(ii) *Provider or supplier not subject to additional requirements.* For a provider or supplier that is not subject to additional requirements, the effective date is the date of the provider's or supplier's initial request for participation if on that date the provider or supplier met all Federal requirements.

(2) *Special rule: Retroactive effective date.* If a provider or supplier meets the requirements of paragraphs (d)(1) and (d)(1)(i) or (d)(1)(ii) of this section, the effective date may be retroactive for up to one year to encompass dates on which the provider or supplier furnished, to a Medicare beneficiary, covered services for which it has not been paid.

4. Section 489.53 is amended to revise the heading of paragraph (b) and paragraphs (c)(1) and (c)(2) to read as follows:

**§ 489.53 Termination by HCFA.**

* * * * *

(b) *Termination of agreements with certain hospitals.* * * *

(c) *Notice of termination*—(1) *Timing: Basic rule.* Except as provided in paragraph (c)(2) of this section, HCFA gives the provider notice of termination at least 15 days before the effective date of termination of the provider agreement.

(2) *Timing exceptions: Immediate jeopardy situations*—(i) *Hospital with emergency department.* If HCFA finds that a hospital with an emergency department is in violation of § 489.24, paragraphs (a) through (e), and HCFA determines that the violation poses immediate jeopardy to the health or safety of individuals who present themselves to the hospital for emergency services, HCFA—

(A) Gives the hospital a preliminary notice indicating that its provider agreement will be terminated in 23 days if it does not correct the identified deficiencies or refute the finding; and

(B) Gives a final notice of termination, and concurrent notice to the public, at least 2 , but not more than 4, days before the effective date of termination of the provider agreement.

(ii) *Skilled nursing facilities (SNFs).* For an SNF with deficiencies that pose immediate jeopardy to the health or safety of residents, HCFA gives notice at least 2 days before the effective date of termination of the provider agreement.

* * * * *

## PART 498—APPEALS PROCEDURES FOR DETERMINATIONS THAT AFFECT PARTICIPATION IN THE MEDICARE PROGRAM AND FOR DETERMINATIONS THAT AFFECT THE PARTICIPATION OF CERTAIN ICFs/MR AND CERTAIN NFs IN THE MEDICAID PROGRAM

E. Part 498 is amended as set forth below.

1. The authority citation for part 498 continues to read as follows:

**Authority:** Secs. 1102, and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395hh).

2. Section 498.3 is amended to revise paragraph (a), republish the introductory text of paragraph (b) and add a paragraph (b)(14), revise the introductory text of paragraph (d) and add new paragraphs (d)(14) and (d)(15), to read as follows:

**§ 498.3 Scope and applicability.**

(a) *Scope.* This part sets forth procedures for reviewing initial determinations that HCFA makes with respect to the matters specified in paragraph (b) of this section, and that the OIG makes with respect to the matters specified in paragraph (c) of this section. It also specifies, in paragraph (d) of this section, administrative actions that are not subject to appeal under this part.

(b) *Initial determinations by HCFA.* HCFA makes initial determinations with respect to the following matters:

* * * * *

(14) The effective date of a Medicare provider agreement or supplier approval.

* * * * *

(d) *Administrative actions that are not initial determinations.* Administrative actions that are not initial determination (and therefore not subject to appeal under this part) include but are not limited to the following:

* * * * *

(14) The choice of alternative sanction or remedy to be imposed on a provider or supplier.

(15) A decision by the State survey agency as to when to conduct an initial survey of a prospective provider or supplier.

* * * * *

F. Technical correction.

**§ 489.1 [Amended]**

In § 489.11(c), the following changes are made:

a. At the end of paragraph (c)(1), the word ''and'' is added.

b. At the end of paragraph (c)(2), ''; and'' is removed and a period is inserted in its place.

(Catalog of Federal Domestic Assistance Program No. 93.773, Medicare—Hospital Insurance; Program No. 93.774, Medicare—Supplementary Medical Insurance; and Program No. 93.778, Medical Assistance.)

Dated: September 20, 1996.

**Bruce C. Vladeck,**

*Administrator, Health Care Financing Administration.*

Dated: December 27, 1996.

**Donna E. Shalala,**

*Secretary.*

[FR Doc. 97–21731 Filed 8–15–97; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

### 50 CFR Parts 222 and 227

**[Docket No. 960730210–7193–02; I.D. 050294D]**

**RIN 0648–XX65**

## Endangered and Threatened Species: Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** On August 9, 1996, NMFS completed a comprehensive status review of west coast steelhead (*Oncorhynchus mykiss*, or *O. mykiss*) populations in Washington, Oregon, Idaho, and California, and identified 15 Evolutionarily Significant Units (ESUs) within this range. NMFS is now issuing a final rule to list two ESUs as endangered and three ESUs as threatened under the Endangered Species Act (ESA). The endangered steelhead ESUs are located in California (Southern California) and Washington (Upper Columbia River). The threatened steelhead ESUs are located in California (Central California Coast and South-Central California Coast) and Idaho, Washington, and Oregon (Snake River Basin). For the endangered ESUs, section 9(a) prohibitions will be effective 60 days from the publication of this final rule. For the threatened ESUs, NMFS will issue shortly protective regulations under section 4(d) of the ESA, which will apply section 9(a) prohibitions with certain exceptions.

NMFS has examined the relationship between hatchery and natural populations of steelhead in these ESUs, and has assessed whether any hatchery

populations are essential for their recovery. Only the Wells Hatchery stock in the Upper Columbia River ESU is essential for recovery and included in this listing. Aside from the Wells Hatchery stock, only naturally spawned populations of steelhead (and their progeny) residing below long-term, naturally and man-made impassable barriers (i.e., dams) are listed in all five ESUs identified as threatened or endangered.

At this time, NMFS is listing only anadromous life forms of *O. mykiss*.

**DATES:** Effective October 17, 1997.

**ADDRESSES:** Protected Resources Division, NMFS, Northwest Region, 525 NE Oregon Street, Suite 500, Portland, OR 97232–2737.

**FOR FURTHER INFORMATION CONTACT:** Garth Griffin, 503–231–2005, Craig Wingert, 562–980–4021, or Joe Blum, 301–713–1401.

**SUPPLEMENTARY INFORMATION:**

## Species Background

*Oncorhynchus mykiss* exhibit one of the most complex suites of life history traits of any salmonid species. *Oncorhynchus mykiss* may exhibit anadromy (meaning they migrate as juveniles from fresh water to the ocean, and then return to spawn in fresh water) or freshwater residency (meaning they reside their entire life in fresh water). Resident forms are usually referred to as ''rainbow'' or ''redband'' trout, while anadromous life forms are termed ''steelhead.'' Few detailed studies have been conducted regarding the relationship between resident and anadromous *O. mykiss* and as a result, the relationship between these two life forms is poorly understood. Recently the scientific name for the biological species that includes both steelhead and rainbow trout was changed from *Salmo gairdneri* to *O. mykiss*. This change reflects the premise that all trouts from western North America share a common lineage with Pacific salmon.

Steelhead typically migrate to marine waters after spending 2 years in fresh water. They then reside in marine waters for typically 2 or 3 years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Unlike Pacific salmon, steelhead are iteroparous, meaning they are capable of spawning more than once before they die. However, it is rare for steelhead to spawn more than twice before dying; most that do so are females. Steelhead adults typically spawn between December and June (Bell, 1990; Busby et al., 1996). Depending on water temperature, steelhead eggs may incubate in ''redds'' (nesting gravels) for 1.5 to 4 months before hatching as ''alevins'' (a larval life stage dependent on food stored in a yolk sac). Following yolk sac absorption, young juveniles or ''fry'' emerge from the gravel and begin actively feeding. Juveniles rear in fresh water from 1 to 4 years, then migrate to the ocean as ''smolts.''

Biologically, steelhead can be divided into two reproductive ecotypes, based on their state of sexual maturity at the time of river entry and the duration of their spawning migration. These two ecotypes are termed ''stream maturing'' and ''ocean maturing.'' Stream maturing steelhead enter fresh water in a sexually immature condition and require several months to mature and spawn. Ocean maturing steelhead enter fresh water with well-developed gonads and spawn shortly after river entry. These two reproductive ecotypes are more commonly referred to by their season of freshwater entry (e.g., summer and winter steelhead).

Two major genetic groups or ''subspecies'' of steelhead occur on the west coast of the United States: a coastal group and an inland group, separated in the Fraser and Columbia River Basins approximately by the Cascade crest (Huzyk & Tsuyuki, 1974; Allendorf, 1975; Utter & Allendorf, 1977; Okazaki, 1984; Parkinson, 1984; Schreck et al., 1986; Reisenbichler et al., 1992). Behnke (1992) proposed to classify the coastal subspecies as *O. m. irideus* and the inland subspecies as *O. m. gairdneri.* These genetic groupings apply to both anadromous and non-anadromous forms of *O. mykiss.* Both coastal and inland steelhead occur in Washington and Oregon. California is thought to have only coastal steelhead while Idaho has only inland steelhead.

Historically, steelhead were distributed throughout the North Pacific Ocean from the Kamchatka Peninsula in Asia to the northern Baja Peninsula. Presently, the species distribution extends from the Kamchatka Peninsula, east and south along the Pacific coast of North America, to at least Malibu Creek in southern California. There are infrequent anecdotal reports of steelhead occurring as far south as the Santa Margarita River in San Diego County (McEwan & Jackson, 1996). Historically, steelhead likely inhabited most coastal streams in Washington, Oregon, and California as well as many inland streams in these states and Idaho. However, during this century, over 23 indigenous, naturally-reproducing stocks of steelhead are believed to have been extirpated, and many more are thought to be in decline in numerous coastal and inland streams in Washington, Oregon, Idaho, and California. Forty-three stocks have been identified by Nehlsen *et al.* (1991) as being at moderate or high risk of extinction.

## Previous Federal ESA Actions Related to West Coast Steelhead

The history of petitions received regarding west coast steelhead is summarized in the proposed rule published on August 9, 1996 (61 FR 56138). The most comprehensive petition was submitted by Oregon Natural Resources Council and 15 co-petitioners on February 16, 1994. In response to this petition, NMFS assessed the best available scientific and commercial data, including technical information from Pacific Salmon Biological Technical Committees (PSBTCs) and interested parties in Washington, Oregon, Idaho, and California. The PSBTCs consisted primarily of scientists (from Federal, state, and local resource agencies, Indian tribes, industries, universities, professional societies, and public interest groups) possessing technical expertise relevant to steelhead and their habitats. A total of seven PSBTC meetings were held in the states of Washington, Oregon, Idaho, and California during the course of the west coast steelhead status review. NMFS also established a Biological Review Team (BRT), composed of staff from NMFS' Northwest and Southwest Fisheries Science Centers and Southwest Regional Office, as well as a representative of the National Biological Service, which conducted a coastwide status review for west coast steelhead (Busby et al., 1996).

Based on the results of the BRT report, and after considering other information and existing conservation measures, NMFS published a proposed listing determination (61 FR 56138, August 9, 1996) that identified 15 ESUs of steelhead in the states of Washington, Oregon, Idaho, and California. Ten of these ESUs were proposed for listing as threatened or endangered species, four were found not warranted for listing, and one was identified as a candidate for listing.

NMFS has now analyzed new information and public comments received in response to the August 9, 1996, proposed rule. NMFS' BRT has likewise analyzed this new information and has updated its conclusions accordingly (NMFS, 1997a). Copies of the BRT's updated conclusions, entitled ''Status Review Update for West Coast Steelhead from Washington, Idaho, Oregon, and California,'' are available upon request (see **ADDRESSEES**). This final rule identifies five ESUs of west

coast steelhead in the four states that currently warrant listing as threatened or endangered species under the ESA.

**Summary of Comments Received in Response to the Proposed Rule**

NMFS held 16 public hearings in California, Oregon, Idaho, and Washington to solicit comments on the proposed rule. One hundred and eighty-eight individuals presented testimony at the public hearings. During the 90-day public comment period, NMFS received 939 written comments on the proposed rule from Federal, state, and local government agencies, Indian tribes, non-governmental organizations, the scientific community, and other individuals. A number of comments addressed specific technical issues pertaining to a particular geographic region or *O. mykiss* population. These technical comments were considered by NMFS' BRT in its re-evaluation of ESU boundaries and status and are discussed in the updated Status Review document (NMFS, 1997a).

