

## 4.1 ESSENTIAL FISH HABITAT

*"...Describe and identify essential fish habitat for the fishery . . . minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;"*

*Magnuson-Stevens Act, §303(a)(7)*

Protecting, restoring, and enhancing the natural productivity of salmon habitat, especially the estuarine and freshwater areas, is an extremely difficult challenge that must be achieved if salmon fisheries are to remain healthy for future generations. Section 3(10) of the MSA defines EFH as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The following interpretations have been made by NMFS to clarify this definition: waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include historical areas if 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.

### 4.1.1 Identification and Description

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. Pacific coast salmon EFH includes those waters and substrate necessary for salmon production needed to support a long-term sustainable salmon fishery and salmon contributions to a healthy ecosystem. 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 (200 nautical miles or 370.4 km) offshore of Washington, Oregon, and California north of Point Conception. Foreign waters off Canada, while still salmon habitat, are not included in salmon EFH, because they are outside U.S. jurisdiction. Pacific coast salmon EFH also includes the marine areas off Alaska designated as salmon EFH by the North Pacific Fishery Management Council. The geographic extent of freshwater EFH is specifically identified as all habitats that are currently occupied by Council-managed salmon as well as most of the habitats that were historically, but are not currently, occupied by these salmon in fresh water, salmon EFH includes all those streams, lakes, ponds, wetlands, and other currently viable water bodies and most of the habitat historically accessible to salmon (except above certain impassable natural barriers Washington, Oregon, Idaho, and California as identified in Table 1 ~~Table 1-1~~ of Appendix A. Salmon EFH includes aquatic areas above all artificial barriers except the impassable barriers (dams) listed in Table 1 ~~Table A-2~~ of Appendix A. However, activities occurring above impassable barriers that are likely to adversely affect EFH below impassable barriers are subject to the EFH consultation provisions of the MSA. The identification and description of EFH may be modified in the future through the process outlined in 4.1.4 below, or through salmon FMP amendments as new or better information becomes available.

### 4.1.2 Adverse Effects of Fishing on Essential Fish Habitat

To the extent practicable, the Council must minimize adverse impacts of fishing activities on salmon EFH. Fishing activities may adversely affect EFH if the activities cause physical, chemical, or biological alterations of the substrate, and loss of or injury to benthic organisms, prey species and their habitat, and other components of the ecosystem. The marine activities under Council management authority or influence that may impact EFH are effects of fishing gear, prey removal by other fisheries, and the effect of salmon fishing on the reduction of stream nutrients due to fewer salmon carcasses on the spawning

grounds. Within its fishery management authority, the Council may use fishing gear restrictions, time and area closures, or harvest limits to reduce negative impacts on EFH. Section 4.1 ~~Section 3.1~~ of Appendix A provides a description of the potential impacts on EFH from fishing activities ~~and measures to assess or reduce those impacts~~. The description ~~and measures~~ includes both fisheries within Council management authority and those under other management jurisdictions.

In determining actions to take to minimize any adverse effects from fishing, the Council will consider the nature and extent of the impact and the practicality and effectiveness of management measures to reduce or eliminate the impact. The consideration will include long- and short-term costs and benefits to the fishery and EFH along with other appropriate factors consistent with National Standard 7 (“Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.”).

### **4.1.3 Adverse Effects of Non-Fishing Activities on Essential Fish Habitat**

*“Each Council shall comment on and make recommendations to the Secretary and any Federal or State agency concerning any such activity (authorized, funded, or undertaken, or proposed to be undertaken by any Federal or State agency) that, in the view of the Council, is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.” . . . “Within 30 days . . . a Federal agency shall provide a detailed response in writing ....”*

*Magnuson-Stevens Act, §305(b)*

The Council will strive to assist all agencies involved in the protection of salmon habitat. This assistance will generally occur in the form of Council comments endorsing protection, restoration, or enhancement programs; requesting information on, and justification for, actions which may adversely impact salmon production; and in promoting salmon fisheries’ needs among competing uses for the limited aquatic environment. In commenting on actions which may affect salmon habitat, the Council will seek to ensure implementation of consistent and effective habitat policies with other agencies having environmental control and resource management responsibilities over production and harvest in inside marine and fresh waters.

