4(d) Rule Implementation Binder

for

Threatened Salmon and Steelhead on the West Coast

National Marine Fisheries Service Northwest and Southwest Regions September 22, 2000

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Introduction

In June of 2000, the National Marine Fisheries Service (NMFS) adopted a rule prohibiting the "take" of 14 groups of salmon and steelhead listed as threatened under the Endangered Species Act (ESA). NMFS adopted the take rule under section 4(d) of the ESA. This rule prohibits anyone from taking a listed salmon or steelhead *except* in cases where the take is associated with an approved program. The 4(d) rule approves some specific existing state and local programs and creates a means for NMFS to approve additional programs if they meet certain standards set out in the rule.

State and local governments, tribes, and others throughout NMFS' Northwest and Southwest regions have stepped forward and assumed leadership roles in saving imperiled salmon and steelhead. Efforts include the Oregon Plan for Salmon and Watersheds, the State of Washington's *Extinction is Not an Option* Plan, the Portland, Oregon Metro Board's Functional Plan, the Puget Sound Tri-County Initiative, the Lower Columbia Fish Recovery Board, the Eugene, Oregon Metro ESA Coordinating Team, and the Willamette Restoration Initiative. A central goal of this 4(d) rule is to encourage such state and local efforts by providing the means for NMFS to approve local efforts and thereby limit take liability under the ESA.

Background

Purpose of this Binder

This 4(d) Rule Implementation Binder describes the submittal and review process NMFS will use to evaluate programs to see if they qualify for a limit as it is defined in the final 4(d) rule for salmon and steelhead (65 FR 42422, July 10, 2000). It complements the final 4(d) rule by providing specific guidance to interested parties about: (1) what must be included in a 4(d) limit submittal; (2) the process, criteria, and schedule NMFS will use when evaluating program submittals; (3) whether and how the public will receive notice of the submittal; and (4) how a limit will be authorized. The contents of this 4(d) Rule Implementation Binder do not constitute regulation. Individuals should refer to the *Federal Register* notice for the regulatory language governing activities under the rule. NMFS has also made other information available including *A Citizen's Guide to the* 4(d) Rule. It can be found on the web at: (http://www.nwr.noaa.gov/1salmon/salmesa/4ddocs/citguide.htm).

The Binder describes the overall submittal process for 4(d) limits and dedicates individual chapters to describing the submittal process relevant for each limit. Because each chapter contains all the information on submitting and authorizing programs under each limit, each can stand on its own and be used outside the context of the whole Binder.

Anyone interested in seeking NMFS' approval for a program under one of the 13 4(d) limits described in this Binder must also contact the U.S. Fish and Wildlife Service (FWS)—or other

relevant state and Federal agencies—regarding potential effects on species under their jurisdiction. The submittal and authorization processes described in this Binder only apply to salmon and steelhead species under NMFS' jurisdiction. As stated in the final rule, when NMFS evaluates any program against the criteria in the rule to determine whether the program warrants a limitation on take prohibitions, NMFS will coordinate closely with FWS to streamline ESA implementation.

What does the 4(d) Rule Do?

This rule protects 14 ESUs of salmon and steelhead in Idaho, Washington, Oregon, and California (depicted in the map, below). The rule's principal function is to prohibit actions that kill or injure threatened species (i.e. "take" them) without specific written authorization.

The rule applies to ocean and inland areas and to any authority, agency, or private individual subject to U. S. jurisdiction. Activities or development not likely to kill or harm protected species will not be affected by the rule. The rule does not prohibit actions or programs—it prohibits illegal take. Activities that do not kill or injure protected salmon and steelhead do not require any special authorization. Limits can be thought of as "exceptions" to the take prohibitions. These limits represent programs or activities, or criteria for future programs or activities, for which NMFS will not apply the take prohibitions. This is because NMFS has determined that these programs, activities, and criteria will minimize impacts on threatened salmon and steelhead enough so that additional Federal protections are not needed. NMFS will periodically review activities to ensure that they continue to qualify under the 4(d) limit; entities that have been granted a take limit for their activities must continue to monitor their activities to make certain they are consistent with an approved program or plan.

To be approved for a limit on ESA take prohibitions, a program must conserve salmon and meet their biological requirements. This criterion is the same for any program. These species span the entire West Coast—from coastal rainforests to arid inland areas to high mountain regions nearly a thousand miles from the ocean. Specific requirements will differ from place to place and from program to program. Some jurisdictions have asked for NMFS' help in learning how to avoid or limit adverse impacts on threatened salmon and steelhead. In response, NMFS has created the *Citizen's Guide to the* 4(d) *Rule* and amended the final rule to make clear what must be done to protect and conserve listed fish.

What is Take?

The ESA makes it illegal for any person subject to the jurisdiction of the United States to take any species of fish or wildlife that is listed as endangered (ESA section 9[a][1]) without specific authorization. The final 4(d) rule puts in place the same take prohibitions for threatened salmon and steelhead—except for certain limits that apply to the activities specified in the rule. These limits constitute the regulatory requirements for conserving the listed species. These prohibitions apply within the United States and its territorial waters as well as on the high seas.

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

The term "harass" is defined as an intentional or negligent act that creates the likelihood of injuring wildlife by interfering with it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering (50 CFR 17.3). The term "harm" refers to an act that actually kills or injures a protected species (50 CFR 222.102 (64FR 60727)). Harm can arise from significant habitat modification or degradation where it actually kills or injures protected species by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering.

Applicable ESUs and Map

A total of 14 threatened ESUs are included in the final 4(d) rule. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)

South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)



Effective Dates

NMFS published the final 4(d) rule for salmon and steelhead on July 10, 2000 (65 FR 42422, July 10, 2000). There are two different effective dates described in the Rule, and specific exceptions to the effective dates may apply to individual limits. The *Federal Register* notice gives the following effective dates for the rules regarding salmon and steelhead ESUs.

Threatened Salmonid ESUs	Effective Date of 4(d) Rule
Threatened Steelhead ESUs	60 days after publishing the final 4(d) rule: September 8, 2000
Threatened Salmon ESUs	180 days after publishing the final 4(d) rule: January 8, 2001

An interim 4(d) rule (published in 1997) remains in place for the Southern Oregon/Northern California Coast (SONCC) coho ESU. The SONCC 4(d) rule included several limitations based on adequately protective state programs in Oregon and provided a model for developing the three 4(d) rules proposed in January of 2000. The final 4(d) rule for the 14 additional threatened ESUs does not affect this earlier rule.

Evaluating Potential ESA Take Liability

The 4(d) rule's prohibitions on take apply to everyone—they cover the activities of every state, city, and county government, every business, and every citizen. The take guidance described in the final rule provides information about what types of activities are most likely to result in a take and thus violate the 4(d) rule. However, each activity must be evaluated on a case-by-case basis to determine if it is likely to cause take.

- (1) Identify the program or activity (for state and local governments, this may include activities they fund, authorize, or carry out);
- (2) Evaluate whether the program or activity is likely to take or harm listed fish;
- (3) If the program or activity is not likely to take or harm listed fish, then there is no need to modify the activity or to contact NMFS;
- (4) If, however, after reviewing the program or activity, it seems likely it will take or harm listed fish, or there is uncertainty about whether take or harm may occur, the acting party should contact NMFS to find out more about how to evaluate the activity's impacts and determine ways to avoid harming the fish and violating the ESA (see tables in each chapter for the appropriate contact people).

The 13 Limits

The final rule describes two types of limits on the take prohibitions. One type includes specific programs NMFS has already reviewed and determined will minimize adverse impacts on threatened fish or contribute to their conservation. The other type includes general categories of programs that NMFS may evaluate in the future. For this second type of limit, the 4(d) rule sets out the standards NMFS will use when it reviews programs, describes how the public will be given notice of the opportunities to review the program being submitted and, if the limit is determined to sufficiently conserve the listed species, how the Northwest or Southwest Regional Administrator (whichever is appropriate) will approve it. The rule also establishes requirements for periodically evaluating the limits, making recommendations for adjusting the programs under them, and alerting the public in cases when the limit would be withdrawn and the take prohibitions re-applied.

NMFS is not requiring states, local governments, or private parties to change their practices to conform to any of the take limits described in the final rule. The limits provide one way to be sure an activity or program does not risk violating the take prohibitions. Simply because a program is not within a limit *does not* mean that it automatically violates the ESA. However, it *does* mean that any program or jurisdiction would risk ESA penalties if the activity in question takes a listed fish. By qualifying for a limit, governments and individuals receive assurance that their activities, when implemented in accordance with the criteria in the 4(d) rule, do not violate the take prohibitions and will not be subject to enforcement actions.

Some of the broad categories of activities the limits in the final rule cover are:

- Scientific research conducted or supervised by, or coordinated with, state fishery agencies
- Fish harvest activities
- Artificial propagation programs
- Habitat restoration based on watershed plans
- Properly screened water diversions
- Routine road maintenance
- Municipal, residential, commercial, and industrial development and redevelopment
- Forest management practices in the State of Washington

Other ESA Provisions: Section 7 and Section 10

The 4(d) limits are not the only mechanism for NMFS to review activities to ensure they do not harm salmon. Section 7 of the ESA requires that Federal agencies consult with NMFS on activities they authorize, fund, or carry out to ensure they are not likely to jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat. This includes Federally-funded projects such as road construction, stormwater management, rural and urban development, and many other activities that Federal agencies conduct, permit, or fund.

Section 10 of the ESA provides another mechanism by which NMFS may permit take when it is the incidental result of carrying out an otherwise lawful activity. Non-Federal applicants for an Incidental Take Permit must submit a Conservation Plan—usually termed a *Habitat* Conservation Plan (HCP) when discussing activities affecting salmon—that identifies (a) the impacts expected from any take associated with activities covered by the plan, and (b) the steps that will be taken to monitor, minimize, and mitigate those impacts. For more information on HCPs, see the publication entitled "*Habitat Conservation Plans and the Incidental Take Permitting Process.*" It is available on the FWS website, at

<u>http://www.fws.gov/r9endspp/hcp/hcpplan.html.</u> Interested parties may also speak with one of the NMFS contact people listed on page 12.

Future Amendments to the 4(d) Rule for Salmon and Steelhead

The ESA 4(d) rule provides another opportunity for states and other jurisdictions to assume leadership for species conservation at the state and local level. NMFS has offered to collaborate with any entity interested in the 4(d) option. NMFS is especially interested in state-level conservation efforts because state-level programs tailored to meet the needs of threatened salmon and steelhead can efficiently and comprehensively provide for the conservation of the listed species and their habitat.

The only currently available 4(d) limits are the 13 described in the final rule and in this Binder. NMFS is confident that as more large-scale conservation solutions are found, these efforts will be recognized in future rulemaking. The amendment process, however, is a lengthy one—involving publication of the proposed amendment in the *Federal Register*, analysis of the comments received, NEPA analysis, consultation with the FWS, and other steps. While more 4(d) limits will be developed in the future, NMFS cautions interested parties that this is a very lengthy and time consuming process.

General Information About Submitting a Program for a 4(d) Limit

Once a given party has determined that it will submit a program for a 4(d) rule limit, they need to refer to the relevant chapter in this Binder to find out what is required and then follow the instructions. Submittal requirements vary between different limits. It must also be emphasized that the 13 limits described in the final 4(d) rule and in this Binder are the only ones currently available.

Generally, any activity or program seeking a limit under a 4(d) rule should contain the features listed below. (Not all of the following information is required for each limit. Please refer to the individual limits described in this Binder for the specific requirements for each limit.)

- Descriptions of (a) the activity or program being proposed, (b) the geographic area within which it will apply or be carried out, and (c) the jurisdiction or entity responsible for overseeing it.
- A description of the listed species and habitat that will be affected by the action. This should include an account of fish distribution and abundance in the affected area and a description of habitat type, quantity, and quality in the affected area.
- A description of the environmental baseline. This should portray existing habitat conditions in terms of water quality, access, riparian areas, stream channels, flow, and watershed health indicators such as total impervious area and any existing high-quality habitat areas.
- A description of the anticipated short-term and long-term impacts the action is expected to have on the species (including all life-cycle stages) and its habitat. This should cover both positive and negative impacts and describe how any adverse impacts will be avoided, mitigated, or minimized.
- A discussion of the likelihood that the program or action will be implemented as described. Some questions that would need to be answered are: What commitment has been made to carry out the action or program? Are the legal authorities needed to carry out the program in place? Is implementation funding available and adequate? Is staffing available and adequate? What is the schedule for implementation? If the program is currently being implemented, what is its record of implementation and effectiveness to date?
- A program for monitoring both the action's implementation and effectiveness; it should include a schedule for conducting monitoring and submitting reports.
- A method for using monitoring information to change actions when needed—adaptive management.

Overview of 4(d) Rule Limits Submittal Process Flow Chart

The following flow chart provides an overview of the steps one will need to follow in order to receive NMFS' authorization for carrying out a program under one of the 13 4(d) rule limits. The flow chart is divided into two sections—presubmittal guidance and the submittal process. The presubmittal guidance is a critical part of the overall process; it stresses the importance of early communication with the appropriate NMFS staff members, sets up the path for determining the appropriate ESA program and permit options, and identifies the information that each submittal package must include. The submittal process generally describes how a submitted program will be evaluated, how its biological impacts will be analyzed, how the public will receive notice of the submittal, and what options are available whether the package is or is not

authorized. The authorization process for some limits—such as Limit No. 9 (Water Diversion Screening)—does not require notification in the *Federal Register* and therefore may not exactly follow the flow chart process. Therefore, anyone seeking approval for their program should refer to each individual limit to learn the specific requirements.



* Refer to individual limits submittal process to determine if notification in Federal Register is required.

Whom Do I Contact at NMFS to Identify ESA Permit Options?

The table below identifies the appropriate divisions and individual staff members at NMFS to contact regarding inquiries about initiating the process to receive a 4(d) limit or to identify other ESA permitting options:

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS		
TOPIC/TYPE OF ACTIVITY	NMFS DIVISION	FOR MORE INFORMATION
Ongoing Scientific Research Permit	Protected Resources	Leslie Schaeffer (503/230-5433)
Fishery Management	Sustainable Fisheries	http://www.nwr.noaa.gov/1fmep/index.html or R.Z. Smith (503/230-5427) or Peter Dygert (206/526-6734)
Hatchery and Artificial Propagation Programs Joint Tribal/State Plans	Sustainable Fisheries	http://www.nwr.noaa.gov/1hgmp/hgmptmpl.htm or R.Z. Smith (503/230-5427)
Scientific Research Conducted by States	Protected Resources	Leslie Schaeffer (503/230-5433)
Screened Water Diversions	Hydropower Program	http://www.nwr.noaa.gov/1hydroweb/ferc.htm or Bryan Nordlund (503/231-6816)
 Routine Road Maintenance Activities Habitat Restoration City of Portland Integrated Pest Management Municipal, Residential, Commercial and Industrial Development (and Redevelopment) Forestry in Washington Section 10 Incidental Take Permit Section 7 Consultation 	Habitat Conservation	State of Washington – Steve Landino (360/753-6054)State of Oregon – Michael Tehan (503/231-2224)State of Idaho – Ted Meyers (208/378-5698)State of California – Craig Wingert (562/980-4021)

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS		
TOPIC/TYPE OF ACTIVITY	For More Information SOUTHWEST REGION CONTACTS	
Ongoing Scientific Research Permit	Dan Logan/ Santa Rosa (707/575-6053)	
Rescue and Salvage Actions	Dan Logan/ Santa Rosa (707/575-6053)	
Fishery Management	Craig Heberer/ Long Beach (526/980-4021)	
Artificial Propagation	To Be Announced	
Scientific Research Conducted by States	Dan Logan/ Santa Rosa (707/575-6053)	
Screened Water Diversions	Rick Wantuck/ Santa Rosa (707/575-6063)	
 Routine Road Maintenance Activities Municipal, Residential, Commercial and Industrial Development (and Redevelopment) Habitat Restoration 	Patrick Rutten/ Santa Rosa - Central Coast (Mendocino Co. thru Monterey Co.) (707/575-6059) Craig Wingert/ Long Beach South Coast (San Luis Obispo Co.) (562/980-4021) Mike Aceituno/ Sacramento Central Valley (916/498-6498)	
	For questions on other limits contact the appropriate NWR staff member.	

How Do I Get Additional Information on the Final 4(d) Rule?

Please visit NMFS' Northwest Region Web Site at <u>http://www.nwr.noaa.gov</u> or the Southwest Region Web Site <u>http://swr.ucsd.edu</u> for additional information on the final 4(d) rule for salmon and steelhead. The websites contain *Federal Register* notices, fact sheets, maps of threatened salmon and steelhead ESUs, press releases, frequently asked questions, and documents referenced in the rule. The websites also have a great deal of information on listed species in general. In addition, the following NMFS staff members can provide information on the final rule.

GENERAL INFORMATION/QUESTIONS			
Final 4(d) Rule	Rosemary Furfey	(503/231-2149)	Rosemary.Furfey@noaa.gov
Puget Sound	Elizabeth Babcock	(206/526-4505)	Elizabeth.Babcock@noaa.gov
Upper Columbia Basin	Mike Grady	(206/526-4645)	Michael.Grady@noaa.gov
Mid-Columbia Basin	Kate Vandemoer (503/23	0-5422) <u>Kate.Va</u>	ndemoer@noaa.gov
Lower Columbia Basin	Rob Jones	(503/230-5429)	Rob.Jones@noaa.gov
Willamette Basin Oregon Coast	Patty Dornbusch (503/23	0-5430) <u>Patty.Do</u>	ornbusch@noaa.gov
California/ North Coast (Humboldt Co. north to Oregon)	Greg Bryant Irma Lagomarsino	(707/825-5162) (707/825-5160)	<u>Greg.Bryant@noaa.gov</u> <u>Irma.Lagomarsino@noaa.gov</u>
California/Central Coast (Mendocino Co. thru Monterey Co.)	Miles Croom Patrick Rutten	(707/575-6068) (707/575-6059)	Miles.Croom@noaa.gov Patrick.Rutten@noaa.gov
California/South Coast (San Luis Obispo Co.)	Craig Wingert	(562/980-4021)	Craig.Wingert@noaa.gov
California/Central Valley	Mike Aceituno	(916/498-6498)	Mike.Aceituno@noaa.gov

Instructions for Program Submittals Under the Various Limits

The following chapters give instructions for submitting a program to NMFS in order to qualify for a limit on the take prohibitions. Each chapter is intended to stand alone and thus includes all the information needed to prepare a submittal under each individual limit. Each chapter includes the following information (where applicable):

- A summary of the limit
- The affected ESUs
- Regulatory language
- Submittal instructions
- Reporting requirements
- NMFS' submittal review criteria
- NMFS' authorization and notification process
- Contact information for receiving NMFS' assistance

Limit No. 1: ESA Permits

Summary of the Limit

This limit recognizes that those holding permits under section 10 of the ESA (or receiving other exemptions under the ESA) are not prohibited from take that is in accordance with the permit or applicable law.

Affected ESUs

A section 10 permit allows you to take listed fish even when take is generally prohibited and therefore this limit applies to all listed ESUs.

Regulatory Description of the Limit

From 50 CFR 223.203(b)(2):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in §223.102 (a)(5) through (a)(10), and (a)(12) through (a)(19) do not apply to activities authorized or permitted under 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 implementing such exceptions."

Submittal Instructions

There are no submittal requirements for this limit.

Limit No. 2: Ongoing Scientific Research

Summary of the Limit

NMFS is concerned with the potential for disrupting ongoing scientific research, monitoring, and conservation activities—especially during the coming summer/fall field seasons. Therefore, the agency is providing a temporary, one-time limit on the ESA take prohibitions to allow such activities to continue until **March 7, 2001** so that the necessary paperwork can be processed. Authorization under this limit does not remove a researcher's obligation to obtain any additional state, tribal, or Federal permits. Nor does this limit remove the need for Federal researchers to consult with NMFS under section 7 of the ESA.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 salmon and steelhead ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)

South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(2):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in §223.102 (a)(5) through (a)(10), and (a)(12) 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 NOAA's Assistant Administrator for Fisheries (AA) no later than October 10, 2000. 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 March 7, 2001, whichever occurs earliest. (*see* 65 FR 42422, July 10, 2000)."

Submittal Instructions

To qualify for this temporary limit, researchers must submit documentation that will serve as a "placeholder" until such time as NMFS is able to issue a final decision on whether their research is authorized. For many researchers, this placeholder document will consist of a completed ESA section 10 permit submittal (available from NMFS at the addresses below or via the internet at <u>http://www.nmfs.noaa.gov/prot_res/permits/ESApermit.html</u>). The types of information required in these submittals depend on the type of permit being sought (i.e., directed take vs. incidental take). However, state fishery agencies in Oregon, Washington, Idaho, and California may submit a "letter of intent" describing the types of research they intend to submit for coverage under the 4(d) research limit (see Limit No. 7). This letter should contain the following information for each affected ESU:

- I. Anticipated Direct Take Activities for the period Sept. 2000 Dec. 2001
 - Activity Type [*Provide a study name and briefly describe the technique to be used.*]
 - Location [Identify the river basin or reach to be sampled.]
 - Life Stage [Specify whether the sampling will target adults or juveniles or both.]
 - Contact [*Provide the name/title/agency/address/phone#/fax# for the person(s)* that will be considered "project leader" for the activity.]

- II. Anticipated Incidental Take Activities for the period Sept. 2000 Dec. 2001
 - Activity Type [*Provide a study name and briefly describe the technique to be used.*]
 - Location [Identify the river basin or reach to be sampled.]
 - Life Stage [Specify whether the sampling is likely to take adults or juveniles or both.]
 - Contact [*Provide the name/title/agency/address/phone#/fax# for the person(s) that will be considered "project leader" for the activity.*]

In either case, NMFS must have received the researchers' submittal or letter by no later than **October 10, 2000.** Submittals or letters for research involving salmon or steelhead ESUs in Oregon, Washington, or Idaho should be mailed to:

Garth Griffin NMFS, Protected Resources Division 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737

Submittals or letters for research involving ESUs in California should be mailed to:

Dan Logan NMFS 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515

Applicants would be subject to take prohibitions only after their permit submittal (or letter of intent) is denied, rejected as insufficient, or March 7, 2001, whichever occurs earliest. Parties failing to submit a submittal or letter by October 10, 2000 would be subject to take prohibitions beginning on September 8, 2000 for the seven steelhead ESUs and on January 8, 2001 for the seven salmon ESUs.

NMFS will make every effort to respond to applicants in a timely fashion. However, researchers are advised to anticipate some delays from the large number of section 10 permit submittals NMFS expects to receive. Parties requesting coverage under the ESA 4(d) limit on scientific research activities should consult with the Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), Idaho Department of Fish and Game (IDFG), or the California Department of Fish and Game (CDFG)—whichever is appropriate—to determine when related documents are due to these agencies.

Reporting Requirements

There are no reporting requirements associated with this limit.

NMFS' Submittal Review Criteria

NMFS will use the following criteria to determine if applicants should be authorized to proceed with research under this limit during the period from October 10, 2000 through March 7, 2001:

- The submittal/letter is complete and accurate.
- The applicants demonstrate that their research will be conducted by knowledgeable and professional staff.
- The applicants have made a good faith effort to coordinate their research with state fishery agencies and other researchers.

These criteria are not as rigorous as those used to evaluate either ESA section 10 permit submittals or activities submitted for approval under the 4(d) research limit (see Limit No. 7). Instead, they are meant to ensure that NMFS has adequate information to account for ongoing research activities during the temporary period in which this limit is effective.

NMFS' Authorization/Notification Process

Applicants will be authorized under this limit as soon as they receive written confirmation from NMFS that their submittal has been received. In most cases, NMFS' confirmation will be sent within two weeks of receiving the submittal/letter. In some cases researchers could receive notice that their activities are not authorized for the reasons outlined above under "NMFS' Submittal Review Criteria." In such cases, take associated with the research activity will be prohibited.

NMFS' Assistance

Additional assistance regarding this limit can be obtained by contacting:

Robert Koch (Washington and Idaho) NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5424 Fax: (503) 230-5435 E-mail: <u>robert.koch@noaa.gov</u>

Leslie Schaeffer (Oregon)

NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5433 Fax: (503) 230-5435 E-mail: <u>leslie.schaeffer@noaa.gov</u>

Dan Logan (California) NMFS, 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515 Phone: (707) 575-6053 Fax: (707) 578-3435 E-mail: <u>dan.logan@noaa.gov</u>

Limit No. 3: Rescue and Salvage Actions

Summary of the Limit

This limit relieves certain agency and official personnel (or their designees) from the take prohibitions when they are acting to aid an injured or stranded fish or salvage a dead fish for scientific study. Each agency acting under this limit is to report annually on the numbers and status of the fish handled. This limit on the take prohibitions will conserve the listed species by physically aiding fish, furthering our understanding of the species' biology, or identifying life-threatening conditions that could be ameliorated by management or enforcement actions.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 15 salmon and steelhead ESUs are subject to this limit; in addition to the 14 ESUs identified in the July 10, 2000 4(d) rule, the rescue/salvage limit also applies to the Southern Oregon/Northern California Coasts coho salmon ESU. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead (62 FR 43937, August 18, 1997)	Southern Oregon/Northern California Coasts coho salmon (62 FR 24588, May 6, 1997)
Lower Columbia River steelhead	Oregon Coast coho salmon
(63 FR 13347, March 19, 1998)	(63 FR 42587, August 10, 1998)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)

Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)
Ozette Lake sockeye salmon (64 FR 14528, March 25, 1999)	

Regulatory Description of the Limit

From 50 CFR 223.203(b)(3):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102 (a)(4) through (a)(10), and (a)(12) 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 (IDFG), Washington Department of Fish and Wildlife (WDFW), the Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Game (CDFG), or of any other governmental entity that has comanagement authority for the listed salmonids, when the employee or designee, acting in the course of his or her 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. (see 65 FR 42422, July 10, 2000)"

Submittal Instructions

No submittals are required to qualify for this limit addressing rescue and salvage actions. However, eligibility is restricted to employees or designees of NMFS, the FWS, any Federal land management agency (e.g., U.S. Forest Service, Park Service, or Bureau of Land Management), IDFG, WDFW, ODFW, CDFG, or of any other entity (e.g., Native American tribes) that has comanagement authority over the listed salmonids. In addition, designees must have written authorization from one of these entities before aiding or salvaging the listed species.

Reporting Requirements

Each party acting under this limit is required to submit an annual report to NMFS identifying the person(s) acting under this limit, and the location, numbers, condition, and age/life stage of fish handled. In cases where a dead salmonid was made available for a scientific study, the entity should identify the researcher (or facility) to whom the specimen was transferred. If fish were captured using a backpack electrofishing unit, then the reporting agency/entity should certify that the activity was conducted in accordance with NMFS' backpack electrofishing guidelines. These reports will be most useful if they describe why the aid/salvage effort was needed and what if any management or enforcement actions (if applicable) would help prevent the need for future aid efforts. Annual reports should be mailed by **December 31** of each year to:

Garth Griffin (Oregon, Washington, or Idaho) NMFS, Protected Resources Division 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737

or

Dan Logan (California) NMFS 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515

NMFS' Submittal Review Criteria

As noted above, there are no submittal requirements (and hence no review criteria) associated with this limit.

NMFS' Authorization/Notification Process

While this limit does not involve NMFS' authorization per se, the agency encourages all eligible entities to:

- Provide timely and accurate annual reports that describe the basis for the aid/salvage effort and what if any management or enforcement actions would help prevent the need for future aid efforts.
- Make a good faith effort to employ safe and effective capture and handling techniques (e.g., NMFS' electrofishing guidelines) to minimize stress for the stranded, injured, or sick fish.

NMFS' Assistance

Additional guidance or assistance regarding this limit can be obtained by contacting:

Robert Koch (Washington and Idaho) NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5424 Fax: (503) 230-5435 E-mail: <u>robert.koch@noaa.gov</u>

Leslie Schaeffer (Oregon) NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5433 Fax: (503) 230-5435 E-mail: leslie.schaeffer@noaa.gov

Dan Logan (California) NMFS, 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515 Phone: (707) 575-6053 Fax: (707) 578-3435 E-mail: <u>dan.logan@noaa.gov</u>

Limit No. 4: Fishery Management

Summary of the Limit

Recreational, commercial, and tribal fisheries can be managed in a way that protects listed salmon and steelhead and allows them to recover. The 4(d) rule does not prohibit the take of listed fish in fisheries if a fishery management agency develops a Fisheries Management and Evaluation Plan (FMEP) and NMFS approves it. Some benefits of the FMEP approach are long-term management planning, more public involvement, less government paperwork, and more certainty that there will be fishing opportunities in the future.

In the FMEPs, fisheries will be managed according to the listed fishes' status. This will be determined by using the concepts contained in NMFS' "Viable Salmonid Populations" policy. Fisheries will be scaled to the degree of risk the listed fish face. When a listed population is at a critically low levels, harvest impacts will be strictly controlled. Once a population recovers to "viable" levels, fisheries could be less restrictive.

FMEPs are developed and approved in the following manner: (1) a fish management agency, such as a state department of fish and wildlife, develops an FMEP that meets the 4(d) rule criteria; (2) they send it to NMFS, who then solicits public review and comment; (3) the public input is used to revise the FMEP, if necessary. Once the FMEP is deemed sufficient, NMFS writes a letter of approval to the agency that developed the FMEP. The FMEP is then implemented and the fisheries addressed in the FMEP will be covered under the ESA. NMFS will work with the applicant to monitor FMEP compliance and effectiveness.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(4):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102 (a)(5) through (a)(9), (a)(10), (a)(12) through (a)(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 letter of concurrence from NMFS. NMFS will approve an FMEP only if it clearly defines its intended scope and area of impact, and sets forth the management objectives and performance indicators for the plan. The plan must adequately address the following criteria:

(A) Define populations within affected listed 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 listed 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 listed 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) Utilizes the concepts of "viable" and "critical" salmonid population thresholds, consistent with the concepts contained in the technical document entitled "Viable Salmonid Populations (NMFS, 2000b)." The VSP 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 viable and critical population threshold states and respond accordingly to minimize the long-term risks to population persistence. 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 the likelihood of survival and recovery of the entire ESU in the wild would not be appreciably reduced by greater risks to that individual population.

(C) Set escapement objectives or maximum exploitation rates for each management unit or population based on its status, and a harvest program that assures that those rates or objectives are not exceeded. 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) Display 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) 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.

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

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

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

(I) Be consistent with plans and conditions established 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 a regular basis, as defined in NMFS' letter of concurrence for the FMEP, 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 with NMFS on its fishing regulation changes affecting listed ESUs to ensure consistency with the approved FMEP. 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.

(iv) NMFS provides written concurrence of the FMEP which specifies the implementation and reporting requirements. NMFS' approval of a plan shall be a written approval by NMFS' Southwest or Northwest Regional Administrator, as appropriate. On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving a level of 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 withdraw the limit for activities associated with that FMEP. 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 withdraw the limit so that the prohibitions would then apply to those fishery harvest activities. A template for developing FMEPs is available from NMFS Northwest Region's website (www.nwr.noaa.gov).

(v) The prohibitions of paragraph (a) of this section relating to threatened species of steelhead listed in 223.102 (a)(5) through (a) (9), (a)(14), and (a)(15) do not apply to fisheries managed solely by the states of Oregon, Washington, Idaho and California until January 8, 2001. NMFS has assessed the current fishing regulations affecting juvenile and adult steelhead and concluded the listed ESUs will be sufficiently protected during this period of time while FMEPs are being developed."

Submittal Instructions

The submittal procedures for FMEPs and the artificial propagation limit are similar. To apply for take limits for fishery management activities, an applicant must prepare an FMEP and submit it to NMFS. Each FMEP must completely describe its objectives, area of effect, and the presence, status, and expected impacts on listed species (as per the criteria described in the 4(d) rule (65 FR

42422)). These criteria include information on how fishery and hatchery activities will be integrated.

The details required for each section of an FMEP depend on the scope and effects of the proposed actions and the status of the populations to be affected by the proposed program. There is no strict requirement for a particular format for FMEPs, but NMFS has developed a template describing the components and level of detail needed for adequate compliance with the 4(d) limit—we strongly recommend its use for each FMEP. The FMEP template is available on NMFS' Northwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.gov/lfmep and on NMFS' Southwest Regional Office website at http://www.nwr.noaa.

The following steps summarize the process for receiving and maintaining Federal approval of an FMEP.

- 1. A fish management agency develops an FMEP that meets the 4(d) rule criteria and submits it for NMFS' approval.
- 2. If NMFS determines that the submitted FMEP is complete, NMFS requests public review and comment.
- 3. The public input is shared with the submitting agency and is used to revise the FMEP if necessary.
- 4. The NMFS Northwest or Southwest Regional Office—whichever is appropriate—evaluates the FMEP.
- 5. Once the FMEP is approved, the appropriate NMFS Regional Administrator sends a letter of approval to the agency that developed the FMEP. This letter references the detailed evaluation document and authorizes the FMEP for the take limits under the ESA.
- 6. The FMEP is implemented.
- 7. NMFS and the applicant monitor and evaluate the FMEP throughout its lifespan—in accordance with the FMEP's monitoring and implementation plan—to ensure its effects on listed fish continue to allow their conservation and recovery.
- 8. Information from the monitoring and evaluation process is used to revise the FMEP as necessary.

Reporting Requirements

Each FMEP must include a detailed description of how its activities will be monitored and provide explicit reporting schedules. The reports must provide the amount of listed salmonids taken in each fishery activity consistent with the stated FMEP management objectives.

NMFS' Submittal Review Criteria

A submitted FMEP must fulfill all relevant 4(d) rule criteria. If a Plan is not complete upon submission, NMFS will work with the applicant to obtain the needed additional information.

For an FMEP, the 4(d) rule states:

"An FMEP must (1) define its objectives and management area, (2) define the populations within the affected ESUs, (3) establish the populations' "critical" and "viable" threshold levels, (4) set escapement objectives or maximum harvest rates, (5) demonstrate that the fisheries will not jeopardize listed fish, (6) establish the monitoring and evaluation process to assess how the FMEP is working and set conditions for revising management, and (7) be consistent with tribal trust obligations."

An FMEP should incorporate the best available scientific and commercial information. In developing an FMEP an agency should refer to the following scientific and policy documents: the Federal Register Notice entitled "Final Rule Governing Take of 14 Threatened Salmon and Steelhead Evolutionarily Significant Units (ESUs)" (June 2000); and NMFS' Technical Memorandum (NMFS-NWFSC-42, June 2000) entitled "Viable Salmonid Populations and the Recovery of Evolutionarily Significant Units." Both of these documents are available on NMFS Northwest Region's website at http://www.nwr.noaa.gov.

NMFS realizes that in some cases there may be not enough information to adequately complete all sections of the template. However, by comprehensively identifying the information needed to scientifically assess fishery or hatchery management plans, NMFS will be able to seek funding to fill these information gaps and thereby better evaluate and manage fisheries in the future.

An FMEP may be re-evaluated if: (1) The amount of take is exceeded, or is expected to be exceeded; (2) new information reveals that the fishery or artificial propagation program is having effects on listed species at a level or to a level not previously considered; (3) the fishery or artificial propagation program is conducted in a manner that has an effect on listed species that was not previously considered; or (4) NMFS lists a new species within the management area of the FMEP. Plans should take into account a variety of biological, environmental and social scenarios.

NMFS' Authorization/Notification Process

If NMFS determines that the FMEP qualifies for a take limit, we will send the acting agency a notification letter. The analysis document will be kept on file at the appropriate NMFS Regional Office and will be available upon request.

NMFS' Assistance

Additional guidance and assistance regarding this limit can be obtained by contacting the appropriate NMFS staff person in the following table.

NMFS	Region or ESU	Email Address / Phone #	Mailing Address
Contact			
Susan Bishop	Puget Sound Chinook	susan.bishop@noaa.gov	7600 Sand Point Way NE,
	HC Summer Chum	(206/526-4587)	BIN C15700
	Lake Ozette Sockeye		Seattle, WA 98115-0070
Vince	Upper Columbia Region	vince.tranquilli@noaa.gov	525 N.E. Oregon St., Suite 510
Tranquilli		(503/230-5409)	Portland, OR 97232-2737
Lance Kruzic	Oregon Coast Region	lance.kruzic@noaa.gov	525 N.E. Oregon St., Suite 510
	Willamette River ESUs	(503/231-2178)	Portland, OR 97232-2737
Robert	Mitchell Act Programs	robert.bayley@noaa.gov	525 N.E. Oregon St., Suite 510
Bayley		(503/230-5432)	Portland, OR 97232-2737
Rich Turner	Lower Columbia Region	rich.turner@noaa.gov	525 N.E. Oregon St., Suite 510
	Mid-Columbia Region	(503/736-4737)	Portland, OR 97232-2737
Herb Pollard	Snake River Region	herb.pollard@noaa.gov	1387 S. Vinnell Way, Suite 377
		(208/378-5614)	Boise, ID 83709
Craig Heberer	Southwest Region	craig.heberer@noaa.gov	501 W. Ocean Blvd., Suite 4200
		(562/980-4034)	Long Beach, CA 90802-4213

CONTACT INFORMATION

Limit No. 5: Artificial Propagation

Summary of the Limit

Hatcheries can be managed in a manner that conserves and recovers listed salmon and steelhead. The 4(d) rule does not prohibit the take of listed fish for a variety of hatchery purposes if a state or Federal hatchery management agency develops a Hatchery and Genetics Management Plan (HGMP) and NMFS approves it. Some benefits of the HGMP approach are long-term management planning, more public involvement, and less government paperwork.

Hatchery activities will be evaluated based on the degree of risk they may pose to listed species. This will be determined by using the concepts contained in NMFS' "Viable Salmonid Populations" policy. When a listed population is at a critically low levels, broodstock collection will be strictly controlled. Once a population recovers to "viable" levels, broodstock collection could be less restrictive.

HGMPs are developed and approved in the following manner: A fish management agency, such as a state department of fish and wildlife, develops an HGMP that meets the 4(d) rule criteria. They send it to NMFS who then requests that the public review and comment on it. The public input is used to revise the HGMP, if necessary. Once the HGMP is deemed sufficient, NMFS writes a letter of approval to the agency that developed the HGMP. The HGMP is then implemented and the hatchery program addressed in the HGMP will be covered under the ESA. NMFS then monitors and evaluates the HGMP to ensure that the listed fish is recovering.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)

Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of The Limit

From 50 CFR 223.203(b)(5):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in 223.102 (a)(5) through (a)(10), (a)(12) through (a)(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, contribute 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 that will be used to measure the program's success or failure.

(B) The plan utilizes the concepts of viable and critical salmonid population threshold, consistent with the concepts contained the technical document titled ``Viable Salmonid Populations'' (NMFS, 2000b). 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, abundances, and trends in the donor population, and 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 of the ESU, broodstock collection programs may be authorized by NMFS for secondary purposes, such as to sustain tribal, recreational, and commercial fisheries.

(D) The HGMP includes 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 evaluates, minimizes, and accounts for the propagation program's genetic and ecological effects on natural populations, including disease transfer, competition, predation, an genetic introgression caused by straying of hatchery fish.

(F) The HGMP describes 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 the purpose of which 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 potentially impairing the 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) NMFS provides written concurrence of the HGMP which specifies the implementation and reporting requirements. 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 a regular basis, as defined in NMFS' letter of concurrence, 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 a regular 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' Southwest or Northwest Regional Administrator, as appropriate.

(vi) On a regular basis, NMFS will evaluate the effectiveness of the HGMP in protecting and achieving a level of salmonid productivity commensurate with conservation of the listed salmonids. If it is not, NMFS will identify to the jurisdiction 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 withdraw the limit 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 withdraw the limit so that take prohibitions would then apply to that program as to all other activity not within a limit. A template for developing HGMPs is available from NMFS Northwest Region's website (www.nwr.noaa.gov)."

Submittal Instructions

The submittal procedures for FMEPs and HGMPs are similar. To apply for take limits for hatchery management activities, an applicant must prepare an HGMP and submit it to NMFS. Each HGMP must completely describe its objectives, area of effect, and the presence, status, and expected impacts on listed species (as per the criteria described in the 4(d) rule (65 FR 42422)). These criteria include information on how fishery and hatchery activities will be integrated.

The details required for each section of an HGMP depend on the scope and effects of the proposed actions and the status of the populations to be affected by the proposed program. There is no strict requirement for a particular format for such a HGMP, but NMFS has developed a template describing the components and level of detail needed for adequate compliance with the 4(d) limit—we strongly recommend its use for each HGMP. The HGMP template is available on NMFS' Northwest Regional Office's website at http://www.nwr.noaa.gov.

The following steps summarize the process for receiving and maintaining Federal approval of an HGMP.

1. A fish management agency develops an HGMP that meets the 4(d) rule criteria and submits it for NMFS' approval.
- 2. If NMFS determines that the submitted HGMP is complete, NMFS requests public review and comment.
- 3. The public input is shared with the submitting agency and is used to revise the HGMP if necessary.
- 4. NMFS Northwest or Southwest Regional Office—whichever is appropriate—evaluates the HGMP.
- 5. Once the HGMP is approved, the appropriate NMFS Regional Administrator sends a letter of approval to the agency that developed the HGMP. This letter references the detailed evaluation document and authorizes the HGMP for the take limits under the ESA.
- 6. The HGMP is implemented.
- 7. NMFS and the applicant monitor and evaluate the HGMP throughout its lifespan—in accordance with the HGMP's monitoring and implementation plan—to ensure its effects on listed fish continue to allow their conservation and recovery.
- 8. Information from the monitoring and evaluation process is used to revise the HGMP as necessary.

Reporting Requirements

Each HGMP must include a detailed description of how its activities will be monitored and provide explicit reporting schedules. The reports must provide the number of listed salmonids taken in each artificial propagation activity and describe how effectively the HGMP meets its objectives for protecting listed salmonids.

NMFS' Submittal Review Criteria

A submitted HGMP must fulfill all relevant 4(d) rule criteria. If a Plan is not complete upon submission, NMFS will work with the applicant to obtain the needed additional information.

For an HGMP, the 4(d) rule states:

"An HGMP must (1) specify the goals and objectives for the hatchery program, (2) [specify] the donor population's "critical" and "viable" threshold levels, (3) prioritize broodstock collection programs in a manner that benefits listed fish, (4) specify the protocols that will be used for spawning and raising the fish in the hatchery, (5) determine the genetic and ecological effects arising from the hatchery program, (6) describe how the hatchery operation relates to fisheries management, (7) ensure that the hatchery facilities can adequately accommodate listed fish if they are collected for the program, (8) monitor and evaluate the HGMP to ensure that it accomplishes its objectives, and (9) be consistent with tribal trust obligations." An HGMP should incorporate the best available scientific and commercial information. In developing an HGMP an agency should refer to the following scientific and policy documents: the Federal Register Notice entitled "Final Rule Governing Take of 14 Threatened Salmon and Steelhead Evolutionarily Significant Units (ESUs)" (June 2000); and NMFS' Technical Memorandum (NMFS-NWFSC-42, June 2000) entitled "Viable Salmonid Populations and the Recovery of Evolutionarily Significant Units." Both of these documents are available on NMFS Northwest Region's website at http://www.nwr.noaa.gov.

NMFS realizes that in some cases there may be not enough information to adequately complete all sections of the template. However, by comprehensively identifying the information needed to scientifically assess fishery or hatchery management plans, NMFS and co-managers will be able to fill these information gaps and thereby better evaluate and manage fisheries in the future.

An HGMP may be re-evaluated if: (1) the amount of take is exceeded, or is expected to be exceeded; (2) new information reveals that the fishery or artificial propagation program is having effects on listed species at a level or to a level not previously considered; (3) the fishery or artificial propagation program is conducted in a manner that has an effect on listed species that was not previously considered; or (4) NMFS lists a new species within the management area of the HGMP. Plans should take into account a variety of biological, environmental and social scenarios.

NMFS' Authorization/Notification Process

If NMFS determines that the HGMP qualifies for a take limit, we will send the action agency a notification letter. The analysis document will be kept on file at the appropriate NMFS Regional Office and will be available upon request.

NMFS' Assistance

Additional guidance and assistance regarding this limit can be obtained by contacting the appropriate NMFS staff person in the following table.

CONTACT INFORMATION

NMFS Contact	Region or ESU	Email Address / Phone #	Mailing Address
Derek Poon	Puget Sound Chinook	derek.poon@noaa.gov (206/526-6550)	7600 Sand Point Way NE, BIN C15700 Seattle, WA 98115-0070
Tim Tynan	HC Summer Chum Lake Ozette Sockeye	tim.tynan@noaa.gov (360/753-9579)	510 Desmond Dr. SE, Suite 103 Lacey, WA 98503
Vince Tranquilli	Upper Columbia Region	vince.tranquilli@noaa.gov (503/230-5409)	525 N.E. Oregon St., Suite 510 Portland, OR 97232-2737
Lance Kruzic	Oregon Coast Region Willamette River ESUs	lance.kruzic@noaa.gov (503/231-2178)	525 N.E. Oregon St., Suite 510 Portland, OR 97232-2737
Robert Bayley	Mitchell Act Programs	robert.bayley@noaa.gov (503/230-5432)	525 N.E. Oregon St., Suite 510 Portland, OR 97232-2737
Rich Turner	Lower Columbia Region Mid-Columbia Region	rich.turner@noaa.gov (503/736-4737)	525 N.E. Oregon St., Suite 510 Portland, OR 97232-2737
To Be Announced	Southwest Region		
Herb Pollard	Snake River Region	herb.pollard@noaa.gov (208/378-5614)	1387 S. Vinnell Way, Suite 377 Boise, ID 83709

Limit No. 6: Limits on the Take Prohibitions for Joint Tribal/State Plans Developed under the United States v. Washington or United States v. Oregon Settlement Processes

Summary of the Limit

Non-tribal salmonid management in the Puget Sound and Columbia River areas is profoundly influenced by the fishing rights of numerous Indian tribes and must be responsive to the court proceedings that interpret and define those tribal rights. Various orders of the *United States v*. *Washington* court—such as the Puget Sound Salmon Management Plan (originally approved by the court in 1977; recently amended 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 jointly coordinated by 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. Similar principles apply in the Columbia River basin where the States of Oregon, Washington, and Idaho and five treaty tribes work within the framework and jurisdiction of the *United States v*. *Oregon* decision.

NMFS includes this limit on the take prohibitions to accommodate any resource management plan developed jointly by the States and the Tribes (joint plan) under the jurisdiction of *United States v. Washington* or *United States v. Oregon*. Such a plan would be developed and reviewed under the government-to-government processes outlined in the final 4(d) rule for Tribal Resource Management Plans. Before any joint plan qualifies for a limit on the take prohibitions, the Secretary must determine that it will not appreciably reduce the likelihood of the listed species' survival and recovery. The Secretary shall publish in the Federal Register notice of any pending determination regarding a joint plan. The notice will include a discussion of the biological analysis underlying that determination, and the public will be allowed to comment on it for a period of at least 30 days. The Secretary will take these comments into account when making the final determination.

NMFS will evaluate joint plans on a regular basis to determine if they sufficiently protect and conserve the listed fish.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies

involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 11 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Lower Columbia River chinook salmon	Puget Sound chinook salmon
(64 FR 14308, March 24, 1999)	(64 FR 14308, March 24, 1999)
Upper Willamette River chinook salmon (64 FR 14308, March 24, 1999)	

Regulatory Description of the Limit

From 50 CFR 223.203(b)(6):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102 (a)(7), (a)(8), (a)(9), (a)(12), 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 jurisdiction 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 Sec. 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 the parameters set forth in 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 Sec. 223.203(b)(4), or how any hatchery and genetic management plan addresses the criteria in Sec. 223.203(b)(5).

(iv) On a regular basis, NMFS will evaluate the effectiveness of the program in protecting and achieving a level of salmonid productivity commensurate with conservation of the listed salmonids. If it is not, NMFS will identify to the jurisdiction 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 withdraw the limit 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 withdraw the limit so that take prohibitions would then apply to that program as to all other activity not within a limit. 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."

Submittal Instructions

A joint state or tribal fishery or artificial propagation plan is considered in a manner similar to that used for evaluating non-tribal FMEPs and HGMPs. Tribal and state staff prepare a fishery management plan or a plan for operating an artificial propagation program are not required to submit an FMEP or HGMP. However, the FMEP/HGMP templates contain good guidance for the details, scope, and format a joint plan should incorporate. NMFS' technical evaluation of a joint plan will involve the same biological considerations used when evaluating a non-tribal Plan, and the templates will provide a great deal of insight on the information NMFS needs for this evaluation.