On July 1, 1994, NMFS, jointly with U.S. Fish and Wildlife Service (FWS), published a series of policies regarding listings under the ESA, including a policy for peer review of scientific data (59 FR 34270). In accordance with this policy, NMFS solicited 22 individuals to take part in a peer review of its west coast steelhead proposed rule. All individuals solicited are recognized experts in the field of steelhead biology and represent a broad range of interests, including Federal, state, and tribal resource managers, private industry consultants, and academia. Eight individuals took part in the peer review of this action; comments from peer reviewers were considered by NMFS' BRT and are summarized in the updated Status Review document (NMFS, 1997a).

A summary of comments received in response to the proposed rule is presented below.

*Issue 1: Sufficiency and Accuracy of Scientific Information and Analysis*

*Comment:* Numerous commenters disputed the sufficiency and accuracy of data which NMFS employed in its proposed rule to list ten steelhead ESUs as either threatened or endangered under the ESA. Several commenters urged NMFS to delay any ESA listing decisions for steelhead until additional scientific information is available concerning this species.

*Response:* Section 4(b)(1)(A) of the ESA requires that NMFS make its listing determinations solely on the basis of the best available scientific and commercial data after reviewing the status of the species. NMFS believes that information contained in the agency's status review (Busby *et al.*, 1996), together with more recent information obtained in response to the proposed rule (NMFS, 1997a), represent the best scientific information presently available for the steelhead ESUs addressed in this final rule. NMFS has conducted an exhaustive review of all available information relevant to the status of this species. NMFS has also solicited information and opinion from all interested parties, including peer reviewers as described above. If in the future new data become available to change these conclusions, NMFS will act accordingly.

Section 4(b)(6) of the ESA requires NMFS to publish a final determination whether a species warrants listing as threatened or endangered within 1 year from publishing a proposed determination. If such a final listing is not warranted, NMFS must withdraw the proposed regulation. In certain cases where NMFS concludes that substantial disagreement exists regarding the sufficiency or accuracy of available data relevant to its determinations, NMFS may extend this 1-year period by not more than 6 months for the purposes of soliciting additional data. (ESA § 4(b)(6)(B)(i)).

With respect to those steelhead ESUs addressed in this final rule, NMFS concludes no basis exists to delay final ESA listings. State resource agencies, peer reviewers, and other knowledgeable parties are in general agreement that steelhead stocks in these areas are at risk. As described in a separate **Federal Register** notice, however, NMFS has determined a 6-month extension is warranted for five remaining ESUs of west coast steelhead. These ESUs include the following: Lower Columbia River, Oregon Coast, Klamath Mountains Province, Northern California, and the Central Valley of California. For these particular ESUs, NMFS concludes that substantial disagreement exists regarding the sufficiency and accuracy of the data. Several efforts are underway that may resolve scientific disagreement regarding the sufficiency and accuracy of data relevant to these ESUs. NMFS has undertaken an intensive effort to analyze the data received during and after the comment period on the proposed ESUs from the States of Washington, Oregon, and California, as well as from peer reviewers. This work will include evaluating the Oregon Department of Fish and Wildlife (ODFW) models, analyzing population abundance trends where new data are available, and examining new genetic data relative to the relationship between winter and summer steelhead and between hatchery and wild fish. In light of these disagreements and the fact that more data are forthcoming, NMFS extends the final determination deadline for these ESUs for 6 months, until February 9, 1998.

*Issue 2: Description and Status of Steelhead ESUs*

*Comment:* A few commenters disputed NMFS' conclusions regarding the geographic boundaries for some of the ESUs and questioned NMFS' basis for determining these boundaries. Most of these comments pertained to the ESUs south of San Francisco Bay, suggesting particular river systems be excluded from listing due to historical or occasional absence of steelhead or rainbow trout.

*Response:* NMFS has published a policy describing how it will apply the ESA definition of ''species'' to anadromous salmonid species (56 FR 58612, November 20, 1991). More recently, NMFS and FWS published a joint policy, consistent with NMFS' policy, regarding the definition of ''distinct population segments'' (61 FR 4722, February 7, 1996). The earlier policy is more detailed and applies specifically to Pacific salmonids and, therefore, was used for this determination. This policy indicates that one or more naturally reproducing salmonid populations will be considered to be distinct and, hence, species under the ESA, if they represent an ESU of the biological species. To be considered an ESU, a population must satisfy two criteria: (1) It must be reproductively isolated from other population units of the same species; and (2) it must represent an important component in the evolutionary legacy of the biological species. The first criterion, reproductive isolation, need not be absolute but must have been strong enough to permit evolutionarily important differences to occur in different population units. The second criterion is met if the population contributes substantially to the ecological or genetic diversity of the species as a whole. Guidance on applying this policy is contained in a scientific paper entitled: ''Pacific Salmon (*Oncorhynchus* spp.) and the Definition of 'Species' under the Endangered Species Act.'' It is also found in a NOAA Technical Memorandum: ''Definition of 'Species' Under the Endangered Species Act: Application to Pacific Salmon'' (Waples, 1991). A more detailed discussion of individual ESU boundaries is provided below under ''Summary of Conclusions Regarding Listed ESUs.''

*Comment:* Several commenters questioned NMFS' methodology for determining whether a given steelhead ESU warranted listing. In most cases, such commenters also expressed opinions regarding whether listing was warranted for a particular steelhead ESU. A few commenters provided substantive new information relevant to making risk assessments.

*Response:* Section 3 of the ESA defines the term ''endangered species'' as ''any species which is in danger of extinction throughout all or a significant portion of its range.'' The term ''threatened species'' is defined as ''any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' NMFS has identified a number of factors that should be considered in evaluating the level of risk faced by an ESU, including: (1) Absolute numbers of fish and their spatial and temporal distribution; (2) current abundance in relation to historical abundance and current carrying capacity of the habitat; (3) trends in abundance; (4) natural and human-influenced factors that cause variability in survival and abundance; (5) possible threats to genetic integrity (e.g., from strays or outplants from hatchery programs); and (6) recent events (e.g., a drought or changes in harvest management) that have predictable short-term consequences for abundance of the ESU. A more detailed discussion of status of individual ESUs is provided below under ''Summary of Conclusions Regarding Listed ESUs.''

*Issue 3: Factors Contributing to the Decline of West Coast Steelhead*

*Comment:* Many commenters identified factors they believe have contributed to the decline of west coast steelhead. Factors identified include overharvest by recreational fisheries, predation by pinnipeds and piscivorous fish species, effects of artificial propagation, and the deterioration or loss of freshwater and marine habitats.

*Response:* NMFS agrees that many factors, past and present, have contributed to the decline of west coast steelhead. NMFS also recognizes that natural environmental fluctuations have likely played a role in the species' recent declines. However, NMFS believes other human-induced impacts (e.g., incidental catch in certain fisheries, hatchery practices, and habitat modification) have played an equally significant role in this species' decline. Moreover, these human-induced impacts have likely reduced the species' resiliency to natural factors for decline such as drought, poor ocean conditions, and predation (NMFS, 1996a).

Since the time of this proposed listing, NMFS has published a report describing the impacts of California Sea Lions and Pacific Harbor Seals upon salmonids and on the coastal ecosystems of Washington, Oregon, and California (NMFS, 1997b). This report concludes that in certain cases where pinniped populations co-exist with depressed salmonid populations, salmon populations may experience severe impacts due to predation. An example of such a situation is Ballard Locks, WA, where sea lions are known to consume significant numbers of adult winter steelhead. This study further concludes that data regarding pinniped predation is quite limited and that substantial additional research is needed to fully address this issue. For additional information on this issue see the ''Summary of Factors Affecting Steelhead'' below.

*Comment:* One peer reviewer and several commenters stated that NMFS' assessment underestimated the significant influence of natural environmental fluctuations on salmonid populations. Several commenters stated that ocean conditions are one of the primary factors for decline. These commenters suggested that any listing activity should be postponed until the complete oceanographic cycle can be observed.

*Response:* Environmental changes in both marine and freshwater habitats can have important impacts on steelhead abundance. For example, a pattern of relatively high abundance in the mid-1980s followed by (often sharp) declines over the next decade occurred in steelhead populations from most geographic regions of the Pacific Northwest. This result is most plausibly explained by broad-scale changes in ocean productivity. Similarly, 6 to 8 years of drought in the late 1980s and early 1990s adversely affected many freshwater habitats for steelhead throughout the region. These natural phenomena put increasing pressure on natural populations already stressed by anthropogenic factors such as habitat degradation, blockage of migratory routes, and harvest (NMFS, 1996a).

Improvement of cyclic or episodic environmental conditions (for example, increases in ocean productivity or shifts from drought to wetter conditions) can help alleviate extinction risk to steelhead populations. However, NMFS cannot reliably predict future environmental conditions, making it unreasonable to assume improvements in abundance as a result of improvements in such conditions. Furthermore, steelhead and other species of Pacific salmon have evolved over the centuries with such cyclical environmental stresses. This species has persisted through time in the face of these conditions largely due to the presence of freshwater and estuarine refugia. As these refugia are altered and degraded, Pacific salmon species are more vulnerable to episodic events such as shifts in ocean productivity and drought cycles (NMFS, 1996a).

*Issue 4: Consideration of Existing Conservation Measures*

*Comment:* Several commenters argued that NMFS had not considered existing conservation programs designed to enhance steelhead stocks within a particular ESU. Some commenters provided specific information on some of these programs to NMFS concerning the efficacy of existing conservation plans.

*Response:* NMFS has reviewed existing conservation plans and measures relevant to the five ESUs addressed in this final rule and concludes that existing conservation efforts in these areas are not sufficient to preclude listing of individual ESUs at this time. Several of the plans addressed in comments show promise of ameliorating the risks facing steelhead. However, in most cases, measures described in comments have not been implemented or are in their early stages of implementation and have not yet demonstrated success. Some of these measures are also geographically limited to individual river basins or political subdivisions, thereby improving conditions for only a small portion of the entire ESU.

While existing conservation efforts and plans are not sufficient to preclude the need for listings at this time, they are nevertheless valuable for improving watershed health and restoring fishery resources. In those cases where well developed, reliable conservation plans exist, NMFS may choose to incorporate them into the recovery planning process. In the case of threatened species, NMFS also has flexibility under section 4(d) to tailor section 9 take regulations based on the contents of available conservation measures. NMFS fully intends to recognize local conservation efforts to the fullest extent possible. Endangered Species Act listing should not be viewed as the failure of such plans; rather, it should be viewed as a challenge to better coordinate existing conservation efforts to address the underlying problems of watershed degradation and species health.

*Issue 5: Steelhead Biology and Ecology*

*Comment:* Several commenters and a peer reviewer asserted that resident rainbow trout should be included in listed steelhead ESUs. Several commenters also stated that NMFS and FWS should address how the presence of rainbow trout populations may ameliorate risks facing anadromous populations within listed ESUs.

*Response:* In its August 9, 1996, proposed rule, NMFS stated that based on available genetic information, it was the consensus of NMFS scientists, as well as regional fishery biologists, that resident fish should generally be considered part of the steelhead ESUs. However, NMFS concluded that available data were inconclusive regarding the relationship of resident rainbow trout and steelhead. NMFS requested additional data in the proposed rule to clarify this relationship and determine if resident rainbow trout should be included in listed steelhead ESUs.

In response to this request for additional information, many groups and individuals expressed opinions regarding this issue. In most cases these opinions were not supported by new information that resolves existing uncertainty. Two state fishery management agencies (California Department of Fish and Game and Washington Department of Fish and Wildlife) and one peer reviewer provided comments and information supporting the inclusion of resident rainbow trout in listed steelhead ESUs. In general, these parties also felt that rainbow trout may serve as an important reservoir of genetic material for at risk steelhead stocks.

While conclusive evidence does not yet exist regarding the relationship of resident and anadromous *O. mykiss*, NMFS believes available evidence suggests that resident rainbow trout should be included in listed steelhead ESUs in certain cases. Such cases include: (1) Where resident *O. mykiss* have the opportunity to interbreed with anadromous fish below natural or man-made barriers; or (2) where resident fish of native lineage once had the ability to interbreed with anadromous fish but no longer do because they are currently above human-made barriers, and they are considered essential for recovery of the ESU. Whether resident fish that exist above any particular man-made barrier meet these criteria, must be reviewed on a case-by-case basis by NMFS. NMFS recognizes that there may be many such cases in California alone. Resident fish above long-standing natural barriers, and those that are derived from the introduction of non-native rainbow trout, would not be considered part of any ESU.

