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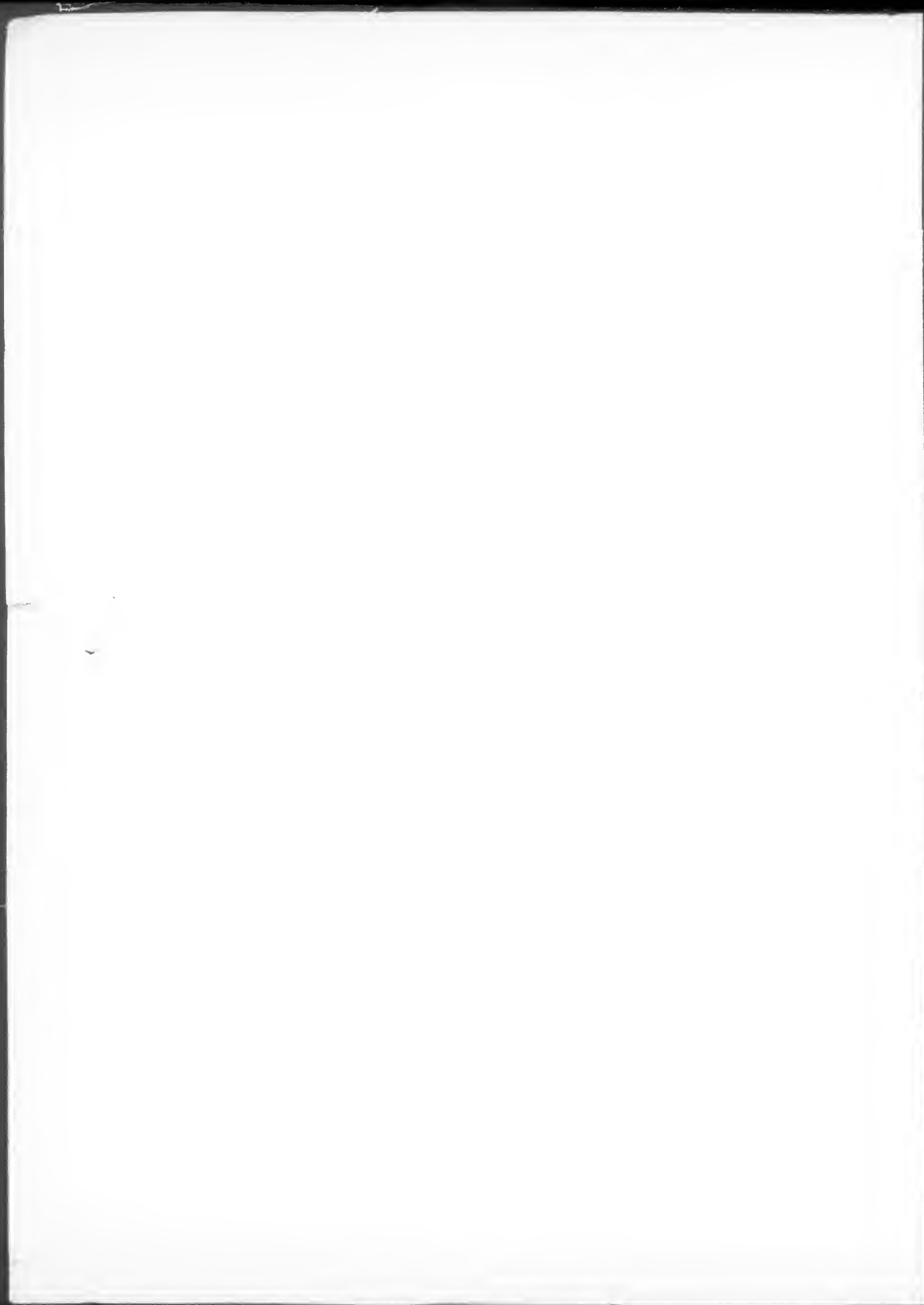
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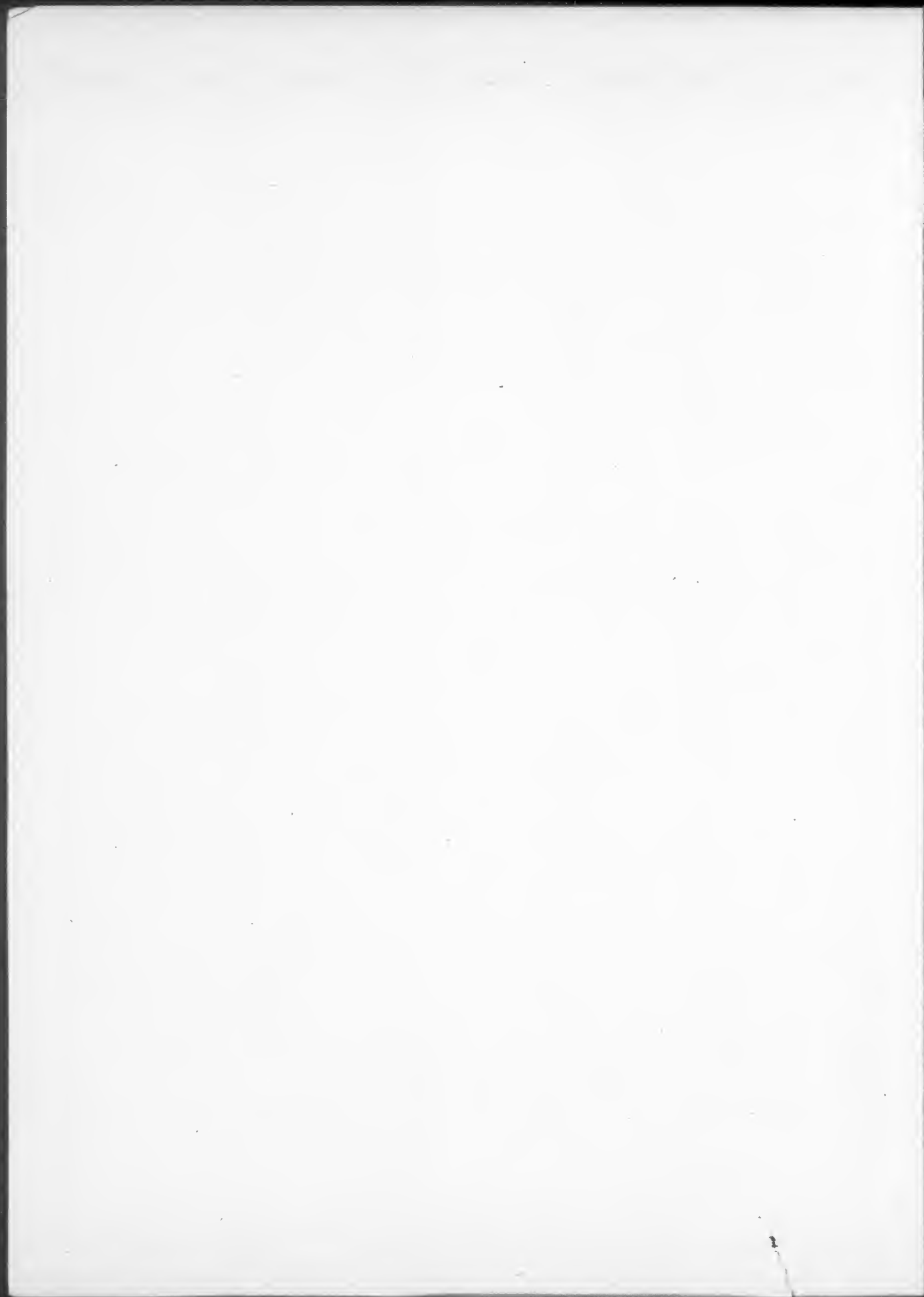
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DEPARTMENT OF AGRICULTURE

Federal Crop Insurance Corporation

7 CFR Part 457

RIN 0563-AB94

General Administrative Regulations, Common Crop Insurance Regulations, Basic Provisions; Correction

AGENCY: Federal Crop Insurance Corporation, USDA.

ACTION: Final rule; correction.

SUMMARY: The document contains a correction to the final regulation which was published Tuesday, August 10, 2004. The regulation pertains to the Common Crop Insurance Regulations, Basic Provisions.

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Janice Nuckolls, Insurance Management Specialist, Research and Development, Product Development Division, Risk Management Agency, United States Department of Agriculture, 6501 Beacon Drive, Stop 0812, Room 421, Kansas City, MO, 64133-4676, telephone (816) 926-7730.

SUPPLEMENTARY INFORMATION:

Background

This correcting amendment corrects changes to the Common Crop Insurance Regulations; Basic Provisions.

Need for Correction

As published, in the *Federal Register* on August 10, 2004 (69 FR 48652) the FR Rule Document 04-18056 contained an error that may prove to be misleading and needs to be clarified.

List of Subjects in 7 CFR Part 457

Crop Insurance, Federal Crop Insurance Corporation, Reporting and recordkeeping requirements.

■ Accordingly, 7 CFR part 457 is corrected by making the following corrected amendment:

PART 457—COMMON CROP INSURANCE REGULATIONS

■ 1. The authority citation for part 457 continues to read as follows:

Authority: 7 U.S.C. 1506(1) and 1506(p).

■ 2. Section 457.8 is amended by revising section 17(e)(1)(i)(A) to read as follows:

§ 457.8 The application and policy.

* * * * *

17. Prevented Planting

* * * * *

(e) * * *

(1) * * *

(i) * * *

(A) The maximum number of acres certified for APH purposes, or insured acres reported, for the crop in any one of the 4 most recent crop years (not including reported prevented planting acreage that was planted to a second crop unless you meet the double cropping requirements in section 17(f)(4)). The number of acres determined above for a crop may be increased by multiplying it by the ratio of the total cropland acres that you are farming this year (if greater) to the total cropland acres that you farmed in the previous year, provided that you submit proof to us that for the current crop year you have purchased or leased additional land or that acreage will be released from any USDA program which prohibits harvest of a crop. Such acreage must have been purchased, leased, or released from the USDA program, in time to plant it for the current crop year using good farming practices. No cause of loss that would prevent planting may be evident at the time you lease the acreage (except acreage you leased the previous year and continue to lease in the current crop year); you buy the acreage; the acreage is released from a USDA program which prohibits harvest of a crop; you request a written agreement to insure the acreage; or you otherwise acquire the acreage (such as inherited or gifted acreage).

* * * * *

Signed in Washington, DC, on December 8, 2004.

Ross J. Davidson, Jr.,
Manager, Federal Crop Insurance Corporation.

[FR Doc. 04-27313 Filed 12-13-04; 8:45 am]

BILLING CODE 3410-08-P

DEPARTMENT OF AGRICULTURE

Food Safety and Inspection Service

9 CFR Parts 317 and 381

[Docket No. 03-026F]

RIN 0583-AD05

Uniform Compliance Date for Food Labeling Regulations

AGENCY: Food Safety and Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: This rule announces that the Food Safety and Inspection Service (FSIS) is establishing January 1, 2008, as the uniform compliance date for new food labeling regulations that are issued between January 1, 2005, and December 31, 2006. FSIS is establishing a uniform compliance date to minimize the economic impact of labeling changes by providing for an orderly industry adjustment to new labeling requirements that occur between the designated dates. Furthermore, FSIS is establishing the uniform compliance date approach in order to be consistent with the approach that the Department of Health and Human Services, Food and Drug Administration (FDA), has already established.

EFFECTIVE DATE: This rule is effective January 13, 2005.

FOR FURTHER INFORMATION CONTACT: Robert C. Post, PhD., Director, Labeling and Consumer Protection Staff, Office of Policy, Program, and Employee Development, Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250-3700, Telephone (202) 205-0279, Fax (202) 205-3625.

SUPPLEMENTARY INFORMATION:

Background

The Food Safety and Inspection Service (FSIS) periodically issues regulations that require changes in the labeling of meat and poultry food products. Currently, the Agency

establishes a separate compliance date for each new labeling regulation that it publishes. Many meat and poultry establishments also produce non-meat and non-poultry food products subject to the jurisdiction of the Food and Drug Administration (FDA). FDA also periodically issues regulations that require changes in the labeling of such food products. In contrast to FSIS, FDA has established a standard uniform compliance date for all of its food labeling regulations that are issued during a given two year period. FSIS has determined that coordinating the effective dates of its labeling changes and FDA's labeling changes will minimize the economic impact of those changes on the industry.

Therefore, FSIS believes that there should be a uniform compliance date for all food product labeling regulations affecting meat and poultry establishments that are issued within a two year period. Such a compliance date will ensure that changes will take effect on a timely basis, but that companies will not have to respond separately to each change as it occurs.

In December 2002, FDA established January 1, 2006, as the uniform compliance date for all Federal food labeling regulations affecting non-meat and non-poultry food products which it issues between January 1, 2003, and December 31, 2004. FSIS anticipates that FDA will publish a notice in the *Federal Register* establishing January 1, 2008, as its next sequential uniform compliance date for food labeling regulations issued between January 1, 2005, and December 31, 2006. Therefore, in order to harmonize its compliance schedule with that of FDA, FSIS is establishing January 1, 2008, as the uniform compliance date for amendments to the Federal meat and poultry food product labeling regulations that it issues between January 1, 2005, and December 31, 2006.

Like FDA, FSIS intends to set uniform compliance dates in two year increments. FSIS believes that two year increments will enhance the industry's ability to make orderly adjustments to new labeling requirements. Industry will be able to plan for the use of label inventories and develop new labeling materials that meet the requirements of all labeling regulations made within the two year period, thereby minimizing the economic impact of labeling changes. By establishing a uniform compliance date that is the same as FDA's, FSIS is providing the meat and poultry industry with a greater ability to adjust its production plans to new labeling requirements across all of its product lines.

Establishing this policy serves consumers' interests because the cost of multiple short-term label revisions that would otherwise occur would likely be passed on to consumers in the form of higher prices. This action will not change existing requirements for compliance dates contained in final rules published before January 1, 2005. Therefore, all final FSIS regulations published in the *Federal Register* before January 1, 2005, will go into effect on the date stated in the respective final rules.

It will remain FSIS' policy generally to encourage industry to comply with new labeling regulations as quickly as feasible. Thus, when industry members voluntarily change their labels, they should consider incorporating any new requirements that have been published as final regulations up to that time.

The new uniform compliance date will apply only to final FSIS regulations that require changes in the labeling of meat and poultry products and that are published after January 1, 2005, and before December 31, 2006. In each of these regulations, FSIS will specifically identify January 1, 2008, as the compliance date. All meat and poultry food products that are subject to labeling regulations promulgated between January 1, 2005, to December 31, 2006, will be required to comply with these regulations when introduced into commerce on or after January 1, 2008. If any food labeling regulation involves special circumstances that justify a compliance date other than January 1, 2008, the agency will determine for that regulation an appropriate compliance date, which will be specified when the final regulation is published.

Comments and Responses

FSIS proposed to make this change in the *Federal Register* of May 4, 2004 (69 FR 24539). FSIS received four comments on the proposal, all of which came from trade associations. All four commenters fully supported FSIS' proposal to establish a policy to enact a uniform compliance date approach to food labeling consistent with that of the FDA.

Executive Order 12866: Benefit-Cost Analysis

This action has been determined not to be significant and it therefore has not been reviewed by the Office of Management and Budget in accordance with Executive Order 12866. Establishing a uniform compliance date for all future Federal food product labeling regulations affecting the meat and poultry industry that are issued by

FSIS and FDA over a two year period will eliminate potentially burdensome requirements otherwise faced by the industry. This measure is consistent with regulatory reform of Federal rulemaking in that it eliminates potentially unnecessary and onerous requirements.

The elimination of potentially conflicting compliance dates for labeling requirements between meat and poultry products and non-meat and non-poultry products provides for an orderly industry adjustment to any new labeling requirements. Labeling changes in response to Federal regulations will likely be less frequent, and establishments will be able to plan for full utilization of their labeling stocks.

Need for the Rule

Establishing uniform compliance dates for food labeling regulations issued within specified time periods minimizes the economic impact of label changes for industry and may indirectly benefit consumers if cost savings are passed on in the form of lower prices. Further, FSIS is establishing the uniform compliance date to be consistent with the approach which the FDA has already established.

Regulatory Flexibility Analysis

This rule does not have a significant economic impact on a substantial number of small entities; consequently, an initial regulatory flexibility analysis is not required (5 U.S.C. 601-612). The uniform compliance date does not impose any burden on small entities. The agency will conduct regulatory flexibility analyses of future labeling regulations if such analyses are required.

Paperwork Requirements

There are no paperwork or recordkeeping requirements associated with this policy under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

Additional Public Notification

Public awareness of all segments of rulemaking and policy development is important. Consequently, in an effort to ensure that the public and in particular minorities, women, and persons with disabilities, are aware of this final rule, FSIS will announce it on-line through the FSIS Web page located at <http://www.fsis.usda.gov>.

The Regulations.gov Web site is the central online rulemaking portal of the United States government. It is being offered as a public service to increase participation in the Federal government's regulatory activities. FSIS

participates in Regulations.gov and will accept comments on documents published on the site. The site allows visitors to search by keyword or Department or Agency for rulemakings that allow for public comment. Each entry provides a quick link to a comment form so that visitors can type in their comments and submit them to FSIS. The Web site is located at <http://www.regulations.gov>.

FSIS also will make copies of this Federal Register publication available through the FSIS Constituent Update, which is used to provide information regarding FSIS policies, procedures, regulations, Federal Register notices, FSIS public meetings, recalls, and other types of information that could affect or would be of interest to our constituents and stakeholders. The update is communicated via Listserv, a free e-mail subscription service consisting of industry, trade, and farm groups, consumer interest groups, allied health professionals, scientific professionals, and other individuals who have requested to be included. The update also is available on the FSIS web page. Through Listserv and the web page, FSIS is able to provide information to a much broader, more diverse audience.

Done in Washington, DC, on: November 18, 2004.

Barbara J. Masters,
Acting Administrator.

[FR Doc. 04-27335 Filed 12-13-04; 8:45 am]

BILLING CODE 3410-DM-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. CE216; Special Conditions No. 23-155-SC]

Special Conditions: AMSAFE, Incorporated; Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H); Inflatable Three-Point Restraint Safety Belt With an Integrated Airbag Device

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the installation of an AMSAFE, Inc., Inflatable Three-Point Restraint Safety Belt with an Integrated Airbag Device on Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H). These airplanes, as modified by AMSAFE, Inc., will have

novel and unusual design features associated with the lap belt portion of the safety belt, which contains an integrated airbag device. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: The effective date of these special conditions is December 3, 2004. Comments must be received on or before January 13, 2005.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration (FAA), Regional Counsel, ACE-7, Attention: Rules Docket, Docket No. CE216, 901 Locust, Room 506, Kansas City, Missouri 64106, or delivered in duplicate to the Regional Counsel at the above address. Comments must be marked: CE216. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Mr. Pat Mullen, Federal Aviation Administration, Aircraft Certification Service, Small Airplane Directorate, ACE-111, 901 Locust, Kansas City, Missouri, 816-329-4128, fax 816-329-4090, e-mail pat.mullen@faa.gov.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment is impractical because these procedures would significantly delay issuance of the approval design and thus delivery of the affected aircraft. The FAA therefore finds that good cause exists for making these special conditions effective upon issuance.

Comments Invited

Interested persons are invited to submit such written data, views, or arguments as they may desire. Communications should identify the regulatory docket or special condition number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. The special conditions may be changed in light of the comments received. All comments received will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Commenters wishing the FAA to

acknowledge receipt of their comments submitted in response to this notice must include a self-addressed, stamped postcard on which the following statement is made: "Comments to CE216." The postcard will be date stamped and returned to the commenter.

Background

On March 26, 2004, AMSAFE, Inc., Aviation Inflatable Restraints Division, 1043 North 47th Avenue, Phoenix, AZ 85043, applied for a supplemental type certificate for the installation of an inflatable lap belt restraint with a standard upper torso restraint (or shoulder harness) in Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H). The Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H) are single-engine, multi-place airplanes.

The inflatable restraint system is a three-point safety belt restraint system consisting of a traditional shoulder harness and an inflatable airbag lap belt. The inflatable portion of the restraint system will rely on sensors to electronically activate the inflator for deployment. The inflatable restraint system will be made available on the pilot, co-pilot, and passenger seats of these airplanes.

In the event of an emergency landing, the airbag will inflate and provide a protective cushion between the occupant's head and structure within the airplane. This will reduce the potential for head and torso injury. The inflatable restraint behaves in a manner that is similar to an automotive airbag, but in this case, the airbag is integrated into the lap belt. While airbags and inflatable restraints are standard in the automotive industry, the use of an inflatable three-point restraint system is novel for general aviation operations.

The FAA has determined that this project will be accomplished on the basis of providing the same current level of safety of the Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H). The FAA has two primary safety concerns with the installation of airbags or inflatable restraints:

- That they perform properly under foreseeable operating conditions; and
- That they do not perform in a manner or at such times as to impede the pilot's ability to maintain control of the airplane or constitute a hazard to the airplane or occupants.

The latter point has the potential to be the more rigorous of the requirements. An unexpected deployment while conducting the takeoff or landing phases

of flight may result in an unsafe condition. The unexpected deployment may either startle the pilot, or generate a force sufficient to cause a sudden movement of the control yoke. Either action could result in a loss of control of the airplane, the consequences of which are magnified due to the low operating altitudes during these phases of flight. The FAA has considered this when establishing these special conditions.

