

HABITAT COMMITTEE REPORT ON PROPOSED POLICY GUIDANCE FOR OFFSHORE DEVELOPMENT ACTIVITIES

Purpose

The purpose of this policy is to identify for the Pacific Fishery Management (Council), its advisory bodies, agencies, and ocean industry developers the range of issues associated with offshore development that are likely to affect Council fisheries, fishery resources and coastal fishing communities; and to document the Council's expectations of action agencies and industry developers to address these issues.

Policy Objectives

The Council has responsibility, along with the National Marine Fisheries Service (NMFS), 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
- Provides long-term economic and social benefits of fisheries and fishing-dependent communities, including the ability to adapt to climate change and competing ocean uses.

The intent of this policy is to document the Council's expectations for analysis of impacts resulting from actions such as offshore wind (OSW) energy, aquaculture, and other offshore development that may affect habitat, fisheries, or coastal communities. While the Council is responsible for minimizing the negative effects of fishing activities on habitats and fishery management plans (FMPs) must describe potential adverse effects of fishing activities and include minimization measures, this document is primarily focused on the potential effects of non-fishing activities on habitats and fisheries. Impacts from fishing activities are outside the scope of this policy document.

The Council's approach, similar to that of the National Environmental Policy Act (NEPA), is to first avoid impacts when practicable, then minimize impacts to the extent possible. For those impacts which cannot be avoided, appropriate mitigation measures must be implemented. When impacts are unavoidable and cannot be sufficiently mitigated by minimizing, rectifying, reducing, or eliminating the impact over time, compensatory mitigation should be considered. For social and economic impacts that are unavoidable, the Council may recommend that financial compensation should be considered. While the Council typically uses the NEPA structure to consider all potential effects of fishing actions on the environment, including social and economic effects, the interests of the Council and the scope of potential impacts can extend beyond the structure of NEPA. Council policies on offshore development activities are consistent with NEPA, and mitigation expectations are closely aligned with those of NEPA.¹ However, the Council's policy on analysis and mitigation of impacts extend beyond NEPA requirements in some cases.

¹ 40 CFR § 1508.1(s)

The Council's approach for addressing the potential effects of offshore development on fisheries and EFH include the following:

- Avoid negative impacts of non-fishing actions on fisheries and EFH whenever practicable
 - Prioritize development (of non-fishing activities) outside known fishing areas, which can mean siting development in waters deeper than the 1300 m depth contour (approximately 700 fathoms – the bottom trawl closure footprint area). Ensuring that offshore non-fishing activities occur outside of the most-used fishing areas will help minimize interaction with Council-managed fisheries as well as minimize potential impacts to important habitats. Highly Migratory Species (HMS), Pacific hake, and other fisheries may still be affected in areas deeper than 1300m; however, the bulk of Council-managed fisheries occur inshore of this depth contour.
 - Avoid disturbance to important habitats, including Essential Fish Habitat Conservation Areas (EFHCA), Habitat Areas of Particular Concern (HAPC) and habitats supporting structure-forming invertebrates such as deep-sea corals and sponges.
- If negative impacts cannot be avoided, agencies and project developers should implement mitigation measures to minimize impacts, such as (but not limited to) the following:
 - Buffer zones of sufficient size surrounding important physical and oceanographic habitat features (e.g., rocky reefs, banks, canyons, methane seeps, localized eddies etc.), fishing activity, transit lanes, etc.
 - Construction and operations timing windows to minimize impacts to spawning/rearing, migration, and important fishery seasons and locations.
 - Technologies and actions to minimize and mitigate impacts, including, burying cables, reducing noise, and minimizing pollutants.
 - Locate structures and cables to minimize overlap with important habitats and fisheries activities.
- Compensation: The Council's preference is for offshore non-fishing activities to avoid and prevent impacts to fisheries and fishing-dependent communities. However, when impacts are unavoidable, the Council may support establishment of an enduring compensation fund under local control. There are existing entities such as undersea telecommunication cable committees that may serve as models for such compensation funds.

This document provides guidance reflecting the Council's overall approach to analyzing, minimizing, mitigating, and compensating for the potential effects of offshore non-fishing activities on fisheries and habitat. Any proposed development or planning for offshore development should include a detailed examination of maps, data, and information for the action area, including adjacent areas that may be affected by marine development activities. An analysis

(s) Mitigation means measures that avoid, minimize, or compensate for effects caused by a proposed action or alternatives as described in an environmental document or record of decision and that have a nexus to those effects. While NEPA requires consideration of mitigation, it does not mandate the form or adoption of any mitigation. Mitigation includes:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (5) Compensating for the impact by replacing or providing substitute resources or environments.

of the cumulative impacts of known or likely proposed developments should be undertaken, as required by NEPA. While this guidance provides a template and general expectations related to offshore development activities, it is incumbent upon agencies, developers, and consultants to incorporate local information, data, and outreach while considering siting as well as developing analyses of impacts and other related products.