Several lines of evidence exist to support this conclusion. Under certain conditions, anadromous and resident *O. mykiss* are apparently capable not only of interbreeding, but also of having offspring that express the alternate life history form, that is, anadromous fish can produce nonanadromous offspring, and vice versa (Shapovalov and Taft, 1954; Burgner et al., 1992). Mullan et al. (1992) found evidence that in very cold streams, juvenile steelhead had difficulty attaining ''mean threshold size for smoltification'' and concluded that ''[m]ost fish here [Methow River, WA] that do not emigrate downstream early in life are thermally-fated to a resident life history regardless of whether they were the progeny of anadromous or resident parents.'' Additionally, Shapovalov and Taft (1954) reported evidence of *O. mykiss* maturing in fresh water and spawning prior to their first ocean migration; this life history variation has also been found in cutthroat trout (*O. clarki*) and Atlantic salmon (*Salmo salar*).

NMFS believes resident fish can help buffer extinction risks to an anadromous population by mitigating depensatory effects in spawning populations (e.g., inability of spawning adults to find mates due to low population sizes), by providing offspring that migrate to the ocean and enter the breeding population of steelhead, and by providing a ''reserve'' gene pool in freshwater that may persist through times of unfavorable conditions for anadromous fish. In spite of these potential benefits, presence of resident populations is not a substitute for conservation of anadromous populations. A particular concern is isolation of resident populations by human-caused barriers to migration. This interrupts normal population dynamics and population genetic processes and can lead to loss of a genetically based trait (anadromy). As discussed in NMFS' ''species identification'' paper (Waples 1991), the potential loss of anadromy in distinct population segments may in and of itself warrant listing the species as a whole.

On February 7, 1996, FWS and NMFS adopted a joint policy to clarify their interpretation of the phrase ''distinct population segment (DPS) of any species of vertebrate fish or wildlife'' for the purposes of listing, delisting, and reclassifying species under the ESA (61 FR 4722). DPSs are ''species'' pursuant to section 3(15) of the ESA. Previously, NMFS had developed a policy for stocks of Pacific salmon where an ESU of a biological species is considered ''distinct'' (and hence a species) if it is substantially reproductively isolated from other conspecific population units, and it represents an important component in the evolutionary legacy of the species (November 20, 1991, 56 FR 58612). NMFS believes available data suggest that resident rainbow trout are in many cases part of steelhead ESUs. However, the FWS, which has ESA authority for resident fish, maintains that behavioral forms can be regarded as separate DPSs (e.g., western snowy plover) and that absent evidence suggesting resident rainbow trout need ESA protection, the FWS concludes that only the anadromous forms of each ESU should be listed under the ESA (DOI, 1997; FWS, 1997).

In its review of west coast steelhead, the NMFS BRT stated that rainbow trout and steelhead in the same area may share a common gene pool, at least over evolutionary time periods (NMFS, 1997a). The importance of any recovery action is measured in terms of its ability to recover the listed species in the foreseeable future. The FWS believes that steelhead recovery will not rely on the intermittent exchange of genetic material between resident and anadromous forms (FWS, 1997). As a result, without a clear demonstration of any risks to resident rainbow trout or the need to protect rainbow trout to recover steelhead in the foreseeable future, the FWS concludes that only the anadromous forms of *O. mykiss* should be included in the listed steelhead ESUs at this time (FWS 1997). Moreover, including resident forms of *O. mykiss* in any future listing action under the ESA would necessitate that the two forms combined meet the definition of an endangered or threatened species (FWS, 1997).

**Summary of Factors Affecting the Species**

Section 4(a)(1) of the ESA and the listing regulations (50 CFR part 424) set forth procedures for listing species. The Secretary of Commerce (Secretary) must determine, through the regulatory process, if a species is endangered or threatened based upon any one or a combination of the following factors: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or human-made factors affecting its continued existence.

As noted earlier, NMFS received numerous comments regarding the relative importance of various factors contributing to the decline of west coast

steelhead. Several recent documents describe in more detail the impacts of various factors contributing to the decline of steelhead and other salmonids (e.g., NMFS, 1997c). Relative to west coast steelhead, NMFS has prepared a supporting document that addresses the factors leading to the decline of this species entitled ''Factors for Decline: A supplement to the notice of determination for west coast steelhead'' (NMFS, 1996a). This report, available upon request (see **ADDRESSES**), concludes that all of the factors identified in section 4(a)(1) of the ESA have played a role in the decline of the species. The report identifies destruction and modification of habitat, overutilization for recreational purposes, and natural and human-made factors as being the primary reasons for the decline of west coast steelhead. The following discussion briefly summarizes findings regarding factors for decline across the range of west coast steelhead. While these factors have been treated here in general terms, it is important to underscore that impacts from certain factors are more acute for specific ESUs. For example, impacts from hydropower development are more pervasive for ESUs in the Upper Columbia River and Snake River ESUs than for some coastal ESUs.

*A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range*

Steelhead on the west coast of the United States have experienced declines in abundance in the past several decades as a result of natural and human factors. Forestry, agriculture, mining, and urbanization have degraded, simplified, and fragmented habitat. Water diversions for agriculture, flood control, domestic, and hydropower purposes (especially in the Columbia River and Sacramento-San Joaquin Basins) have greatly reduced or eliminated historically accessible habitat. Studies estimate that during the last 200 years, the lower 48 states have lost approximately 53 percent of all wetlands and the majority of the rest are severely degraded (Dahl, 1990; Tiner, 1991). Washington and Oregon's wetlands are estimated to have diminished by one-third, while California has experienced a 91-percent loss of its wetland habitat (Dahl, 1990; Jensen *et al.*, 1990; Barbour *et al.*, 1991; Reynolds *et al.*, 1993). Loss of habitat complexity has also contributed to the decline of steelhead. For example, in national forests in Washington, there has been a 58-percent reduction in large, deep pools due to sedimentation and loss of pool-forming structures such as boulders and large wood (FEMAT, 1993). Similarly, in Oregon, the abundance of large, deep pools on private coastal lands has decreased by as much as 80 percent (FEMAT, 1993). Sedimentation from land use activities is recognized as a primary cause of habitat degradation in the range of west coast steelhead.

*B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

Steelhead support an important recreational fishery throughout their range. During periods of decreased habitat availability (e.g., drought conditions or summer low flow when fish are concentrated), the impacts of recreational fishing on native anadromous stocks may be heightened. NMFS has reviewed and evaluated the impacts of recreational fishing on west coast steelhead populations (NMFS, 1996a). Steelhead are not generally targeted in commercial fisheries. High seas driftnet fisheries in the past may have contributed slightly to a decline of this species in local areas, but could not be solely responsible for the large declines in abundance observed along most of the Pacific coast over the past several decades.

A particular problem occurs in the main stem of the Columbia River where listed steelhead from the Upper Columbia and Snake River Basin ESUs migrate at the same time and are subject to the same fisheries as unlisted, hatchery-produced steelhead, chinook and coho salmon. Incidental harvest mortality in mixed-stock sport and commercial fisheries may exceed 30 percent of listed populations.

*C. Disease or Predation*

Infectious disease is one of many factors that can influence adult and juvenile steelhead survival. Steelhead are exposed to numerous bacterial, protozoan, viral, and parasitic organisms in spawning and rearing areas, hatcheries, migratory routes, and the marine environments. Specific diseases such as bacterial kidney disease (BKD), ceratomyxosis, columnaris, Furunculosis, infectious hematopoietic necrosis (IHNV), redmouth and black spot disease, Erythrocytic Inclusion Body Syndrome (EIBS), and whirling disease among others are present and are known to affect steelhead and salmon (Rucker et al., 1953; Wood, 1979; Leek, 1987; Foott et al., 1994; Gould and Wedemeyer, undated). Very little current or historical information exists to quantify changes in infection levels and mortality rates attributable to these diseases for steelhead. However, studies have shown that native fish tend to be less susceptible to pathogens than hatchery-reared fish (Buchanon *et al.*, 1983; Sanders *et al.*, 1992).

Introductions of non-native species and habitat modifications have resulted in increased predator populations in numerous river systems, thereby increasing the level of predation experienced by salmonids. Predation by pinnipeds is also of concern in areas experiencing dwindling steelhead run sizes. However, salmon and marine mammals have coexisted for thousands of years and most investigators consider predation an insignificant contributing factor to the large declines observed in west coast steelhead populations.

*D. Inadequacy of Existing Regulatory Mechanisms*

1. Federal and State Forest Practices

The Northwest Forest Plan (NFP) is a Federal management policy with important benefits for steelhead. While the NFP covers a very large area, the overall effectiveness of the NFP in conserving steelhead is limited by the extent of Federal lands and the fact that Federal land ownership is not uniformly distributed in watersheds within the affected ESUs. The extent and distribution of Federal lands limits the NFP's ability to achieve its aquatic habitat restoration objectives at watershed and river basin scales and highlights the importance of complementary salmon habitat conservation measures on non-Federal lands within the subject ESUs. For example, there are no Federal lands managed under the NFP within the Central California, South-Central California, or Southern California ESUs.

On February 25, 1995, the U.S. Forest Service and Bureau of Land Management adopted Implementation of Interim Strategies for Managing Anadromous Fish-producing Watersheds in eastern Oregon and Washington, Idaho, and portions of California (known as PACFISH). The strategy was developed in response to significant declines in naturally-reproducing salmonid stocks, including steelhead, and widespread degradation of anadromous fish habitat throughout public lands in Idaho, Washington, Oregon, and California outside the range of the northern spotted owl. Like the NFP, PACFISH is an attempt to provide a consistent approach for maintaining and restoring aquatic and riparian habitat conditions which, in turn, are expected to promote the sustained natural production of anadromous fish. However, as with the NFP, PACFISH is

limited by the extent of Federal lands and the fact that Federal land ownership is not uniformly distributed in watersheds within the affected ESUs. In the South-Central California and Southern California ESU, for example, Federal lands managed by the U.S. Forest Service represent less than 15–25 percent of each ESU. Moreover, much of these Federal lands are located in upper elevation areas above currently impassible barriers. Furthermore, PACFISH was designed to be a short-term land management/anadromous fish conservation strategy to halt habitat degradation and begin the restoration process until a long-term strategy could be adopted. Interagency PACFISH implementation reports from 1995 and 1996 indicate PACFISH has not been consistently implemented and has not achieved the level of conservation anticipated for the short-term. Additionally, because PACFISH was expected to be replaced within 18 months, it required only minimal levels of watershed analysis and restoration. The interim PACFISH strategy could be effective until summer 1998, when the Interior Columbia River basin Environmental Impact Statements replace it. In total, PACFISH would be in place for a period of approximately 42 months and its long-term limitations have already resulted in lost conservation opportunities for threatened and proposed anadromous fishes.

The California Department of Forestry and Fire Protection (CDF) enforces the State of California's forest practice rules (CFPRs) that are promulgated through the Board of Forestry (BOF). The CFPRs contain provisions that can be protective of steelhead if fully implemented. However, NMFS believes the CFPRs do not secure properly functioning riparian habitat. Specifically, the CFPRs do not adequately address large woody debris recruitment, streamside tree retention to maintain bank stability, and canopy retention standards that assure stream temperatures are properly functioning for all life stages of steelhead. The current process for approving Timber Harvest Plans (THPs) under the CFPRs does not include monitoring of timber harvest operations to determine whether a particular operation damaged habitat and, if so, how it might be mitigated in future THPs. The CFPR rule that permits salvage logging is also an area where better environmental review and monitoring could ensure better protection for steelhead. For these reasons, NMFS is working to improve the condition of riparian buffers in ongoing habitat conservation plan negotiations with private landowners.

The Washington Department of Natural Resources implements and enforces the State of Washington's forest practice rules (WFPRs) which are promulgated through the Forest Practices Board. These WFPRs contain provisions that can be protective of steelhead if fully implemented. This is possible given that the WFPR's are based on adaptive management of forest lands through watershed analysis, development of site-specific land management prescriptions, and monitoring. Watershed Analysis prescriptions can exceed WFPR minima for stream and riparian protection. However, NMFS believes the WFPRs, including watershed analysis, do not provide properly functioning riparian and instream habitats. Specifically, the base WFPRs do not adequately address large woody debris recruitment, tree retention to maintain stream bank integrity and channel networks within floodplains, and chronic and episodic inputs of coarse and fine sediment that maintain habitats that are properly functioning for all life stages of steelhead.

The majority of land area within the Snake River ESU (about 70 percent) is under Federal management; therefore, in most watersheds the State of Idaho's forest practice rules play a lesser role in forest management relative to Federal measures (i.e., PACFISH). Even so, NMFS believes that certain aspects of the State's forest practice rules do not avoid adverse effects to anadromous fish populations or their habitat. Specifically, current riparian buffer width requirements are inadequate, as well as rules which do not prohibit logging on unstable hillsides and landslide prone areas.

2. Dredge, Fill, and Inwater Construction Programs

The Army Corps of Engineers (COE) regulates removal/fill activities under section 404 of the Clean Water Act (CWA), which requires that the COE not permit a discharge that would ''cause or contribute to significant degradation of the waters of the United States.'' One of the factors that must be considered in this determination is cumulative effects. However, the COE guidelines do not specify a methodology for assessing cumulative impacts or how much weight to assign them in decision-making. Furthermore, the COE does not have in place any process to address the additive effects of the continued development of waterfront, riverine, coastal, and wetland properties.

3. Water Quality Programs

The Federal CWA is intended to protect beneficial uses, including fishery resources. To date, implementation has not been effective in adequately protecting fishery resources, particularly with respect to non-point sources of pollution.

Section 303(d)(1) (C) and (D) of the CWA requires states to prepare Total Maximum Daily Loads (TMDLs) for all water bodies that do not meet State water quality standards. TMDLs are a method for quantitative assessment of environmental problems in a watershed and identifying pollution reductions needed to protect drinking water, aquatic life, recreation, and other use of rivers, lakes, and streams. TMDLs may address all pollution sources including point sources such as sewage or industrial plant discharges, and non-point discharges such as runoff from roads, farm fields, and forests.

The CWA gives state governments the primary responsibility for establishing TMDLs. However, EPA is required to do so if a state does not meet this responsibility. In California, as a result of recent litigation, the EPA has made a legal commitment guaranteeing that either EPA or the State of California will establish TMDLs, that identify pollution reduction targets, for 18 impaired river basins in northern California by the year 2007. The State of California has made a commitment to establish TMDLs for approximately half the 18 river basins by 2007. The EPA will develop TMDLs for the remaining basins and has also agreed to complete all TMDLs if the State fails to meet its commitment within the agreed upon time frame.

State agencies in Oregon are committed to completing TMDLs for coastal drainages within 4 years, and all impaired waters within 10 years. Similarly ambitious schedules are in place, or being developed for Washington and Idaho.

The ability of these TMDLs to protect steelhead should be significant in the long term; however, it will be difficult to develop them quickly in the short term and their efficacy in protecting steelhead habitat will be unknown for years to come.

4. Hatchery and Harvest Management

In the past, non-native steelhead stocks have been introduced as broodstock in hatcheries and widely transplanted in many coastal rivers and streams in California (Bryant, 1994; Busby et al., 1996; NMFS, 1997a). Because of problems associated with this practice, California Department of Fish and Game (CDFG) developed its

Salmon and Steelhead Stock Management Policy. This policy recognizes that such stock mixing is detrimental and seeks to maintain the genetic integrity of all identifiable stocks of salmon and steelhead in California, as well as minimize interactions between hatchery and natural populations. To protect the genetic integrity of salmon and steelhead stocks, this policy directs CDFG to evaluate each salmon and steelhead stream and classify it according to its probable genetic source and degree of integrity. This has not yet been accomplished by the State.

California's Steelhead Management Plan [or plan] was adopted and published in February 1996. The plan recognizes that restoration of California's steelhead populations requires a broad approach that emphasizes ecosystem restoration. The plan focuses on restoration of native and naturally produced steelhead stocks because of their importance in maintaining genetic and biological diversity and for their aesthetic values. The Steelhead Plan presents a historical account of the decline of California's steelhead populations, and identifies needed restoration measures both on a broad, programmatic scale and on a stream-specific scale. The Steelhead Plan identifies recent changes in the State's steelhead fishery management and regulations (e.g., steelhead trout catch report—restoration card [AB 2187], seasonal closures and zero bag limits for nearly all coastal streams from Santa Barbara County southward) and also identifies recommendations for further management changes to protect and conserve steelhead populations. These recommended changes include marking of all hatchery-produced steelhead in the State, implementation of an 8-inch minimum size limit for all anadromous waters in the State, and a reduction in the State-wide bag limit to one steelhead per day. CDFG has just recently begun implementation of some of the measures identified in this plan.

Hatchery programs and harvest management have strongly influenced steelhead populations in the Upper Columbia and Snake River Basin ESUs. Hatchery programs intended to compensate for habitat losses have masked declines in natural stocks and have created unrealistic expectations for fisheries. Collection of natural steelhead for broodstock and transfers of stocks within and between ESUs has detrimentally impacted some populations.

The three state agencies (Oregon Department of Fish and Wildlife, Washington Department of Fish and Game, and Idaho Department of Fish and Game) have adopted and are implementing natural salmonid policies designed to limit hatchery influences on natural, indigenous steelhead. Sport fisheries are based on marked, hatchery-produced steelhead, and sport fishing regulations are designed to protect wild fish. While some limits have been placed on hatchery production of anadromous salmonids, more careful management of current programs and scrutiny of proposed programs is necessary in order to minimize impacts on listed species.

*E. Other Natural or Human-Made Factors Affecting Its Continued Existence*

Natural climatic conditions have exacerbated the problems associated with degraded and altered riverine and estuarine habitats. Persistent drought conditions have reduced already limited spawning, rearing and migration habitat. Climatic conditions appear to have resulted in decreased ocean productivity which, during more productive periods, may help offset degraded freshwater habitat conditions (NMFS, 1996a).

In an attempt to mitigate the loss of habitat, extensive hatchery programs have been implemented throughout the range of steelhead on the West Coast. While some of these programs have succeeded in providing fishing opportunities, the impacts of these programs on native, naturally-reproducing stocks are not well understood. Competition, genetic introgression, and disease transmission resulting from hatchery introductions may significantly reduce the production and survival of native, naturally-reproducing steelhead. Collection of native steelhead for hatchery broodstock purposes often harms small or dwindling natural populations. Artificial propagation can play an important role in steelhead recovery through carefully controlled supplementation programs.

**Summary of ESU Determinations**

Below follows a summary of NMFS' ESU determinations for these species. A more detailed discussion of ESU determinations is presented in the ''Status Review Update for West Coast Steelhead from Washington, Idaho, Oregon, and California'' (NMFS, 1997a). Copies of this document are available upon request (see **ADDRESSES**).

*(1) Central California Coast ESU*

This coastal steelhead ESU occupies river basins from the Russian River, Sonoma County, CA, (inclusive) to Aptos Creek, Santa Cruz County, CA, (inclusive), and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), Napa County, CA. The Sacramento-San Joaquin River Basin of the Central Valley of California is excluded. Environmental features show a transition in this region from the northern redwood forest ecosystem to the more xeric southern chaparral and coastal scrub ecosystems. This area is characterized by very erosive soils in the coast range mountains; redwood forest is the dominant coastal vegetation for these drainages. Precipitation is lower here than in areas to the north, and elevated stream temperatures (greater than 20° C) are common in the summer. Coastal upwelling in this region is strong and consistent, resulting in a relatively productive nearshore marine environment.

NMFS has determined that no changes in the proposed boundaries of the Central California Coast ESU are warranted; however, the original written description of this ESU inadvertently left a gap between Soquel Creek and the Pajaro River. This ESU includes steelhead occupying the Russian River and all basins south to Aptos Creek but not including the Pajaro River Basin.

One peer reviewer questioned the basis for the location of the boundary between this ESU and the South-Central California Coast, effectively splitting the basins that flow into Monterey Bay. The ESU break between Aptos Creek and the Pajaro River is largely based on ecological differences of the river basins. The Pajaro River and river basins south of there drain an arid interior and end in broad coastal plains, whereas north of the Pajaro River, the river basins largely drain coastal mountains at the southern end of the natural range of the redwood forest. This boundary is also consistent with the southern limit of coho salmon, further suggesting a natural ecological break.

NMFS finds no biological basis to exclude steelhead from the basins of either San Francisco or San Pablo Bays from this ESU, as some commenters have suggested. The characteristics of hydrology, geology, and upper basin vegetation in the basins draining into San Francisco Bay and San Pablo Bay are more similar to those attributes of the coastal portion of this ESU than to the Central Valley ESU, although resource management activities and urbanization have altered much of the habitat. Life history characteristics of steelhead, such as period of emigration and spawning, are also consistent within this ESU.

Hatchery Populations Pertaining to This ESU

Hatchery populations considered part of this ESU include Big Creek Hatchery stock and San Lorenzo River Hatchery stock which is reared at the Big Creek hatchery. The basis for this conclusion is the minimal influence of releases of fish from outside of the ESU and the genetic similarity between these and other regional stocks. Furthermore, adult collection and spawning procedures practiced by the hatcheries (which include using naturally produced fish) have helped reduce selection for domestication and small population effects during the course of hatchery operations.

Hatchery populations not included in the listed ESU at this time include the Dry Creek stock at the Warm Springs hatchery. Information concerning this stock is sparse and therefore this stock's relationship to the entire ESU is uncertain. NMFS will continue to evaluate any new information concerning this stock in the future to determine if its inclusion is warranted.

*(2) South-Central California Coast ESU*

This coastal steelhead ESU occupies rivers from the Pajaro River, located in Santa Cruz County, CA, (inclusive) to (but not including) the Santa Maria River, San Luis Obispo County, CA. Most rivers in this ESU drain the Santa Lucia Mountain Range, the southernmost unit of the California Coast Ranges. The climate is drier and warmer than in the north, which is reflected in the vegetational change from coniferous forest to chaparral and coastal scrub. Another biological transition at the north of this area is the southern limit of the distribution of coho salmon (*O. kisutch*). The mouths of many of the rivers and streams in this area are seasonally closed by sand berms that form during periods of low flow in the summer. The southern boundary of this ESU is near Point Conception, a well-known transition area for the distribution and abundance of marine flora and fauna.

NMFS has determined that no changes in the proposed boundaries of the South-Central California Coast ESU are warranted. See discussion of the Central California Coast ESU, above, regarding the break between Aptos Creek and the Pajaro River.

Hatchery Populations Pertaining to This ESU

Hatchery populations considered part of this ESU include Whale Rock Reservoir stock. Although this stock was established from a steelhead population that was trapped behind the Whale Rock Dam in the 1950s, it apparently retains an anadromous component. Juvenile steelhead are able to emigrate from Whale Rock Reservoir during high spill years, and anecdotal information indicates that some of these juveniles return as adults to the base of the dam 2 years later.

*(3) Southern California ESU*

This coastal steelhead ESU occupies rivers from the Santa Maria River, San Luis Obispo County, CA (inclusive) to the southern extent of the species' range. Available data indicate that Malibu Creek, Los Angeles County is the southernmost stream generally recognized as supporting a persistent, naturally spawning population of anadromous *O. mykiss* (Behnke, 1992; Burgner et al., 1992).

Migration and life history patterns of southern California steelhead depend more strongly on rainfall and streamflow than is the case for steelhead populations farther north (Moore, 1980; Titus et al., in press). River entry ranges from early November through June, with peaks in January and February. Spawning primarily begins in January and continues through early June, with peak spawning in February and March. Average rainfall is substantially lower and more variable in this ESU than regions to the north, resulting in increased duration of sand berms across the mouths of streams and rivers and, in some cases, complete dewatering of the marginal habitats. Environmental conditions in marginal habitats may be extreme (e.g., elevated water temperatures, droughts, floods, and fires) and presumably impose selective pressures on steelhead populations. Steelhead use of southern California streams and rivers with elevated temperatures suggests that populations within this ESU are able to withstand higher temperatures than those to the north. The relatively warm and productive waters of the Ventura River resulted in more rapid growth of juvenile steelhead than occurred in northerly populations (Moore, 1980; McEwan & Jackson, 1996). However, relatively little life history information exists for steelhead from this ESU.

In the proposed rule NMFS stated that this ESU presently extends to the southern extent of the species range which is currently thought to be Malibu Creek, Los Angeles County. Many comments were received regarding this issue; most supported placing the southern boundary of this ESU further south. NMFS has reviewed numerous references to steelhead occurring historically and recently in streams as far south as the U.S.-Mexico border. While available data indicate that steelhead may occasionally occur as far south as the Santa Margarita River, the relationship of these individuals to those populations occurring further north is poorly understood.

Based on available data, NMFS concludes that insufficient information exists to justify revision of the proposed southern boundary of this ESU.

Hatchery Populations Pertaining to This ESU

No hatchery production of steelhead currently occurs in this ESU.