The steps for evaluating whether a fishery or hatchery joint plan qualifies for a limit on the take prohibitions under the 4(d) rule differ somewhat from those non-tribal applicants must follow. The primary difference stems from the fact that the joint plan itself is not subject to public review—rather, the public comments on the "...Secretary's pending determination whether or not implementation of a Joint plan will appreciably reduce the likelihood of survival and recovery of the listed salmonids" (65 FR 42481). Therefore, the steps for evaluating a joint state or tribal plan under the fishery or artificial propagation take limits are:

- 1. A tribal or state entity develops a fishery or artificial production plan.
- 2. NMFS evaluates the joint plan and produces a draft analysis based on the FMEP/HGMP analyses used for non-tribal plans.
- 3. NMFS requests public comment on the Secretary's recommendation. The joint plan (and any associated NMFS analysis) will be made available for public review because it serves as the underpinning of the analysis, but only the Secretary's recommendation and any draft NEPA documents are subject to public comment.
- 4. The public input is used to revise the recommendation, if necessary.
- 5. Once the analysis of the plan is complete, NMFS issues a determination on the proposed action along with any NEPA documentation and decision documents. A concurrence letter is sent to the party(s) that developed the plan.
- 6. The joint plan is implemented.
- 7. NMFS and the applicant monitor and evaluate the Plan throughout its lifespan—in accordance with the Plan's monitoring and implementation plan—to ensure its effects on listed fish continue to allow their conservation and recovery.
- 8. Information from the monitoring and evaluation process is used to revise the Plan as necessary.

NMFS will continue to consider the joint plan's adequacy by reviewing the information collected through the Plan's monitoring and evaluation procedures, but will not need to re-evaluate its analysis in detail unless one or more of the re-evaluation triggers described above for non-tribal plans occurs. The FMEP/HGMP templates are available on NMFS' Northwest Regional Office website at http://www.nwr.noaa.gov.

Reporting Requirements

Each joint plan must include a detailed description of how its activities will be monitored and provide explicit reporting schedules. The reports must provide the amount of listed salmonids taken in each fishery activity consistent with the stated FMEP management objectives.

NMFS' Submittal Review Criteria

The degree to which a submitted plan is considered complete will largely be determined by how well it fulfills the explicit 4(d) rule criteria. However, in most cases NMFS will be involved in developing the plan and will work with the parties submitting the plan to ensure that it is complete when submitted.

A joint plan should incorporate the best available scientific and commercial information. In developing a joint plan the parties should refer to the following scientific and policy documents: the Federal Register Notice entitled "Final Rule Governing Take of 14 Threatened Salmon and Steelhead Evolutionarily Significant Units (ESUs)" (June 2000); and NMFS' Technical Memorandum (NMFS-NWFSC-42, June 2000) entitled "Viable Salmonid Populations and the

Recovery of Evolutionarily Significant Units." Both of these documents are available on NMFS Northwest Region's website at <u>http://www.nwr.noaa.gov</u>.

NMFS realizes that in some cases there may be not enough information to adequately complete all sections of the template. However, by comprehensively identifying the information needed to scientifically assess fishery or hatchery management plans, NMFS and the co-managers will be able to seek funding to fill these information gaps and thereby better evaluate and manage fisheries in the future.

A joint plan may be re-evaluated if: (1) The amount of take is exceeded, or is expected to be exceeded; (2) new information reveals that the fishery or artificial propagation program is having effects on listed species at a level or to a level not previously considered; (3) the fishery or artificial propagation program is conducted in a manner that has an effect on listed species that was not previously considered; or (4) NMFS lists a new species within the management area of the joint plan. Plans should take into account a variety of biological, environmental and social scenarios.

NMFS' Authorization/Notification Process

If NMFS determines that the joint plan qualifies for a take limit, we will send the acting agency a notification letter. The analysis document will be kept on file at the appropriate NMFS Regional Office and will be available upon request.

NMFS' Assistance

For further information on the development and evaluation of a joint plan under the 4(d) rule, refer to the contact information provided for FMEPs or HGMPs, as appropriate.

Limit No. 7: Scientific Research Activities Permitted or Conducted by The States

Summary of the Limit

Research activities involving listed salmonids have typically been authorized solely in the context of the ESA's section 7 and section 10 processes. While these processes remain valid (and in many cases necessary) pathways for researchers, the new "research limit" is significant in that it provides both NMFS and the state fishery agencies with a way to streamline the ESA's traditional authorization processes in a manner that allows the state fishery agencies to maintain key oversight and coordination roles. Specifically, coverage under the limit requires that the state fishery agencies either conduct or oversee research/monitoring efforts, or become involved in coordinating those efforts. In addition, compliance with the limit will require that the state fishery agencies submit annual reports describing research-related take for each of the affected ESUs. These provisions have intentionally been crafted to provide state fishery agencies with considerable discretion in determining eligibility under the research limit. However, they also underscore the fact that NMFS and the state fishery agencies will share the responsibility of ensuring that authorized research involving listed salmonids is both coordinated and conducted in a manner that prevents overutilization of the resource. NMFS intends to work closely with the state fishery agencies to develop a 4(d) research review process that will adapt existing state permit processes to the ESA's accountability requirement for research-related take of listed species.

In addition, the final 4(d) rule (65 FR 42422, July 10, 2000) includes a temporary provision for allowing ongoing research efforts to proceed during a six-month period beginning on September 8, 2000 and ending March 7, 2001 (see Limit No. 2). This "temporary" provision is being invoked to minimize the disruption of ongoing scientific research and monitoring during the coming summer/fall field seasons. It is also intended to provide NMFS and the state fishery agencies with additional time to engage affected researchers and further develop an efficient review and approval process for bringing them into compliance with the ESA.

While all researchers (including Federal, private, and tribal entities) are eligible for coverage under this limit, their activities must be in accord with the submittal and reporting requirements specified below. In other words, coverage will require that all research is overseen by or coordinated with a state fishery agency that is willing and able to report on the research effort.

Research and monitoring activities conducted under the purview of another 4(d) limit (e.g., hatchery monitoring programs conducted as part of the HGMP limit) should **NOT** be submitted separately for consideration under the 4(d) research limit. NMFS will evaluate such programs in the context of these other 4(d) limits and will work with the affected research community to address any "double counting" that may arise as a result of interrelated research projects.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the state submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 salmon and steelhead ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(7):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in § 223.102(a)(5) through (a)(10), and (a)(12) 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 ODFW, WDFW (Agencies), IDFG, or CDFG (Agencies), or as a part of a monitoring and research program overseen by or coordinated with that Agency.

(ii) The Agencies provide for NMFS' review and approval a list of all scientific research activities involving direct take planned for the coming year, 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) The Agencies annually provide to NMFS 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) The Agencies provide NMFS annually, for its review and approval, a report listing all scientific research activities it conducts or permits 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 accordance with NMFS' Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act.

(vii) NMFS' approval of a research program shall be a written approval by NMFS Northwest or Southwest Regional Administrator. (*see* 65 FR 42422, July 10, 2000)."

Submittal Instructions

The aforementioned "annual report" required under this limit will be considered a submittal for purposes of this guidance document. Submittals must include a formal transmittal letter from the state fishery agency to NMFS describing the context for the research monitoring strategy and the coordination mechanism used to compile the various research and monitoring projects. In addition, each submittal must include ESU-specific summaries describing overall impacts on the ESU (i.e., what proportion of the ESU will be subject to research-related take) and describe efforts being made to prevent the overutilization of small populations. These summaries must also contain the following information compiled on the basis of the coming calendar year (except in the case of the Project Results field which will summarize the prior year's findings):

<u>Project Description</u> - Provide a project name and briefly describe its purpose. <u>Location</u> - Identify the river basin or reach to be sampled. <u>Timing</u> - Identify the dates or weeks when sampling is scheduled.

- <u>Population(s) Sampled</u> Use existing state population assessments (e.g., ODFW's "Wild Fish Report" or WDFW et al.'s "Salmon and Steelhead Stock Inventory" report), or any relevant NMFS recovery planning guidance, to identify which population(s) will likely be targeted by the project.
- <u>Potential for Take</u> Record actual and anticipated take in the following "Take Table;" entries should: (1) be made in the take category that describes the greatest impact, and (2) reflect whether an individual fish was taken on separate occasions. Also, include an estimate of the proportion of each population taken as a result of the project and briefly describe the method used to derive population estimates.

	Past Year's Projected Take		Past Year's Actual Take			Next Year's Projected Take						
Type of Take/Life Stage*	Ε	J	Α	С	E	J	Α	С	E	J	Α	С
Carcass survey												
Harass												
Capture, handle, and release												
Capture, handle, tag/mark/tissue												
Intentional lethal take												
Unintentional lethal take												
Other (describe)												

* E = Eggs or fry; J = Juveniles (parr or smolt); A = adult (including precocious "jacks" or "jennies;" C = carcass.

- <u>Data Collection & Use</u> Describe the types of data to be collected (e.g., enumeration, tissue samples, length/weight data, etc.) Also identify on-line resources or documents/reports where the project's data and results will be reported.
- <u>Strategies to Minimize Take</u> Describe actions undertaken to reduce impacts on the listed species.
- <u>Project Results</u> Summarize the major findings from the past year's research and describe any significant changes in the project's design (e.g., delayed sampling schedule) and any problems encountered, especially those resulting in the unintentional death of a listed species.
- <u>Contact</u> Provide the name/title/agency/address/phone#/fax# for the person(s) that will be considered project leader for the activity.

Submittals for research involving salmon or steelhead ESUs in Oregon, Washington, or Idaho should be submitted annually to NMFS by **November 15** and mailed to:

Garth Griffin NMFS, Protected Resources Division 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737

Submittals for research involving ESUs in California should be mailed to:

Dan Logan NMFS 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515

Special Notes:

- (1) NMFS anticipates that in-season research modifications may be needed, especially in cases where unforeseen natural events (e.g., larger than expected run sizes) present an opportunity to capture important population data on listed species. Modification requests must be sent to NMFS with as much advance notice as possible so that sufficient time is allowed to review the proposed action. These requests should either reference the specific project being amended or include the requisite information described above.
- (2) Federal researchers should anticipate the need to consult with NMFS under the ESA. This consultation may require more information than that described above.

Reporting Requirements

The "annual report" described above will serve a dual role as a *submittal* and a *report* under the research limit. The key reporting information will be described in the "Project Results" field wherein the state fishery agencies will report the *actual* take figures associated with each project (as well as a revised estimate of the overall research-related take occurring in each ESU and its constituent populations) and summarize the major findings from the past year's research. These summaries should describe any significant changes in the project's design (e.g., delayed sampling schedule) and any problems encountered, especially those resulting in the unintentional death of a listed fish. Note that these reports must also address research conducted as a result of any inseason modifications NMFS authorizes.

NMFS' Submittal Review Criteria

NMFS will review state fishery submittals in a manner similar to that currently used to assess research-related take under section 10 of the ESA. Specifically, NMFS will determine if the following conditions are met or adequately addressed in the submittal:

- (1) Does the submittal clearly demonstrate that the proposed projects will enhance the species' survival or add significantly to our knowledge of the listed species?
- (2) Does the submittal assess the overall impacts on each ESU and constituent population (i.e., what proportion of the ESU/population will be subject to research-related take)?
- (3) Does the submittal include projects that are unnecessarily duplicative or lack adequate coordination?
- (4) Will projects contained in the submittal be conducted or overseen by professional biologists or individuals with fisheries expertise?
- (5) Does the submittal demonstrate a bona fide effort to minimize or mitigate take (e.g., by using special handling/sampling techniques, by using non-listed or hatchery fish whenever possible, or by making efforts to prevent the overutilization of small populations)?
- (6) Will projects contained in the submittal be conducted in a manner consistent with relevant NMFS' guidelines (e.g., backpack electrofishing guidelines)?

In cases where the submittal is found to be deficient or unclear with respect to the above criteria, NMFS may require additional specificity from the state fishery agency before final authorization. Also, NMFS may find that certain projects will require special terms and conditions to receive coverage under the 4(d) research limit and will make such requirements known via the authorization and notification process described below.

NMFS' Authorization/Notification Process

NMFS will acknowledge receipt of a state fishery agency's submittal as soon as possible (typically within one to two weeks) and will let the agency know whether the submittal has been authorized or rejected within 6 weeks of the date the submittal was received. Researchers will be covered under the research limit as soon as the state fishery agency receives written confirmation from NMFS' Northwest or Southwest Regional Administrator that their forecast report (i.e., submittal) has been authorized. NMFS' authorization letter may contain special terms and conditions that need to be implemented to receive coverage under the 4(d) research limit. Also, if a state fishery agency has requested an in-season modification of their original submittal, NMFS will provide a separate notification letter that will authorize or deny the requested modification. In rare cases, an applicant could receive notice that a request has been denied or rejected as insufficient for the reasons outlined above under "NMFS' Submittal Review Criteria." In such cases, the affected research activity will not be exempt from the relevant ESA take prohibitions.

In addition to the authorization letter, NMFS will prepare an internal memorandum certifying that the state fishery agency(s) submittal either conforms to the criteria described above under

"NMFS' Submittal Review Criteria" or that conformance is expected if specific terms and conditions are implemented. This internal memorandum will be available to the public for inspection if requested.

In cases where Federal research projects are contained in a state fishery agency's submittal for this limit, NMFS will need to conduct a parallel ESA consultation on the Federal component(s) to ensure that Federal research approved under the research limit does not jeopardize the species or adversely modify its critical habitat.

NMFS' Assistance

Additional guidance or assistance regarding this limit can be obtained by contacting:

Robert Koch (Washington and Idaho) NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5424 Fax: (503) 230-5435 E-mail: <u>robert.koch@noaa.gov</u>

Leslie Schaeffer (Oregon) NMFS, 525 NE Oregon Street, Suite 500 Portland, OR 97232-2737 Phone: (503) 230-5433 Fax: (503) 230-5435 E-mail: <u>leslie.schaeffer@noaa.gov</u>

Dan Logan (California) NMFS, 777 Sonoma Avenue, Room 325 Santa Rosa, California 95404-6515 Phone: (707) 575-6053 Fax: (707) 578-3435 E-mail: <u>dan.logan@noaa.gov</u>

Limit No. 8: Habitat Restoration

Summary of the Limit

Habitat restoration activities are likely to help conserve listed fish and NMFS concludes that it is not necessary or advisable to impose take prohibitions on those activities provided that the appreciable risk of such activities to listed salmon and their habitat is minimized by the use of state technical guidance and the context of a watershed conservation plan. NMFS considers a "habitat restoration activity" to be an activity whose primary purpose is to restore natural aquatic or riparian habitat processes or conditions—that would not be undertaken but for its restoration purpose. 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 those involved in watershed restoration to conduct assessments that identify the factors impairing watershed function and to plan watershed restoration activities based on those assessments. 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 causing a particular problem may not be addressed.

The final 4(d) rule provides that take prohibitions will not apply to habitat restoration activities that are part of a watershed conservation plan that the state of Washington, Oregon, Idaho, or California has certified to be consistent with the state's watershed conservation plan guidelines. NMFS will periodically review state Watershed Conservation Plan certifications to ensure that the Plans adhere to approved watershed conservation plan guidelines.

For this limit to apply, NMFS must find that the state's watershed conservation plan guidelines generate plans that: (1) Take into account the proposed activities' potential direct, indirect, and cumulative impacts in terms of their effect on listed species and populations; (2) will not reduce the likelihood of either survival or recovery of listed species in the wild; (3) ensure that any taking will be incidental; (4) minimize and mitigate any adverse impacts; (5) put in place effective monitoring and adaptive management programs; (6) use the best available science and technology, including watershed analysis; (7) provide for public and scientific review and input; (8) include any measures that NMFS determines are necessary or appropriate; (9) include provisions that clearly identify those activities that are part of plan implementation; and (10) control risk to listed species by ensuring that the above plan components are funded and implemented.

Before approving any watershed conservation plan guidelines, NMFS will publish a notice in the *Federal Register* announcing the availability of the proposed guidelines for public review and comment. Such an announcement will provide for a comment period of no less than 30 days.

NMFS also encourages jurisdictions, entities, and citizens to use the habitat restoration guidelines and technical manuals listed below as readily available techniques for reducing the risks of harming or injuring the listed stocks. These documents are available on NMFS' web page or may be directly obtained from the relevant agencies.

Applicable state guidance includes:

- Oregon Road/Stream Crossing Restoration Guide, Spring 1999;
- Selected portions of the *Oregon Aquatic Habitat Restoration and Enhancement Guide* (1999);
- Oregon Department of Forestry and Department of Fish and Wildlife's *A Guide to Placing Large Wood in Streams*, May 1995;
- 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;
- *Stream Corridor Restoration Principles, Processes and Practices* by the Federal Interagency Stream Restoration Working Group, October, 1998; and,
- *California Salmonid Stream Habitat Restoration Manual*, California State Department of Fish and Game (CDFG), January, 1998.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)

Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of The Limit

From 50 CFR 223.203(b)(8):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102(a)(5) through (a)(10), and (a)(12), through (a)(19) do not apply to habitat restoration activities, as defined in paragraph (b)(8)(iv) of this section, provided that the activity is part of a watershed conservation plan, and:

(i) The watershed conservation plan has been certified by the State of Washington, Oregon, Idaho, or California (State) to be consistent with the state's watershed conservation plan guidelines.

