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 The information can include, but is not limited to, peer-reviewed literature, unpublished scientific reports, data from government resource agencies, fisheries reports, and other sources of information, including previously unavailable or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.

This comment period is open September 4, 2025, through 11:59 p.m. December 3, 2025.

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 a fishery management plan (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 salmon webpage. FMP Appendix A contains the detailed EFH provisions, maps, rationale, and other background information on salmon EFH. Maps, metadata, and additional information can be found on the National EFH Mapper.

Species managed under the FMP include Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), and Puget Sound pink salmon (*O. gorbuscha*). The following species are not managed under the salmon FMP and EFH is therefore not designated for these species: Sockeye salmon (*O. nerka*), chum salmon (*O. keta*), steelhead (*O. mykiss*), and pink salmon outside of the Puget Sound watershed. Information submitted specific to species that are not managed under the Council's FMP may not be considered.

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) 4th 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

Electronic files should be submitted via THIS FORM. Please note the following important information:

- You are responsible for ensuring any information submitted is publicly available and that you have permission to distribute it.
- Information submitted via this process will eventually become publicly accessible.
- Please contact Kerry Griffin (Kerry.griffin@pcouncil.org; 503-820-2409) with any questions or concerns.
- For technical issues associated with the submission form, please contact Kris Kleinschmidt (kris.kleinschmidt@pcouncil.org; 503-820-2412.
- Spatial data must conform to the requirements in Appendix 1 (below) and must include metadata.

Appendix 1: GIS data submittal Requirements

These specifications provide general guidelines for submitting GIS data to support the Salmon EFH review. If you have questions, please contact Kerry Griffin (Kerry.griffin@pcouncil.org) or Eric Chavez (Eric.chavez@noaa.gov).

Acceptable GIS Data Formats
The following file formats are accepted, and each dataset must include an associated metadata document:

GIS Data Formats

- Shapefile (.shp, .shx, .dbf, .prj, .sbx, .sbn)
- File Geodatabase (.gdb)

Requirements for Shapefiles and Geodatabases

- A shapefile must contain at least three essential files (.shp, .shx, .dbf) and must have a defined projection, requiring inclusion of a .prj file.
- A geodatabase should contain all relevant features in the appropriate digital format (point, line, polygon)
- All spatial features must be attributed and include logically named attribute fields.
- An attribute key should be provided as an addendum to the geodatabase/shapefile or included in the metadata's attribute section.
- Units of measure must be specified within attribute fields and in the metadata.

Note: Raw data will not be accepted

Projection Requirements
All GIS files submitted to NOAA Fisheries/PFMC for the Salmon EFH review must include spatial reference information that describes the projection, datum, and, where applicable, the collection methods.
NOAA Fisheries/PFMC prefers data to be submitted using a geographic coordinate system with decimal degree units and either the NAD83 or WGS84 datum.

Note: data lacking a defined spatial reference will not be accepted

Metadata Requirements
All GIS files submitted to NOAA Fisheries/PFMC for the Salmon EFH review must be accompanied by metadata. Metadata ensures transparency and informed use by documenting data accuracy, source, and appropriate applications.
Metadata should be provided for each spatial layer and must include at least the following elements:

- **Title:** A descriptive name of the dataset or item.
- **Summary:** A brief overview of the dataset
- **Description:** Detailed information about the dataset, including its purpose, scope, and limitations.
- **Use Constraints:** Any restrictions on how the data can be used or distributed.
- **Data Quality Information:** Details on accuracy, completeness, and consistency.
- **Spatial Reference:** Information about the coordinate system used.
- **Units:** Specifies the units of measurement for attributes (e.g., meters, feet, acres)

- **Data Date:** The date of creation or last update.
- **Appropriate Scale Range:** The range of scales for which the data is suitable.
- **Attribute:** Details on dataset attributes, including field descriptions and definitions of codes or acronyms.
- **Contact Information:** Details of the person or organization responsible for the data.

Note: Data will not be accepted without metadata