ESA Proposed 4(d) Rules for Pacific Salmon and Steelhead

NOAA Fisheries Service Southwest Region

December, 1999

(Modified to Focus on California Steelhead listed as 'Threatened')

Similar information on NW listed populations: see Web site - www.nwr.noaa.gov or call 206-526-6613

This background document provides a basic introduction to"4(d) rules" and an overview of the three proposed 4(d) rules issued by the National Marine Fisheries Service (NMFS) in December 1999.

The 4(d) Rule, ..really a section of the Endangered Species Act (ESA), *automatically applies* for protecting species listed as 'Endangered' under the Act. However, NOAA Fisheries does have the mandate to also apply an appropriate 4(d) protective mechanism to species listed as 'Threatened' if deemed necessary (see para. "What is a 4(d) rule" below). This intent was so stated in the original proposed and final listings of steelhead populations referenced below.

These 'rules', or regulations formulated under 4(d), also provide a yardstick by which states, tribes, government entities, developers, private citizens and others can assess, and therefore be assured that, certain activities they may authorize or conduct are permissible under the ESA.

NMFS has issued three proposed 4(d) rules for these 'Threatened' listings: (1) one rule covering seven threatened steelhead evolutionary significant units (ESUs...or distinct populations, to include the Northwest); (2) one covering seven NW threatened salmonid ESUs (three chinook, two chum, one coho, and one sockeye ESU); and (3) a rule addressing tribal resource management plans affecting threatened salmonids. These proposed 4(d) protective mechanisms for steelhead and chinook would apply the ESA's 'Endangered-level' listing take prohibition regulations to all actions. There are, however, 13 "limits" or restrictions to the application of 4(d) described in detail in the rules itself. The tribal 4(d) rule would create an additional limit for tribal resource management plans. NMFS will conduct public hearings on these proposed rules in January and February 2000 and is seeking your comments as an important part of finalizing the rule.

Specifically, what is a "4(d) Rule?"

A "4(d) Rule" establishes protective regulations that apply to a species listed as threatened under the Endangered Species Act (ESA). Under the ESA, a species may be listed as either endangered("in danger of extinction throughout all or a significant portion of its range" ESA '3[6]) or threatened ("likely to become endangered within the foreseeable future throughout all or a significant portion of its range" ESA '3[19]). The ESA treats species designated as endangered slightly differently from species designated as threatened. For endangered species, ESA Section 9 prohibitions on "take" apply automatically upon listing (see below, under "What is 'Take' of a Listed Species?"). *For species listed as threatened, section 4(d) of the ESA provides that NMFS —or the U.S. Fish and Wildlife Service (USFWS) in the case of species under its jurisdiction —shall issue regulations deemed "necessary and advisable to provide for the conservation of the species."*

These protective regulations for threatened species may include any or all of the ESA section 9 prohibitions that apply automatically to protect endangered species. In addition, they may contain specific proscriptions or limitations instead of, or in addition to, the general prohibitions against harming or killing a listed species. Thus, a 4(d) rule can "limit" or restrict the application of its own prohibitions so long as other proscriptions or protective programs adequately protect the listed species.

Incorporating such "limits" into a 4(d) rule can be advantageous to NMFS, state agencies, tribes, government entities and other parties. Activities carried out in accordance with 4(d) rule limits can help protect threatened species and their habitats while relieving state agencies, government entities, tribes and other parties from liability for "take" that results from those activities. NMFS also anticipates that any activity included as a 4(d) rule limit, or restriction, will likely be incorporated into ESA Recovery Plans for listed salmonid species.

NMFS is interested in working with state, tribal, government entities and other interested parties to develop programs that protect endangered and threatened species and their habitats and to recognize such programs through 4(d) rule limitations or other ESA mechanisms.

What is "Take" of a Listed Species?

