

Appendix D Evolutionarily Significant Units, Critical Habitat, and Essential Fish Habitat

NOAA's National Marine Fisheries Service (NMFS) administers the Endangered Species Act for marine species and anadromous fish. The act requires NMFS to use the best scientific and commercial data available about species and populations and their habitats to designate threatened or endangered species under the ESA and to identify the habitat necessary for their survival. NMFS has grouped steelhead and Chinook salmon populations into evolutionarily significant units (ESUs) based on two criteria: the population must be reproductively isolated, and it must represent an important component in the evolutionary legacy of the species. Habitat for endangered or threatened anadromous fish is designated as critical habitat under the ESA and as essential fish habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act. EFH has been designated for Chinook salmon, but not for steelhead.

Evolutionarily Significant Units

Steelhead along the West Coast are classified into 15 ESUs from Southern California to Canada and east to the Upper Columbia River drainage in Idaho. In California, five ESUs are listed: Northern California (threatened), Central California Coast (threatened), Central Valley (threatened), South-Central California Coast (threatened), and Southern California (endangered).

Likewise, Chinook salmon along the West Coast form 17 ESUs from Southern California to Canada and east to the Upper Columbia River drainage. In California, the Central Valley spring-run is listed as threatened, and the Central Valley winter-run is listed as endangered. One other California ESU, the Central Valley fall-run and late-fall run of Chinooks, is designated as a candidate species.

Critical Habitat

The ESA requires NMFS to designate critical habitat when a species is listed as endangered or threatened. Critical habitat is a specific area occupied by a listed species that has the physical or biological features essential to conservation of the species, and it may require special management or protection. Essential features include spawning sites, juvenile rearing areas and migration corridors, adult migration corridors, food resources, water quality and quantity, and riparian vegetation. NMFS has designated critical habitat for Central California Coast, South-Central California Coast, Southern California, and Central Valley steelhead, and for Central Valley spring-run and Sacramento River winter-run Chinook salmon. In general, "critical habitat is designated to include all river reaches accessible to listed salmon or steelhead within the range of the ESUs listed ..." (Federal Register 2000).

NMFS considers natural barriers and specific dams within the historical range of each ESU to be the upstream limit of a critical habitat designation. Critical habitat for the Central Valley spring-run is based on U.S. Geological Survey (USGS) hydrologic unit codes specified in the Final Rule (Federal

Register 2000), and critical habitat for Sacramento River winter-run Chinook salmon is based on the Final Rule (Federal Register 1993). Critical habitat for Central Valley and Central California Coast steelhead is based on USGS hydrologic unit codes specified in the Final Rule (Federal Register 2000).

Essential Fish Habitat

The Sustainable Fisheries Act of 1996 (Public Law 104-267) requires fishery management plans for threatened or endangered species to describe and identify EFH. In the Central Valley, only Chinook salmon are covered by this requirement. The act defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (NMFS 2000).” The act requires federal agencies to consult with NMFS whenever something they do might adversely affect EFH. Private entities are not required to consult with NMFS unless their activity is funded, permitted, or authorized by a federal agency and the project may adversely affect EFH. States are not required to consult with NMFS; however, NMFS is required to develop EFH conservation recommendations for any state agency activities that would impact EFH. Although the concept of EFH is similar to critical habitat of the ESA, measures recommended by NMFS or a regional fisheries management council to protect EFH are advisory, not prescriptive.

Literature Cited

Federal Register, 16 Jun 1993. 48(114):

Federal Register. 16 Feb 2000. Designated Critical Habitat: critical habitat for 19 evolutionarily significant units of salmon and steelhead in Washington, Oregon, Idaho and California. Final Rule. 65(32):7764-7787.

NOAA's National Marine Fisheries Service (NMFS). 2000. Frequently asked questions essential fish habitat (EFH). <http://swr.ucsd.edu/hcd/efhqaca.htm>. 16 Oct 2000.