The inflatable restraint system relies on sensors to electronically activate the inflator for deployment. These sensors could be susceptible to inadvertent activation, causing deployment in a potentially unsafe manner. The consequences of an inadvertent deployment must be considered in establishing the reliability of the system. AMSAFE, Inc., must show that the effects of an inadvertent deployment in flight are not a hazard to the airplane or that an inadvertent deployment is extremely improbable. In addition, general aviation aircraft are susceptible to a large amount of cumulative wear and tear on a restraint system. It is likely that the potential for inadvertent deployment increases as a result of this cumulative damage. Therefore, the impact of wear and tear on inadvertent deployment must be considered. Due to the effects of this cumulative damage, a life limit must be established for the appropriate system components in the restraint system design.

There are additional factors to be considered to minimize the chances of inadvertent deployment. General aviation airplanes are exposed to a unique operating environment, since the same airplane may be used by both experienced and student pilots. The effect of this environment on inadvertent deployment must be understood. Therefore, qualification testing of the firing hardware/software must consider the following:

- The airplane vibration levels appropriate for a general aviation airplane; and
 - The inertial loads that result from typical flight or ground maneuvers, including gusts and hard landings.
- Any tendency for the firing mechanism to activate as a result of these loads or acceleration levels is unacceptable.
- Other influences on inadvertent deployment include high intensity electromagnetic fields (HIRF) and lightning. Since the sensors that trigger deployment are electronic, they must be protected from the effects of these threats. To comply with HIRF and lightning requirements, the AMSAFE, Inc., inflatable restraint system is

considered a critical system, since its inadvertent deployment could have a hazardous effect on the airplane.

Given the level of safety of the current Cessna 172, 182, and 206 occupant restraints, the inflatable restraint system must show that it will offer an equivalent level of protection in the event of an emergency landing. In the event of an inadvertent deployment, the restraint must still be at least as strong as a Technical Standard Order approved belt and shoulder harnesses. There is no requirement for the inflatable portion of the restraint to offer protection during multiple impacts, where more than one impact would require protection.

The inflatable restraint system must deploy and provide protection for each occupant under a crash condition. The seats of the models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H) are certificated to the structural requirements of § 23.562. Therefore, the test crash pulses identified in § 23.562 must be used to satisfy this requirement. Note that § 23.562 requires different test pulses between seats installed in the front row of the airplane and seats not installed in the front row of the airplane. Testing to these pulses will demonstrate that the crash sensor will trigger when exposed to a rapidly applied deceleration, like an actual crash event.

It is possible a wide range of occupants will use the inflatable restraint. Thus, the protection offered by this restraint should be effective for occupants that range from the fifth percentile female to the ninety-fifth percentile male. Energy absorption must be performed in a consistent manner for this occupant range.

In support of this operational capability, there must be a means to verify the integrity of this system before each flight. As an option, AMSAFE, Inc., can establish inspection intervals where they have demonstrated the system to be reliable between these intervals.

It is possible that an inflatable restraint will be "armed" even though no occupant is using the seat. While there will be means to verify the integrity of the system before flight, it is also prudent to require that unoccupied seats with active restraints not constitute a hazard to any occupant. This will protect any individual performing maintenance inside the cockpit while the aircraft is on the ground. The restraint must also provide suitable visual warnings that would alert rescue personnel to the presence of an inflatable restraint system.

In addition, the design must prevent the inflatable seatbelt from being

incorrectly buckled and/or installed such that the airbag would not properly deploy. As an alternative, AMSAFE, Inc., may show that such deployment is not hazardous to the occupant and will still provide the required protection.

The cabins of the Cessna model airplanes identified in these special conditions are confined areas, and the FAA is concerned that noxious gasses may accumulate in the event of airbag deployment. When deployment does occur, either by design or inadvertently, there must not be a release of hazardous quantities of gas or particulate matter into the cockpit.

An inflatable restraint should not increase the risk already associated with fire. Therefore, the inflatable restraint should be protected from the effects of fire, so that an additional hazard is not created by, for example, a rupture of the inflator.

Finally, the airbag is likely to have a large volume displacement, and possibly impede the egress of an occupant. Since the bag deflates to absorb energy, it is likely that the inflatable restraint would be deflated at the time an occupant would attempt egress. However, it is appropriate to specify a time interval after which the inflatable restraint may not impede rapid egress. Ten seconds has been chosen as reasonable time. This time limit will offer a level of protection throughout the impact event.

Type Certification Basis

Under the provisions of § 21.101, AMSAFE, Inc., must show that the Cessna models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H), as changed, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate Nos. 3A12 (172 R and S), 3A13 (182 S, T, and T182T) and A4CE (206 H and T206H) or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the "original type certification basis." The regulations incorporated by reference are as follows:

Cessna 172 R: Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-6, except as follows: 14 CFR part 23, §§ 23.423, 23.611, 23.619, 23.623, 23.689, 23.775, 23.871, 23.1323, and 23.1563 as amended by Amendment 23-7. 14 CFR part 23, §§ 23.807, and 23.1524 as amended by Amendment 23-10. 14 CFR part 23, §§ 23.507; 23.771; 23.853(a), (b), and (c); and 23.1365 as amended by Amendment 23-14. 14 CFR part 23, § 23.951 as amended by

Amendment 23-15. 14 CFR part 23, §§ 23.607, 23.675, 23.685, 23.733, 23.787, 23.1309, and 23.1322 as amended by Amendment 23-17. 14 CFR part 23, § 23.1301 as amended by Amendment 23-20. 14 CFR part 23, §§ 23.1353, and 23.1559 as amended by Amendment 23-21. 14 CFR part 23, §§ 23.603, 23.605, 23.613, 23.1329, and 23.1545 as amended by Amendment 23-23. 14 CFR part 23, §§ 23.441, and 23.1549 as amended by Amendment 23-28. 14 CFR part 23, §§ 23.779, and 23.781 as amended by Amendment 23-33. 14 CFR part 23, §§ 23.1, 23.51, and 23.561 as amended by Amendment 23-34. 14 CFR part 23, §§ 23.301, 23.331, 23.351, 23.427, 23.677, 23.701, 23.735, and 23.831 as amended by Amendment 23-42. 14 CFR part 23, §§ 23.961, 23.1093, 23.1143(g), 23.1147(b), 23.1303, 23.1357, 23.1361, and 23.1385 as amended by Amendment 23-43. 14 CFR part 23, §§ 23.562(a), 23.562(b)2, 23.562(c)1, 23.562(c)2, 23.562(c)3, and 23.562(c)4 as amended by Amendment 23-44. 14 CFR part 23, §§ 23.33, 23.53, 23.305, 23.321, 23.485, 23.621, 23.655, and 23.731 as amended by Amendment 23-45.

Cessna 172 S: Part 23 of the Federal Aviation Regulations, effective February 1, 1965, as amended by 23-1 through 23-6, except as follows: 14 CFR part 23, §§ 23.423, 23.611, 23.619, 23.623, 23.689, 23.775, 23.871, 23.1323, and 23.1563 as amended by Amendment 23-7. 14 CFR part 23, §§ 23.807, and 23.1524 as amended by Amendment 23-10. 14 CFR part 23, §§ 23.507; 23.771; 23.853(a), (b), and (c); and 23.1365 as amended by Amendment 23-14. 14 CFR part 23, § 23.951 as amended by Amendment 23-15. 14 CFR part 23, §§ 23.607, 23.675, 23.685, 23.733, 23.787, 23.1309, and 23.1322 as amended by Amendment 23-17. 14 CFR part 23, § 23.1301 as amended by Amendment 23-20. 14 CFR part 23, §§ 23.1353, and 23.1559 as amended by Amendment 23-21. 14 CFR part 23, §§ 23.603, 23.605, 23.613, 23.1329, and 23.1545 as amended by Amendment 23-23. 14 CFR part 23, §§ 23.441, and 23.1549 as amended by Amendment 23-28. 14 CFR part 23, §§ 23.779, and 23.781 as amended by Amendment 23-33. 14 CFR part 23, §§ 23.1, 23.51, and 23.561 as amended by Amendment 23-34. 14 CFR part 23, §§ 23.301, 23.331, 23.351, 23.427, 23.677, 23.701, 23.735, and 23.831 as amended by Amendment 23-42. 14 CFR part 23, §§ 23.961, 23.1093, 23.1143(g), 23.1147(b), 23.1303, 23.1357, 23.1361, and 23.1385 as amended by Amendment 23-43. 14 CFR part 23, §§ 23.562(a), 23.562(b)2, 23.562(c)1, 23.562(c)2, 23.562(c)3, and

23.562(c)4 as amended by Amendment 23-44. 14 CFR part 23, §§ 23.33, 23.53, 23.305, 23.321, 23.485, 23.621, 23.655, and 23.731 as amended by Amendment 23-45.

Cessna 182 S, T, and T182T: Part 23 of the Federal Aviation Regulations, effective February 1, 1965, as amended by 23-1 through 23-6, except as follows: 14 CFR part 23, §§ 23.423, 23.611, 23.619, 23.623, 23.689, 23.775, 23.871, 23.1323, and 23.1563 as amended by Amendment 23-7. 14 CFR part 23, §§ 23.807, and 23.1524 as amended by Amendment 23-10. 14 CFR part 23, §§ 23.507; 23.771; 23.853(a), (b), and (c); and 23.1365 as amended by Amendment 23-14. 14 CFR part 23, § 23.951 as amended by Amendment 23-15. 14 CFR part 23, §§ 23.607, 23.675, 23.685, 23.733, 23.787, 23.1309, and 23.1322 as amended by Amendment 23-17. 14 CFR part 23, § 23.1301 as amended by Amendment 23-20. 14 CFR part 23, §§ 23.1353, and 23.1559 as amended by Amendment 23-21. 14 CFR part 23, §§ 23.603, 23.605, 23.613, 23.1329, and 23.1545 as amended by Amendment 23-23. 14 CFR part 23, §§ 23.441, and 23.1549 as amended by Amendment 23-28. 14 CFR part 23, §§ 23.779, and 23.781 as amended by Amendment 23-33. 14 CFR part 23, §§ 23.1, 23.51, and 23.561 as amended by Amendment 23-34. 14 CFR part 23, §§ 23.301, 23.331, 23.351, and 23.831 as amended by Amendment 23-42. 14 CFR part 23, §§ 23.961, 23.1093, 23.1143(g), 23.1147(b), 23.1303, 23.1357, 23.1361, and 23.1385 as amended by Amendment 23-43. 14 CFR part 23, §§ 23.562(a), 23.562(b)2, 23.562(c)1, 23.562(c)2, 23.562(c)3, and 23.562(c)4 as amended by Amendment 23-44. 14 CFR part 23, §§ 23.33, 23.53, 23.305, 23.321, 23.485, 23.621, 23.655, and 23.731 as amended by Amendment 23-45.

Cessna 206 H and T206H: Part 23 of the Federal Aviation Regulations, effective February 1, 1965, as amended by 23-1 through 23-6, except as follows: 14 CFR part 23, §§ 23.423, 23.611, 23.619, 23.623, 23.689, 23.775, 23.871, 23.1323, and 23.1563 as amended by Amendment 23-7. 14 CFR part 23, §§ 23.807, and 23.1524 as amended by Amendment 23-10. 14 CFR part 23, §§ 23.507; 23.771; 23.853(a), (b), and (c); and 23.1365 as amended by Amendment 23-14. 14 CFR part 23, § 23.951 as amended by Amendment 23-15. 14 CFR part 23, §§ 23.607, 23.675, 23.685, 23.733, 23.787, 23.1309, and 23.1322 as amended by Amendment 23-17. 14 CFR part 23, § 23.1301 as amended by Amendment 23-20. 14 CFR part 23, §§ 23.1353, and

23.1559 as amended by Amendment 23-21. 14 CFR part 23, §§ 23.603, 23.605, 23.613, 23.1329, and 23.1545 as amended by Amendment 23-23. 14 CFR part 23, §§ 23.441, and 23.1549 as amended by Amendment 23-28. 14 CFR part 23, § 23.1093 as amended by Amendment 23-29. 14 CFR part 23, §§ 23.779, and 23.781 as amended by Amendment 23-33. 14 CFR part 23, §§ 23.1, 23.51, and 23.561 as amended by Amendment 23-34. 14 CFR part 23, §§ 23.301, 23.331, 23.351, 23.427, 23.677, 23.701, 23.735, and 23.831 as amended by Amendment 23-42. 14 CFR part 23, §§ 23.961, 23.1107(b), 23.1143(g), 23.1147(b), 23.1303, 23.1357, 23.1361, and 23.1385 as amended by Amendment 23-43. 14 CFR part 23, §§ 23.562(a), 23.562(b)2, 23.562(c)1, 23.562(c)2, 23.562(c)3, and 23.562(c)4 as amended by Amendment 23-44. 14 CFR part 23, §§ 23.33, 23.53, 23.305, 23.321, 23.485, 23.621, 23.655, and 23.731 as amended by Amendment 23-45.

For all the models listed above, the certification basis also includes all exemptions, if any; equivalent level of safety findings, if any; and special conditions not relevant to the special conditions adopted by this rulemaking action.

The Administrator has determined that the applicable airworthiness regulations (*i.e.*, part 23 as amended) do not contain adequate or appropriate safety standards for the AMSAFE, Inc., inflatable restraint as installed on these Cessna models because of a novel or unusual design feature. Therefore, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as appropriate, as defined in § 11.19, are issued in accordance with § 11.38, and become part of the type certification basis in accordance with § 21.101.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would also apply to that model under the provisions of § 21.101.

Novel or Unusual Design Features

The Cessna models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H) will incorporate the following novel or unusual design feature:

The AMSAFE, Inc., Inflatable Three-Point Restraint Safety Belt with an Integrated Airbag Device. The purpose of the airbag is to reduce the potential for injury in the event of an accident. In

a severe impact, an airbag will deploy from the lap belt portion of the restraint, in a manner similar to an automotive airbag. The airbag will deploy between the head of the occupant and airplane interior structure. This will, therefore, provide some protection to the head of the occupant. The restraint will rely on sensors to electronically activate the inflator for deployment.

The Code of Federal Regulations state performance criteria for seats and restraints in an objective manner. However, none of these criteria are adequate to address the specific issues raised concerning inflatable restraints. Therefore, the FAA has determined that, in addition to the requirements of part 21 and part 23, special conditions are needed to address the installation of this inflatable restraint.

Accordingly, these special conditions are adopted for these Cessna models equipped with the AMSAFE, Inc., three-point inflatable restraint. Other conditions may be developed, as needed, based on further FAA review and discussions with the manufacturer and civil aviation authorities.

Applicability

As discussed above, these special conditions are applicable to the Cessna models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H) equipped with the AMSAFE, Inc., three-point inflatable restraint system. Should AMSAFE, Inc., apply at a later date for a supplemental type certificate to modify any other model on the Type Certificates identified in these special conditions to incorporate the same novel or unusual design feature, the special conditions would apply to that model as well under the provisions of § 21.101.

Conclusion

This action affects only certain novel or unusual design features on the previously identified Cessna models. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

Under standard practice, the effective date of final special conditions would be 30 days after the date of publication in the *Federal Register*; however, as the certification date for these Cessna models, as modified by AMSAFE, Inc., is imminent, the FAA finds that good cause exists to make these special conditions effective upon issuance.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

■ The authority citation for these special conditions is as follows:

PART 23—[AMENDED]

Authority: 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.101; and 14 CFR 11.38 and 11.19.

The Special Conditions

The FAA has determined that this project will be accomplished on the basis of not lowering the current level of safety of the Cessna models 172 (R and S), 182 (S, T, and 182T) and 206 (H and T206H) occupant restraint system. Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for these models, as modified by AMSAFE, Incorporated.

Inflatable Three-Point Restraint Safety Belt With an Integrated Airbag Device on Cessna Models 172 (R and S), 182 (S, T, and T182T), and 206 (H and T206H)

1. It must be shown that the inflatable lapbelt will deploy and provide protection under crash conditions. Compliance will be demonstrated using the dynamic test condition specified in 14 CFR part 23, § 23.562(b)(2). It is not necessary to account for floor warpage, as required by § 23.552(b)(3). In addition, subparts of § 23.562 that are not included in the Cessna 172, 182, and 206 certification basis will not apply to this Special Condition. The means of protection must take into consideration a range of stature from a 5th percentile female to a 95th percentile male. The inflatable restraint must provide a consistent approach to energy absorption throughout that range.

2. The inflatable restraint must provide adequate protection for each occupant. In addition, unoccupied seats that have an active restraint must not constitute a hazard to any occupant.

3. The design must prevent the inflatable restraint from being incorrectly buckled and/or incorrectly installed such that the airbag would not properly deploy. Alternatively, it must be shown that such deployment is not hazardous to the occupant and will provide the required protection.

4. It must be shown that the inflatable restraint system is not susceptible to inadvertent deployment as a result of wear and tear or the inertial loads resulting from in-flight or ground maneuvers (including gusts and hard landings) that are likely to be experienced in service.

5. It must be extremely improbable for an inadvertent deployment of the restraint system to occur, or an inadvertent deployment must not impede the pilot's ability to maintain control of the airplane or cause an unsafe condition (or hazard to the airplane). In addition, a deployed inflatable restraint must be at least as strong as a Technical Standard Order (C114) three-point harness.

6. It must be shown that deployment of the inflatable restraint system is not hazardous to the occupant or result in injuries that could impede rapid egress. This assessment should include occupants whose restraint is loosely fastened.

7. It must be shown that an inadvertent deployment that could cause injury to a standing or sitting person is improbable. In addition, the restraint must also provide suitable visual warnings that would alert rescue personnel to the presence of an inflatable restraint system.

8. It must be shown that the inflatable restraint will not impede rapid egress of the occupants 10 seconds after its deployment.

9. For the purposes of complying with HIRF and lightning requirements, the inflatable restraint system is considered a critical system since its deployment could have a hazardous effect on the airplane.

10. It must be shown that the inflatable restraints will not release hazardous quantities of gas or particulate matter into the cabin.

11. The inflatable restraint system installation must be protected from the effects of fire such that no hazard to occupants will result.

12. There must be a means to verify the integrity of the inflatable restraint activation system before each flight or it must be demonstrated to reliably operate between inspection intervals.

13. A life limit must be established for appropriate system components.

14. Qualification testing of the internal firing mechanism must be performed at vibration levels appropriate for a general aviation airplane.

Issued in Kansas City, Missouri on December 3, 2004.

David R. Showers,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27358 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39-

[Docket No. 2003-NE-09-AD; Amendment 39-13906; AD 2004-25-18]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada PT6A-60A and PT6A-65B Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Pratt & Whitney Canada (PWC) PT6A-60A and PT6A-65B turboprop engines. This AD requires replacing Woodward propeller governor assemblies, part number (P/N) 8210-212H. This AD results from six incidents during airplane acceptance flight testing where directional control of the airplane was difficult to maintain during landing. We are issuing this AD to prevent loss of directional control and damage to the airplane.

DATES: This AD becomes effective January 18, 2005.

ADDRESSES: You can get the service information identified in this AD from Pratt & Whitney Canada, 1000 Marie-Victorin, Longueuil, Quebec, Canada J4G1A1.

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7178; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to PWC PT6A-60A and PT6A-65B turboprop engines. We published the proposed AD in the *Federal Register* on June 17, 2003, (68 FR 35826). That action proposed to require replacing Woodward propeller governor assemblies, P/N 8210-212H.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Suggestion That the Solenoid-Actuated Design Is Not Hazardous

One commenter suggests that the solenoid-actuated design is not considered hazardous and will not cause "total" loss of directional control. The commenter admits that this condition will affect directional control but states, based on Raytheon Aircraft Company flight tests with one solenoid failed during certification, "at no time was directional control totally lost or any damage incurred to the aircraft."

We do not agree. Although Raytheon Aircraft Company conducted a flight test that did not result in "total" loss of control or damage to the airplane, we feel the test was flown under more controlled circumstances than those occurring in service and with knowledge that one solenoid was failed during the test. The commenter doesn't address the situation where an average pilot, experiencing this failure unexpectedly, would make the correct control responses at the correct times to prevent "total" loss of directional control and damage to the aircraft. We have not changed the AD.

Request To Add Models PT6A-60AG, PT6A-65AR, and PT6A-65R to the Applicability

The same commenter asks us to add PWC models PT6A-60AG, PT6A-65AR, and PT6A-65R to the applicability of the AD. The commenter points to the discrepancy in engine models between the proposed AD and the PWC Service Bulletin (SB) PT6A-72-13354, dated July 6, 2001.

We do not agree. Although the SB addresses both propeller governor configurations, this AD only addresses those propeller governors, P/N 8210-212H, that connect to a solenoid valve installed on an airplane. The engine models PT6A-60A and PT6A-65B are installed on airplanes operating with a solenoid valve. The other engine models, incorporating Woodward Propeller Governor, P/N 8210-212], are installed on airplanes configured with a push-pull rod mechanism. These engine models are not affected by this AD. We have not changed the AD.

Request To Write the AD Against the Propeller Governor Rather Than the Engine

One commenter requests that the AD be written against the propeller governor rather than the engine. The commenter states that there is nothing wrong with the engine except when it is used with a particular propeller governor.

We do not agree. Even though there is nothing wrong with either the propeller

governor or the engine if isolated from the aircraft system, the propeller governor design is compromised when it operates on aircraft configured with a solenoid valve. Therefore, the combined system level interaction between an aircraft level component (solenoid valve) and the engine level part (propeller governor) makes this AD action necessary. We have not changed the AD.

Request To Include Additional Aircraft to the Applicability

One commenter requests that both the Air Tractor AT-802A and the CASA C-212-DE aircraft be included in the applicability. The commenter states that the PT6A-65B engine model is installed on these aircraft.

We do not agree. While PT6A-65B engines are installed on these airplanes, the airplanes have a push-pull rod activation mechanism. This AD does not affect those engines. We have not changed the AD.

Revision 1 to PWC SB PT6A-72-13354

After we issued the NPRM, we learned that PWC issued P&WC SB No. PT6A-72-13354, Revision 1, dated July 11, 2003. This SB calls out certain PT6A-60 and PT6A-65B engines by engine serial number. We added the affected engine serial numbers to the applicability section of this AD, and changed the reference to the SB in compliance paragraph (f) to P&WC SB No. PT6A-72-13354, Revision 1, dated July 11, 2003.

Increased Labor Rate in the Costs of Compliance

After we issued the NPRM, the Office of Aviation Policy and Plans changed the average labor rate in the Costs of Compliance from \$60.00 to \$65.00. We changed the labor rate in the Costs of Compliance to \$65.00 and adjusted the total cost to operators.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

Costs of Compliance

There are about 73 PWC PT6A-60A and PT6A-65B turboprop engines of the affected design in the worldwide fleet. We estimate that 70 engines installed on airplanes of U.S. registry will be affected by this AD. We also estimate that it will take about 2 work hours per engine to perform the actions, and that the average labor rate is \$65 per work hour.

Required parts would cost approximately \$24,228 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$1,705,060. The manufacturer informed us that it might provide the parts and labor to the operators at no cost, substantially reducing the cost impact of this rule.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under **ADDRESSES**. Include "AD Docket No. 2003-NE-09-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2004-25-18 Pratt & Whitney Canada:
Amendment 39-13906. Docket No. 2003-NE-09-AD.

Effective Date

(a) This AD becomes effective January 18, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Pratt & Whitney Canada (PWC) PT6A-60A turboprop engines, with an engine serial number (SN) which is before and includes SN PCE-PK0425, and SNs PCE-95006 thru PCE-95828, and PT6A-65B turboprop engines, with a SN which is before and includes SN PCE-PP0062, and PCE-32001 thru PCE-32644 and all engines converted to engine model PT6A-65B, that have Woodward propeller governor assemblies, part number (P/N) 8210-212H, installed. These engines are installed on, but not limited to, Raytheon Super Beech King Air 300/350 and Raytheon Beech 1900/1900C airplanes.

Unsafe Condition

(d) This AD results from six incidents during airplane acceptance flight testing, whereby directional control of the airplane was difficult to maintain during landing. The actions specified in this AD are intended to prevent loss of directional control and damage to the airplane.

Compliance

(e) Compliance with this AD is required as indicated, unless already done.

Removal of Woodward Propeller Governor Assemblies

(f) Replace Woodward propeller governor assemblies, P/N 8210-212H, at the next access to the governor or within six months after the effective date of this AD, whichever occurs earlier. Information on replacing the Woodward propeller governor assembly can be found in Pratt & Whitney Canada Service Bulletin No. PT6A-72-13354, Revision 1, dated July 11, 2003.

(g) After the effective date of this AD, do not install any Woodward propeller governor assembly, P/N 8210-212H, on any engine.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) The subject of this AD is addressed in Transport Canada airworthiness directive CF-2002-02, dated January 15, 2002.

Material Incorporated by Reference

(j) None.

Issued in Burlington, Massachusetts, on December 6, 2004.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 04-27319 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-18579; Directorate Identifier 2004-CE-19-AD; Amendment 39-13892; AD 2004-23-01]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Model PC-7 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This document makes a correction to Airworthiness Directive (AD) 2004-23-01, which was published in the *Federal Register* on November 9, 2004 (69 FR 64832), and applies to certain Pilatus Aircraft Ltd. (Pilatus) Model PC-7 airplanes with any Lear Romec RR53710B type or Lear Romec RR53710K fuel booster pump (Pilatus part number 968.84.11.401; 968.84.11.403; or 968.84.11.404) installed. We incorrectly referenced the amendment number as Amendment 39-13856. The correct amendment number is Amendment 39-13892. This action corrects the regulatory text.

DATES: The effective date of this AD remains December 27, 2004.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4050; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Discussion

On September 8, 2004, FAA issued AD 2004-23-01, Amendment 39-13856

(69 FR 64832, November 9, 2004), which applies to certain Pilatus Aircraft Ltd. (Pilatus) Model PC-7 airplanes with any Lear Romec RR53710B type or Lear Romec RR53710K fuel booster pump (Pilatus part number 968.84.11.401; 968.84.11.403; or 968.84.11.404) installed.

This AD requires you to check the airplane logbook to determine whether any installed fuel booster pump has been modified with spiral wrap to protect the wire leads and has the suffix letter "B" added to the serial number of the fuel booster pump identification plate.

If any installed fuel booster pump has not been modified, you are required to inspect any installed fuel booster pump wire lead for defects; if defects are found, replace the fuel booster pump with a modified fuel booster pump with spiral wrap that protects the wire leads; or if no defects are found, install spiral wrap to protect any wire leads and add the suffix letter "B" to the serial number of the fuel booster pump identification plate.

The pilot is allowed to do the logbook check. If the pilot can positively determine that the fuel booster pump wire leads with spiral wrap are installed following the service information and that the suffix letter "B" is included in the serial number of the fuel booster pump identification plate, no further action is required.

Need for the Correction

The FAA incorrectly referenced the amendment number as Amendment 39-13856. The correct amendment number is Amendment 39-13892. This correction is needed to ensure that the amendment number is correct and to eliminate misunderstanding in the field.

Correction of Publication

Accordingly, the publication of November 9, 2004 (69 FR 64832), of Amendment 39-13856; AD 2004-23-01, which was the subject of FR Doc. 04-24717, is corrected as follows:

On page 64832, column 1, lines 18 and 19, replace Amendment 39-13856 with Amendment 39-13892.

§ 39.13 [Corrected]

■ On page 64833, in § 39.13 [Amended], revise the phrase "Amendment 39-13856" to read, "Amendment 39-13892".

■ Action is taken herein to correct this reference in AD 2004-23-01 and to add this AD correction to § 39.13 of the Federal Aviation Regulations (14 CFR 39.13).

The effective date remains December 27, 2004.

Issued in Kansas City, Missouri, on December 8, 2004.

Sandra J. Campbell,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27320 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No. FAA-2001-10047; Amdt. No. 91-274]

RIN 2120-AH06

Regulation of Fractional Aircraft Ownership Programs and On-Demand Operations; Correction

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This document makes a correction to the final rule published in the *Federal Register* on September 17, 2003 (68 FR 54520), which issued regulations governing operations of aircraft in fractional ownership programs. This correction is necessary to correct an error in the final rule.

DATES: Effective Date: Effective on December 14, 2004.

FOR FURTHER INFORMATION CONTACT:

Katherine Hakala Perfetti, Flight Standards Service (AFS-200), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-3760, e-mail: katherine.perfetti@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The final rule was published on September 17, 2003 and had an effective date of November 17, 2003. One section of the rule cites a compliance date that is 15 months after the publication date of the rule. The date was intended to be 15 months after the effective date. This document corrects that date.

List of Subjects in 14 CFR Part 91

Aircraft, Airworthiness directives and standards, Aviation safety, Safety.

The Correcting Amendment

■ Accordingly, 14 CFR part 91 is corrected by making the following amendment:

PART 91—GENERAL OPERATION AND FLIGHT RULES

Subpart K—Fractional Ownership Operations

■ 1. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506-46507, 47122, 47508, 47528-47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

§ 91.1002 [corrected]

■ 2. Amend § 91.1002 by removing "October 17, 2003" and adding, in its place "November 17, 2003" and removing "December 17, 2004" and adding, in its place "February 17, 2005".

Issued in Washington, DC on December 7, 2004.

Brenda D. Courtney,

Acting Director, Office of Rulemaking.

[FR Doc. 04-27356 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 95

[Docket No. 30432; Amdt. No. 452]

IFR Altitudes; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts miscellaneous amendments to the required IFR (instrument flight rules) altitudes and changeover points for certain Federal airways, jet routes, or direct routes for which a minimum or maximum en route authorized IFR altitude is prescribed. This regulatory action is needed because of changes occurring in the National Airspace System. These changes are designed to provide for the safe and efficient use of the navigable airspace under instrument conditions in the affected areas.

EFFECTIVE DATE: 0901 UTC, January 20, 2005.

FOR FURTHER INFORMATION CONTACT:

Donald P. Pate, Flight Procedure Standards Branch (AMCAFS-420), Flight Technologies and Programs Division, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 (Mail Address: P.O. Box

25082 Oklahoma City, OK 73125)
 telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION: This amendment to part 95 of the Federal Aviation Regulations (14 CFR part 95) amends, suspends, or revokes IFR altitudes governing the operation of all aircraft in flight over a specified route or any portion of that route, as well as the changeover points (COPs) for Federal airways, jet routes, or direct routes as prescribed in part 95.

The Rule

The specified IFR altitudes, when used in conjunction with the prescribed changeover points for those routes, ensure navigation aid coverage that is adequate for safe flight operations and free of frequency interference. The reasons and circumstances that create the need for this amendment involve matters of flight safety and operational efficiency in the National Airspace System, are related to published aeronautical charts that are essential to the user, and provide for the safe and efficient use of the navigable airspace. In addition, those various reasons or circumstances require making this amendment effective before the next

scheduled charting and publication date of the flight information to assure its timely availability to the user. The effective date of this amendment reflects those considerations. In view of the close and immediate relationship between these regulatory changes and safety in air commerce, I find that notice and public procedure before adopting this amendment are impracticable and contrary to the public interest and that good cause exists for making the amendment effective in less than 30 days.

Conclusion

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant

economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 95

Airspace, Navigation (air).
 Issued in Washington, DC, on December 9, 2004.

James J. Ballough,
 Director, Flight Standards Service.

Adoption of the Amendment

■ Accordingly, pursuant to the authority delegated to me by the Administrator, part 95 of the Federal Aviation Regulations (14 CFR part 95) is amended as follows effective at 0901 UTC, January 20, 2005.

PART 95—[AMENDED]

■ 1. The authority citation for part 95 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44719, 44721.

■ 2. Part 95 is amended to read as follows:

Revisions to IFR Altitudes & Changeover Points, Amendment 452, Effective Date January 20, 2005

§ 95.1001 DIRECT ROUTES—U.S.

From	To	MEA
DIRECT ROUTES IS AMENDED TO READ IN PART		
GATORS, FL VORTAC *1700—MOCA	ROYES, FL FIX	*3000

§ 95.6001 VICTOR ROUTES—U.S.

From	To	MEA
§ 95.6330 VOR FEDERAL AIRWAY V330 IS AMENDED TO READ IN PART		
TORIN, ID FIX	*KINZE, ID FIX	8000
*8000—MCA KINZE, ID FIX, W BND		

§ 95.6444 VOR FEDERAL AIRWAY V444 IS AMENDED TO READ IN PART

BURLEY, ID VOR/DME	*KINZE, ID FIX	**8000
*11200—MCA KINZE, ID FIX, NW BND		
**7000—MOCA.		
KINZE, ID FIX	*SOLDE, ID FIX.	
NW BND		
SE BND		
*12500—MCA SOLDE, ID FIX, W BND.		
SOLDE, ID FIX	*DERSO, ID FIX	**17000
*12500—MCA DERSO, ID FIX, W BND.		
**9200—MOCA.		

§ 95.6500 VOR FEDERAL AIRWAY V500 IS AMENDED TO READ IN PART

AROWS, ID FIX	*DERSO, ID FIX	**12500
*12500—MCA DERSO, ID FIX, E BND.		
**9700—MOCA.		
DERSO, ID FIX	*SOLDE, ID FIX	**17000
*12500—MCA SOLDE, ID FIX, E BND.		
**9200—MOCA.		

[FR Doc. 04-27357 Filed 12-13-04; 8:45 am]
BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. 30431; Amdt. No. 3111]

Standard Instrument Approach Procedures; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, addition of new obstacles, or changes in air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: This rule is effective December 14, 2004. The compliance date for each SIAP is specified in the amendatory provisions.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 14, 2004.

ADDRESSES: Availability of matters incorporated by reference in the amendment is as follows:

For Examination—

1. FAA Rules Docket, FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591;

2. The FAA Regional Office of the region in which the affected airport is located;

3. The Flight Inspection Area Office which originated the SIAP; or,

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

*For Purchase—*Individual SIAP copies may be obtained from:

1. FAA Public Inquiry Center (APA-200), FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591; or

2. The FAA Regional Office of the region in which the affected airport is located.

*By Subscription—*Copies of all SIAPs, mailed once every 2 weeks, are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

FOR FURTHER INFORMATION CONTACT:

Donald P. Pate, Flight Procedure Standards Branch (AMCAFS-420), Flight Technologies and Programs Division, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd. Oklahoma City, OK 73169 (Mail Address: P.O. Box 25082 Oklahoma City, OK 73125) telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION: This amendment to part 97 of the Federal Aviation Regulations (14 CFR part 97) establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs). The complete regulatory description of each SIAP is contained in official FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and § 97.20 of the Federal Aviation Regulations (FAR). The applicable FAA Forms are identified as FAA Forms 8260-3, 8260-4, and 8260-5. Materials incorporated by reference are available for examination or purchase as stated above.

The large number of SIAPs, their complex nature, and the need for a special format make their verbatim publication in the *Federal Register* expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, but refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained in FAA form documents is unnecessary. The provisions of this amendment state the affected CFR (and FAR) sections, with the types and effective dates of the SIAPs. This amendment also identifies the airport, its location, the procedure identification and the amendment number.

The Rule

This amendment to part 97 is effective upon publication of each separate SIAP as contained in the transmittal. Some SIAP amendments may have been

previously issued by the FAA in a National Flight Data Center (NFDC) Notice to Airmen (NOTAM) as an emergency action of immediate flight safety relating directly to published aeronautical charts. The circumstances which created the need for some SIAP amendments may require making them effective in less than 30 days. For the remaining SIAPs, an effective date at least 30 days after publication is provided.

Further, the SIAPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these SIAPs, the TERPS criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs and safety in air commerce, I find that notice and public procedure before adopting these SIAPs are impracticable and contrary to the public interest and, where applicable, that good cause exists for making some SIAPs effective in less than 30 days.

Conclusion

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) Is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 97

Air traffic control, Airports, Incorporation by reference, and Navigation (Air).

Issued in Washington, DC, on December 3, 2004.

James J. Ballough,

Director, Flight Standards Service.

Adoption of the Amendment

■ Accordingly, pursuant to the authority delegated to me, part 97 of the Federal Aviation Regulations (14 CFR part 97) is amended by establishing, amending, suspending, or revoking Standard Instrument Approach Procedures, effective at 0901 UTC on the dates specified, as follows:

PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES

■ 1. The authority citation for part 97 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721–44722.

■ 2. Part 97 is amended to read as follows:

... *Effective 20 January 2005*

Clarksville, AR, Clarksville Muni, RNAV (GPS) RWY 9, Orig-A
 Beckwourth, CA, Nervino, RNAV (GPS) RWY 25, Orig
 Fort Lauderdale, FL, Fort Lauderdale-Hollywood Intl, RNAV (GPS) RWY 27R, Orig-B
 Orlando, FL, Executive, RNAV (GPS) RWY 7, Orig-B
 Orlando, FL, Orlando Intl, RNAV (GPS) RWY 17R, Orig-C
 Columbus, GA, Columbus Metropolitan, RADAR-1, Amdt 8B, CANCELLED
 Hinesville, GA, Liberty County, RNAV (GPS) RWY 32, Orig-A
 Macon, GA, Macon Downtown, RADAR-1, Amdt 3, CANCELLED
 Macon, GA, Middle Georgia Regional, RADAR-1, Amdt 14, CANCELLED
 Montezuma, GA, Dr. C.P. Savage Sr, RNAV (GPS) RWY 36, Orig-A
 Vidalia, GA, Vidalia Regional, RNAV (GPS) RWY 24, Orig-A
 Jackson, KY, Julian Carroll, RNAV (GPS) RWY 1, Orig-A
 Batesville, MS, Panola County, RNAV (GPS) RWY 1, Orig-A
 Batesville, MS, Panola County, RNAV (GPS) RWY 19, Orig-A
 Philadelphia, MS, Philadelphia Muni, RNAV (GPS) RWY 36, Orig-A
 Raymond, MS, John Bell Williams, RNAV (GPS) RWY 12, Orig-B
 Raymond, MS, John Bell Williams, RNAV (GPS) RWY 30, Orig-B
 Grants, NM, Grants-Milan Muni, RNAV (GPS) 31, Orig-A
 Santa Fe, NM, Santa Fe Muni, RNAV (GPS) RWY 20, Orig-A
 Santa Fe, NM, Santa Fe Muni, RNAV (GPS) RWY 28, Orig-A
 Beaufort, NC, Michael J. Smith Field, RNAV (GPS) RWY 3, Orig-A
 Beaufort, NC, Michael J. Smith Field, RNAV (GPS) RWY 8, Orig-A
 Beaufort, NC, Michael J. Smith Field, RNAV (GPS) RWY 32, Orig-A
 Elizabeth City, NC, Elizabeth City Coast Guard Air Station/Regional, RNAV (GPS) RWY 1, Orig-A
 Greenville, NC, Pitt-Greenville, ILS OR LOC RWY 20, Amdt 4
 Greenville, NC, Pitt-Greenville, RNAV (GPS) RWY 20, Amdt 1
 Greenville, NC, Pitt-Greenville, RNAV (GPS) RWY 8, Amdt 1
 Greenville, NC, Pitt-Greenville, RNAV (GPS) RWY 2, Orig
 Greenville, NC, Pitt-Greenville, RNAV (GPS) RWY 26, Amdt 1
 Greenville, NC, Pitt-Greenville, RNAV (GPS) Y RWY 2, Orig, CANCELLED
 Greenville, NC, Pitt-Greenville, RNAV (GPS) Z RWY 2, Orig, CANCELLED

Statesville, NC, Statesville Regional, LOC/DME RWY 28, Orig
 Henryetta, OK, Henryetta Muni, RNAV (GPS) RWY 36, Orig-A
 Oklahoma City, OK, Clarence E. Page Muni, RNAV (GPS) RWY 35L, Orig-A
 Ponca City, OK, Ponca City Regional, RNAV (GPS) RWY 35, Orig-A
 Wagoner, OK, Hefner-Easley, RNAV (GPS) RWY 18, Orig-A
 Wagoner, OK, Hefner-Easley, RNAV (GPS) RWY 36, Orig-A
 Baytown, TX, R W J Airpark, RNAV (GPS) RWY 26, Amdt 1
 Baytown, TX, R W J Airpark, RNAV (GPS) RWY 32, Orig
 Baytown, TX, R W J Airpark, VOR/DME RWY 32, Amdt 5
 Baytown, TX, R W J Airpark, GPS RWY 32, Orig, CANCELLED
 Baytown, TX, R W J Airpark, VOR/DME RNAV RWY 26, Amdt 1, CANCELLED
 Dallas, TX, Addison, RNAV (GPS) RWY 33, Orig-A
 Chase City, VA, Chase City Muni, RNAV (GPS) RWY 18, Orig
 Chase City, VA, Chase City Muni, RNAV (GPS) RWY 36, Orig

... *Effective 17 February 2005*

Apple Valley, CA, Apple Valley, RNAV (GPS) RWY 18, Orig-B

... *Effective 17 March 2005*

Kalskag, AK, Kalskag, RNAV (GPS) RWY 6, Orig
 Kalskag, AK, Kalskag, RNAV (GPS)-A, Orig
 Kalskag, AK, Kalskag, GPS RWY 6, Orig-A, CANCELLED
 Kalskag, AK, Kalskag, GPS RWY 24, Orig-A, CANCELLED
 Tracy, MN, Tracy Muni, RNAV (GPS) RWY 11, Orig
 Tracy, MN, Tracy Muni, RNAV (GPS) RWY 29, Orig
 Madison, WI, Dane County Regional-Truax Field, RNAV (GPS) RWY 14, Amdt 1
 Madison, WI, Dane County Regional-Truax Field, RNAV (GPS) RWY 18, Amdt 1
 Madison, WI, Dane County Regional-Truax Field, RNAV (GPS) RWY 21, Amdt 1
 Madison, WI, Dane County Regional-Truax Field, RNAV (GPS) RWY 32, Amdt 1
 Madison, WI, Dane County Regional-Truax Field, RNAV (GPS) RWY 36, Amdt 1
 Madison, WI, Dane County Regional-Truax Field, ILS OR LOC/DME RWY 18, Orig
 Madison, WI, Dane County Regional-Truax Field, ILS OR LOC/DME RWY 21, Orig
 Madison, WI, Dane County Regional-Truax Field, ILS OR LOC/DME RWY 36, Orig
 Madison, WI, Dane County Regional-Truax Field, ILS RWY 18, Amdt 7C, CANCELLED
 Madison, WI, Dane County Regional-Truax Field, ILS RWY 21, Orig-A, CANCELLED
 Madison, WI, Dane County Regional-Truax Field, ILS RWY 36, Amdt 29D, CANCELLED
 Madison, WI, Dane County Regional-Truax Field, RADAR-1, Amdt 17

The FAA published an Amendment in Docket No. 30430, Amdt No. 3110 to Part 97 of the Federal Aviation Regulations under section 97.33 effective 20 JAN 2005 in Transmittal

Letter 04-26. The following SIAP is hereby rescinded. The SIAP has not yet been published in the **Federal Register**. Transmittal Letter 05-02 dated 17DEC05 will contain the information related to the **Federal Register**.

Deadhorse, AK, Deadhorse, LOC/DME BC RWY 22, Amdt 10

The procedures listed below appeared in Transmittal Letter 04-26, all were incorrectly associated with the state of Alabama (AL) on page 7 of the part 97 Docket. The correct state of association is Alaska (AK). The 8260 series forms were correct and do not need to be published again. Corrections appear below:

Point Lay, AK, Point Lay LRRS, RNAV (GPS) RWY 5, Orig
 Point Lay, AK, Point Lay LRRS, RNAV (GPS) RWY 23, Orig
 Point Lay, AK, Point Lay LRRS, NDB RWY 5, Orig
 Point Lay, AK, Point Lay LRRS, NDB RWY 5, Orig, CANCELLED
 Point Lay, AK, Point Lay LRRS, GPS RWY 5, Orig, CANCELLED
 Point Lay, AK, Point Lay LRRS, GPS RWY 23, Orig, CANCELLED

[FR Doc. 04-27218 Filed 12-13-04; 8:45 am]
 BILLING CODE 4910-13-P

DEPARTMENT OF COMMERCE**Office of the Secretary****15 CFR Part 6**

[Docket No. 031205307-4336-02]

RIN 0690-AA34

Civil Monetary Penalties; Adjustment for Inflation

AGENCY: Office of the Secretary, Commerce.

ACTION: Final rule.

SUMMARY: This final rule is being issued to adjust each civil monetary penalty provided by law within the jurisdiction of the Department of Commerce (the Department). The Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, required the head of each agency to adjust its civil monetary penalties (CMP) for inflation no later than October 23, 1996, and requires them to make adjustments at least once every four years thereafter. These inflation adjustments will apply only to violations that occur after the effective date of this rule.

DATES: This rule is effective December 14, 2004.

ADDRESSES: Office of General Counsel, Department of Commerce, 14th and Constitution Avenue, MS 5876, Washington, DC 20230.

FOR FURTHER INFORMATION CONTACT:

Peter Robbins, 202-482-0846

SUPPLEMENTARY INFORMATION:

The Federal Civil Penalties Inflation Adjustment Act of 1990 (Public Law 101-410) provided for the regular evaluation of CMPs to ensure that they continued to maintain their deterrent value and that penalty amounts due to the Federal Government were properly accounted for and collected. On April 26, 1996, the Federal Civil Penalties Inflation Adjustment Act of 1990 was amended by the Debt Collection Improvement Act of 1996 (Public Law 104-134) to require each agency to issue regulations to adjust its CMPs for inflation at least every four years. The amendment further provided that any resulting increases in a CMP due to the inflation adjustment should apply only to the violations that occur subsequent to the date of the publication in the **Federal Register** of the increased amount of the CMP. The first inflation adjustment of any penalty shall not exceed ten percent of such penalty.

On October 24, 1996, and again on November 1, 2000, the Department published in the **Federal Register** a schedule of CMP adjusted for inflation as required by law. By this publication CMPs are again being adjusted for inflation as prescribed by law.

A civil monetary penalty is defined as any penalty, fine, or other sanction that:

1. Is for a specific monetary amount as provided by Federal law, or has a maximum amount provided for by Federal law; and,
2. Is assessed or enforced by an agency pursuant to Federal law; and,
3. Is assessed or enforced pursuant to an administrative proceeding or a civil action in the Federal courts.

This regulation adjusts the civil penalties that are established by law and assessed or enforced by the Department.

The actual penalty assessed for a particular violation is dependent upon a variety of factors. For example, The National Oceanic and Atmospheric Administration (NOAA) Civil Administrative Penalty Schedule (the Schedule), a compilation of internal guidelines that are used when assessing penalties for violations for most of the statutes NOAA enforces, will be interpreted in a manner consistent with this regulation to maintain the deterrent effect of the penalties recommended therein. The penalty ranges in the Schedule are intended to aid enforcement attorneys in determining the appropriate penalty to assess for a particular violation. Pursuant to the notice published in the **Federal Register** (59 FR 19160, April 22, 1994), the

Schedule is maintained and made available for inspection by the public at specific locations.

The inflation adjustment was determined pursuant to the methodology prescribed by Public Law 101-410, which requires the maximum CMP, or the minimum and maximum CMP, as applicable, to be increased by the cost-of-living adjustment. The term "cost-of-living adjustment" was defined in Public Law 104-34 to mean the percentage for each CMP by which the Consumer Price Index (CPI) for June of the calendar year preceding the adjustment exceeds the CPI for the month of June of the calendar year in which the amount of such CMP was last set or adjusted pursuant to law. For the purpose of computing the inflation adjustments, the CPI for June of the calendar year preceding the adjustment means the CPI for June of 2003.

Public Law 101-410 requires each rounded increase to be added to the minimum or maximum penalty amount being adjusted, and the total is the amount of such penalty, as adjusted, subject to the ten percent limitation provided by Public Law 104-134 for the first adjustments.

Rulemaking Requirements

It has been determined that this rule is not significant for purposes of Executive Order 12866.

The Department for good cause finds that notice and opportunity for comment is unnecessary for this rulemaking pursuant to 5 U.S.C. 553(b)(B). It is unnecessary to ask for notice and comment because the Debt Collection Improvement Act of 1996 (the Act) required the head of each agency to adjust its civil monetary penalties no later than October 23, 1996, and at least every four years thereafter, and the Federal Civil Monetary Penalty Inflation Adjustment Act of 1990, as amended by the Act, states how to calculate the inflation adjustment, making such adjustments wholly non-discretionary. This rule merely adjusts the Department's CMP according to the statutory requirements. For the same reasons, there exists good cause to waive the thirty day delay in effectiveness of the rule, pursuant to 5 U.S.C. 553(d)(3).

Because notice and opportunity for comment are not required by 5 U.S.C. 553, or any other law, a Regulatory Flexibility Analysis is not required and none was prepared. This rule does not contain information collection requirements for purposes of the Paperwork Reduction Act.

List of Subjects in 15 CFR Part 6

Law enforcement, Penalties.

James L. Taylor,

Deputy Chief Financial Officer and Director for Financial Management.

■ For the reasons set forth in the preamble, subtitle A of Title 15 of the Code of Federal Regulations is amended as follows:

PART 6—CIVIL MONETARY PENALTY INFLATION ADJUSTMENTS

■ 1. The authority citation for part 6 continues to read as follows:

Authority: Sec. 4, as amended, and sec. 5, Pub. L. 101-410, 104 Stat. 890 (28 U.S.C. 2461 note); Pub. L. 104-134, 110 Stat. 1321, 28 U.S.C. 2461 note.

■ 2. Section 6.4 is revised to read as follows:

§ 6.4 Adjustments to penalties.

The civil monetary penalties provided by law within the jurisdiction of the respective agencies or bureaus of the Department, as set forth below in this section, are hereby adjusted in accordance with the inflation adjustment procedures prescribed in Section Five, from the amounts of such penalties in effect prior to December 14, 2004, to the amounts of such penalties, as thus adjusted.

(a) Bureau of Industry and Security. (1) 15 U.S.C. 5408(b)(1), Fastener Quality Act, violation; from \$27,500 to \$27,500.

(2) 22 U.S.C. 6761(a)(1)(A), Chemical Weapons Convention Implementation Act—Inspection Violation, from \$25,000 to \$25,000.

(3) 22 U.S.C. 6761(a)(1)(B), Chemical Weapons Convention Implementation Act—Record Keeping Violation, from \$5,000 to \$5,000.

(4) 50 U.S.C. 1705(a), International Emergency Economic Powers Act—Export Administration Regulation Violation, from \$11,000 to \$11,000.

(5) 50 U.S.C. 1705(a), International Emergency Economic Powers Act—Chemical Weapons Convention Implementation Act, Import Restriction Violation, from \$11,000 to \$11,000.

(6) 50 U.S.C. App. 2410(c), Export Administration Act—Other Violation, from \$11,000 to \$11,000.

(7) 50 U.S.C. App. 2410(c), Export Administration Act and Section 38 of the Arms Export Control Act—National Security Violation, from \$110,000 to \$120,000.

(b) Economic Development Administration. 19 U.S.C. 2349, Trade Act of 1974—False Statements or Submissions with Applications for Assistance, from \$5,500 to \$5,500.

(c) Bureau of the Census. (1) 13 U.S.C. 304, Delinquency on Delayed filing of Export Documentation, from \$1,100 to \$10,000.

(2) 13 U.S.C. 305, Collection of Foreign Trade Statistics—Violations, from \$1,100 to \$10,000.

(d) Economics and Statistics Administration. 22 U.S.C. 3105(a), International Investment and Trade in Services Act—Failure to Furnish Information, from \$27,500 to \$27,500.

(e) International Trade Administration. (1) 19 U.S.C. 81s, Foreign Trade Zone—Violation, from \$1,100 to \$1,100.

(2) 16 U.S.C. 1677(f)(4), U.S.-Canada FTA Protective Order—Violation, from \$110,000 to \$120,000.

(f) National Oceanic and Atmospheric Administration. (1) 15 U.S.C. 5623(a)(3), Land Remote Sensing Policy Act of 1992, from \$11,000 to \$11,000.

(2) 15 U.S.C. 5658(c), Land Remote Sensing Policy Act of 1992, from \$11,000 to \$11,000.

(3) 16 U.S.C. 773f(a), Northern Pacific Halibut Act of 1982, from \$27,500 to \$27,500.

(4) 16 U.S.C. 783, Sponge Act (1914), from \$550 to \$550.

(5) 16 U.S.C. 957, Tuna Conventions Act of 1950 (1962);

(i) Violation/Subsection a, from \$27,500 to \$27,500.

(ii) Subsequent Violation/Subsection a, from \$60,000 to \$65,000.

(iii) Violation/Subsection b, from \$1,100 to \$1,100.

(iv) Subsequent Violation/Subsection b, from \$5,500 to \$5,500.

(v) Violation/Subsection c, from \$120,000 to \$130,000.

(6) 16 U.S.C. 971e(e), Atlantic Tuna Convention Act of 1975 (1995), from \$120,000 to \$130,000.

(7) 16 U.S.C. 972f(b), Eastern Pacific Tuna Licensing Act of 1984;

(i) Violation/Subsections (a)(1)–(3), from \$27,500 to \$27,500.

(ii) Subsequent Violation/Subsections (a)(1)–(3), from \$60,000 to \$60,000.

(iii) Violation/Subsections (a)(4)–(5), from \$5,500 to \$5,500.

(iv) Subsequent Violation/Subsections (a)(4)–(5), from \$5,500 to \$5,500.

(v) Violation/Subsection (a)(6), from \$120,000 to \$130,000.

(8) 16 U.S.C. 973f(a), South Pacific Tuna Act of 1988, from \$300,000 to \$325,000.

(9) 16 U.S.C. 1174(b), Fur Seal Act Amendments of 1983, from \$11,000 to \$11,000.

(10) 16 U.S.C. 1375(a)(1), Marine Mammal Protection Act of 1972 (1981), from \$11,000 to \$11,000.

(11) 16 U.S.C. 1385(e), Dolphin Protection Consumer Information Act (1990), from \$110,000 to \$120,000.

(12) 16 U.S.C. 1437(d)(1), National Marine Sanctuaries Act (1992), from \$120,000 to \$130,000.

(13) 16 U.S.C. 1540(a)(1), Endangered Species Act of 1973;

(i) Knowing Violations of Section 1538 (1988), from \$27,500 to \$27,500.

(ii) Other Knowing Violations (1988), from \$13,200 to \$13,200.

(iii) Otherwise Violations (1978), from \$550 to \$550.

(14) 16 U.S.C. 1858(a), Magnuson-Stevens Fishery Conservation and Management Act (1990), from \$120,000 to \$130,000.

(15) 16 U.S.C. 2437(a)(1), Antarctic Marine Living Resources Convention Act of 1984;

(i) Knowing Violation, from \$11,000 to \$11,000.

(ii) Violation, from \$5,500 to \$5,500.

(16) 16 U.S.C. 2465(a), Antarctic Protection Act of 1990;

(i) Knowing Violation, from \$11,000 to \$11,000.

(ii) Violation, from \$5,500 to \$5,500.

(17) 16 U.S.C. 3373(a), Lacey Act

Amendments of 1981;

(i) Sale and Purchase Violation, from \$11,000 to \$11,000.

(ii) Marking Violation, from \$275 to \$275.

(iii) False Labeling Violation, from \$11,000 to \$11,000.

(iv) Other than Marking Violation, from \$11,000 to \$11,000.

(18) 16 U.S.C. 3606(b)(1), Atlantic Salmon Convention Act of 1982 (1990), from \$120,000 to \$130,000.

(19) 16 U.S.C. 3637(b), Pacific Salmon Treaty Act of 1985 (1990), from \$120,000 to \$130,000.

(20) 16 U.S.C. 4016(b)(1)(B), Fish and Seafood Promotion Act of 1986, from \$5,500 to \$5,500.

(21) 16 U.S.C. 5010(a)(1), North Pacific Anadromous Stocks Act of 1992, from \$110,000 to \$120,000.

(22) 16 U.S.C. 5103(b)(2), Atlantic Coastal Fisheries Cooperative Management Act (1993), from \$120,000 to \$130,000.

(23) 16 U.S.C. 5154(c)(1), Atlantic Striped Bass Conservation Act (1990), from \$120,000 to \$130,000.

(24) 16 U.S.C. 5507(a)(1), High Seas Fishing Compliance Act of 1995, from \$110,000 to \$120,000.

(25) 16 U.S.C. 5606(b), Northwest Atlantic Fisheries Convention Act of 1995, from \$120,000 to \$130,000.

(26) 22 U.S.C. 1978(e), Fishermen's Protective Act of 1967 (1971);

(i) Violation, from \$11,000 to \$11,000.

(ii) Subsequent Violation, from \$27,500 to \$27,500.

(27) 30 U.S.C. 1462(a), Deep Seabed Hard Mineral Resources Act (1980), from \$27,500 to \$27,500.

(28) 42 U.S.C. 9152(c)(1), Ocean Thermal Energy Conversion Act of 1980, from \$27,500 to \$27,500.

■ 3. Section 6.5 is revised to read as follows:

§ 6.5 Effective date of adjustments.

The adjustments made by § 6.4 of this part, of the penalties there specified, are effective on December 14, 2004, and said penalties, as thus adjusted by the adjustments made by § 6.4 of this part, shall apply only to violations occurring after December 14, 2004, and before the effective date of any future inflation adjustment thereto made subsequent to December 14, 2004 as provided in § 6.6 of this part.

[FR Doc. 04–27314 Filed 12–13–04; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 10

Administrative Practices and Procedures

CFR Correction

In Title 21 of the Code of Federal Regulations, parts 1 to 99, revised as of April 1, 2004, on page 123, § 10.50 is corrected by removing paragraph (c)(11).

[FR Doc. 04–55527 Filed 12–13–04; 8:45 am]

BILLING CODE 1505–01–D

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 520

Oral Dosage Form New Animal Drugs; Furosemide

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the animal drug regulations to reflect approval of an abbreviated new animal drug application (ANADA) filed by Phoenix Scientific, Inc. The ANADA provides for veterinary prescription use of furosemide syrup in dogs by oral administration for treatment of edema associated with cardiac insufficiency and acute noninflammatory tissue edema.

DATES: This rule is effective December 14, 2004.

FOR FURTHER INFORMATION CONTACT:

Lonnie W. Luther, Center for Veterinary Medicine (HFV-104), Food and Drug Administration, 7519 Standish Pl., Rockville, MD 20855, 301-827-8549, e-mail: lonnie.luther@fda.gov.

SUPPLEMENTARY INFORMATION: Phoenix Scientific, Inc., 3915 South 48th St. Ter., St. Joseph, MO 64503, filed ANADA 200-382 for veterinary prescription use of Furosemide Syrup 1% in dogs by oral administration for treatment of edema associated with cardiac insufficiency and acute noninflammatory tissue edema. Phoenix Scientific's Furosemide Syrup 1% is approved as a generic copy of Intervet, Inc.'s LASIX (furosemide) Syrup 1%, approved under NADA 102-380. The ANADA is approved as of November 18, 2004, and the regulations are amended in 21 CFR 520.1010 to reflect the approval. The basis of approval is discussed in the freedom of information summary.

In accordance with the freedom of information provisions of 21 CFR part 20 and 21 CFR 514.11(e)(2)(ii), a summary of safety and effectiveness data and information submitted to support approval of this application may be seen in the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852, between 9 a.m. and 4 p.m., Monday through Friday.

FDA has determined under 21 CFR 25.33(a)(1) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

This rule does not meet the definition of "rule" in 5 U.S.C. 804(3)(A) because it is a rule of "particular applicability." Therefore, it is not subject to the congressional review requirements in 5 U.S.C. 801-808.

List of Subjects in 21 CFR Part 520

Animal drugs.

■ Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Center for Veterinary Medicine, 21 CFR part 520 is amended as follows:

PART 520—ORAL DOSAGE FORM NEW ANIMAL DRUGS

■ 1. The authority citation for 21 CFR part 520 continues to read as follows:

Authority: 21 U.S.C. 360b.

■ 2. Section 520.1010 is amended by adding paragraph (b)(4) to read as follows:

§ 520.1010 Furosemide.

* * * * *

(b) * * *

(4) No. 059130 for use of syrup in paragraph (a)(4) of this section for conditions of use in paragraph (d)(2)(i) and (d)(2)(ii)(A) of this section.

* * * * *

Dated: December 6, 2004.

Stephen F. Sundlof,

Director, Center for Veterinary Medicine.

[FR Doc. 04-27291 Filed 12-13-04; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF TRANSPORTATION**Federal Highway Administration****23 CFR Part 650**

[FHWA Docket No. FHWA-2001-8954]

RIN 2125-AE86

National Bridge Inspection Standards

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: The FHWA is revising its regulation on the National Bridge Inspection Standards (NBIS). This action is necessary to address perceived ambiguities in the NBIS that have been identified since the last update to the regulation in 1988. The changes clarify the NBIS language that is vague or ambiguous; reorganizes the NBIS into a more logical sequence; and makes the regulation easier to read and understand, not only by the inspector in the field, but also by those administering the highway bridge inspection programs at the State or Federal agency level.

DATES: This rule is effective January 13, 2005. The incorporation by reference of the publications listed in this rule is approved by the Director of the Federal Register as of January 13, 2005.

FOR FURTHER INFORMATION CONTACT: Mr. Wade F. Casey, P.E., Federal Lands Highway, HFPD-9, (202) 366-9486, or Mr. Robert Black, Office of the Chief Counsel, HCC-30, (202) 366-1359, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590-0001. Office hours are from 7:45 a.m. to 4:15 p.m. e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:**Electronic Access**

An electronic copy of this document may also be downloaded by using a computer, modem and suitable communications software from the

Government Printing Office's Electronic Bulletin Board Service at (202) 512-1661. Internet users may also reach the Office of the Federal Register's home page at: <http://www.archives.gov> and the Government Printing Office's Web page at: <http://www.access.gpo.gov/nara>.

Background

The FHWA bridge inspection program regulations were developed as a result of the Federal-Aid Highway Act of 1968 (Pub. L. 90-495, 82 Stat. 815) that required the Secretary of Transportation to establish NBIS to ensure the safety of the traveling public.

The 1968 Federal-Aid Highway Act directed the States to maintain an inventory of Federal-aid highway system bridges. The Federal-Aid Highway Act of 1970 (Pub. L. 91-605, 84 Stat. 1713) limited the NBIS to bridges on the Federal-aid highway system. The Surface Transportation Assistance Act of 1978 (Pub. L. 95-599, 92 Stat. 2689) extended NBIS requirements to bridges greater than 20 feet on all public roads. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. 100-17, 101 Stat. 132) expanded the scope of bridge inspection programs to include special inspection procedures for fracture critical members and underwater inspection.

The FHWA published an advance notice of proposed rulemaking (ANPRM) on September 26, 2001, (66 FR 49154) to solicit comments on whether to revise its regulation on the NBIS. The majority of commenters to the ANPRM recommended that the FHWA revise the NBIS regulation.

Discussion of Comments Received to the Notice of Proposed Rulemaking (NPRM)

The FHWA published an NPRM on September 9, 2003, at 68 FR 53063, to solicit public comments on proposed changes to the NBIS. All comments received to the NPRM were carefully considered in the decision to publish a final rule. Commenters included: representatives from 1 Federal agency, 25 States, 44 counties, 9 cities, 1 Indian tribal government, 4 consulting firms, the American Association of State Highway and Transportation Officials (AASHTO), the Association of Diving Contractors International (ADCI), the Illinois Association of County Engineers (IACE), the National Association of County Engineers (NACE) and 3 private citizens.

Discussion of Rulemaking Text

The following summarizes the comments submitted to the docket by

the commenters on the NPRM, notes where and why changes have been made to the rule, and why particular recommendations or suggestions have not been incorporated into the following regulations. Paragraph references are as designated in the NPRM, unless otherwise stated.

Summary of Comments

In general, comments received to the NPRM provided both support for and opposition to the proposed changes. A number of commenters were concerned about the cost of the proposed changes versus the benefit and impact on bridge safety. Other commenters believed that the proposed regulation would help strengthen and improve the nation's bridge inspection program. Some commenters argued that there were still areas of ambiguity. Other commenters noted we had achieved our objective of addressing ambiguities in the current NBIS regulation. Commenters provided a lot of very good suggestions that have been considered in the final rule.

Section-by-Section Analysis

Section 650.301 Purpose

The FHWA did not receive any comments that specifically addressed this section.

Section 650.303 Applicability

The Missouri and Massachusetts DOTs agreed that the NBIS apply only to highway bridges.

The Illinois and Oklahoma DOTs as well as the AASHTO asked that definitions of "public road" and "highway bridge" be included to further clarify applicability. The Oregon DOT and the U.S. Navy also wanted to include a definition for "highway bridge."

FHWA response: The terms "public road" and "highway" are already defined in 23 U.S.C. 101. We added to the list of definitions in § 650.305 a reference to the existing definitions for "public road" and "highway."

The Iowa DOT pointed out that the AASHTO Manual for Condition Evaluation of Bridges¹ (hereinafter referred to as the AASHTO Manual) includes bridges that carry pedestrians and other non-highway passageways and that the NBIS needs to be very clear

that it does not apply to these structures.

FHWA response: As clearly stated in § 650.303, the NBIS apply only to "highway bridges" located on "public roads." The AASHTO Manual may discuss other non-highway passageways; however, these bridges are not covered under the NBIS.

Collins Engineers and the U.S. Navy were concerned regarding the inspection of pedestrian and railroad bridges and potential threat to travelers on public highways. Likewise, Collins Engineers was concerned about privately owned bridges used by the motoring public.

FHWA response: Some confusion has existed about the applicability of the NBIS to privately owned highway bridges. While 23 U.S.C. 151 states that the NBIS are for all highway bridges, the FHWA has no legal authority to require private bridge owners to inspect and maintain their bridges. While the FHWA does not have the authority to compel the States to inspect privately owned highway bridges, the FHWA strongly encourages that private bridge owners follow the NBIS as the standard for inspecting privately owned highway bridges. Because of the seamless nature of the transportation infrastructure within many States, the motoring public does not know the difference between a privately owned and publicly owned highway bridge. Therefore, States should encourage private bridge owners to inspect their highway bridges in accordance with the NBIS or reroute any public highways away from such bridges if NBIS inspections are not conducted.

The National Bridge Inventory (NBI) lists roughly 2,200 privately owned highway bridges in some 41 States and Puerto Rico. However, the total number of privately owned highway bridges is unknown because the States are not required to report them to the FHWA. Many privately owned highway bridges can be assumed to carry public roads, some of which could be significant highways. The FHWA does not know if privately owned highway bridges are inspected using the NBIS or other standard and the FHWA does not know the level to which privately owned highway bridges are maintained.

Public authorities must follow the NBIS for all highway bridges located on all public roads. The term "public road" is defined in 23 U.S.C. 101(a)(27) as "any road or street under the jurisdiction of and maintained by a public authority and open to public travel." The NBIS applies to seasonally or periodically opened public roads and to limited access public access roads.

Highway bridges owned by Indian tribes are in a separate category. Indian tribes, as sovereign nations, have a unique government-to-government relationship with the Federal government. There is no explicit requirement in 23 U.S.C. 144 that requires inventory of tribally owned bridges. Likewise, there is no explicit requirement in 23 U.S.C. 151 that requires inspection of tribally owned bridges. Absent such clear language, the FHWA has no legal authority to require federally recognized Indian tribes to inventory tribally owned bridges or to comply with the NBIS. On the other hand, in order for tribally owned bridges to participate in the Indian Reservation Road Bridge Program (IRRBP)² and be eligible for Federal funding, a tribally owned bridge has to be inspected and placed in the NBI. Hence, for purposes of this rule, tribally owned bridges mean those bridges designed and constructed to FHWA standards, meeting the NBIS definition of a bridge, and open to the public. Finally, the FHWA strongly encourages that Indian tribes follow the NBIS, as the standard for inspecting tribally owned bridges, particularly those open to public travel (see 23 U.S.C. 151 for the statutory requirement for the National bridge inspection program).

The FHWA recognizes that the NBIS does not apply to federally owned bridges on roads that are used only by employees and not open to the general public. These bridges and administratively used roads support behind-the-scenes operations and are intended for use by employees engaged in official business.

The NBIS does not apply to tunnels, bridges that carry only pedestrians, railroad tracks, pipelines, or other types of non-highway passageways. Public authorities or bridge owners are strongly encouraged to inspect these non-highway carrying bridges and other significant structures. Similarly, the NBIS does not apply to the inspection of sign support structures, high mast lighting, retaining walls, noise barriers structures, and overhead traffic signs. Public authorities have an obligation to the motoring public to periodically inspect and maintain these facilities. Non-public authorities including utility companies, railroads, and private owners who may own these facilities, are strongly encouraged to periodically inspect and maintain their structures for the safety of the motoring public.

¹ The American Association of State Highway and Transportation Officials (AASHTO) Manual for Condition Evaluation of Bridges, 2000, Second Edition may be obtained upon payment in advance by writing to AASHTO, 444 N. Capitol Street, NW., Suite 249, Washington, DC 20001; or it may be ordered on line at the following URL: <http://www.aashto.org/aashto/home.nsf/frontpage>.

² The IRRBP was established under the Transportation Equity Act for the 21st Century (see 23 U.S.C. 202(d)(4)(A)) and the regulation can be found at 23 CFR 661 for improving deficient Indian reservation road highway bridges.

There are some minimal NBI data items that are collected for highway tunnels and non-highway bridges over certain highways that can be collected without trespassing on private property. These items are described in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."³

The Chickasaw Nation commented that it agreed that tribally owned bridges are not subject to 23 U.S.C. 144 explicitly, however, if a tribally owned bridge is planned for replacement with Federal funds such as IRRBP funds,⁴ then an inspection must be conducted. It also cautioned against considering tribally owned bridges not subject to the NBIS when many tribes consider all Indian Reservation Road (IRR) routes and bridges that fall within Indian lands to be tribally owned with right of way granted to the Bureau of Indian Affairs. It indicated that all bridges that fall on an IRR to be public regardless of ownership.

FHWA response: As stated previously, one of the requirements for participation in the IRRBP and eligibility for Federal funding is for the bridge to be recorded in the NBI maintained by the FHWA (see 23 CFR 661.25). In order for this to occur the bridge has to be inspected regardless of ownership. Therefore we agree that a tribally owned bridge needs to be inspected and placed in the NBI in order to obtain Federal funding via the IRRBP. For purposes of this rule, tribally owned bridges mean those bridges designed and constructed to FHWA standards, meeting the NBIS definition of a bridge, and open to the public. This rule addresses the responsibility for bridge safety inspections. It does not provide or intend to address ownership or jurisdictional issues of bridges on Indian reservations.

Section 650.305 Definitions

The Massachusetts, South Dakota and Tennessee DOTs were in favor of including a definition section.

The South Dakota DOT wanted clarification of what is meant by "major flood event," "critical finding," and "predominant bridge inspection experience." The Tennessee DOT wanted to know what "critical finding"

³The "Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges," December 1995, Report No. FHWA-PD-96-001, is available electronically at the following URL: <http://www.fhwa.dot.gov/bridge/mtguide.doc> and may be inspected and copied as prescribed in 49 CFR part 7.

⁴IRRBP funds are provided under the Federal Lands Highway Program see 23 U.S.C. 202(d)(4)(A) and the regulation can be found at 23 CFR 661.

means as used in the proposed § 650.313(l).

FHWA response: We added a definition for "critical finding." A definition for "major flood event" is not required since the term has been removed from the regulation. We believe that the definition for "bridge inspection experience," which includes the statement that "the predominate amount" of experience be "bridge inspection," adequately addresses the intent that a preponderance of the experience for qualification should come from other than bridge design, bridge maintenance or bridge construction experience.

The Kansas DOT wanted the NBIS to either define, replace or eliminate the following terms: "public road," "highway bridge," "professional engineer," "predominant and substantial," "80 hours," "damage inspection," and "routine permit inspection."

The Iowa and Kansas DOTs as well as the AASHTO each recommended that the definition for "damage inspection" be changed. The Illinois DOT proposed a definition for "damage inspection."

The Missouri DOT indicated a preference for retaining the current definition for a "bridge." The Iowa DOT recommended a change in the first sentence of the "bridge" definition deleting reference to "other moving loads."

The Kansas DOT and the AASHTO did not like the 80-hour requirement used in the definition for "comprehensive bridge inspection training." The Kansas DOT was also concerned about its impact on local agencies being able to find qualified consultants with this level of training.

The Iowa DOT as well as the AASHTO recommended inclusion of the term "professional engineer" within the NBIS.

The New Jersey DOT wanted to include a definition for "public road."

The Washington DOT wanted the term "public authority" defined in the NBIS.

The Wyoming DOT commented that the NBIS should clearly identify whether it applies to "privately owned bridges," those located on seasonally opened roads, and those with limited access.

FHWA response: Definitions have been added for "professional engineer" and "damage inspection." The definition from the AASHTO manual for "damage inspection" that was proposed by the Illinois DOT has been adopted. The terms "80 hours," "substantial," "routine permit inspection," and "public authority" will not be used in

the regulation. The term "predominate" will continue to be used in the definition of bridge inspection experience as explained above. The terms "highway" and "public road" are already defined in 23 U.S.C. 101 (a) (11) and (27), respectively. Since the U. S. Code takes precedence over regulations, we reference 23 U.S.C. for the definitions for highway and public road. These definitions will be cited in § 650.305.

We will continue to use the AASHTO definition for "bridge," an action supported by the majority of commenters. The FHWA adopted the AASHTO definition for "bridge" early in the National Bridge Inspection Program. Title 23, U.S.C., section 151 directed the Secretary to establish national bridge inspection standards in consultation with the State transportation departments and interested and knowledgeable private organizations and individuals. Consultation with the State transportation departments through the AASHTO Highway Subcommittee on Bridges and Structures, convinced the FHWA to adopt the AASHTO definition of bridge that has been used since the NBIS was first drafted.

The ADCI wanted the NBIS to include Occupational Safety and Health Administration (OSHA) regulation requirements when diving operations are conducted. The ADCI also commented that a definition for OSHA Safety Standards for Commercial Diving Operations be included in the NBIS. The ADCI also recommended that the term "designated diving supervisor" be included with the definitions along with a revised definition for underwater inspection to indicate diving operations shall be completed in accordance with OSHA regulations.

FHWA response: The FHWA believes that safe diving practices as prescribed by OSHA regulations should be employed during all bridge inspection diving, but we do not reference them. OSHA regulations pertain to both underwater and above-water inspections, so any omission in this standard does not relieve diving inspectors of the requirement to follow OSHA regulations.

The term "designated diving supervisor" is not used in the regulation and will not be included in the definition section.

The Tennessee DOT provided commentary and questions regarding the use of the terms "action plan" and "inspection plan."

FHWA response: The Tennessee DOT points out that these terms are used throughout the regulation and that their

intent should be clear and consistent. Where these terms are used, we have made changes to clarify their meaning, or we have removed them. Refer to the preamble discussion of § 650.313.

The AASHTO and Kansas DOT indicated that the word "and" was missing in the AASHTO title.

FHWA response: We agree and have made this change.

The Massachusetts, Minnesota, Kansas, Michigan, Iowa, and Arkansas DOTs along with the AASHTO asked for a more precise definition of the terms used in the definition for "bridge inspection experience." The IACE discussed the impact of this definition on inspections performed by local agencies.

FHWA response: We have reviewed the definition of "bridge inspection experience" and made minor changes to address these comments. We noted that this definition is adequate to convey the minimum requirements for experience to assure that inspectors are qualified.

The New Jersey, Minnesota and Tennessee DOTs wanted clarification of the term "complex bridge."

FHWA response: The definition gives the States latitude to determine which bridges should be placed in this category and receive special attention. Including complex bridges in § 650.313 captures the intent in the AASHTO Manual that some structures deserve special attention. Cable stayed bridges, suspension bridges, and movable bridges require specialized procedures. The bridge inspection program manager, as defined in § 650.305, may determine that other bridge types require special attention.

The Michigan DOT recommended defining the term "fatigue sensitive" to distinguish from the term "fracture critical."

FHWA response: Since the term "fatigue sensitive" refers to steel members or details that may or may not be part of a load-path redundant system, and since this term is not used in the regulation, we have not added a definition to § 650.305.

The Iowa DOT recommended that "fracture critical inspection" be changed to "fracture critical member inspection." It also provided some commentary on the use of the term "hands on" in this definition and made some suggestions to modify the definition. The Minnesota and Oregon DOT were concerned about the definition for "fracture critical member" and recommended that it be rewritten.

FHWA response: The term "fracture critical" is consistent with the AASHTO Manual. The term "fracture critical member inspection" will be used in the

regulation. The intent is to give special attention to member or member components in spans that do not have load path redundancy.

The IACE, Michigan and Iowa DOTs commented that the definition for "hands-on" inspection should be modified using "may be supplemented by nondestructive testing" instead of "are supplemented by nondestructive testing."

The Iowa DOT recommended that the definition for "in-depth inspection" be modified to note that "hands on inspection may be necessary" but not mandatory.

FHWA response: The second sentence of the definition for "hands-on" has been modified by changing "are" to "may be" so that nondestructive testing is not a requirement of hands-on inspection. The definition for "in-depth inspection" has been modified to note that hands-on inspection may be necessary at some locations.

The Michigan DOT provided a discussion and questions regarding initial inspection. Their discussion states that the definition should include the term "routine inspection procedures" and require timelines for ratings. Collins Engineers commenting on § 650.311(a)(1) pointed out that the depth of routine, biennial inspections varies greatly and recommended a change reflecting that routine inspections be performed hands-on.

FHWA response: We have adopted the definitions for inspection types including "initial" and "routine" that are consistent with the AASHTO Manual.

The Indiana and Maryland DOTs provided commentary and suggested that the definition and role of the "program manager" needs clarification.

FHWA response: The Indiana DOT's concern is that the definition allows more than one program manager. That is a correct assessment of our intent. We do not want to restrict those States that want to have more than one program manager. However, the FHWA desires one individual with overall responsibility for § 650.307(c)(1) and (2). The Maryland DOT wants the definition changed to "eliminate the need for any small local jurisdiction to require fully trained individuals." A qualified team leader must be present for each initial, routine, in-depth, fracture critical member and underwater inspection, regardless of the jurisdiction, and a program manager must be available to provide overall direction to team leaders. The program manager definition in § 650.305 has been revised and the role clarified in § 650.307.

The Arkansas DOT wanted the term "responsible capacity" defined in the NBIS.

FHWA response: We have removed this term from the regulation.

The Iowa, Kansas and Washington DOTs as well as the AASHTO recommended that the definition for "legal load" be modified.

FHWA response: This definition allows the States the flexibility to use their own legal loads, established in State law.

The Illinois, Kansas, and Wisconsin DOTs and the AASHTO recommended changes for the definition "routine permit load."

FHWA response: We have amended the definition in § 650.305 to reflect these recommendations.

The Texas and Oklahoma DOTs recommended that the definition for "scour critical" be modified.

FHWA response: We have considered the comments on this topic and have provided a definition for "scour critical bridge." The NBI item number 113, scour critical bridge, is used to identify the current status of a bridge regarding its vulnerability to scour.

The observed scour condition is one determined during a bridge inspection, or during/after a flood event. A conclusion of instability would typically be attained by comparing the observed scour condition with: (a) The known foundation type and tip elevation, and (b) computed scour critical elevation as determined by an interdisciplinary team.

The evaluated scour condition is one determined by: (1) An assessment of the bridge information available such as foundation type and tip elevation; location of the bridge; review of bridge inspection files; comparison of channel profiles upstream of the bridge, within the bridge opening and downstream of the bridge; soil type; historical data from other bridges on an adjacent stream, and/or (2) a calculation to determine potential scour around the bridge foundation and/or stream instability in the vicinity of the bridge.

The Washington DOT recommended that the NBIS include a definition for "State transportation department."

FHWA response: The term "State transportation department" is already defined in 23 U.S.C. 101(a)(11).

Section 650.307 Bridge Inspection Organization

Federally Owned Bridges

The Missouri DOT wanted clarification that in § 650.307(a) States are relieved of responsibility for federally owned bridges. The Kansas

DOT indicated it is having problems obtaining data on federally owned bridges. The AASHTO suggested that supplying Federal bridge data is waived for Federal agencies.

FHWA response: States are no longer responsible for reporting inspection data on Federal bridges to the FHWA. Federal bridge owners report inspection data directly to the FHWA. The FHWA supplies Federal bridge inspection data to the States. For security and other purposes, the States should have an up-to-date inventory of Federal bridges located within each State.

Bridge Inspection Program Responsibility

The Michigan and Iowa DOTs in response to § 650.307(a) argued that public authorities and/or bridge owners should be responsible for bridge inspections and not the State. The Washington DOT noted that the majority of county and city bridges are inspected by their owners.

FHWA response: The present bridge inspection standards regulation requires the States to have a bridge inspection organization capable of performing the bridge inspections (23 CFR 650.303(a)). The part of the regulation that requires the actual inspection of all bridges on public roads (§ 650.305(a)) is written in the passive voice. Consequently, there might be some confusion as to who is responsible for inspecting each highway bridge in a State.

The FHWA believes, however, that the language of 23 U.S.C. 151 is clear that a State is ultimately responsible for the inspection of public highway bridges within the State, except for those that are federally owned or tribally owned. Subsection (a) of section 151 directs the Secretary, "in consultation with the State transportation departments and interested and knowledgeable private organizations," to establish the bridge inspection standards for "all highway bridges." In subsection (b) the Congress mandates that the standards shall, at a minimum, "specify, in detail, the method by which such inspections shall be carried out by the States." The final rule clears up any ambiguity caused by the existing regulation.

The State DOT can delegate to a smaller unit of the State, for example, a city or county, the inspection of bridges owned or controlled by that unit. A State can direct smaller State units to conduct the NBIS inspections on bridges under its control and that would satisfy § 650.307. However, because of the fundamental relationship established in title 23 of the U.S. Code between the FHWA and a State DOT, if

the inspections by a city or county were not done, the FHWA could withhold Federal-aid highway funds from the State.

Bridge Inspection Funding

The NACE commented on § 650.307(a) and asked why counties have to complete inspections using their own funds.

FHWA response: Federal Bridge Funds (i.e., Highway Bridge Replacement and Rehabilitation Program (HBRRP) funds) can be spent on bridge inspection activities, regardless of the agency performing the inspections. The use and distribution of HBRRP funds within the State is within the State's discretion.

Quality Assurance and Quality Control

The Wyoming DOT commented on § 650.307(c)(1) that all references to "quality assurance (QA)" be removed.

FHWA response: In the past, the FHWA addressed QA as part of a nonregulatory supplement to the Federal-aid program guide. QA is also addressed in the AASHTO Manual. Many States currently have active QA programs; some do not. The FHWA believes that it is imperative that a statewide or Federal agency wide QA program be in place to assure that bridge inspections are being conducted in accordance with these standards and to assure the quality of inspection data. We have included a definition of quality control (QC) and QA to reflect this in § 650.305.

Role of Consultants

The Washington DOT had a question regarding § 650.307(c) for acceptable roles of consultants based on the discussion in the preamble to the NPRM.

FHWA response: Consultants may perform § 650.307(c)(1) and/or (2) activities and functions. To ensure that all NBIS requirements are met, the State still needs a program manager, even when paragraph (c)(1) activities are performed by consultants.

The California DOT supports the changes contained in § 650.307(c).

OSHA Standards

The ADCI wanted to amend § 650.307(c) to add requirements for bridge inspection organizations to conduct dive operations in a safe manner by establishing dive team member qualifications and training for the conduct of safe diving operations that meet or exceed OSHA standards.

FHWA response: This comment was previously addressed in the discussion

of § 650.305 regarding diving operations meeting or exceeding OSHA standards.

Delegation of NBIS Functions

The Hillsdale County Road Commission (HCRC) in Michigan, commented that § 650.307(d) may enable the State to perform inspections of county bridges and was concerned about what will be charged and whether control will be lost regarding bridge postings.

FHWA response: States have always had the responsibility for inspections under the NBIS. Delegation of the NBIS functions to counties and other local agencies is a State issue.

Written Agreements

The Missouri, Illinois, Kansas, and Michigan DOTs as well as the AASHTO commented on § 650.307(d) and the ramifications of entering in agreements with local agencies, stating such agreements should not be part of the NBIS. The Indiana DOT indicated that it would need additional resources (i.e., funding) in order to comply with this section and stated that the intent of clearly defining responsibilities was good, but did not require a regulatory change. The Illinois DOT and the IACE maintain that local agencies and the State have excellent working relationships and need no agreements or State statutes. The New Jersey DOT expressed concern that this section might be interpreted to mean that bridge inspections are discretionary and may limit delegation to public authorities. The Minnesota DOT suggested a rewrite to this section to indicate that delegation does not relieve the State of program oversight or quality assurance. The Alabama DOT commented that the FHWA should "acknowledge that States may delegate NBIS requirements (not responsibilities) in accordance with any laws, regulations or policies that the States may have in effect." The California DOT supported the proposed change. The Marshal and Miami Counties in Kansas indicated that the States should be responsible to assure compliance and delegation should be by written agreement. The Miami County in Kansas further commented that the consequences of not following the NBIS should be strongly stated. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented that they did not want written agreements that were proposed in § 650.307(d) and that local agencies currently have a good working relationship with the State.

FHWA response: The FHWA has reconsidered its position on written agreements after reviewing the many

comments provided. The proposed requirement that delegation must be according to State law or fully executed written agreements has been removed. However, State transportation departments are encouraged to use formal means in delegating these activities and it is essential that all parties involved have a clear understanding as to what requirements are and are not being delegated. The State is still ultimately responsible for the inspection of public highway bridges within the State, except for those that are federally owned or tribally owned.

Program Manager Leadership

The Indiana DOT, in response to § 650.307(e), stated it would need additional resources (*i.e.*, funding) in order to comply with this section and argued that it did not require a regulatory change. The Illinois, Alabama, Kansas, Michigan and Oregon DOTs as well as the AASHTO were concerned regarding proposed language related to the requirement for "program manager."

The Illinois DOT noted that many local agencies use consulting engineers and that the rule change prohibits "program managers" from being consultants. The NACE stated that program manager guidelines are sufficient; however, the expectation that the same experience be required of a town with one bridge is not practical. The Marshal County in Kansas commented that delegated authorities be allowed to hire consultants to act as "project" managers. The Iowa DOT commented that § 650.307(e) qualification standard would place more education, training and experience requirements onto the counties and cities. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented that local agencies should continue to have the option to hire a consultant to handle inspections. The Alcona County Road Commission (ACRC) in Michigan commented that program manager requirements applying to towns with only one bridge is cause for serious local agency concern and requires further discussion.

FHWA response: The FHWA has reconsidered its position regarding each organizational unit being led by a program manager. The program manager qualification requirement applies to the overall State or Federal agency program level. Each State transportation department or Federal agency is only required to have one statewide or Federal agency wide program manager. Applying the program manager

requirement to organizational sub-units or delegated agencies is at the discretion of the State or Federal agency. However, State transportation departments remain responsible for the application of these standards to all highway bridges, even when inspections or other requirements are delegated. For this reason, State transportation departments should be cautious when delegating inspections or other requirements to local agencies that do not have a qualified bridge inspection program manager. In such cases, as in the example of the small town with one bridge and no qualified program manager, the State will assume a direct program manager role in the delegated inspection program.

Qualified consultants may be hired or contracted by State transportation departments, their delegated agencies, and Federal agencies to perform the activities and functions of these standards. However, to ensure that all of the requirements of these standards are met, the States or Federal agencies still need a program manager, even when consultants perform § 650.307(c)(1) activities and functions.

Section 650.309 Qualifications of Personnel

Professional Engineer Discipline; Comprehensive and Refresher Training

The Missouri DOT commented relative to § 650.309 (a)(1), that the NBIS should not specify the discipline of the professional engineer and that the States or Federal agencies can elect to adopt even more specific requirements. A private citizen noted that the professional engineer discipline should be specified as structural, and, that too much emphasis was placed on the professional engineer title rather than the amount and extent of experience and training. The New Jersey DOT stated that the program manager should be required to have field experience.

FHWA response: Our position remains as stated in the preamble to the NPRM that the laws governing licensure within each State or Federal agency ensure that professional engineers only practice engineering in the fields in which they are qualified and experienced. Furthermore, the State or Federal agency is responsible for ensuring that those individuals involved in the bridge inspection program meet the minimum qualifications defined in the NBIS. Although the regulations do not specify the engineering discipline of the professional engineer, individual States or Federal agencies can adopt requirements that are more stringent than the minimum requirements established by the NBIS.

The FHWA agrees that additional emphasis on training is needed. Recommendations from the June 2001 FHWA study of the "Reliability of Visual Inspection for Highway Bridges"⁵ also support the need for further emphasis on training. Accordingly, the regulation includes comprehensive training and refresher training requirements for program managers and team leaders.

Program Manager Qualifications

The South Dakota DOT indicated that they have a professional engineer exemption within their State and asked how the FHWA would address this issue.

FHWA response: Section 650.309 (a)(1) allows two ways of qualifying as a program manager, one of which is being a professional engineer. In those instances where the State exempts its staff from registration requirements, a program manager would have to either be a professional engineer, despite the exemption for State government employees, or have 10 years of bridge inspection experience.

Completion of Comprehensive Bridge Inspection Training

Mr. Todd Hertel commented on § 650.309(a)(2), asking why the program manager is given 12 months to complete training and not the team leader.

FHWA response: Ideally, an individual will have completed the comprehensive bridge inspection training prior to becoming a team leader or program manager. Exceptions to this should be rare. In recognition of the fact that some flexibility is needed to accommodate employee turnover and scheduling of the training, we have removed the 12-month time frame from § 650.309(a)(2). As stated above, the expectation is that individuals will complete the comprehensive training prior to becoming program managers or team leaders. When this is not possible, those individuals will aggressively seek to obtain the training as soon as possible, preferably within 12 months of becoming a program manager or team leader. Prior successful completion of the FHWA approved comprehensive bridge inspection training is acceptable for individuals serving as program managers and team leaders at the time this regulation becomes effective.

⁵ Reliability of Visual Inspection for Highway Bridges Vols I and II (FHWA-RD-01-020; FHWA-RD-01-021) is a publication which documents research done on the accuracy and reliability of the highway bridge inspection process. This report is available through the National Technical Information Service, Springfield, Virginia 22161 or it may be ordered online at the following URL: <http://www.ntis.gov>.

County Engineer Qualifications

The HCRC in Michigan asked if a county engineer would still be qualified to administer the county program that is performed by a consulting firm and if small consulting firms would be able to adhere to these personnel requirements.

FHWA response: The roles and responsibilities of a program manager have been clarified in § 650.307. The qualifications for a program manager or team leader apply regardless of the individual's employer, *i.e.*, State, county, city, consulting firm, etc.

Comprehensive Bridge Inspection Training Requirement

The Missouri, Illinois, Maryland, Minnesota, Kansas, and Virginia DOTs as well as the AASHTO and the IACE in commenting on § 650.309(a)(2) do not agree with the requirement for "comprehensive bridge inspection training" for program managers particularly those who are professional engineers. The Massachusetts, South Dakota and California DOTs support the requirement for "comprehensive bridge inspection training" for program managers. The Pennsylvania DOT recommended that those currently serving as program managers be exempted from the comprehensive training requirement and that nonprofessional engineers should not be program managers. The IACE and the NACE stated that the "comprehensive bridge inspection training" would be burdensome on local agency resources. Thirty-six Kansas counties, six Kansas cities, and two Kansas consultants commented on the proposed § 650.309(a) that local agencies should continue to have the option to hire consultants to handle inspections, with the professional requirement for the program manager, but not the comprehensive training requirement.

FHWA response: The FHWA's position on comprehensive bridge inspection training for program managers has not changed from the previously proposed § 650.309(a)(2). We agree with the majority of commenters to the ANPRM, who were in favor of establishing training and experience requirements for the individual in charge of the bridge inspection program. A program manager needs to be thoroughly familiar with bridge inspection terminology and techniques along with data collection practices and procedures in order to ensure the consistency and reliability of the bridge inspection program. Completion of the same comprehensive training as required for team leaders is one method of addressing the consistency and

reliability issues. These issues apply regardless of the program manager's experience level or professional engineer status.

We have clarified the roles and responsibilities of the program manager in part to address the concerns expressed by several localities regarding the burden imposed by the training requirement.

The current comprehensive training course offered by the National Highway Institute (NHI) is not the only option available. A few States have developed their own comprehensive training and certification programs. In recognition of the need to retain this flexibility, States or Federal agencies are permitted to develop their own "comprehensive inspection training" programs subject to approval by the FHWA. The FHWA will use the "comprehensive bridge inspection training" definition and the "Bridge Inspector's Reference Manual (BIRM)"⁶ as criteria to apply when reviewing these programs. In addition, the NHI course material⁷ is available for those who wish to deliver the training using their own resources.

Regarding the FHWA approval of comprehensive training proposals, it is anticipated that the local FHWA Division office, in consultation with the FHWA Headquarters Office of Bridge Technology, will review and approve proposals from the States. The FHWA Headquarters Office of Bridge Technology will review and approve submittals from Federal agencies.

Professional Engineering, Specialty

The South Dakota and Virginia DOTs and Mr. Todd Hertel commented on § 650.309(b)(2)(i) asking what is meant by a bachelor's degree in "professional engineering" and recommended that it should say bachelor's degree in engineering.

FHWA response: The FHWA has reconsidered its position and has deleted the word "professional."

The New Jersey and Massachusetts DOTs commented on § 650.309(b)(2)(i) and noted that the engineering specialty is too vague and needs to be specified. The Massachusetts DOT stated that a bachelor's degree in civil, structural or related engineering discipline that

provides a background in structural analysis should be included.

FHWA response: The FHWA's position is that at a minimum, an individual with a bachelor's degree in engineering who has successfully completed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination and obtained two years of bridge inspection experience, would qualify as a team leader regardless of the specific discipline of the bachelor's degree. Although the phrase "bachelor's degree in engineering" is not specific to the discipline of engineering, individual States or Federal agencies can adopt requirements that are more stringent than the minimum established by the NBIS.

Engineers Educated at Foreign Universities

The New Jersey DOT commented on § 650.309(b)(2)(i) and indicated that engineers educated at foreign universities would not comply with the accreditation board requirement.

FHWA response: The Accreditation Board for Engineering and Technology (ABET) evaluates institutions outside of the United States. The evaluation is not the same as accreditation; however, an ABET evaluation can result in an assessment of "substantial equivalency." The "substantial equivalency" determination implies reasonable confidence that the foreign institution's program has prepared its graduates to begin professional practice at the entry level. Information on the substantial equivalent programs, including a list of programs that have been assessed by ABET, is available at http://www.abet.org/international/sub_equ_prg1.html.

Additionally, in 1989, several countries including the United States entered an international agreement known as the "Washington Accord" which recognizes the substantial equivalency of engineering programs accredited by these countries. The accord further recommends that graduates of accredited undergraduate programs in any of the signatory countries be recognized by the other countries as having met the requirements for entry into the practice of engineering. Additional information, including a list of signatory countries, may be obtained at <http://www.washingtonaccord.org>.

In consideration of international engineering education programs, the regulation has been revised to reference the substantial equivalency options available through the ABET.

⁶ The Bridge Inspector's Reference Manual (BIRM), 2003, FHWA-NHI-03-001, may be purchased from the U.S. Government Printing Office, Washington, DC and from National Technical Information Service, Springfield, Virginia 22161, and may be viewed online at the following URL: <http://www.fhwa.dot.gov/bridge/bripub.htm>.

⁷ Information regarding NHI training course material can be obtained by contacting the FHWA Report Center at the following electronic mail address: report.center@fhwa.dot.gov.

Engineer-in-Training

Mr. Todd Hertel commented on § 650.309(b)(2)(ii) and wanted to know why the engineer-in-training (EIT) is a requirement. The Miami County in Kansas commenter agreed with all provisions of § 650.309 especially the addition of an EIT as a team leader with two years experience. The Wyoming DOT and Mr. Jerry Fowler, private citizen, stated that the proposed qualifications for "team leader" were too stringent. The Illinois and Kansas DOTs, the IACE, and the AASHTO noted that §§ 650.309(b)(1) through 650.309(b)(4) were required for "team leaders"; however a team leader only needs to meet one of the qualifications, not all. The Maryland DOT stated that professional engineer team leaders with five years experience could be "grandfathered" with respect to the comprehensive training requirement. The Iowa DOT commented that the requirements of § 650.309(b) would place more education, training and inspection experience requirements onto counties and cities. The Pennsylvania DOT agreed with the proposed § 650.309(b); however, it argued that States with a rigorous training and certification program for inspectors should be allowed to substitute an acceptable combination of education, experience and training for the requirements in this section.

FHWA response: The EIT is not a requirement. It is a component of one of the options available for qualification as a team leader under § 650.309(b). The team leader requirements resulted in confusion among several commenters. Accordingly, the FHWA clarified the wording under § 650.309(b) and re-ordered the subparagraphs.

The FHWA's position on comprehensive bridge inspection training for team leaders has not changed from the previously proposed § 650.309(a)(2). We believe that an individual in a team leader position needs to be thoroughly familiar with bridge inspection terminology and techniques along with data collection practices and procedures regardless of the team leader's experience level or professional engineer status. With respect to "grandfathering" current team leaders who are professional engineers but have never completed comprehensive bridge inspection training, the expectation is that those individuals will aggressively seek to obtain the required training as soon as possible, preferably within 12 months of the effective date of this regulation. Prior successful completion of the FHWA approved comprehensive bridge

inspection training is acceptable for individuals serving as team leaders at the time this regulation becomes effective.

As indicated in a previous response, the current comprehensive training course offered by the National Highway Institute is not the only option available. A few States have developed their own comprehensive training and certification programs. In recognition of the need to retain this flexibility, States and Federal organizations are permitted to develop their own "comprehensive inspection training" programs subject to approval by the FHWA. The FHWA will use the comprehensive bridge inspection training definition and the "Bridge Inspector's Reference Manual (BIRM)" as criteria to apply when reviewing these programs. In addition, the National Highway Institute course material is available for those who wish to deliver the training using their own resources.

The FHWA acknowledges the Pennsylvania DOT comment, that there are acceptable alternative combinations of education, experience and training for the requirements of "team leader." Accordingly, we added § 650.309(b)(5) to provide another option to qualify as a team leader.

Bridge Inspection Experience

The Iowa DOT and the AASHTO commented on § 650.309(b)(3) as it relates to "bridge inspection experience" and noted that the term "predominant" used in the definition for this phrase be replaced with the word "substantial." Mr. Todd Hertel commented that a "year's experience" is not defined.

FHWA response: The FHWA recognizes that there are many factors involved in evaluating an individual's bridge inspection experience level. We believe that the definition for "bridge inspection experience," which includes the statement that "the predominate amount" of experience be "bridge inspection," adequately addresses the intent that a preponderance of the experience for qualification should come from other than bridge design, bridge maintenance or bridge construction experience.

Experience in the Field of Practice

The New Jersey DOT commented on § 650.309(b)(4) indicating that the regulation should mandate that a team leader with a professional engineer license should have experience in the field in which they are practicing.

FHWA position: We believe that the laws governing licensure within each State or Federal agency ensure that

professional engineers only practice engineering in the fields in which they are qualified and experienced. The process for obtaining a professional engineer license involves a requirement for a minimum number of years of engineering experience. It is the State or Federal agency's responsibility to ensure that the experience that qualified the individual for professional engineer status is relevant to bridge inspection activities. In addition, although the regulations do not specify a field inspection experience requirement for a team leader who is a professional engineer, individual States or Federal agencies can adopt requirements that are more stringent than the minimums established by the NBIS.

Load Rater Qualifications

The Missouri, Illinois, South Dakota, Alabama, and Pennsylvania DOTs agreed with the requirement in the proposed § 650.309(c). The Maryland DOT indicated that the term "determining" should be changed to "certifies" or "reviews and approves." The South Dakota DOT is concerned regarding the impact of the South Dakota exemption for State government professional engineers on this section. The Kansas DOT commented that a "structural engineer" might function in some States as the "professional engineer." The Illinois DOT and the AASHTO provided language addressing the State of Illinois use of "structural engineers" as a "professional engineer" specialty used to perform structural evaluations.

The Virginia DOT did not agree with the proposed language and stated that a professional engineer license should not be required to fill out a computer data input form. The Pennsylvania DOT commented that responsibility for this individual should also include load-posting evaluations.

FHWA response: Bridge load rating calculations require engineering judgment in determining the safe load-carrying capacity of a bridge and arriving at posting and permitting decisions. Given the importance of these calculations, the person charged with the overall responsibility for load rating bridges should be a professional engineer. The licensing laws require that the professional engineer only practice engineering in areas where he/she is qualified and experienced. Although the discipline of the professional engineer is not specified in the regulation, States or Federal organizations may opt to require a more specific professional engineer discipline, such as structural engineering.

In some organizational structures, the overall responsibility for load ratings may rest with the program manager. In others, there may be several individuals responsible for determining load ratings, in which case each would have to be a professional engineer. The intent is not to require a professional engineer qualification for individuals who simply enter data into load rating computer programs, but rather require that the person(s) who provides the necessary engineering judgment and reviews and approves the actual load rating result be a professional engineer.

The posting of load restrictions on bridges is based in part on the load rating values provided by a professional engineer. As long as a professional engineer has accepted the load rating calculation, the FHWA does not see a need to require a professional engineer to make the posting decision as well. Again, a State or Federal agency may opt to require that the person responsible for load posting be a professional engineer.

Bridge Inspection Refresher Training

The Massachusetts DOT and the U.S. Navy commented that they were in favor of bridge inspection refresher training. The Pennsylvania DOT strongly supports refresher training of inspectors and team leaders every two years with exams; however, they recommended that the "refresher course" should be defined in the NBIS. Mr. Michael Magner, private citizen, indicated that in order to keep his National Institute for Certification in Engineering Technologies (NICET) certification he must document continuing education and experience every four years; therefore, he agrees with not only continuing training but also certification. The Wisconsin DOT does not agree with the proposed § 650.309(d), however; it believes in the concept of refresher training and that it should be left up to the State to determine frequency, content, and duration.

The Missouri DOT does not agree with the proposed § 650.309(d) for program managers and opposes the refresher training requirement for team leaders; however, it recognizes some merit to refresher training if there has been a lapse in conduct of inspections of 2 or more years.

The Indiana DOT agrees that the intent of refresher training is good; however, the costs and logistics involved in executing this requirement would place a strain on State resources. The Wyoming DOT commented that this refresher training should not be a requirement for program managers, but

should be required of team leaders as long as the training can be performed in-house. The Illinois DOT commented that because of the costs associated with refresher training they were reluctant to mandate this requirement especially for professional engineers.

The Minnesota DOT noted that the term "refresher training" is undefined, and as such may be overly burdensome and expensive and recommends that it be advisory and not mandatory. The Kansas DOT commented that training costs are significant and that they have no need for refresher training. The Washington DOT noted that the extent of refresher training needs clarification and that those who work full time in the inspection arena under an FHWA approved quality assurance program be exempted from this requirement.

The IACE indicated that the refresher-training requirement would be a burden on the local agency resources. The NACE thought the refresher training provision to be costly for local governments and proposed a tiered approach based on bridge type and complexity. They also recommended that turning the training development and deployment over to the local technical assistance programs (LTAPs) would be a more economical approach.

The Iowa DOT commented that refresher training would place more requirements on the counties and cities. The ACRC in Michigan supported refresher training, but thought that it should be carefully tailored to local needs, and also be relevant, economical and of short duration. The AASHTO recommended that the NBIS not mandate refresher training every five years for all program managers and team leaders. The Virginia DOT asked that the requirement for refresher training for program managers be removed.

FHWA response: The FHWA has reevaluated the refresher training requirement. First, we have determined that refresher training would be more appropriately addressed as part of quality control (QC) and quality assurance (QA) procedures. Accordingly, we have deleted the proposed § 650.309(d) and revised § 650.313 to include refresher training as part of QC and QA. For additional details regarding QC and QA procedures see § 650.313 preamble discussion.

Second, we recognize there are some differences in inspection programs across the nation and the need for flexibility in determining the frequency, duration, and to some extent, the content of refresher training. Accordingly, we have added a definition of "bridge inspection

refresher training" under § 650.305 that allows for the necessary flexibility.

While the NHI Bridge Inspection Refresher 130053 training course⁸ would be acceptable, it is not the only option. States or Federal agencies are permitted to develop their own refresher training programs. The details of these programs, such as training content, frequency, and method of delivery, would be defined in the QA and QC procedures that are periodically reviewed by the FHWA under § 650.313(g).

Underwater Diver Bridge Inspection Training

The Missouri and Massachusetts DOTs agreed with the proposed § 650.309(e) that requires either the comprehensive bridge inspection training or other FHWA approved training for underwater bridge inspection divers.

The Wyoming DOT disagreed with the proposed § 650.309(e) in regards to the option of having FHWA approved underwater bridge inspection training. The Illinois DOT argued that divers did not need this degree of training if a qualified team leader were on site and in communication with the divers during underwater inspection. The Minnesota, Illinois and Kansas DOT stated that the pool of firms meeting this requirement would be reduced. The Maryland DOT suggested that the training requirement should be waived for those divers certified by a national diving authority, divers who are engineers with 5 years of experience, and divers who are non engineers with 10 years experience with a provision for refresher training every 5 years.

Thirty-four Kansas counties, eleven Kansas cities, and two Kansas consultants commented on the proposed § 650.309(e) that as long as team leaders are on site during underwater inspections, the diver does not need this training; however, two Kansas counties agreed that divers should complete the comprehensive training. The Virginia DOT and the AASHTO were not in favor of the proposed § 650.309(e), particularly since a qualified team leader must be present during the inspection.

Collins Engineers noted that the comprehensive course should be preceded by 40 hour engineering concepts for bridge engineers course for those with little or no practical bridge experience or background in bridge technology.

⁸ Information regarding this particular course of NHI training in general can be obtained at the following URL: <http://www.nhi.fhwa.dot.gov>.