The ESA makes it illegal for any person subject to the jurisdiction of the United States to 'take' any species of fish or wildlife that is listed as endangered (ESA '9[a][1]). These proposed 4(d) rules would put in place the take prohibitions regarding threatened salmonids that Section 9 of the ESA applies to 'endangered' salmonids, except as **restricted** or limited for the activities specified in the rule. (This prohibition applies within the United States and its territorial waters as well as on the high seas).

The term 'take' is defined in the ESA as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" (ESA '3[19]). It is also illegal under ESA section 9 to possess, sell, deliver, carry, transport, or ship any species that has been taken illegally (ESA '9[a][1]). Violation of "take" prohibitions may result in civil or criminal penalties.

Any private party or government body authorizing an action or activities that specifically causes 'take' may be found to be in violation of the section 9 take prohibitions. **Examples would include**; ..authorizing the use of a herbicide directly linked to mortality of a listed species, ..de-watering a stream in a manner or at a time that has the effect of preventing migration, ..permitting construction to occur in such a way and at such a time that sedimentation significantly impairs salmon survival. These might be construed as take. As a practical matter, the more direct the connection between what the government entity authorizes and the injury to the species, the more likely that the government entity could be held responsible for take.

The term "harass" is defined as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering (50 CFR 17.3). **"Harm" is an act that** either kills or injures fish or wildlife. Such an act may include habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, such as breeding, spawning, rearing, migrating, feeding, or sheltering (64 FR 60727).

It is important to note that while section 9 prohibits all take of endangered species; through section 10, **the ESA allows NMFS to issue permits for an acceptable amount of take that is "incidental" to otherwise lawful activities**.

What activities are likely to lead to "take"?

A wide range of land and water planning and permitting activities carried out by government entities or private parties can adversely affect or "take" listed species. While it is not feasible to list comprehensively every activity that might lead to take, **it is possible to provide some general guidance on the kinds of activities most likely to result in take.**

NMFS and the USFWS have a policy to identify, to the extent known at the time a species is listed, **specific activities considered likely to result in take. Such activities include, but are not limited to:**

1. **Destroying or altering the habitat** of listed salmonids (through activities such as removal of large woody debris or riparian shade canopy, dredging, discharge of fill material, draining, ditching, diverting, blocking, or altering stream channels or surface or ground water flow).
2. **Discharging or dumping toxic chemicals or other pollutants** (e.g., sewage, oil, gasoline) into waters or riparian areas supporting listed salmonids.
3. **Violating** Federal or state Clean Water Act discharge permits.
4. **Applying pesticides and herbicides** in a manner that adversely affects the biological requirements of the species.
5. **Introducing non-native species** likely to prey on listed salmonid species or displaces them from their habitat.
6. **Collecting, handling or harassing listed salmonids,** including illegal harvest activities, except as provided in the 4(d) rule.
7. **Diverting water** through an unscreened or inadequately screened diversion at time when juvenile salmonids are present.
8. **Physically disturbing or blocking** the streambed where spawners or redds are present concurrent with the disturbance.
9. **Blocking fish passage** through fills, dams or impassable culverts.
10. **Fishery harvest activities** not approved by an ESA Section 10 permit.

Some of the activities carried out or authorized by states, tribes, government entities or private parties **that have a high likelihood** of affecting salmonid habitat include the following:

Planning, zoning, and development permitting
Floodplain management
Water use / Wastewater discharge
Road and bridge construction and maintenance
Pesticide, herbicide, fertilizer, and other chemical use
Riparian area protection, alteration, or development
Wetland protection, alteration, or development
Estuarine shorelands protection, alteration, or development
Erosion and sediment control
NPDES permit implementation
Stormwater discharge
Water withdrawals

What are the main components of the proposed 4(d) Rules, or regulations, for California?
As described above, section 4(d) of the ESA directs NMFS to adopt regulations deemed "necessary and advisable to provide for the conservation of threatened species. These may include application of any or all Section 9 prohibitions on 'take'."