*(4) Upper Columbia River Basin ESU*

This inland steelhead ESU occupies the Columbia River Basin upstream from the Yakima River, Washington, to the United States-Canada border. The geographic area occupied by this ESU forms part of the larger Columbia Basin Ecoregion (Omernik, 1987). The Wenatchee and Entiat Rivers are in the Northern Cascades Physiographic Province, and the Okanogan and Methow Rivers are in the Okanogan Highlands Physiographic Province. The geology of these provinces is somewhat similar and very complex, developed from marine invasions, volcanic deposits, and glaciation (Franklin & Dyrness, 1973). The river valleys in this region are deeply dissected and maintain low gradients except in extreme headwaters. The climate in this area includes extremes in temperatures and precipitation, with most precipitation falling in the mountains as snow. Streamflow in this area is provided by melting snowpack, groundwater, and runoff from alpine glaciers. Mullan *et al.* (1992) described this area as a harsh environment for fish and stated that ''it should not be confused with more studied, benign, coastal streams of the Pacific Northwest.''

Life history characteristics for Upper Columbia River Basin steelhead are similar to those of other inland steelhead ESUs; however, some of the oldest smolt ages for steelhead, up to 7 years, are reported from this ESU. This may be associated with the cold stream temperatures (Mullan *et al.*, 1992). Based on limited data available from adult fish, smolt age in this ESU is dominated by 2-year-olds. Steelhead from the Wenatchee and Entiat Rivers return to fresh water after 1 year in salt water, whereas Methow River steelhead are primarily two-ocean resident (Howell *et al.*, 1985).

In 1939, the construction of Grand Coulee Dam on the Columbia River blocked over 1,800 kilometers of river

from access by anadromous fish (Mullan *et al.*, 1992). In an effort to preserve fish runs affected by Grand Coulee Dam, all anadromous fish migrating upstream were trapped at Rock Island Dam from 1939 through 1943 and either released to spawn in tributaries between Rock Island and Grand Coulee Dams or spawned in hatcheries and the offspring released in that area (Peven, 1990; Mullan *et al.*, 1992; Chapman *et al.*, 1994). Through this process, stocks of all anadromous salmonids, including steelhead, which were historically native to several separate subbasins above Rock Island Dam, were redistributed among tributaries in the Rock Island-Grand Coulee reach without regard to their origin. Exactly how this has affected stock composition of steelhead is unknown.

NMFS has determined that no changes in the boundaries of the Upper Columbia River ESU are warranted. No new information was received from peer reviewers or other commenters regarding the boundaries of this ESU.

Hatchery Populations Pertaining to This ESU

Hatchery populations considered part of this ESU include the Wells Hatchery stock of steelhead (Summer run). Although this stock represents a mixture of native populations, it probably retains the genetic resources of steelhead populations above Grand Coulee Dam that are now extinct from those native habitats. Operations at the Wells Hatchery have utilized large numbers of spawning adults (>500) and have incorporated some naturally spawning adults (10 percent of the total) into the broodstock each year, procedures which should help minimize the negative genetic effects of artificial propagation. Because of the incorporation of naturally-spawning adults into the hatchery broodstock and the large number of hatchery-propagated fish that spawn naturally, there is a close genetic resemblance between naturally spawning populations in the ESU and the Wells Hatchery stock that could be used for recovery purposes.

Hatchery populations not considered part of this ESU include the Skamania Hatchery stock (Summer run) because of its non-native heritage.

*(5) Snake River Basin ESU*

This inland steelhead ESU occupies the Snake River Basin of southeast Washington, northeast Oregon and Idaho. The Snake River flows through terrain that is warmer and drier on an annual basis than the upper Columbia Basin or other drainages to the north. Geologically, the land forms are older and much more eroded than most other steelhead habitat. The eastern portion of the basin flows out of the granitic geological unit known as the Idaho Batholith. The western Snake River Basin drains sedimentary and volcanic soils of the Blue Mountains complex. Collectively, the environmental factors of the Snake River Basin result in a river that is warmer and more turbid, with higher pH and alkalinity, than is found elsewhere in the range of inland steelhead.

Snake River Basin steelhead are summer steelhead, as are most inland steelhead, and have been classified into two groups, A-run and B-run, based on migration timing, ocean-age, and adult size. Snake River Basin steelhead enter fresh water from June to October and spawn in the following spring from March to May. A-run steelhead are thought to be predominately one-ocean, while B-run steelhead are thought to be two-ocean (IDFG, 1994). Snake River Basin steelhead usually smolt at age-2 or -3 years (Whitt, 1954; BPA, 1992; Hassemer, 1992).

NMFS concludes that no changes in the proposed boundaries of the Snake River Basin ESU are warranted. While several commenters stated that A- and B-run steelhead are distinctive and therefore warrant consideration as separate ESUs, no new scientific evidence was provided to support this. As one peer reviewer noted, the distinction between A- and B-run fish currently is made using either timing-based or length-based divisions of steelhead passing Bonneville Dam, on the mainstem Columbia River. Above Bonneville dam, run-timing separation is not observed, and the groups are separated based on ocean age and body size (IDFG, 1994). It is unclear if the life history and body size differences observed upstream are correlated with groups forming the bimodal migration observed at Bonneville dam. Furthermore, the relationship between patterns observed at the dams and the distribution of adults in spawning areas through the Snake River basin is not well understood. Based on the inability to clearly distinguish between A- and B-run steelhead once above Bonneville, NMFS concludes their division into separate ESUs is not warranted.

Hatchery Populations Pertaining to This ESU

Hatchery populations considered part of this ESU include Dworshak National Fish Hatchery (NFH) stock (Summer run); Imnaha River stock (Summer run); and Oxbow Hatchery stock (Summer run). Although the historical spawning and rearing habitat for the Dworshack Hatchery stock is not available to anadromous migrants (due to the construction of Dworshak Dam), this stock represents the only source of a genetically distinct component of the ESU. Furthermore, due to the absence of any introgression from other populations, the purity of this stock likely has been maintained. While some concern exists for potential domestication or genetic founder effects, hatchery records indicate that a minimum of a thousand adults have been used annually to perpetuate the stock, which would reduce the possibility of genetic drift leading to reduced genetic variation within the stock.

NMFS concludes that the Imnaha River Hatchery stock is part of the Snake River ESU. This stock was recently founded from an undiluted stock (with no previous history of non-native hatchery releases) for the purpose of preserving the native genetic resources of this area. Therefore, this stock represents an important component of the evolutionary legacy of this ESU.

Finally, NMFS concludes that the Oxbow Hatchery stock is part of the Snake River ESU. Although this stock has been under artificial propagation for several generations and has been propagated almost entirely from hatchery-derived adults, NMFS believes this stock represents the only source of a unique genetic resource and as such is important to preserve as part of the ESU.

Hatchery populations not considered part of the Snake River ESU include the Lyons Ferry stock (Summer run), Pahsimeroi Hatchery stock (Summer run), East Fork Salmon River Trap (Summer run), and Wallowa Hatchery stock (Summer run). The Lyons Ferry Hatchery stock is excluded primarily based on the use of steelhead from stocks that originated outside of this ESU. The Pahsimeroi Hatchery stock consists of a mixture of populations, all of which originate within the ESU; however, NMFS believes that because these populations came from ecologically-distinct regions throughout the Snake River Basin, the assemblage of these populations does not closely resemble any naturally spawning counterpart. In recent years, hatchery practices have focused on propagating this stock solely from hatchery derived adults. The East Fork Salmon River Trap consists of a mixture of Pahsimeroi and Dworshak Hatchery stocks which are not included in the ESU.

NMFS concludes that the Wallowa Hatchery stock is not included in this ESU. This stock was founded by collections of adults from lower Snake

River mainstem dams, and there was no clear consensus on which populations within the Snake River Basin were represented in the mixture. Also, populations not native to the Snake River (e.g., Skamania stock) have been incorporated into Wallowa Hatchery broodstock. Many of the reasons for not including this stock are similar to those given for the Pahsimeroi Hatchery stock.

**Existing Conservation Efforts**

Under section 4(b)(1)(A) of the ESA, the Secretary of Commerce is required to make listing determinations solely on the basis of the best scientific and commercial data available and after taking into account efforts being made to protect a species. During the status review for west coast steelhead, NMFS reviewed an array of protective efforts for steelhead and other salmonids, ranging in scope from regional strategies to local watershed initiatives. NMFS has summarized some of the major efforts in a document entitled ''Steelhead Conservation Efforts: A Supplement to the Notice of Determination for West Coast Steelhead under the Endangered Species Act'' (NMFS, 1996b). In addition, NMFS has compiled inventories of locally based, watershed conservation planning and restoration efforts for steelhead in the Central California, South-Central, and Southern California ESUs (NMFS, 1997d). These documents are available upon request (see **ADDRESSES**).

Despite numerous efforts to halt and reverse declining trends in west coast steelhead, it is clear that the status of many native, naturally-reproducing populations has continued to deteriorate. NMFS therefore believes it highly likely that past efforts and programs to address the conservation needs of these stocks are inadequate, including efforts to reduce mortalities and improve the survival of these stocks through all stages of their life cycle. Important factors include the loss of habitat, continued decline in the productivity of freshwater habitat for a wide variety of reasons, significant potential negative impacts from interactions with hatchery stocks, overfishing, and natural environmental variability.

NMFS recognizes that many of the ongoing Federal, state, and local protective efforts are likely to promote the conservation of steelhead and other salmonids. However, NMFS has also determined that, collectively, these efforts are not sufficient to achieve long-term conservation and recovery of steelhead at the scale of individual ESUs. There have been significant improvements in migration conditions in the Columbia River Basin as a result of NMFS' 1995 Biological Opinion on the operation of the Federal hydropower system. However, mainstem passage conditions are only one of many threats facing the species. NMFS believes most existing efforts lack some of the critical elements needed to provide a high degree of certainty that the efforts will be successful.

The best available scientific information on the biological status of the species supports a final listing of five steelhead ESUs under the ESA at this time. NMFS concludes that existing protective efforts are inadequate to alter the proposed determination of threatened or endangered for these five steelhead ESUs.

**Status of Steelhead ESUs**

Section 3 of the ESA defines the term ''endangered species'' as ''any species which is in danger of extinction throughout all or a significant portion of its range.'' The term ''threatened species'' is defined as ''any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' Thompson (1991) suggested that conventional rules of thumb, analytical approaches, and simulations may all be useful in making this determination. In previous status reviews (e.g., Weitkamp *et al.,* 1995), NMFS has identified a number of factors that should be considered in evaluating the level of risk faced by an ESU, including: (1) Absolute numbers of fish and their spatial and temporal distribution; (2) current abundance in relation to historical abundance and current carrying capacity of the habitat; (3) trends in abundance; (4) natural and human-influenced factors that cause variability in survival and abundance; (5) possible threats to genetic integrity (e.g., from strays or outplants from hatchery programs); and (6) recent events (e.g., a drought or changes in harvest management) that have predictable short-term consequences for abundance of the ESU.

During the coastwide status review for steelhead, NMFS evaluated both quantitative and qualitative information to determine whether any proposed ESU is threatened or endangered according to the ESA. The types of information used in these assessments are described below, followed by a summary of results for each ESU.

**Quantitative Assessments**

A significant component of NMFS' status determination was analyses of abundance trend data. Principal data sources for these analyses were historical and recent run size estimates derived from dam and weir counts, stream surveys, and angler catch estimates. Of the 160 steelhead stocks on the west coast of the United States for which sufficient data existed, 118 (74 percent) exhibited declining trends in abundance, while the remaining 42 (26 percent) exhibited increasing trends in abundance. Sixty-five of the stock abundance trends analyzed were statistically significant. Of these, 57 (88 percent) indicated declining trends in abundance and the remaining 8 (12 percent) indicated increasing trends in abundance. NMFS' analysis assumes that catch trends reflect trends in overall population abundance. NMFS recognizes there are many problems with this assumption and, therefore, the index may not represent trends in the total population in a river basin. However, angler catch is the only information available for many steelhead populations, and changes in catch still provide a useful indication of trends in total population abundance. Furthermore, where alternate abundance data existed, NMFS used them in its risk analyses.

Analyses of steelhead abundance indicate that across the species' range, the majority of naturally reproducing steelhead stocks have exhibited long-term declines in abundance. The severity of declines in abundance tends to vary by geographic region. Based on historical and recent abundance estimates, stocks in the southern extent of the coastal steelhead range (i.e., California's Central Valley, South-Central and Southern California ESUs) appear to have declined significantly, with widespread stock extirpations. In several areas, a lack of accurate run size and trend data make estimating abundance difficult.

