) Draft Preliminary Environmental Assessment (PEA) in response to two separate applications submitted by CADEMO Corporation (CADEMO) and IDEOL USA Inc. (IDEOL) for proposed offshore wind (OSW) energy demonstration projects, collectively referred to as the “Vandenberg Offshore Wind Energy Projects” (Projects).

The Council is charged with sustainably managing 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 established by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA). 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.

Per its terms, the PEA is intended to serve as an early foundation of information to feed into the State’s Environmental Impact Report (EIR) process should CSLC decide to continue evaluation of the proposed Projects. The Council recommends CLSC consideration and evaluation of the following:

- The areas encompassed by the Projects are within essential fish habitat for groundfish, salmon, ~~some~~ highly migratory species, ~~some~~ coastal pelagic species, finfish, and ~~three species of~~ krill.
  - The Project areas appear to be in close proximity to Rocky Reef and Kelp Canopy Habitat Areas of Particular Concern (HAPCs). HAPCs ~~represent~~ are high priority areas for
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conservation, management, protection or research and are necessary for healthy ecosystems and sustainable fisheries.

- Commercially and recreationally important fish stocks managed under the Council's Groundfish, Coastal Pelagic Species, Salmon, and Highly Migratory Species Fishery Management Plans are harvested in the area. Additionally, a number of State-managed fisheries operate in the area. The Project areas are situated in California Department of Fish and Wildlife (CDFW) blocks 643 and 644. Based on data provided by CDFW, over 80 commercially important fish stocks were harvested in those blocks between 1995 and June of 2021. Additional information that reflects recreational catch from those blocks will allow an analysis of the importance of the Project areas to dependent fishing communities.
- The Project areas are situated adjacent to the Vandenberg State Marine Reserve are in close proximity to the Point Conception State Marine Reserve. Identification of the potential cumulative impacts to commercial and recreational fisheries and dependent fishing communities should the Project areas be functionally closed to fishing activities.
- The PEA states that transmission cables will be buried to a depth of five feet. However, this may not be an adequate depth to avoid cables becoming unburied. The Block Island OSW project off Rhode Island originally buried transmission cables at a depth of 4-6 feet below the seafloor. After sediment shifts exposed sections of the cable, the operator of the project reburied the cables at a depth of 25-50 feet. The applicants of the demonstration Projects should consider burying cables deeper under the sea floor to account for the sea state in and around Point Arguello.
- We appreciate the PEA including Appendix F - Commercial Fish Landings for Santa Barbara and Morro Bay Areas. We suggest expanding the range of years to include years prior to 2019, to paint a more accurate picture. California's market squid fishery landed 15,228 short tons (st) during the 2019-20 fishing season, which represents the lowest landing total since the 1999-2000 fishing season. However, that gives an incomplete picture of commercial squid landings. For example, 104,000 st and over 61,000 st were harvested in the 2014-15 and 2017-18 fishing seasons, respectively.
- The CADEMO Project seeks to develop a wind demonstration project. The IDEOL Project seeks to develop an OSW electrical generation pilot project. More information on the goals and the research endeavors, methodologies, and plans would be helpful in analyzing the Projects' benefits. In short, the Council suggests that the following questions be addressed: How will two different types of projects in shallow water help inform floating OSW projects in much deeper water and much further offshore? Are the applicants intending to pursue full scale commercial wind projects in the future? What are the plans for conducting research and reporting out on the findings?

### **Future Engagement and Consultation with the Council**

The Council recently convened an ad hoc Marine Planning Committee (MPC) comprised composed of members from its existing advisory bodies to directly engage on ocean energy development and other emerging ocean industries. The Council, through the MPC, intends to stay

fully engaged in the CSLC's process going forward. The Council appreciates CSLC's participation in the recent MPC meeting. We look forward to working with CSLC to ensure that fishery and fish habitat are fully considered throughout the process.

Please note that the Council's meeting schedule and opportunities for its advisory bodies to inform the Council do not necessarily align with public comment periods of other public processes. We appreciate your consideration of our comments if issues should arise outside the public comment window.

The Council looks forward to assisting CSLC in reviewing its EIR document as it pertains to the CADEMO and IDEOL Projects, as well as in finding development options that minimize impacts to ecological and fisheries resources and in achieving the long-term goal of responsible development of this industry.

Sincerely,

Charles A. Tracy  
Executive Director

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Cc: