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
Pete Hassemer, Chair | Merrick J. Burden, Executive Director

23 January 2026

Ms. Kelly Hammerle
Bureau of Ocean Energy Management (VAM-LD)
45600 Woodland Road
Sterling, VA 20166-9216

Re: 11th National Outer Continental Shelf Oil and Gas Leasing Draft Proposed Program: 1st Analysis and Proposal

Dear Ms. Hammerle,

The Pacific Fishery Management Council (Council) appreciates the opportunity to provide comments on the Bureau of Ocean Energy Management 11th National Outer Continental Shelf Oil and Gas Leasing Draft Proposed Program (DPP) 1st Analysis and Proposal. The Council manages West Coast commercial and recreational fishing for many key California Current species. This includes responsibilities for protecting the marine ecosystem, the habitats upon which healthy fisheries depend, and the wellbeing of coastal fishing communities.

In this letter, we reiterate concerns we have previously conveyed about Oil and Gas (O&G) leasing off the U.S. West Coast, including a lack of engagement with fishing communities as well as inadequate consideration of impacts to fishing-dependent communities, important marine habitats, and the California Current Ecosystem (CCE). In addition, we are very concerned about the adequacy of the information and analysis available for evaluating impacts on fisheries, communities, habitats, and the CCE.

The Council recommends that no Planning or Program Areas should be established in the Pacific Region at this time; there has been inadequate consideration of concerns the Council has previously conveyed and are reiterated in this response. Leasing and development in the Pacific Region expose ecological resources and fishing communities to a risk of significant and irreparable damage. Adverse effects on fishing communities are likely to be irreversible and long-lasting. Notably, the Governors and state agencies from all three west coast states opposed inclusion when commenting in response to the Bureau of Ocean Energy Management's (BOEM) Request For Information[1] and in previous attempts to open waters off the West Coast to O&G development. However, if the Pacific Region remains under consideration in the DPP, the Council

[1] WA:BOEM-2025-0015-003_Washington_State_Comments
OR: BOEM-2025-0015-0003_GTK_ltr_Agency_Comments
CA: BOEM OCS Comment Letter_California_Governor Newsom_2025-0015

will remain engaged and provide additional comments and information throughout BOEM's process.

Council Authorities and Responsibilities

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) governs marine species and fisheries management in U.S. Federal waters (3-200 nm offshore) and provides 10 National Standards for fishery conservation and management, including requiring the prevention of overfishing, using best available science in decision-making, providing for the sustained participation of fishing communities in fisheries, and promoting the safety of life at sea. We consider the MSA, related regulations, and the National Standards fundamental to our purpose and actions. The Council has responsibility to manage marine commercial and recreational fisheries in a manner that:

- Ensures a sustainable and safe domestic seafood supply and cultural benefits from fisheries, by achieving and maintaining, on a continuing basis, the optimum yield from each fishery;
- Protects ecosystem health and sustainability, including protection of essential fish habitat (EFH) and ecosystem services; and
- Minimizes long-term economic and social effects to fisheries and fishing-dependent communities, in part by improving the ability to adapt to environmental variability and competing ocean uses.

Essential Fish Habitat and Conservation Measures

The EFH provisions of the MSA promote the conservation of fisheries by requiring fishery management councils and National Marine Fisheries Service (NMFS) to describe, identify, conserve, and enhance EFH for Council-managed species. As defined at 50 CFR 600.10:

> *Essential fish habitat means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity. For the purpose of interpreting this definition of essential fish habitat: "waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle.*

The MSA requires Councils to identify actions that could have adverse effects on EFH. Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. 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 (50 CFR 600.810). The MSA authorizes the Council to comment on actions that may affect the habitat, including EFH, of a fishery resource under its authority (Section 305(b)(3)(A)) and requires the Council to comment on actions that may substantially affect the habitat of an anadromous fishery resource under its authority (Section 305(b)(3)(B)). The EFH regulations at 50 CFR 600.815 require the Council to identify and describe EFH and potential adverse effects from both fishing and non-fishing

activities, minimize to the extent practicable adverse effects from fishing, and identify actions to conserve and enhance EFH in its fishery management plans (FMP). The Council has also designated numerous habitat areas of particular concern (HAPCs), which are specific types or areas of habitat within EFH that are based on one or more of the following considerations:

(i) The importance of the ecological function provided by the habitat.
(ii) The extent to which the habitat is sensitive to human-induced environmental degradation.
(iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type.
(iv) The rarity of the habitat type.

