F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules

61. None.

VI. Ordering Clauses

62. Accordingly, *it is ordered* that, pursuant to the authority contained in sections 1, 4(i), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), and 303(r), the notice of proposed rulemaking is hereby adopted.

63. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of the notice of proposed rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 06–2926 Filed 3–28–06; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 223

[Docket No. 060313064–6064–01; I.D.031006D]

RIN 0648–AU43

Listing Endangered and Threatened Species and Designating Critical Habitat: 12–Month Finding on Petition to List Puget Sound Steelhead as an Endangered or Threatened Species under the Endangered Species Act

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

ACTION: Proposed rule; petition finding.

SUMMARY: We (NMFS) have completed an updated Endangered Species Act (ESA) status review of steelhead (*Oncorhynchus mykiss*) populations in the Puget Sound area (Washington). We initiated this review in response to a petition received from Mr. Sam Wright on September 13, 2004, to list Puget Sound steelhead as a threatened or endangered species. We have determined that naturally spawned winter- and summer-run steelhead populations and two hatchery steelhead stocks, below natural and manmade impassable barriers, in the river basins of the Strait of Juan de Fuca, Puget Sound, and Hood Canal (Washington) constitute a Distinct Population Segment (DPS) and hence a "species" for listing consideration under the ESA. After reviewing the best available scientific and commercial information, evaluating threats facing the species, and taking into account those efforts being made to protect the species, we conclude that the Puget Sound steelhead DPS is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Therefore, we are proposing that the Puget Sound steelhead DPS be listed under the ESA as a threatened species. We will announce the timing and location of a public hearing to be held in the Puget Sound area, and propose 4(d) protective regulations and critical habitat for the Puget Sound steelhead DPS in subsequent **Federal Register** notices. We are soliciting public comment on this proposed listing determination, as well as any other information relevant to the designation of critical habitat and the promulgation of 4(d) protective regulations for the Puget Sound steelhead DPS.

DATES: Information and comments on the proposed action must be received by June 27, 2006.

ADDRESSES: You may submit comments and information by any of the following methods. Please identify submittals as pertaining to the "Puget Sound Steelhead Proposed Listing"

- E-mail: *PS.Steelhead.nwr@noaa.gov.* Include "Puget Sound Steelhead Proposed Listing" in the subject line of the message.
- Internet: Comments may also be submitted electronically through the Federal e-Rulemaking portal at: *http://www.regulations.gov.*
- Mail: Submit written comments and information to Chief, NMFS, Protected Resources Division, 1201 NE Lloyd Boulevard, Suite 1100, Portland, OR 97232.
- Hand Delivery/Courier: NMFS, Protected Resources 1201 NE Lloyd Boulevard, Suite 1100, Portland, OR 97232.
- Fax: 503–230–5441

FOR FURTHER INFORMATION CONTACT: For further information regarding this notice contact Dr. Scott Rumsey, NMFS, Northwest Region, (503) 872–2791, or Marta Nammack, NMFS, Office of Protected Resources, (301) 713–1401.

SUPPLEMENTARY INFORMATION:

Background

On September 13, 2004, we received a petition from Mr. Sam Wright of Olympia, Washington, to list Puget Sound steelhead as an endangered or threatened species under the ESA, and to designate critical habitat. On April 5, 2005, we issued our finding that the petition presents substantial information indicating that the petitioned action may be warranted (70 FR 17223), and we announced that we would initiate an updated review of the species' status. This **Federal Register** notice summarizes the information gathered and the analyses conducted as part of this review, and announces our finding regarding the ESA listing status of steelhead in Puget Sound.

For a more detailed summary of the specific information presented in the petition, the reader is referred to the **Federal Register** notice which describes our analysis of the petition (70 FR 17223; April 5, 2005). Most significantly, the petitioner provided 10 years of new harvest, spawning escapement, and total-run-size data for nine natural-origin Puget Sound steelhead stocks. The petitioner concluded that the new information describes significant short- and long-term declining trends in nearly all river systems where data are available, despite significant reductions by the State of Washington in recreational and tribal harvest rates on wild steelhead. The petitioner argued that the populations of Puget Sound steelhead are at such low levels of abundance that risks posed by catastrophic events, environmental and demographic variability, and depensation confer a high level of extinction risk for the foreseeable future. The petitioner also underscored concerns regarding the widespread propagation of domesticated and non-indigenous stocks of hatchery steelhead, a lack of adequate monitoring of steelhead stocks, and habitat loss and degradation in the Puget Sound area.

Policies for Delineating Species under the ESA

Section 3 of the ESA defines "species" as including "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." The term "distinct population segment" is not recognized in the scientific literature. In 1991 we issued a policy for delineating distinct population segments (DPSs) of Pacific salmon (56 FR 58612; November 20, 1991). Under this policy a group of Pacific salmonid populations is considered an

"evolutionarily significant unit" (ESU) if it is substantially reproductively isolated from other conspecific populations, and it represents an important component in the evolutionary legacy of the biological species. Further, an ESU is considered to be a "DPS" (and thus a "species") under the ESA. On February 7, 1996, we and FWS adopted a joint policy for recognizing DPSs under the ESA (DPS Policy; 61 FR 4722). The DPS Policy adopts criteria similar to, but somewhat different from, those in the ESU Policy for determining when a group of vertebrates constitutes a DPS: the group must be discrete from other populations; and it must be significant to its taxon. A group of organisms is discrete if it is "markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, and behavioral factors." Significance is measured with respect to the taxon (species or subspecies). Although the ESU Policy did not by its terms apply to steelhead, the DPS Policy states that NMFS will continue to implement the ESU Policy with respect to "Pacific salmonids" (which include *O. mykiss*). FWS, however, does not use our ESU policy in any of its ESA listing decisions. In a previous instance of shared jurisdiction over a species (Atlantic salmon), we and FWS used the DPS policy in our determination to list the Gulf of Maine DPS of Atlantic salmon as endangered (65 FR 69459; November 17, 2000).

In the recently published findings of our updated status review of listed West Coast steelhead ESUs (71 FR 834; January 5, 2006), we departed from our previous practice of applying the ESU policy to delineate species of *O. mykiss*, and instead applied the joint DPS policy. Given our shared jurisdiction with FWS over *O. mykiss*, and consistent with our approach for Atlantic salmon, we believe that application of the joint DPS policy is logical, reasonable, and appropriate for delineating species of *O. mykiss* under our jurisdiction. In applying the joint DPS policy, we concluded that the resident and anadromous life forms of identified population groups of *O. mykiss* are "discrete," and we delineated 10 steelhead-only DPSs of *O. mykiss*. In this notice we similarly apply the joint DPS policy in defining the group of steelhead populations in the Puget Sound area that qualifies for listing consideration under the ESA. The reader is referred to previously published **Federal Register** notices for further discussion of the delineation of *O. mykiss* DPSs under the joint DPS policy (70 FR 67131, November 4, 2005; 71 FR 834, January 5, 2006).

Listing Determinations under the ESA

The ESA defines an endangered species as one that is in danger of extinction throughout all or a significant portion of its range, and a threatened species as one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range (sections 3(6) and 3(20), respectively). The statute requires us to determine whether any species is endangered or threatened because of any of the following five 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) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence (section 4(a)(1)(A)(E)). We are to make this determination based solely on the best available scientific information after conducting a review of the status of the species and taking into account any efforts being made by states or foreign governments to protect the species. The focus of our evaluation of the ESA section 4(a)(1) factors is to evaluate whether and to what extent a given factor represents a threat to the future survival of the species. The focus of our consideration of protective efforts is to evaluate whether and to what extent they address the identified threats and so ameliorate a species' risk of extinction. The steps we follow in implementing this statutory scheme are to: (1) delineate the species under consideration; (2) review the status of the species; (3) consider the ESA section 4(a)(1) factors to identify threats facing the species; (4) assess whether certain protective efforts mitigate these threats; and (5) predict the species' future persistence.

As noted above, as part of our listing determinations we must consider efforts being made to protect a species, and whether these efforts ameliorate the threats facing the species and reduce risks to its survival. Some protective efforts may be fully implemented, and empirical information may be available demonstrating their level of effectiveness in conserving the species. Other protective efforts are new, not yet implemented, or have not demonstrated effectiveness. We evaluate such unproven efforts using the criteria outlined in the Policy for Evaluating Conservation Efforts ("PECE"; 68 FR 15100; March 28, 2003) to determine their certainties of implementation and effectiveness.

Life History of West Coast Steelhead

Steelhead is the name commonly applied to the anadromous form of the biological species *O. mykiss*. The present distribution of steelhead extends from Kamchatka in Asia, east to Alaska, and extending south along the Pacific coast to the U.S. Mexico border (Busby *et al.*, 1996; 67 FR 21586, May 1, 2002). *O. mykiss* exhibit perhaps the most complex suite of life-history traits of any species of Pacific salmonid. *O. mykiss* can be anadromous ("steelhead"), or freshwater residents ("rainbow or redband trout"), and under some circumstances yield offspring of the opposite life-history form. Those that are anadromous can spend up to 7 years in freshwater prior to smoltification (the physiological and behavioral changes required for the transition to salt water), and then spend up to 3 years in salt water prior to first spawning. *O. mykiss* are also iteroparous (meaning individuals may spawn more than once), whereas the Pacific salmon species are principally semelparous (meaning individuals generally spawn once and die). Within the range of West Coast steelhead, spawning migrations occur throughout the year, with seasonal peaks of activity. In a given river basin there may be one or more peaks in migration activity; since these "runs" are usually named for the season in which the peak occurs, some rivers may have runs known as winter, spring, summer, or fall steelhead.

Steelhead can be divided into two basic reproductive ecotypes, based on the state of sexual maturity at the time of river entry and duration of spawning migration (Burgner *et al.*, 1992). The summer or "stream-maturing" type enters fresh water in a sexually immature condition between May and October, and requires several months to mature and spawn. The winter or "ocean-maturing" type enters fresh water between November and April with well-developed gonads and spawns shortly thereafter. In basins with both summer and winter steelhead runs, the summer run generally occurs where habitat is not fully utilized by the winter run, or where an ephemeral hydrologic barrier separates them, such as a seasonal velocity barrier at a waterfall. Summer steelhead usually spawn farther upstream than winter steelhead (Withler, 1966; Roelofs, 1983; Behnke, 1992).

