DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 223

[Docket No. 991207323–9323–01; I.D. No 092199A]

RIN 0648–AM59

Endangered and Threatened Species; Proposed Rule Governing Take of Seven Threatened Evolutionarily Significant Units (ESUs) of West Coast Salmonids: Oregon Coast Coho; Puget Sound, Lower Columbia and Upper Willamette Chinook; Hood Canal Summer-run and Columbia River Chum; and Ozette Lake Sockeye

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

ACTION: Proposed rule; request for comments and notice of public hearings.

SUMMARY: Under section 4(d) of the Endangered Species Act (ESA), the Secretary of Commerce (Secretary) is required to adopt such regulations as he deems necessary and advisable for the conservation of species listed as threatened. This proposed ESA 4(d) rule represents the regulations NMFS believes necessary and advisable to conserve the seven listed threatened salmonid ESUs. Note that this rule applies only to the identified coho, chinook, chum, and sockeye species. Effects resulting from implementation of activities on other listed species (e.g., bull trout) must be addressed through ESA section 7 and section 10 processes, as appropriate. The rule would apply the take prohibitions enumerated in section 9(a)(1) of the ESA in most circumstances to one coho salmon ESU, three chinook salmon ESUs, two chum salmon ESUs, and one sockeye salmon ESU. NMFS does not find it necessary or advisable to apply the take prohibitions to specified categories of activities that contribute to conserving listed salmonids or are governed by a program that adequately limits impacts on listed salmonids. The proposed rule describes 13 such limits on the application of the take prohibitions.

DATES: Comments on this proposed rule must be received at the appropriate address (see ADDRESSEES), no later than 5:00 p.m., eastern standard time, on March 3, 2000. Public hearings on this proposed action have been scheduled. See **SUPPLEMENTARY INFORMATION** for dates and times of public hearings.

ADDRESSES: Written comments and requests for information should be sent to NMFS, Protected Resources Division, Northwest Region, 525 NE Oregon Street, Suite 500, Portland, OR 97232–2737. Comments will not be accepted if submitted via e-mail or Internet. See **SUPPLEMENTARY INFORMATION** for locations of public hearings. Parties interested in receiving notification of the availability of new or amended Fishery Management and Evaluation Plans (FMEPs) or Hatchery and Genetic Management Plans (HGMPs) should contact Chief, Hatchery/Inland Fisheries Branch, NMFS, Northwest Region, 525 NE Oregon Street, Suite 510, Portland, OR 97232–2737.

Parties interested in receiving notification of the availability of draft Watershed Conservation Plan Guidelines or draft changes to Oregon Department of Transportation's (ODOTs) 1999 Maintenance of Water Quality and Habitat Guide should contact Branch Chief, Protected Resources Division, NMFS, Northwest Region, 525 NE Oregon Street, Suite 500, Portland, OR 97232-2737.

FOR FURTHER INFORMATION CONTACT: Garth Griffin at 503–231–2005.

SUPPLEMENTARY INFORMATION:

Background

On August 10, 1998 (63 FR 42587), NMFS, on behalf of the Secretary, published a final rule listing the Oregon Coast (OC) ESU of coho salmon(*Oncorhynchus kisutch*, or *O. kisutch*)in Oregon as threatened. By a rule published on March 24, 1999 (64 FR 14308), NMFS listed as threatened the Puget Sound (PS), Lower Columbia River (LCR) and Upper Willamette River (UWR) ESUs of west coast chinook salmon (*Oncorhynchus tshawytscha*, or *O. tshawytscha*) in Washington and Oregon. By a rule published on March 25, 1999 (64 FR 14508), NMFS listed as threatened the Hood Canal Summer-run (HCS) and Columbia River (CR) chum salmon ESUs (*Oncorhynchus keta*) in Washington and Oregon. By a rule published on March 25, 1999 (64 FR 14528), NMFS listed as threatened the Ozette Lake ESU of sockeye salmon (*Oncorhynchus nerka*) in Washington. Those final rule listing notifications describe the background of the listing actions and provides a summary of NMFS' conclusions regarding the status of the threatened coho, chinook, chum and sockeye salmon ESUs.

Section 4(d) of the ESA provides that whenever a species is listed as threatened, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of the species. Such protective regulations may include any or all of the prohibitions that apply automatically to protect endangered species under ESA section 9(a). Those section 9(a) prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (including harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any wildlife species listed as endangered, unless with written authorization for incidental take. It is also illegal under ESA section 9 to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Section 11 of the ESA provides for civil and criminal penalties for violation of section 9 or of regulations issued under the ESA.

Whether take prohibitions or other protective regulations are necessary or advisable is in large part dependent upon the biological status of the species and potential impacts of various activities on the species. These species have survived for thousands of years through cycles in ocean conditions and weather. NMFS concludes that threatened chinook, coho, chum and sockeye are at risk of extinction primarily because their populations have been reduced by human ''take''. West Coast populations of these salmonids have been depleted by take resulting from harvest, past and ongoing destruction of freshwater and estuarine habitats, poor hatchery practices, hydropower development, and other causes. ''Factors Contributing to the Decline of Chinook Salmon: An Addendum to the 1996 West Coast Steelhead Factors for Decline Report'' (NMFS, 1998) concludes that all of the factors identified in section 4(a)(1) of the ESA have played some role in the decline of the species. The report identifies destruction and modification of habitat, overutilization, and hatchery effects as significant reasons for the decline. While the most influential factors differ from ESU to ESU and among chinook, coho, sockeye, and chum, habitat and harvest impacts have been important for all. Therefore it is necessary and advisable in most circumstances to apply the section 9 take prohibitions to these threatened ESUs, in order to provide for their conservation.

Several ESUs of West Coast steelhead that are impacted by similar risks associated with human-caused take have also recently been listed as threatened, and section 4(d) regulations

are to be proposed for them in a separate **Federal Register** document. These listings have created a great deal of interest among states, counties and others in adjusting their programs that may affect the listed species to ensure they are consistent with salmonid conservation. (see, e.g., *Strahan* v. *Coxe*, 127 F.3d 155 (1st Cir. 1997), *cert. denied*, 119 S.Ct 81 (1998)). These entities have asked NMFS to provide clarity and guidance on what activities may adversely affect salmonids and how to avoid or limit those adverse effects, and to apply take prohibitions only where other governmental programs and efforts are inadequate to conserve threatened salmonids.

Although the primary purpose of state, local and other programs is generally to further some activity other than conserving salmon, such as maintaining roads, controlling development, ensuring clean water or harvesting trees, some entities have adjusted one or more of these programs to protect and conserve listed salmonids. NMFS believes that with appropriate safeguards, many such activities can be specifically tailored to minimize impacts on listed salmonids to an extent that makes additional Federal protections unnecessary for conservation of the listed ESU.

NMFS, therefore, proposes a mechanism whereby entities can be assured that an activity they are conducting or permitting is consistent with ESA requirements and avoids or minimizes the risk of take of listed salmonid. When such a program provides sufficient conservation for listed salmonids, NMFS does not find it necessary and advisable to apply take prohibitions to activities governed by those programs. In those circumstances, described in more detail here, additional Federal ESA regulation through the take prohibitions is not necessary and advisable because it would not meaningfully enhance the conservation of the listed ESUs. In fact, declining to apply take prohibitions to such programs likely will result in greater conservation gains for a listed ESU than would blanket application of take prohibitions, through the program itself and by demonstrating to similarly situated entities that practical and realistic salmonid protection measures exist. An additional benefit of this approach is that NMFS can focus its enforcement efforts on activities and programs that have not yet adequately addressed the conservation needs of listed ESUs.

NMFS anticipates consideration in the Spring of 2000 of a comprehensive proposal for the conservation of salmonids by a broad array of county, municipal and other local governments whose effects on listed salmonids are interrelated because of their shared watersheds, transportation and water systems, or growth management strategies. This proposal is being developed by jurisdictions representing a majority of the population within King, Snohomish and Pierce counties in Washington State which includes among its many municipal participants the cities of Seattle, Tacoma, Everett and Bellevue. In addition to its conservation objectives, the completed proposal would be intended to allow NMFS to determine that it is not necessary or advisable to apply take prohibitions to a broad array of related governmental activities. An aggressive schedule has been established for the completion of this proposal by April 2000.

NMFS believes it beneficial to conservation planning by local governments generally to seek comment soon on the framework of the conservation program. NMFS will seek comment on this framework by sending notification of the availability of that framework to the **Federal Register** within 30 days of receiving a framework that NMFS finds acceptable in concept.

In April 2000, NMFS anticipates seeking comment on the completed program through a proposal by NMFS to limit take prohibitions for related activities prior to the application of such prohibitions to the Puget Sound ESU.

Substantive Content of Proposed Regulation

NMFS has not previously proposed any protective regulations for six of the salmonid ESUs subject to this proposed rule. When NMFS first proposed the Oregon Coast coho for listing (60 FR 38026, July 25, 1995), it also proposed to apply the prohibitions of ESA section 9(a) to that ESU. NMFS received very little comment or response on that issue. However, because NMFS now proposes to limit the application of section 9(a) prohibitions for several additional programs, NMFS is issuing a revised proposal for the Oregon Coast coho ESU, in order to have the benefit of public comment before enacting final protective regulations.

NMFS concludes that at this time, the take prohibitions generally applicable for endangered species are necessary and advisable for conservation of these threatened ESUs, but that take of listed salmon in the seven listed ESUs need not be prohibited when it results from a specified subset of activities described here. These are activities that are conducted in a way that contributes to conserving the listed ESUs, or are governed by a program that limits impacts on listed salmonids to an extent that makes added protection through Federal regulation not necessary and advisable for conservation of an ESU. Therefore, NMFS now proposes to apply ESA section 9 prohibitions to these seven threatened salmonid ESUs, but not to apply the take prohibitions to the 13 programs described in this document as meeting that level of protection. Of course, the entity responsible for any habitat-related programs might equally choose to seek an ESA section 10 permit.

Working with state and local jurisdictions and other resource managers, NMFS has identified several programs for which it is not necessary and advisable to impose take prohibitions because they contribute to conserving the ESU or are governed by a program that adequately limits impacts on listed salmonids. Under specified conditions and in appropriate geographic areas, these include: (1) activities conducted in accord with ESA incidental take authorization; (2) ongoing scientific research activities, for a period of 6 months; (3) emergency actions related to injured, stranded, or dead salmonids; (4) fishery management activities; (5) hatchery and genetic management programs; (6) activities in compliance with joint tribal/state plans developed within *United States* v. *Washington* or *United States* v. *Oregon*. (7) scientific research activities permitted or conducted by the states; (8) state, local, and private habitat restoration activities; (9) properly screened water diversion devices; (10) road maintenance activities in Oregon; (11) certain park maintenance activities in the City of Portland, Oregon; (12) certain development activities within urban areas; and (13) forest management activities within the state of Washington. Following is a summary of each of these programs, or potential limits on the take prohibitions. Some limits apply within all seven ESUs, and some to a subset thereof.

NMFS emphasizes that these limits are not prescriptive regulations. The fact of not being within a limit would not mean that a particular action necessarily violates the ESA or this regulation. The limits describe circumstances in which an entity or actor can be certain it is not at risk of violating the take prohibition or of consequent enforcement actions, because the take prohibition would not apply to programs within those limits.

The limits on the take prohibitions do not relieve Federal agencies of their duty under section 7 of the ESA to consult with NMFS if actions they fund,

authorize, or carry out may affect listed species. Of course, to the extent that actions subject to section 7 consultation are consistent with a circumstance for which NMFS has limited the take prohibitions, the consultation will be greatly simplified because of the analysis earlier done with respect to that circumstance.

NMFS wishes to continue to work collaboratively with all affected governmental entities to recognize existing management programs that conserve and meet the biological requirements of salmonids, and to strengthen other programs toward conservation of listed salmonids. For programs that meet those needs, NMFS can provide ESA coverage through 4(d) rules, section 10 research and enhancement permits or incidental take permits, or through section 7 consultations with Federal agencies. A 4(d) rule may be amended to add new limits on the take prohibitions, or to amend or delete limits as circumstances warrant.

Concurrent with this proposed rule, NMFS proposes a limit on the take prohibitions for actions in accord with any tribal resource management plan that the Secretary has determined will not appreciably reduce the likelihood of survival and recovery of a threatened ESU. That proposal is published elsewhere in the Proposed Rules section of this **Federal Register** issue.

Electronic Access

The Oregon Aquatic Restoration Guidelines is accessible via the Internet at *www.oregon-plan.org/hab*_guide. The Washington Fish Passage Design at Road Culverts is accessible via the Internet at *www.wa.gov:80/wdfw/hab/engineer/cm/culvertm.htm*. To the extent possible, NMFS will post other documents referenced in this rule on its Northwest region web site at *www.nwr.noaa.gov*.

Take Guidance

On July 1, 1994, (59 FR 34272) NMFS and the U.S. Fish and Wildlife Service published a policy committing the Services to identify, to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the ESA. The intent of this policy is to increase public awareness of the effect of a listing on proposed and on-going activities within the species' range.

As a matter of law, impacts on listed salmonids due to actions in compliance with a permit issued by NMFS pursuant to section 10 of the ESA are not violations of this rule. Section 10 permits may be issued for research activities, enhancement of the species' survival, or to authorize incidental take occurring in the course of an otherwise lawful activity. Likewise federally-funded or approved activities for which ESA section 7 consultations have been completed for listed salmonids, and which are conducted in accord with all reasonable and prudent measures, terms, and conditions provided by NMFS in a biological opinion and accompanying incidental take statement pursuant to section 7 of the ESA will not constitute violations of this rule. NMFS consults on a broad range of activities conducted, funded or authorized by Federal agencies, including fisheries harvest, hatchery operations, silviculture, grazing, mining, road construction, dam construction and operation, discharge of fill material, stream channelization or diversion.

With respect to other activities:

1. Based on available information, NMFS believes the following activities are very likely to injure or kill salmonids, and result in a violation of this rule unless within a limit on the take prohibitions provided in this proposed rule. These are the categories of activity upon which NMFS enforcement resources are likely to concentrate.

A. Except as provided in this proposed rule, collecting, handling, or harassing listed salmonids, including illegal harvest activities.

B. Diverting water through an unscreened or inadequately screened diversion at times when juvenile salmonids are present.

C. Physical disturbance or blockage of the streambed where spawners or redds are present concurrent with the disturbance. The disturbance could be mechanical disruption from creating push-up dams, gravel removal, mining, or other work within a stream channel, trampling or smothering of redds by livestock in the streambed, driving vehicles or equipment across or down the streambed, and similar physical disruptions.

D. Discharges or dumping of toxic chemicals or other pollutants (e.g., sewage, oil, gasoline) into waters or riparian areas supporting the listed salmonids, particularly when done outside of a valid permit for the discharge.

E. Blocking fish passage through fills, dams, or impassable culverts.

F. Interstate and foreign commerce of listed salmonids and import/export of listed salmonids without an ESA permit, unless the fish were harvested pursuant to this rule.

2. Based upon available information, NMFS believes that the category of activities which may injure or kill listed salmonids and result in a violation of this proposed rule (unless within an ''exception'' provided in this proposed rule) includes, but is not limited to:

A. Water withdrawals that impact spawning or rearing habitat.

B. Diversion or discharge of flows that results in excessive, or excessive fluctuation of, stream temperatures.

C. Aside from the habitat restoration activities to which this rule does not apply take prohibitions, destruction or alteration of salmonid habitat, such as through removal of large woody debris, ''sinker logs,'' riparian canopy or other riparian functional elements; dredging; discharge of fill material; or through alteration of surface or ground water flow by draining, ditching, gating, diverting, blocking, or altering stream or tidal channels (including side channels wetted only during high flows and connected ponds).

D. Land-use activities that adversely affect salmonid habitat (e.g., logging, grazing, farming, urban development, or road construction in riparian areas) (See, e.g., 64 FR 60727, November 8, 1999)(definition of ''harm'' contained in the ESA).

E. Physical disturbance or blockage of the streambed in places where spawning gravels are present.

F. Violation of Federal or state Clean Water Act (CWA) discharge permits through actions that actually impact water quality, and thus may harm listed salmonids. Likelihood of harm is increased where the receiving waters are not currently meeting water quality standards for one or more components of the discharge.

G. Pesticide and herbicide applications that adversely affect the biological requirements of the species.

H. Introduction of non-native species likely to prey on listed salmonids or displace them from their habitat.

I. Altering habitat of listed salmonids in a way that promotes the development of predator populations or makes listed salmonids more susceptible to predation.

Enforcement activity may be initiated regarding these or any other activities that harm protected salmonids. NMFS' clear preference, however, is for persons or entities who believe their activity presents significant risk given the above guidance to immediately modify that activity to avoid take and actively pursue an incidental take statement or permit through negotiations with NMFS, or shape those activities to come within one of the limits on the take prohibitions described in this proposed rule. Numerous local watershed councils, the Lower Columbia Fish

Recovery Board, the Willamette Restoration Initiative, and many other local and regional governmental efforts, including that in the Tri-county area around Seattle, are already actively working to solve habitat problems that limit salmonid health and productivity. An entity that is moving forward in coordination with NMFS to promptly implement credible and reliable conservation measures will gain a good understanding of any actions that may be creating an emergency situation for listed fish or otherwise demand enforcement action. For example, if water availability is a limiting factor and local water users and the state are working toward solutions with NMFS through any of a variety of mechanisms (such as conservation, supplementing instream flows, development of an ESA section 10 habitat conservation plan, etc.), the users will quickly gain a pretty clear picture of any immediate adjustments that must be made in order not to create a high risk of harming salmonid eggs, juveniles or adults.