Background on Previous 4(d) Rules: NMFS determined the following ESU was threatened: the Central California Coast coho in 1996. The 4(d) rule take prohibition for this ESU was finalized in October 1996. (NMFS defines ESU as a population of salmonids that: 1) is substantially reproductively isolated from conspecific populations, and 2) represents an important component of the evolutionary legacy of the species.) A 1997 interim 4(d) rule remains in place for the Southern Oregon/Northern California Coast (SONCC) coho ESU. The SONCC 4(d) rule included several limitations based on adequately protective state programs in Oregon and provided a model for development of the three 4(d) rules proposed in December 1999. The current proposed 4(d) rules for 14 additional threatened ESUs do not affect these earlier rules.

*December 1999 Proposed 4(d) Rules (**including NW**):* The 4(d) rules proposed in December 1999 address 14 ESUs covering portions of Idaho, Washington, Oregon and California. One proposed rule covers seven threatened steelhead ESUs, and another covers seven other salmonid ESUs (three chinook, two chum, one coho and one sockeye ESU). A third 4(d) proposal will create an additional limit for tribal resource management plans. Two chinook ESUs listed on September 16, 1999 are not included in these rules.

The following list identifies the **14 threatened ESUs covered in the proposed 4(d) rules** (see attached map):

Steelhead
- Central California Coast
- South-Central California Coast
- Snake River Basin
- Lower Columbia River
- Central Valley, California
- Upper Willamette River
- Middle Columbia River

Chum
- Hood Canal summer-run
- Columbia River

Chinook
- Puget Sound
- Lower Columbia River
- Upper Willamette River

Coho
- Oregon Coast

Sockeye
- Ozette Lake

Process:
These 4(d) rules are a proposal for public comment leading to publication of final rules. Once the proposed rules are published in the Federal Register, there will be a 60 day comment period, as well as a number of public hearings in the four affected states: Idaho, Washington, Oregon and California. When these rules become final, the ESA section 9 take prohibitions will apply to most, but not all, actions carried out by state, tribal, government entities and private parties, except those within 13 "limits" or for permitted activities.**(For activities identified as "limits" in the proposed rules, application of the take prohibition would be limited. This is because NMFS has determined that these activities minimize impacts on threatened salmonids sufficiently that additional Federal protections are not necessary for conservation of the ESU.)**

*There are **two types of 'limits' (restrictions) on the take prohibition** described in the proposed rules:*
- complete programs that NMFS has evaluated and determined that no additional protection is needed; and
- specific criteria that NMFS will use for review and evaluation for yet-to-be-developed programs.

Some "limits" described in the rules identify programs with potential to minimize impacts on threatened salmonids or contribute to the conservation of the species. Other limits describe criteria by which NMFS would evaluate future programs. These "limits" recognize the efforts of states, private parties, tribes and others to play an active role in conservation by providing assurance of meeting ESA needs. These proposed rules and the identified limits establish a model for similar efforts by other entities, which would engage broad sectors in on-the-ground actions needed for implementing recovery plans.

The ***broad categories of activities covered by limits proposed*** in the rules include:

- scientific research conducted, supervised or permitted by state research programs
- fish harvest activities
- artificial propagation programs
- habitat restoration under watershed plans
- properly screened water diversions
- road maintenance (Oregon)
- urban development
- forest management practices in the State of Washington
- tribal plans

NMFS is not requiring states, tribes or private parties to change their practices to conform to any of the take limitations described in the rules. The "limits" describe one way to be sure you are not at risk of violating the take prohibition or of consequent enforcement actions. Not being within a limit does not mean you are violating the ESA or these proposed 4(d) rules. Not being within a limit does mean that you are at risk of ESA penalties if your activity takes a listed fish. Conforming to a limit provides assurance that your activities are not violating the take prohibitions and will not be subject to enforcement. States, tribes, private parties and government entities will ***need to assess their actions in order to evaluate if their activities might result in take of a threatened species.***

How can programs be submitted to NMFS for consideration as a limitation under a 4(d) rule?

For NMFS to consider an activity or program for a limitation under a 4(d) rule, the following information and analysis are ***desirable:***

*A description of the activity or program being proposed, the geographic area within which the proposed action/program will apply or be carried out, and the jurisdiction or entity responsible for overseeing the action/program.