Previous ESA Status Review

In 1996, we conducted a comprehensive status review of coastal and inland steelhead stocks in

California, Oregon, Washington, and Idaho (Busby *et al.*, 1996). We convened a Biological Review Team (BRT) (an expert panel of scientists from NMFS' Northwest and Southwest Fisheries Science Centers, FWS, the U.S. Geological Survey, and the U.S. Forest Service) to: (1) identify ESUs of West Coast steelhead; and (2) evaluate the risk of extinction for the identified ESUs. As part of this review we identified a Puget Sound ESU of coastal steelhead occupying river basins of the Strait of Juan de Fuca, Puget Sound, and Hood Canal (Washington), as far west as the Elwha River, and as far north as the Nooksack River and Dakota Creek (inclusive), and the United States/Canada border. The Puget Sound ESU is primarily composed of winter steelhead stocks, but also includes several small stocks of summer steelhead occupying limited habitat. The BRT also included the resident life-history form in the Puget Sound ESU. Genetic studies generally show that, in the same geographic area, the resident and anadromous life forms of *O. mykiss* are more similar to each other than either is to the same form from a different geographic area. In particular, the BRT cited a scientific study indicating that rainbow trout and steelhead are not reproductively isolated in two river basins within the Puget Sound ESU (Leider *et al.*, 1995).

In the 1996 status review the BRT concluded that the Puget Sound steelhead ESU was not in danger of extinction or likely to become endangered in the foreseeable future throughout all or a significant portion of its range. However, the BRT did express concern that 17 of 21 stocks in the ESU for which there were adequate data exhibited overall declining trends. Positive trends in abundance for the two largest steelhead runs in the ESU (the Skagit and Snohomish Rivers) mitigated the immediacy of extinction risk, although there was significant concern regarding the sustainability of other steelhead runs in the ESU (most notably the Deer Creek summer and Lake Washington winter steelhead populations, and populations in the Hood Canal area). Given the lack of strong trends in abundance for the major populations and the apparent limited contribution of hatchery fish to natural production, the BRT concluded that most winter steelhead stocks in the Puget Sound ESU appeared to be naturally self-sustaining.

The BRT noted concern about the potential threat to the genetic integrity of Puget Sound steelhead posed by past and present hatchery practices in the Puget Sound area. Hatchery production in this ESU is widespread, and it is managed to support harvest. Most of the hatchery fish propagated in the Puget Sound region are winter-run steelhead derived from a single stock (the Chambers Creek hatchery stock) that is indigenous to the ESU but generally is not native to the local river basins where it is propagated. The summer steelhead hatchery programs in the Puget Sound area are derived from an out-of-ESU stock (the Skamania summer steelhead stock from the Columbia River). The Skamania hatchery stock has generally been introduced in river systems where summer steelhead did not naturally exist, although it has been introduced in some Puget Sound river basins having native summer steelhead populations (e.g., the Stillaguamish and Snohomish Rivers). The Washington Department of Fish and Wildlife (WDFW) employs a hatchery management strategy of promoting isolation between hatchery and natural stocks by releasing smolts early and selecting for early spawn timing in winter steelhead hatchery programs. This separation in run timing is intended to: allow for high rates of selective harvest on returning hatchery fish, while limiting harvest mortality on wild stocks; and minimize competition (as smolts and adults) and opportunities for interbreeding between naturally spawning hatchery fish and wild fish. However, the BRT noted that separation of run timing is seldom complete. High harvest rates targeting early-returning hatchery fish have likely resulted in high mortality levels for early-run natural fish and reduced the natural diversity in spawn timing. Naturally spawning hatchery fish comprise a substantial proportion of the spawning escapement in many of the rivers in the ESU, possibly competing with, and posing genetic risks to, the local steelhead populations. Additionally, the BRT discussed evidence for hatchery introgression in some natural Puget Sound winter steelhead populations (Phelps *et al.*, 1994).

Informed by the BRT's findings (Busby *et al.*, 1996), we concluded that the Puget Sound steelhead ESU did not warrant listing under the ESA (61 FR 41541; August 9, 1996), but expressed concern regarding the sustainability of summer steelhead populations and potentially adverse impacts from hatchery practices in Puget Sound.

Updated Status Review of Puget Sound Steelhead

To ensure that our review was based on the best available and most recent scientific information, we solicited information during a 60–day public comment period regarding the ESU structure and extinction risk of, and efforts being made to protect, the species (70 FR 17223; April 5, 2005). In July 2005 we convened a BRT to review the available information regarding the ESU structure and extinction risk of *O. mykiss* in the Puget Sound area. Specifically, the BRT addressed: (1) whether the geographic boundaries of the previously identified Puget Sound ESU warrant redelineation or refinement; (2) the relationship to the defined ESU of hatchery programs propagating *O. mykiss* within the Puget Sound area; (3) the relationship to the defined ESU of resident rainbow trout above and below impassable barriers; and (4) the level of extinction risk of the ESU throughout all or a significant portion of its range, including the consideration of the contribution of within-ESU hatchery programs and resident populations to the viability of the ESU. The data reviewed, analyses conducted, and findings by the BRT are summarized in a July 26, 2005, memorandum "Status Review Update for Puget Sound Steelhead" (NMFS, 2005).

On June 28, 2005, NMFS finalized a new policy for the consideration of hatchery-origin fish in ESA listing determinations ("Hatchery Listing Policy;" 70 FR 37204). Under the Hatchery Listing Policy, hatchery stocks are considered part of an ESU if they exhibit a level of genetic divergence relative to the local natural population(s) that is no more than what occurs within the ESU (70 FR at 37215; June 28, 2005). We recognize that there are a number of ways to compute and compare genetic divergence and that it is not possible to sample all fish within the ESU to precisely determine the range of genetic diversity within an ESU. In evaluating hatchery stocks associated with Puget Sound steelhead, the BRT included as part of the ESU those hatchery stocks that are no more than moderately diverged from local, native populations in the watershed(s) in which they are released. This approach is consistent with our recent status review updates for 27 West Coast ESUs (see 71 FR 835, January 5, 2006; 70 FR 37160, June 28, 2005; NMFS, 2003; NMFS, 2004). In factoring artificial propagation into the extinction risk assessment for the ESU, the BRT evaluated potential risks to the naturally-spawned components of the ESU posed by Puget Sound area hatchery programs determined not to be part of the ESU; as well as the specific benefits and risks for each of the hatchery programs included in the ESU.

As noted above, we have adopted the approach of applying the joint DPS policy in delineating species of West Coast *O. mykiss* for listing consideration under the ESA (see 71 FR, 834; January 5, 2006). Although the BRT applied the ESU policy in delineating the species of Puget Sound steelhead for ESA listing consideration, their findings directly inform the delineation of the geographic boundaries for an *O. mykiss* DPS (summarized below).

Review of "Species" Delineation

The BRT concluded that the best available scientific information did not warrant a reconsideration of the previously described geographic boundaries for the Puget Sound *O. mykiss* ESU (Busby *et al.*, 1996). The BRT's findings delineating a Puget Sound ESU of *O. mykiss* directly inform our species delineation under the joint DPS policy. Based on established phylogenetic groupings, available population genetic data, differences in migration and spawn timing, patterns in the duration of freshwater and marine residence, and the geographic separation of populations, the BRT concluded that steelhead in Puget Sound are substantially reproductively isolated from other such groupings of West Coast *O. mykiss* (Busby et al., 1996). These observations regarding reproductive isolation similarly satisfy the discreteness criterion under the joint DPS policy, as Puget Sound steelhead are markedly separated from other such population groups of *O. mykiss* as a consequence of physical, physiological, ecological or behavioral factors.

The BRT also concluded that the Puget Sound steelhead represent an important component in the evolutionary legacy of the *O. mykiss* species based on its unique life-history, genetic, and ecological characteristics, as well as the unique glacial and fjord-like characteristics of the ecoregion it occupies (Busby *et al.*, 1996). These traits that establish the evolutionary importance of the Puget Sound steelhead ESU also satisfy the "significance" criterion of the DPS Policy. The proposed Puget Sound steelhead DPS, if lost, would represent: the loss of unusual or unique habitats and ecosystems occupied by the species; a significant gap in the species' range; and a significant loss to the ecological, life-history, and genetic diversity of the taxon.

Based on the BRT's findings summarized above, and our considerations under the joint DPS policy, we conclude that Puget Sound steelhead warrant delineation as a DPS. Consistent with previous findings under the ESU policy, the geographic boundaries of the Puget Sound steelhead DPS continue to include winter- and summer-run steelhead runs in the river basins of the Strait of Juan de Fuca, Puget Sound, and Hood Canal, Washington, bounded to the west by the Elwha River (inclusive) and to the north by the Nooksack River and Dakota Creek (inclusive).

DPS Membership of Resident O. mykiss

The BRT concluded that where resident and anadromous *O. mykiss* co-occur there is likely to be interbreeding between the two life-history forms. Applying the ESU policy, the BRT concluded that resident and anadromous *O. mykiss* below long-standing impassable barriers are not substantially reproductively isolated, and warrant consideration as part of the same Puget Sound *O. mykiss* ESU. This conclusion was based on empirical studies showing that resident and anadromous *O. mykiss* are typically very similar genetically when they co-occur with no physical barriers to migration or interbreeding (Chilcote, 1976; Currens *et al.*, 1987; Leider *et al.*, 1995; Busby *et al.*, 1996; Pearsons *et al.*, 1998). It is also well established that resident forms of *O. mykiss* can occasionally produce anadromous migrants, and vice versa (Shapovalov and Taft, 1954; Burgner *et al.*, 1992; Mullan *et al.*, 1992; Zimmerman and Reeves, 2000; Kostow, 2003; Ardren, 2003; Blouin, 2003; Pearsons *et al.*, 2003; Marshal and Foley, 2004; Narum *et al.*, 2004; Seamons *et al.*, 2004). Additionally, there was information specific to the Puget Sound area describing the interbreeding of the two life-history forms, as well as the production of outmigrating smolts by resident *O. mykiss* (Marshall *et al.*, 2004; McMillan, 2005).