3. There is also a category of activities which, while individually unlikely to injure or kill listed salmonids, may collectively cause significant detrimental impact on salmonids through water quality changes; climate change that affects ocean conditions; or cumulative pollution due to storm runoff carrying lawn fertilizers, pesticides, or road and driveway pollutants. Therefore, it is important that individuals alter their daily behaviors to reduce these impacts as much as possible, and for governmental entities to seek programmatic incentives, public education, regulatory changes, or other approaches to accomplish that reduction. These activities include, but are not limited to:

A. Discharges to streams that are not listed under section 303(d) of the CWA as water quality limited, when the discharge is in full compliance with current National Pollutant Discharge Elimination System permits.

B. Individual decisions about energy consumption for heating, travel, and other purposes.

C. Individual maintenance of residences or gardens.

These lists are not exhaustive. They are intended to provide some examples of the types of activities that might or might not be pursued by NMFS as constituting a take of listed salmonids under the ESA and its regulations. Questions regarding whether specific activities constitute a violation of this proposed rule, and general inquiries regarding prohibitions and permits, should be directed to NMFS (see **ADDRESSES**).

Aids for Understanding the Limits on the Take Prohibitions

Issue 1: 50 CFR 222.307(c)(2)

Included here are several references to 50 CFR 222.307(c)(2) (see 64 FR 14051, March 23, 1999, final rule consolidating NMFS' ESA regulations) which are criteria for issuance of an incidental take permit. For convenience of those commenting on this proposed rule, the criteria listed in 50 CFR 222.307(c)(2) are:

(1) the taking will be incidental; (2) the applicant will, to the maximum extent practicable, monitor, minimize and mitigate the impacts of such taking; (3) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; (4) the applicant has amended the conservation plan to include any measures (not originally proposed by the applicant) that the Assistant Administrator determines are necessary or appropriate; and (5) there are adequate assurances that the conservation plan will be funded and implemented, including any measures required by the Assistant Administrator.

Issue 2: Population and Habitat Concepts

This proposed rule references scientific concepts that NMFS proposes to use in determining whether particular programs need not fall within the scope of the ESA section 9 take prohibitions. One of these concepts allows for identifying populations that may warrant individual management within established ESUs on some issues. The second involves identifying relevant biological parameters to evaluate the status of these populations and identifying ''critical thresholds'' and ''viable thresholds.'' NMFS is developing a scientific and policy paper entitled ''Viable Salmonid Populations'' (NMFS, December 1999) that addresses the biological concepts surrounding viable salmonid populations in more detail, and invites comment on that draft (see **ADDRESSES**). Once fully developed (including public and peer review), this paper will provide additional guidance in evaluating programs for eligibility under this ESA 4(d) rule.

A third concept describes the freshwater habitat biological requirements of salmonids in terms of whether habitat is functioning properly.

Identifying Populations within ESUs

NMFS proposes to define populations following Ricker's (1972) definition of ''stock'': a population is a group of fish of the same species spawning in a particular lake or stream (or portion thereof) at a particular season which to a substantial degree do not interbreed with fish from any other group spawning in a different place or in the same place at a different season. This definition is widely accepted and applied in the field of fishery management. An independent population is an aggregation of one or more local breeding units that are closely linked by exchange of individuals among themselves, but are sufficiently isolated from other independent populations that exchanges of individuals among populations do not appreciably affect the population dynamics or extinction risk of the populations over a 100 year time frame. Such populations will generally be smaller than the whole ESU, and will generally inhabit geographic ranges on the scale of whole river basins or major sub-basins that are relatively isolated from outside migration. Using this definition, it is biologically meaningful to evaluate and discuss the extinction risk of one population independently of other populations within the same ESU.

Several types of information may be used to identify independent salmonid populations within existing ESUs, including (1) geographic indicators; (2) estimates of adult dispersal; (3) abundance correlations; (4) habitat characteristics; (5) genetic markers; and (6) quantitative traits. States and other groups involved in salmonid management have defined groups of fish for management purposes based on some or all of this information, and many of the definitions already used by managers are similar to the population definition proposed here. Further, while the types of information identified above may be useful in defining independent populations within ESUs, other methods may exist for identifying biologically meaningful population units consistent with the definitions adopted here. Therefore, NMFS will evaluate proposed population boundaries on a case-by-case basis to determine if such boundaries are biologically supportable and consistent with the population definition in this rule.

NMFS believes it important to identify population units within established ESUs for several reasons. Identifying and assessing impacts on such units will enable greater consideration of the important biological diversity contained within each ESU, a factor considered in NMFS' ESU policy (Waples 1991). Further, assessing impacts on a population level is typically a more practical undertaking given the scale and complexity of ESUs.

Finally, assessing impacts on a population level will help ensure consistent treatment of listed salmonids across a diverse geographic and jurisdictional range.

Assessing Population Status

NMFS proposes to evaluate population status through four primary biological parameters: (1) Abundance; (2) productivity; (3) population substructure; and (4) genetic diversity. A discussion of the relevance of these parameters to salmonid population status may be found in a variety of scientific documents (e.g., Nehlsen et al. 1991; Burgman et al. 1993; Huntington et al. 1996; Caughley and Gunn 1996; Myers et al. 1998).

Population abundance is important to evaluate due to potential impacts associated with genetic and demographic risks. Genetic risks associated with low population size include inbreeding depression and loss of genetic diversity. Demographic risks associated with low population size include random effects associated with stochastic environmental events. Population size may be assessed and estimated from dam and weir counts, redd counts, spawner surveys, and other means. Viable abundance levels may be determined, based on historic abundance levels or habitat capacity of the population.

Population productivity may be thought of as the population's ability to increase or maintain its abundance. It is important to assess productivity since negative trends in productivity over sustained periods may lead to genetic and demographic impacts associated with small population sizes. However, trends in other parameters such as survival between life stages, age structure, and fecundity may also be useful in assessing productivity. In general, viable population trends should be positive unless the population is already at or above viable abundance levels. In that case, neutral or negative population trends may be acceptable so long as such declines will not lead the population to decline below viable abundance levels in the foreseeable future.

Population structure reflects the number, size and distribution of remaining habitat patches and the condition of migration corridors that provide linkages among these habitat types. Population structure affects evolutionary processes and may impact the ability of populations to respond to environmental changes or stochastic events. Habitat deficiencies, such as loss of migration corridors between habitat types, can lead to a high risk of extinction and may not become readily apparent through evaluating population sizes or productivity. Determining whether viable population structure exists may require comparison of existing and historic habitat conditions.

Population diversity is important because variation among populations is likely to buffer them against short term environmental change and stochastic events. Population diversity may be assessed by examining life history traits such as age, and run and spawn timing distributions. Further, more direct analysis of genetic diversity through DNA analysis may provide an indication of diversity. Viable population diversity will likely be determined through comparisons to historic information or comparisons to other populations existing in relatively undisturbed conditions. Ultimately, population diversity must be sufficient to buffer the population against normal environmental variation.

Establishing Population Thresholds

In applying the concepts discussed here to harvest and artificial propagation actions, NMFS relies on two functional thresholds of population status: (1) Critical population threshold, and (2) viable population threshold. The critical population threshold refers to a minimal functional level below which a population's risk of extinction increases exponentially in response to any additional genetic or demographic risks.

The viable population threshold refers to a condition where the population is self-sustaining, and not at risk of becoming endangered in the foreseeable future. This threshold reflects the desired condition of individual populations and of their contribution to recovery of the ESU as a whole. Proposed actions must not preclude populations from attaining this condition.

Evaluating Habitat Conditions

This proposed rule restricts application of the take prohibitions when land and water management activities that are conducted in a way that will help attain or protect properly functioning habitat. Properly functioning habitat conditions create and sustain the physical and biological features that are essential to conservation of the species, whether important for spawning, breeding, rearing, feeding, migration, sheltering, or other functions. Such features include water quantity; water quality attributes such as temperature, pH, oxygen content, etc; suitability of substrate for spawning; freedom from passage impediments; and availability of pools and other shelter. These features are not static; the concept of proper function recognizes that natural patterns of habitat disturbance, such as through floods, landslides and wildfires, will continue. Properly functioning habitat conditions are conditions that sustain a watershed's natural habitat-affecting processes (bedload transport, riparian community succession, precipitation runoff patterns, channel migration, etc.) over the full range of environmental variation, and that support salmonid productivity at a viable population level. Specific criteria associated with achieving these conditions are listed with each habitat-related limit on take prohibitions.

Issue 3: Direct and Incidental Take

Section 4(d) of the ESA requires that such regulations be adopted as are ''necessary and advisable to provide for the conservation of'' the listed species. In discussing the limits on the take prohibitions, NMFS does not generally distinguish ''incidental'' from ''direct'' take because that distinction is not required or helpful under section 4(d). The biological impact of take on the ESU is the same, whether a particular number of listed fish are lost as a result of incidental impacts or directed impacts. Hence the following descriptions of harvest and artificial propagation programs for which NMFS does not find it necessary and advisable to impose take prohibitions do not, as a general rule, make that distinction. Rather, those descriptions and criteria focus on the impacts of all take associated with a particular activity of the biological status of the listed ESU. (The distinction is retained in the discussion of scientific research targeted on listed fish, because the limit on take prohibitions applies in that situation only to research by agency personnel or agency contractors.)

Issue 4: Applicability to Specific ESUs

In the regulatory language in this proposed rule, the limits on applicability of the take prohibitions to a given ESU is accomplished through citation to the Code of Federal Regulations (CFR) enumeration of threatened marine and anadromous species, 50 CFR 223.102. For the convenience of readers of this notice, 50 CFR 223.102 refers to threatened salmonid ESUs through the following designations:

(a)(1) Snake River spring/summer chinook

(a)(2) Snake River fall chinook

(a)(3) Central California Coast coho

(a)(4) Southern Oregon/Northern California Coast coho

(a)(5) Central California Coast steelhead
(a)(6) South-Central California Coast steelhead
(a)(7) Snake River Basin steelhead
(a)(8) Lower Columbia River steelhead
(a)(9) Central Valley, California steelhead
(a)(10) Oregon Coast coho
(a)(12) Hood Canal summer-run chum
(a)(13) Columbia River chum
(a)(14) Upper Willamette River steelhead
(a)(15) Middle Columbia River steelhead
(a)(16) Puget Sound chinook
(a)(17) Lower Columbia River chinook
(a)(18) Upper Willamette River chinook
(a)(19) Ozette Lake sockeye

Issue 5: Regular Evaluation of Limits on Take Prohibitions

In determining that it is not necessary and advisable to impose take prohibitions on certain programs or activities described here, NMFS is mindful that new information may require a reevaluation of that conclusion at any time. For any of the limits on the take prohibitions described, NMFS will evaluate on a regular basis the effectiveness of the program in protecting and achieving a level salmonid productivity and/or of habitat function consistent with conservation of the listed salmonids. If it is not, NMFS will identify ways in which the program needs to be altered or strengthened. For habitat-related limits on the take prohibitions, changes may be required if the program is not achieving desired habitat functions, or where even with the habitat characteristics and functions originally targeted, habitat is not supporting population productivity levels needed to conserve the ESU.

If the responsible agency does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with that program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to extend all ESA section 9 take prohibitions to the activities.

Issue 6: Coordination with United States Fish and Wildlife Service (FWS)

By its terms, this rule applies only to listed salmonids under NMFS' jurisdiction. However, as it evaluates any program against the criteria in this rule to determine whether the program warrants a limitation on take prohibitions, NMFS will coordinate closely with FWS regional staffs.

Permit/ESA Limit on the Take Prohibitions

This limit on the ESA section 9 take prohibitions recognizes that those holding permits under section 10 of the ESA or coming within other exceptions under the ESA are free of the take prohibition so long as they are acting in accord with the permit or applicable law. Examples of activities for which a section 10 permit may be issued are research or land management activities associated with a habitat conservation plan.

Continuity of Scientific Research

This proposed rule would not restrict ongoing scientific research activities affecting listed Oregon Coast coho; PS, LCR and UWR chinook; HCS and CR chum; and Ozette Lake sockeye ESUs for up to 6 months after its effective date, provided that an application for a permit for scientific purposes or to enhance the conservation or survival of the species is received by the Assistant Administrator for Fisheries (AA), NOAA, within 30 days from the effective date of a final rule. The ESA section 9 take prohibitions would extend to these activities upon the AA's rejection of the application as insufficient, upon issuance or denial of a permit, or 6 months from effective date of the final rule, whichever occurs earliest. It is in the interests of salmonid conservation not to disrupt ongoing research and conservation projects, some of which are of long-term duration. This limit on the take prohibitions assures there will be no unnecessary disruption of those activities, yet provides NMFS with tools to halt the activity through denial if it is judged to have unacceptable impacts on a listed ESU. Therefore, NMFS does not find imposition of additional Federal protections in the form of take prohibitions necessary and advisable.

Take Prohibition Limit for Rescue and Salvage Actions

This limit on the take prohibitions relieves certain agency and official personnel or their designees from the take prohibition when they are acting to aid an injured or stranded salmonid, or salvage a dead individual for scientific study. Each agency acting under this ''exception'' is to report the numbers of fish handled and their status, on an annual basis. This limit on the take prohibitions will result in conservation of the listed species by preserving life or furthering our understanding of the species. By the very nature of the circumstances that trigger these actions (the listed fish is injured or stranded and in need of immediate help, or is already dead and may benefit the species if available for scientific study), NMFS concludes that imposition of Federal protections through a take prohibition is not necessary and advisable.

Fishery Management Limit on the Take Prohibitions

NMFS believes that, in many cases, fisheries for non-listed salmonids and resident game fish species will have acceptably small impacts on threatened salmonids to allow for the conservation of those listed salmonids, as long as state fishery management programs are specifically tailored to meet certain criteria. This proposed rule provides a mechanism whereby NMFS may limit application of take prohibitions to fisheries when a state develops an adequate Fishery Management and Evaluation Plan (FMEP). If NMFS finds that the FMEP contains specific management measures that adequately limits take of listed salmonids and otherwise protects the ESU, NMFS may enter into a Memorandum of Agreement (MOA) with the state for implementation of the plan. Where an FMEP and MOA that meet the following criteria are in place, NMFS concludes that problems associated with fishery impacts on listed salmonids will be addressed and that additional Federal protections through imposition of take prohibitions on harvest activities is not necessary and advisable. Therefore, this rule proposes not to apply take prohibitions actions in accord with FMEPs being implemented through an MOA. This proposed limit on the take prohibitions thus encourages states to move quickly to make needed changes in fishery management so that listed ESUs benefit from those improvements and protections as soon as possible.

Process for Developing FMEPs

Prior to determining that any state's new or amended FMEP is sufficient to eliminate the need for added Federal protection, NMFS must find that the plan is effective in addressing the criteria listed here. If NMFS finds that an FMEP meets those criteria, it will then enter into an MOA with the state which will set forth the terms of the FMEP's implementation and the duties of the parties pursuant to the FMEP. A state must confer annually with NMFS on its fishing regulation changes to ensure consistency with an approved FMEP.

NMFS recognizes the importance of providing meaningful opportunities for

public review of FMEPs. Therefore, prior to approving new or amended FMEPs, NMFS will make such plans available for public review and comment for a period of not less than 30 days. Notice of the availability of these plans will be published in the **Federal Register**.

Criteria for Evaluating FMEPs

NMFS will approve an FMEP only if it meets the following criteria, which are designed to minimize and adequately limit take and promote the conservation of all life stages of threatened salmonids. The FMEP must:

(1) Provide a clear statement of the scope of the proposed action. The statement must include a description of the proposed action, a description of the area of impact, a statement of the management objectives and performance indicators for the proposed action, and anticipated effects of the proposed action on management objectives (including recovery goals) for affected populations. This information will provide objectives and indicators by which to assess management strategies, design monitoring and evaluation programs, measure management performance, and coordinate with other resource management actions in the ESU.

(2) Identify populations within affected ESUs, taking into account (A) spatial and temporal distribution; (B) genetic and phenotypic diversity; and (C) other appropriate identifiable unique biological and life history traits, as discussed under Issue 2. Where available data or technology are inadequate to determine the effects of the proposed action on individual populations, plans may identify management units consisting of two or more population units, when the use of such management units is consistent with survival and recovery of the species. In identifying management units, the plan shall describe the reasons for using such units in lieu of population units and describe how such units are defined such that they are consistent with the principles discussed under Issue 2.

(3) Describe the functional status of each ESU or of any population or management unit intended to be managed separately within the ESU, and determine and apply two thresholds, based on natural production: (A) One that describes the level of abundance and function at which the population is considered viable; and (B) a critical threshold, where because of very low population size and/or function, any additional demographic and genetic risks increases the extinction exponentially.

Thresholds may be described differently depending on the parameter for which thresholds are being established. Abundance and productivity thresholds may consist of a single value or a range of values whereas spatial and temporal distribution and genetic diversity thresholds may consist of multiple values, or describe a pattern or distribution of values. For example, a hypothetical abundance threshold might be either defined as 5,000 spawners per year or a range of 4,000-6,000 spawners per year, whereas a temporal distribution threshold might be defined as a pattern of spawning timing occurring from mid-June through August with random variation about that time, and with approximately 30 percent of the spawners entering in June, 50 percent in July and the remaining 20 percent throughout August.

Proposed management actions must recognize the significant differences in risk associated with these two thresholds and respond accordingly in order to minimize the risks to the long-term sustainability of the population(s). Harvest actions impacting populations that are functioning at or above the viable threshold must be designed to maintain the population or management unit at or above that level. For populations shown with a high degree of confidence to be above critical levels but not yet viable, harvest management must not appreciably slow the population's achievement of viable function. Harvest actions impacting populations that are functioning at or below critical threshold must not appreciably increase the genetic and demographic risks facing the population and must be designed to permit the population's achievement of viable function, unless the plan demonstrates that such an action will not appreciably reduce the likelihood of survival and recovery of the ESU as a whole despite any increased risks to the individual population. Thresholds represent a band of functions reflecting the reality that populations fluctuate from year to year because of natural events and variability. The biological analysis required to arrive at viable and critical thresholds will be more or less intensive depending on data availability and changes. After initial management strategies are developed, annual abundance data will be an extremely important indicator of what adjustments need to be made. Then, as monitoring adds to and refines the data regarding functioning of other parameters, these must also be reviewed on a regular basis so that if significant changes have occurred in run timing, phenotypic diversity or other characteristics, the harvest strategy, (and if appropriate, other strategies) will be adjusted to respond to those changes.

(4) Set escapement objectives or maximum exploitation rates for each management unit or population based on its status, and a harvest program that assures not exceeding those rates or objectives. While the term ''exploitation'' may suggest a purposeful intent to use the resource, it is used here as a term of art in fishery management indicating that all fishery-related mortality must be accounted for. In total, the combined exploitation across all fisheries and management units must not appreciably reduce the likelihood of recovery of the ESU. Management of fisheries where artificially propagated fish predominate must not compromise the management objectives for commingled naturally spawned populations (those supported primarily by natural production) by reducing the likelihood that those populations will maintain or attain viable functional status, or by appreciably slowing attainment of viable function.

(5) Display a biologically based rationale demonstrating that the harvest management strategy does not appreciably reduce the likelihood of survival and recovery of the species in the wild. The effects must be assessed over the entire period of time the proposed harvest management strategy would affect the population, including effects reasonably certain to occur after the proposed action ceases.

(6) Include effective monitoring and evaluation programs to assess compliance, effectiveness, and parameter validation. At a minimum, harvest monitoring programs must collect catch and effort data, information on escapements, and information on biological characteristics such as age, fecundity, size and sex data, and migration timing. The complexity and frequency of the monitoring program should be appropriate to the scale and likely effects of the action. Angling effort and harvest rates may be monitored with check stations, creel censuses, random surveys, and catch-card returns. Spawning ground surveys can track trends in spawning success of listed fish and proportion of hatchery-produced fish spawning naturally. Adult fish counts at dams and weirs can provide estimated total numbers of returns, the proportion of listed to nonlisted fish, and abundance trends. Surveys of rearing areas and downstream migrant

traps can provide estimates of production and juvenile abundance trends. Estimates of the number of hatchery-produced salmonids and mortality of listed fish should be monitored during the season and summarized at the end of the season in an annual report available to NMFS and the public.

(7) Provide for evaluating monitoring data and making any needed revisions of assumptions, management strategies, or objectives. The FMEP must describe the conditions under which revision will be made and the processes for accomplishing those revisions.

(8) Provide for effective enforcement and education. Coordination among involved jurisdictions is an important element in ensuring regulatory effectiveness and coverage.

(9) Be consistent with plans and conditions set within any Federal Court proceeding with continuing jurisdiction over tribal harvest allocations. Agreements adopted within the *United States* v. *Washington* proceeding, such as the Puget Sound Management Plan (originally approved by the court in 1977; most recent amendment approved by the court in *United States* v. *Washington*, 626 F. Supp. 1405, 1527 (1985, W.D. Wash.) mandate that harvest and artificial production management actions are agreed to and coordinated between the State of Washington and the Western Washington treaty tribes. Where joint agreement is required, such plans will fall under the provisions of paragraphs (b)(6)(i)-(iv) of section 223.203 contained in this proposed rule.

Artificial Propagation Limit on the Take Prohibitions

NMFS believes that in some cases it may not be necessary and advisable to prohibit take with respect to artificial production programs, including use of listed salmonids as hatchery broodstock, under specific circumstances. This limit on the take prohibitions proposes a mechanism whereby state or Federal hatchery managers may obtain assurance that a hatchery and genetic management program is adequate for protection and conservation of a threatened salmonid ESU. The state or Federal agency would develop a Hatchery and Genetic Management Plan (HGMP) containing specific management measures that will minimize and adequately limit impacts on listed salmonids and promote the conservation of the listed ESU, and then enter into an MOA with NMFS to ensure adequate implementation of the HGMP. NMFS believes that with an adequate HGMP and an MOA in place, additional Federal protection through imposition of take prohibitions on artificial propagation activities would not be necessary and advisable for conservation of the threatened salmonids.

Process for Developing Hatchery and Genetic Management Plans

NMFS will evaluate the effectiveness of state or Federal HGMPs in addressing the criteria here. If the HGMP does so adequately, NMFS will then enter into an MOA with the state or complete an ESA section 7 consultation with a Federal entity, which will set forth the duties of the parties pursuant to the plan. This proposed rule provides a mechanism whereby NMFS may limit application of take prohibitions to broodstock collection.

NMFS recognizes the importance of providing meaningful opportunities for public review of draft HGMPs. Therefore, prior to approving new or amended HGMPs, NMFS will make such plans available for public review and comment for a period of not less than 30 days. Notice of the availability of such draft plans will be published in the **Federal Register**.

Criteria for Evaluating Hatchery and Genetic Management Plans

NMFS will evaluate salmonid HGMPs on the basis of criteria that are designed to minimize take and adequately limit take and promote the conservation of the listed species. The criteria by which draft HGMPs will be evaluated include the following:

(1) *Goals and Objectives for the Propagation Program.* Each hatchery program must have clearly stated goals, performance objectives, and performance indicators that indicate the purpose of the program, its intended results, and measurements of its performance in meeting those results. Goals should address whether the program is intended to meet conservation objectives, contributing to the ultimate sustainability of natural spawning populations, and/or intended to augment tribal, recreational, or commercial fisheries. Objectives should enumerate the results desired from the program against which its success or failure can be monitored.

(2) *Maintenance of Viable Populations.* Listed salmonids may be taken for broodstock purposes only if (A) the donor population is currently at or above viable thresholds and the collection will not reduce the likelihood that the population remains viable; (B) the donor population is not currently viable but the sole current objective of the collection program is to enhance the propagation or survival of the listed ESU; or (C) the donor population is shown with a high degree of confidence to be above critical threshold although not yet viable, and the collection will not appreciably slow the attainment of viable population status.

(3) *Prioritization of broodstock collection programs.* Broodstock collection programs of listed salmonids shall be prioritized on the following basis depending on health, abundance and trends in the donor population: (A) for captive brood or supplementation of the local indigenous population; (B) for supplementation and restoration of similar, at-risk, natural populations within the same ESU or for reintroduction to underseeded habitat; and (C) production to sustain tribal, recreational and commercial fisheries consistent with recovery and maintenance of naturally-spawned populations. The primary purpose of broodstock collection programs must be to reestablish local indigenous populations and to supplement and restore existing populations. After the species' conservation needs are met, and when consistent with survival and recovery of the species, broodstock collection programs may be authorized by NMFS for secondary purposes, such as to sustain tribal, recreational and commercial fisheries.

(4) *Operational Protocols.* An HGMP must include comprehensive protocols pertaining to fish health; broodstock collection; broodstock mating; incubation, rearing and release of juveniles; disposition of hatchery adults; and catastrophic risk management.

(5) *Genetic and Ecological Effects.* An HGMP will be evaluated based on best available information to assure the program avoids or minimizes any deleterious genetic or ecological effects on natural populations, including disease transfer, competition, predation, and genetic introgression caused by straying of hatchery fish.

(6) *Adequacy of Existing Fishery Management Programs and Regulations.* An HGMP shall describe interrelationships and interdependencies with fisheries management. The combination of artificial propagation programs and harvest management must be designed to provide as many benefits and as few biological risks as possible for the listed species. HGMPs for programs whose purpose is to sustain fisheries must not compromise the ability of FMEPs or other management plans to achieve management objectives for associated listed populations.

(7) *Adequacy of Hatchery Facilities.* Adequate artificial propagation facilities must exist to properly rear progeny of listed broodstock to maintain population health, maintain population diversity, and to avoid hatchery-influenced selection or domestication.

(8) *Availability of Effective Monitoring Efforts.* Adequate monitoring and evaluation must exist to detect and evaluate the success of the hatchery program and any risks to or impairment of recovery of, the listed ESU.

(9) *Consistency with Court Mandates.* An HGMP must be consistent with plans and conditions set within any Federal Court proceeding with continuing jurisdiction over tribal harvest allocations. Agreements adopted within the *United States* v. *Washington* proceeding, such as the Puget Sound Management Plan (originally approved by the court in 1977; most recent amendment approved by the court in *United States* v. *Washington*, 626 F. Supp. 1405, 1527 (1985, W.D. Wash.) mandate that harvest and artificial production management actions are agreed to and coordinated between the State of Washington and the Western Washington treaty tribes. Where joint agreement is required, such plans will fall under the provisions of paragraphs (b)(6)(i)-(iv) of section 223.203 of this proposed rule.

Take of Progeny Resulting from Hatchery/Naturally-Spawned Crosses

NMFS' ''Interim Policy on Artificial Propagation of Pacific Salmon Under the Endangered Species Act,'' (58 FR 17573, April 5, 1993) provides guidance on the treatment of hatchery stocks in the event of a listing. Under this policy, ''progeny of fish from listed species that are propagated artificially are considered part of the listed species and are protected under the ESA.'' According to the interim policy, the progeny of such hatchery/naturally spawned crosses or naturally spawned-naturally spawned crosses would also be listed.

In its listing decisions for the seven ESUs subject to this notification, NMFS determined that it was not necessary to consider the artificially propagated progeny of intentional hatchery/naturally spawned and naturally spawned/naturally spawned crosses as listed (except in cases where NMFS has listed the hatchery population as well). NMFS believes it desirable to incorporate naturally spawned fish into the hatchery populations to ensure that their genetic and life history characteristics do not diverge significantly from the naturally spawned populations. Prior to any intentional use of threatened salmonids for hatchery broodstock, an approved HGMP must be in place to ensure that native, naturally spawned populations are conserved.

Limits on the Take Prohibitions for Joint Tribal/State Plans Developed within United States v. Washington or United States v. Oregon

Concurrent with this proposed rule, NMFS proposes a limit on the take prohibitions for actions in accord with any tribal resource management plan that the Secretary has determined will not appreciably reduce the likelihood of survival and recovery of a threatened ESU. That proposal is published elsewhere in the Proposed Rules section of this **Federal Register** issue. Non-tribal salmonid management within the Puget Sound and Columbia River areas is profoundly influenced by the tribal rights of numerous Indian tribes in the Northwest and must be responsive to the court proceedings interpreting and/or defining those tribal interests. Various orders of the *United States* v. *Washington* court, such as the Puget Sound Salmon Management Plan (originally approved by the court in 1977; most recent amendment approved by the court in *United States* v. *Washington*, 626 F. Supp. 1405, 1527 (1985, W.D. Wash.) mandate that many aspects of fishery management, including, but not limited to, harvest and artificial production actions be agreed to and coordinated between the State of Washington and the Western Washington Treaty tribes. The State of Washington, affected tribes, other interests, and affected Federal agencies are all working toward an integrated set of management strategies and strictures that will respond to the biological, legal and practical realities of salmonid issues in Puget Sound, including tribal rights and NMFS' ESA responsibilities to conserve listed species. Similar principles are equally applicable within the Columbia River basin where the States of Oregon, Washington, Idaho, and five treaty tribes work within the framework and jurisdiction of *United States* v. *Oregon.*

NMFS, therefore, proposes this limit on the take prohibitions to accommodate any resource management plan developed jointly by the States and the Tribes (joint plan) within the continuing jursidiction of *United States* v. *Washington*, or of *United States* v. *Oregon,* the on-going Federal court proceedings to enforce and implement reserved treaty fishing rights. Such a plan would be developed and reviewed under the government-to-government processes of the general tribal exception (including technical assistance from NMFS in evaluating impacts on listed salmonids). Before the take prohibitions would be determined not to apply to a joint plan, the Secretary must determine that implemenation and enforcement of the plan will not appreciably reduce the likelihood of survival and recovery of the species. Before making that determination for joint fishery management or hatchery and genetic management plans the Secretary must solicit and consider public comment on how any fishery management plan addresses the criteria in § 223.203(b)(4) of this proposed rule, or how any hatchery and genetic management plan addresses the criteria in § 223.203(b)(5) of this proposed rule. The Secretary shall publish notice of any determination regarding a joint plan, with a discussion of the biological analysis underlying that determination, in the **Federal Register**.

Limits on the Take Prohibitions for Scientific Research

In carrying out their responsibilities, state fishery management agencies in Washington and Oregon conduct or permit a wide range of scientific research activities on various fisheries, including monitoring and other studies on salmonids which occur in the seven threatened salmonid ESUs considered in this proposed rule. NMFS finds these activities vital for improving our understanding of the status and risks facing salmonids and other listed species of anadromous fish that occur in overlapping habitat, and provide critical information for assessing the effectiveness of current and future management practices. In general, NMFS concludes such activities will help to conserve the listed species by furthering our understanding of the species' life history and biological requirements, and that state biologists and cooperating agencies carefully consider the benefits and risks of proposed research before approving or undertaking such projects. NMFS concludes that it is not necessary or advisable to impose additional protections on such research through imposition of Federal take prohibitions. Therefore, in this document, NMFS proposes not to apply take prohibitions to scientific research activities under the following circumstances.

Research activities that involve planned sacrifice or manipulation of, or will necessarily result in injury to or death of, listed salmonids come within this exception only if the state submits an annual report listing all scientific research activities involving such activities planned for the coming year,

for NMFS' review and approval. Such reports shall contain (1) an estimate of the total take anticipated from such research; (2) a description of study designs, including a justification for taking the species; (3) a description of the techniques to be used; and (4) a point of contact. Research involving planned sacrifice or manipulation of, or which will necessarily result in injury to or death of listed salmonids must be conducted by employees or contractors of the state fishery management agency, or as part of a coordinated monitoring and research program overseen by that agency. Any research using electrofishing gear in waters known, or expected to contain, listed salmonids, is within this exception only if it complies with ''Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act'' (NMFS, 1998). Otherwise, electrofishing research requires an ESA section 10 research permit from NMFS prior to commencing operations. NMFS welcomes comment on these guidelines, which are available (see **ADDRESSES**), during the comment period for this proposed rule.

The state must annually provide NMFS with the results of scientific research activities that involve directed take of listed salmonids, including a report of the amount of direct take resulting from the studies and a summary of the results of such studies.

A state may conduct and may authorize non-state parties to conduct research activities that may result in incidental take of listed salmonids under the following conditions. The state shall submit to NMFS annually, for its review and approval, a report listing all scientific research activities permitted that may incidentally take listed salmonids during the coming year. In that annual report, the state must also report the amount of incidental take of listed salmonids occurring in the previous year's scientific research activities, and provide a summary of the results of such research. Interested parties may request a copy of these annual reports from NMFS (see **ADDRESSES**).

Habitat Restoration Limits on the Take Prohibitions

NMFS considers a ''habitat restoration activity'' to be an activity whose primary purpose is to restore natural aquatic or riparian habitat processes or conditions; it is an activity which would not be undertaken but for its restoration purpose. NMFS does not consider herbicide applications or artificial bank stabilization to be restoration activity.

Certain habitat restoration activities are likely to contribute to conserving listed salmonids without significant risks, and NMFS concludes that it is not necessary and advisable to impose take prohibitions on those activities when conducted in accordance with appropriate standards and guidelines. Projects planned and carried out based on at least a watershed-scale analysis and conservation plan, and, where practicable, a sub-basin or basin-scale analysis and plan, are likely to be the most beneficial. NMFS strongly encourages local efforts to conduct watershed assessments to identify what problems are impairing watershed function, and to plan for watershed restoration or conservation in reliance on that assessment. Without the overview a watershed-level approach provides, habitat efforts are likely to focus on ''fixes'' that may prove short-lived, or even detrimental, because the underlying processes that are causing a particular problem have not been addressed.

This proposed rule, therefore, provides that ESA section 9(a) take prohibitions will not apply to habitat restoration activities found to be part of, and conducted pursuant to, a state-approved watershed conservation plan with which NMFS concurs. The state in which the activity occurs must determine in writing whether a watershed plan has been formulated in accordance with NMFS-approved state watershed conservation plan guidelines, and forward any positive finding for NMFS' concurrence. NMFS will work with interested states in developing guidelines that meet the criteria and standards set forth here. If NMFS finds they meet those criteria and standards, NMFS will then certify this determination in writing to the state. Such a plan will contain adequate safeguards such that no additional Federal protections through imposition of take prohibitions on actions in accord with the plan is necessary and advisable for conservation of the listed salmonids.

While criteria and plans are being developed, this proposed rule would not apply the take prohibitions to several habitat restoration activities if carried out in accord with the conditions described here, and with any required state or Federal reviews or permits. Until watershed conservation plans formulated in accord with NMFS-approved state watershed conservation plan guidelines are in place, but for no longer than 2 years, ESA section 9 take prohibitions will not apply to the following restoration activities when conducted in accord with the listed conditions and guidance. More complex restoration activities such as habitat construction projects or channel alterations require project by project technical review at least until watershed planning is complete.

Applicable state guidance includes the *Oregon Road/Stream Crossing Restoration Guide: Spring 1999*, selected portions (cited here) of the *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999); the Washington Department of Fish and Wildlife, (WDFW) *Habitat and Lands Environmental Engineering Division's Fish Passage Design at Road Culverts*, March 3, 1999; Washington Administrative Code rules for Hydraulic Project Approval; and Washington's *Integrated Streambank Protection Guidelines*, June, 1998. Under those conditions and where consistent with any other state or Federal laws and regulations, NMFS proposes not to apply take prohibitions to the following habitat restoration activities:

1. *Riparian zone planting or fencing*. Conditions: no in-water work; no sediment runoff to stream; native vegetation only; fence placement consistent with standards in the *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999).