**Qualitative Assessments**

Although numerous studies have attempted to classify the status of steelhead populations on the west coast of the United States, problems exist in applying results of these studies to NMFS' ESA evaluations. A significant problem is that the definition of ''stock'' or ''population'' varies considerably in scale among studies, and sometimes among regions within a study. In several studies, identified units range in size from large river basins, to minor coastal streams and tributaries. Only two studies (Nehlsen *et al.,* 1991; Higgins *et al.,* 1992) used categories that relate to the ESA ''threatened'' or ''endangered'' status. Even these studies applied their own interpretations of these terms to individual stocks, not to broader

geographic units such as those discussed here. Another significant problem in applying previously published studies to this evaluation is the manner in which stocks or populations were selected to be included in the review. Several studies did not evaluate stocks that were not perceived to be at risk, making it difficult to determine the proportion of stocks they considered to be at risk in any given area.

Nehlsen *et al.* (1991) considered salmon and steelhead stocks throughout Washington, Idaho, Oregon, and California and enumerated all stocks they found to be extinct or at risk of extinction. They considered 23 steelhead stocks to be extinct, one possibly extinct, 27 at high risk of extinction, 18 at moderate risk of extinction, and 30 of special concern. Steelhead stocks that do not appear in their summary were either not at risk of extinction or there was insufficient information to classify them. Washington Department of Fisheries et al. (1993) categorized all salmon and steelhead stocks in Washington on the basis of stock origin (''native,'' ''non-native,'' ''mixed,'' or ''unknown''), production type (''wild,'' ''composite,'' or ''unknown'') and status (''healthy,'' ''depressed,'' ''critical,'' or ''unknown''). Of the 141 steelhead stocks identified in Washington, 36 were classified as healthy, 44 as critical, 10 as depressed, and 60 as unknown.

The following summaries draw on these quantitative and qualitative assessments to describe NMFS' conclusions regarding the status of each steelhead ESU. Furthermore, in these summaries, NMFS identifies those hatchery populations that are essential for the recovery of the ESU. An ''essential'' hatchery population is one that is currently vital to the success of recovery efforts for the ESU within which it occurs. In evaluating the importance of hatchery stocks for recovery, NMFS considers the relationship between the natural and hatchery populations and the degree of risk faced by the natural populations. A more detailed discussion of the status of these steelhead ESUs is presented in the ''Status Review Update for West Coast Steelhead from Washington, Idaho, Oregon, and California'' (NMFS, 1997a). Copies of this document are available upon request (see **ADDRESSES**).

*(1) Central California Coast ESU*

Only two estimates of historical (pre-1960s) abundance specific to this ESU are available: an average of about 500 adults in Waddell Creek in the 1930s and early 1940s (Shapovalov & Taft, 1954), and an estimate of 20,000 steelhead in the San Lorenzo River before 1965 (Johnson, 1964). In the mid-1960s, CDFG (1965) estimated 94,000 steelhead spawning in many rivers of this ESU, including 50,000 and 19,000 fish in the Russian and San Lorenzo Rivers, respectively. NMFS has comparable recent estimates for only the Russian (approximately 7,000 fish) and San Lorenzo (approximately 500 fish) Rivers. These estimates indicate that recent total abundance of steelhead in these two rivers is less than 15 percent of their abundance 30 years ago. Additional recent estimates for several other streams (Lagunitas Creek, Waddell Creek, Scott Creek, San Vincente Creek, Soquel Creek, and Aptos Creek) indicate individual run sizes are 500 fish or less. No recent estimates of total run size exist for this ESU. McEwan and Jackson (1996) noted that steelhead in most tributary streams in San Francisco and San Pablo Bays have been extirpated.

Additional information received in response to the proposed rule suggests that steelhead in this ESU may be exhibiting slight increases in abundance in recent years (NMFS, 1997a). Updated abundance data for the Russian and San Lorenzo Rivers indicate increasing run sizes over the past 2–3 years, but it is not possible to distinguish the relative proportions of hatchery and natural steelhead in those estimates. Additional data from a few smaller streams in the region also show general increases in juvenile abundance in recent years.

Presence/absence data available since the proposed rule show that in a subset of streams sampled in the central California coast region, most contain steelhead. This is in contrast to the pattern exhibited by coho, which are absent from many of those same streams. Those streams in which steelhead were not present are concentrated in the highly urbanized San Francisco Bay region. While there are several concerns with these data (e.g., uncertainty regarding origin of juveniles), NMFS believes it is generally a positive indicator that there is a relatively broad distribution of steelhead in smaller streams throughout the region.

In evaluating trends in productivity throughout the ESU, NMFS considered difficulties arising from the inability to separate out the effects of hatchery productivity from overall run size increases in recent years. The Russian and San Lorenzo Rivers have the highest steelhead productivity in the ESU, but it is likely that many of the fish are of hatchery origin (estimates in both streams range from 40–60 percent over the last 5 years).

After considering available information, NMFS concludes that steelhead in the Central California Coast ESU warrant listing as a threatened species—a change from its proposed status as endangered. Factors contributing to the present conclusion include new evidence for greater absolute numbers of steelhead in the larger rivers of the central California coast region and the possible increases in juvenile abundance over the last few years. In addition, the broad geographic distribution of steelhead throughout the region, as indicated by the presence/absence data, also convinced NMFS this ESU does not warrant an endangered listing at this time.

Hatchery Populations Essential for the Recovery of the ESU

NMFS concludes that the Big Creek and San Lorenzo River Hatchery stocks are not essential for recovery of this ESU. Current information indicates sufficient naturally spawning populations exist for recovery efforts. The significant degree of hatchery contribution to steelhead runs in the San Lorenzo River may require the use of this stock in recovery efforts in the future.

*(2) South-Central California Coast ESU*

Historical estimates of steelhead abundance are available for a few rivers in this region. In the mid-1960s, CDFG (1965) estimated a total of 27,750 steelhead spawning in this ESU. Recent estimates for those rivers where comparative abundance information is available show a substantial decline during the past 30 years. In contrast to the CDFG (1965) estimates, McEwan and Jackson (1996) reported runs ranging from 1,000 to 2,000 in the Pajaro River in the early 1960s, and Snider (1983) estimated escapement of about 3,200 steelhead for the Carmel River for the 1964–1975 period. No recent estimates for total run size exist for this ESU; however, recent run-size estimates are available for five rivers (Pajaro River, Salinas River, Carmel River, Little Sur River, and Big Sur River). The total of these estimates is less than 500 fish, compared with a total of 4,750 for the same rivers in 1965, which suggests a substantial decline for the entire ESU from 1965 levels.

Updated data on abundance and trends for steelhead in this ESU indicate slight increases in recent years. New data from the Carmel River show increases in adult and juvenile steelhead abundance over the past 2 to 5 years.

After weighing this new information, NMFS concludes that steelhead in the

South-Central California Coast ESU warrant listing as a threatened species—a change from its proposed status as endangered. Reasons for this slightly more optimistic assessment include new abundance data indicating recent increases in adult and juvenile abundance in the Carmel River and several small coastal tributaries in the southern part of the region. In addition, risks to genetic integrity to steelhead in this ESU are relatively low because of low levels of hatchery stocking. (There are a few scattered reports of rainbow trout introductions from rivers outside the central California coast region.)

Hatchery Populations Essential for the Recovery of the ESU

NMFS concludes that the Whale Rock Reservoir Hatchery stock is not essential for recovery of this ESU. Current information indicates sufficient naturally spawning populations exist for recovery efforts. If in the future the status of steelhead in this ESU worsens, this stock may become essential for recovery efforts.

*(3) Southern California ESU*

Historically, steelhead occurred naturally south into Baja California. Estimates of historical (pre-1960s) abundance for several rivers in this ESU are available: Santa Ynez River, before 1950, 20,000 to 30,000 (Shapovalov & Taft, 1954; CDFG, 1982; Reavis, 1991; Titus *et al.*, in press); Ventura River, pre-1960, 4,000 to 6,000 (Clanton & Jarvis, 1946; CDFG, 1982; AFS, 1991; Hunt *et al.*, 1992; Henke, 1994; Titus *et al.*, in press); Santa Clara River, pre-1960, 7,000 to 9,000 (Moore, 1980; Comstock, 1992; Henke, 1994); Malibu Creek, pre-1960, 1,000 (Nehlsen *et al.*, 1991; Reavis, 1991). In the mid-1960s, CDFG (1965) estimated steelhead spawning populations for smaller tributaries in San Luis Obispo County as 20,000 fish; however, no estimates for streams further south were provided.

The present estimated total run size for 6 streams (Santa Ynez River, Gaviota Creek, Ventura River, Matilija Creek, Santa Clara River, Malibu Creek) in this ESU are summarized in Titus *et al.*, and each is less than 200 adults. Titus *et al.* concluded that populations have been extirpated from all streams south of Ventura County, with the exception of Malibu Creek in Los Angeles County. While there are no comprehensive stream surveys conducted for steelhead trout occurring in streams south of Malibu Creek, there continue to be anecdotal observations of steelhead in rivers as far south as the Santa Margarita River, San Diego County, in years of substantial rainfall (Barnhart, 1986, Higgins, 1991, McEwan & Jackson, 1996). Titus *et al.* (in press) cited extensive loss of steelhead habitat due to water development, including impassable dams and dewatering.

No time series of data are available within this ESU to estimate population trends. Titus *et al.* summarized information for steelhead populations based on historical and recent survey information. Of the populations south of San Francisco Bay (including part of the Central California Coast ESU) for which past and recent information was available, 20 percent had no discernable change, 45 percent had declined, and 35 percent were extinct. Percentages for the counties comprising this ESU show a very high percentage of declining and extinct populations.

The sustainability of steelhead populations in the Southern California ESU continues to be a major concern, evidenced by consistently low abundance estimates in all river basins. There are fairly good qualitative accounts of historical abundances of steelhead in this ESU, and recent adult counts are severely depressed relative to the past. The few new data that have become available since the proposed rule do not suggest any consistent pattern of change in steelhead abundance in this region.

NMFS concludes that the Southern California ESU is, as proposed, endangered. The primary reasons for concern about steelhead in this ESU are the widespread, dramatic declines in abundance relative to historical levels. Low abundance leads to increased risks due to demographic and genetic variability in small populations. In addition, NMFS believes the restricted spatial distribution of remaining populations places the ESU as a whole at risk because of reduced opportunities for recolonization of streams suffering local population extinctions. The main sources of the extensive population declines in steelhead in this ESU are similar to those described in the South-Central California Coast ESU. In addition, because of fire suppression practiced throughout the area, NMFS believes the effects of increased fire intensity and duration is likely to be a significant risk to the steelhead in this ESU.

Hatchery Populations Essential for the Recovery of the ESU

No hatchery production of steelhead currently occurs in this ESU.

*(4) Upper Columbia River Basin ESU*

Estimates of historical (pre-1960s) abundance specific to this ESU are available from fish counts at dams. Counts at Rock Island Dam from 1933 to 1959 averaged 2,600 to 3,700, suggesting a pre-fishery run size in excess of 5,000 adults for tributaries above Rock Island Dam (Chapman *et al.*, 1994). Runs may already have been depressed by lower Columbia River fisheries at this time. Recent five-year (1989–93) average natural escapements are available for two stock units: Wenatchee River, 800 steelhead, and Methow and Okanogan Rivers, 450 steelhead. Recent average total escapements for these stocks were 2,500 and 2,400, respectively. Average total run size at Priest Rapids Dam for the same period was approximately 9,600 adult steelhead.

Trends in total (natural and hatchery) adult escapement are available for the Wenatchee River (2.6 percent annual increase, 1962–1993) and the Methow and Okanogan Rivers combined (12 percent annual decline, 1982–93). These two stocks represent most of the escapement to natural spawning habitat within the range of the ESU; the Entiat River also has a small spawning run (WDF *et al.*, 1993).

Steelhead in the Upper Columbia River ESU continue to exhibit low abundances, both in absolute numbers and in relation to numbers of hatchery fish throughout the region. Data from this ESU include separate total and natural run sizes, allowing the separation of hatchery and natural fish abundance estimates for at least some areas in some years. Review of the most recent data indicates that natural steelhead abundance has declined or remained low and relatively constant in the major river basins in this ESU (Wenatchee, Methow, Okanogan) since the early 1990s. Estimates of natural production of steelhead in the ESU are well below replacement (approximately 0.3:1 adult replacement ratios estimated in the Wenatchee and Entiat Rivers.) These data indicate that natural steelhead populations in the Upper Columbia River Basin are not self-sustaining at the present time. The BRT also discussed anecdotal evidence that resident rainbow trout, which are in numerous streams throughout the region, contribute to anadromous run abundance. This phenomenon would reduce estimates of the natural steelhead replacement ratio.