Although designation of HAPCs includes no inherent restrictions, the designation serves to highlight particularly important habitats. Activities that could affect HAPCs typically receive greater scrutiny during EFH consultations. HAPC designations for groundfish are rocky reefs, canopy kelp, seagrass, estuaries, and areas of interest such as seamounts and canyons.

Spatial Planning Process and Analysis

The decision on where to locate O&G lease sites largely determines the potential impacts to fishing communities, habitats, and the CCE, and siting decisions are of the highest consequence to fishery participants, fishing communities, and the Council. The Council is concerned about how severely unaccounted for ecological resources are in the DPP and in the Offshore Environmental Cost Model 2023 (OECM). Impacts to ecological resources should be evaluated based on their ecological and cultural importance to the Pacific Region as well as their sensitivity to oil and gas development, rather than being monetized solely based on recovery costs. This is particularly important given the biological complexity, sensitivity, and social and cultural value of California's offshore ecosystems. Once lease areas are identified, the opportunity to compare potential O&G development locations is effectively foreclosed by the planning process. Therefore, as described below, the Council believes more focused analysis and engagement is necessary before lease areas are identified.

BOEM's process, as currently proposed, leaves detailed environmental impact analysis to the very end, and again, when the time and funding expended effectively forecloses the consideration of alternative project locations and when an action alternative would appear to be all but a forgone conclusion.

If O&G leasing plans off the west coast move forward, BOEM should first conduct a robust, transparent, and inclusive spatial planning process that engages all interested parties, including the Council and fishing communities, at every step in the planning, analysis, and decision-making. This process should build on BOEM's process for Offshore Wind (OSW) planning off Oregon, while substantially increasing opportunities for input from fisheries managers and local fishing communities as well as including additional (updated) fisheries information that have been under-represented to date. BOEM should rely on the best available fisheries data layers such as those that will be incorporated into the Pacific Fishing Effort Mapping Project (PacFEM).[2] At the same time,

[2] PacFEM is still under development and is expected to be publicly available later this year. See - Pacific Fishing Effort Mapping Project (PacFEM). When completed, PacFEM will be an integrated, spatial fisheries data system to support ecosystem management initiatives, marine planning, and economic analyses of ocean activities.

this work should proceed with the understanding that additional fisheries workgroups and technical advisors will be necessary to advise on data use and address recreational fisheries and other sectors not currently captured.

Furthermore, a robust spatial planning process should incorporate suitability modeling to spatially identify constraints and important fishing areas. In finalizing Wind Energy Areas off Oregon, BOEM published A Wind Energy Area Siting Analysis for the Oregon Call Areas. This spatial suitability model, developed by NOAA's National Centers for Coastal Ocean Science (NCCOS), is based on marine spatial planning analyses of more than 400 data layers. Ecological datasets included within that model would be applicable to Northern California and could further inform O&G spatial planning in the Pacific Region. NMFS, in partnership with the Oregon Department of Fish and Wildlife and the Northwest Fisheries Science Center, collaborated in the development of a novel combined fisheries data layer for select commercial and recreational fisheries for use in the relative suitability model. Similarly, NCCOS developed a Marine Spatial Planning Atlas for Aquaculture Opportunities Areas (AOAs) in the Southern California Bight. The Atlas includes valuable California-specific ecological and fishery resource data that should be included in BOEM's analysis and spatial planning process.