*A description of the listed species and habitat that will be affected by the action. This information should include fish distribution and abundance in the affected area and a description of the type, quantity, and quality of habitat in the affected area.

*A description of the environmental baseline. This information should describe existing conditions of water quality, habitat access, riparian areas, stream channels, flow, and watershed indicators such as total impervious area and any existing high quality habitat areas.

*A description of the anticipated short-term and long-term impacts of the action on the species (including all life-cycle stages) and its habitat. This description should include both positive and negative impacts and describe how any adverse impacts will be avoided, mitigated, or minimized

*A description of the certainty of implementation of the program or action. For example, what commitment has been made to carry out the action or program? Are the legal authorities necessary to carry out the program in place? Is funding for implementation available and adequate? Is staffing available and adequate? What is the schedule for implementation? If the program is currently being implemented, what is the record of implementation and effectiveness to date?

*A program for monitoring both the implementation and effectiveness of the action or program and time frames for conducting monitoring and submitting reports.

*An adaptive management approach, as necessary, that uses monitoring information as needed to change actions so as to accomplish objectives.

How does NMFS make decisions on what can be included in a 4(d) rule?

Whether take prohibitions or other protective regulations are necessary and advisable is in large part dependent upon the biological status of the species and the potential impacts of various activities on the species. ***If programs contribute to conserving the species or adequately limit the impacts on the species, NMFS may find that it is not necessary and advisable to impose the Federal take prohibitions, because these prohibitions would not meaningfully enhance the conservation of the species over and above what the program accomplishes***. NMFS expects to continue to work with entities and others toward the clearest and best possible final rule that protects these affected ESUs, and toward recognizing other future conservation efforts via amendments or through other ESA mechanisms.

In assessing the impacts of a proposed action or program on a species freshwater or estuarine habitat, NMFS considers the following factors:

- Will the action or program degrade existing habitat processes or functions?

- Will the action or program contribute to the restoration of degraded habitat processes or functions?

Some specific examples of state, tribal, government entity ***or private party activities or programs*** and associated issues are:

..Stormwater discharge. Stormwater discharge can adversely affect water quality and the hydrograph of the watershed. Reducing hardened surfaces, detaining runoff, and preventing sediment and other pollutants from reaching any watercourse can mitigate these effects.

..Riparian protection areas. Adequately protected riparian areas are key to maintaining watershed processes and functions. Because of the intensity of disturbance in surrounding uplands, riparian protections are critical in urban areas and in rural areas.

..Stream crossings. Stream crossings can harm watershed processes and functions by disrupting fish passage, creating sedimentation problems, modifying channels, and changing drainage patterns. One way to minimize stream crossings and associated disturbances is to direct development and other activities to certain locations.

..Stream meander patterns and channel migration zones. Many types of land use activities can result in modification of stream and river channels through road construction, filling of wetlands, encroachment of riparian areas and floodplains, relocation of channels, and construction and maintenance of ditches, dikes, and levees. These highly modified channels generally provide poor habitat for fish. Development can be designed to allow streams to meander in historic patterns. Adequate riparian zones linked to the channel migration zone avert the need for bank erosion control in all but the most unusual situations.

..Wetlands and wetland functions. Wetlands control sediment delivery to streams, mitigate pollutants, and help maintain the natural hydrograph. Development planning that maintains existing wetlands can protect the habitat, water quality, flood control, and groundwater connection values of wetlands.

..Landscaping. Careful landscaping can help conserve water and reduce demands for flow that compete with fish needs, in addition to reducing the use of fertilizers, pesticides, and herbicides that may contribute to water pollution.

..Erosion control. Suspended and deposited sediments can suffocate salmon eggs incubating in stream gravels, degrade fish respiration, eliminate places for salmon to hide from predators, and change the productivity of aquatic insects. Construction of buildings and roads without adequate sediment controls may increase sediment loading to streams by several orders of magnitude.