The proportion of hatchery fish is high in these rivers (65–80 percent). In addition, substantial genetic mixing of populations within this ESU has occurred, both historically (as a result of the Grand Coulee Fish Maintenance Project) and more recently as a result of the Wells Hatchery program. Extensive mixing of hatchery stocks throughout this ESU, along with the reduced

opportunity for maintenance of locally adapted genetic lineages among different drainages, represents a considerable threat to steelhead in this region.

Based on the considerations above, NMFS concludes the Upper Columbia ESU is endangered, as proposed. In their comments on the proposed rule, Washington Department of Fish and Wildlife states its general concurrence with this conclusion (WDFW, 1997). The primary cause for concern for steelhead in this ESU are the extremely low estimates of adult replacement ratios. The dramatic declines in natural run sizes and the inability of naturally spawning steelhead adults to replace themselves suggest that if present trends continue, this ESU will not be viable. Habitat degradation, juvenile and adult mortality in the hydrosystem, and unfavorable environmental conditions in both marine and freshwater habitats have contributed to the declines and represent risk factors for the future. Harvest in lower river fisheries and genetic homogenization from composite broodstock collections are other factors that may contribute significantly to risk to the Upper Columbia ESU.

Hatchery Populations Essential for the Recovery of the ESU

NMFS concludes the Wells Hatchery stock including progeny is essential for recovery efforts in this ESU, and therefore should be listed. This conclusion is primarily based on very low estimates of the recruits per spawner ratio, which indicate that productivity of naturally spawning steelhead in this ESU is far below the replacement rate.

*(5) Snake River Basin ESU*

Prior to Ice Harbor Dam completion in 1962, there were no counts of Snake River Basin naturally spawned steelhead. However, Lewiston Dam counts during the period from 1949 to 1971 averaged about 40,000 steelhead per year in the Clearwater River, while the Ice Harbor Dam count in 1962 was 108,000, and averaged approximately 70,000 until 1970.

All steelhead in the Snake River Basin are summer steelhead, which for management purposes are divided into ''A-run'' and ''B-run'' steelhead. Each has several life history differences including spawning size, run timing, and habitat type. Although there is little information for most stocks within this ESU, there are recent run-size and/or escapement estimates for several stocks. Total recent-year average (1990–1994) escapement above Lower Granite Dam was approximately 71,000, with a natural component of 9,400 (7,000 A-run and 2,400 B-run). Run size estimates are available for only a few tributaries within the ESU, all with small populations.

Snake River Basin steelhead recently have suffered severe declines in abundance relative to historical levels. Low run sizes over the last ten years are most pronounced for naturally produced steelhead. In addition, average parr densities recently have dropped for both A-and B-run steelhead, resulting in many river basins in this region being characterized as critically underseeded relative to the carrying capacity of streams. Declines in abundance have been particularly serious for B-run steelhead, increasing the risk that some of the life history diversity may be lost from steelhead in this ESU. Recently obtained information indicates a record low smolt survival and ocean production for Snake River steelhead in 1992–94.

The proportion of hatchery steelhead in the Snake River Basin is very high for the ESU as a whole (over 80 percent hatchery fish passing Lower Granite Dam), yet hatchery fish are rare to nonexistent in several drainages in the region. In places where hatchery release sites are interspersed with naturally-spawning reaches, the potential for straying and introgression is high, resulting in a risk to the genetic integrity of some steelhead populations in this ESU. Hatchery/natural interactions that do occur for Snake River steelhead are of particular concern because many of the hatcheries use composite stocks that have been domesticated over a long period of time.

Based on this information, NMFS concludes that the Snake River ESU is threatened, as proposed. The primary indicator of risk to the ESU is declining abundance throughout the region. Demographic and genetic risks from small population sizes are likely to be important, because few natural steelhead are spread over a wide geographic area. In their comments on the proposed rule, the State of Idaho concurred with NMFS' assessment that steelhead stocks in this ESU are imperiled (State of Idaho, 1997). Steelhead in this ESU face risks similar to those in the Upper Columbia River ESU: Widespread habitat blockage from hydrosystem management and potentially deleterious genetic effects from straying and introgression from hatchery fish. The reduction in habitat capacity resulting from large dams such as the Hells Canyon dam complex and Dworshak Dam is somewhat mitigated by several river basins with fairly good production of natural steelhead runs.

Hatchery Populations Essential for the Recovery of the ESU

NMFS concludes that the hatchery stocks considered part of this ESU (Dworshak NFH stock, Imnaha Hatchery stock, and Oxbow Hatchery stock) are not currently essential for the recovery of the ESU. The Dworshak NFH stock and Oxbow Hatchery stock both represent the remnants of population(s) of steelhead that have been excluded from their historical spawning and rearing habitat by impassable dams. These stocks represent the only legacy for the reintroduction of native populations into these areas. If such reintroduction programs are undertaken, these stocks will likely be essential to the recovery of steelhead in these areas. Currently, naturally spawning steelhead populations in the Imnaha River are relatively healthy; however, if naturally spawning populations decline considerably in the future, this stock may become essential for recovery.

**Listing Determination**

Section 3 of the ESA defines an endangered species as any species in danger of extinction throughout all or a significant portion of its range, and a threatened species as any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Section 4(b)(1) of the ESA requires that the listing determination be based solely on the best scientific and commercial data available, after conducting a review of the status of the species and after taking into account those efforts, if any, being made to protect such species.

Based on results from its coastwide assessment, NMFS has determined that on the west coast of the United States, there are fifteen ESUs of steelhead that constitute ''species'' under the ESA. NMFS has determined that two ESUs of steelhead are currently endangered (Southern California and Upper Columbia River ESUs) and three ESUs are currently threatened (Central California Coast, South-Central California Coast, and Snake River Basin ESUs). The geographic boundaries (i.e., the watersheds within which the members of the ESU spend their freshwater residence) for these ESUs are described under ''Summary of ESUs Determinations.''

NMFS has examined the relationship between hatchery and natural populations of steelhead in these ESUs and has assessed whether any hatchery populations are essential for their recovery. While NMFS has concluded that several hatchery stocks are part of the ESU in which they occur, only the

Wells Hatchery stock in the Upper Columbia River ESU is deemed essential for recovery at this time and therefore, included in this listing. Aside from the Wells Hatchery stock, only naturally spawned populations of steelhead (and their progeny) which are part of the biological ESU residing below long-term, naturally and man-made impassable barriers (i.e., dams) are listed in all five ESUs identified as threatened or endangered.

In some cases unlisted hatchery fish that are part of the ESU may not return to the hatchery but instead spawn naturally. In that event, the progeny of that naturally spawning hatchery fish is considered listed. This final rule includes in the listing determination those naturally spawned fish that have at least one parent that was derived from current ESU hatchery broodstock. In some cases these fish may be hybrids; that is, they may have one parent that is part of the biological ESU and one that is not. By listing these fish and extending to them the protections of the ESA, NMFS does not mean to imply that these hybrids are suitable for use in conservation. That decision would need to be made on a case-by-case basis.

NMFS' ''Interim Policy on Artificial Propagation of Pacific Salmon Under the Endangered Species Act'' (April 5, 1993, 58 FR 17573) provides guidance on the treatment of hatchery stocks in the event of a listing. Under this policy, ''progeny of fish from the listed species that are propagated artificially are considered part of the listed species and are protected under the ESA.'' In accordance with this interim NMFS policy, all progeny of listed steelhead are themselves considered part of the listed species. Such progeny include those resulting from the mating of listed steelhead with non-listed hatchery stocks.

At this time, NMFS is listing only anadromous life forms of *O. mykiss*.

NMFS concludes the Wells Hatchery stock including progeny is essential for recovery efforts in this ESU, and therefore should be listed. This conclusion is primarily based on very low estimates of the recruits per spawner ratio, which indicate that productivity of naturally spawning steelhead in this ESU is far below the replacement rate. It is possible that in some years returns to this hatchery may exceed the number of returns necessary to produce the number of offspring NMFS considers advisable for release into this ESU. This surplus may therefore be, by definition, not essential for recovery efforts. In that case, hatchery operators may be faced with a choice between destroying the excess returns or using them for some other purpose. In making its decision today to include the Wells Hatchery stock as part of the listed population, NMFS does not intend to foreclose the possibility of using such excess returns to provide limited harvest opportunities consistent with the conservation of this ESU.

**Prohibitions and Protective Measures**

Section 9 of the ESA prohibits certain activities that directly or indirectly affect endangered species. These prohibitions apply to all individuals, organizations, and agencies subject to U.S. jurisdiction. Section 9 prohibitions apply automatically to endangered species; as described below, this is not the case for threatened species.

Section 4(d) of the ESA directs the Secretary to implement regulations ''to provide for the conservation of [threatened] species,'' which may include extending any or all of the prohibitions of section 9 to threatened species. Section 9(a)(1)(g) also prohibits violations of protective regulations for threatened species implemented under section 4(d). NMFS will issue shortly protective regulations pursuant to section 4(d) for the Central California Coast, South-Central California Coast, and Snake River ESUs.

Section 7(a)(4) of the ESA requires that Federal agencies consult with NMFS on any actions likely to jeopardize the continued existence of a species proposed for listing and on actions likely to result in the destruction or adverse modification of proposed critical habitat. For listed species, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or conduct are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with NMFS.

Examples of Federal actions likely to affect steelhead in the listed ESUs include authorized land management activities of the U.S. Forest Service and U.S. Bureau of Land Management, as well as operation of hydroelectric and storage projects of the Bureau of Reclamation and U.S. Army Corps of Engineers (COE). Such activities include timber sales and harvest, hydroelectric power generation, and flood control. Federal actions, including the COE section 404 permitting activities under the CWA, COE permitting activities under the River and Harbors Act, National Pollution Discharge Elimination System permits issued by the Environmental Protection Agency, highway projects authorized by the Federal Highway Administration, Federal Energy Regulatory Commission licenses for non-Federal development and operation of hydropower, and Federal salmon hatcheries, may also require consultation. These actions will likely be subject to ESA section 7 consultation requirements that may result in conditions designed to achieve the intended purpose of the project and avoid or reduce impacts to steelhead and its habitat within the range of the listed ESU. It is important to note that the current listing applies only to the anadromous form of *O. mykiss;* therefore, section 7 consultations will not address resident forms of *O. mykiss* at this time.

There are likely to be Federal actions ongoing in the range of the listed ESUs at the time these listings become effective. Therefore, NMFS will review all ongoing actions that may affect the listed species with Federal agencies and will complete formal or informal consultations, where requested or necessary, for such actions pursuant to ESA section 7(a)(2).

Sections 10(a)(1)(A) and 10(a)(1)(B) of the ESA provide NMFS with authority to grant exceptions to the ESA's ''taking'' prohibitions (see regulations at 50 CFR 222.22 through 222.24). Section 10(a)(1)(A) scientific research and enhancement permits may be issued to entities (Federal and non-Federal) conducting research that involves a directed take of listed species.

NMFS has issued section 10(a)(1)(A) research or enhancement of survival permits for other listed species (e.g., Snake River chinook salmon and Sacramento River winter-run chinook salmon) for a number of activities, including trapping and tagging, electroshocking to determine population presence and abundance, removal of fish from irrigation ditches, and collection of adult fish for artificial propagation programs. NMFS is aware of several sampling efforts for steelhead in the listed ESUs, including efforts by Federal and state fishery management agencies. These and other research efforts could provide critical information regarding steelhead distribution and population abundance.

Section 10(a)(1)(B) incidental take permits may be issued to non-Federal entities performing activities that may incidentally take listed species. The types of activities potentially requiring a section 10(a)(1)(B) incidental take permit include the operation and release of artificially propagated fish by state or privately operated and funded hatcheries, state or university research on species other than steelhead, not

receiving Federal authorization or funding, the implementation of state fishing regulations, and timber harvest activities on non-Federal lands.

**Take Guidance**

NMFS and the FWS published in the **Federal Register** on July 1, 1994 (59 FR 34272), a policy that NMFS shall identify, to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the ESA. The intent of this policy is to increase public awareness of the effect of a listing on proposed and on-going activities within the species' range. NMFS believes that, based on the best available information, the following actions will not result in a violation of section 9: (1) Possession of steelhead from the listed ESUs acquired lawfully by permit issued by NMFS pursuant to section 10 of the ESA, or by the terms of an incidental take statement pursuant to section 7 of the ESA; and (2) Federally funded or approved projects that involve activities such as silviculture, grazing, mining, road construction, dam construction and operation, discharge of fill material, stream channelization or diversion for which a section 7 consultation has been completed, and when such an activity is conducted in accordance with any terms and conditions provided by NMFS in an incidental take statement accompanied by a biological opinion pursuant to section 7 of the ESA.