NOAA-led stakeholder engagement provided additional insights into ocean use and led to new modeling methods to identify ocean areas most suitable for development. This collaboration between BOEM and NOAA provided new capacity to BOEM for more comprehensive and transparent spatial planning and should be repeated for identifying O&G lease areas off California. The NOAA/NCCOS models could be adapted for offshore O&G development for each region off California and should include oil spill trajectory modeling to account for probable leak and spill scenarios common to drilling or operational activities. Based on the spatial footprint of likely small/non-catastrophic spill scenarios, BOEM should consider establishing large "no development" buffer zones around all sensitive environments (see Habitat Resources, below) and important fishing areas prior to lease sales.

Section 4.2 of Chapter 9 of the DPP discusses Catastrophic Discharge Events (CDEs). While the DPP describes such as statistically unexpected, the Deepwater Horizon event is still impacting the Gulf. The Council expects the 2nd Analysis will include more discussion about the potential impacts of a catastrophic discharge event within the Pacific Region. As with our concerns expressed related to Offshore Wind, the Council believes the public should understand the down-current impacts of spills of varying sizes, including catastrophic size. We understand that the reforms that followed the Deepwater Horizon catastrophe have made CDEs less likely, yet as noted in the DPP, they are still possible. To be adequate, the analysis should include an oil transport model for oceanography of the California Current Ecosystem to track the spread of contaminants like polycyclic aromatic hydrocarbons (PAH) that can be "toxic and invisible"[3] and the potential harm to the larval and juvenile fish for Council-managed species and the species they depend on.

The Council encourages BOEM to collaborate with NCCOS, NMFS, and State fisheries managers on this robust marine spatial planning for all analyses and planning stages going forward. This collaboration would build upon well-vetted methodologies, data resources, and modeling methods

[3] See - Igal Berenshtein et al., Invisible oil beyond the Deepwater Horizon satellite footprint. Sci. Adv.6, eaaw8863(2020). DOI:10.1126/sciadv.aaw8863 (https://www.science.org/doi/full/10.1126/sciadv.aaw8863)

and ensure that ecological resources and fishing economies are appropriately considered and protected from the outset. Early engagement in the process will provide the highest level of ocean intelligence to inform O&G development off California.

Fisheries and Fishing-Dependent Communities

The DPP substantially under-reports the economic contributions of California commercial and recreational fisheries. As reported in the Fisheries Economics of the United States 2022 (NMFS 2024)), California generated the largest employment impacts in the Pacific Region, as well as the largest sales, value-added, and income impacts. These contributions are not properly reflected in Section 8.2 (Pacific Region) of the DPP, resulting in a misrepresentation of the socioeconomic importance of fisheries to coastal communities and their respective regions, which can lead to the displacement of these resources.

NOAA 2024 shows the Pacific Region's[4] commercial fisheries contributed the following economic impacts in 2022.

State	Jobs	Sales	Income	Value-Added
California	187,519	$31Billion	$6.6 Billion	$11 Billion
Oregon	15,059	$1.26 Billion	$382.8 Million	$559.6 Million
Washington	$87,896	$11.3 Billion	$2.9 Billion	$4.5 Billion

Source – Fisheries Economics of the United States 2022 (November 2024) - Table 3,

Additionally, the Pacific Region's recreational fisheries contributed the following in 2022.

State	Jobs	Sales	Income	Value-Added
California	5,799	$922 Million	$368 Million	$538 Million
Oregon	890	$106 Million	$41 Million	$66 Million
Washington	848	$152 Million	$45 Million	$87 Million

Source – Fisheries Economics of the United States 2022 (November 2024) - Table 7.