Council authorities on non-fishing impacts

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) EFH implementing regulations at 50 CFR §600.805 *et seq.*, address the effects of both fishing and non-fishing activities on EFH. Regarding effects from non-fishing activities, Federal regulations require FMPs to describe and identify EFH, identify non-fishing activities that may adversely affect² EFH, develop conservation measures to minimize impacts, analyze how the cumulative impacts of non-fishing activities influence the function of EFH on an ecosystem or watershed scale, and consider identifying HAPC for species under its authority. EFH is defined at 50 CFR §600.10³.

The MSA further authorizes the Council to comment on any Federal or state agency activity that may affect the habitat, including EFH, of a fishery resource under its authority, and requires the Council to comment on any action or activity that is likely to substantially affect EFH of an anadromous fishery resource under its authority.

National Standards

The MSA includes ten National Standards (NS) that are principles that must be followed in any FMP to ensure sustainable and responsible fishery management. NMFS has developed regulatory guidance for the ten National Standards (50 CFR Part 600 Subpart D). We highlight three here that may be particularly relevant when considering the effects of offshore non-fishing activities on fishery resources:

- Optimum Yield (NS1): “Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery for the U.S. fishing industry.” OY is defined as “...a decisional mechanism for resolving the Magnuson-Stevens Act's conservation and management objectives, achieving an FMP's objectives, and balancing the various interests that comprise the greatest overall benefits to the Nation.” (50 CFR § 600.310).

² 50 CFR §600.810(a) defines Adverse Effect as follows, any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations 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 and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.”

³ 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.

- Communities (NS8): “Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that are based upon the best scientific information available in order to (1) Provide for the sustained participation of such communities; and (2) To the extent practicable, minimize adverse economic impacts on such communities.” (50 CFR § 600.310).
- Safety (NS10): “Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.” (50 CFR § 600.310).

Habitat resources potentially affected by offshore development activities

Essential Fish Habitat and Habitat Areas of Particular Concern

Physical and biogenic habitats provide spawning, rearing, and feeding habitat for fish species and support ecosystem services. Fishery management plans and/or appendices include detailed descriptions of EFH for groundfish, Coastal Pelagic Species (CPS), Highly Migratory Species (HMS), and Pacific salmon, and are available on the Council [website](#). Analysis of impacts from offshore development activities should be based on, but not limited to, the habitats identified and described in FMPs.

HAPCs are specific types or areas of habitat within EFH that highlight especially important habitats. The identification of HAPCs serves to emphasize those areas or habitats, especially in the context of the Council’s authority to provide comment and recommendations under MSA 305(b)(3)(A) 305(b)(3)(B). Identification of HAPCs should be based on consideration of:

1. The importance of the ecological function provided by the habitat.
2. The extent to which the habitat is sensitive to human-induced environmental degradation.
3. Whether, and to what extent, development activities are, or will be, stressing the habitat type.
4. The rarity of the habitat type.

Pacific Coast Groundfish EFH

The overall spatial extent of Pacific Coast Groundfish EFH is defined as:

- depths less than or equal to 3,500 m (1,914 fm) to mean higher high water level or the upriver extent of saltwater intrusion, defined as upstream and landward to where ocean-derived salts measure less than 0.5 ppt during the period of average annual low flow;
- Seamounts in depths greater than 3,500 m; and
- Areas designated as HAPCs not already identified by the above criteria.

Groundfish EFH is further defined by a Habitat Suitability Probability model that includes the HAPCs below as well as prey species, habitat use by life stage, and methane seeps, as described in Appendix B Part 2 of the Groundfish FMP.

The Groundfish FMP includes the following HAPCs:

- Estuaries
- Canopy kelp
- Seagrass

- Rocky reefs
- Areas of interest

Pacific Salmon EFH

The spatial extent of Pacific salmon EFH is defined as all water bodies currently or historically occupied by Council-managed salmon. In the estuarine and marine areas, salmon EFH extends from the extreme high tide line in nearshore and tidal submerged environments within state territorial waters out to the full extent of the Exclusive Economic Zone (EEZ) (200 nautical miles or 370.4 km) offshore of Washington, Oregon, and California north of Point Conception. Pacific Coast salmon EFH also includes the marine areas off Alaska designated as salmon EFH by the North Pacific Fishery Management Council (NPFMC). Appendix A to the Pacific Coast Salmon Fishery Management Plan contains the Council's complete identification and description of Pacific coast salmon EFH, along with a detailed assessment of adverse impacts and actions to encourage conservation and enhancement of EFH. A detailed description of salmon EFH is in [Appendix A](#) to the Pacific Salmon FMP.