(ii) The State's watershed conservation plan guidelines have been found by NMFS to provide for plans that:

(A) Take into account the potential severity of direct, indirect, and cumulative impacts of proposed activities in light of the status of affected species and populations.

(B) Will not reduce the likelihood of either survival or recovery of listed species in the wild.

(C) Ensure that any taking will be incidental.

(D) Minimize and mitigate any adverse impacts.

(E) Provide for effective monitoring and adaptive management.

(F) Use the best available science and technology, including watershed analysis.

(G) Provide for public and scientific review and input.

(H) Include any measures that NMFS determines are necessary or appropriate.

(I) Include provisions that clearly identify those activities that are part of plan implementation.

(J) Control risk to listed species by ensuring funding and implementation of the above plan components.

(iii) NMFS will periodically review state certifications of Watershed Conservation Plans to ensure adherence to approved watershed conservation plan guidelines.

(iv) "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.

(v) Prior to approving watershed conservation plan guidelines under paragraph (b)(8)(ii) of this section, NMFS will publish notification in the Federal Register announcing the availability of the proposed guidelines for public review and comment. Such an announcement will provide for a comment period on the draft guidelines of no less than 30 days."

Submittal Instructions

Early Involvement

NMFS strongly recommends that states developing guidelines for qualification under limit 8 contact NMFS early on to discuss the content of the guidelines. While NMFS staff will generally not be available to provide intensive technical support, developmental drafts should be shared with NMFS and resulting recommendations incorporated.

As a submittal package nears completion, the state should coordinate closely with NMFS technical staff to ensure that the guidelines, as submitted, are likely to be approved. Guidelines that NMFS' biologists are familiar with and believe will conserve listed salmon habitat can move more rapidly to the *Federal Register* notice and comment stage of the qualification process.

The Submittal Package

A state submitting guidelines for qualification under habitat restoration limit for must send a written request to the Regional Administrator (RA) that includes:

- (1) A cover letter from an appropriate State official requesting qualification of the State's guidelines under limit 8.
- (2) The guidelines themselves.
- (3) Affirmative conclusions regarding how the guidelines will provide for plans that meet the ten criteria in the final rule (A-J) and their supporting analyses.

Qualification Process

The RA will provide NMFS' findings in a response letter to the submittal. Such letters may be signed by the RA or by an Assistant Regional Administrator and may either approve or disapprove the submittal.

Letters of approval must be preceded by notification in the *Federal Register* announcing the availability of the guidelines for public review and a 30-day (minimum) comment period. Comments received may be shared with the state. The guidelines may subsequently be approved with minor modifications based upon the comments received. Major modifications to the guidelines will require another *Federal Register* notice and comment period before the program can be approved.

NMFS' Assistance

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS					
Торіс/Туре оf Астіvіту	NMFS Division	For More Information			
 Habitat Restoration Routine Road Maintenance Activities City of Portland Integrated Pest Management Municipal, Residential, Commercial and Industrial Development (and Redevelopment) Washington State Forest Practices Section 10 Incidental Take Permit Section 7 Consultation 	Habitat Conservation	State of Washington — Steve Landino (360/753-6054)State of Oregon Michael Tehan (503/231-2224)State of Idaho Ted Meyers (208/378-5698)State of California — Craig Wingert (562/980-4021) Patrick Rutten (707/575-6059) Mike Accituno (916/498-6498)			

Limit No. 9: Water Diversion Screening

Summary of the Limit

Water diversions that operate without adequate screening are widely known to kill salmon and steelhead. Juveniles may be sucked or attracted into diversion ditches where they later die from a variety of causes (e.g., stranding). Adult and juvenile migration may be impaired by diversion structures such as push-up dams. Juveniles are often injured or killed when caught in pumping facilities or forced against screens.

State laws and Federal programs have long recognized these problems in various ways and have encouraged or required adequate screening on diversion ditches and structures. Nonetheless, large numbers of diversions are not adequately screened and thus remain a threat, particularly to juvenile fish. Eliminating that source of injury or death is vital to conserving listed stocks.

The final rule encourages all diverters to move quickly to provide adequate screening or other protections for their diversions. The rule does not apply take prohibitions provided that NMFS' engineering staff—or any resource agency or tribal representative NMFS designates as an authorized officer—has agreed in writing that the diversion facility is screened, maintained, and operated in compliance with NMFS' Juvenile Fish Screening Criteria or, in California, in compliance with NMFS' Southwest Region Fish Screening Criteria for Anadromous Salmonids (see page 9-7). If a diversion is screened, operated, and maintained in a manner consistent with those criteria, adequate safeguards will be in place and no additional Federal protection is necessary or advisable for conserving listed fish.

The final rule provides that NMFS or its authorized officer may review and approve for a take limit any proposed juvenile fish screen design and construction plan. The plan must describe interim operation measures that will avoid taking listed fish.

In all cases, it is assumed that the critical life stage to be protected are emergent fry (fork length less than 60 millimeters), unless verifiable site-specific data are provided showing that this assumption is not valid. Receiving a take limit for installing a NMFS-certified screen means that a water diverter will not be subject to NMFS take enforcement *in their water diversion*, provided that the screen is maintained and operated as specified in the certification. Other activities, such as de-watering habitat, blocking adult fish migration, adversely modifying riparian habitat, to name a few, are still subject to take enforcement or third party law suits.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still

has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations. If a water diversion screen is permitted via an alternative ESA mechanism, i.e. section 7 consultation, then a 4(d) limit is not needed.

NMFS' Certified Design Reviewers

NMFS' engineering staff has been delegated the responsibility for ascertaining and certifying that a proposed screen design or existing screen will meet NMFS' juvenile fish screen criteria before a water diverter can qualify for a take limit under the 4(d) rule. Therefore they should be contacted when anyone considers installing a new screen in critical habitat. Normally, NMFS' engineers will be part of the screen design team and will seek to produce a certifiable screen design, but their involvement may be restricted due to staffing limitations. Because NMFS' engineers will not always be available, NMFS intends to solicit a number of well-qualified state and Federal engineers for their assistance in the design and certification process. NMFS could thus certify screens in an expedited process by having these individuals write a letter recommending certification-along with a completed NMFS design features checklist. NMFS plans to provide notification by letter to the engineers currently authorized to recommend screen design certification. In addition, state or Federal agencies can request that their engineers be considered for authorization to recommend certification and NMFS will consider these requests on a case by case basis. NMFS may require such individuals to attend a training session before they can be authorized to review designs for screen certification. Submittals for this authorization should be sent to the points of contacts given at the end of this chapter.

NMFS' Certified Screen Inspectors

The process for inspecting screens and certifying inspectors is the same as that given above for design review and authorizing reviewers, except that in addition to engineers, other state and federal experts in screen design will be solicited for their assistance.

Regulatory Description of the Limit

From 50 CFR 223.203(b)(9):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102(a)(5) through (a)(10), (a)(12), through (a)(19) do not apply to the physical diversion of water from a stream or lake, provided that:

(i) NMFS' engineering staff or any resource agency or tribe NMFS designates (authorized officer) 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, or in California with NMFS' Southwest Region "Fish Screening Criteria for Anadromous Salmonids, January 1997" or any subsequent revision.

(ii) The owner or manager of the diversion allows 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) On a case by case basis, NMFS or an Authorized Officer will review and approve a juvenile fish screen design and construction plan and schedule that the water diverter proposes for screen installation. The plan and schedule will describe interim operation measures to avoid take of threatened salmonids. NMFS may require a commitment of compensatory mitigation if implementation of the plan and schedule is terminated prior to completion. If the plan and schedule are not met, or if a schedule modification is made that is not approved by NMFS or Authorized Officer, or if the screen installation deviates from the approved design, the water diversion will be subject to take prohibitions and mitigation.

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

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)

South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Submittal Instructions



New Screens—Certification Process

- (1) The applicant initiates this process by sending NMFS a request indicating intent to install new juvenile fish screens. The applicant may want to request a copy of the appropriate NMFS juvenile fish screen criteria for the proposed screen installation. Note that NMFS juvenile fish screen criteria varies slightly between the Northwest Region (Idaho, Washington and Oregon) and the Southwest Region (California) due to regional sitespecific constraints, so it is necessary to be sure that the correct criteria are being used.
- (2) The applicant then develops—usually with the assistance of state or Federal engineers or an engineering consulting firm experienced in juvenile fish screen design—a site-specific screen design that meets NMFS' juvenile fish screen criteria for their water diversion. NMFS may help design the screen, depending on available personnel.
- (3) If the applicant (or their consultant) has designed the screen, they then send it to NMFS for review. If the applicant has developed the screen design in consultation with a NMFS-certified screen design reviewer (described above), the design reviewer sends NMFS a letter recommending certification along with a completed design features checklist. In either case, NMFS must also be sent a schedule for construction. Depending on the schedule and on the potential for adverse impacts on listed fish, NMFS may require that interim mitigation measures be implemented until the screen is installed and operational.
- (4) Once NMFS has approved the screen design, and if the construction schedule and interim mitigation (if required) are acceptable to both NMFS and the applicant, then NMFS will grant a temporary certification that will expire at the end of the approved construction schedule unless NMFS approves an extension in writing.
- (5) If the submitted design does not meet NMFS' juvenile fish screen criteria, the design reviewer will send the applicant a deficiency list in writing. The list will identify a NMFS contact person to discuss needed design corrections. After reviewing the deficiency list and making any needed corrections, the applicant re-submits the design for review.
- (6) Once NMFS concurs with the design, they will send the applicant a screen certification letter. It will include screen operating criteria, an operation and maintenance schedule, and a site inspection schedule. If the applicant accepts the terms of the certification and installs and operates the screen as certified, the applicant will receive a limit on take for the certified screen.

Existing Screens—Certification Process

For a juvenile fish screen or a water diversion to qualify for a take limit, NMFS' engineering staff must certify that existing screens meet the criteria appropriate for their region (see page 9-7). As

with the new screen design certification process, NMFS-authorized engineers can recommend existing screens for certification.

- (1) First, an applicant asks NMFS for a design features checklist for existing screens. Then—based on site investigation by NMFS, the applicant, or by NMFS-certified screen inspectors—the design features inspection sheet will be filled out and submitted to NMFS along with the proposed screen operating criteria, an operation and maintenance plan, and a site inspection schedule. NMFS will review, and either:
 - (a) Concur that the screen meets applicable criteria and send the applicant a screen certification letter along with screen operating criteria, an operation and maintenance schedule, and a site inspection schedule. If the applicant accepts the terms of the certification and installs and operates the screen as certified, the applicant will receive a limit on take for the certified screen; or
 - (b) Send the applicant a deficiency letter specifying where the screen is deficient or where further information is needed for analysis; design modifications may be specified or recommended. After the applicant considers this, the applicant will develop a schedule for correcting the deficiencies and send it to NMFS. If NMFS finds the proposed corrections and schedule acceptable, we may require interim mitigation—depending on the site-specific analysis. If the schedule and interim mitigation are acceptable to both NMFS and the applicant, a temporary certification will be granted. However, the term of the temporary exception will expire at the end of the approved construction schedule unless NMFS approves an extension; or
 - (c) If the screen cannot be modified, a replacement will be required and the process described for new screens must be followed.
- (2) In rare cases, screens may be certified that were installed before 1995 and constructed with designs based on the 1989 version of NMFS' juvenile fish screen criteria. However, such screens must meet *all* of the following conditions.
 - (a) The entire screen facility is still functioning as designed.
 - (b) The entire screen facility has been maintained and is in good working condition.
 - (c) When the screen mesh wears out, it will be replaced by mesh meeting the current criterion for mesh opening sizes.
 - (d) The facility has not been shown to kill, injure, entrain, impinge, delay, or cause other harm to anadromous fish.
 - (e) No emergent fry are likely to be located in the vicinity of the screen (according to state or Federal biologists familiar with the site).
 - (f) When biological uncertainty exists, the diverter will permit state or Federal fisheries to have access to the site.

NMFS must have documentation showing that the above conditions are being met and are acceptable to the water diverter. This documentation must include a dated original design drawing, a current photograph of the installed screen, a completed NMFS' design summary check sheet, and an inspection by NMFS-certified inspectors (as described below). NMFS'

design summary check sheet form can be obtained from the contact people listed at the end of the chapter.

Inspection, Operations, and Maintenance

Various Federal and state agencies have screen inspection and operations and maintenance programs already in place that ensure quality operation of screen installations. Where such programs exist, the operating agency can file an operation, inspection, and maintenance protocol with NMFS. If it is found acceptable, it will serve as part of NMFS' certification.

A NMFS-approved inspection, operations, and maintenance plan must accompany every screen certification letter from NMFS; it must be rigorously followed to maintain screen certification and thus retain the take limitation that certification allows. To retain certification, a screen needs to have a written operations and maintenance program and the screen site must be made available for inspection by NMFS or NMFS-authorized agents on a regular basis. The terms of these programs will be provided with the screen certification letter, and can be adapted on a site-specific basis. Screen certification will lapse if the terms of the inspection, operation, and maintenance plan are not being followed.

NMFS' Submittal Review Criteria

NMFS' Juvenile Fish Screen Criteria will be used when reviewing submittals for this take limit.

For the Northwest Region (Oregon, Washington, and Idaho), these criteria can be found at: <u>http://www.nwr.noaa.gov/1hydrop/pumpcrit1.htm</u> (pumped intakes), or <u>http://www.nwr.noaa.gov/1hydrop/nmfscrit1.htm</u> (gravity flow intakes).

For the Southwest Region (California), these criteria can be found at: <u>http://swr.ucsd.edu/habitat.htm</u>

In addition, copies of these criteria can be obtained from the contacts listed below.

NMFS' Authorization/Notification Process

If a juvenile fish screen is certified to meet NMFS' juvenile fish screen criteria and qualifies for this take limit, a letter will be issued to the applicant and the certification will be recorded in NMFS' administrative record.

NMFS' Assistance

Additional guidance or assistance regarding this limit can be obtained by contacting:

Bryan Nordlund, P.E. Branch Chief, FERC and Water Diversions Branch National Marine Fisheries Service 525 NE Oregon Street, Room 500 Portland, Oregon 97232 Phone: (503) 231-6816 Fax: (503) 231-2318 E-mail: <u>bryan.nordlund@noaa.gov</u>

In California:

Richard Wantuck Engineering Team Leader National Marine Fisheries Service 777 Sonoma Avenue #325 Santa Rosa, CA 95403 Phone: (707/575-6063) E-mail: richard.wantuck@noaa.gov

Limit No. 10: Routine Road Maintenance

Summary of the Limit

NMFS does not find it necessary or advisable to apply take prohibitions to routine road maintenance activities provided that: (1) The activity constitutes routine road maintenance conducted by Oregon Department of Transportation (ODOT) employees (or their agents) that complies with ODOT's *Transportation Maintenance Management System Water Quality and Habitat Guide* (July, 1999); or (2) it is conducted by the employees or agents of a state, county, city, or port under a program that complies substantially with the ODOT Guide and has been determined to meet or exceed the protections provided by the ODOT Guide; or (3) it is conducted by the employees or agents of a state, county, city, or port in a manner that has been found to contribute to properly functioning condition (PFC).

The ODOT's maintenance and environmental staff have worked with NMFS to develop a routine road maintenance program that works well within the mandates 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 by minimizing the impacts that a range of routine maintenance activities have on receiving streams.

For a state, city, county, or port program that is equivalent to the ODOT program (or any of its amendments) to qualify under limit 10, it must be approved in writing by NMFS' Northwest or Southwest Regional Administrator, whichever is appropriate. Any jurisdiction desiring its routine road maintenance activities to qualify under this limit must have adopted road maintenance guidelines equivalent to or better than the ODOT program and commit in writing to apply these management practices.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(10):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102 (a)(5) through (a)(10), and (a)(12) through (a)(19) do not apply to routine road maintenance activities provided that:

(i) The activity results from routine road maintenance activity conducted by ODOT employees or agents that complies with ODOT's Transportation Maintenance Management System Water Quality and Habitat Guide (July, 1999); or by employees or agents of a state, county, city or port that complies with a program substantially similar to that contained in the ODOT Guide that is determined to meet or exceed the protections provided by the ODOT Guide; or by employees or agents of a state, county, city or port that complies with a routine road maintenance program that meets proper functioning habitat conditions as described further in subparagraph (ii) following. NMFS' approval of state, city, county, or port programs that are equivalent to the ODOT program, or of any amendments, shall be a written approval by NMFS Northwest or Southwest Regional Administrator, whichever is appropriate. Any jurisdiction desiring its routine road maintenance activities to be within this limit must first commit in writing to apply management practices that result in protections equivalent to or better than those provided by the ODOT Guide, detailing how it will assure adequate training, tracking, and reporting, and describing in detail any dust abatement practices it requests to be covered.