FHWA Response: We have renumbered this section from the proposed § 650.309(e) to the final § 650.309(d). The FHWA does not concur with the commenters who argued that the presence of a team leader during the inspection negates the need for comprehensive training of the divers. During a typical underwater inspection, the divers are not under direct visual observation by the team leader. Divers need to be capable of conducting thorough inspections, recognizing defects and deterioration, and documenting and describing their observations using common terminology and techniques. For this reason, divers must complete the comprehensive training or alternate underwater diver-bridge inspection training. States or Federal agencies are allowed to develop their own underwater diver bridge inspection training course. To provide additional clarification, a definition of "underwater diver bridge inspection training" has been added to § 650.305.

In situations where divers possess little or no experience in bridge inspection, training on basic engineering concepts and inspection techniques should be considered. The FHWA believes that the need for prerequisite training is an issue that must be evaluated on a case-by-case basis rather than specified in the regulation.

Collins Engineers noted that the comprehensive course currently offered by NHI does not address diving operations. The U.S. Navy and the ADCI recommended including reference to the OSHA regulations regarding diving operations within the NBIS.

FHWA response: The FHWA believes that safe diving practices as prescribed by the OSHA regulations should be employed during all bridge inspection diving, but we do not reference them. We believe that a reference would unnecessarily complicate this regulation. There are a number of OSHA regulations that pertain not only to underwater inspection but also above-water inspections, and any omission in this standard does not relieve diving inspectors of the requirement to follow OSHA regulations.

Training Certification

The Pennsylvania DOT commented on § 650.309 indicating that training needs to be coupled with certification tests. Furthermore, the Pennsylvania DOT stated that inspectors who have demonstrated prior knowledge through engineering degree or Fundamentals of Engineering exam should be provided an opportunity to waive training requirements via certification testing.

FHWA response: The regulation requires successful completion of comprehensive bridge inspection training. The FHWA has elected to leave the definition of "successful completion" to the States or Federal agencies. In some States, minimum passing grades on final examinations have been specified and the FHWA supports this concept.

We do not allow certification tests to substitute for comprehensive bridge inspection training. The FHWA believes that successful completion of the comprehensive bridge inspection training is appropriate regardless of an individual's education, experience, or professional engineer status.

Section 650.311 Inspection Frequency Routine Inspections

The Massachusetts DOT supported clarification of the inspection frequency. The Kansas, Tennessee, Michigan and Colorado DOTs as well as the AASHTO, the ACRC in Michigan and the NACE recommended that more flexibility should be given to adjust to unexpected weather events, or to permanently move a bridge or group of bridges to a more logical inspection period. The AASHTO recommended that routine inspections be performed "within a calendar year and later or within 2 months later." The NACE argued that a 90-day grace period would allow for efficient scheduling of inspections and personnel. The ACRC in Michigan and Arkansas DOT pointed out that the NPRM preamble discussed the 30-day grace period; however, the proposed regulation did not address this. The Arkansas DOT recommended a 45-day grace period.

FHWA response: The FHWA believes that the inspection frequency should not exceed 24 months. We recognize that severe weather, concern for bridge inspector safety, concern for inspection quality, the need to optimize scheduling with other bridges, or other unique situations may be cause to adjust the scheduled inspection date. The adjusted date should not extend more than 30 days beyond the scheduled inspection date, and subsequent inspections should adhere to the previously established interval.

Establishment of a formal inspection frequency grace period may have the unintended consequence of extending the inspection interval beyond twenty-four months. The twenty-four month interval has been used as the standard since the inception of the national bridge inspection program. Concern for safety makes us reluctant to take actions that may make bridges less safe,

therefore we have not established a grace period.

Routine Inspections Less Than 24 Months

The Michigan DOT commented on § 650.311(a)(2) that the program manager should put guidelines in place, but the ultimate responsibility for setting intervals less than 24-months should reside with the on-site inspector.

FHWA response: The FHWA believes criteria to determine the level and frequency of less than 24 month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program. The term program manager was removed from this section to provide flexibility in how this provision is implemented.

Routine Inspections Not To Exceed 48 Months

The HCRC in Michigan in commenting on § 650.311(a)(3) applauded the opportunity for inspecting certain bridge types in up to 48-month intervals. The South Dakota DOT commented that they have been using the 48-month inspection frequency for certain structures and support this concept. The IACE commented that the proposed provision could be interpreted to prohibit local agencies from inspecting at greater than 24-month intervals. The Michigan DOT noted that the program should provide guidelines to let the States know factors being considered during the application process to lengthen the inspection interval otherwise each State might be treated differently depending on the local FHWA Division Office. The NACE and the ACRC in Michigan wanted to know if the 48-month option could be extended to local agency bridges. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented to the proposed § 650.311(a)(3) that the local agency should govern when bridges need inspection more than every 24 months.

FHWA response: In guidance published on September 16, 1988, the FHWA established consistent criteria for extending an inspection interval to 48 months, but maintains that approval be administered from the FHWA Office of Bridge Technology in order to maintain consistency across States and Federal agencies. Guidance on the 48-month inspection interval criteria can be found in the FHWA Technical Advisory T5140.21.⁹ The FHWA acknowledges

⁹This document provides guidance for implementing the changes contained in the 1988

that further study is needed before consideration could be given to automatically allow certain bridges to be placed on a 48-month cycle. County bridges are also eligible; however, the State must support and submit the request for the extended inspection cycle to the FHWA for approval. The FHWA has removed the reference to State or Federal agencies in the proposed § 650.311(a)(3) to avoid confusion.

Underwater Inspections Less Than 60 Months

The Michigan DOT commented on § 650.311(b)(2) that the ultimate responsibility for setting interval less than 60 months should reside with the on-site inspector.

FHWA response: As with the routine inspection interval discussed earlier, the FHWA believes criteria to determine the level and frequency of less than 60-month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program.

Underwater Inspections Not To Exceed 72 Months

The Missouri DOT commented on § 650.311(b)(3) and agreed that they would like to see a 72-month interval. The New Jersey DOT argued that this was excessive and should remain at the 60-month interval. The Indiana DOT agreed with the change, but would like the maximum moved out to 120 months. The IACE commented that the proposed provision could be interpreted to restrict local agencies from inspecting at greater than 60-month intervals and that there is inconsistent treatment of local agencies. The Iowa DOT thought the proposed provisions too restrictive and that flexibility be given to bridge owners in the range of 6 to 10 years for various reasons. The U.S. Navy commented that it was not in favor of extending the underwater inspection interval beyond 60 months and currently inspect on a 48-month interval to coincide with successive biennial inspections.

FHWA response: The FHWA believes that underwater inspection intervals for certain bridges can be extended to 72 months, with FHWA approval. The FHWA believes that applying engineering judgment and approval on a case-by-case basis to bridges with little or no change from inspection cycle to cycle in benign environments provides

an adequate margin of safety to the motoring public. Industry standards, such as those provided by the American Society of Civil Engineers (ASCE) in its "Underwater Investigations Standard Practice Manual, 2001,"¹⁰ promote a degree of latitude in the maximum interval between routine underwater inspections up to 6 years. The guidance provided is tied to material, environment, scour and condition rating from previous inspections. While we are including an additional year beyond the current 60-month underwater inspection interval, we are taking into consideration these same factors of material composition (timber, steel, concrete, protected or unprotected steel or timber, composite), environment (benign or aggressive), scour (susceptibility to scour) and previous condition rating (excellent to failed). Based on our assessment, again on a case-by-case basis, the FHWA may approve requests not to exceed 72 months. This authorization can be rescinded at any time owing to structural degradation, adverse change in environment and presence of localized bridge scour.

An example of a situation that may warrant an extended interval may include a highway bridge supported by concrete piles with no degradation over a lined irrigation canal carrying fresh water. An example of a situation that would not warrant approval would be a highway bridge over a high flow saltwater or brackish water environment, with structural piles showing degradation and subject to localized scour. Four-year frequencies may be used, if desired, but retention of the 60-month frequencies allows more flexibility to program managers. The FHWA does not believe there is justification at this time to warrant extended intervals beyond 72 months, but acknowledges that further study in this area is needed. The FHWA has removed the reference to State or Federal agencies in the proposed § 650.311(b)(3) to avoid confusion.

Fracture Critical Member Inspections

The Massachusetts DOT in commenting on § 650.311(c) supports clarification of the inspection frequency being proposed, specifically with regard to fracture critical (FC) inspections. The Texas DOT commented on § 650.311(c)(1) and indicated that preliminary estimates of having a "not to exceed 24 months" interval would increase statewide inspection costs by

\$10 million per year, that the program manager should be allowed to set that interval based on sound engineering judgment and FHWA approval and the maximum approved frequency should not exceed 60 months. The Texas DOT also commented that routine and underwater inspection frequency can be extended, and questioned why this does not apply to fracture critical inspection frequency.

The Illinois DOT noted that the proposed § 650.311(c)(1) establishes a 24-month maximum frequency for fracture critical members and recommended a 24-month interval that allows States to have the latitude to establish criteria for inspecting bridges at intervals up to 60 months. The Minnesota DOT recommended that "routine inspection of FCMs shall be at intervals not to exceed 24 months." The Kansas and Oregon DOTs argued that the 24-month interval was excessive and the Kansas, Wyoming, and New Mexico DOTs as well as the AASHTO recommended that States be allowed to establish intervals up to 60 months. The New Mexico DOT also urged that the discretion for an extension be left with the State bridge engineer or designee and not with the program manager.

The California DOT requested clarification regarding whether the proposed language applied to "fracture critical bridges" or to "bridges with fracture critical elements." The Wyoming and Kansas DOTs as well as the AASHTO recommended deletion of the proposed § 650.311(c)(3). The Washington DOT wanted clarification as to the nondestructive evaluation (NDE) methods to be used on FCMs.

FHWA response: The inspection frequency for fracture critical bridges was first defined in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."¹¹ The FHWA continues to believe that all FCMs or member components be given, at a minimum, a hands-on inspection as defined in § 650.305 at intervals not to exceed 24 months. The FHWA recognizes that the interval for use of NDE and other specialized techniques may be greater than 24 months. The FHWA also believes that some FCMs or member components should be inspected at more frequent intervals, and these

¹¹ The "Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges," December 1995, Report No. FHWA-PD-96-001, is available electronically at the following URL: <http://www.fhwa.dot.gov/bridge/mtguide.doc> and may be inspected and copied as prescribed in 49 CFR part 7.

revision to the NBIS and is available at the following URL: <http://www.fhwa.dot.gov/legregs/directives/techadv/1514021.htm>.

¹⁰ This document may be obtained from ASCE, 1801 Alexander Bell Drive, Reston, Virginia 20191-4400.

inspections may require NDE or other specialized techniques.

FCM Inspections Less Than 24 Months

The Michigan DOT commented on § 650.311(c)(2) and stated that the ultimate responsibility for setting intervals less than 24 months should reside with the on-site inspector.

FHWA response: As with other inspection intervals discussed above, criteria to determine the level and frequency of less than 24 month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program.

Damage, In-Depth and Special Inspections

The Missouri and Minnesota DOTs commented on § 650.311(d) and agreed that the program manager should be provided the discretion to determine the level and frequency of damage, in-depth and special inspections. The Michigan DOT argued that § 650.311(d) takes away all responsibility from the inspector in the field and places it in the hands of a person who has not likely to have seen the specific bridge.

FHWA response: The FHWA believes that although input from a team leader is an important consideration, the ultimate decision should rest with the program manager in order to ensure consistency throughout an entire State or Federal agency program.

National Bridge Inventory Item Numbers

The Indiana DOT noted that proposed § 650.311 does not include any reference to NBI item number 92C,¹² other special detail inspections and asked if it is covered by § 650.311(d) and whether the inspection frequencies are to be determined by the program manager.

FHWA response: NBI item number 92C, other special inspection, is addressed in § 650.311 (d) Damage, in-depth and special inspection. Definition for special inspection is covered in § 650.305. The inspection frequency is established by the program manager.

Section 650.313 Inspection Procedures

The Oregon DOT stated that the requirements of § 650.313 were very reasonable.

¹²National Bridge Inventory "item number 92" denotes critical features that need special inspections or special emphasis during inspections and the designated inspection interval. Specifically item 92C addresses "other special inspection."

The Michigan DOT stated that § 650.313(a) contains conflicts with the AASHTO Manual that must be resolved.

FHWA response: The NBIS take precedence over the AASHTO Manual. The AASHTO Manual has excellent guidance that should be followed whenever it is not in conflict with the requirements of the NBIS.

On-Site Team Leader

The Massachusetts and South Dakota DOTs supported the proposed § 650.313(b). The Maryland, Kansas, and Michigan DOTs, as well as the AASHTO, do not support the requirement for having "team leader" on site at all times during inspection. The Tennessee DOT had questions regarding having a designated person act as "team leader" when the team leader is unavailable. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(b) and stated that there are too many structures to require the "team leader" at every inspection and that this requirement will likely increase local agency costs which would deplete funding available for bridge replacement and rehabilitation. The HCRC in Michigan commented on § 650.313(b) and asked whether this new requirement would mean that two people will have to perform inspections and, if so then there would be a costly increase for counties performing bridge inspections.

FHWA response: The requirement to have the team leader on site during the inspection is not new. However, the language requiring this was clarified in this section because the FHWA agrees there has been some misinterpretation of the NBIS in the past. The qualifications for team leader were established to ensure that those conducting the inspections meet specific minimum standards, not to establish qualifications of the supervisor of those who perform the inspection. This requirement does not mandate that two people are required to conduct an inspection. However, if only one person is conducting an inspection, that person must meet the qualifications of a team leader, as defined in the NBIS. Even though there is no requirement to have a minimum of 2 people on an inspection team, the FHWA highly recommends at least 2 people be present to ensure the safety of the inspectors, to improve the quality of the inspection data, and to provide opportunities to train new inspectors.

Load Rating and Posting

The Wyoming DOT commented on § 650.313(c) and stated that the new the

AASHTO, Manual for load and resistance factor rating (LRFR) of Highway Bridges¹³ could change some of this regulatory language if adopted by the AASHTO.

The Illinois DOT argued that the requirement to post bridges that are unable to carry routine permit loads not be applied to all structures under local agency jurisdiction, only those on local highways that are designated truck route system by the State for routine permit loads.

FHWA response: The FHWA agrees that the AASHTO, Manual for Condition Evaluation and LRFR of Highway Bridges uses new terminology. The phrase, "or equivalent rating factor" was included in the requirement to account for the differences. The FHWA also agrees that bridges under local jurisdiction on roads where unrestricted permit loads are not allowed, need not be posted for the permit loads. The FHWA believes the language in the requirement is consistent with that interpretation, since permit loads would be considered to be restricted from using those bridges. The FHWA agrees that bridge owners may post bridges for less than the operating load level, and the FHWA believes this final rule allows for that possibility.

When restricting routine or continuous permit loads from crossing specific bridges, States or Federal agencies may elect to erect posting signs or to issue restrictions to the permit holders to keep them from traveling specific routes with permit loads capacity problems. To account for different methods of controlling access for permit vehicles, the phrase, "Post or restrict" was added to § 650.313(c).

Bridge Files

The Wyoming DOT commented on § 650.313(d) and indicated that maintaining inspection records for the life of the bridge, while ideal, may not be realistic or beneficial in all cases and therefore recommended that this requirement be deleted. The Indiana DOT pointed out the problems associated with availability and storage of bridge data and that maintaining such files would be labor intensive. The Michigan DOT indicated that records no longer relevant should be purged from the files and recommended that § 650.311(d) be modified to allow

¹³The AASHTO 2003, Manual for Condition Evaluation and LRFR of Highway Bridges may be obtained upon payment in advance by writing to the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 249, Washington, DC 20001 or it may be ordered at the following URL: <http://www.aashto.org/aashto/home.nsf/FrontPage>.

agencies to purge files. The Minnesota DOT noted that tracking "any action taken" would be very laborious and recommended that § 650.311(d) be changed to reflect that only "action(s) taken pursuant to the critical findings" be tracked. The Missouri, New Jersey and Michigan DOTs commented that "standard forms" or report documentation is somewhat confusing and can vary from State to State. The New Jersey DOT wants clarification whether electronic as well as paper documents would be included in the "bridge file." The Miami County in Kansas noted that the recording and coding guide format is appropriate for most bridge data reporting.

FHWA response: The FHWA agrees with the commenters that maintaining bridge records could be misunderstood to apply to all data, even though it may not be relevant or necessary to properly assess the current condition. The language was revised to state the minimum requirement is to maintain data that is relevant. The determination of relevant data is made by the program manager following guidance contained in the AASHTO Manual. We have revised the wording of § 650.313(d) accordingly. The FHWA agrees that "standard forms" is not specific, but it does indicate that for a given State or Federal agency, the forms should be consistent to facilitate recording and interpretation of the data. The wording of § 650.313(d) has been revised accordingly. The FHWA agrees that records may be maintained in paper or electronic versions, or both. The NBIS does not specify or eliminate either method.

Bridge Lists

The Wyoming DOT commented on § 650.313(e) and argued that the agency, not the program manager, should be responsible for identifying and maintaining bridge lists. Wyoming DOT urged that this provision should be deleted. The Massachusetts DOT supports the requirement for maintaining lists and does so with relative ease using a computerized database. The Illinois DOT, the IACE, and the AASHTO stated that the requirement to list bridges "vulnerable to seismic damage" should not be included in the NBIS. The Kansas DOT sees no benefit in keeping bridge lists assuming data is readily available. The Washington DOT seeks clarification as to what qualifies a bridge as "seismically vulnerable." The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the

inventory as an overwhelming work burden for State DOTs.

FHWA response: The FHWA agrees with the commenters that the program manager may not be the designated individual who actually identifies bridges in specific categories. However, the FHWA believes the program manager has overall responsibility to see that such work is done. The language was revised to eliminate any specific reference to the person who identifies the bridges. The FHWA also agrees that maintaining a paper list is not necessarily the only way this requirement can be met. Computerized data base lists or simply an identifier in the State's inventory would satisfy the requirement. However, it is necessary to identify bridges in at least the specific categories listed so their unique inspection requirements and potential needs can be assessed appropriately.

The proposed requirement to identify and evaluate bridges in high seismic risk areas has been removed. We believe that this is an important consideration for bridge safety, best addressed through a comprehensive evaluation of seismic risk through a bridge management program. The FHWA has previously advised States to identify bridges vulnerable to seismic damage, based on a State's site specific assessment.

Fracture Critical Bridges

The Missouri, Illinois, Minnesota, Kansas and Wyoming DOTs as well as the AASHTO commented on § 650.313(f) and recommended that it should be deleted. The New Jersey DOT indicated that an electronic record of such bridges would meet this requirement. The Texas DOT commented that generating an "action plan" would not be an efficient use of resources, would not add any benefit and may contain redundant information. The Massachusetts, California and Pennsylvania DOTs supported this section. The Maryland DOT recommended that in lieu of § 650.313(f), we should require States to follow procedures described in the FHWA's "Inspection of Fracture Critical Bridge Members."¹⁴ The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming work burden for State DOTs. The Oklahoma DOT recommended adding a waiver to § 650.313(f) for bridges with an average daily traffic (ADT) less than 500. The

Pennsylvania DOT recommended the addition of a fracture critical (FC) indicator to the NBI to identify FC bridges.

FHWA response: The FHWA did not intend the proposed language for an "inspection plan" to be substantially different than the current rule, which requires identification, description, frequency and procedures to be established for fracture critical members (FCMs). Those items essentially would constitute the "plan." The FCM inspections should be done in accordance with FHWA-IP-86-26, "Inspection of Fracture Critical Bridge Members." Therefore the reference to a plan has been eliminated and language similar to the existing rule has been adopted. The features of the FCM inspections can be shown in a listing, on the inspection records, or in an electronic database. The proposed § 650.313(f) has been redesignated as § 650.313(e)(1).

Underwater Inspections

The Missouri, Wyoming, Illinois, Minnesota and Kansas DOTs as well as the AASHTO stated that § 650.313(g) should be deleted. The New Jersey DOT indicated that an electronic record of such bridges would meet this requirement, but stated that it is unclear. The Texas DOT commented that generating an action plan would not be an efficient use of resources, not add any benefit and may contain redundant information. The Massachusetts and California DOTs indicated support for this section. The Maryland DOT recommended that in lieu of § 650.313(g) the FHWA should require States to follow procedures described in the FHWA's Underwater Inspection of Bridges report.¹⁵ The Alabama DOT argued that this requirement would pose a significant burden on those States with a large population of bridges requiring underwater inspections, and be unnecessary, wasteful, and a duplicative effort. The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden for State DOTs.

FHWA response: The FHWA did not intend the proposed language for an "inspection plan" to be substantially different from the current rule, which requires identification, description, frequency and procedures to be

¹⁴ Inspection of Fracture Critical Bridge Members, Report No. FHWA-IP-86-26 is available through the National Technical Information Service, Springfield, Virginia 22161 or it may be ordered online at the following URL: <http://www.ntis.gov>.

¹⁵ Underwater Inspection of Bridges, November 1989, Report No. FHWA-DP-80-1, provides guidelines for underwater bridge inspection. This document is available through the National Technical Information Service, Springfield, VA 22161.

established for members requiring underwater inspection. Those items essentially would constitute the "plan." Therefore the reference to a plan has been eliminated and language similar to the existing rule has been adopted. Those four features of the underwater inspections can be shown in a listing, on the inspection records, or in an electronic database. The proposed § 650.313(g) has been redesignated as § 650.313(e)(2).