2. *Livestock water development off-channel*. Conditions: no modification of bed or banks; no in-water structures except minimum necessary to provide source for off-channel watering; no sediment runoff to stream; diversion adequately screened; diversion in accord with state law and has no more than de minimus impacts on flows that are critical to fish; diversion quantity shall never exceed 10 percent of current flow at any moment, nor reduce any established instream flows.

3. *Large wood (LW) or boulder placement*. Conditions: does not apply to LW placement associated with basal area credit in Oregon. No heavy equipment allowed in stream; work limited to any state in-water work season guidelines established for fish protection, or if there are none, limited to summer low-flow season with no work from the start of adult migration through the end of juvenile outmigration. Wood placement projects should rely on the size of wood for stability and may not use permanent anchoring including rebar or cabling (these would require ESA section 7 consultation or an ESA section 10 permit)(biodegradable manila/sisal rope may be used for temporary stabilization). Wood length should be at least two times the bankfull stream width (1.5 times the bankfull width for wood with rootwad attached) and meet diameter requirements and stream size

and slope requirements outlined in *A Guide to Placing Large Wood in Streams*, Oregon Department of Forestry and Department of Fish and Wildlife, May, 1995. LW placement must be either associated with an intact, well-vegetated riparian area which is not yet mature enough to provide LW; or accompanied by a riparian revegetation project adjacent or upstream that will provide LW when mature. Placement of boulders only where human activity has created a bedrock stream situation not natural to that stream system, where the stream segment would normally be expected to have boulders, and where lack of boulder structure are major contributing factors to the decline of the stream fisheries in the reach. Boulder placement projects within this exception must rely on size of boulder for stability, not on any artificial cabling or other devices. See applicable guidance in *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999).

4. *Correcting road/stream crossings, including culverts, to allow or improve fish passage. See* Washington Department of Fish and Wildlife's (WDFW) *Fish Passage Design at Road Culverts*, March 3, 1999; *Oregon Road/Stream Crossing Restoration Guide: Spring 1999*.

5. *Repair, maintenance, upgrade or decommissioning of roads in danger of failure*. All work to be done in dry season; prevent any sediment input into streams.

6. *Salmonid carcass placement*. Carcass placement should be considered only where numbers of spawners are substantially below historic levels. Follow applicable guidelines in *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999), including assuring that the proposed source of hatchery carcasses is from the same watershed or river basin as the proposed placement location. To prevent introduction of diseases from hatcheries, such as Bacterial Kidney Disease, carcasses must be approved for placement by a state fisheries fish pathologist.

These short term ''exceptions'' describe habitat restoration activities that are likely to promote conservation of listed salmonids with relatively small risk negative impacts. If conducted in accord with the limitations described earlier, NMFS concludes it is not necessary and advisable to provide additional Federal protections through imposition of take prohibitions on these restoration actions. Thus, these habitat restoration activities can proceed over the next 2 years without the need for ESA section 10 permit coverage. Before undertaking other habitat restoration activities the project coordinator should contact NMFS to determine whether the project can be conducted in such a way as to avoid take. If not, NMFS will recommend that a section 10 incidental take permit be obtained before proceeding. If the project involves action, permitting or funding by a Federal agency, ESA coverage would occur through section 7 consultation.

After a watershed conservation plan has been approved, only activities conducted pursuant to the plan fall outside the scope of the ESA section 9 take prohibitions. If no watershed conservation plan has been approved by 2 years after publication of the final rule in the **Federal Register**, then section 9 take prohibitions will apply to individual habitat restoration activities just as to all other habitat-affecting activities.

Criteria for Evaluating Watershed Conservation Plan Guidelines

NMFS will evaluate state watershed conservation plan guidelines based upon the standards defined here, which include criteria derived from those used for evaluating applications for incidental take permits, found at § 222.307(c) of this chapter. Guidelines must result in plans that:

(1) Consider the status of the affected species and populations.

(2) Design and sequence restoration activities based upon information obtained from an overall watershed assessment.

(3) Prioritize restoration activities based on information from watershed assessment.

(4) Evaluate the potential severity of direct, indirect and cumulative impacts on the species and habitat as a result of the activities the plan would allow.

(5) Provide for effective monitoring. This criterion requires that the effectiveness of activities designed to improve natural watershed function will be evaluated through appropriate monitoring and that monitoring data will be analyzed to help develop adaptive management strategies. Successful monitoring requires identification of the problem, identification of the appropriate solution to the problem, and determination of the effectiveness of the solution over a period of time in increasing productivity of the listed salmonids.

(6) Use best available technology. Since the language of part § 222 of this chapter contemplates activities unrelated to habitat restoration, it applies ''best available technology'' only to minimizing and mitigating incidental effects. For this application, NMFS makes the logical extension of also applying ''best available technology'' to the restoration activities per se. Guidelines must ensure that plans will represent the most recent developments in the science and technology of habitat restoration, and use adaptive management to incorporate new science and technology into plans as they develop, and where appropriate, provide for project specific review by disciplines such as hydrology, geomorphology, etc.

(7) Assure that any taking resulting from implementation will be incidental.

(8) Require the state, local government, or other responsible entity to monitor, minimize and mitigate the impacts of any such taking to the maximum extent practicable.

(9) Will not result in long-term adverse impacts. Implementation may cause some short-term adverse impacts, and plans must evaluate the ability of affected ESUs to withstand those impacts. Guidelines and plans must assure that habitat restoration activities will be consistent with the restoration and persistence of natural habitat forming processes.

(10) Assure that the safeguards required in watershed conservation plans will be funded and implemented.

NMFS recognizes the importance of providing meaningful opportunities for public review of watershed conservation plan guidelines. Therefore, prior to certifying such guidelines, NMFS will make the guidelines available for public review and comment for a period of not less than 30 days. Notice of the availability of such draft guidelines will be published in the **Federal Register**. Notice will also be sent to parties expressing an interest in these guidelines. Parties interested in receiving notification should contact NMFS (see **ADDRESSES**).

Water Diversion Screening Limit on the Take Prohibitions

A widely recognized cause of mortality among anadromous fish is operation of water diversions without adequate screening. Juveniles may be sucked or attracted into diversion ditches where they later die from a variety of causes, including stranding. Adult and juvenile migration may be impaired by diversion structures, including push-up dams. Juveniles are often injured and killed through entrainment in pumping facilities or impingement on inadequate screens, where water pressure and mechanical forces are often lethal.

State laws and Federal programs have long recognized these problems in

varying ways, and encouraged or required adequate screening of diversion ditches, structures, and pumps to prevent much of the anadromous fish loss attributable to this cause. Nonetheless, large numbers of diversions are not adequately screened and remain a threat, particularly to juvenile salmonids, and elimination of that source of injury or death is vital to conservation of listed salmonids.

Therefore, this proposed rule encourages all diverters to move quickly to provide adequate screening or other protections for their diversions, by not applying take prohibitions to any diversion screened in accord with NMFS' Juvenile Fish Screening Criteria, Northwest Region, Revised February 16, 1995, with Addendum of May 9, 1996 (available by contacting **ADDRESSES**). Compliance with these criteria will address the problems associated with water diversions lacking adequate screening. If a diversion is screened, operated and maintained consistent with those NMFS criteria, NMFS concludes that adequate safeguards will be in place such that no additional Federal protection (with respect to method of diversion) through imposition of take prohibitions is necessary and advisable for conservation of listed salmonids. Written acknowledgment from NMFS engineering staff is needed to establish that screens are in compliance with the criteria.

The proposed take prohibitions would not apply to physical impacts on listed fish due to entrainment or similar impacts of the act of diverting, so long as the diversion has been screened according to NMFS criteria and is being properly maintained. The take prohibitions would apply to take that may be caused by instream flow reductions associated with operation of the water diversion facility, and impacts caused by installation of the water diversion facility, such as dewatering/bypass of the stream or in-water work. Such take remains subject to the prohibitions of § 223.203(a).

Routine Road Maintenance Limit on the Take Prohibitions

The Oregon Department of Transportation (ODOT) is responsible for the extensive existing transportation infrastructure represented by the Oregon's state highway system. ODOT maintenance and environmental staff have worked with NMFS for more than a year toward performing routine road maintenance activities within the constraints of the ESA and the Clean Water Act, while carrying out the agency's fundamental mission to provide a safe and effective transportation system. That work has resulted in a program that greatly improves protections for listed salmonids with respect to the range of routine maintenance activities, minimizing their impacts on receiving streams. The Association of Oregon Counties and the City of Portland participated in some of the later discussions of needed measures and processes. ODOT's program includes its Maintenance of Water Quality and Habitat Guide dated June, 1999 (Guide) and a number of supporting policies and practices, including a strong training program, accountability mechanisms, close regional working relationships with Oregon Department of Fish and Wildlife (ODFW) biologists, two ODFW staff whose time is fully dedicated to work with ODOT, a biologist dedicated full time to work with NMFS on transportation issues, and several ongoing research projects.

The Director of ODOT has committed that ODOT will implement the Guide, including training, documentation and accountability features that are described in the introduction to the document (letter from Grace Crunican to Will Stelle, dated June 30, 1999). The guide governs the manner in which crews should proceed on a wide variety of routine maintenance activities, including surface and shoulder work, ditch, bridge, and culvert maintenance, snow and ice removal, emergency maintenance, mowing, brush control and other vegetation management. The program directs activity toward favorable weather conditions, increases attention to erosion control, prescribes appropriate equipment use, governs disposal of vegetation or sediment removed from roadsides or ditches, and includes other improved protections for listed salmonids, as well as improving habitat conditions generally. Routine road maintenance conducted in compliance with the ODOT program will adequately address the problems potentially associated with such activity. In other words, the Guide provides adequate safeguards for listed salmonids. Furthermore, extension of the take prohibitions to these activities would not provide meaningful, increased protection for listed salmonids. In sum, NMFS does not find it necessary and advisable to apply take prohibitions to routine road maintenance work performed consistent with the Guide. The Guide governs only routine maintenance activities of ODOT staff. Other activities, including new construction, major replacements, or activity for which a U.S. Army Corps of Engineers (COE) permit is required, are not covered by the routine maintenance program and therefore would be subject to the take prohibitions.

NMFS realizes that in many circumstances the Guide includes language that could compromise the protections otherwise offered, through phrases such as ''where possible'', ''where feasible'' or ''where practicable.'' Although, as a general rule, such language creates an unacceptable level of ambiguity or uncertainty for a program being recognized within the ESA, a variety of circumstances constrain and limit that uncertainty in the case of ODOT's routine maintenance program. Foremost is that ODOT intends these discretionary phrases to be exercised only where a physical, safety, weather, equipment or other hard constraint makes it impossible to follow a Best Management Practice (BMP) to the letter. ODOT has explained this in the Guide, making clear that the discretionary language is not included to create flexibility for the convenience of the crew or for ease of operation. ODOT is striving in its training program to have all crews understand that point, and to provide examples of appropriate and inappropriate application of those discretionary phrases. As an example of appropriate use, the Guide states that ODOT will ''where feasible, schedule sweeping during damp weather, to minimize dust production.'' ODOT crews strive to follow that. However, debris on the road at other times may require that ODOT sweep a road regardless of road moisture, to ensure a safe surface. ODOT would then proceed with sweeping as necessary, using other applicable minimization and avoidance practices.

Further, ODOT crews undergo extensive and regular training, and are increasingly focused on environmental considerations and compliance as a core agency value and consideration. ODOT is testing new ideas for enhancing feedback from crews to managers and policy staff. One proposal establishes environmental leaders on each crew who then meet regularly to address successes and failures. Information from that group would then be fed into a monthly regional meeting for identification of needed adjustments, and then on to quarterly management reviews. While this system is not in place, it demonstrates ODOT's determination to find and use practical feedback mechanisms to enhance the routine maintenance program as well as other ODOT programs.

In sensitive resource areas, the possibilities of exercising discretionary

flexibility are further constrained by a new tool that has been implemented in southern Oregon, will shortly be in place in the north coast region, and completed throughout Oregon in 2002. The agency is working to prepare detailed maps identifying any known sensitive resource sites that occur within ODOT rights of way. ODOT is mapping dominant land cover, functional overstory values, late successional stage, riparian management areas, presence of contiguous riparian areas, salmonid presence, spawning, rearing, offchannel areas, tributaries, wetlands, and other resource issues. This mapping does not delineate boundaries or provide presence or absence of species, but rather inventories known resources within ODOT'S rights of way.

A resource map and a restricted activity map are being produced for each road, by mile point and global position system coordinate. The restricted activity maps are coordinated with ODOT maintenance staff and will allow ODOT staff the knowledge to adjust their activities based on resource information. 'No restriction' areas indicate that no known resource of concern has been identified in the area, and routine maintenance can occur using the Guide. A 'Caution' value indicates the known presence of one or more resources in the general work area, and maintenance crews should increase their awareness of their activities, perhaps contacting region environmental staff. The district Integrated Pest/Vegetation Management Plan and the Guide will direct activities. The 'Restricted value' indicates that a resource of concern is known to be present within the right of way and consultation with technical staff needs to occur prior to any work or ground disturbing activity.

With a full-time staff person at NMFS dedicated to coordination and communication with ODOT staff on a regular basis and participation in monthly and quarterly review meetings, NMFS is assured of regular feedback on how the program is operating. That feedback will provide information on the frequency and nature of any deviations from the practices specified in the Guide. If at some time in the future that dedicated staff position is no longer available, then NMFS and ODOT will have to find another means of assuring that feedback or amend the program appropriately to keep it within the exception.

Finally, through annual reporting of external complaints and their outcomes, ODOT will identify needed ''modifications of, or improvements to'' any of the minimization/avoidance measures and has committed to making changes to the measures as necessary. Likewise, ODOT will incorporate changes reflecting new scientific information and new techniques and materials.

ODOT will notify NMFS of any changes to the ODOT guidance, and before NMFS determines that the take prohibitions should not be extended to these activities, NMFS will publish notification in the **Federal Register** providing a comment period of not less than 30 days for public review and comment on the proposed changes. If at any time NMFS determines that compliance problems or new information cause the ODOT program to no longer provide sufficient protection for threatened salmonids, NMFS shall notify ODOT. If ODOT does not effectively correct the matter within a mutually determined time period, NMFS shall notify ODOT that its routine road maintenance program is subject to the take prohibitions.

While ODOT implements an integrated vegetation management program which assures that herbicide or pesticide spraying will not occur in areas of sensitive natural resources, including streams, NMFS is unable to conclude at this time that the measures in ODOT's Guide governing herbicide or pesticide spraying (MMS #131) are sufficiently protective of listed salmonids to warrant not applying the take prohibitions of this proposed rule to that activity. This is in part because of the large number of herbicide and pesticide formulations ODOT may employ, and the legitimate concerns about effects of many of these chemicals on aquatic species, and specifically on anadromous fish at various life stages. The fact that NMFS does propose to apply take prohibitions to spraying at this time does not indicate that NMFS has determined that any particular ODOT pesticide spraying activities constitute harm to salmonids; rather, that there is not sufficient evidence at this time to be sure the risk of harm is low. NMFS intends to continue working with ODOT on the issues surrounding herbicide and pesticide use. ODOT is currently conducting research on whether chemicals it applies reach streams under worst-case scenarios.

For similar reasons, the take prohibitions would apply to dust abatement measures in the Guide. ODOT routine maintenance seldom engages in dust abatement, and when it does uses only water and hence is not risk of harming salmonids. There is insufficient precision in the Guide as to chemical makeup of palliatives, specific areas of use, rates of application, and possible contaminants for NMFS to be sure the risk of harm would be acceptably low should any county or city that does significant dust abatement seek to come within this exception. Therefore, a county or city would have to provide those additional details and commit to appropriate limits in an MOA before dust abatement could be considered as within this limit on take prohibitions. NMFS believes that other than for herbicide and pesticide spraying and dust control, activity in compliance with the ODOT guidance and program would not further degrade or otherwise restrict attainment of properly functioning conditions. With respect to routine road maintenance activities in Oregon, the program limits impacts on listed salmonids and their habitat to an extent that makes additional Federal protections unnecessary for the conservation of listed salmonids. Therefore, in this proposed rule NMFS does not propose to apply take prohibitions on routine road maintenance activities (other than herbicide and pesticide spraying, or dust abatement) so long as the activity is covered by, and conducted in accord with, ODOT's *Maintenance Management System Water Quality and Habitat Guide* (June, 1999). ODOT will continue to obtain permits from the COE and/or Oregon Division of State Lands for any in-stream work normally requiring those permits, and COE section 7 consultation requirements on permit issuance is not affected by this limit on the take prohibitions.

ODOT has committed to review the Guide and revise as necessary at least every 5 years. ODOT is actively reviewing potential impacts or new technologies related to many issues. For instance, results from an earlier technical team evaluation of impacts of de-icing mechanisms on aquatic resources is included as an appendix to the Guide. That group has been reconvened (with NMFS as a member) and is revisiting adherence to the specifications, as well as evaluating extensive research on CMA (calcium-magnesium acetate). Initial research indicates that CMA is not getting to the water column, but the team will be following up. ODOT has also been doing roadside snow sampling to determine whether any typical road-side pollutant is present on road sand, and thus far has not identified any measurable concentrations.

ODOT has several other interagency teams working toward improving practices or further defining specific issues related to ditches, culverts, or emergency circumstances. It is also

continuing research on how to best recycle or otherwise appropriately dispose of maintenance decant, sediment, or sweepings. Any of the above may result in improved practices, and where necessary, revision of the Guide.

At any time ODOT revises part of the 1999 Guide, ODOT will need to provide the desired revision to NMFS for review and approval. NMFS will make draft changes available for public review and comment for a period of not less than 30 days. Notice of the availability of such draft changes will be published in the **Federal Register**. Notice will also be sent to parties expressing an interest in the Guide. Parties interested in receiving notification should contact NMFS (see **ADDRESSES**).

Some Oregon city and county governments have indicated interest in using the ODOT guidance to be sure that their routine road maintenance activities are protective of salmonids. The fact that ODOT has an extensive and ongoing training program for all maintenance employees and has committed to report on an annual basis details of program implementation is fundamental to NMFS' belief that the program is adequate. Hence, any Oregon city or county desiring that its routine road maintenance activities come under this ''exception'' must not only commit in writing to apply the measures in the Guide, but also must first enter a MOA with NMFS detailing how it will assure adequate training, tracking, and reporting, including how it will control and narrow the circumstances in which a practice will not be followed because it is not ''feasible,'' ''practical,'' or ''possible.''

Portland Parks Integrated Pest Management Limit on the Take Prohibitions

The City of Portland, Oregon, Parks and Recreation Department (PP&R) operates a diverse system of city parks representing a full spectrum from intensively managed recreation, sport, golf, or garden sites to largely natural, unmanaged parks, including the several thousand acre, wooded, Forest Park. PP&R has been operating and refining an integrated pest management program for 10 years, with a goal of reducing the extent of its use of herbicides and pesticides in park maintenance. The program's ''decision tree'' place first priority on prevention of pests (weeds, insects, disease) through policy, planning, and avoidance measures (design and plant selection). Second priority is on cultural and mechanical practices, trapping, and biological controls. Use of biological products, and finally of chemical products, is to be considered last. PP&R's overall program affects only a small proportion of the land base and waterways within Portland, and serves to minimize any impacts on listed salmonids from chemical applications associated with that specific, limited land base. NMFS believes it would contribute to conservation of listed salmonids if jurisdictions would broadly adopt a similar approach to eliminating and limiting chemical use in their parks and in other governmental functions. As a result of this program, the City has phased out regularly scheduled treatments such as turf spraying to control broadleaf weeds. This has reduced total use of chemical to control broadleaf weeds to less than 15 percent of its former level.

Decisions to use pesticides are not made lightly and require attention to public notification, mixing, cleaning and record keeping. Use of pesticides is no longer a ''least hassle'' kind of option. City personnel report that pesticide use is avoided by maintenance crews unless there are no other workable options.

Crews cease application when winds will cause spray drift beyond the target site. Spot spraying or brushing of herbicides is frequently chosen.

PP&R has recently developed special policies to provide extra protections near waterways and wetlands, including a 25– foot (7.5 m) buffer zone in which pesticide use is limited to Glyphosphate products, Garlon 3A, Surfactant R–11, Napropamide, Cutrine Plus, and Aquashade. Within this buffer applications are spot applied with a hand wand from a backpack sprayer, which utilizes low pressure spray to minimize drift. Under certain circumstances broadcast spraying, which also uses the low pressure hand-wand spraying will be conducted. Application rates of chemicals used range from 9 percent to 100 percent of label allowances, depending on the identified task.

After careful analysis of PP&R's integrated program for pest management, NMFS concludes that it addresses potential impacts and provides adequate protection for listed salmonids with respect to the limited use the program may make of the listed chemicals. Therefore, NMFS does not find it necessary and advisable to apply additional Federal protections in the form of take prohibitions to PP&R activities conducted under City of Portland, Oregon's Parks and Recreation Department's (PP&R) Pest Management Program (March 1997), including its Waterways Pest Management Policy dated April 4, 1999. In addition, NMFS concludes that take prohibitions would not meaningfully increase the level of protection provided for listed salmonids. NMFS, therefore, does not propose to apply the take prohibitions of this proposed rule to activities within the PP&R program.

Confining the limit on take prohibitions to a specified list of chemicals does not indicate that NMFS has determined that other chemicals PP&R may employ necessarily will cause harm to salmonids in the manner used. NMFS intends to continue working with PP&R on the issues surrounding use of any other herbicide or pesticide.

PP&R's program includes a variety of monitoring commitments and a yearly assessment with NMFS of results, progress, and any problems. If at any time monitoring information, new scientific studies, or new techniques cause PP&R to amend its program or to cause PP&R and NMFS to wish to change the list of chemicals falling outside the scope of the take prohibitions, NMFS will publish a document in the **Federal Register** announcing the availability of the proposed changes for public review and comment. Such a notification will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether the changes will conserve listed salmonids. PP&R has been seeking to decrease the extent of its intensively managed riparian areas. NMFS commends that effort, while recognizing that PP&R is constrained by recreational, aesthetic, safety and other responsibilities. This limit on the take prohibitions does not include PP&R's initial planning determinations about the extent of riparian vegetative buffer provided; that question is separable from the integrated pest management approach taken to achieve the conditions planned. This limit focuses on the methods PP&R employs to assure that once it has identified a particular plant or animal as a pest, its control methods are as protective of natural processes, water quality, and listed species as possible.

Limit on Take Prohibitions for New Urban Density Development

As a general matter, significant new urban scale developments have the potential to degrade salmonid habitat and to injure or kill salmonids through a variety of impacts. NMFS believes that with appropriate safeguards, new development can be specifically tailored to minimize impacts on listed salmonids to an extent that makes additional Federal protections

unnecessary for conservation of the listed ESU. Through this proposed rule, NMFS proposes a mechanism whereby jurisdictions can be assured that development authorized within those areas is consistent with ESA requirements and avoids or minimizes the risk of take of listed salmonids. Both potential developers and the jurisdictions controlling new development would benefit by assurance that their approvals and development actions conserve listed salmonids.

For example, urban density development in the Portland, Oregon metropolitan area may not occur outside of an adopted urban growth boundary (UGB). Metro, the regional governing body, is in the process of bringing some large areas currently designated as urban reserve areas into the UGB. Before development may commence within such newly included areas, the jurisdiction within which the area lies must prepare and adopt comprehensive plan amendments for urban reserve areas consistent with all provisions of the Metro Urban Growth Management Functional Plan, outlining what development will be allowed and the conditions to be placed upon development.

Similarly, cities both within and outside the Metro region and in other states affected by this rule may be approving new urban development on tracts of a size that allows integrated planning for placement of buildings, transportation, storm water management, and other functions. Several areas under consideration for Metro boundary expansions, and several undeveloped tracts within currently urbanized areas, include streams that support listed salmonids.

This proposed rule further proposes that NMFS will not apply take prohibitions to new developments governed by and conducted in accord with adequate city or county ordinances that NMFS has determined are adequate to help conserve anadromous salmonids. Similarly, within the jurisdiction of the Metro regional government in Oregon, NMFS finds that Metro's Urban Growth Management Functional Plan (Functional Plan) is adequate, take prohibitions will not be applied to development governed by ordinances that Metro has found consistent with that Functional Plan. NMFS must agree in writing that the city or county ordinances or Metro's Functional Plan are sufficient to assure that plans and development complying with them will result in development patterns and actions that conserve listed salmonids. In determining whether Metro Functional Plan or local ordinances are adequate NMFS will focus on 12 issues, discussed here. Many of these principles are derived from Spence, An Ecosystem Approach to Salmonid Conservation (NMFS, 1996) and citations therein. NMFS recognizes that some of these principles require integrated planning for placement of buildings, transportation or storm water management and that those 12 principles will have to be applied in the context within which the development is to occur, which will differ among major new developments and for small, single lot developments or redevelopments. Ordinances or Metro's Functional Plan must assure that urban reserve plans or developments will:

(1) Be sited in appropriate areas, avoiding unstable slopes, wetlands, areas of high habitat value, and similarly constrained sites.

(2) Avoid stormwater discharge impacts to water quality and quantity, and preserve, or move stream flow patterns (hydrograph) closer to, the historic peak flow and other hydrograph characteristics of the watershed. Through a combination of reduction of impervious surfaces, runoff detention, and other techniques development can achieve that purpose within its portion of the watershed. Other development design characteristics, stormwater management practices and buffer requirements will prevent sediment and other pollutants from reaching any watercourse.

(3) Require adequate riparian buffers along all perennial and intermittent streams. Because of the intensity of disturbance in surrounding uplands, riparian buffers are at least as critical in urban areas as in rural areas. Without adequately vegetated riparian set-backs, properly functioning conditions including temperature control, bank stability, stream complexity and pollutant filtering cannot be achieved.

All existing native vegetation must be retained because of its importance in maintaining bank stability, stream temperature, and other characteristics important to water quality and fish

habitat. Prevent destruction of existing native vegetation prior to land use conversions. Where the area contains non-native vegetation, maintained lawn, or is cropped, add or substitute native vegetation within the riparian set-back to achieve a mix of conifer, deciduous trees, understory and ground covers must be planted. To the extent allowed by ownership patterns, the development set-back should be equivalent to greater than one site potential tree height (approximately 200 ft (60 m) or at least to the break in slope for steep slopes) from the outer edge of the channel migration zone on either side of all perennial and intermittent streams, in order to protect off-channel high flow rearing habitat and allow full stream function. Within that set-back the first 50 ft (15 m) should be protected from any mechanical entry or disturbance, structures, or utility installations, and should be dominated by maturing or mature conifers, together with some hardwoods and a vigorous, dense understory of native plants. This inner buffer should also be protected from high-impact recreational use and any trails should be of permeable, natural materials. The inner buffer provides multiple values, including root systems for bank stability. The outer 100–plus ft (30.5 m) of set-back should be entirely in native vegetation (not in maintained lawn) with a mix of conifer, deciduous trees, understory and groundcovers. Disturbances should be minimized.

(4) Avoid stream crossings by roads wherever possible, and where one must be provided, minimize impacts through choice of mode, sizing, placement. One method of minimizing stream crossings and disturbances is to optimize transit opportunities to and within newly developing urban areas. Consider whether potential stream crossings can be avoided by access redesign. Where crossings are necessary, minimize their impacts by preferring bridges over culverts; sizing bridges to a minimum width; designing bridges and culverts to pass at least the 100– year flood and associated debris, and meet ODFW or WDFW criteria; assuring regular monitoring and maintenance over the long term; and prohibiting closing over of any intermittent or perennial stream. WDFW Habitat and Lands Environmental Engineering Division's *Fish Passage Design at Road Culverts*, March 3, 1999, or *Oregon Road/Stream Crossing Restoration Guide: Spring 1999* provide excellent frameworks for action.

(5) Protect historic stream meander patterns, flood plains and channel migration zones; do not allow hardening of stream banks. All development should be designed to allow streams to meander in historic patterns of channel migration. Adequate riparian buffers linked to the channel migration zone should avoid need for bank erosion control in all but the most unusual situations. If required by unusual circumstances, bank erosion should be controlled through vegetation or carefully bioengineered solutions. Rip-rap blankets or similar hardening techniques are not allowed, unless bioengineered solutions are impossible because of particular site constraints.

Habitat elements such as wood, rock, or other naturally occurring material must not be removed from streams. WDFW's ''Integrated Streambank Protection Guidelines, June, 1998'' provide sound guidance, particularly regarding mitigation for gravel recruitment and channel complexity lost through streambank hardening.

(6) Protect wetlands and the vegetation surrounding them to maintain wetland functions. Design around wetlands for their positive habitat, water quality, flood control, and groundwater connection values, providing adequate buffers. Retain all existing natural wetlands.

(7) Preserve the hydrologic capacity of all intermittent and perennial streams to pass peak flows, and assure that, at minimum, the Flood Management Performance Standards of Title 3 of Metro's Urban Growth Management Functional Plan are applied to all development in urban expansion areas, together with any other steps needed to protect hydrologic capacity. In combination with the buffer or set-back provisions above, this means that for new, large developments, fill or dredging should never occur unless in conjunction with a necessary stream crossing.

(8) Landscape to reduce need for watering and application of herbicides, pesticides and fertilizer. Plans must include techniques local governments will use to encourage planting with native vegetation, reduction of lawn area, and reduced water use. These steps will contribute to water conservation and ultimate reduction of flow demands that compete with fish needs, as well as reduce applications of fertilizers, pesticides, herbicides that may contribute to water pollution.

(9) Prevent erosion and sediment run-off during and after construction to prevent discharge of sediments by assuring that at a minimum the requirements of Title 3 of Metro's Urban Growth Management Functional Plan are applied to all development in Metro-area urban expansion areas, and that an equivalent level of protection is provided in other large scale urban developments.

(10) Assure that water supply demands for the new development can be met without impacting flows needed for threatened salmonids either directly or through groundwater withdrawals. Assure that any new water diversions are positioned and screened in a way that prevents injury or death of salmonids.

(11) Identify a commitment to and the responsibility to regularly monitor and maintain any detention basins and other management tools over the long term, and to adapt practices as needed based on monitoring results.

(12) Provide all enforcement, funding, monitoring, reporting, and implementation mechanisms needed to assure that ultimate development will comply with the ordinances or the Metro Urban Growth Management Functional Plan.

To fall outside of the take prohibitions, the development must comply with other state and Federal laws and permit requirements. NMFS concludes that development governed by ordinances or Metro guidelines that meet the listed principles will address the potential negative impacts on salmonids associated with new development. In such circumstances adequate safeguards will be in place that NMFS does not find imposition of additional Federal protections through take prohibitions necessary and advisable for conservation of listed salmonids.

Forest Management Limit on the Take Prohibitions

In the State of Washington, NMFS has been participating in discussions among timber industry, tribes, state and Federal agencies, and interest groups for many months. The purpose of these discussions was to develop modules of forest practices for inclusion in Washington Governor Locke's salmon recovery plan, and consequent implementation through the Department of Natural Resources. The product of those discussions, an April 29, 1999, Forests and Fish Report (FFR) to Governor Locke, provides important improvements in forest practice regulation which, if implemented by the Washington Forest Practices Board in a form at least as protective as laid out in the FFR, will provide a significant level of protection to listed salmonids and contribute to their conservation. It also mandates that all existing forest roads be inventoried for potential impacts on salmonids through culvert inadequacies, erosion, slope failures, and the like, and all needed improvements be completed within 15 years. Because of the substantial detrimental impacts of inadequately sited, constructed or maintained forest roads on salmonid habitat, this feature of the overall FFR provides a significant conservation benefit for listed ESUs in Washington. Because of the above features, described in greater detail here, NMFS does not propose to apply ESA section 9 take prohibitions to non-federal forest management activity conducted in the State of Washington in compliance with the April 29, 1999, FFR and forest practice regulations implemented by the Washington Forest Practices Board that are at least as protective of habitat functions as are the regulatory elements of the FFR. Compliance with the provisions of FFR will address problems historically associated with forest management activity. NMFS concludes that in general the FFR package creates adequate safeguards that no additional Federal protections through imposition of take prohibitions to forest management activity is necessary and advisable for conservation of threatened salmonids.

NMFS believes rapid adoption and implementation of such improved forest practice regulations important to conservation of listed salmonids. Before making a judgement on the adequacy of regulations developed to implement the FFR, NMFS will provide an opportunity for public review and comment.

This restriction of the take prohibitions is limited to the State of Washington. Environmental factors such as current habitat conditions, climate and geology, landscape conditions, and functioning habitat elements vary between ecoregions. In addition, procedural and regulatory differences between Washington and other states containing threatened salmonid ESUs limit the applicability of the FFR or similar provisions to watersheds outside of the State of Washington. Therefore, the take prohibitions applied generally by this proposed rule would apply to forest management activities in other states.

Although NMFS will continue working with Washington and other states toward broadening this ''exception,'' at this time information limitations prevent NMFS from determining that pesticide use or actions under an alternative forest management plan, as contemplated in the total FFR package, are sufficiently protective. Therefore, take prohibitions applied generally by this proposal would apply to those activities.

Elements of the FFR that provide protections or conservation benefits for listed salmonids are summarized here; anyone wishing to review the actual text of or details of those measures should request a copy of the FFR document (see **ADDRESSES**).

(1) It is based on adequate classification of water bodies and broad availability of stream typing information. Effective maintenance and recovery of fish habitats and populations requires specific geographic knowledge of existing and potential fish habitats as well as the higher elevation, non-fishbearing stream systems that create and influence them. Forest

practices should be tailored to protect and reinforce the functions and roles of different stream classes in the continuum of the aquatic ecosystem, such as (A) fishbearing streams which are within the bankfull width of defined stream channels that are currently or potentially capable of supporting fish of any species, perennially or seasonally; (B) perennial, non-fishbearing streams, which include spatially intermittent streams; and (C) seasonal, non-fishbearing streams (intermittent or non-perennial), which have a defined channel that flows water, of any flow volume, some time during the water year. Landowners, regulatory agencies, and the public should have reasonable access to this information, preferably through Geographic Information Systems, or some other accessible repository of stream typing information.

(2) It provides for proper design and maintenance and upgrade of existing, and new forest roads, which is necessary to maintain and improve water quality and instream habitats. Impacts associated with forest roads include changes in hydrology (basin capture, interception of groundwater, increased peak flows); generation and routing of coarse and fine sediments; physical impediments to fish passage; altered riparian function; altered fluvial processes and floodplain interaction; and direct loss of off-channel habitats. The FFR provisions include: (A) avoiding road construction or reconstruction in riparian areas unless alternative options for road construction would likely cause greater damage to aquatic habitats or riparian functions; (B) prohibiting road construction or reconstruction on unstable slopes unless an analysis involving qualified geotechnical personnel and an opportunity for public environmental input shows that road construction can proceed without creating activity-related landslides, sediment delivery or other impacts to stream channels or water bodies; (C) ensuring that new and reconstructed roads must not impair hydrologic connections between stream channels, ground water, and wetlands; must not increase sedimentation to aquatic systems; must use only clean fill materials; and must have adequate drainage and surfacing. Stream crossings must provide adequate fish passage and be designed to accommodate a 100 year flood as well as adequate large woody debris passage; (D) requiring of each landowner/operator an inventory of the condition of all roads within that management ownership, and a plan for repair, reconstruction, maintenance, access control, and where needed, abandonment and/or obliteration of all roads in any land ownership. Inventory showing priorities for all needed work should be completed within 5 years, and work identified as needed completed within 15 years. Road maintenance plans for all new or reconstructed roads must address routine operations (grading, ditch cleaning, etc.), placement of spoil or graded sediments, retention of coarse and large woody debris at stream crossings, placement of large woody debris recruited in proximity to riparian roads, and emergency repairs; (E) Requiring BMPs in all other aspects of forest road operations, including log haul use, recreational use, and seasonal closure as needed to maintain and improve stream habitats and water quality to meet seasonal life history requirements for fishes.

(3) It protects unstable slopes from increased rates and volume of failure delivering coarse and fine sediments to aquatic systems, which can significantly impair fish species life stages. The goal for management of unstable slopes is to avoid an increase or acceleration of the naturally occurring rate and volume of landslides within forested watersheds subject to forest practices, while recognizing that mass-wasting of slopes is an essential element in watershed processes that route large woody debris through the stream system. The program provides a process through which the Washington Department of Natural Resources (DNR) attempts to identify potentially unstable slopes in areas subject to forest operations through interpretation of slope gradient, landform, surficial and parent geologies, current and historic aerial photography, landslide inventories, and computer models of slope stability. These will include inner gorges of streams, convergent headwalls and bedrock hollows with slopes greater than 70 percent, toes of deep-seated landslides with slopes greater than 65 percent, groundwater recharge areas for glacial, or other, deep-seated landslides, soil covered slopes steeper than 70 percent, and slopes along the outer bend of stream channels that have the potential to fail with continued fluvial erosion at the channel toe slope interface.

If a management activity on a potentially unstable slopes is found by the DNR to increase the probability of slope failure, deliver sediment to public resources, and is likely to cause significant adverse impacts, then DNR may approve, approve with conditions, or disapprove the application;

(4) It provides for achieving properly functioning riparian conditions along fishbearing waters. Proper function refers to the suite of riparian functions that includes stream bank stability, shade, litterfall and nutrient input, large woody debris recruitment, and such microclimate factors as air and soil temperature, windspeed, and relative humidity that affect both instream habitat conditions and the vigor and succession of riparian forest ecosystems. Assessing the adequacy of riparian conservation measures requires a synthesis of judgements about individual functions. For example, NMFS judgements about large woody debris function will be based on the proposed management widths, the probability of tree fall with distance from the stream and site potential tree heights of dominant and subdominant species in a mature riparian forest.

Two possible strategies may be followed to achieve properly functioning riparian ecosystems.

A natural succession and growth strategy establishes riparian management zone widths within which no silvicultural treatments occurs. These widths must be at least 2/3 or 3/4 of a site potential tree height for typical dominant conifers, depending on stream width. Disturbance for activities such as road crossings and cable yarding corridors should be avoided. Where ground and vegetation disturbance is unavoidable, it must be limited to a small percentage of the riparian area. Riparian stand development must be allowed to proceed under natural rates of growth and succession to mature conditions, undisturbed by future harvest or silvicultural activities. This strategy is expected to be employed when an evaluation of the riparian zone shows that all available trees need to be retained and allowed to grow and succeed to achieve the desired future conditions (DFCs) and the landowner does not choose to apply silvicultural treatments to accelerate these processes.

A managed succession and growth strategy achieves properly functioning conditions by providing potentially variable width management zones within which silvicultural treatments are allowed. These treatments are prescribed through silvicultural guidelines that assure NMFS that the riparian forest stand is on a growth and succession pathway toward a desired future condition of a mature riparian forest. Once the trajectory of growth toward the desired future condition is achieved the riparian forest must remain on that trajectory without further harvest or silvicultural treatment. Both strategies are expected to provide high

levels of riparian function when implemented.

Characteristics of both the natural succession and managed growth strategies include:

(1) Continuous riparian management zones along all fish-bearing streams.

(2) A core zone at least 50 ft (15 m) wide west of the Cascades and 30 ft (9 m) on the east side, within which no harvest or salvage occurs. This width is measured horizontally from edge of the bankfull channel or where channel migration occurs, from the edge of the channel migration zone.

(3) An inner zone that varies in width by strategy.

(4) An outer zone extending to a site potential tree height (100 year base) that provides a minimum of 20 conifer trees per acre greater than 12 inches diameter (.30m) at breast height. These trees will not be counted as trees retained to satisfy DFC silvicultural guidelines; and

(5) Disturbance limits do not exceed 20–percent of the overstory canopy along the stream length for yarding corridors and 10–percent ground disturbance. Ground disturbance includes, but is not limited to, yarding corridors, soil compaction and exposure, stream crossings and other effects that are a product of log yarding and equipment use. Tree retention to satisfy silvicultural guidelines must be achieved regardless of the area modified for yarding corridors.

The managed succession and growth strategy will achieve desired future conditions for riparian forest ecosystems through:

(6) Selecting a stand composition and age that represents a mature riparian forest as the desired future condition. Generally, mature riparian forest conditions are achieved at between 80 and 200 years, or more, together with a detailed description of basal area, stocking levels, average tree diameters and range of tree diameters of desired species, and any other characteristics needed to describe the DFC. The strategy then sets out a comprehensive set of prescriptions that describe the basal area, stocking, tree diameters, and other metrics that must be retained in a stand of any particular age or composition, to allow forest stand growth and succession to proceed toward the DFC. These prescriptions vary with site productivity (100 year base), dominant species, and likely successional pathways and take into account natural disturbance processes, agents and patterns that affect pathways toward the desired future condition. Silvicultural treatments must be conservative and be limited to only those actions that assure achievement of DFC. Dominant and co-dominant trees will be retained. Once this DFC trajectory has been achieved the riparian stand will be allowed to grow and succeed without further harvest or treatment.

(7) A methodology for field application of riparian prescriptions that provides assurances that desired future conditions will be achieved.

(8) Requiring riparian conservation zone widths that provide bank stability, litterfall and nutrients, shade, large woody debris, sediment filtering, and microclimate functions in the near and long-term. Widths of the inner riparian zone may vary depending on site productivity, silvicultural guidelines and expected trajectories toward DFC but must be 80 ft (24.5 m) or greater for the poorest productivity class. As site productivity increases so must the inner/core zone minimum widths. These minimum widths are necessary to provide riparian functions such as microclimate and shade that may be compromised when, for example, mature, conifer-dominated riparian stands are managed.

(9) Providing for mitigation for disturbance of riparian function, water quality, and fluvial (floodplain) processes from permanent road systems near stream channels through techniques such as replacement of basal area and number of stems lost to the road prism, and placement of trees that have fallen across or onto the fill or cutslopes of riparian roads to the streamward side of the road as part of routine or emergency road maintenance activities.

(10) Treatment guidelines by tree species and region that address stocking levels, tree selection, spacing, and other common forest metrics for a given stand age and condition necessary to achieve DFC; requires protection and release of residual or understory tree species that would form a desirable component of a future mature riparian forest; requires retention of structural diversity in the stand, including openings (spatial diversity), species diversity, and emphasis on tree retention on topographic features that increase the probability of tree fall toward stream channels; and guidelines for maintaining shade necessary to meet fish life history requirements. Shade retention along fish-bearing streams, sensitive sites such as seeps and springs, and other groundwater source areas must be 100 percent of the available shade unless local and/or regional water temperature models and/or standards can be shown to meet fish life history requirements.

(11) Guidelines for conversion of hardwood-dominated riparian areas that cannot achieve the stand requirements of forest stands on a successional pathway toward a desired future condition. They include a 50–ft (15 m) core zone that is not managed and is disturbed only for road crossings and yarding corridors. All overstory conifers must be retained and damage to understory conifers in the inner zone minimized. It also includes a minimum tree retention standard for the outer zone.

(12) A strategy for the conservation of fluvial processes and fish habitats that occur within the channel migration zone. Channel migration zones include those potential and standing riparian forests that occur on floodplains and low terraces along channels that migrate rapidly (on a geologic time-scale) over their valley floors. The area within the channel migration zone is susceptible to flooding and catastrophic events that often rapidly recruits standing and deposited woody material. Secondary channels provide summer and winter habitats for fishes. Therefore, core riparian management zones are measured from the channel migration zone boundary, when present.

(13) Guidelines for salvage of dead or downed timber in the inner and outer riparian zones that retain coarse woody debris on the riparian forest floor at levels seen in mature forests, retain live or standing dead trees in the inner zone that have value as future large woody debris and that can add structural and species diversity to the future riparian forest, retain all dead or downed timber within the channel, any channel migration zone, and the core zone, and minimize site preparation necessary for replanting.

(14) Evaluating the effects of multiple forest practices on the watershed scale through a standardized, repeatable methodology based on the best available science, considering the cumulative effects of forest practices over time, and providing a regulatory basis for precluding or delaying forest practices to prevent actual or potential damage to aquatic habitats that directly or indirectly support anadromous salmonids.

(15) It sets up riparian management zones along perennial and seasonal non-fish bearing streams that:

(A) Manage heat energy input to surface waters by retaining all existing overstory canopy along at least 50 percent of the length of perennial non-fish bearing streams. Shade retention around sensitive sites such as seeps and springs, and other groundwater source areas is 100 percent of the available

shade unless local and/or regional water temperature models and/or standards can be shown to meet fish life history requirements.

(B) Limit the maximum percent of the riparian management area that may be subject to soil disturbance, soil compaction and the mortality alteration of vegetation from equipment, cable movements, log yarding, and road crossings.

(C) Limit equipment use within 30 ft (10 m) of perennial and seasonal non-fishbearing streams.

(D) Ensure partial recruitment and routing of woody material through defined channels to fishbearing waters downstream by retaining an unmanaged riparian zone in excess of one-half of a crown diameter of a mature dominant riparian tree along at least 50 percent of the length of perennial waters.

(E) Provide a continuous riparian buffer in excess of one-half of a crown diameter of a mature dominant riparian tree for a distance of 300 to 500 ft (91.5 to 152.5 m) upstream of confluences with fishbearing waters. This continuous buffer serves as a run-out zone for channelized landslides, an opportunity for groundwater interaction with surface waters and as an important source area for large woody debris recruited to fishbearing streams downstream.

(16) It includes monitoring and adaptive management to assess implementation compliance with, and effectiveness of, current regulations, measured against a baseline data set. Over time, some forest practices will require replacement or adjustment to respond to additions to our current body of knowledge. Whenever monitoring information or new scientific knowledge lead the state forest practice agency to amend a program that has been brought within this ''exception,'' NMFS will publish a notification in the **Federal Register** announcing the availability of those changes for review and comment. Such a notice will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether the changes conserve listed salmonids and therefore are included within this limit on the take prohibitions.

NMFS finds that, except with respect to pesticide applications and actions under alternative plans, with these safeguards in place, imposition of take prohibitions on forest management activities in Washington is not necessary and advisable, and it would not provide meaningful additional conservation benefits for listed salmonids.

This limit on the take prohibitions will be applicable only within the State of Washington, because an adequate program for any other state would have to take into account interregional and interstate differences in land conditions, current function of various habitat elements, and other differences in situation that affect the biological status of salmonids.

Public Comments Solicited; Public Hearings

NMFS is soliciting comments, information, and/or recommendations on any aspect of this proposed rule from all concerned parties (see **DATES** and **ADDRESSES**). Public hearings provide an additional opportunity for the public to give comments and to permit an exchange of information and opinion among interested parties. NMFS has, therefore, scheduled 15 public hearings throughout the Northwest to receive public comment on this rule and other ESA 4(d) rules proposed concurrently. NMFS will consider all information, comments, and recommendations received before reaching a final decision on 4(d) protections for these ESUs. Public Hearings in Washington, Idaho, and Oregon are scheduled as follows:

(1) January 10, 2000, 6:00 - 9:00 p.m., Metro Regional Center, Council Chamber, 600 NE Grand Ave, Portland, Oregon;

(2) January 11, 2000, 6:00 - 9:00 p.m., Quality Inn, 3301 Market St NE, Salem, Oregon;

(3) January 12, 2000, 6:00 - 9:00 p.m., Lewiston Community Center, 1424 Main Street, Lewiston Idaho;

(4) January 13, 2000, 6:00 - 9:00 p.m., Natural Resource Center, Bureau of Land Management, 1387 South Vinnell Way, Boise, Idaho;

(5) January 18, 2000, 6:00 - 9:00 p.m., City Library, 525 Anderson Ave., Coos Bay, Oregon;

(6) January 19, 2000, 6:00 - 9:00 p.m., Hatfield Science Center, 2030 SE Marine Science Drive, Newport, Oregon;

(7) January 20, 2000, 6:00 - 9:00 p.m., Columbia River Maritime Museum, 1792 Marine Drive, Astoria, Oregon;

(8) January 24, 2000, 6:00 - 9:00 p.m., Eugene Water & Electric Board Training Room, 500 East 4TH Ave. Eugene, Oregon;

(9) January 25, 2000, 6:00 - 9:00 p.m., City Hall, 2nd Floor Council Chamber, 500 SW Dorian Ave., Pendleton, Oregon;

(10) January 26, 2000, 6:00 - 9:00 p.m., Yakima County Courthouse, Room 420, 128 North 2nd St., Yakima, Washington

(11) January 27, 2000, 6:00 - 9:00 p.m., Mid Columbia Senior Center, John Day Room, 1112 West 9th, The Dalles, Oregon;

(12) January 31, 2000, 6:00 - 9:00 p.m., City Hall, Dining Room (Basement), 904 6th St., Anacortes, Washington;

(13) February 1, 2000, 6:00 - 9:00 p.m., Northwest Fisheries Science Center Auditorium, 2725 Montlake Blvd. East, Seattle, Washington;

(14) February 2, 2000, 6:00 - 9:00 p.m., City Hall, Council Chamber, 321 E. 5th, Port Angeles Washington;

(15) February 3, 2000, 6:00 - 9:00 p.m., Sawyer Hall, 510 Desmond Drive, Lacey, Washington;

Special Accomodations

These hearings are physically accessible to people with disabilities. Requests for sign language interpretation or other aids should be directed to Garth Griffin (see **ADDRESSES**) by 7 days prior to each meeting date.

References

A list of references cited in this proposed rule is available upon request (see **ADDRESSES**).

Classification

Regulatory Flexibility Act

When an agency proposes regulations, the Regulatory Flexibility Act (RFA) (5 U.S.C. 601–612) requires the agency to prepare and make available for public comment an initial regulatory flexibility analysis (IRFA) that describes the impact of the proposed rule on small businesses, nonprofit enterprises, local governments, and other small entities, unless the agency is able to certify that the action will not have a significant impact on a substantial number of small entities. The IRFA is to aid the agency in considering all reasonable regulatory alternatives that would minimize the economic impact on affected small entities.

The RFA was designed to ensure that agencies carefully assess whether aspects of a proposed regulatory scheme (record keeping, safety requirements, etc.) can be tailored to be less burdensome for small businesses while still achieving the agency's statutory responsibilities. This proposed ESA 4(d) rule has no specific requirements for regulatory compliance; it essentially sets an enforceable performance standard (do not take listed fish) that applies to all entities and individuals within the ESU unless that activity is within a carefully circumscribed set of activities on which NMFS proposes not to impose the take prohibitions. Hence, the universe of entities reasonably expected to be directly or indirectly impacted by the prohibition is broad.

The number of entities potentially affected by imposition of take prohibitions is substantial and the geographic range of these regulations crosses four states. Activities potentially affecting salmonids are those associated with agriculture, forestry, fishing, mining, heavy construction, highway and street construction, logging, wood and paper mills, electric services, water transportation, and other industries. As many of these activities involve local, state, and Federal oversight, including permitting, governmental activities from the smallest towns or planning units to the largest cities will also be impacted. The activities of some nonprofit organizations will also be affected by these regulations.

NMFS examined in as much detail as practical the potential impact of the regulation on a sector by sector basis. Unavailable or inadequate data leaves a high degree of uncertainty surrounding both the numbers of entities likely to be affected, and the characteristics of any impacts on particular entities. The problem is complicated by differences among entities even in the same sector as to the nature and size of their current operations, contiguity to waterways, individual strategies for dealing with the take prohibitions, etc.

There are no record-keeping or reporting requirements associated with the take prohibition and, therefore, it is not possible to simplify or tailor record keeping or reporting to be less burdensome for small entities. Some programs for which NMFS has found it not necessary to prohibit take involve recordkeeping and/or reporting to support that continuing determination. NMFS has attempted to minimize any burden associated with programs for which the take prohibitions are not enacted.

In formulating this proposed rule, NMFS considered several alternative approaches, described in more detail in the IRFA. These included

(1) Enacting a ''global'' protective regulation for threatened species, through which section 9 take prohibitions are applied automatically to all threatened species at the time of listing; (2) ESA 4(d) protective regulations with no limits, or only a few limits, on the application of the take prohibition for relatively uncontroversial activities such as fish rescue/salvage; (3) Take prohibitions in combination with detailed prescriptive requirements applicable to one or more sectors of activity; (4) ESA 4(d) protective regulations similar to the existing interim 4(d) protective regulations for Southern Oregon/Northern California coast coho, which includes four additional limitations on the extension of the take prohibition, for harvest plans, hatchery plans, scientific research, and habitat restoration projects, when in conformance with specified criteria; (5) A protective regulation similar to the interim rule, but with recognition of more programs and circumstances in which application of take prohibitions is not necessary and advisable. That is the approach taken in this proposed rule, which limits the take prohibition for the seven items discussed earlier, but would also limit application of the take prohibition for properly screened water diversions, for routine road maintenance in Oregon, for Portland's Parks and Recreation Department integrated pest management program, for urban density development activities, and for forest management (including timber harvest) in Washington. For several of these categories (harvest, artificial propagation, habitat restoration, and urban development) the regulation is structured so that it allows plans or programs developed after promulgation of the rule to be submitted to NMFS for review under the criteria in the rule; (6) An option earlier advocated by the State of Oregon and others, in which section ESA 9 take prohibitions would not be applied to any activity addressed by the Oregon Plan for Salmon and Watersheds, fundamentally deferring protections to the state. At present, NMFS concludes that doing so would not provide sufficient protections to the listed steelhead; and (7) Enacting no protective regulations for threatened steelhead. That course would leave the ESUs without any protection other than provided by ESA section 7 consultations for actions with some Federal nexus. Since NMFS' decision to list the ESUs as threatened, identifying broad segments of human activity as major factors in the decline of these steelhead ESUs, NMFS could not support that approach at this time as being consistent with the obligation to enact such protective regulations as are ''necessary and advisable to provide for the conservation of'' the listed steelhead.

NMFS concludes that at the present time there are no legally viable alternative rules that would have less impact on small entities and still fulfill the agency's obligations to protect listed salmonids. The first four alternatives may result in unnecessary impacts on economic activity of small entities, given NMFS' judgment that more limited protections would suffice to conserve the species.

If you believe the alternatives contained in this proposed rule will impact your economic activity, please comment on whether there is a preferable alternative (including alternatives not described here) that would meet the statutory requirements of ESA section 4(d). Please describe the impact that alternative would have on your economic activity and why the alternative is preferable.

Executive Order 12866

In applying take prohibitions broadly to protect seven ESUs of threatened salmonids, this proposed rule likely constitutes a significant action for purposes of Executive Order 12866. As discussed with respect to the Regulatory Flexibility Act analysis, data are not available to quantify the impacts on small entities in specific sectors of the economy; for the same reasons it is not possible to quantify costs of avoiding take of listed fish for all portions of the economy. However, as discussed earlier, NMFS has a clear statutory responsibility to enact whatever protective regulations are necessary to provide for conservation of threatened species. Abdicating that responsibility is not an option. For several prior listings of threatened salmonids, take prohibitions were imposed in a blanket manner, with no limitations. In the case of these seven salmonid ESUs, NMFS has sought an alternative to blanket imposition of the prohibitions. NMFS has worked with a variety of jurisdictions to identify programs or sectors of activity for which it is not necessary and advisable to impose take prohibitions, and this proposed rule recognizes thirteen such circumstances as limits on take prohibitions. NMFS believes that this approach provides the benefits demanded by the ESA (protection of threatened species) while minimizing uncertainty and costs for sectors of the economy wherever possible.

Executive Order 13084–Consultation and Coordination with Indian Tribal Governments

The United States has a unique legal relationship with tribal governments as set forth in the Constitution, treaties, statutes, and Executive Orders. In keeping with this relationship, with the mandates of the Presidential Memorandum on Government to Government Relations with Native American Tribal Governments (59 FR 22951), and with Executive Order 13084, NMFS has coordinated with tribal governments and organizations in the geographic areas affected by this proposed rule as it was developed over the past year. For instance, NMFS has provided these entities with the opportunity to provide input on the

draft rule and the approach taken. In addition, NMFS has met with tribal governments and organizations and had numerous individual staff-to-staff conversations, in an effort to give consideration to the viewpoints of tribes and tribal organizations related to the protection of these species.

NMFS will schedule more formal consultation opportunities with each potentially affected tribe, to be completed during the first two months after publication. NMFS will continue to give careful consideration to all written or oral comments received and will continue its contacts and discussions with interested tribes as the agency moves toward a final rule.

Executive Order 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, NMFS has conferred with numerous State, local and other governmental entities in the course of preparing this proposed rule. As the process continues, NMFS intends to continue engaging in informal and formal contacts with all affected States, discussing the rule with any interested local or regional entities and giving careful consideration to all written or oral comments received. As one part of that continued process, NMFS has scheduled public hearings to be held throughout the geographic range of the effected ESUs.

NMFS' interim ESA 4(d) rule for Southern Oregon/ Northern California Coast coho ESU (62 FR 38479) was the first instance in which the agency defined some reasonably broad categories of activity, both public and private, for which take prohibitions were not necessary and advisable. Since then, NMFS has continued discussions with various Oregon and California governmental agencies and representatives involved with that ESU, and has also sought working relationships with other States and governmental organizations promoting salmonid restoration efforts throughout the geographic range affected by this proposed rule. Some of the limits in this proposed rule reflect the coordination NMFS has had with State and local jurisdictions.

In addition to these efforts, NMFS staff have given numerous presentations to interagency forums, community groups, and others, and served on a number of interagency advisory groups or task forces considering conservation measures. Many cities, counties and other local governments have sought guidance and consideration of their planning efforts from NMFS, and NMFS staff have met with them as rapidly as our resources permit. Finally, NMFS' Sustainable Fisheries Division staff have continued close coordination with State fisheries agencies toward development of artificial propagation and harvest plans and programs that will be protective of listed salmonids and ultimately may be recognized within this rule. NMFS expects to continue to work with all of these entities and others toward the clearest and best possible final rule that protects these effected ESUs, and toward recognizing other conservation efforts in future amendments or through other ESA mechanisms.

Paperwork Reduction Act

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection-of-information subject to the requirements of the Paperwork Reduction Act (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) control number.

This proposed rule contains collection-of-information requirements subject to review and approval by OMB under the PRA. These requirements have been submitted to OMB for approval. Public reporting burden for this collection-of-information is estimated to average 5 hours per response for water diverters who elect to provide documentation that their diversion structures are screened to NMFS criteria; 20 hours per response for cities or counties that elect to take advantage of the ODOT routine road maintenance program; or 30 hours per response for Metro, cities, or counties that elect to submit guidelines or ordinances for a limit on take prohibitions for urban development. Annual reporting for the limit regarding aiding sick, injured, stranded salmonids is estimated to average 5 hours. Annual reporting for the urban development limit is estimated to average 10 hours. This proposed rule also contains a collection-of-information requirement associated with habitat restoration activities conducted under watershed plans that has received PRA approval from OMB under control number 0648–0230. The public reporting burden for the approval of Watershed Plans is estimated to average 10 hours. These estimates include any time required for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection-of-information. Also, this proposed rule contains collection-of-information requirements not subject to the PRA because they are not requirements of general applicability, affecting fewer than ten potential respondents.

Public comment is sought regarding: whether this proposed collection-of-information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; the accuracy of the burden estimate; ways to enhance the quality, utility, and clarity of the information to be collected; and ways to minimize the burden of the collection-of-information, including through the use of automated collection techniques or other forms of information technology. Send comments on these or any other aspects of the collection of information to NMFS (see **ADDRESSES**), and to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC. 20503 (Attention: NOAA Desk Officer). Comments must be received by March 3, 2000.

National Environmental Policy Act

NMFS has completed an Environmental Assessment (EA) for this action pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq*. NMFS concludes that this alternative will not result in environmentally significant negative impacts and may have several beneficial effects, and that preparation of an Environmental Impact Statement is not required. Copies of the EA are available upon request (see ADDRESSES).

List of Subjects in 50 CFR Part 223

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

Dated: December 22, 1999.

Penelope D. Dalton,

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 is revised 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. Section 223.203 is revised to read as follows:

§ 223.203 Anadromous fish.

(a) *Prohibitions.* The prohibitions of section 9 of the ESA (16 U.S.C. 1538) relating to endangered species apply to

the threatened species of salmonids listed in § 223.102(a)(1) through (a)(4), (a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19) except as provided in paragraph (b) of this section.

(b) *Limits on the take prohibitions.* (1) The exceptions of section 10 of the ESA (16 U.S.C. 1539) and other exceptions under the Act relating to endangered species, including regulations in part 222 of this chapter II implementing such exceptions, also apply to the threatened species of salmonids listed in § 223.102(a)(1) through (a)(4), (a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19). This section supersedes other restrictions on the applicability of part 222 of this chapter.

(2) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(1) through (a)(4), (a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19) do not apply to activities specified in an application for a permit for scientific purposes or to enhance the conservation or survival of the species, provided that the application has been received by the Assistant Administrator for Fisheries, NOAA (AA), no later than 30 days after the date of publication of the final rule in the **Federal Register**. The prohibitions of paragraph (a) of this section apply to these activities upon the AA's rejection of the application as insufficient, upon issuance or denial of a permit, or 6 months after effective date of the final rule, whichever occurs earliest.

(3) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(1) through (a)(4), (a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19) do not apply to any employee or designee of NMFS, the United States Fish and Wildlife Service, any Federal land management agency, the Idaho Department of Fish and Game, Washington Department of Fish and Wildlife, the Oregon Department of Fish and Wildlife, or of any other governmental entity that has co-management authority over fishery management for the listed salmonids, when the employee or designee, acting in the course of their official duties, takes a threatened salmonid without a permit if such action is necessary to:

(i) aid a sick, injured, or stranded salmonid,

(ii) dispose of a dead salmonid, or

(iii) salvage a dead salmonid which may be useful for scientific study.

(iv) Each agency acting under this limit on the take prohibitions of paragraph (a) of this section is to report to NMFS the numbers of fish handled and their status, on an annual basis. A designee of the listed entities is any individual the Federal or state fishery agency or other co-manager has authorized in writing to perform the listed functions.

(4) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102 (a)(10), (a)(12), (a)(13), and (a)(16) through (19) do not apply to fishery harvest activities provided that:

(i) Fisheries are managed in accordance with a NMFS-approved Fishery Management and Evaluation Plan (FMEP) and implemented in accordance with a Memorandum of Agreement (MOA) between the state of Washington, Oregon, or Idaho (State) and NMFS. NMFS will approve an FMEP only if it clearly defines its intended scope and area of impact, and sets for the management objectives and performance indicators for the plan. The plan must adequately address the following criteria:

(A) Defines populations within affected ESUs, taking into account spatial and temporal distribution; genetic and phenotypic diversity; and other appropriate identifiable unique biological and life history traits. Populations may be aggregated for management purposes when dictated by information scarcity, if consistent with survival and recovery of the ESU. In identifying management units, the plan shall describe the reasons for using such units in lieu of population units and describe how the management units are defined, given biological and life history traits, so as to maximize consideration of the important biological diversity contained within the ESU, respond to the scale and complexity of the ESU, and help ensure consistent treatment of listed salmonids across a diverse geographic and jurisdictional range.

(B) Determines and applies thresholds for viable and critical populations consistent with the concepts contained in a draft technical document titled ''Viable Salmonid Populations'' (NMFS, December 1999). Before this regulation becomes final, the Director of the Federal Register must approve this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the draft paper may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910. The Viable Salmonid Populations paper provides a framework for identifying the biological requirements of listed salmonids, assessing the effects of management and conservation actions, and insuring that such actions provide for the survival and recovery of listed species. Proposed management actions must recognize the significant differences in risk associated with these two threshold states and respond accordingly to minimize the risks to long-term population. Harvest actions impacting populations that are functioning at or above the viable threshold must be designed to maintain the population or management unit at or above that level. For populations shown with a high degree of confidence to be above critical levels but not yet at viable levels, harvest management must not appreciably slow the population's achievement of viable function. Harvest actions impacting populations that are functioning at or below critical threshold must not be allowed to appreciably increase genetic and demographic risks facing the population and must be designed to permit the population's achievement of viable function, unless the plan demonstrates that such an action will not appreciably reduce the likelihood of survival and recovery of the ESU in the wild despite any increased risks to the individual population.

(C) Sets escapement objectives or maximum exploitation rates for each management unit or population based on its status, and a harvest program that assures not exceeding those rates or objectives. Maximum exploitation rates must not appreciably reduce the likelihood of survival and recovery of the ESU. Management of fisheries where artificially propagated fish predominate must not compromise the management objectives for commingled naturally spawned populations.

(D) Displays a biologically based rationale demonstrating the harvest management strategy will not appreciably reduce the likelihood of survival and recovery of the ESU in the wild, over the entire period of time the proposed harvest management strategy affects the population, including effects reasonably certain to occur after the proposed actions cease.

(E) Includes effective monitoring and evaluation programs to assess compliance, effectiveness and parameter validation. At a minimum, harvest monitoring programs must collect catch and effort data, information on escapements, and information on biological characteristics such as age, fecundity, size and sex data, and migration timing.

(F) Provides for evaluating monitoring data and making any revisions of assumptions, management strategies, or objectives that data shows are needed.

(G) Provides for effective enforcement and education. Coordination among involved jurisdictions is an important element in ensuring regulatory effectiveness and coverage.

(H) Includes restrictions on resident species fisheries that minimize any take of listed species, including time, size, gear, and area restrictions.

(I) Is consistent with plans and conditions set within any Federal court proceeding with continuing jurisdiction over tribal harvest allocations.

(ii) The state monitors the amount of take of listed salmonids occurring in its fisheries and provides to NMFS on an annual basis a report summarizing this information, as well as the implementation and effectiveness of the FMEP. The State shall provide NMFS with access to all data and reports prepared concerning the implementation and effectiveness of the FMEP.

(iii) The state confers annually with NMFS on their fishing regulation changes to ensure congruity with the approved FMEP.

(iv) Prior to approving a new or amended FMEP, NMFS will publish notification in the **Federal Register** announcing its availability for public review and comment. Such an announcement will provide for a comment period on the draft FMEP of not less than 30 days.

(v) NMFS approval of a plan shall be a written approval by NMFS' Northwest Regional Administrator.

(vi) On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving a level salmonid productivity commensurate with conservation of the listed salmonids. If it is not, NMFS will identify ways in which the program needs to be altered or strengthened. If the responsible agency does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with that program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all ESA section 9 take prohibitions.

(5) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(10), (a)(12), (a)(13) and (a)(16) through (19) do not apply to activity associated with artificial propagation programs provided that:

(i) A state or Federal Hatchery and Genetics Management Plan (HGMP) has been approved by NMFS as meeting the following criteria:

(A) The plan has clearly stated goals, performance objectives, and performance indicators that indicate the purpose of the program, its intended results, and measurements of its performance in meeting those results. Goals shall address whether the program is intended to meet conservation objectives, contributing to the ultimate sustain ability of natural spawning populations, and/or intended to augment tribal, recreational, or commercial fisheries. Objectives should enumerate the results desired from the program against which its success or failure can be determined.

(B) The plan utilizes the concepts of viable and critical salmonid population threshold, consistent with the concepts contained in a draft technical document titled ''Viable Salmonid Populations'' (NMFS, December 1999). Before this regulation becomes final, the Director of the Federal Register must approve this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910. Listed salmonids may be purposefully taken for broodstock purposes only if the donor population is currently at or above the viable threshold and the collection will not impair its function; if the donor population is not currently viable but the sole objective of the current collection program is to enhance the propagation or survival of the listed ESU; or if the donor population is shown with a high degree of confidence to be above critical threshold although not yet functioning at viable levels, and the collection will not appreciably slow the attainment of viable status for that population.

(C) Taking into account health, abundance and trends in the donor population, broodstock collection programs reflect appropriate priorities. The primary purpose of broodstock collection programs of listed species is to reestablish indigenous salmonid populations for conservation purposes. Such programs include restoration of similar, at-risk populations within the same ESU, and reintroduction of at-risk populations to underseeded habitat. After the species' conservation needs are met, and when consistent with survival and recovery the species, broodstock collection programs may be authorized by NMFS for secondary purposes, such as to sustain tribal, recreational and commercial fisheries.

(D) The HGMP shall include protocols to address fish health, broodstock collection, broodstock spawning, rearing and release of juveniles, deposition of hatchery adults, and catastrophic risk management.

(E) The HGMP shall evaluate, minimize, and account for the propagation program's genetic and ecological effects on natural populations, including disease transfer, competition, predation, and genetic introgression caused by straying of hatchery fish.

(F) The HGMP will describe interrelationships and interdependencies with fisheries management. The combination of artificial propagation programs and harvest management must be designed to provide as many benefits and as few biological risks as possible for the listed species. HGMPs for programs whose purpose is to sustain fisheries must not compromise the ability of FMEPs or other management plans to conserve listed salmonids.

(G) Adequate artificial propagation facilities exist to properly rear progeny of naturally spawned broodstock to maintain population health and diversity, and to avoid hatchery-influenced selection or domestication.

(H) Adequate monitoring and evaluation exist to detect and evaluate the success of the hatchery program and any risks to or impairment of recovery of the listed ESU.

(I) The HGMP provides for evaluating monitoring data and making any revisions of assumptions, management strategies, or objectives that data shows are needed;

(J) An MOA or some other formal agreement is in place between the state and NMFS, to ensure proper implementation of the HGMPs and reporting of effects and results. For Federally operated or funded hatcheries, the section 7 consultation will achieve this purpose.

(K) The HGMP is consistent with plans and conditions set within any Federal court proceeding with continuing jurisdiction over tribal harvest allocations.

(ii) The state monitors the amount of take of listed salmonids occurring in its hatchery program and provides to NMFS on an annual basis a report summarizing this information, as well as the implementation and effectiveness of the HGMP. The state shall provide NMFS with access to all data and reports prepared concerning the implementation and effectiveness of the HGMP.

(iii) The state confers with NMFS on an annual basis regarding intended collections of listed broodstock to ensure congruity with the approved HGMP.

(iv) Prior to final approval of an HGMP, NMFS will publish notification in the **Federal Register** announcing its availability for public review and comment for a period of at least 30 days.

(v) NMFS approval of a plan shall be a written approval by NMFS' Northwest Regional Administrator.

(vi) On a regular basis, NMFS will evaluate the effectiveness of the HGMP in protecting and achieving a level salmonid productivity commensurate with conservation of the listed salmonids. If it is not, NMFS will identify ways in which the program needs to be altered or strengthened. If the responsible agency does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with that program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all ESA section 9 take prohibitions.

(6) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102 (a)(12), (a)(13), and (a)(16) through (a)(19) do not apply to actions undertaken in compliance with a resource management plan developed jointly by the States of Washington, Oregon and/or Idaho and the Tribes (joint plan) within the continuing jursidiction of *United States* v. *Washington* or *United States* v. *Oregon*, the on-going Federal court proceedings to enforce and implement reserved treaty fishing rights, provided that:

(i) The Secretary has determined pursuant to 50 CFR § 223.209(b)(the limit on take prohibitions for tribal resource management plans) and the government-to-government processes therein that implementing and enforcing the joint tribal/state plan will not appreciably reduce the likelihood of survival and recovery of affected threatened ESUs.

(ii) The joint plan will be implemented and enforced within *United States* v. *Washington* or *United States* v. *Oregon*.

(iii) In making that determination for a joint plan, the Secretary has taken comment on how any fishery management plan addresses the criteria in § 223.203(b)(4), or how any hatchery and genetic management plan addresses the criteria in § 223.203(b)(5).

(iv) The Secretary shall publish notice in the **Federal Register** of any determination whether or not a joint plan will appreciably reduce the likelihood of survival and recovery of affected threatened ESUs, together with a discussion of the biological analysis underlying that determination.

(7) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19) do not apply to scientific research activities provided that:

(i) Scientific research activities involving purposeful take is conducted by employees or contractors of the Oregon Department of Fish and Wildlife (ODFW) or Washington Department of Fish and Wildlife (WDFW)(Agencies), or as part of a coordinated monitoring and research program overseen by ODFW or WDFW.

(ii) ODFW and WDFW provide NMFS with a list of all scientific research activities involving direct take planned for the coming year for NMFS' review and approval, including an estimate of the total direct take that is anticipated, a description of the study design including a justification for taking the species and a description of the techniques to be used, and a point of contact.

(iii) ODFW and WDFW annually provide NMFS with the results of scientific research activities directed at threatened salmonids, including a report of the direct take resulting from the studies and a summary of the results of such studies.

(iv) Scientific research activities that may incidentally take threatened salmonids are either conducted by agency personnel, or are in accord with a permit issued by the Agency.

(v) ODFW and WDFW, respectively, provide NMFS annually, for its review and approval, a report listing all scientific research activities they conduct or permit that may incidentally take threatened salmonids during the coming year. Such reports shall also contain the amount of incidental take of threatened salmonids occurring in the previous year's scientific research activities and a summary of the results of such research.

(vi) Electrofishing in any body of water known or suspected to contain threatened salmonids is conducted in accord with ''Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act''.

(vii) NMFS' approval of a plan shall be a written approval by NMFS' Northwest Regional Administrator.

(8) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(10), (a)(12), (a)(13), and (a)(16) through (19) do not apply to habitat restoration activities, as defined in paragraph (b)(8)(iii) of this section, provided that:

(i) The states of Washington or Oregon certify to NMFS in writing the activity is part of a watershed conservation plan, where:

(A) NMFS has certified to the State in writing that the State's watershed conservation plan guidelines meet the following standards. Guidelines must result in plans that:

(*1*) Consider the status of the affected species and populations;

(*2*) Design and sequence restoration activities based upon information obtained from an overall watershed assessment;

(*3*) Prioritize restoration activities based on information from watershed assessment;

(*4*) Evaluate the potential severity of direct, indirect and cumulative impacts on the species and habitat as a result of the activities the plan would allow;

(*5*) Provide for effective monitoring;

(*6*) Use best available science and technology of habitat restoration, use adaptive management to incorporate new science and technology into plans as they develop, and where appropriate, provide for project specific review by disciplines such as hydrology or geomorphology;

(*7*) Assure that any taking resulting from implementation will be incidental;

(*8*) Require the state, local government, or other responsible entity to monitor, minimize and mitigate the impacts of any such taking to the maximum extent practicable;

(*9*) Will not result in long-term adverse impacts;

(*10*) Assure that the safeguards required in watershed conservation plans will be funded and implemented;

(B) The state has made a written finding that the watershed conservation plan, including its provisions for clearing projects with other agencies, is consistent with those state watershed conservation plan guidelines.

(C) NMFS concurs in writing with the state finding.

(ii) Until a watershed conservation plan is approved under paragraph (b)(8)(i) of this section, or until 2 years after publication of the final rule in the **Federal Register**, whichever occurs first, take prohibitions shall not apply to the following habitat restoration activities if

any in-water work is consistent with state in-water work season guidelines established for fish protection, or if there are none, limited to summer low-flow season with no work from the start of adult migration through the end of juvenile outmigration. The work must be implemented in compliance with the listed conditions and guidance:

(A) *Riparian zone planting or fencing.* Conditions include no in-water work; no sediment runoff to stream; native vegetation only; fence placement in Oregon consistent with standards in the *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999).

(B) *Livestock water development off-channel.* No modification of bed or banks; no in-water structures except minimum necessary to provide source for off-channel watering; no sediment runoff to stream; diversion adequately screened; diversion in accord with state law and has not more than de minimus impacts on flows that are critical to fish; diversion quantity shall never exceed 10 percent of current flow at any moment, nor reduce any established instream flows.

(C) *Large wood (LW) placement.* Conditions: does not apply to LW placement associated with basal area credit in Oregon. No heavy equipment allowed in stream. Wood placement projects should rely on the size of wood for stability and may not use permanent anchoring including rebar or cabling (these would require section 7 consultation or a section 10 permit) (biodegradable manila/sisal rope may be used for temporary stabilization). Wood should be at least two times the bankfull stream width (1.5 times the bankfull width for wood with rootwad attached) and meet diameter requirements and stream size and slope requirements outlined in *A Guide to Placing Large Wood in Streams*, Oregon Department of Forestry and Department of Fish and Wildlife (1995). LW placement must be either associated with an intact, well-vegetated riparian area which is not yet mature enough to provide LW; or accompanied by a riparian revegetation project adjacent or upstream that will provide LW when mature. Placement of boulders only where human activity has created a bedrock stream situation not natural to that stream system, where the stream segment would normally be expected to have boulders, and where lack of boulder structure is a major contributing factor to the decline of the stream fisheries in the reach. Boulder placement projects within this exception must rely on size of boulder for stability, not on any artificial cabling or other devices. See applicable guidance in *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999).

(D) *Correcting road/stream crossings, including culverts, to allow or improve fish passage.* See WDFW's *Fish Passage Design at Road Culverts*, March 3, 1999; *Oregon Road/Stream Crossing Restoration Guide: Spring 1999.*

(E) *Repair, maintenance, upgrade or decommissioning of roads in danger of failure.* All work to be done in dry season; prevent any sediment input into streams; follow state requirements.

(F) *Salmonid carcass placement.* Carcass placement should be considered only where numbers of spawners are substantially below historic levels. Follow applicable guidelines in *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999), including assuring that the proposed source of hatchery carcasses is from the same watershed or river basin as the proposed placement location. To prevent introduction of diseases from hatcheries, such as Bacterial Kidney Disease, carcasses must be approved for placement by a state fisheries fish pathologist.

(iii) ''Habitat restoration activity'' is defined as an activity whose primary purpose is to restore natural aquatic or riparian habitat conditions or processes. ''Primary purpose'' means the activity would not be undertaken but for its restoration purpose.

(iv) Prior to approving watershed conservation plan guidelines under paragraph (b)(8)(i) of this section, NMFS will publish notification in the **Federal Register** announcing the availability of the draft guidelines for public review and comment. Such an announcement will provide for a comment period on the draft guidelines of not less than 30 days.

(v) NMFS approval of a plan shall be a written approval by NMFS' Northwest Regional Administrator.

(vi) On a regular basis, NMFS will evaluate the effectiveness of a state's watershed plan guidelines in assuring plans that protect a level salmonid productivity commensurate with conservation of the listed salmonids. If insufficient, NMFS will identify ways in which the guidelines or program needs to be altered or strengthened. If the state does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with that program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all section 9 take prohibitions.

(vii) Before this regulation becomes final, the Director of the Federal Register must approve the incorporation by reference of each of the state guidance documents listed in this habitat restoration limit on the take prohibitions in accordance with U.S.C.552(a) and 1 CFR part 51. The documents are: Oregon Aquatic Habitat Restoration and Enhancement Guide (1999; A Guide to Placing Large Wood in Streams, Oregon Department of Forestry and Department of Fish and Wildlife (1995); WDFW's Fish Passage Design at Road Culverts, March 3, 1999; and Oregon Road/Stream Crossing Restoration Guide; Spring 1999. Copies of the documents may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232–2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

(9) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(10), (a)(12), (a)(13), and (a)(16) through (a)(19) do not apply to the physical diversion of water from a stream or lake, provided that:

(i) NMFS' engineering staff has agreed in writing that the diversion facility is screened, maintained and operated in compliance with Juvenile Fish Screen Criteria, National Marine Fisheries Service, Northwest Region, Revised February 16, 1995 with Addendum of May 9, 1996. Before this regulation becomes final, the Director of the Federal Register must approve this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

(ii) The owner or manager of the diversion will allow any NMFS engineer, biologist or Authorized Officer access to the diversion facility for purposes of inspection and determination of continued compliance with the criteria.

(iii) This limit on the prohibitions of paragraph (a) of this section does not encompass any impacts of reduced flows resulting from the diversion, or caused during installation of the diversion device. These impacts remain subject to the prohibition on take of listed salmonids.

(10) The prohibitions of paragraph (a) of this section relating to threatened

species of salmonids listed in § 223.102(a)(10), (a)(13), (a)(17) and (a)(18) do not apply to road maintenance activities provided that:

(i) The activity results from routine road maintenance activity by Oregon Department of Transportation, county or city employees that complies with the *Oregon Department of Transportation's Maintenance Management System Water Quality and Habitat Guide* (June, 1999). Before this regulation becomes final, the Director of the Federal Register must approve this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

(ii) Neither pesticide and herbicide spraying nor ODOT dust abatement are included within this exception, even if in accord with the state's guidance.

(iii) Prior to implementing any changes to the 1999 Guide the Oregon Department of Transportation will provide NMFS a copy of the proposed change for review and approval as within this exception.

(iv) Prior to approving any change in the 1999 Guide, NMFS will publish notification in the **Federal Register** announcing the availability of the draft changes for public review and comment. Such an announcement will provide for a comment period on the draft changes of not less than 30 days.

(v) Any city or a county in Oregon desiring its routine road maintenance activities to be within this exception first enters a memorandum of agreement with NMFS committing to apply the management practices in the guide, detailing how it will assure adequate training, tracking, and reporting, and describing in detail any dust abatement practices it requests to be covered.

(vi) On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving habitat function commensurate with conservation of the listed salmonids. If it is not, NMFS will identify ways in which the program needs to be altered or strengthened. Changes may be required if the program is not protecting desired habitat functions, or where even with the habitat characteristics and functions originally targeted, habitat is not supporting population productivity levels needed to conserve the ESU. If ODOT does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with the program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all ESA section 9 take prohibitions.

(vii) NMFS' approval of city or county programs following the ODOT program, or of any amendments, shall be a written approval by NMFS' Northwest Regional Administrator.

(11) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(13), (a)(17) and (a)(18) do not apply to activities within the City of Portland, Oregon's Parks and Recreation Department's (PP&R) Pest Management Program (March 1997), including its Waterways Pest Management Policy dated April 4, 1999 provided that:

(i) Use of only the following chemicals is included within this limit on the take prohibitions: Glyphosphate products, Garlon 3A, Surfactant R–11, Napropamide, Cutrine Plus, and Aquashade.

(ii) Any chemical use is initiated in accord with the priorities and decision processes of the Department's Pest Management policy (March 27, 1997).

(iii) Any chemical use within a 25 ft (7.5 m) buffer complies with the buffer application constraints contained in PP&R's Waterways Pest Management Policy (April 4, 1999).

(iv) Portland Parks and Recreation Department will regularly assess whether monitoring information, new scientific studies, or new techniques cause it to amend the program or change the list of chemicals covered by this limit on the take prohibitions. Before NMFS approves any change to qualify as within this limit on the take prohibitions, NMFS will publish notification in the **Federal Register** providing a comment period of not less than 30 days for public review and comment on the proposed changes.

(v) On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving habitat function commensurate with conservation of the listed salmonids. If it is not, NMFS will identify ways in which the program needs to be altered or strengthened. Changes may be required if the program is not protecting desired habitat functions, or where even with the habitat characteristics and functions originally targeted, habitat is not supporting population productivity levels needed to conserve the ESU. If PP&R does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with the program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all section 9 take prohibitions.

(vi) NMFS' approval of amendments shall be a written approval by NMFS Northwest Regional Administrator. Before this regulation becomes final, the Director of the Federal Register must approve the incorporation by reference of Portland's Parks and Recreation Department's Waterways Pest Management Program (March, 1997), including its Waterways Pest Management Policy dated April 4, 1999, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of those documents may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

(12) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(5) through (a)(9), (a)(14), and (a)(15) do not apply to urban development activities provided that:

(i) Such development occurs pursuant to city or county ordinances that NMFS has agreed in writing are adequately protective, or within the jurisdiction of the Metro regional government in Oregon, with ordinances that Metro has found comply with an Urban Growth Management Functional Plan (Functional Plan) that NMFS has agreed in writing are adequately protective. For NMFS to find ordinances or the Functional Plan adequate, they must address the following issues in sufficient detail and in a manner that assures that urban developments will contribute to conserving listed salmonids:

(A) Avoid inappropriate areas such as unstable slopes, wetlands, areas of high habitat value, and similarly constrained sites.

(B) Avoid stormwater discharge impacts to water quality and quantity, or to the hydrograph of the watershed.

(C) Require adequate riparian buffers around all perennial and intermittent streams, lakes or wetlands.

(D) Avoid stream crossings by roads wherever possible, and where one must be provided, minimize impacts through choice of mode, sizing, placement.

(E) Protect historic stream meander patterns and channel migration zones; avoid hardening of stream banks.

(F) Protect wetlands and wetland functions.

(G) Preserve the hydrologic capacity of any intermittent or permanent stream to pass peak flows.

(H) Landscape to reduce need for watering and application of herbicides, pesticides and fertilizer.

(I) Prevent erosion and sediment run-off during construction.

(J) Assure that water supply demands for the new development can be met without impacting flows needed for threatened salmonids either directly or through groundwater withdrawals, and that any new water diversions are positioned and screened in a way that prevents injury or death of salmonids.

(K) Provide all necessary enforcement, funding, reporting, and implementation mechanisms.

(L) The development complies with all other state and Federal environmental or natural resource laws and permits.

(ii) The city, county or Metro will provide NMFS with annual reports regarding implementation and effectiveness of the ordinances, including any water quality monitoring information the jurisdiction has available, an aerial photo (or some other graphic display) of each urban development or urban expansion area at sufficient detail to demonstrate the width and vegetative condition of riparian set-backs, success of stormwater retention and other techniques; and a summary of any flood damage, maintenance problems, or other issues.

(iii) Prior to determining that city or county ordinances or Metro's Functional Plan are adequate, NMFS will publish notification in the **Federal Register** announcing the availability of the ordinances or Functional Plans for public review and comment. The comment period will be not less than 30 days.

(iv) If new information indicates need to modify ordinances or Metro's Functional Plan that NMFS has previously found adequate, the city, county or Metro will work with NMFS to draft appropriate amendments and NMFS will use the processes of paragraph (b)(12)(iii) of this section to determine whether the modified ordinances or Functional Plan are adequate. If at any time NMFS determines that compliance problems or new information show that the ordinances or guidelines are not achieving desired habitat functions, or where even with the habitat characteristics and functions originally targeted, habitat is not supporting population productivity levels needed to conserve the ESU, NMFS will notify the jurisdiction. If the jurisdiction does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with that program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities to all ESA section 9 take prohibitions.

(v) NMFS approval of ordinances shall be a written approval by NMFS Northwest or Southwest Region Regional Administrator, as appropriate.

(13) The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102 (a)(12) (a)(13), (a)(16), (a)(17) and (a) (19) do not apply to non-federal forest management activities conducted in the State of Washington provided that:

(i) The action is in compliance with forest practice regulations implemented by the Washington Forest Practices Board that NMFS has found are at least as protective of habitat functions as are the regulatory elements of the Forests and Fish Report dated April 29, 1999, and submitted to the Forest Practices Board by a consortium of landowners, tribes, and state and Federal agencies. Before this regulation becomes final, the Director of the Federal Register must approve this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the report may be obtained on request to NMFS, Protected Resources Division, 525 NE Oregon St., Suite 500, Portland, OR 97232-2737, or NMFS, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

(ii) All other elements of the Forests and Fish Report are being implemented.

(iii) Actions involving use of herbicides, pesticides or fungicides are not included within this exception.

(iv) Actions taken under alternate plans are not within this limit on the take prohibitions.

(v) Prior to determining that regulations adopted by the Forest Practice Board are at least as protective as the elements of the Forests and Fish Report, NMFS will publish notification in the **Federal Register** announcing the availability of the Report and regulations for public review and comment.

(vi) On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving habitat function commensurate with conservation of the listed salmonids. If it is not adequate, NMFS will identify ways in which the program needs to be altered or strengthened. Changes may be required if the program is not protecting desired habitat functions, or where even with the habitat characteristics and functions originally targeted, habitat is not supporting population productivity levels needed to conserve the ESU. If Washington does not make changes to respond adequately to the new information, NMFS will publish notification in the **Federal Register** announcing its intention to impose take prohibitions on activities associated with the program. Such an announcement will provide for a comment period of not less than 30 days, after which NMFS will make a final determination whether to subject the activities subject to all ESA section 9 take prohibitions.

(vii) NMFS approval of a regulations shall be a written approval by NMFS Northwest Regional Administrator.

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