(ii) NMFS finds the routine road maintenance activities of any state, city, county, or port to be consistent with the conservation of listed salmonids' habitat when it contributes, as does the ODOT Guide, to the attainment and maintenance of properly functioning condition (PFC). NMFS defines PFC as the sustained presence of natural habitat-forming processes that are necessary for the long-term survival of salmonids through the full range of environmental variation. Actions that affect salmonid habitat must not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the longterm progress of impaired habitat toward PFC. Periodically, NMFS will evaluate an approved program for its effectiveness in maintaining and achieving habitat function that provides for conservation of the listed salmonids. Whenever warranted, NMFS will identify to the jurisdiction ways in which the program needs to be altered or strengthened. Changes may be identified 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 any jurisdiction within the limit does not make changes to respond adequately to the new information in the shortest amount of time feasible, but not longer than one year, NMFS will publish notification in the Federal Register announcing its intention to withdraw the limit so that take prohibitions would then apply to the program as to all other activity not within a limit. Such an announcement will provide for a comment period of no less than 30 days, after which NMFS will make a final determination whether to subject the activities to the ESA section 9(a)(1)prohibitions.

(iii) Prior to implementing any changes to a program within this limit the jurisdiction provides NMFS a copy of the proposed change for review and approval as within this limit.

(iv) Prior to approving any state, city, county, or port program as within this limit, or approving any substantive change in a program within this limit, NMFS will publish notification in the Federal Register announcing the availability of the program or the draft changes for public review and comment. Such an announcement will provide for a comment period of not less than 30 days.

(v) Pesticide and herbicide spraying is not included within this limit, even if in accord with the ODOT guidance."

Submittal Instructions

Early Involvement

NMFS strongly recommends that entities considering submitting a program for qualification under a 4(d) limit contact NMFS early to discuss the substance of their program, its appropriateness for coverage under a particular limit, and relevant references for effects analysis and conservation planning. NMFS can also provide information regarding the priority that a particular submittal might receive, and may suggest pursuing ESA coverage under § 7 or § 10 or a larger-scope 4(d) submittal. NMFS will generally not be able to provide intensive technical support for conservation planning or effects analysis. Entities thinking of applying should have professional biological staff members (or contractors) analyze the effects their programs are likely to have on listed salmon and their habitat and should modify those programs (as needed) to ensure that salmon are conserved.

As a submittal package nears completion, the applicant should coordinate closely with NMFS technical staff to ensure that the program, as submitted, is likely to be approved. Submittals for programs that NMFS' biologists are familiar with and believe will conserve listed salmon habitat can move more rapidly to the *Federal Register* notice and comment stage of the qualification process.

The Submittal Package

Limit 10 for routine road maintenance activities applies to ODOT's routine road maintenance program outright with no additional findings needed, unless that program is changed in a way that could affect listed salmon habitat.

The limit provides two routes for other road maintenance programs to qualify for the limit. The first is provided in (10)(i) and is based upon a road maintenance program being substantially similar to the ODOT guide and meeting or exceeding its protections. This route may be most useful to counties and municipalities within Oregon. All elements of the application package described below should be well developed, but it should place particular emphasis on element 7-information and analyses that demonstrate equivalence or better with ODOT's guide.

An application package for qualification under (10)(i) shall include:

- (1) A cover letter from an appropriate official to the Regional Administrator (RA) requesting qualification of the program pursuant to (10)(i).
- (2) A detailed description of the program to be considered and all covered activities. Identification of the responsible entity and legal authority for the program should be included.
- (3) A description of the specific geographic area to which the program applies or within which covered activities are conducted, and any designated critical habitat that may be affected by the activities. Maps with appropriate data layers should be included. Existing habitat quality and quantity (*i.e.*, the environmental baseline) should be illustrated in

terms of migration barriers, structural elements, channel characteristics, water quality, instream flow, riparian condition, and watershed health.

- (4) A description of any listed species that may be affected by the activities, and their distribution and status within the program area.
- (5) Relevant reports, including any environmental impact statement, environmental assessment, or biological assessment prepared; and any other relevant available information on the program, the affected listed species, or critical habitat.
- (6) A detailed description of how the program will assure adequate training, tracking, and reporting, and a detailed description of any included dust abatement practices.
- (7) An affirmative conclusion that the program is substantially similar to and at least as protective as ODOT's program in its implementation. And all specific information and analyses necessary to support that conclusion.

The second route is provided in (10)(ii) and requires an original analysis of consistency with PFC. This route will probably be most useful to states other than Oregon and to counties and municipalities within those states where it will be impractical or inappropriate to adopt ODOT's guide. All elements of the submittal package described below should be well developed, but it should place particular emphasis on element 5—the effects analysis. The applicant must provide an original analysis concluding that the program will "not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC." In order for the program to qualify, NMFS must be able to find that the analysis is scientifically credible and supports the conclusion.

An application package for qualification under (10)(ii) shall include:

- (1) A cover letter from an appropriate official to the RA requesting qualification of the program pursuant to (10)(ii).
- (2) A detailed description of the program to be considered and all covered activities. Identification of the responsible entity and legal authority for the program should be included.
- (3) A description of the specific geographic area to which the program applies or within which covered activities are conducted, and any designated critical habitat that may be affected by the activities. Maps with appropriate data layers should be included. Existing habitat quality and quantity (*i.e.*, the environmental baseline) should be illustrated in terms of migration barriers, structural elements, channel characteristics, water quality, instream flow, riparian condition, and watershed health.
- (4) A description of any listed species that may be affected by the activities, and their distribution and status within the program area.
- (5) A description of the manner in which the activities may affect listed species or critical habitat, and an analysis of the effects of the program on those species and habitats—including short-term and long-term effects, indirect and cumulative effects.
- (6) Relevant reports, including any environmental impact statement, environmental assessment, or biological assessment prepared; and any other relevant available information on the program, the affected listed species, or critical habitat.

(7) An affirmative conclusion that the program will not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC. That conclusion should be clearly supported by the effects analysis of #5, above.

Effects Analysis

There is more than one scientifically credible analytical framework for determining an activity's effect, and NMFS will accept any scientifically credible analysis. However, NMFS has developed a default analytic methodology (*Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale*, NMFS, 1996) that applicants may want to consider when looking for an analytical model. It is often referred to as the Matrix of Pathways and Indicators, or MPI. In the MPI framework, the pathways for determining the effect of an action are represented as six conceptual groupings (*e.g.*, water quality, channel condition) of 18 habitat condition indicators (*e.g.*, temperature, width/depth ratio). Indicator criteria (mostly numeric, though some are narrative) are provided for three levels of environmental baseline condition: Properly functioning, at risk, and not properly functioning. The effect of the action upon each indicator is classified by whether it will restore, maintain, or degrade the indicator.

Although the indicators used to assess functioning condition may entail instantaneous measurements, they are chosen, using the best available science, to detect the health of underlying processes, not static characteristics. "Best available science" advances through time. This advance allows PFC indicators to be refined, new threats to be assessed, and species' status and trends to be better understood. River habitats are inherently dynamic, and the PFC concept recognizes that natural patterns of habitat disturbance will continue to occur. Floods, landslides, windstorms, and fires all result in spatial and temporal variability in habitat characteristics, as do human activities. Unique physiographic and geologic features may cause PFC indicators to vary between different landscapes. For example, aquatic habitats on timberlands in glacial mountain valleys are controlled by natural processes operating at different scales and rates than are habitats on low-elevation coastal rivers. The MPI provides a consistent, but geographically adaptable, framework for making effect determinations. The pathways and indicators, as well as the ranges of their associated criteria, may be altered through the watershed analysis process.

Regardless of the analytical method used, if a proposed action is likely to impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC, it cannot be found consistent with conserving the species. If a program preserves existing habitat function levels, and allows natural progression towards PFC where habitat is impaired, NMFS may determine that it qualifies.

NMFS defines PFC as the sustained presence of natural habitat-forming processes (*e.g.*, hydraulic runoff, bedload transport, channel migration, riparian vegetation succession) that are necessary for the long-term survival and recovery of the species (*The Habitat Approach*, NMFS, 1999). PFC constitutes the habitat aspects of a species' biological requirements—providing the

essential physical features that support spawning, incubation, rearing, feeding, sheltering, migration, and other behaviors. Such features include adequate instream flow, pure cold water, loose gravel for spawning, unimpeded fish passage, deep pools, and abundant large tree trunks and root wads.

Qualification Process

Due to limited staff resources, NMFS will prioritize submittals for consideration. They may be prioritized for consideration based upon: Potential conservation benefit to listed fish, legal authority of the submitted program, the scopes of the submitted program, quality and completeness of the submittal package, apparent consistency with NMFS' published conservation standards, or other criteria.

The RA will provide NMFS' findings in a response letter to the submittal. Such letters may be signed by the RA or by an Assistant Regional Administrator and may either approve or disapprove the submittal.

Letters of approval must be preceded by notification in the *Federal Register* announcing the availability of the program for public review and a 30-day (minimum) comment period. Comments received may be shared with the applicant. The program may subsequently be approved with minor modifications based upon the comments received. Major modifications to the program will require another *Federal Register* notice and comment period before the program can be approved.

NMFS' Assistance

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS						
TOPIC/TYPE OF ACTIVITY	NMFS DIVISION	FOR MORE INFORMATION				
•Habitat Restoration	Habitat	State of Washington				
•Routine Road Maintenance Activities	Conservation	Steve Landino (360/753-6054)				
•City of Portland Integrated		State of Oregon				
Pest Management		Michael Tehan (503/231-2224)				
•Municipal, Residential,						
Commercial and Industrial		State of Idaho				
Development (and		Ted Meyers (208/378-5698)				
Redevelopment)						
•Washington State Forest		State of California				
Practices		Craig Wingert (562/980-4021)				
•Section 10 Incidental Take		Patrick Rutten (707/575-6059)				
Permit		Mike Aceituno (916/498-6498)				
•Section 7 Consultation						
Limit No. 11: Portland Parks Integrated Pest Management

Summary of the Limit

The City of Portland, Oregon's Parks and Recreation Department (PP&R) operates a diverse system of city parks representing a full spectrum of urban habitat— from intensively managed recreation, sport, golf, and garden sites to largely natural, unmanaged parks (including the several-thousand acre, wooded, Forest Park). The PP&R has been operating and refining an integrated pest management program for 10 years; one if its primary goals is to reduce its use of pesticides. The program's "decision tree" places first priority on preventing pests (weeds, insects, disease) through policy, planning, and avoidance measures (design and plant selection). Cultural and mechanical practices, trapping, and biological controls form the second priority. The use of biological products and, finally, chemical products, is to be considered last. The overall program affects only a small portion of the land base and waterways in Portland and strives to minimize any impacts on listed fish that might result from chemical applications on that limited land base.

After carefully analyzing PP&R's integrated program for pest management, NMFS concludes that it addresses potential impacts and provides adequate protection for listed fish. NMFS does not find it necessary or advisable to apply additional Federal protections in the form of take prohibitions to PP&R activities conducted under the Pest Management Program. Take prohibitions would not meaningfully increase the level of protection listed fish receive.

Confining the limit on take prohibitions to a specified list of chemicals does not indicate that NMFS has determined that other chemicals PP&R employs will necessarily harm salmon and steelhead. NMFS intends to continue working with PP&R on the use of any other herbicide or pesticide.

The PP&R program includes a variety of monitoring commitments and a yearly assessment schedule. If, at any time, monitoring information, new scientific studies, or new techniques cause PP&R to amend its program or if PP&R and NMFS wish to change the list of chemicals receiving limits on take prohibitions, PP&R must provide NMFS with a copy of the proposed change(s) for review. NMFS will publish a notice in the *Federal Register* requesting public comment on the proposed changes. The comment period will be no less than 30 days; at its conclusion, NMFS will make a final determination on whether the changes will conserve listed salmon and steelhead.

Affected ESUs

Lower Columbia River steelhead (63 FR 13347, March 19, 1998) Lower Columbia River chinook salmon (64 FR 14308, March 24, 1999) Columbia River chum salmon (64 FR 14508, March 25, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(11):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102 (a)(5) through (a)(10), and (a)(12) through (a)(19) do not apply to activities within the City of Portland, Oregon Parks and Recreation Department's (PP&R) Pest Management Program (March 1997), including its Waterways Pest Management Policy dated December 1, 1999, provided that:

(i) Use of only the following chemicals is included within this limit on the take prohibitions: Round Up, Rodeo, Garlon 3A, Surfactant LI-700, Napropamide, Cutrine Plus, and Aquashade.

(ii) Any chemical use is initiated in accord with the priorities and decision process of the Department's Pest Management Policy, updated December 1, 1999.

(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 (update December 1, 1999).

(iv) Prior to implementing any changes to this limit, the PP&R provides NMFS with a copy of the proposed change for review and approval as within this limit.

(v) Prior to approving any substantive change in a program within this limit, NMFS will publish notification in the Federal Register announcing the availability of the program or the draft changes for public review and comment. Such an announcement will provide for a comment period of no less than 30 days.

(vi) NMFS' approval of amendments shall be a written approval by NMFS Northwest Regional Administrator.

(vii) NMFS finds the PP&R Pest Management Program activities to be consistent with the conservation of listed salmonids' habitat by contributing to the attainment and maintenance of properly functioning condition (PFC). NMFS defines PFC as the sustained presence of a watershed's natural habitat-forming processes that are necessary for the long-term survival of salmonids through the full range of environmental variation. Actions that affect salmonid habitat must not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC. Periodically, NMFS will evaluate the effectiveness of an approved program in maintaining and achieving habitat function that provides for conservation of the listed salmonids. Whenever warranted, NMFS will identify to the jurisdiction ways in which the program needs to be altered or strengthened. Changes may be identified 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 any jurisdiction within the limit does not make changes to respond adequately to the new information in the shortest amount of time

feasible, but not longer than one year, NMFS will publish notification in the Federal Register announcing its intention to withdraw the limit so that take prohibitions would then apply to the program as to all other activity not within a limit. Such an announcement will provide for a comment period of no less than 30 days, after which NMFS will make a final determination whether to subject the activities to the ESA section 9(a)(1) prohibitions."

Submittal Instructions

There are no submittal instructions under this limit. This limit is only available to the City of Portland Parks and Recreation Department.

Qualification Process

The PP&R integrated pest management limit will require no findings, unless the program is substantively changed in the future. The finding of sufficiency required at (11)(vii) has already been made for the program as it is currently constituted. Unlike the other limits, the PP&R limit is not "plug and play," or extendable to other similar programs. The PP&R's integrated pesticide management program applies to a limited geography with a narrow range of uses, and is quite conservative. The limit and its supporting analysis were deemed too individual to be useful as a broader pesticide use limit. The amount of scientific information regarding pesticide effects upon salmon has been inadequate in the past, but it is expected to greatly improve over the next several years. Consequently, NMFS was unprepared to include a general pesticide limit in this rule.

NMFS' Assistance

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS				
TOPIC/TYPE OF ACTIVITY	NMFS DIVISION	FOR MORE INFORMATION		
•Habitat Restoration	Habitat	State of Washington		
•Routine Road Maintenance Activities	Conservation	Steve Landino (360/753-6054)		
•City of Portland Integrated		State of Oregon		
Pest Management		Michael Tehan (503/231-2224)		
 Municipal, Residential, 				
Commercial and Industrial		State of Idaho		
Development (and		Ted Meyers (208/378-5698)		
Redevelopment)				
 Washington State Forest 		State of California —		
Practices		Craig Wingert (562/980-4021)		
 Section 10 Incidental Take 		Patrick Rutten (707/575-6059)		
Permit		Mike Aceituno (916/498-6498)		
•Section 7 Consultation				

Limit No. 12: Municipal, Residential, Commercial and Industrial Development and Redevelopment (MRCI)

Summary of the Limit

As a general matter, MRCI development (and redevelopment) have a significant potential to degrade salmonid habitat and to injure or kill salmonids in a variety of ways. With appropriate safeguards, MRCI development can be specifically tailored to minimize impacts on listed salmonids to the extent that additional Federal protections would not be needed to conserve the listed ESU. Through the final rule, NMFS identifies a mechanism whereby cities, counties, and regional governments can ensure that MRCI development and redevelopment authorized within those areas is consistent with ESA requirements. Developers and their authorizing jurisdictions alike would benefit from the assurance that their actions conserve listed salmon and steelhead.