With respect to the DPP Section 9.2.2.2 (Pacific Region - Pelagic Environment), while the discussion identifies numerous commercially valuable pelagic species, it notably excludes any discussion of groundfish species except in the context of EFH. It includes discussion of marine mammal and sea bird species but does not include Southern Sea Otters. These important omissions further highlight the need for a more comprehensive and regionally relevant environmental analysis. **The Council recommends BOEM contact Council staff and other subject matter experts to ensure the most up to date fishery and habitat information is being utilized.**

[4] The Pacific Region includes California, Oregon and Washington

The Council is very concerned about the impacts of potential O&G development on coastal communities, transit and navigation, human safety, and that access to important fishing grounds may be impeded. Given the complexity and geographic and management nuances of west coast fisheries, the Council anticipates submitting more detailed comments related to potential impacts on fisheries and fishing communities, safety, and navigation after the 2nd Analysis is published.

Habitat Resources

The Pacific Ocean off the California coast is one of the world's most biologically productive and diverse marine ecosystems. California's Outer Continental Shelf region encompasses biologically important systems, including the Southern California Bight, island marine ecosystems, and the Central Coast upwelling zones that support highly productive waters critical for the reproductive success of commercially important fish species, as well as Northern California canyon and deep-water ecosystems that include benthic habitats, seabird foraging areas, and whale migratory corridors. These regions are also known for supporting kelp forest, rocky reef, and extensive coral and sponge habitats, which in turn support important commercial and recreational fisheries, tourism, and coastal communities.

Under the EFH provisions of the MSA, the Council has designated 77 Essential Fish Habitat Conservation Areas (EFHCAs) in Federal waters off the West Coast, of which 52 EFHCAs are located off California that encompass more than 73,000 km^2, including 45,000 km^2 within the Southern California Bight EFHCA (Figure 1).The Council has also designated 319,000 km^2 of the EEZ from Mendocino Ridge to the U.S.-Mexico maritime boundary as the Deep-Sea Ecosystem Conservation Area (DECA). The EFHCAs and the DECA were designated to protect important and sensitive benthic species and habitats vulnerable to seafloor disturbance. Fragile deep-sea coral and sponge communities provide structural habitat for Council-managed species, and nowhere on the west coast is this more prevalent than the waters off southern California. While all designated areas contain a high degree of HAPC, additional areas (mapped and unmapped) containing HAPCs and other sensitive habitats (corals, methane seeps) occur throughout the region but were not designated as EFHCAs during the 2020 EFH Review process. **The Council strongly recommends that all environmentally sensitive areas should be excluded from leasing.**

Like deep-sea corals, deepwater methane seeps are designated EFH for groundfish and are highly sensitive to disturbance. Recent extensive multibeam sonar surveys and mapping of methane seeps and carbonate deposits have revealed more than 1,000 new methane emission sites and more than 3,000 associated bubble streams off Washington, Oregon, and northern California (Figure 2) (Rudebusch et al 2023, Merle et al 2021, Riedel et al 2018 and Johnson et al. 2015). Methane seeps are the source of unique chemosynthetic habitats and biodiversity hot spots in the deep ocean for both common and specialized species. Additionally, chemosynthetic processes associated with methane seeps are responsible for the formation of rock; a necessary habitat component for numerous Council-managed species and their prey. These highly fragile, important habitats should be entirely excluded from all oil/gas lease areas. The same mapping surveys indicate considerable areas of hard substrate (rock) at locations previously mapped as soft sediment. As with all HAPCs identified under the EFH provisions of the MSA, rocky habitat is especially important for groundfish species in West Coast fisheries and should be entirely excluded from oil/gas lease areas.

The Council recommends that the DPP 2nd Analysis incorporate regional, California-specific seafloor mapping and modeling and appropriately scaled habitat assessments, rather than relying on a statewide-only approach.

Seafloor habitats of the shelf, slope[5], and canyons off California support diverse biological communities that include rare, fragile species of deep-sea corals and sponges (DSCS). Many species of DSCS provide three-dimensional structure as habitat for other deep-water fishes, including those important to commercial and recreational fisheries, but their delicate nature and slow growth rates make them especially vulnerable to physical impact. Recovery can take decades or longer, while others never recover. Early in BOEM's West Coast offshore renewable energy process, BOEM funded NCCOS to model and map the distributions of deep-sea corals and sponges and benthic macrofauna (Poti et al, 2020). BOEM should include these models and survey data available from NOAA's Deep Sea Coral Research and Technology Program (and other sources of data for waters off California) as part of a comprehensive siting suitability analysis (as discussed above) to identify DSCS habitats to exclude from O&G lease areas.