The Pacific salmon FMP includes the following HAPCs:

- Complex channels and floodplain habitats
- Thermal refugia
- Spawning habitat
- Estuaries
- Marine and estuarine SAV

Highly Migratory Species EFH

EFH for most HMS, which is defined per species, is in U.S. EEZ waters south of Central California. However, some species such as albacore tuna, range from the U.S.-Mexico border to the U.S.-Canada border. Detailed descriptions and maps depicting HMS EFH can be found on the Council's [HMS FMP webpage](#).

Coastal Pelagic Species EFH

The east-west geographic boundary of EFH for CPS is defined to be all marine and estuarine waters from the shoreline along the coasts of California, Oregon, and Washington offshore to the limits of the EEZ and above the thermocline where sea surface temperatures range between 10°C to 26°C. The southern boundary is the United States-Mexico maritime boundary. The northern boundary is more dynamic and is defined as the position of the 10°C isotherm, which varies seasonally and annually.

Other Pacific Council resources potentially impacted by offshore development activities

In addition to habitat impacts, the Council has identified several ongoing activities that may be impacted by offshore development. Potential impacts to these activities should be analyzed during planning and or development activities.

- National Oceanic and Atmospheric Administration (NOAA) and cooperative ship-based surveys
- Ongoing research related to habitat impacts, recovery, and baseline assessments
- NOAA Deepsea Research and Technology Program research activities

Offshore development activities that may impact habitat resources

Several components of offshore development are likely to impact habitat resources. Existing habitat features can be impacted by the physical presence of OSW structures and other facilities, by transmission and inter-array cables, by construction and pre-development site preparation, and by regular operations and maintenance activities. Each Council FMP contains descriptions of non-fishing impacts and conservation measures.

The Council is concerned about the direct, indirect, and cumulative impacts of offshore development activities on habitats that support commercial and recreational fisheries, and that provide ecosystem services. Potential impacts to habitats and species (including protected species under the Endangered Species Act and the Marine Mammal Protection Act) from offshore development activities include, but are not limited to:

- Physical alteration of habitat features
- Effects on organisms on or in the vicinity of infrastructure related to offshore development
- Introduction, establishment, or proliferation of aquatic invasive species
- Effects of noise and vibration on marine life
- Effects of at-sea removal of biofouling
- Oil and hazardous material spills
- Release of marine debris
- Effects on water quality as it affects marine fauna and flora
- Effects on habitats from increases in or changes to vessel traffic patterns
- Drilling into the sea floor to install anchors
- Laying Inter-array and transmission cables
- The action of operating turbines
- Disturbance of species during construction, installation, and maintenance
- Aggregation of fishes and their predators, with consequent increases in natural mortality
- Scouring and sediment plume formation caused by seafloor trenching and transmission cable burial, as well as the continued presence of physical structures left in place
- Impacts of electromagnetic fields from suspended midwater and subsurface transmission cables
- Impacts of the extensive geological and geophysical surveys, including seismic surveys, that may be conducted to inform project design; and
- Effects from increased vessel traffic and anchoring during surveys

Expectations for analysis and monitoring of impacts to habitat resources

Detailed analyses of impacts to habitat resources are necessary to provide the information required to identify optimal planning, siting, construction, and operations of offshore development. These analyses should include, but not be limited to, the following:

- Analyzing the duration, intensity, and magnitude of potential impacts to habitat resources
- Analyzing impacts to species diversity and abundance, including prey species for Council-managed stocks
- Evaluating recovery times for each habitat type that is potentially impacted

Cumulative Effects

The current Administration has pursued an ambitious plan to develop alternative energy, including OSW energy, and it is therefore likely that such offshore development activities will continue for many years. It is therefore extremely important for Federal and state agencies as well as project developers to analyze the potential cumulative effects of multiple projects that are reasonably likely to occur. Given that OSW projects are likely to take many years to come to fruition, cumulative analyses should consider a time horizon of decades rather than years.

Monitoring Plans

Agencies and developers should also produce detailed monitoring plans that include baseline assessments, specific plans for long-term monitoring, and a description of how developers will work with the Federal fisheries science centers, management agencies, research institutions, and/or private consultants to develop monitoring plans. Developers should evaluate and report results over time so that the determination of impacts is credible and rigorous, and developers should report how they intend to use monitoring results to adjust their operations and infrastructure, as appropriate.

Outreach and engagement plan

Agencies and developers should provide a detailed engagement plan that includes multiple opportunities for information exchange with a variety of stakeholders, especially in the commercial and recreational fishing sectors. Outreach should not be limited to large group or online meetings. In some cases, individual engagement is highly effective way to gain important local knowledge. Outreach and engagement could entail verbal or written reporting directly to the Council.

PFMC

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