One example of an authorizing entity working toward the sort of plan envisioned in this limit is Metro, the regional governing body of the Portland metropolitan area, which prohibits development outside of an adopted urban growth boundary (UGB). Metro is in the process of bringing some large areas currently designated as urban reserve areas into the UGB. Before development may commence in these 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. The amendments must show what development will be allowed and the conditions to be placed upon that development.

Take prohibitions do not apply to MRCI development or redevelopment governed by and conducted in accordance with city, county, or regional government ordinances or plans that NMFS has found to adequately protect listed species. NMFS must agree in writing that the MRCI development ordinances and plans ensure that the development activities complying with them will conserve listed salmon and steelhead. NMFS will individually apply the following 12 evaluation considerations when determining whether MRCI development ordinances or plans adequately conserve listed fish.

(1) An MRCI development ordinance or plan ensures that development will avoid inappropriate areas such as unstable slopes, wetlands, areas of high habitat value, and similarly constrained sites. Activities such as development, timber harvest, or other soil disturbance should be sited in appropriate areas—avoiding unstable slopes, wetlands, areas already in a proper functioning condition, areas that are more functional than neighboring sites, and areas with the potential to be fully restored. A description of particularly sensitive areas is included in the April 29, 1999, Forests and Fish Report (FFR) to Governor Locke. Those sites include but are not limited to soils perennially saturated from a headwall or a sideslope seep or spring, the permanent initiation point of perennial flow of a stream, an alluvial fan, and the intersection of two perennial streams.

- (2) An MRCI development ordinance or plan adequately prevents stormwater discharge impacts on water quality and quantity and stream flow patterns in the watershed—including peak and base flows in perennial streams. Stormwater management programs must require development activities to avoid impairing water quality and quantity. These activities must preserve or enhance stream flow patterns so they are as close as possible to the historic peak flows, base flows, durations, volumes, and velocities. This can be accomplished by reducing impervious surfaces and maintaining forest cover and natural soils. These conditions will, in turn, maintain essential habitat processes such as natural water infiltration rates, transpiration rates, stormwater run-off rates, sediment filtering, and provide hydrographic conditions that maintain and sustain aquatic life.
- (3) An MRCI development ordinance or plan protects riparian areas well enough to attain or maintain PFC around all rivers, estuaries, streams, lakes, deepwater habitats, and intermittent streams. Compensatory mitigation is provided, where necessary, to offset unavoidable damage to PFC in riparian management areas. Activities should be quite limited in areas adjacent to all perennial and intermittent streams and waters supporting listed salmon and steelhead in order to avoid soil disturbance and maintain vegetated riparian corridors.

Limiting activities in riparian areas helps protect or restore the condition and quality of soil and ensure that a diversity of plants and trees of all ages is well-distributed across a riparian area. Such conditions on the landscape contribute to the natural succession of riparian forest trees and protect the water quality and flow conditions necessary to meet salmonid habitat needs downstream. In urban areas, riparian areas often face the added challenge of intercepting large amounts of nutrients, pesticides, and sediment so that they do not directly enter a stream.

NMFS' determinations are significantly influenced by science indicating that essential habitat functions are affected to varying (but significant) degrees by streamside activities conducted within a distance equal to the height of the tallest tree that can grow on that site (known as the site potential tree height). The distance is measured not from the stream itself, but from the edge of the area within which a stream naturally migrates back and forth over time (the channel migration zone).

When the scope of an activity includes modifying a riparian site that has existing, non-native vegetation, it may be important to restore native vegetation on the site in order to recover the essential habitat functions discussed above.

(4) An MRCI development ordinance or plan avoids stream crossings—whether by roads, utilities, or other linear development—wherever possible and, where crossings must be provided, minimizes impacts. One method of minimizing stream crossings and their associated disturbances is to optimize transit opportunities to and within newly developing urban areas. A plan should consider whether potential stream crossings can

be avoided by redesigning access. Where a crossing is unavoidable, the plan or ordinance should minimize its affect 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 Oregon Department of Fish and Wildlife or Washington Department of Fish and Wildlife criteria (*ODFW's Oregon Road/Stream Crossing Restoration Guide, Spring, 1999 and WDFW's Fish Passage Design at Road Culverts, March 3, 1999*). In addition, all crossings must be regularly monitored and maintained, and intermittent and perennial streams should not be closed over.

(5) An MRCI development ordinance or plan adequately protects historic stream meander patterns and channel migration zones and avoids hardening stream banks and shorelines. Any MRCI development should be designed to allow streams to meander in historic patterns of channel migration. Activities on the landscape must protect conditions that allow gradual bank erosion, flooding, and channel meandering in the zone within which it would naturally occur. This natural channel migration promotes gravel recruitment, geomorphic diversity, and habitat development. If an adequate number of riparian management areas are linked to the channel migration zone, there should be no need for bank erosion control in all but the most unusual situations. In most circumstances, activities that call for hardening stream banks are not consistent with PFC.

If unusual circumstances require bank erosion to be controlled, it should be accomplished through vegetation or carefully bioengineered solutions. Rip-rap blankets or similar hardening techniques would not be allowed, unless particular site constraints made bioengineered solutions impossible. NMFS finds that the Washington Department of Fish and Wildlife's publication, "Integrated Streambank Protection Guidelines" (June, 1998) can provide sound guidance, particularly regarding mitigation for gravel recruitment.

The Fish and Forest Report (cited above) includes a detailed description of the types of channel migration zones found in most geomorphic settings. Further, the Washington State Forest Practices Board has published its *Standard Method for Measuring Physical Parameters of Streams and Channel Migration Zones (March, 2000)*. Though it is designed for the forested environment, NMFS finds the document a useful aid in determining channel migration zones in any setting.

(6) An MRCI development ordinance or plan adequately protects wetlands, wetland buffers, and wetland function—including isolated wetlands. Activities on the landscape must protect wetlands and the vegetation surrounding them to avoid disturbing soils, vegetation, and local hydrology. Such conditions on the landscape contribute to the natural succession of wetlands and protect wetland functions needed to meet salmonid habitat requirements such as food chain support, shoreline protection, water purification, storm and flood water storage, and groundwater recharge. These conditions are also needed to protect the freshwater, marine, and estuarine wetland systems that provide vital habitat for rearing and migrating salmon and steelhead.

- (7) An MRCI development ordinance or plan adequately preserves permanent and intermittent streams' ability to pass peak flows. Activities that decrease a stream's hydrologic capacity by filling in its channel for road crossings or other development will increase water velocities, flood potential, and channel erosion, as well as degrade water quality, disturb soils and groundwater flows, and harm vegetation adjacent to the stream. Preserving hydrologic capacity provides conditions on the landscape needed for maintaining essential habitat processes such as water quantity and quality, streambank and channel stability, groundwater flows, and succession of riparian vegetation. This means that dredge and fill operations should be avoided unless they are conducted in conjunction with a necessary stream crossing whose impacts are mitigated to the greatest extent possible.
- (8) An MRCI development ordinance or plan stresses landscaping with native vegetation to reduce the need to water and apply herbicides, pesticides, and fertilizer. Plans must describe the techniques that local governments will use to encourage planting with native vegetation, reducing lawn area, and lowering water use. These provisions will maintain essential habitat processes by helping conserve water and reduce flow demands that compete with fish needs. They will also reduce the amount of chemicals contributing to water pollution.
- (9) An MRCI development ordinance or plan contains provisions to prevent erosion and sediment run-off during (and after) construction and thus prevents sediment and pollutant discharge to streams, wetlands, and other water bodies that support listed salmonids. These provisions, at a minimum, should include detaining flows, stabilizing soils, protecting slopes, stabilizing channels and outlets, protecting drain inlets, maintaining Best Management Practices (BMPs), and controlling pollutants. These goals can be accomplished by applying seasonal work limits, performing land-clearing activities in phases, maintaining undisturbed native top soil and vegetation, etc. Doing this will help maintain natural runoff rates and protect water quality.
- (10) An MRCI development ordinance or plan ensures that demands on the water supply can be met without affecting—either directly or through groundwater withdrawals—the flows that threatened salmonids need. A plan must ensure that any new water diversions are positioned and screened in a way that prevents salmonid injury or death.
- (11) An MRCI development ordinance or plan provides mechanisms for monitoring, enforcing, funding, reporting, and implementing its program. Moreover, formal plan evaluations should take place at least once every five years. The plan should make a commitment to (and assign responsibility for) regular monitoring and maintenance activities for any detention basins, erosion and sediment control measures, and other management tools over the long term. Practices should be adapted, as needed, based on monitoring results. In addition, to ensure that development activities comply with the ordinance or plan and that PFC is attained or maintained, commitments must be made for regular funding, enforcement, reporting, implementation, and plan evaluations. These

commitments are vital to maintaining the whole suite of essential habitat processes for salmonids.

(12) An MRCI development ordinance or plan complies with all other state and Federal environmental and natural resource laws and permits.

NMFS concludes that development governed by ordinances or plans that fulfill the above considerations will address the potential negative impacts on salmon and steelhead associated with development and redevelopment. With these circumstances, a plan will contain sufficient safeguards that NMFS would not find it necessary or advisable to impose additional Federal protections through the take prohibitions.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

A total of 14 ESUs (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Snake River Basin steelhead	Oregon Coast coho salmon
(62 FR 43937, August 18, 1997)	(63 FR 42587, August 10, 1998)
Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Upper Willamette River steelhead	Hood Canal summer-run chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Central California Coast steelhead	Puget Sound chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)

South-Central California Coast steelhead	Lower Columbia River chinook salmon
(62 FR 43937, August 18, 1997)	(64 FR 14308, March 24, 1999)
Central Valley, California steelhead	Upper Willamette River chinook salmon
(63 FR 13347, March 19, 1998)	(64 FR 14308, March 24, 1999)

Regulatory Description of the Limit

From 50 CFR 223.203(b)(12):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 223.102 (a)(5) through (a)(10), and (a)(12) through (a)(19) do not apply to municipal, residential, commercial and industrial (MRCI) development (including redevelopment) activities provided that:

(i) Such development occurs pursuant to city, county, or regional government ordinances or plans that NMFS has determined are adequately protective of listed species; or within the jurisdiction of the Metro regional government in Oregon and pursuant to ordinances that Metro has found comply with its Urban Growth Management Functional Plan (Functional Plan) following a determination by NMFS that the Functional Plan is adequately protective. NMFS approval or determinations about any MRCI development ordinances or plans, including the Functional Plan, shall be a written approval by NMFS Northwest or Southwest Regional Administrator, whichever is appropriate. NMFS will apply the following 12 evaluation considerations when reviewing MRCI development ordinances or plans to assess whether they adequately conserve listed salmonids by maintaining and restoring properly functioning habitat conditions:

(A) MRCI development ordinance or plan ensures that development will avoid inappropriate areas such as unstable slopes, wetlands, areas of high habitat value, and similarly constrained sites.

(B) MRCI development ordinance or plan adequately avoids stormwater discharge impacts to water quality and quantity, or to the hydrograph of the watershed, including peak and base flows of perennial streams.

(C) MRCI development ordinance or plan provides adequately protective riparian area management requirements to attain or maintain PFC around all rivers, estuaries, streams, lakes, deepwater habitats, and intermittent streams. Compensatory mitigation is provided, where necessary, to offset unavoidable damage to PFC due to MRCI development impacts to riparian management areas.

(D) MRCI development ordinance or plan avoids stream crossings by roads, utilities, and other linear development wherever possible, and where crossings must be provided, minimize impacts through choice of mode, sizing, and placement. (E) MRCI development ordinance or plan adequately protects historic stream meander patterns and channel migration zones and avoids hardening of stream banks and shorelines.

(F) MRCI development ordinance or plan adequately protects wetlands and wetland functions, including isolated wetlands.

(G) MRCI development ordinance or plan adequately preserves the hydrologic capacity of permanent and intermittent streams to pass peak flows.

(H) MRCI development ordinance or plan includes adequate provisions for landscaping with native vegetation to reduce need for watering and application of herbicides, pesticides and fertilizer.

(I) MRCI development ordinance or plan includes adequate provisions to prevent erosion and sediment run-off during construction.

(J) MRCI development ordinance or plan ensures that water supply demands 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) MRCI development ordinance or plan provides necessary enforcement, funding, reporting, and implementation mechanisms and formal plan evaluations at intervals that do not exceed five years.

(L) MRCI development ordinance and plan complies with all other state and Federal environmental and natural resource laws and permits.

(ii) The city, county or regional government provides NMFS with annual reports regarding implementation and effectiveness of the ordinances, including: any water quality monitoring information the jurisdiction has available; aerial photography (or some other graphic display) of each MRCI development or MRCI expansion area at sufficient detail to demonstrate the width and vegetation condition of riparian set-backs; information to demonstrate the success of stormwater management and other conservation measures; and a summary of any flood damage, maintenance problems, or other issues.

(iii) NMFS finds the MRCI development activity to be consistent with the conservation of listed salmonids' habitat when it contributes to the attainment and maintenance of PFC. NMFS defines PFC as the sustained presence of a watershed's habitat-forming processes that are necessary for the long-term survival of salmonids through the full range of environmental variation. Actions that affect salmonid habitat must not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC. Periodically, NMFS will evaluate an approved program for its effectiveness in maintaining and achieving habitat function that provides for conservation of the listed salmonids. Whenever warranted, NMFS will identify to the jurisdiction ways in which the program needs to be altered or strengthened. Changes may be identified 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 any jurisdiction within the limit does not make changes to respond adequately to the new information in the shortest amount of time feasible, but not longer than one year, NMFS will publish notification in the Federal Register announcing its intention to withdraw the limit so that take prohibitions would then apply to the program as to all other activity not within a limit. 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 the ESA section 9(a)(1) prohibitions.

(iv) Prior to approving any city, county, or regional government ordinances or plans as within this limit, or approving any substantive change in an ordinance or plan within this limit, NMFS will publish notification in the Federal Register announcing the availability of the ordinance or plan or the draft changes for public review and comment. Such an announcement will provide for a comment period of no less than 30 days."

Submittal Instructions

Early Involvement

NMFS strongly recommends that entities considering submitting a program for qualification under the MRCI limit contact NMFS early to discuss the substance of their program, its appropriateness for coverage under the limit, and relevant references for effects analysis and conservation planning. NMFS can also provide information regarding the priority that a particular submittal might receive, and may suggest pursuing ESA coverage under § 7 or § 10 or a larger-scope 4(d) submittal. NMFS will generally not be able to provide intensive technical support for conservation planning or effects analysis. Entities thinking of applying should have professional biological staff (or contractors) to analyze the effects of their programs upon listed salmon and their habitat and to modify those programs as necessary to provide for salmon conservation.

As a submittal package nears completion, the applicant should coordinate closely with NMFS technical staff to ensure that the program, as submitted, is likely to be approved. Submittals for programs that NMFS' biologists are familiar with and believe will conserve listed salmon habitat can move more rapidly to the *Federal Register* notice and comment stage of the qualification process.

The Submittal Package

An application package for qualification under limit 12 for municipal, residential, commercial and industrial development and redevelopment shall include:

- (1) A cover letter from an appropriate official to the Regional Administrator (RA) requesting qualification of the submitted program pursuant to limit 12.
- (2) A detailed description of the program to be considered and all covered activities, including identification of the responsible entity and legal authority for the program.
- (3) A description of the specific geographic area to which the program applies or within which covered activities are conducted, and any designated critical habitat that may be affected by the activities. Maps with appropriate data layers should be included. Existing habitat quality and quantity (*i.e.*, the environmental baseline) should be illustrated in terms of migration barriers, structural elements, channel characteristics, water quality, instream flow, riparian condition, and watershed health.
- (4) A description of any listed species that may be affected by the activities, and their distribution and status within the program area.
- (5) A description of the manner in which the covered activities may affect listed species or critical habitat, and an analysis of the effects of the program on those species and habitats—including short-term and long-term effects, indirect and cumulative effects. This analysis should address each of the 12 considerations individually.
- (6) Relevant reports, including any environmental impact statement, environmental assessment, or biological assessment prepared; and any other relevant available information on the program, the affected listed species, or critical habitat.
- (7) An affirmative conclusion for each of the 12 considerations, and a general conclusion that the program will not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC. These conclusions should be explicitly supported by the effects analysis of #5, above.

Qualification Process

Because staff resources are limited, NMFS will prioritize the submittals being considered. They may be prioritized for consideration based upon: Potential conservation benefit to listed fish, legal authority of the submitted program, geographic scope of the submitted program, activity scope of the submitted program, quality and completeness of the submittal package, consistency with NMFS' recommendations and conservation standards, or other criteria.