The Council recommends that BOEM provide a more detailed analysis of the benthic environment in any proposed lease areas, and the potential impacts that could arise from oil and gas leasing activities. This should include a summary of existing environmental conditions and a description of potential impacts from the DPP on physical, biological, and benthic resources. Sensitive benthic areas that may qualify for exclusion from development should be identified, along with potential mitigation measures for activities that could result in environmental impacts.

Summary

In summary, BOEM should remove the Pacific Region from further consideration for future oil and gas leasing activities at this time due to inadequate information and consideration of issues and concerns the Council has raised. In the alternative, BOEM should analyze all available information on sensitive seafloor habitats off California (including but not limited to all multibeam and backscatter data, methane seeps/bubble stream locations, DSCS modeling and survey data) and incorporate these data into suitability modeling *prior to* leasing any areas for O&G exploration or development. Furthermore, BOEM should avoid leasing areas that intersect these habitats or that are in the likely path of oil spill trajectories. Additionally, BOEM should establish sufficient buffers to protect important habitats and fishing grounds from survey activities in the vicinity.

Prior to leasing any areas, BOEM should also conduct meaningful engagement with affected coastal fishing communities, commercial and recreational fishing sectors, and with the Council, to ensure adequate consideration of (and potential exclusion from leasing) areas that are vital to sustained fishing activities. Safety at sea, navigation, and access to important fishing grounds are critical factors that must be considered in future DPP analyses.

If BOEM's process for the Pacific Region moves forward, the Council will recommend additional environmental and socioeconomic analysis that identifies and evaluates potential impacts, while also clarifying where impacts would be least harmful to fisheries and the ecological resources upon which our fisheries depend. BOEM should ensure the decisions on how to meet U.S. energy goals

[5] The upper slope areas are ecotones and upwelling areas used by many highly migratory fish species, whales, and other marine mammals for migration and feeding.

not only minimize adverse impacts on fisheries and fishing communities, but is done through an open, transparent, and comprehensive process.

Sincerely,

Council Chair

KFG:kma

Cc: Council Members

References

Johnson, H. P., Miller, U. K., Salmi, M. S., and Solomon, E. A. 2015. Analysis of bubble plume distributions to evaluate methane hydrate decomposition on the continental slope. Geochem. Geophys. Geosystems 16, 3825–3839. doi:10.1002/2015GC005955

Merle et al. 2021. *Distribution of Methane Plumes on Cascadia Margin and Implications for the Landward Limit of Methane Hydrate Stability*. Earth Sci., 24 March 2021.

Poti, M., S.K. Henkel, J.J. Bizzarro, T.F. Hourigan, M.E. Clarke, C.E. Whitmire, A. Powell, M.M. Yoklavich, L. Bauer, A.J. Winship, M. Coyne, D.J. Gillett, L. Gilbane, J. Christensen, and C.F.G. Jeffrey. 2020. Cross-Shelf Habitat Suitability Modeling: Characterizing Potential Distributions of Deep-Sea Corals, Sponges, and Macrofauna Offshore of the US West Coast. Camarillo (CA): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2020-021. 267 p.