The discreteness criterion of the DPS Policy, however, does not rely on reproductive isolation but on the marked separation of population groups as a consequence of biological factors. Despite the apparent reproductive exchange between resident and anadromous *O. mykiss*, the two life forms remain markedly separated physically, physiologically, ecologically, and behaviorally. Steelhead differ from resident rainbow trout physically in adult size and fecundity, physiologically by undergoing smoltification, ecologically in their preferred prey and principal predators, and behaviorally in their migratory strategy. We recognize that there may be some overlap between co-occurring steelhead and rainbow trout in physical, ecological, behavioral and physiological traits; however, this apparent overlap does not prevent the two life forms from satisfying the discreteness criterion under the DPS policy. While *O. mykiss* display a continuum of life-history and morphological traits, at the end of that continuum, steelhead are markedly separate in their extreme marine migration (leading to, or resulting from, marked separation in physical, physiological, and ecological factors). As we stated in adopting the DPS policy, "the standard adopted [for discreteness] does not require absolute separation of a DPS from other members of its species, because this can rarely be demonstrated in nature for any population of organisms. . . . [T]he standard adopted allows for some limited interchange among population segments considered to be discrete, so that loss of an interstitial population could well have consequences for gene flow and demographic stability of a species as a whole" (61 FR 4722; February 7, 1996). Given the marked separation between the anadromous and resident life-history forms in physical, physiological, ecological, and behavioral factors, we conclude that the anadromous steelhead populations are discrete from the resident rainbow trout populations within the DPS under consideration (see previous determination of West Coast steelhead DPSs for further elaboration of the discreteness between the anadromous and resident life-history forms, 71 FR, 834; January 5, 2006).

DPS Membership of Hatchery-origin Steelhead

Prior to the meeting of the BRT, a Steelhead Hatchery Assessment Group (SHAG) convened to review the relationships of hatchery steelhead stocks to natural populations of Puget Sound steelhead. The SHAG reviewed the stock histories for 25 hatchery programs, and identified those stocks that are no more than moderately diverged from local, native populations in the watershed(s) in which they are released. The SHAG based these assessments on the available information describing the hatchery stock life-history characteristics, genetics, stock transfers, and hatchery practices. (For a more detailed treatment of the information reviewed by SHAG, the reader is referred to Appendix C of the BRT's report, NMFS, 2005).

Informed by the SHAG review, the BRT identified two hatchery stocks that are part of the Puget Sound steelhead DPS: the Green River natural and Hamma Hamma winter-run steelhead stocks. Although the SHAG identified

the Lake Washington winter-run steelhead stock as having been closely related to the local natural population, the BRT concluded that the stock no longer exists since the program has not been in operation since 1993, and therefore the stock is not included as part of the Puget Sound steelhead DPS.

The remaining 23 hatchery stocks reviewed, the Chambers Creek winter-run and Skamania summer-run steelhead hatchery stocks and their derivatives, were determined to be more than moderately diverged from the local native populations and are not included in the DPS. The Chambers Creek hatchery stock has been altered from the original donor natural stock over time through purposeful selection for early run timing and maturation, resulting in an advancement of the natural spawn timing from April to December-January. The Chambers Creek hatchery stock has been transferred from its native watershed and propagated widely throughout the Puget Sound and the Pacific Northwest. Many of the 16 hatchery stocks derived from the Chambers Creek stock and propagated in other Puget Sound watersheds have subsequently incorporated local native winter-run steelhead into their respective broodstocks. Genetic analyses by Phelps *et al.* (1997) indicate that there is a high degree of similarity among these hatchery populations and the founding Chambers Creek stock, and little detectible genetic introgression in the local natural populations from the many years of Chambers Creek hatchery winter-run steelhead introductions. This result suggests a large degree of reproductive divergence from the local natural populations in the DPS from the Chambers Creek stock and its derivatives. The Skamania Hatchery summer-run steelhead stock was founded from outside the range of the Puget Sound DPS, with fish collected in the Washougal and Klickitat Rivers in the Columbia River Basin. The Skamania Hatchery, and the four other Puget Sound summer-run hatchery programs derived from it, are genetically distinct from the Puget Sound steelhead populations, possessing 58 chromosomes in contrast to the 60 chromosomes commonly found in Puget Sound steelhead (Busby *et al.*, 1996; Phelps *et al.*, 1997).

Determination of "Species"

Based on the foregoing information, we conclude that the Puget Sound steelhead DPS constitutes a "species" under the ESA and includes: all naturally spawned winter-run and summer-run steelhead populations, below natural and man-made impassable barriers, in streams in the river basins of the Strait of Juan de Fuca, Puget Sound, and Hood Canal, Washington, bounded to the west by the Elwha River (inclusive) and to the north by the Nooksack River and Dakota Creek (inclusive), as well as the Green River natural and Hamma Hamma winter-run hatchery steelhead stocks.

Assessment of Extinction Risk

The BRT assessed the risk of extinction for Puget Sound steelhead at two levels first, at the individual population level, then at the overall ESU level. Individual populations were assessed according to the four "Viable Salmonid Populations" criteria (VSP; McElhany *et al.*, 2000): abundance, productivity, spatial structure (including connectivity), and diversity. These four parameters are universal indicators of species' viability, and individually and collectively function as reasonable predictors of extinction risk. The collective viability of individual populations was then evaluated in the context of the entire ESU by the inclusion of larger-scale considerations such as the total number of viable populations, the geographic distribution and connectivity of populations, and the vulnerability of populations or certain genetic and life-history attributes to regional catastrophic events. The BRT included in its assessment of population- and ESU-level viability an evaluation of the likely contributions of resident and hatchery-origin fish included in the ESU. The BRT's assessment of ESU-level extinction risk was expressed in terms that correspond to the statutory definitions of endangered and threatened species in the ESA: in danger of extinction throughout all or a significant portion of its range; likely to become endangered within the foreseeable future throughout all or a significant portion of its range; or neither. The BRT's ESU-level extinction risk assessment reflects the BRT's professional scientific judgment, guided by the analysis of the VSP factors, as well as by expectations about the likely interactions among the individual VSP factors. The BRT's assessment, however, did not include an evaluation of efforts being made to protect the species, as required under section 4(b)(1)(A) of the ESA. Therefore, the BRT's findings should not be interpreted as recommendations regarding ESA listing.

Consideration of Resident O. mykiss

The BRT fully considered the best available scientific and commercial information on resident populations in assessing the extinction risk of the Puget Sound *O. mykiss* ESU. However, little or no data are available on the abundance, productivity, spatial structure, or diversity of the component resident populations, nor on their contribution to the viability of the entire ESU. As a result, the majority of the information available with which to assess the level of extinction risk for this ESU pertained to the anadromous component. In general, the BRT considered the resident component of *O. mykiss* populations in the Puget Sound ESU to be relatively minor based on field surveys of juvenile fish in freshwater. The majority of the BRT felt that resident *O. mykiss* below barriers to migration may reduce risks to ESU abundance by providing short-term buffers against demographic stochasticity in many of the ESU's populations, although there was insufficient information to characterize the effectiveness of such buffers. The BRT concluded that resident populations in the Puget Sound ESU are unlikely to significantly reduce the risk of extinction of anadromous populations over the long term. This conclusion is also supported by recent reports by the Independent Science Advisory Board (ISAB) and NMFS' Recovery Science Review Panel (RSRP) which recently concluded that anadromous *O. mykiss* contribute "substantially and irreplaceably to any measure of *O. mykiss* productivity and viability" (RSRP, 2004), and that the "the presence of both resident and anadromous life-history forms is critical for conserving the diversity of steelhead/rainbow trout populations and, therefore, the overall viability of ESUs" (ISAB, 2005–2). The RSRP and ISAB underscored that "resident populations by themselves should not be relied upon to maintain long-term viability of an [*O. mykiss*] ESU" (RSRP, 2004), and that the "likelihood of long-term persistence would be substantially compromised by the loss of anadromy in *O. mykiss* ESUs" (ISAB, 2005–2). Based on the minor contribution of resident *O. mykiss* to the viability of the Puget Sound *O. mykiss* ESU, we conclude that the BRT's extinction risk assessment directly informs our evaluation of extinction risk for the Puget Sound steelhead-only DPS under consideration.

Consideration of Hatchery-Origin Steelhead

The BRT explicitly considered both the potential positive and negative effects of hatchery production on the viability of the Puget Sound *O. mykiss* ESU. The BRT felt that the two within-ESU hatchery programs (the Hamma Hamma River and Green River natural

winter-run steelhead hatchery programs), have the potential to benefit natural steelhead populations in their respective rivers, but that both programs are relatively recent and have not collected sufficient data to demonstrate any contributions with any certainty. The BRT did note that the Hamma Hamma program does appear to have successfully increased the number of natural spawners in the population (although the relative increase in natural spawners is large, the absolute increase in natural spawners is modest), but the success of the program cannot be fully evaluated until the naturally produced offspring of the hatchery-origin fish return and reproduce.

Given the widespread and high levels of production of hatchery fish not included in the Puget Sound ESU, the BRT concluded that the overall negative effect of artificial propagation in the Puget Sound area likely outweighs any potential positive effects. Informed by the above considerations regarding hatchery-origin steelhead, the BRT's analysis of ESU viability (summarized below) focused on the available information concerning the status of naturally spawning steelhead populations in the ESU. As previously noted, we conclude that the BRT's extinction risk assessment directly informs our evaluation of extinction risk for the Puget Sound steelhead-only DPS under consideration.

Summary of Puget Sound Steelhead Viability Analysis

Abundance – Steelhead in the Puget Sound DPS are most abundant in northern Puget Sound, with winter-run steelhead in the Skagit and Snohomish rivers supporting the two largest populations. The Skagit and Snohomish river winter-run populations have been approximately three to five times larger than the other populations in the DPS, with average annual spawning of approximately 5,000 and 3,000 total adult spawners, respectively. Populations in Hood Canal and along the Strait of Juan de Fuca are generally small, averaging fewer than 100 spawners annually. The geometric means of most populations have declined in the last 5 years, and are below the long-term means. However, winter-run populations in the Samish River (northern Puget Sound) and the Hamma Hamma River (Hood Canal) appear to be growing rapidly with recent increases in the abundance of natural spawners. The recent abundance in the Hamma Hamma River likely reflects supplementation from the (within-DPS) Hamma Hamma hatchery program. The recent abundance estimates in the Samish River may include an uncertain number of hatchery fish originating from the (out-of-DPS) Whatcom Creek hatchery, and their naturally spawned progeny. WDFW reports that from 1992 to 2002 there has been a general downgrade in the abundance of Puget Sound steelhead populations, with declines in the proportion of "healthy" populations, and an increase in the proportion of "depressed" and "unknown status" populations (SaSI, 1992, 2002). No abundance data series exists for most of the 16 summer-run steelhead populations in the DPS, although all appear to be small, averaging fewer than 200 spawners annually. The BRT expressed concern that populations at such low levels of abundance may be near or below a "quasi-extinction" threshold, below which population dynamics become inherently unpredictable. The BRT concluded that the risk to the viability of Puget Sound steelhead due to declining abundance is high.

ESU Productivity – Nearly all steelhead populations in the DPS exhibited diminished productivity as indicated by below-replacement population growth rates, and declining short- and long-term trends in natural escapement and total run size. Declining productivity was particularly evident in southern Puget Sound steelhead populations, but was also exhibited by some populations in northern Puget Sound, Hood Canal, and the Strait of Juan de Fuca. At the time of the 1996 status review (Busby *et al.*, 1996), the Skagit and Snohomish river populations appeared to be relative strongholds of productivity, demonstrating strongly positive and statistically significant population trends and growth rates. The recent trends, however, in escapement, total run size, recruitment, and population growth rate for these two populations are downward or below replacement, although not all analyses were statistically significant. Positive population trends were observed in the Samish and Hamma Hamma river winter-run populations (as noted above, the increasing trend for the Hamma Hamma River population likely reflects a recently established supplementation hatchery program, rather than an increase in naturally produced steelhead). Relevant productivity data are unavailable for all but one of the summer-run populations in the DPS. The Tolt River summer-run population, for which data are available, is showing evidence for increasing productivity. The BRT expressed concern that the observed population declines in the DPS have occurred despite widespread reductions by WDFW in the direct harvest of natural steelhead since the 1990s. The BRT also expressed concern that WDFW uses a March 15 date to delineate between naturally spawning hatchery-origin fish and native winter-run fish. The BRT felt that such an approach could bias productivity estimates as it does not provide a consistently accurate estimate of the proportion of hatchery-origin fish or their contribution to natural production. Information was not available to evaluate trends in marine survival for any of the populations in the DPS. The BRT concluded that the risk to the viability of Puget Sound steelhead due to declining productivity is high.

Spatial Structure/Connectivity – The BRT noted that the distribution of steelhead has been affected by a number of dams in several Puget Sound river basins that block accessibility to habitat and connectivity among populations. Additionally, the BRT noted that urban development has degraded or eliminated wetland and riparian habitats, resulting in changes to river hydrology and the loss of side-channel areas, thereby reducing the spawning and rearing distribution of Puget Sound steelhead populations. Declines in natural abundance observed in nearly all of the DPS's populations, coupled with large numbers of man-made impassable barriers, have sharply reduced opportunities for migration and connectivity among steelhead populations in different watersheds. The BRT expressed concern regarding the sharp reduction in natural escapement for the centrally located Lake Washington watershed, and noted that the observation of weakening abundance trends for populations in neighboring river basins may reflect degraded connectivity among populations. The BRT concluded that the viability of Puget Sound steelhead is at moderate risk due to the reduced spatial complexity of, and connectivity among, populations.

Diversity – The BRT noted concern regarding the apparent reduction of the summer-run steelhead populations in Puget Sound. Summer-run populations are concentrated in northern Puget Sound, with only two other populations distributed throughout the rest of the DPS. One of these latter summer-run populations (the Elwha River summer-run population) is thought to have been extirpated in the early1900s and replaced by out-of-DPS Skamania stock summer-run hatchery steelhead. Several BRT members noted that anecdotal historical accounts discuss significant early runs of wild steelhead, but

expressed concern that these early wild spawners have apparently disappeared from several river systems. Despite evidence of increasing productivity in the largest summer-run population in the ESU (the Tolt River population), it exhibits a negative trend in total run size and a flat trend in escapement. The other summer-run populations appear to be at very low levels of abundance. Additionally, the substantial production of out-of-DPS Skamania stock summer-run hatchery fish in watersheds with native summer-run populations (e.g., in the Stillaguamish River and South Fork Skykomish populations) poses genetic risks to the summer-run component of the DPS. The BRT expressed concern that the Chambers Creek and Skamania stock hatchery programs and their derivatives may have adverse effects on the DPS's diversity through genetic introgression and outbreeding depression. Some members of the BRT felt that adverse impacts from these out-of-DPS hatchery programs may be contributing to the declines in natural steelhead productivity, but acknowledged that the magnitude of any such impact could not be ascertained. Although these hatchery programs have selected for differences in average spawning time, any interbreeding between native and hatchery fish that may occur will likely have adverse consequences for the reproductive fitness of the local natural populations. The BRT noted that even very low levels of hatchery introgression can have a significant impact on genetic diversity after several generations. The BRT recognized the substantial reductions in the harvest of wild steelhead that were implemented in the mid 1990s, but noted that the previous harvest management may have removed a substantial proportion of the native summer-run and early winter-run steelhead spawn timing from many of the populations in the DPS. Present-day high harvest rates for marked hatchery-origin fish, although preventing out-of-DPS hatchery fish from spawning naturally, may continue to reduce the diversity of natural spawn timing through the incidental mortality of early-returning natural steelhead. The BRT concluded that the viability of Puget Sound steelhead is at moderate risk due to the reduced life-history diversity of populations and the potential threats posed by artificial propagation and harvest in the Puget Sound.

Overall DPS Viability – Informed by the assessment of demographic risks for each of the four VSP criteria (summarized above), an overwhelming majority of the BRT concluded that Puget Sound steelhead are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. The BRT's conclusion fully considered the best available information concerning the contribution of resident and hatchery-origin *O. mykiss* to the overall viability of the steelhead in the Puget Sound DPS. As noted above, the BRT's assessment did not include an evaluation of efforts being made to protect the species and therefore does not represent a recommendation for ESA listing status. The following sections summarize the likely factors for the decline of Puget Sound steelhead, as well as the protective efforts being made to protect steelhead and other salmonids in the Puget Sound area.

Summary of Factors Affecting the Species

Section 4(a)(1) of the ESA and NMFS' implementing regulations (50 CFR part 424) state that the Secretary of Commerce (Secretary) must determine, through the regulatory process, if a species is endangered or threatened because of 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. We have previously detailed the impacts of various factors contributing to the decline of West Coast steelhead in our previous listing determinations (e.g., 62 FR 43937, August 18, 1997; 57 FR 14517, March 25, 1999) and supporting documentation (e.g.; NMFS, 1997, "Factors Contributing to the Decline of Chinook Salmon An Addendum to the 1996 West Coast Steelhead Factors for Decline Report;" NMFS, 1996, "Factors for Decline A Supplement to the Notice of Determination for West Coast Steelhead Under the Endangered Species Act"). These **Federal Register** notices and technical reports conclude that all of the factors identified in section 4(a)(1) of the ESA have played a role in the decline of West Coast steelhead stocks. The following discussion briefly summarizes findings regarding the principal factors for decline in general terms, and notes factors of specific relevance to the Puget Sound DPS. The reader is referred to the above **Federal Register** notices, technical reports, and the BRT's findings (NMFS, 2005) for a more detailed treatment of the relevant factors for decline for this ESU.

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

West Coast steelhead have experienced declines in abundance over the past several decades as a result of loss, damage, or change to their natural environment. Water diversions for agriculture, flood control, domestic, and hydropower purposes have greatly reduced or eliminated historically accessible habitat and degraded remaining habitat. Forestry, agriculture, mining, and urbanization have degraded, simplified, and fragmented habitat. The destruction or modification of estuarine areas has resulted in the loss of important rearing and migration habitats. Losses of habitat complexity and habitat fragmentation have also contributed to observed declines. Sedimentation and degraded water quality from extensive and intensive land use activities (e.g., timber harvests, road building, livestock grazing, and urbanization) are recognized as primary causes of habitat degradation throughout the range of West Coast steelhead.

Habitat utilization by steelhead in the Puget Sound area has been dramatically affected by large dams and other man-made barriers in a number of river basins: the Nooksack, Skagit, White, Nisqually, Skokomish, and Elwha river basins. Several of these dams have eliminated access to historical habitats, while others are located above historically impassable natural barriers. In addition to limiting habitat accessibility, dams (whether located above or below historically impassable barriers) affect habitat quality through changes in river hydrology, altered temperature profile, reduced downstream gravel recruitment, and the reduced recruitment of large woody debris. In some rivers, such as the Elwha River, increased water temperatures have decreased disease resistance in salmonids.

Many upper tributaries in the Puget Sound region have been affected by poor forestry practices, while many of the lower reaches of rivers and their tributaries have been altered by agriculture and urban development. Urbanization has caused direct loss of riparian vegetation and soils, significantly altered hydrologic and erosional rates and processes (e.g., by creating impermeable surfaces such as roads, buildings, parking lots, sidewalks etc.), and polluted waterways with stormwater and point-source discharges. The loss of wetland and riparian habitat

has dramatically changed the hydrology of many streams, with increases in flood frequency and peak flow during storm events and decreases in groundwater driven summer flows (Moscrip and Montgomery, 1997; Booth *et al.*, 2002; May *et al.*, 2003). Flood events result in gravel scour, bank erosion, and sediment deposition. Land development for agricultural purposes has also altered the historical land cover, and as much of this development has occurred in river floodplains, there has been a direct impact on river flow levels and morphology. River braiding and sinuosity have been reduced through the construction of dikes, hardening of banks with riprap, and channelization of the mainstem. Constriction of river flows, particularly during high flow events, increases the likelihood of gravel scour and the dislocation of rearing juveniles. The loss of side-channel habitats has also reduced important areas for spawning, juvenile rearing, and overwintering habitats. Estuarine areas have been dredged and filled, resulting in the loss of important juvenile rearing areas. In addition to being a factor that contributed to the present decline of Puget Sound steelhead populations, the continued destruction and modification of steelhead habitat is the principal factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

2. Overutilization for Commercial, Recreational, Scientific or Educational Purposes

Steelhead runs have supported, and continue to support, important tribal and recreational fisheries throughout their range, contributing millions of dollars to numerous local economies, as well as providing important cultural and subsistence needs for Native Americans. Overfishing in the early days of European settlement led to the depletion of many stocks of salmonids, prior to extensive modifications and degradation of natural habitats. However, following the degradation of many west coast aquatic and riparian ecosystems, exploitation rates were higher than many populations could sustain. Therefore, harvest may have contributed to the further decline of some populations.

Extensive artificial propagation has historically supported high levels of steelhead harvest in the Puget Sound area. The majority of harvest occurred in recreational fisheries, but tribal fisheries directed at steelhead are also important. Prior to the promulgation of regulations by WDFW in the mid 1990s protecting all wild steelhead from recreational fishery harvest, Puget Sound steelhead fisheries likely contributed to the present decline in abundance of natural steelhead populations. It is also likely that harvest directed at early returning hatchery-origin fish adversely affected natural population life-history diversity through the selective removal of commingled native summer-run and early-winter run steelhead adults. Present-day fisheries are implemented to harvest marked hatchery-origin fish only, and are managed in time to target early run hatchery-origin fish and minimize the incidental harvest of early-returning natural steelhead. Existing steelhead recreational fisheries in Puget Sound, while appropriately minimizing potential adverse impacts on natural steelhead populations, may still result in a continued mortality of early-returning natural steelhead through poaching and hook-and-release mortalities. Although overutilization for recreational purposes was a factor that contributed to the present decline of Puget Sound steelhead populations, we do not believe that overutilization is a factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

3. Disease or Predation

Introductions of non-native species (e.g., largemouth bass) and habitat modifications that benefit the survival or feeding effectiveness of native or introduced predators have resulted in increased predation risks to natural steelhead populations in many Pacific Northwest rivers and lakes. Predation by marine mammals (principally harbor seals and sea lions) is also of concern in areas where steelhead populations are already diminished due to other factors, or where man-made structures concentrate fish and make them susceptible to predation by marine mammals (e.g., the Ballard Locks at Lake Washington). Although fishes form the principal food sources of many marine mammals, salmonids appear to be a minor component of their overall diet, given the seasonal availability of anadromous fishes (Scheffer and Sperry, 1931; Jameson and Kenyon, 1977; Graybill, 1981; Brown and Mate, 1983; Roffe and Mate, 1984; Hanson, 1993). However, predation by marine mammals may significantly decrease salmonid abundance in some local populations when other prey species are absent and where physical and behavioral conditions lead to the concentration of salmonid adults and juveniles (Cooper and Johnson, 1992). Predation by seabirds can also substantially reduce the abundance of juvenile salmon and steelhead populations in some locations. Although predation may be a concern for some local populations at low abundance, we do not believe that it is a factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

Fish disease and epizootics can also be a limiting factor to adult and juvenile steelhead survival. Salmonids are exposed to numerous naturally occurring bacterial, protozoan, viral, and parasitic organisms in spawning and rearing areas, hatcheries, migratory routes, and the marine environment. Included are fish pathogens causing diseases such as bacterial kidney disease, ceratomyxosis, columnaris, furunculosis, infectious hematopoietic necrosis, enteric redmouth disease, black spot disease, erythrocytic inclusion body syndrome, and whirling disease, among others, that are known to affect West Coast salmonids (Rucker *et al.*, 1953; Wood, 1979; Leek, 1987; Foott *et al.*, 1994; Gould and Wedemeyer, undated). In general, very little current or historical information exists to quantify changes in infection levels and mortality rates attributable to these diseases. However, studies have shown that naturally spawned fish tend to be less susceptible to pathogens than hatchery-reared fish (Buchanon *et al.*, 1983; Sanders *et al.*, 1992). Hatchery-origin fish may have an increased risk of carrying fish disease pathogens because of relatively high rearing densities that increase stress levels and can lead to a greater manifestation and transmission of diseases within the hatchery population. Under natural, low density conditions, most pathogens do not lead to a disease outbreak in wild populations. When disease outbreaks do occur, they are often triggered by stressful hatchery rearing conditions, or by an adverse change in the natural environment. Consequently, it is possible that the release of hatchery fish may lead to the infection and increased mortality of natural-origin populations, particularly if habitat conditions such as low water flows and high temperatures exacerbate the susceptibility of natural- and hatchery-origin populations to infectious diseases. Although hatchery populations may be considered to be reservoirs for disease pathogens because of their elevated rearing densities and increased stress levels, there is little evidence to suggest that diseases are routinely transmitted from hatchery-orign to natural-origin fish (Steward and Bjornn, 1990). We do not believe that disease is a factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

4. The Inadequacy of Existing Regulatory Mechanisms

A variety of Federal, state, tribal, and local laws, regulations, treaties and measures affect the abundance and survival of West Coast steelhead, and the quality of their habitat. We reviewed existing regulatory mechanisms as part of our recent updated listing determinations for West Coast salmon and steelhead (69 FR 33102, June 14, 2004; 70 FR 834, January 5, 2006). We noted several Federal, state, and local regulatory programs that have been successfully implemented to substantially reduce historical risks to West Coast steelhead DPSs (for example, the elimination of hatchery rainbow trout stocking in anadromous waters, and the conversion of many in-river recreational fisheries to mark-selective fisheries or catch-and-release only). The reader is referred to the previous proposed rule (69 FR 33102; June 14, 2004) for a regional and state-by-state summary of these regulatory mechanisms, including those in the Puget Sound area. In particular, changes in regulations governing steelhead fisheries have significantly reduced the risks for many West Coast steelhead DPSs, including the Puget Sound DPS under consideration. Hatchery managers have implemented measures to reduce the potential negative interactions between hatchery-origin and natural-origin steelhead in the Puget Sound area. However, it is unclear whether some of these measures have been effective in minimizing the adverse consequences of artificial propagation on natural populations (e.g., the selection for early run timing in the Chambers Creek steelhead hatchery stock has reduced the frequency of interactions between hatchery-origin and natural fish, but it may have increased the severity of any interactions that do occur). The Hatchery Science Review Group (HSRG) recently detailed recommendations intended to further minimize the potentially harmful effects of artificial propagation on natural populations of Puget Sound salmonids (HSRG, 2004). At present, however, the regulatory and funding mechanisms are not in place to fully implement the HSRG's recommendations (HSRG, 2005; also see further discussion in the "Efforts Being Made to Protect West Coast Salmon and Steelhead " section, below). In addition, although there have been efforts to improve habitat conditions across the range of the Puget Sound steelhead DPS, land-use regulations across its range do not adequately address continued threats from habitat degradation and modification. We conclude that the inadequacy of existing regulatory mechanisms (e.g., governing potentially harmful hatchery practices and certain land-use activities) is a factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

5. Other Natural or Manmade Factors Affecting Its Continued Existence

Variability in ocean and freshwater conditions can have profound impacts on the productivity of salmon and steelhead populations. Natural climatic conditions have at different times exacerbated or mitigated the problems associated with degraded and altered riverine and estuarine habitats. In the last decade, evidence has shown: (1) recurring, decadal-scale patterns of ocean-atmosphere climate variability in the North Pacific Ocean (Zang *et al.*, 1997; Mantua *et al.*, 1997); and (2) correlations between these oceanic productivity "regimes" and salmon population abundance in the Pacific Northwest and Alaska (Hare *et al.*, 1999; Mueter *et al.*, 2002). One indicator of the ocean-atmosphere variation for the North Pacific is the Pacific Decadal Oscillation index (PDO). Negative PDO values are associated with relatively cool ocean temperatures (and generally high salmon productivity) off the Pacific Northwest, and positive values are associated with warmer, less productive conditions. These favorable ocean conditions may also be correlated with favorable conditions for salmonid survival in the freshwater environment (e.g., above-average rainfalls resulting in improved flow regimes for smolt outmigration). Increases in many salmon populations in recent years may be largely a result of more favorable ocean conditions. PDO values were mostly positive during the two decades preceding 1998, and this regime was generally characterized by less productive ocean conditions and declining salmonid abundances. Between July 1998 and July 2002, the PDO exhibited mostly negative values, associated with higher ocean productivity and increasing returns for many West Coast salmonid populations. From August 2002 to present, the PDO has exhibited mostly positive values. It is not clear what impact, if any, these most recent conditions will have on West Coast salmonid populations in general, and the Puget Sound steelhead DPS in particular. Ocean-climate change and variability is a factor contributing considerable uncertainty to the viability of the Puget Sound steelhead DPS into the foreseeable future.

Extensive hatchery programs have been implemented throughout the range of West Coast steelhead. While these programs may have succeeded in providing fishing opportunities and increasing the total number of naturally spawning fish, the programs have also likely increased risks to natural populations as a result of food resource competition, increased predation, reduced genetic diversity and reproductive fitness through interbreeding, and masking of trends in natural populations through the straying of hatchery-origin fish onto spawning grounds. More recently, hatchery programs using local native salmon populations as broodstock have been initiated that are specifically designed to conserve depressed Pacific salmonid populations. State natural resource agencies have adopted or are developing policies designed to ensure that the use of artificial propagation is conducted in a manner consistent with the conservation and recovery of natural, indigenous populations. The role of artificial propagation in the conservation and recovery of salmonid populations continues to be the subject of vigorous and well funded scientific research.

State and Federal hatcheries have attempted to propagate steelhead in Puget Sound since 1900. Early hatchery techniques reared steelhead for only a few days or weeks prior to release, experienced limited success, and likely reduced natural steelhead runs through the collection of fish for broodstock (Crawford, 1979). With the development of extended rearing programs for hatchery steelhead (Putzke and Meigs, 1940), and the resultant increase in adult steelhead returns, artificial propagation of steelhead in Puget Sound became more widespread. Hatchery steelhead in Puget Sound are propagated in nearly all of the major river systems, spawn naturally throughout the Puget Sound region, and are derived largely from a single highly domesticated winter-run stock (the Chambers Creek stock) or from a summer-run stock originally developed in the Columbia River basin (the Skamania Hatchery stock). Genetic analyses indicate that in some naturally spawning populations in larger river basins there is little if any detectable influence from years of Chambers Creek hatchery winter-run steelhead introductions, a result that suggests reproductive isolation of, and poor spawning success by hatchery-origin fish (Phelps *et al.*, 1997). There is, however, some evidence for introgression by hatchery releases into

native winter-run steelhead populations in the Strait of Juan de Fuca (NMFS, 2005). Efforts to limit spawning interactions between hatchery and wild fish through the use of early returning hatchery stocks may have reduced the probability of interbreeding through the temporal separation of average run timing and the spatial separation of spawning areas. However, because of substantial genetic differences between the non-indigenous hatchery stocks and the native natural steelhead populations, the fitness consequences to the native natural population of any hatchery-wild crosses that may occur would be highly detrimental. The HSRG, in its recent recommendations for the form of Puget Sound steelhead hatchery programs, concluded that "the widespread stocking and outplanting of steelhead smolts poses unacceptable ecological and genetic risks to naturally spawning populations, particularly in small streams that receive such outplants or to which hatchery-origin fish stray" (HSRG, 2004). Several BRT members similarly expressed concern that the extensive propagation of the Chambers Creek and Skamania hatchery steelhead stocks may be contributing to the observed declines in Puget Sound steelhead populations, although the BRT acknowledged that there is insufficient information to quantify the level of reproductive exchange between hatchery- and natural-origin steelhead. Potentially harmful hatchery practices may pose ecological and genetic risks to natural populations and may represent a factor limiting the viability of the Puget Sound steelhead DPS into the foreseeable future.

Efforts Being Made to Protect West Coast Salmon and *O. mykiss*

Section 4(b)(1)(A) of the ESA requires the Secretary to make listing determinations solely on the basis of the best scientific and commercial data available after taking into account efforts being made to protect a species. Therefore, in making listing determinations, we first assess species extinction risk and identify factors that have led to the species' decline. The we assess existing efforts being made to protect the species to determine if those measures ameliorate the risks faced by the species.

In judging the efficacy of existing protective efforts, we rely on the joint NMFS-FWS "Policy for Evaluation of Conservation Efforts When Making Listing Decisions" ("PECE;" 68 FR 15100; March 28, 2003). PECE provides direction for the consideration of protective efforts identified in conservation agreements, conservation plans, management plans, or similar documents (developed by Federal agencies, state and local governments, tribal governments, businesses, organizations, and individuals) that have not yet been implemented, or have been implemented but have not yet demonstrated effectiveness. The policy articulates several criteria for evaluating the certainty of implementation and effectiveness of protective efforts to aid in determining whether a species warrants listing as threatened or endangered. Evaluations of the certainty an effort will be implemented include whether: the necessary resources (e.g., funding and staffing) are available; the requisite agreements have been formalized such that the necessary authority and regulatory mechanisms are in place; there is a schedule for completion and evaluation of the stated objectives; and (for voluntary efforts) the necessary incentives are in place to ensure adequate participation. The evaluation of the certainty of an effort's effectiveness is made on the basis of whether the effort or plan: establishes specific conservation objectives; identifies the necessary steps to reduce threats or factors for decline; includes quantifiable performance measures for the monitoring of compliance and effectiveness; incorporates the principles of adaptive management; and is likely to improve the species' viability at the time of the listing determination.

The PECE also notes several important caveats. Satisfaction of the above mentioned criteria for implementation and effectiveness establishes a given protective effort as a candidate for consideration, but does not mean that an effort will ultimately affect the risk assessment. The policy stresses that just as listing determinations must be based on the viability of the species at the time of review, so they must be based on the state of protective efforts at the time of the listing determination. The PECE does not provide explicit guidance on how protective efforts affecting only a portion of a species' range may affect a listing determination, other than to say that such efforts will be evaluated in the context of other efforts being made and the species' overall viability. There are circumstances where threats are so imminent, widespread, and/or complex that it may be impossible for any agreement or plan to include sufficient efforts to result in a determination that listing is not warranted.

Summary of Protective Efforts

As noted above, the consideration of protective efforts under PECE is concerned with evaluating formalized conservation efforts that have yet to be fully implemented or show effectiveness. We recognize that there are many long established efforts that are providing vital contributions to conserving and recovering Puget Sound salmonid stocks. Such efforts include: Federal actions approved by NMFS and FWS under section 7(a)(2) of the ESA affecting currently listed species; actions approved by NMFS under the section 4(d) protective regulations for salmonid ESUs currently listed as threatened; Federal forest management under the Northwest Forest Plan in the Olympic, Mt. Baker-Snoqualmie, and Gifford Pinchot National Forests; and improved harvest management by WDFW and the Puget Sound area tribes to conserve wild populations of Puget Sound steelhead. Although not directly quantifiable, the protective benefits of these well established measures are manifested in the present demographic performance of Puget Sound steelhead populations. Although not explicitly considered by the BRT, we believe that such efforts are reflected in the BRT's assessment of limiting factors and extinction risk for the DPS. Additionally, in the Puget Sound area there are numerous small-scale protective efforts aimed at conserving salmonid species that are currently listed under the ESA. It is unlikely that such efforts individually or collectively comprehensively address the complex suite of limiting factors and broad spatial scales necessary to substantially mitigate the BRT's assessment of extinction risk for the Puget Sound steelhead DPS. Below we confine our summary of protective efforts to recent developments in conservation and recovery efforts for the Puget Sound area, and significant large-scale or comprehensive efforts with the potential to address the complex and widespread factors likely limiting the Puget Sound steelhead DPS.

The Shared Strategy for Puget Sound (Shared Strategy) is a collaborative effort among local citizens, local governments, non-governmental organizations, tribal governments, Washington State, technical experts, NMFS, and FWS to protect and restore Puget Sound Chinook salmon, Hood Canal summer chum salmon, and bull trout populations in the Puget Sound region. Shared Strategy, in collaboration with NMFS' Technical Recovery Team, has made significant progress in: identifying demographically independent Chinook salmon populations; identifying recovery targets and ranges for Chinook salmon populations in each watershed; identifying the actions needed at the

watershed level to achieve these targets; and developing recovery plans, specific actions, and resource commitments for the successful implementation of Puget Sound recovery efforts. Recently, the Shared Strategy released a draft recovery plan addressing the threatened Puget Sound Chinook ESU and threatened bull trout (available on the Internet at: *http://www.sharedsalmonstrategy.org/plan/index.htm*). The draft Shared Strategy plan represents a synoptic and comprehensive effort to identify watershed-specific limiting factors, conservation objectives, necessary restoration and conservation measures, required resources, and adaptive management protocols. We have reviewed the draft plan in the context of recovery planning for the threatened Puget Sound Chinook ESU, and we believe that the watershed-scale plans, if implemented, including certain measures identified by NMFS, collectively represent a robust program for achieving the recovery of Puget Sound chinook. At present, however, the necessary funding to implement the draft Shared Strategy plan has not been secured. Without assurances that the necessary funding resources are and will be available, the draft Shared Strategy plan does not satisfy the "certainty of implementation" criterion under PECE. Although we believe that, if implemented, the draft Shared Strategy plan will be effective in conserving the Puget Sound Chinook ESU, there is considerable uncertainty whether the identified conservation measures will be effective in substantially addressing the factors limiting Puget Sound steelhead populations. The draft Shared Strategy plan focuses on the recovery needs of Chinook populations, and does not necessarily contemplate the limiting factors and needed conservation measures specific to the *O. mykiss* species. At present there is insufficient information to evaluate whether the draft Shared Strategy plan adequately accounts for differences in life-history and habitat-use characteristics among populations of Puget Sound Chinook and steelhead.

The HSRG is an independent scientific panel established and funded by Congress to evaluate artificial propagation practices in Puget Sound and coastal Washington, and to provide guidance to regional policymakers and technical staff in implementing hatchery reforms. In 2004 the HSRG released its recommendations for the reform of Puget Sound and coastal Washington salmonid hatcheries, including Puget Sound steelhead hatchery programs. The HSRG's recommendations for Puget Sound steelhead hatcheries include: (1) establishing "wild steelhead management zones" in each of the recognized ecoregions of Puget Sound, in which streams would not be not planted with hatchery fish and instead would be managed for native stocks; (2) discontinuing some current programs as necessary to implement such wild steelhead management zones; (3) convening of a workshop by WDFW to further develop methods of implementing segregated steelhead hatchery programs (such as the programs derived from the Chambers Creek and Skamania Hatchery stocks) while minimizing interactions with native naturally spawning steelhead populations; (4) instituting monitoring and evaluation by WDFW as a basic component of conducting segregated hatchery programs; (5) developing locally adapted broodstock in areas where hatchery steelhead programs may be developed or reformed; (6) sizing hatchery programs intended to provide harvest opportunities in a manner that minimizes impacts on wild populations; (7) developing the capability of collecting unharvested returning hatchery-origin adult steelhead to minimize spawning interactions with natural populations; and (8) discontinuing hatchery programs where unharvested hatchery-origin adults cannot be collected at their return (HSRG, 2004). WDFW is in the process of developing a new statewide steelhead management plan that will consider the HSRG's recommendations. At present, however, the regulatory and funding mechanisms are not in place to implement the HSRG's recommendations (HSRG, 2005a), and the specific reforms that WDFW intends to implement are unknown. Additionally, further research and data collection will be necessary prior to the implementation of certain HSRG recommendations. For example, the HSRG cautions that, because of the low abundance and productivity of wild steelhead populations in Puget Sound, developing locally adapted broodstock is not currently a viable alternative for most populations (HSRG, 2005b). If WDFW completes its new steelhead management plan prior to the publication of the final rule (i.e, within 1 year from the date of publication of this notice), we anticipate considering it in developing our final listing determination.

The conservation of approximately 1.1 million acres of forest lands in the Puget Sound region is covered by five Habitat Conservation Plans (HCPs), which we have determined are compliant with section 10(a)(2)(B) of the ESA and that include steelhead as HCP-covered species. The HCPs are West Fork Timber, Plum Creek Timber (Central Cascades), Port Blakely Tree Farms, WA Department of Natural Resources, and Green Diamond (formerly called Simpson Timber - Shelton Timberlands). All of these forestry HCPs address long-term salmonid survival on industrial forest lands and are designed to provide healthy watersheds and riparian areas, and properly functioning salmonid habitats. These HCPs also give landowners long-term management clarity and certainty. Specific HCP conservation measures focus on attaining mature forest conditions in riparian areas, minimizing sediment input to streams, protecting and recovering floodplain functions, and protecting water quality during timber management and associated road operations. Each HCP has a different blend of conservation measures that reflect landowner operations, geographic limitations, and baseline environmental conditions. Although forest practices on all private lands are not yet procedurally compliant with ESA regulations under Section 10 or Section 4(d), the Washington State Forest Practice Rules were changed in 2000 to reflect the substance of NMFS' Section 4(d) protective regulations for threatened salmonids (65 FR 42422; July 10, 2000). Effective July 2001, these new rules cover a wide variety of forest practices and include: a new, more functional classification of rivers and streams on non-Federal forest land; improved plans for properly designing, maintaining, and upgrading existing and new forest roads; additional protections for unstable slopes; greater protections for riparian areas intended to maintain properly functioning conditions; a process for adaptive management; and other features. The above described protective efforts addressing forest land management are being implemented. Although these protective efforts are important contributions to addressing habitat degradation in upper tributaries and attendant adverse effects on habitat quality and structure downstream, there is insufficient information to assess the effectiveness and relative importance of these efforts in mitigating the extinction risk of the Puget Sound steelhead DPS. It is unlikely that these forestry measures substantially alter the BRT's assessment of extinction risk given that the loss and degradation of nearshore, estuarine, and lowland habitats due to

agricultural activities and urbanization remain significant limiting factors for the DPS.

Two municipal watersheds are also covered under HCPs that include protection of instream flows for anadromous salmonids: the City of Seattle Cedar River Watershed and the City of Tacoma Green River Water Supply. Instream flows are also provided through agreements negotiated with the Federal Energy Regulatory Commission on the Skagit, Sultan, Snoqualmie and Nisqually rivers. As noted above, there is insufficient information to assess the effectiveness of these efforts in mitigating the extinction risk of the Puget Sound steelhead DPS. Despite likely benefits at the watershed scale, it is unlikely that these efforts address instream flow issues on a spatial scale sufficiently broad to alter the extinction risk assessment for the DPS as a whole.

Two long-standing hydroelectric dams on the Elwha River are slated for removal starting in 2008. Congress has authorized funds for current phases of the complex effort that requires construction of several new water supplies. These dam removals will restore anadromous salmonid access to over 100 km of mainstem and tributary habitat. The construction of a fish ladder in 2000 at Electron Dam in the Puyallup River Basin has provided access to over 16 km of mainstem habitat. Studies are underway to evaluate its effectiveness in providing passage for adult and juvenile fish. Passage is now provided for steelhead and other salmonids (except sockeye) above Landsburg Dam on the Cedar River, which formerly blocked access to approximately 27.4 km of mainstem habitat since 1900. Although these efforts are important developments in providing for fish passage and addressing adverse impacts of dams on downstream habitats, in total they currently lack sufficient certainty of implementation and effectiveness to alter our risk assessment.

We support the many valuable conservation and recovery planning efforts in Puget Sound. While we are optimistic that these promising efforts will contribute to recovering listed Puget Sound salmonids, PECE establishes strict criteria for the consideration of such protective efforts in ESA listing determinations. At present, the efforts being made to protect Puget Sound salmonid species lack the certainty of implementation and effectiveness, or lack sufficient scope, to substantially mitigate the BRT's assessment of extinction risk for the Puget Sound steelhead DPS. In developing our final listing determination, we will consider the best available information concerning the protective efforts described above, any changes or amendments to those efforts, as well as any other protective efforts that may come to our attention. Our evaluation of protective efforts will be conducted consistent with the PECE criteria for evaluating the likelihoods of implementation and effectiveness.

Proposed Listing Determination

The overwhelming majority of the BRT concluded that Puget Sound steelhead is "likely to become endangered within the foreseeable future throughout all or a significant portion of its range." The BRT fully considered the best available scientific and commercial information concerning the contributions of resident and hatchery-origin *O. mykiss* to the viability of the Puget Sound steelhead populations in total. The BRT noted that the resident *O. mykiss* below impassable barriers may reduce risks to the steelhead population abundance in the short term, but concluded that these resident populations are unlikely to significantly reduce the risk of extinction of steelhead populations over the long term. The BRT also noted that the two within-ESU hatchery programs (the Hamma Hamma River and Green River natural winter-run steelhead hatchery programs) have the potential to benefit natural populations in their respective rivers, but both programs are relatively recent and have not collected sufficient data to demonstrate positive contributions with any certainty. The BRT concluded that these two within-ESU hatchery programs do not significantly reduce the risk of extinction for Puget Sound steelhead.

We have reviewed the BRT's findings, considered the factors threatening the future viability of the Puget Sound steelhead DPS, and taken into account those efforts being made to protect the species. We conclude that the DPS is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range because of: the threatened destruction, modification, or curtailment of its habitat or range; the inadequacy of existing regulatory mechanisms; and other natural and manmade factors affecting its continued existence (see the "Factors Affecting the Species" section above for a description of the specific risks associated with these statutory listing factors). We also conclude that, at present, protective efforts in Puget Sound do not substantially mitigate the factors threatening the DPS's future viability, nor do they ameliorate the BRT's assessment of extinction risk for the Puget Sound steelhead DPS. Based on the foregoing information, we propose that the Puget Sound steelhead DPS be listed under the ESA as a threatened species.

Protective Regulations for Threatened West Coast Salmonids

ESA section 9(a) take prohibitions (16 U.S.C. 1538(a)(1)(B)) apply to all species listed as endangered. In the case of threatened species, ESA section 4(d) leaves it to the Secretary's discretion whether and to what extent to extend the statutory 9(a) "take" prohibitions, and directs the agency to issue regulations it considers necessary and advisable for the conservation of the species. We have flexibility under section 4(d) to tailor protective regulations based on the contributions of available conservation measures. The 4(d) protective regulations may prohibit, with respect to threatened species, some or all of the acts which section 9(a) of the ESA prohibits with respect to endangered species. These 9(a) prohibitions and 4(d) regulations apply to all individuals, organizations, and agencies subject to U.S. jurisdiction.

We have already adopted ESA 4(d) rules that exempt from the take prohibitions a range of activities that provide for the conservation of threatened salmonid ESUs (50 C.F.R. 223.203). These 4(d) regulations for threatened salmonids provide the necessary flexibility to ensure that fisheries and artificial propagation programs are managed consistently with the conservation needs of ESA-listed ESUs. (For a more detailed description of the latest amendments to the 4(d) protective regulations, the reader is referred to 70 FR 37160, June 28, 2005). The 4(d) protective regulations apply the take prohibitions to unmarked anadromous fish with an intact adipose fin. In other words, the take prohibitions do not apply to listed hatchery fish with a clipped adipose fin ("ad-clipped"). In a subsequent **Federal Register** notice we will propose protective regulations for the Puget Sound steelhead DPS.

Peer Review

In December of 2004 the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review (Peer Review Bulletin) establishing minimum peer review standards, a transparent process for public disclosure, and opportunities for public input. The OMB Peer Review Bulletin, implemented under the Information Quality Act (Public Law 106–554), is intended to provide public oversight on the quality of agency

information, analyses, and regulatory activities. The text of the Final Peer Review Bulletin was published in the **Federal Register** on January 14, 2005 (70 FR 2664). The Peer Review Bulletin requires Federal agencies to subject "influential" scientific information to peer review prior to public dissemination. Influential scientific information is defined as "information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions," and the Peer Review Bulletin provides agencies broad discretion in determining the appropriate process and level of peer review. The Peer Review Bulletin establishes stricter standards for the peer review of "highly influential" scientific assessments, defined as information whose "dissemination could have a potential impact of more than $500 million in any one year on either the public or private sector or that the dissemination is novel, controversial, or precedent-setting, or has significant interagency interest."

We consider the BRT's status review memorandum ("Status Review Update for Puget Sound Steelhead;" NMFS, 2005) to be "influential scientific information," and, as such, it is subject to the pre-dissemination peer review requirements of the Peer Review Bulletin. In November 2005 we solicited scientific peer review of the BRT's status review memorandum from three independent experts who have not been involved in the drafting of the report or in collecting the data considered therein, nor are the experts affiliated with agencies or organizations that have an interest in the outcome of the status review update for Puget Sound steelhead. The purpose of the review is to assess the scientific validity of the status review, including any assumptions, methods, results and conclusions. Specific aspects of the scientific peer review include: the quality of the data collected or used for the assessment; the appropriateness of the analyses employed; the validity of the results and conclusions; and the appropriateness of the scope of the assessment and information considered. The reviewers' comments will be summarized and addressed in the BRT's final status review update report, as well as in our final listing determination for Puget Sound steelhead. A description of our peer review plan for the BRT's status review memorandum was posted on the Internet in December 2005 by the U.S. Department of Commerce and is available at: *http://www.osec.doc.gov/cio/oipr/ID47.htm.*

Identification of Those Activities That Would Constitute a Violation of Section 9 of the ESA

We and the FWS published in the **Federal Register** on July 1, 1994 (59 FR 34272), a policy that the agencies 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 this listing on proposed and ongoing activities within the species' range. At the time of the final rule, we will identify to the extent known specific activities that will not be considered likely to result in violation of section 9, as well as activities that will be considered likely to result in violation. We believe that, based on the best available information, the following actions will not result in a violation of section 9:

1. Possession of Puget Sound steelhead which are 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; or

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 ESA section 7 consultation has been completed, and when activities are conducted in accordance with any terms and conditions provided by NMFS in an incidental take statement accompanying a biological opinion.

Activities that we believe could potentially "harm" steelhead populations (see ESA 3(19) and 50 CFR 222.102 [harm]) in the proposed Puget Sound DPS, and result in a violation of the section 9 take prohibition include, but are not limited to:

1. Land-use activities that adversely affect steelhead habitats in the Puget Sound area (e.g., logging, grazing, farming, urban development, road construction in riparian areas and areas susceptible to mass wasting and surface erosion);

2. Destruction/alteration of the steelhead habitats in the proposed DPS, 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 Puget Sound steelhead populations;

4. Violation of discharge permits;

5. Pesticide applications;

6. Interstate and foreign commerce of steelhead from the proposed DPS and import/export of steelhead from the DPS without a threatened or endangered species permit;

7. Collecting or handling of steelhead from the proposed DPS. Permits to conduct these activities are available for purposes of scientific research or to enhance the propagation or survival of the species; or

8. Introduction of non-native species likely to prey on steelhead in the Puget Sound area or displace steelhead from their habitats.