The RA will provide NMFS' findings in a response letter to the submittal. Such letters may be signed by the RA or by an Assistant Regional Administrator and may either approve or disapprove the submittal.

Letters of approval must be preceded by notification in the *Federal Register* announcing the availability of the program for public review and a 30-day (minimum) comment period. Comments received may be shared with the applicant. The program may subsequently be approved with minor modifications based upon the comments received. Major modifications to the program will require another *Federal Register* notice and comment period before the program can be approved.

NMFS' Assistance

INFORMATION ABOUT 4(d) RULE PROGRAMS AND ESA PERMIT OPTIONS				
TOPIC/TYPE OF ACTIVITY	NMFS DIVISION	FOR MORE INFORMATION		
•Habitat Restoration	Habitat	State of Washington		
•Routine Road Maintenance Activities	Conservation	Steve Landino (360/753-6054)		
•City of Portland Integrated		State of Oregon		
Pest Management		Michael Tehan (503/231-2224)		
•Municipal, Residential,				
Commercial and Industrial		State of Idaho		
Development (and		Ted Meyers (208/378-5698)		
Redevelopment)				
 Washington State Forest 		State of California		
Practices		Craig Wingert (562/980-4021)		
•Section 10 Incidental Take		Patrick Rutten (707/575-6059)		
Permit		Mike Aceituno (916/498-6498)		
•Section 7 Consultation				

Limit No. 13: Forest Management in Washington

Summary of the Limit

In the State of Washington, NMFS worked for many months with timber industry representatives, tribes, state and Federal agencies, and various interest groups to develop a set of forest practices that could be included in Governor Locke's salmon recovery plan. The product of those discussions is the April 29, 1999, Forests and Fish Report (FFR) to Governor Locke. It recommends important improvements in forest practice regulation which, if codified by the Washington Forest Practices Board (Board) will protect and conserve listed fish. The FFR also mandates that all existing forest roads be inventoried for their potential to affect salmon and steelhead and that all needed improvements be completed within 15 years. The impacts that inadequately sited, constructed, or maintained forest roads have on salmonid habitat are well-documented. This feature alone will help a great deal in conserving listed ESUs in Washington.

After carefully considering the above features—as well as others described in greater detail below—NMFS has determined that it is not necessary to apply take prohibitions to non-Federal forest management activities conducted in the State of Washington provided that: (1) The action complies with adopted forest practice regulations that NMFS has found to protect habitat functions at least as well as the regulatory elements of the FFR; and (2) the activity also implements all non-regulatory elements of the FFR. Actions taken under alternative plans may be included under this limit provided that the Washington Department of Natural Resources (WDNR) finds that those plans protect physical and biological processes at least as well as the state forest practices rules and that NMFS, and any resource agency or tribe NMFS designates, has the opportunity to review each alternate plan at every stage of its development and implementation. Given these conditions, NMFS concludes that the FFR package is likely to conserve salmonids and their habitat well enough that it is neither necessary nor advisable to impose take prohibitions.

NMFS believes that in order to conserve listed fish, it is important to rapidly adopt and implement improved forest practice regulations such as those found in the FFR. NMFS will provide an opportunity for the public to review and comment on all regulations that implement the FFR before making any determinations on how well they conserve listed fish.

Although NMFS will continue working with Washington (and other states) on broadening this limit, at this time NMFS lacks information to determine that pesticide provisions in the FFR package sufficiently protect and conserve listed fish. Therefore, this limit does not extend to the use of herbicides, pesticides, or fungicides.

Elements of the FFR that protect and conserve listed salmonids are summarized below.

 It accurately classifies water bodies and makes stream typing information broadly available. It is tailored to protect and reinforce the functions and roles of different stream classes in the continuum of the aquatic ecosystem. These include fish-bearing streams—which may have either perennial or seasonal flow; perennial, non-fish-bearing streams—which include spatially intermittent streams; and seasonal, non-fish-bearing streams—which have a defined channel that contains flow at some time during the water year.

- (2) It lays out a plan for properly designing, maintaining, and upgrading existing, and new forest roads. As stated previously, this is an important means of maintaining and improving water quality and instream habitats. The FFR provisions address: Road construction and reconstruction in riparian areas and on potentially unstable slopes; the potential for new and reconstructed roads to affect hydrologic connections between stream channels, ground water, and wetlands (and to add sediment to aquatic systems); the ability for road structures (e.g., culverts and bridges) to pass fish, 100-year flows, and instream debris; a plan to assess (within 5 years) the condition of all forest roads and to determine the need to repair, reconstruct, maintain, control access to, or abandon or obliterate them with work to be completed within 15 years; and BMPs for all other aspects of forest road operation.
- (3) It protects unstable slopes from increased failure rates and volume.
- (4) It allows properly functioning condition to be achieved in riparian areas along fish-bearing waters. Proper function refers to the suite of riparian and instream functions that affect both instream habitat conditions and the vigor and succession of riparian forest ecosystems. The functions include stream bank stability, shade, litter fall and nutrient input, large woody debris recruitment, and microclimate factors such as air and soil temperature, wind speed, and relative humidity. The FFR ensures properly functioning condition by establishing variable-width management zones within which silvicultural treatments are allowed. These treatments are prescribed through forestry guidelines that NMFS has determined will set a riparian forest stand on a growth and succession pathway toward the desired future condition (DFC) of a mature riparian forest. Once the stand is on the proper trajectory toward DFC, it must remain there without further harvest or silvicultural treatment. Riparian management includes the following provisions:
 - Continuous riparian management zones along all fish-bearing streams.
 - 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 outer edge of the channel migration zone.
 - An inner zone that varies in width depending on the timber harvest strategy.
 - An outer zone extending to a site tree height (100-year base) that provides a minimum of 20 conifer trees per acre that are greater than 12 inches (0.3m) in diameter at breast height.
 - Overstory canopy disturbance along a stream is limited to 20% for roads and yarding corridors and ground disturbance is limited to 10%.

- A mature riparian forest is the DFC. Generally, mature riparian forest conditions are achieved after 80 to 200 years. Once a riparian stand is on this DFC trajectory, it will be allowed to grow without further harvest or treatment.
- A method for applying riparian prescriptions in the field so that DFC will be achieved.
- Riparian conservation zone widths that provide bank stability, litter fall and nutrients, shade, large woody debris, sediment filtering, and microclimate functions in the near and long-term.
- Mitigation for the effects permanent road systems near stream channels have on riparian function, water quality, and fluvial (flood plain) processes.
- Treatment guidelines—by tree species, stand age and condition, and region—that address stocking levels, tree selection, spacing, and other common forest metrics needed to achieve DFC.
- Guidelines for converting certain hardwood-dominated riparian areas to forest stands that can achieve the pathway toward DFC.
- A strategy for conserving fluvial processes and fish habitats in the channel migration zone.
- Guidelines for salvaging dead or downed timber in the inner and outer riparian zones.
- Provisions for managing riparian areas along perennial and seasonal non-fishbearing streams to achieve a large measure of riparian function.
- (5) It sets up a process for evaluating the effects of multiple forest practices on a watershed scale.
- (6) It ensures that any alternative plan would provide a functionally equivalent level of conservation.
- (7) It includes a monitoring and adaptive management process that managers will use to determine how well the practices are being implemented, how well they comply with regulation, and how effective the regulations themselves are in assessing implementation and compliance. Over time, some forest practices will likely need to be replaced or adjusted as new information comes in. Whenever new information leads the state forest practice agency to amend a program under this limit, 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 at least 30 days, after which NMFS will make a final determination on how well the changes conserve listed salmonids and, therefore, whether they may be included under this limit on the take prohibitions.

Section 7 Consultation

Even if an activity or program qualifies under this limit, if a Federal agency is involved by funding, authorizing or carrying out actions that may affect listed species, that Federal agency still has consultation responsibilities under section 7 of the ESA. NMFS urges Federal agencies involved in programs under this limit (e.g., through funding, coordinated research) to work closely with the entity submitting a program and with NMFS so that sufficient information is provided with the 4(d) documentation for a concurrent section 7 consultation. NMFS will provide separate determinations for section 7 consultations.

Affected ESUs

Portions of 7 ESUs in Washington state (identified below) are subject to this limit. Specific descriptions of the affected ESUs are contained in the final listing determinations cited below.

Lower Columbia River steelhead	Ozette Lake sockeye salmon
(63 FR 13347, March 19, 1998)	(64 FR 14528, March 25, 1999)
Puget Sound chinook salmon	Hood Canal summer-run chum salmon
(64 FR 14308, March 24, 1999)	(64 FR 14508, March 25, 1999)
Middle Columbia River steelhead	Columbia River chum salmon
(64 FR 14517, March 25, 1999)	(64 FR 14508, March 25, 1999)
Lower Columbia River chinook salmon (64 FR 14308, March 24, 1999)	

Regulatory Description of the Limit

From 50 CFR 223.203(b)(13):

"...The prohibitions of paragraph (a) of this section relating to threatened species of salmonids listed in Sec. 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 adopted and 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. (ii) All non-regulatory elements of the Forests and Fish Report are being implemented.

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

(iv) Actions taken under alternative plans are included in this limit provided that the Washington Department of Natural Resources (WDNR) finds the alternate plans protect physical and biological processes at least as well as the state forest practices rules and provided that NMFS, or any resource agency or tribe NMFS designates, has the opportunity to review the plan at every stage of development and implementation. A plan may be excluded from this limit if, after such review, WDNR determines that the plan is not likely to adequately protect listed salmon.

(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) NMFS finds the activities to be consistent with the conservation of listed salmonids' habitat by contributing to the attainment and maintenance of PFC. NMFS defines PFC as the sustained presence of a watershed's natural habitat-forming processes that are necessary for the long-term survival of salmonids through the full range of environmental variation. Actions that affect salmonid habitat must not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC. Programs must meet this biological standard in order for NMFS to find they qualify for a habitat-related limit. NMFS uses the best available science to make these determinations. NMFS may review and revise previous findings as new scientific information becomes available. NMFS will evaluate the effectiveness of the program in maintaining and achieving habitat function that provides for conservation of the listed salmonids. If the program is not adequate, NMFS will identify to the jurisdiction ways in which the program needs to be altered or strengthened. Changes may be identified 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 withdraw the limit on activities associated with the program. Such an announcement will provide for a comment period of no less than 30 days, after which NMFS will make a final determination whether to subject the activities to the ESA section 9(a)(1) take prohibitions.

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

Submittal Instructions

Early Involvement

NMFS was extensively involved in the development of the FFR, is intimately familiar with it, and has already determined that regulations based upon it may be consistent with PFC. This is a result of effective early involvement to date. NMFS strongly recommends that the Board continue to coordinate with NMFS as regulations are revised to incorporate the FFR and as the application package is developed for NMFS approval under limit 13. This should ensure that the regulations can move more rapidly to the *Federal Register* notice and comment stage of the qualification process, and will increase the likelihood that they will be approved as submitted.

The Submittal Package

The application package for Washington's forest practices rules to qualify under limit 13 shall include:

- (1) A cover letter from the Chairperson of the Washington Forest Practices Board (Board) to the RA requesting qualification of revised forest practice regulations pursuant to limit 13.
- (2) The revised forest practices regulations.
- (3) A description of the specific geographic area to which the regulations apply. Maps with appropriate data layers should be included. Existing habitat quality and quantity (*i.e.*, the environmental baseline) should be illustrated in terms of migration barriers, structural elements, channel characteristics, water quality, instream flow, riparian condition, and watershed health.
- (4) A description of any listed species that may be affected by the activities, and their distribution and status within the program area.
- (5) Relevant reports, including any environmental impact statement, environmental assessment, or biological assessment prepared; and any other relevant available information on the program, the affected listed species, or critical habitat.
- (6) An affirmative conclusion (with supporting analyses) that the revised regulations are at least as protective as the regulatory elements of the Forests and Fish Report.
- (7) Affirmative conclusions that the revised regulations will not impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC; with supporting effects analyses.
- (8) Persuasive evidence that the non-regulatory elements of the FFR are being broadly implemented.

The submittal package for this limit should emphasize elements six and seven above with, respectively, a comparative analysis of the FFR and the revised regulations, and an effects analysis (see below) of the revised regulations.

At (13)(iv) the limit provides coverage for alternative plans. Alternative plans must be found by Washington Department of Natural Resources (WDNR) to protect physical and biological

processes at least as well as the State forest practice rules. This provision for alternative plans is effective only after NMFS' findings required by (13)(i) and (13)(iv) have been made, and only if NMFS or NMFS' designees have been allowed to review the plan while in development.

Effects Analysis

There is more than one scientifically credible analytical framework for determining an activity's effect, and NMFS will accept any scientifically credible analysis. However, NMFS has developed and made available a methodology (*Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale*, NMFS, 1996) that applicants may want to consider if seeking an analytical model. It is sometimes referred to as the Matrix of Pathways and Indicators, or MPI. In the MPI framework, the pathways for determining the effect of an action are represented as six conceptual groupings (*e.g.*, water quality, channel condition) of 18 habitat condition indicators (*e.g.*, temperature, width/depth ratio). Indicator criteria (mostly numeric, though some are narrative) are provided for three levels of environmental baseline condition: Properly functioning, at risk, and not properly functioning. The effect of the action upon each indicator is classified by whether it will restore, maintain, or degrade the indicator.

Although the indicators used to assess functioning condition may entail instantaneous measurements, they are chosen, using the best available science, to detect the health of underlying processes, not static characteristics. "Best available science" advances through time. This advance allows PFC indicators to be refined, new threats to be assessed, and species' status and trends to be better understood. River habitats are inherently dynamic, and the PFC concept recognizes that natural patterns of habitat disturbance will continue to occur. Floods, landslides, windstorms, and fires all result in spatial and temporal variability in habitat characteristics, as do human activities. Unique physiographic and geologic features may cause PFC indicators to vary between different landscapes. For example, aquatic habitats on timberlands in glacial mountain valleys are controlled by natural processes operating at different scales and rates than are habitats on low-elevation coastal rivers. The MPI provides a consistent, but geographically adaptable, framework for making effect determinations. The pathways and indicators, as well as the ranges of their associated criteria, may be altered through the watershed analysis process.

Regardless of the analytical method used, if a proposed action is likely to impair properly functioning habitat, appreciably reduce the functioning of already impaired habitat, or retard the long-term progress of impaired habitat toward PFC, it cannot be found consistent with conserving the species. If a program preserves existing habitat function levels, and allows natural progression towards PFC where habitat is impaired, NMFS may determine that it qualifies.

NMFS defines PFC as the sustained presence of natural habitat-forming processes (*e.g.*, hydraulic runoff, bedload transport, channel migration, riparian vegetation succession) that are necessary for the long-term survival and recovery of the species (*The Habitat Approach*, NMFS, 1999). PFC constitutes the habitat aspects of a species' biological requirements—providing the essential physical features that support spawning, incubation, rearing, feeding, sheltering,

migration, and other behaviors. Such features include adequate instream flow, pure cold water, loose gravel for spawning, unimpeded fish passage, deep pools, and abundant large tree trunks and root wads.

Qualification Process

The forestry limit applies only to forest practices conducted on non-Federal forests within the State of Washington. It does not cover any pesticide applications. Before the limit becomes effective, NMFS must find that (1) state forest practices regulations have been modified to adopt the regulatory elements of the FFR, and (2) the revised regulations are consistent with the conservation of listed salmonids' habitat by contributing to the attainment and maintenance of PFC. Minor differences between the adopted regulations and the FFR will not preclude the first of these two findings, provided that no change results in a reduction in protectiveness. Major differences between the FFR and the adopted regulations are not contemplated by the rule, and would put the regulations outside of the scope of limit 13.

The RA will provide NMFS' findings in a response letter to the submittal. Such letters may be signed by the RA or by an Assistant Regional Administrator and may either approve or disapprove the submittal.

Before NMFS issues an approving letter or makes the included findings, notification must be given in the *Federal Register* announcing the availability of the FFR and revised regulations for public review with a 30-day (minimum) comment period. Comments received may be shared with the Board or WDNR. The regulations may subsequently be approved by the RA with minor modifications based upon the comments received. Major modifications to the regulations will require another *Federal Register* notice and comment period before they can be approved.

NMFS' Assistance

Additional guidance or assistance regarding this limit can be obtained by contacting:

Steve Landino Habitat Conservation Division National Marine Fisheries Service 510 Desmond Drive, Suite 103 Lacey, Washington 98503 Phone: (360) 753-6054 Fax: (360) 753-9517 E-mail: <u>steve.landino@noaa.gov</u>