Riedel, M., Scherwath, M., Römer, M., Veloso, M., Heesemann, M., and Spence, G. D. (2018). Distributed natural gas venting offshore along the Cascadia margin. Nat. Commun. 9, 3264. doi:10.1038/s41467-018-05736-x

Rudebusch JA, Prouty NG, Conrad JE, Watt JT, Kluesner JW, Hill JC, Miller NC, Watson SJ and Hillman JIT. 2023. Diving deeper into seep distribution along the Cascadia convergent margin, United States. Front. Earth Sci. 11:1205211. doi: 10.3389/feart.2023.1205211

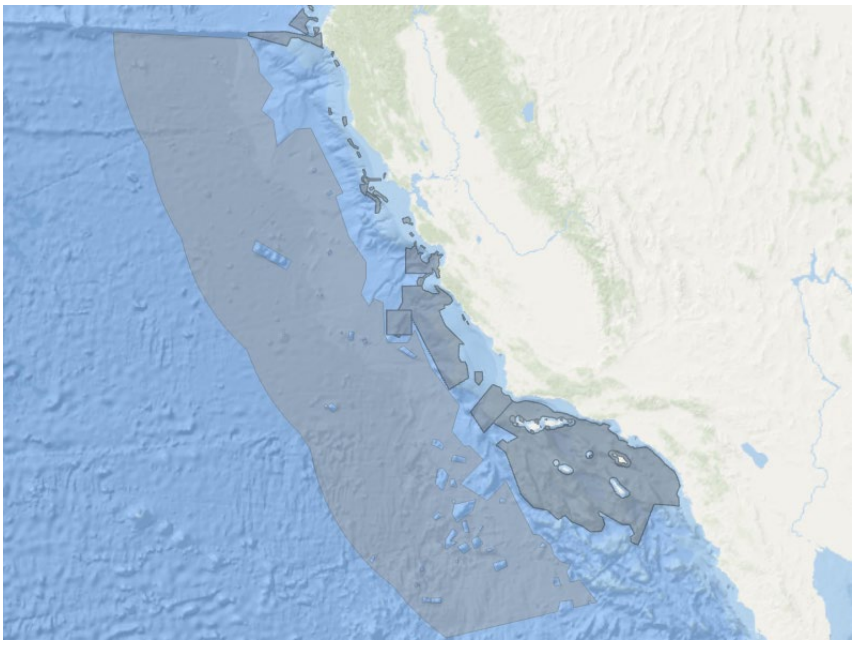

Figure 1. Map of Council-designated EFHCAs and DECA off California.

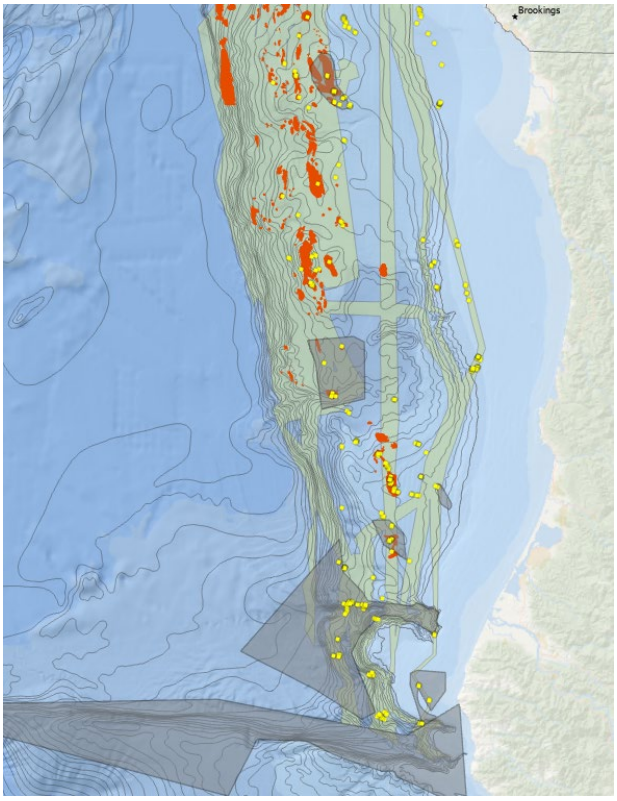

Figure 2. Recent mapping surveys on the Cascadia Margin off northern California. Red areas indicate new rocky habitat. Yellow areas are newly mapped methane seeps/bubble streams.