Specific recommendations for conservation and enhancement measures for EFH are listed in Appendix A. In implementing its habitat mandates, the Council will seek to achieve the following overall objectives:

1. Work to assure that Pacific salmon, along with other fish and wildlife resources, receive equal treatment with other purposes of water and land resource development.
2. Support efforts to restore Pacific salmon stocks and their habitat through vigorous implementation of federal, tribal, and state programs.
3. Work with fishery agencies, tribes, land management agencies, and water management agencies to assess habitat conditions and develop comprehensive restoration plans.
4. Support diligent application and enforcement of regulations governing ocean oil exploration and development, timber harvest, mining, water withdrawals, agriculture, or other stream corridor uses by local, state, and federal authorities. It is Council policy that approved and permitted activities employ the best management practices available to protect salmon and their habitat from adverse effects of contamination from domestic and industrial wastes, pesticides, dredged material disposal, and radioactive wastes.
5. Promote agreements between fisheries agencies and land and water management agencies for the benefit of fishery resources and to preserve biological diversity.

6. Strive to assure that the standard operation of existing hydropower and water diversion projects will not substantially reduce salmon productivity.
7. Support efforts to identify and avoid cumulative or synergistic impacts in drainages where Pacific salmon spawn and rear. The Council will assist in the coordination and accomplishment of comprehensive plans to provide basin-wide review of proposed hydropower development and other water use projects. The Council encourages the identification of no-impact alternatives for all water resource development.
8. Support and encourage efforts to determine the net economic value of conservation by identifying the economic value of fish production under present habitat conditions and expected economic value under improved habitat conditions.

#### **4.1.4 Procedures of Amending Salmon EFH**

The EFH regulations (600.815(a)(10)) require periodic review and update of EFH provisions, as appropriate. The regulations also require FMPs to outline the procedures the Council will follow to review and update EFH information. The following process provides a mechanism for the Council to update certain EFH provisions without implementing an FMP amendment. Potential changes to EFH provisions can result from periodic EFH reviews, or in response to any other information that becomes available and warrants consideration of changes to EFH. Amending the FMP would not be required to make these changes, as long as the changes are consistent with the overall identification and description of EFH contained in the FMP itself.

#### **Process for Making Framework Changes to EFH**

Revisions to Pacific salmon EFH can be made when the Council determines that such action is warranted by new information that has become available. Such new information is typically generated during the periodic reviews, but can come before the Council through other established Council avenues. The process is as follows, and can typically be accomplished via a three-meeting Council process:

1. Council advisory bodies, particularly the Habitat Committee (HC), should develop an assessment of potential revisions to the provisions in Appendix A after relevant new information becomes available that indicates a change is warranted.
2. The HC will present a report of their assessment and make recommendations to the Council. Other Advisory Bodies may comment on proposed changes.
3. The Council will review the report and, if appropriate, direct staff to revise Appendix A.

At a subsequent meeting, the Council will adopt the revised Appendix A. The revised Appendix A will supersede the previous version, and will be posted in a format that allows the reader to identify changes, on the Council's website.

Examples of the type of changes to Pacific salmon EFH that can be made outside of an FMP amendment are:

1. Changes to the 4<sup>th</sup> field HUs that are designated as EFH for any of the three species of salmon managed under the plan (this could result from new information on current or historic distribution, newly accessible habitat, removal/addition of stocks from/to the FMP, or other information);
2. Modifications, additions, or removals of HAPCs;
3. Changes to the impassable dams that represent the upstream extent of EFH (this could result from new information on fish passage, or a Council determination that upstream habitat should be designated as EFH);

4. Changes to the detailed EFH descriptions for any of the three species of salmon managed under the plan (this could be based on new information regarding habitat requirements by life stage, prey species, or other information);
5. Changes to recommended conservation or enhancement measures;
6. Changes to the descriptions of activities, both fishing and non-fishing, that may adversely affect EFH; and the conservation measures to avoid, minimize, mitigate, or otherwise offset those adverse effects; and
7. Changes to the research and information needs.

Some changes to Pacific salmon EFH would still require an FMP amendment, for example:

1. Changes to the overall description and identification of Pacific salmon EFH that is in the FMP; and
2. Inclusion of fishing management measures designed to minimize, avoid, or mitigate adverse impacts to salmon EFH.

PFMC  
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