

## Call for Information and Data Pacific Salmon Essential Fish Habitat Review

The Pacific Fishery Management Council (Council) seeks information and data to support the review and potential revisions to Pacific Coast Salmon Essential Fish Habitat (EFH). The information can include, but is not limited to, peer-reviewed literature, unpublished scientific reports, data from government resource agencies, fisheries reports, and other sources of information, including previously unavailable or inaccessible data. The Council will consider different types of information according to its scientific rigor.

### **Background**

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires regional fishery management councils to describe and identify essential fish habitat for species managed under an FMP. The MSA defines EFH as *‘those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.’* The FMP generally defines Pacific Coast Salmon EFH as *‘those waters and substrate necessary for salmon production needed to support a long-term sustainable salmon fishery and salmon contributions to a healthy ecosystem.’* It goes on to describe the geographic extent and characteristics of EFH in freshwater, estuarine, and marine waters in text, tables, and maps. The Pacific Coast Salmon FMP and EFH provisions can be found on the Council’s [webpage](#). FMP Appendix A contains the detailed EFH provisions, maps, rationale, and other background information on salmon EFH.

Species managed under the FMP include Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), and Puget Sound pink salmon (*O. gorbuscha*). Sockeye salmon (*O. nerka*), chum salmon (*O. keta*), steelhead (*O. mykiss*), and pink salmon outside of the Puget Sound watershed are not managed under the salmon FMP and EFH is therefore not designated for those species.

The EFH regulatory guidance at [50 CFR§600.815\(a\)](#) provides additional details on developing EFH provisions. The mandatory contents described in the regulations are divided into 10 subject areas, which form the basis of EFH provisions and are summarized below. Respondents should read the regulations for additional clarification and information.

### **1. Description and Identification of EFH**

50 CFR 600.815(a)(1)(i) includes an overview of the description and identification of EFH: *“FMPs should explain the physical, biological, and chemical characteristics of EFH and, if known, how these characteristics influence the use of EFH by the species/life stage. FMPs must identify the specific geographic location or extent of habitats described as EFH. FMPs must include maps of the geographic locations of EFH or the geographic boundaries within which EFH for each species and life stage is found.”* Additional, extensive guidance on the types of information that should be considered when describing and identifying EFH, including mapping requirements, is available at 50 CFR 600.815(a)(1).

## **2. Fishing activities that may adversely impact EFH**

The EFH regulatory guidance addresses fishing activities that may adversely affect EFH at 50 CFR 600.815(a)(2). FMPs must identify and evaluate fishing activities regulated under the FMP or other Federal FMPs that may adversely affect EFH. Each FMP must also minimize to the extent practicable adverse effects from fishing on EFH, including EFH designated under other FMPs. If deemed necessary and practicable, measures may include fishing equipment restrictions, time/area closures, harvest limits, or other measures as appropriate.

## **3. Non-MSA fishing activities that may adversely affect EFH**

FMPs must identify fishing activities not managed under the MSA (typically state-managed fisheries) that may adversely affect EFH (50 CFR 600.815(a)(3)).

## **4. Non-fishing related activities that may adversely affect EFH**

FMPs must identify non-fishing activities that may adversely affect EFH. Such activities could include, but are not limited to, dredging, impoundment, discharge, hazardous materials, construction, ocean energy development, or the conversion of aquatic habitat that may eliminate, diminish, or disrupt the functions of EFH. Activities do not need to be within the geographic boundaries of EFH in order to adversely affect EFH. Therefore, activities such as silviculture operations, agriculture, mining, or other activities may be considered as potential adverse effects. For each activity, the FMP should describe known and potential adverse effects to EFH from each activity (50 CFR 600.815(a)(4)).

## **5. Cumulative impacts**

FMPs should include information that may contribute to an analysis of cumulative impacts of fishing and non-fishing activities. The cumulative and synergistic effects of multiple threats, including natural stresses and an assessment of the ecological risks resulting from the impact of those threats on EFH, also should be included (50 CFR 600.815(a)(5)).

## **6. Conservation and enhancement**

FMPs must include information related to the conservation and enhancement of EFH, including recommended options to avoid, minimize, or compensate for the adverse effects identified pursuant to non-MSA fishing activities, non-fishing activities, and cumulative impacts, especially in habitat areas of particular concern (50 CFR 600.815(a)(6)).

## **7. Prey species**

The FMP must include information related to the major prey species of Pacific salmon, including actions that reduce the availability of a major prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat that are known to cause a reduction in the population of the prey species. Because the presence of prey makes waters and substrate function as feeding habitat, such actions may be considered adverse effects on EFH if they reduce the quality of EFH. FMPs should list the major prey species and the location of prey species' habitat (50 CFR 600.815(a)(7)).

## **8. Identification of habitat areas of particular concern**

50 CFR 600.815(a)(8) addresses habitat areas of particular concern (HAPCs). HAPCs are subsets of EFH that are considered especially important and may warrant additional consideration for protection from fishing or non-fishing activities, although there are no inherent regulations or restrictions that accompany the identification of HAPCs. HAPCs should be 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.

The FMP identifies the following five HAPCs for Pacific Coast Salmon: complex channels and floodplains, thermal refugia, spawning habitat, estuaries, and marine and estuarine submerged aquatic vegetation. These HAPCs are described in FMP Appendix A section 2.4. The Council seeks information on these or other potential HAPCs.

## **9. Research and information needs**

FMPs should contain ‘*recommendations for research efforts that the Councils and NMFS view as necessary to improve upon the description and identification of EFH, the identification of threats to EFH from fishing and other activities, and the development of conservation and enhancement measures for EFH*’ (50 CFR 600.815(a)(9)).

## **10. Review and revision**

FMPs should describe procedures for periodic reviews of EFH provisions (50 CFR 600.815(a)(10)). Council Operating Procedure 22 describes the Council’s approach to EFH reviews.

### **Other information**

#### **Impassable barriers**

[Appendix A](#) of the Salmon FMP includes a list of dams (Table 1) considered to be impassable barriers above which EFH was not designated. Appendix A also includes a set of criteria for determining whether a human-made barrier should be considered impassable. The Council seeks information related to human-made barriers that are on the list in Table 1 but have since been removed or fish passage has been implemented. In such cases, the Council seeks information to identify the next upstream impassable barrier, if any.

#### **Geographic extent of salmon habitat**

The Salmon FMP describes the freshwater extent of EFH to be those waters that are currently or historically occupied by Council-managed salmon. In determining the geographic extent of salmon EFH, the Council adopted an inclusive, watershed-based approach, and designated EFH at

the level of the U.S. Geological Survey (USGS) 4<sup>th</sup> field hydrologic units (HUs). The rationale for this approach is described in FMP Appendix A Chapter 2.1.

Other approaches to designating the geographic extent of EFH may be considered during this review. This could include designating EFH by stream reaches or by smaller USGS HUs. Depending on the chosen approach, the Council would need to determine the upstream extent of freshwater EFH for each stream or HU. The Council seeks information on currently or historically accessible waters to support the determination of the upstream freshwater extent as well as the overall geographic extent of salmon habitat. The Council also seeks information that can help determine accessible freshwater salmon habitats. The Council is particularly interested in data, models, maps, or other information to help determine the extent and limits of accessible freshwater habitats.

### **How to submit comments**

*[Instructions on how and when to submit information]*

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