..Fish harvest and hatchery activities. Development of adequate fishery management and evaluation plans, and hatchery and genetic management plans that are tailored to meet certain criteria will allow for the conservation of listed salmonids.

..Implementation, monitoring, maintenance, enforcement, and reporting. Mechanisms including funding and legal authority for implementation, monitoring, maintenance, enforcement, and reporting need to be adequate to assure that development will comply with approved policies, ordinances, and permitting procedures.

What other mechanisms are available for state, tribal, private party, and local government compliance with the ESA?

Section 10 of the ESA provides another mechanism for NMFS to permit taking when it is the incidental result of carrying out an otherwise lawful activity. Applicants for an Incidental Take Permit must submit a Conservation Plan (CP) to NMFS. The CP must identify the impact of any taking associated with activities covered by the plan and identify steps that will be taken to monitor, minimize, and mitigate impacts. For more information on CPs, see the publication entitled "Habitat Conservation Plans and the Incidental Take Permitting Process," on the U.S. Fish and Wildlife Service web site, at: http://www.fws.gov/r9endspp/hcp/hcpplan.html or speak with one of the NMFS contact people listed below.

Section 7 of the ESA requires that Federal agencies consult with NMFS on activities they authorize, fund, or carry out to ensure that such activities are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of their critical habitat. Such activities include Federally funded projects such as road construction, stormwater management, rural and urban development, and many other activities conducted, permitted, or funded by Federal agencies.

What are the next steps?

The Federal register notices provide for a 60 day public comment period on the proposed rules, after which NMFS will take those comments into account in finalizing the rules. **Under a court-ordered settlement, the Steelhead final rule must be issued no later than June 19, 2000. An effective date for the rule has not been determined at this time.** NMFS intends to keep the other two proposed rules on a similar time schedule. Public hearings will be conducted in 15 cities during early to mid-January in Idaho, Washington and Oregon. **Hearings will be held in 7 cities in California.** The public hearing schedule in listed below.

How do I get additional information on the proposed 4(d) rules?

Please visit the NMFS Northwest Region Web Site at http://www.nwr.noaa.gov for additional information on the three proposed 4(d) rules and for copies of question and answer fact sheets and documents referenced in the rules. Additional information is also available on listed species including Federal Register notices, species maps, status reviews and fact sheets.

In addition, the following NMFS staff members can provide information on the proposed rules.

California:

Greg Bryant
707-825-5162
Greg.Bryant@noaa.gov

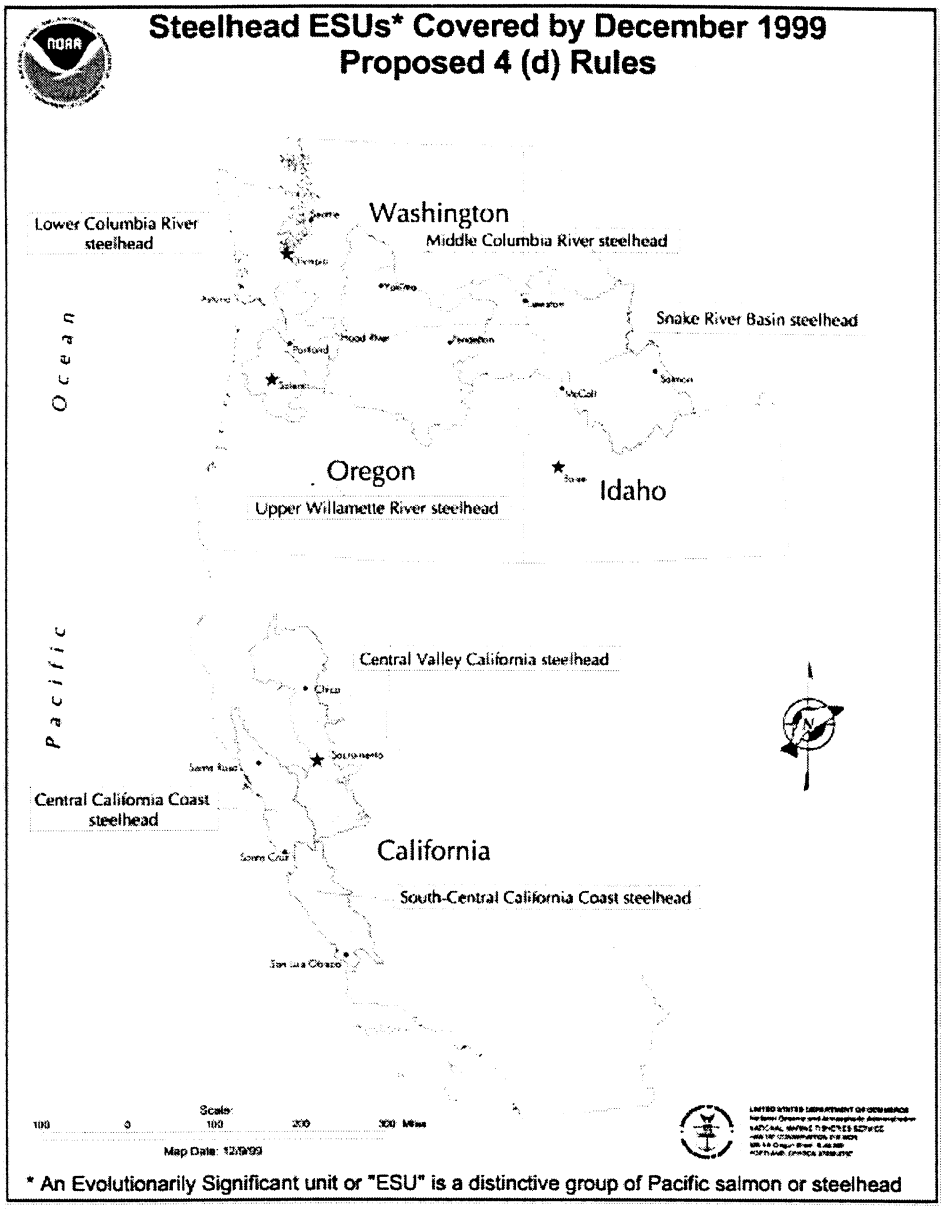
Craig Wingert
562-980-4021
Craig.Wingert@noaa.gov

What is the public hearing schedule for the December 1999 proposed 4(d) rules?

(The NW public hearing schedule and various area contacts can be obtained at:
www.nwr.noaa.gov or call 206-526-6613)

Public Hearings in California:

1. January 25, 2000, 6:30 B 9:00 p.m., Double Tree (now Red Lion), 1830 Hilltop Drive, Redding, California;
2. January 26, 2000, 6:30 B 9:00 p.m., Heritage Hotel, 1780 Tribute Rd., Sacramento, California;
3. January 27, 2000, 6:30 B 9:00 p.m., Modesto Irrigation District, 1231 11th St., Modesto, California;
4. January 31, 2000, 6:30 B 9:00 p.m., Eureka Inn, 518 Seventh St., Eureka, California;
5. February 1, 2000, 6:30 B 9:00 p.m., Double Tree, One Double Tree Drive, Rohnert Park, California;
6. February 2, 2000, 6:30 B 9:00 p.m., Best Western, 2600 Sand Dunes Drive, Monterey, California;
7. February 3, 2000, 7:00 B 9:30 p.m., Embassy Suites, 333 Madonna Rd., San Luis Obispo, California.


Steelhead ESUs* Covered by December 1999
Proposed 4 (d) Rules
Washington
Lower Columbia River steelhead
Middle Columbia River steelhead
Snake River Basin steelhead
Ocean
Oregon
Upper Willamette River steelhead
Idaho
Pacific
Central Valley California steelhead
Central California Coast steelhead
California
South-Central California Coast steelhead
Scale:
Map Date: 12/9/99
* An Evolutionarily Significant unit or "ESU" is a distinctive group of Pacific salmon or steelhead