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 the proposed Puget Sound steelhead DPS under the ESA and its regulations. Questions regarding whether specific activities will constitute a violation of the section 9 take prohibition, and general inquiries regarding prohibitions and permits, should be directed to NMFS (see **ADDRESSES**).

Critical Habitat

Section 4(a)(3)(A) of the ESA requires that, to the maximum extent prudent and determinable, critical habitat be designated concurrently with the listing of a species. In keeping with agency regulations at 50 CFR 424.12, we conclude that critical habitat is not presently determinable for the Puget Sound steelhead DPS. Specifically, we lack biological, economic, and related mapping information sufficient to perform required analyses of the impacts of critical habitat designation to determine which areas may qualify as critical habitat for this DPS. We intend to propose critical habitat in separate rulemaking as soon as possible after completing the required analyses. In this notice we are soliciting information necessary to inform these analyses (see Information Solicited and **ADDRESSES**) and will consider such information in developing a future proposed designation for the Puget Sound steelhead DPS.

Information Solicited

Proposed Rule

To ensure that the final action resulting from this proposed rule will be as accurate and effective as possible, and informed by the best available scientific and commercial information, we are soliciting information,

comments, and suggestions from the public, other governmental agencies, the scientific community, industry, and any other interested parties. We recognize that in several instances there are serious limits to the quantity and quality of available information, and accordingly we have exercised our best professional judgment in developing this proposed rule. We will appreciate any additional information or comment regarding: (1) the relatedness of specific hatchery stocks to the Puget Sound steelhead DPS; (2) biological or other relevant data concerning the viability and/or threats to the Puget Sound steelhead DPS, including the abundance, productivity, spatial structure, and diversity of the subject DPS; (3) current or planned activities in the subject area and their possible impact on the species; (4) the relationship, range, distribution, and habitat-use patterns of steelhead populations in the Puget Sound area; and (5) the consideration of efforts being made to protect salmonid populations in the Puget Sound area. We invite and will consider all pertinent information and comment. We further request that data, information, and comments be accompanied by: supporting documentation such as maps, logbooks, bibliographic references, personal notes, and/or reprints of pertinent publications; and the name of the person submitting the data, the address, and any association, institution, or business that the person represents.

Public Hearings

Joint Commerce-Interior ESA implementing regulations state that the Secretary shall promptly hold at least one public hearing if any person so requests within 45 days of publication of a proposed regulation to list a species or to designate critical habitat (see 50 CFR 424.16(c)(3)). In a forthcoming **Federal Register** document, we will announce the date and location of any public meeting (or meetings) to provide the opportunity for the interested individuals and parties to fully understand issues relating to this proposed rule, give comments, exchange information and opinions, and engage in a constructive dialogue concerning this proposed rule. We encourage the public's involvement in such ESA matters.

Critical Habitat

As noted above, we are soliciting biological and economic information relevant to making a critical habitat designation for the Puget Sound steelhead DPS. Data reviewed may include, but are not limited to: scientific or commercial publications, administrative reports, maps or other graphic materials, information received from experts, and comments from interested parties. Comments and data particularly are sought concerning:

(1) Maps and specific information describing the amount, distribution, and use type (e.g., spawning, rearing, or migration) of steelhead habitat in the Puget Sound area (both freshwater and marine), as well as any additional information on occupied and unoccupied habitat areas;

(2) The reasons why any habitat should or should not be determined to be critical habitat as provided by sections 3(5)(A) and 4(b)(2) of the ESA;

(3) Information regarding the benefits of excluding lands covered by Habitat Conservation Plans (ESA section 10(a)(1)(B) permits), including the regulatory burden designation may impose on landowners and the likelihood that exclusion of areas covered by existing plans will serve as an incentive for other landowners to develop plans covering their lands;

(4) Information regarding the benefits of excluding Federal and other lands covered by habitat conservation strategies and plans (e.g. Northwest Forest Plan, Washington's Forest and Fish Plan), including the regulatory burden designation may impose on land managers and the likelihood that exclusion of areas covered by existing plans will serve as an incentive for land users to implement the conservation measures covering the lands subject to these plans;

(5) Information regarding the benefits of designating particular areas as critical habitat;

(6) Current or planned activities in the areas that might be proposed for designation and their possible impacts;

(7) Any foreseeable economic or other potential impacts resulting from designation, in particular, any impacts on small entities;

(8) Whether specific unoccupied areas (e.g., areas behind dikes or dams) may be essential to provide additional habitat areas for the conservation of this DPS; and

(9) Potential peer reviewers for a proposed critical habitat designation, including persons with biological and economic expertise relevant to the species, region, and designation of critical habitat.

We seek information regarding critical habitat for the Puget Sound steelhead DPS as soon as possible, but by no later than June 27, 2006 (see **ADDRESSES**, above).

References

A comprehensive list of the referenced materials is available on the Internet at *http://www.nwr.noaa.gov*, or upon request (see **ADDRESSES** section above).

National Environmental Policy Act

ESA listing decisions are exempt from the requirement to prepare an environmental assessment or environmental impact statement under the NEPA. See NOAA Administrative Order 216–6.03(e)(1) and *Pacific Legal Foundation* v. *Andrus*, 657 F.2d 829 (6th Cir. 1981). Thus, we have determined that the proposed listing determination described in this notice is exempt from the requirements of the NEPA. We are preparing a draft Environmental Assessment (EA) under the NEPA analyzing alternative 4(d) protective regulations for the Puget Sound steelhead DPS. We will solicit review and comment on the draft EA in a forthcoming notice of availability to be published in the **Federal Register**.

Executive Order (E.O.) 12866, Regulatory Flexibility Act, and Paperwork Reduction Act

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. In addition, this rule is exempt from review under E.O. 12866. This proposed rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

E.O. 13084 – Consultation and Coordination with Indian Tribal Governments

E.O. 13084 requires that if we issue a regulation that significantly or uniquely affects the communities of Indian tribal governments and imposes substantial direct compliance costs on those communities, we must consult with those governments or the Federal government must provide the funds necessary to pay the direct compliance costs incurred by the tribal governments. This proposed rule does not impose substantial direct compliance costs on the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of E.O. 13084 do not apply to this proposed rule. Nonetheless, we intend to inform potentially affected tribal governments and to solicit their input and coordinate on future management actions.

E.O. 13132 – Federalism

In keeping with the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual State and Federal interest, this proposed rule will be given to the relevant state agencies in the State of Washington (the state in which the subject DPS occurs), who will be invited to comment. We have conferred with the State of Washington and Puget Sound area tribal governments in the course of assessing the status of Puget Sound steelhead, and considered, among other things, state and local conservation measures. As the ESA listing process continues, we intend to continue engaging in informal and formal contacts with Washington, Puget Sound tribes, and other affected local or regional entities, giving careful consideration to all written and oral comments received. We also intend to consult with appropriate elected officials in the establishment of a final rule.

List of Subjects in 50 CFR Part 223

Endangered and threatened species, Exports, Transportation.

Dated: March 21, 2006.

William T. Hogarth,

Assistant Administrator for Fisheries, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 223 is proposed to be amended as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531–1543; subpart B, § 223.12 also issued under 16 U.S.C. 1361 *et seq.*

2. In § 223.102, paragraph (a)(23) is added to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(a) * * *

Species[1]		Where Listed	Citation(s) for Listing Determinations)	Citation(s) for Critical Habitat
Common name	Scientific name			
*	*	*	*	*
(23) Puget Sound Steelhead	*Oncorhynchus mykiss*	U.S.A., WA, Distinct Population Segment including all naturally spawned anadromous winter-run and summer-run *O. mykiss* (steelhead) populations, in streams in the river basins of the Strait of Juan de Fuca, Puget Sound, and Hood Canal, Washington, bounded to the west by the Elwha River (inclusive) and to the north by the Nooksack River and Dakota Creek (inclusive), as well as the Green River natural and Hamma Hamma winter-run steelhead hatchery stocks.	[INSERT DATE OF PUBLICATION WHEN PUBLISHED AS A FINAL RULE]	NA
*	*	*	*	*

[1] Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991)

[FR Doc. 06–2972 Filed 3–28–06; 8:45 am]
BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 635

[Docket No. 060313062–6062–01; I.D. 082305E]

RIN 0648–AT37

Atlantic Highly Migratory Species; Atlantic Commercial Shark Management Measures; Gear Operation and Deployment; Complementary Closures

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

ACTION: Proposed rule; request for comments.

SUMMARY: This proposed rule would implement additional handling, release, and disentanglement requirements for sea turtles and other non-target species caught in the shark bottom longline (BLL) fishery. These requirements are intended to reduce post hooking mortality of sea turtles and other non-target species, which is an objective of Amendment 1 to the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP) published on December 24, 2003. This proposed rule would also implement management measures that are consistent with those implemented by the Caribbean Fishery Management Council (CFMC) on October 28, 2005. These complementary management measures are intended to minimize adverse impacts to Essential Fish Habitat (EFH) for reef-dwelling species. The proposed rule would apply to all participants in the Atlantic shark fishery.

DATES: Written comments must be received by 5 p.m. on June 27, 2006.

ADDRESSES: Written comments on the proposed rule or the Draft Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (Draft EA/RIR/IRFA) may be submitted to Mike Clark, Highly Migratory Species Management Division:

- E-mail: *SF1.082305E@noaa.gov.*
- Mail: 1315 East-West Highway, Silver Spring, MD 20910. Please mark the outside of the envelope "Comments on Rule for Dehooking and Complementary Caribbean Measures for the Commercial Shark Fishery."
- Fax: 301–713–1917.
- Federal e-Rulemaking portal: *http://www.regulations.gov.* Include in the subject line the following identifier: I.D. 082305E.

See **SUPPLEMENTARY INFORMATION** for meeting dates, times, and locations.

Amendment 1 to the FMP for Atlantic Tunas, Swordfish, and Sharks or its implementing regulations; and copies of the document entitled "Careful Release and Handling Protocols for the Careful Release of Sea Turtles with Minimal Injury" may be obtained from the mailing address listed above, and are also available on the internet at *http://www.nmfs.noaa.gov/sfa/hms.* Copies of the documents supporting the actions contained in the Comprehensive Amendment to the Fishery Management