Activities that NMFS believes could potentially harm, injure or kill steelhead in the endangered listed ESUs and result in a violation of section 9 include, but are not limited to: (1) Land-use activities that adversely affect steelhead habitat in this ESU (e.g., logging, grazing, farming, road construction in riparian areas, and areas susceptible to mass wasting and surface erosion); (2) Destruction or alteration of steelhead habitat in the listed ESUs, such as removal of large woody debris and ''sinker logs'' or riparian shade canopy, dredging, discharge of fill material, draining, ditching, diverting, blocking, or altering stream channels or surface or ground water flow; (3) discharges or dumping of toxic chemicals or other pollutants (e.g., sewage, oil, gasoline) into waters or riparian areas supporting listed steelhead; (4) violation of discharge permits; (5) pesticide applications; (6) interstate and foreign commerce of steelhead from the listed ESUs and import/export of steelhead from listed ESUs without an ESA permit, unless the fish were harvested pursuant to legal exception; (7) collecting or handling of steelhead from listed ESUs. Permits to conduct these activities are available for purposes of scientific research or to enhance the propagation or survival of the species; and (8) introduction of non-native species likely to prey on steelhead in these ESUs or displace them from their habitat. These lists are not exhaustive. They are intended to provide some examples of the types of activities that might or might not be considered by NMFS as constituting a take of west coast steelhead under the ESA and its regulations. Questions regarding whether specific activities will constitute a violation of this rule, and general inquiries regarding prohibitions and permits, should be directed to NMFS (see **ADDRESSES**).

**Effective Date of Final Listing**

Given the cultural, scientific, and recreational importance of this species, and the broad geographic range of these listings, NMFS recognizes that numerous parties may be affected by this listing. Therefore, to permit an orderly implementation of the consultation requirements and take prohibitions associated with this action, this final listing will take effect October 17, 1997.

**Conservation Measures**

Conservation measures provided to species listed as endangered or threatened under the ESA include recognition, recovery actions, Federal agency consultation requirements, and prohibitions on taking. Recognition through listing promotes public awareness and conservation actions by Federal, state, and local agencies, private organizations, and individuals.

Several conservation efforts are underway that may help reverse the decline of west coast steelhead and other salmonids. These include the Northwest Forest Plan (on Federal lands within the range of the northern spotted owl), PACFISH (on all additional Federal lands with anadromous salmonid populations), Oregon's Coastal Salmon Restoration Initiative, Washington's Wild Stock Restoration Initiative, overlapping protections from California's listing of coho salmon stocks in California under both the Federal and State ESAs, implementation of California's Steelhead Management Plan, and NMFS' Proposed Recovery Plan for Snake River Salmon. NMFS is very encouraged by a number of these efforts and believes they have or may constitute significant strides in the efforts in the region to develop a scientifically well grounded conservation plan for these stocks. Other efforts, such as the Middle Columbia River Habitat Conservation Plan, are at various stages of development, but show promise of ameliorating risks facing listed steelhead ESUs. NMFS intends to support and work closely with these efforts—staff and resources permitting—in the belief that they can play an important role in the recovery planning process.

Based on information presented in this final rule, general conservation measures that could be implemented to help conserve the species are listed below. This list does not constitute NMFS' interpretation of a recovery plan under section 4(f) of the ESA.

1. Measures could be taken to promote land management practices that protect and restore steelhead habitat. Land management practices affecting steelhead habitat include timber harvest, road building, agriculture, livestock grazing, and urban development.

2. Evaluation of existing harvest regulations could identify any changes necessary to protect steelhead populations.

3. Artificial propagation programs could be required to incorporate practices that minimize impacts upon natural populations of steelhead.

4. Efforts could be made to ensure that existing and proposed dam facilities are designed and operated in a manner that will less adversely affect steelhead populations.

5. Water diversions could have adequate headgate and staff gauge structures installed to control and monitor water usage accurately. Water rights could be enforced to prevent irrigators from exceeding the amount of water to which they are legally entitled.

6. Irrigation diversions affecting downstream migrating steelhead trout could be screened. A thorough review of the impact of irrigation diversions on steelhead could be conducted.

NMFS recognizes that, to be successful, protective regulations and recovery programs for steelhead will need to be developed in the context of conserving aquatic ecosystem health. NMFS intends that Federal lands and Federal activities play a primary role in preserving listed populations and the ecosystems upon which they depend. However, throughout the range of all five ESUs listed, steelhead habitat occurs and can be affected by activities on state, tribal, or private land. Agricultural, timber, and urban management activities on nonFederal land could and should be conducted in a manner that minimizes adverse effects to steelhead habitat.

NMFS encourages nonfederal landowners to assess the impacts of their actions on potentially threatened or endangered salmonids. In particular, NMFS encourages the establishment of watershed partnerships to promote conservation in accordance with ecosystem principles. These partnerships will be successful only if state, tribal, and local governments, landowner representatives, and Federal and nonFederal biologists all participate and share the goal of restoring steelhead to the watersheds.

**Critical Habitat**

Section 4(b)(6)(C) of the ESA requires that, to the extent prudent, critical habitat be designated concurrently with the listing of a species unless such critical habitat is not determinable at that time. While NMFS has completed its initial analysis of the biological status of steelhead populations from Washington, Oregon, Idaho, and California, it has not completed the analyses necessary for designating critical habitat. Therefore, critical habitat is not now determinable for these five listed steelhead ESUs. NMFS intends to develop and publish a critical habitat determination for west coast steelhead within one year from the publication of this notice.

**Classification**

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation* v. *Andrus*, 675 F. 2d 825 (6th Cir. 1981), NMFS has categorically excluded all ESA listing actions from environmental assessment requirements of the National Environmental Policy Act (NEPA) under NOAA Administrative Order 216–6.

As noted in Conference Report on the 1982 amendments to the ESA, economic considerations have no relevance to determinations regarding the status of species. Therefore, the analytical requirements of the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 *et seq.*, are not required. Similarly, this final rule is exempt from review under E.O. 12866.

At this time NMFS is not promulgating protective regulations pursuant to ESA section 4(d). In the future, prior to finalizing its 4(d) regulations for the threatened ESUs, NMFS will comply with all relevant NEPA and RFA requirements.

**References**

A complete list of all references cited herein is available upon request (see **ADDRESSES**).

**List of Subjects**

*50 CFR Part 222*

Administrative practice and procedure, Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

*50 CFR Part 227*

Endangered and threatened species, Exports, Imports, Marine mammals, Transportation.

Dated: August 11, 1997.

**Rolland A. Schmitten,**

*Assistant Administrator for Fisheries, National Marine Fisheries Service.*

For the reasons set forth in the preamble, 50 CFR parts 222 and 227 are amended as follows:

## PART 222—ENDANGERED FISH OR WILDLIFE

1. The authority citation of part 222 continues to read as follows:

**Authority:** 16 U.S.C. 1531–1543; subpart D, § 222.32 also issued under 16 U.S.C. 1361 *et seq.*

2. In § 222.23, paragraph (a) is amended by revising the second sentence to read as follows:

**§ 222.23 Permits for scientific purposes or to enhance the propagation or survival of the affected endangered species.**

(a) * * * The species listed as endangered under either the Endangered Species Conservation Act of 1969 or the Endangered Species Act of 1973 and currently under the jurisdiction of the Secretary of Commerce are: Shortnose sturgeon (*Acipenser brevirostrum*); Totoaba (*Cynoscian macdonaldi*), Snake River sockeye salmon (*Oncorhynchusnerka*), Umpqua River cutthroat trout (*Oncorhynchus clarki clarki*); Southern California steelhead (*Oncorhynchus mykiss*), which includes all naturally spawned populations of steelhead (and their progeny) in streams from the Santa Maria River, San Luis Obispo County, California (inclusive) to Malibu Creek, Los Angeles County, California (inclusive); Upper Columbia River steelhead (*Oncorhynchus mykiss*), which includes the Wells Hatchery stock and all naturally spawned populations of steelhead (and their progeny) in streams in the Columbia River Basin upstream from the Yakima River, Washington, to the United States-Canada Border; Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*); Western North Pacific (*Korean*) gray whale (*Eschrichtius robustus*), Blue whale (*Balaenoptera musculus*), Humpback whale (*Megaptera novaeangliae*), Bowhead whale (*Balaenamysticetus*), Right whales (*Eubalaena spp.*), Fin or finback whale (*Balaenoptera physalus*), Sei whale (*Balaenoptera borealis*), Sperm whale (*Physeter catodon*); Cochito (*Phocoena Sinus*), Chinese river dolphin (*Lipotes vexillifer*); Indus River dolphin (*Platanista minor*); Caribean monk seal (*Monachus tropicalis*) Hawaiian monk seal (*Monachus schauinslandi*); Mediterranean monk seal (*Monachus monachus*); Saimaa seal (*Phoca hispida saimensis*); Steller sea lion (*Eumetopias jubatus*), western population, which consists of Steller sea lions from breeding colonies located west of 144° W. long.; Leatherback sea turtle (*Dermochelys coriacea*), Pacific hawksbill sea turtle (*Eretmochelys imbricata bissa*), Atlantic hawksbill sea turtle (*Eretmochelys imbricata imbricata*), Atlantic ridley sea turtle (*Lepidochelys kempii*). * * *

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## PART 227—THREATENED FISH AND WILDLIFE

1. The authority citation for part 227 continues to read as follows:

**Authority:** 16 U.S.C. 1531–1543; subpart B, § 227.12 also issued under 16 U.S.C. 1361 *et seq.*

2. In § 227.4, paragraphs (j), (k), and (l) are added to read as follows:

**§ 227.4 Enumeration of threatened species.**

* * * * *

(j) Central California Coast steelhead (*Oncorhynchus mykiss*). Includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive), and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), Napa County, California. Excludes the Sacramento-San Joaquin River Basin of the Central Valley of California;

(k) South-Central California Coast steelhead (*Oncorhynchus mykiss*). Includes all naturally spawned populations of steelhead (and their progeny) in streams from the Pajaro River (inclusive), located in Santa Cruz County, California, to (but not including) the Santa Maria River;

(l) Snake River Basin steelhead (*Oncorhynchus mykiss*). Includes all naturally spawned populations of steelhead (and their progeny) in streams

in the Snake River Basin of southeast Washington, northeast Oregon, and Idaho.

[FR Doc. 97–21661 Filed 8–13–97; 9:14 am]
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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 679

**[Docket No. 970613138–7138–01; I.D. 081397A]**

## Fisheries of the Exclusive Economic Zone Off Alaska; Scallop Fishery; Closure in Registration Area Q

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Closure.

**SUMMARY:** NMFS is closing the scallop fishery in Registration Area Q (Bering Sea). This action is necessary to prevent exceeding the *Chionoecetes opilio* (*C. opilio*) Tanner crab bycatch limit (CBL) in this area.

**DATES:** Effective 1200 hrs, Alaska local time (A.l.t.), August 13, 1997, until 2400 hrs, A.l.t., June 30, 1998.

**FOR FURTHER INFORMATION CONTACT:** Andrew Smoker, 907–586–7228.

**SUPPLEMENTARY INFORMATION:** The scallop fishery in the exclusive economic zone off Alaska is managed by NMFS according to the Fishery Management Plan for the Scallop Fishery off Alaska (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Fishing for scallops is governed by regulations appearing at subpart F of 50 CFR part 600 and 50 CFR part 679. In accordance with § 679.62(b) the 1997 *C. opilio* CBL for Registration Area Q was established by the Final 1997–98 Harvest Specifications of Scallops (62 FR 34182, June 25, 1997) as 172,000 *C. opilio* crab.

The Administrator, Alaska Region, NMFS, has determined, in accordance with § 679.62(c), that the *C. opilio* CBL for Registration Area Q has been reached. Therefore, NMFS is prohibiting the taking and retention of scallops in Registration Area Q.

### Classification

This action responds to the best available information recently obtained from the fishery. It must be implemented immediately to prevent overharvesting the 1997 CBL for Registration Area Q. Providing prior notice and an opportunity for public comment on this action is impracticable and contrary to public interest. The fleet has already taken the CBL for Registration Area Q. Further delay would only result in overharvest and disrupt the FMP's objective of allowing incidental catch to be retained throughout the year. NMFS finds for good cause that the implementation of this action cannot be delayed for 30 days. Accordingly, under 5 U.S.C. 553(d), a delay in the effective date is hereby waived.

This action is required by § 679.62 and is exempt from review under E.O. 12866.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: August 13, 1997.

**Gary C. Matlock,**

*Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

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