Scour Critical Bridges

The Missouri DOT commented on § 650.313(h) and recommended that language regarding inspecting bridges after a "major flood" event should be changed to "consideration should be given to inspecting scour critical bridges after a major flood event." The Missouri and Colorado DOTs also noted that the "major flood event" guidance would be addressed in the "action plan."

The Texas DOT commented that generating an action plan would not be an efficient use of resources and, instead, proposed that generic guidelines be developed outlining appropriate evaluation milestones as well as monitoring criteria. The Indiana DOT indicated that at the State level there are scour plans; however, at the county level additional resources would be needed to develop scour plans. The Indiana, Wyoming, Illinois, Minnesota and Kansas DOTs as well as the AASHTO recommended deleting § 650.313(h). The Massachusetts DOT recommended that the requirement be changed to establishing a list of bridges that are vulnerable to events and developing monitoring and or inspection plans for such structures in the wake of a scour event. The South Dakota DOT asked for clarification of a "major flood event." The Washington DOT indicated that its inspection of bridges after major flood events are performed by maintenance staff and asked if this section required that a team leader perform these inspections. The California DOT indicated support for this section.

The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden on State DOTs. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(h) and indicated that the requirement to prepare an action plan is not justified, and that the local agency should decide proper actions based on degree of risk. The Virginia DOT understood the need to have lists of scour critical bridges to identify

structures that needed inspection after a flood event; but did not agree that the NBIS covers retrofit guidelines.

FHWA response: Scour related deficiencies are the leading cause of serious bridge failures and closings. The requirements for scour evaluation and action plans are consistent with the existing requirement for evaluation of underwater members, with a renewed emphasis. The FHWA does agree with the commenters that the action plans for some bridges may be very similar and that monitoring and assessment after flood events may be done using different levels of effort depending on the degree of risk. The wording of this section was changed to reflect the need for some flexibility in the application of the action plans. Monitoring after flood events is described in the FHWA guidance manuals, "Evaluating Scour at Bridges"¹⁶ and "Bridge Scour and Stream Instability."¹⁷ The proposed § 650.313(h) has been redesignated as § 650.313(e)(3).

Seismic Vulnerability

The Missouri, Wyoming, Illinois, Minnesota, Kansas and Pennsylvania DOTs, the IACE and the AASHTO commented on § 650.313(i) and recommended that it should be deleted. The Colorado DOT urged that § 650.313(i) should be either deleted or rewritten to better define criteria for determining "seismic vulnerability" and expectation for the "action plan." The New Jersey DOT commented that it does not believe that "the benefit of such a program in New Jersey would be consistent with the costs to develop it considering the historical lack of damage from seismic events." The Indiana DOT indicated the proposed language is too vague, leaves too much for interpretation, and that additional resources would be needed at the county level.

The Massachusetts DOT recommended establishing a list of bridges that are vulnerable to events and developing monitoring and or inspection plans for such structures in the wake of a seismic event. The Illinois DOT and the IACE argued that this provision was an "unfunded mandate." The Washington DOT wanted

¹⁶ Evaluating Scour at Bridges FHWA-NHI-01-001 (HEC-18) presents the state-of knowledge and practice for the design, evaluation and inspection of bridges for scour. This document is available through the National Technical Information Service, Springfield, VA 22161.

¹⁷ Bridge Scour and Stream Instability FHWA-NHI-01-003 (HEC-23) provides guidelines for identifying stream instability problems at highway stream crossings. This document is available through the National Technical Information Service, Springfield, VA 22161.

clarification as to what qualifies a bridge as "seismically vulnerable." The California DOT supported this section. The Michigan DOT viewed this section. The requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden on State DOTs. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant disagreed with § 650.313(i) because they believe the requirement to prepare an action plan is not justified, and that it should be a local agency decision based on degree of risk. The Virginia DOT understood the need to have lists of seismically vulnerable bridges to identify structures that needed inspection after a significant seismic event; however, it does not agree that the NBIS covers retrofit guidelines. The Pennsylvania DOT noted that the term "seismic vulnerability" was not defined in § 650.305 and that the inspection requirement in § 650.313(i) is an open ended assignment that could be very costly, particularly in States with low seismic event probabilities.

FHWA response: The proposed requirement has been eliminated. Although we believe that this is an important consideration for bridge safety, we believe that it is best addressed by a comprehensive evaluation of seismic risk through a bridge management process.

Complex Bridges

The Missouri DOT opposed the proposed § 650.313(j) because it believes States have sufficient knowledge to recognize inspection needs for unusual bridges or features. The Wyoming and Minnesota DOTs and the AASHTO recommended that this provision should be deleted. The Texas DOT indicated that generating an "action plan" for "complex" bridges is not an efficient use of resources, would not add benefit and would likely contain redundant information. The Washington DOT commented that it needed further clarification as to "inspection and training requirements." The California DOT is unclear as to the level of effort needed to comply with preparation of the proposed complex bridge "inspection plan."

FHWA response: The FHWA agrees that the content of the plan was not clear in the proposed requirement. The language was changed to specify that the minimum requirement is to establish specialized inspection needs, level of effort and additional inspector training and/or experience. These procedures are applied to the unique features of complex bridges that would not normally be covered in a routine

inspection. We also clarified the definition for complex bridges. The proposed § 650.313(j) has been redesignated as § 650.313(f).

Quality Control and Quality Assurance

The Missouri DOT, regarding the proposed § 650.313(k), is opposed to the requirement of a formal QC and QA program. The Missouri DOT believes it would be redundant and not sufficiently enhance public safety compared to efforts expended to provide such a program. The Indiana DOT argued that they would need additional resources to comply with this requirement and also expressed concern over the subjectivity of the required FHWA approval. The Wyoming DOT urged that this provision should be deleted. The Massachusetts, South Dakota, California and Pennsylvania DOTs supported this provision.

The Illinois DOT was concerned about the FHWA having a more active role. The South Dakota DOT supports this concept, but believes that the program should be left up to the States.

The Minnesota DOT recommended rewording this section to say, "submit documentation of the QA program to the FHWA for review and comment." Additionally, the Minnesota DOT suggested that if QC is retained both QA and QC should be defined and the difference between them explained.

The Kansas DOT wanted to improve the consistency of NBI data by having the FHWA improve the "Edit/Update program" and distribute the program for general use. The Washington DOT asked for clarification as to the level of effort intended for submittal of QC and QA program documentation to the FHWA and requested criteria for program expectations.

The Michigan DOT recommended that the FHWA provide guidelines to the States outlining the evaluation factors used to grant approval, and that the FHWA should provide a standard for national uniformity. The Iowa DOT and the AASHTO recommended that the requirement to review load calculations be eliminated.

The ACRC in Michigan noted that in instances where inspection responsibilities are delegated to local agencies, the required QC and QA program should be developed in cooperation with the local agencies. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on § 650.313(k) and the majority indicated that they disagreed with the provision because the current limited oversight is working well. They recommended that the FHWA develop and distribute software to collect QA

and QC data to encourage consistency and uniformity nationwide. The Virginia DOT commented that the documentation of findings for the QC and QA program should be available for review and comment by the FHWA but should not be subject to FHWA approval.

FHWA response: We have added definitions for QC and QA that are consistent with the AASHTO Manual. An FHWA study, "Reliability of Visual Inspection for Highway Bridges," found wide variations in the condition assessment of typical highway bridges by experienced and trained inspectors from a variety of States. The study concludes that formal quality assurance is needed to obtain better uniformity in assigning condition codes. The FHWA believes that using computer software tools to check data is an important part of obtaining data accuracy and consistency, but is not adequate alone as a QC and QA procedure. The FHWA believes many States have well-developed and effective QC and QA procedures, but others have very minimal programs. This requirement will help States or Federal agencies develop more uniform systems that will lead toward more accurate national data. Example QC and QA procedures from other States are available at URL: <http://www.fhwa.dot.gov/bridge/index.htm> for review and consideration.

The FHWA agrees with commenters that methods of review of reports and computations may vary and the precise method should be done according to normal State or Federal agency procedures. The FHWA agrees that it is not necessary to include in the rule a specific requirement to submit the QC and QA procedure to the FHWA for approval. During NBIS program reviews¹⁸ the FHWA will examine QC and QA procedures. The proposed § 650.313(k) has been redesignated as § 650.313(g).

Follow-Up on Critical Findings

The Wyoming, Iowa, Illinois and Pennsylvania DOTs and the AASHTO commented on § 650.313(l) and recommended that this provision be deleted. The Missouri DOT had no objections on this provision, but recommended annual reporting. The Texas and Pennsylvania DOTs sought clarification as to how often this information should be provided and

¹⁸ The NBIS program reviews are routinely done by the FHWA on an annual basis to determine compliance with the NBIS. This program is delineated in a June 22, 2001 memorandum that can be found at the following URL: <http://www.fhwa.dot.gov/bridge/index.htm>.

recommended that the FHWA define the term "critical finding." The Maryland DOT suggested a definition for "critical finding" as "any condition that affects the safe passage of any legal vehicle." The South Dakota DOT supported this provision and also recommended that the States be allowed to set their own definition of "critical finding." The Washington DOT requested more details on how States are to report the information to the FHWA. The IACE did not see a benefit to requiring such information be reported since it would require additional resources to generate the information. The California DOT supported the proposed provision on the basis that its current FHWA reporting procedure be used. The Michigan DOT indicated that "critical findings" is not defined; frequency of reporting is not delineated and workload would double when this provision is applied to local agencies. The Colorado DOT recommended the provision should be deleted and the subject left to the language contained in § 650.313(d).

Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(l) and the majority disagreed with the provision because the cost of establishing a statewide procedure to address critical findings is not justified. The Oklahoma DOT suggested revising this section to require the program manager be responsible for determining a procedure to address critical findings and that the FHWA should define the term "program manager."

FHWA response: The broad definition for "critical finding" was added to allow flexibility to establish, in cooperation with the FHWA, criteria and reporting procedures specific to a particular State or Federal agency. The FHWA noted that many States already have established procedures that are working well, and the rule was not meant to require significant changes in those procedures. "Notify the FHWA of actions taken to assure public safety" was changed to "Periodically notify the FHWA of the actions taken to resolve or monitor critical findings." The period between notifications is to be agreed upon between the FHWA and the State or Federal agency. The proposed § 650.313(l) has been redesignated as § 650.313(h).

Section 650.315 Inventory

Prepare and Maintain

The Oregon DOT commented that § 650.315 requirements are very reasonable. The Texas and Oklahoma DOTs suggested that the first sentence of

§ 650.315(a) be rewritten as follows: "Each State and Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS that are inspected according to § 650.307." The Texas DOT asked if the States were required to maintain an inventory of federally owned bridges even though they are not inspected by the States.

The Kansas DOT recommended that the second sentence in § 650.315(a) be rewritten to say, "State and Federal agencies must collect, retain and submit certain * * *".

The AASHTO recommended revising the first two sentences of § 650.315(a) as follows: "Each State must prepare and maintain an inventory of all bridges subject to the NBIS. Each Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS."

FHWA response: We have modified § 650.315(a) by removing the word "and" and replacing it with the word "or." We do not require that States collect, report or retain the Federal bridge information. The FHWA annually provides a copy to each State of all the inspection information that was submitted by Federal agencies for each State. This is done so that the States may have a complete inventory and have access to Federal bridge data within the State.

Data Submittal Deadlines: Initial, Routine, In-Depth, Fracture Critical, Special and Underwater Inspections

The New Jersey DOT interpreted the proposed § 650.315(b) to apply only to major changes in NBI data rather than all inspection data which may not be available until the inspection report is complete. The Massachusetts DOT support the proposed changes. The Kansas DOT and the AASHTO recommended that inspection data from initial, routine, in-depth, fracture critical, special and underwater inspections be entered into the NBI within 120 days of inspection, rather than 90 days.

FHWA response: All inspection data is to be entered into the inventory whether it is new data or changed data. This is not always restricted to NBI item number 58¹⁹, NBI item number 59²⁰ and NBI item number 60²¹ since other items such as bridge clearances and

¹⁹National Bridge Inventory "item number 58," Deck, describes the overall condition rating of the deck.

²⁰National Bridge Inventory "item number 59," Superstructure, describes the physical condition of all structural members.

²¹National Bridge Inventory "item number 60," Substructure, describes the physical condition of piers, abutments, piles, fenders, footings, or other components.

safety features, may also change during an inspection cycle. The FHWA believes that the 90 day (3 month) period for entering the data allows a reasonable amount of time for completion of the inspection report and data entry.

The FHWA believes that extending the time required for entering the data after inspection to 180 days (6 months) for States or Federal agencies is too long. The 90-day time period for entering the data is consistent with the current regulation. The FHWA only collects this data once a year and any delay in the data being properly inventoried would not provide the FHWA the most current data available. Up-to-date information is vital to the program oversight, management and stewardship for the State and the FHWA. It is also important that the FHWA have current data because this data is used to: (1) Distribute funds for the HBRRP program (23 U.S.C. 144), (2) provide reports to Congress, and (3) make critical decisions regarding the bridge program. This necessitates adherence to a firm 90-day collection period.

Data Submittal Deadlines: Bridge Modifications and New Bridges

The Massachusetts DOT supported the changes proposed to § 650.315(c). The Minnesota DOT recommended extending timelines to provide more flexibility to inspection agencies entering data, "within one year not to exceed 90 days." The Kansas DOT and the AASHTO recommended allowing 120 days rather than 90 days to enter the data. The Washington DOT recommended adding a qualifier, "open to traffic," to appropriately consider bridges built in phased construction where only a portion of the bridge may be open.

FHWA response: The FHWA noted that extension of the time required for entering changed data because of bridge modifications or new bridge construction is not justified. The 90 day time frame for entering data is consistent with the current regulation. For the reasons listed in the FHWA response to § 650.315(b), up-to-date information is vital to the bridge program. If any part of a highway bridge is open to traffic it should be inspected and inventoried in accordance with the NBIS.

Data Submittal Deadlines: Load Restriction or Closure Status

The Massachusetts DOT supported the changes proposed to § 650.315(d). The Minnesota DOT recommended extending timelines to provide more flexibility to inspection agencies

entering data, "within one year not to exceed 90 days." The Kansas DOT and the AASHTO recommended allowing 120 days rather than 90 days to enter the data. The Minnesota DOT indicated it did not want to see the requirement to develop QA and QC measures to enforce these timelines.

FHWA response: The FHWA noted that the time required for entering changed data due to load restriction or closure status being extended to 180 days (6 months) is too long. The 90-day time frame for entering data is consistent with the current regulation. The FHWA only collects this data once a year and any delay in the data being properly inventoried would not provide the FHWA the most current data available. For the reasons listed in the FHWA response to § 650.315(b), up-to-date information is vital to the bridge program. The FHWA is not requiring that a "QA and QC measure" be developed to enforce these timelines.

Section 650.317 Reference Manuals

The South Dakota DOT supports § 650.317.

The Kansas DOT and the AASHTO recommended the FHWA combine § 650.317(a) and § 650.317(b). The Michigan DOT does not support the incorporation of the AASHTO Manual in § 650.317(a), reasoning that an overly detailed regulation could incur unnecessary liability for the States due to the difficulty of achieving 100 percent compliance. The AASHTO commented that the availability of a 2003 Interim revision to the AASHTO Manual would necessitate adding it to the reference manuals.

FHWA response: The FHWA does not agree with combining § 650.317(a) and § 650.317(b) since they are two distinct documents. The FHWA agrees that the 2003 Interim revision to the AASHTO Manual for Condition Evaluation of Bridges needs to be incorporated by reference and has made that change.

Related Rulemakings and Notices

The FHWA is also in the process of reviewing 23 CFR part 650, subpart D, Highway Bridge Replacement and Rehabilitation Program (HBRRP). The FHWA published an advance notice of proposed rulemaking for the HBRRP on September 26, 2001, at 66 FR 49152. The FHWA also recently published a notice of proposed rulemaking for the HBRRP on June 21, 2004, at 69 FR 34314.

Rulemaking Analyses and Notices*Executive Order 12866 (Regulatory Planning and Review) and U.S. DOT Regulatory Policies and Procedures*

The FHWA has determined that this action is a significant regulatory action within the meaning of Executive Order 12866 and is significant within the meaning of the U.S. Department of Transportation regulatory policies and procedures. This action is considered significant because of the substantial public interest in the safety of highway bridges. The Office of Management and Budget (OMB) designated this regulation as a significant regulatory action and has reviewed it under E.O. 12866.

We have analyzed the costs associated with this rulemaking. We believe that the costs of the changes in this final rule will be minimal because we believe that most States already adhere to many of the inspection procedures set forth in this rule and, therefore, we believe these changes will add less than \$1 million to the costs associated with a multi-billion dollar program. Additionally, the bridge program is part of the Federal-aid highway program and, thus, the costs associated with this rule are eligible for funding under this program. We believe the changes to the inspection program are minor and will not be costly to the States. Finally, we have carefully analyzed the costs associated with the information collection and we believe the cost associated with the minor increase in burden hours will be \$52,000 or about \$1000 per State (to include the District of Columbia and Puerto Rico); therefore, the total cost of the entire information collection will be approximately \$13,552,000, or an average of \$260,000 per State. These information collection costs also may be reimbursed under the Federal-aid highway program.

This final rule will not adversely affect, in a material way, any sector of the economy. In addition, these changes will not interfere with any action taken or planned by another agency and will not materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs. Consequently, a full regulatory evaluation is not required.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612) the FHWA has evaluated the effects of this action on small entities and has determined that the action will not have a significant economic impact on a substantial number of small entities. Since the regulatory changes

are primarily directed to the States, which are not considered small entities for the purposes of the Regulatory Flexibility Act, the FHWA is able to certify that this final rule will not have a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995

This rule does not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, March 22, 1995, 109 Stat. 48). This rule will not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$129.7 million or more in any one year (2 U.S.C. 1532). The definition of "Federal mandate" in the Unfunded Mandates Reform Act excludes financial assistance of the type in which State, local or tribal governments have authority to adjust their participation in the program in accordance with changes made in the program by the Federal government. The Federal-aid highway program permits this type of flexibility to the States. Additionally, funding to inventory highway bridges, as well as Indian reservation and park road bridges, is currently provided under 23 U.S.C. 144, Highway Bridge Replacement and Rehabilitation Program (HBRRP). Bridge inspection is an eligible activity under the HBRRP and Federal funding is available to the States under the HBRRP.

Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in section 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Executive Order 13045 (Protection of Children)

We have analyzed this action under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This final rule is not an economically significant rule and does not concern an environmental risk to health or safety that may disproportionately affect children.

Executive Order 12630 (Taking of Private Property)

This action will not affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

Executive Order 13132 (Federalism)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 13132, and the FHWA has determined that this action will not have sufficient federalism implications to warrant the preparation of a Federalism assessment. The FHWA has also determined that this action does not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions.

Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000. The FHWA believes that this action will not have substantial direct effects on one or more Indian tribes; will not impose substantial direct compliance costs on Indian tribal governments; and will not preempt tribal law. Therefore, a tribal summary impact statement is not required.

Executive Order 12372 (Intergovernmental Review)

Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations. The State reporting requirements related to the National Bridge Inspection Standards are covered by an existing FHWA information collection entitled Structure Inventory and Appraisal (SI&A) Sheet. The OMB control number for this collection is 2125-0501. The current annual burden imposed on the States under this information collection is 540,000 hours.

The SI&A sheets are used by the States and Federal agencies to provide to the FHWA the required information on annual bridge inspections. The FHWA has determined that the new requirements in this final rule will place an additional 2,080 burden hours on the States, which will result in a total annual burden of 542,080 hours. The additional burden is based on a review of the national bridge inspection data coupled with the additional NBIS requirements this rulemaking action

imposes on the States. These requirements include the development of procedures for follow-up on critical findings.

In the NPRM published on September 9, 2003, the FHWA proposed a burden increase of 67,000 hours for the information collection, OMB control number 2125-0501, and invited interested parties to send comments regarding any aspect of these information collection requirements. Such comments could include, but were not limited to: (1) Whether the collection of information will be necessary for the performance of the functions of the FHWA, including whether the information will have practical utility; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the collection of information; and (4) ways to minimize the collection burden without reducing the quality of the information collected. The FHWA did not receive any comments in response to the proposed burden hour increase of 67,000 hours. The revision to the information collection, OMB control number 2125-0501, based on this final rule will increase the burden hours by only 2,080 hours, a much smaller amount than that originally proposed in the NPRM.

National Environmental Policy Act

The agency has analyzed this action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321) and has determined that this action will not have any effect on the quality of the environment.

Executive Order 13211 (Energy Effects)

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a significant energy action under that order, because although it is a significant regulatory action under Executive Order 12866 it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 650

Bridges, Grant Programs—transportation, Highways and roads, Incorporation by reference, Reporting and record keeping requirements.

Issued on: December 9, 2004.

Mary E. Peters,

Federal Highway Administrator.

■ In consideration of the foregoing, the FHWA is amending title 23, Code of Federal Regulations, part 650, subpart C, as follows:

PART 650—BRIDGES, STRUCTURES, AND HYDRAULICS

■ 1. The authority citation for part 650 continues to read as follows:

Authority: 23 U.S.C. 109 (a) and (h), 144, 151, 315, and 319; 33 U.S.C. 401, 491 *et seq.*, 511 *et seq.*; 23 CFR 1.32; 49 CFR 1.48(b), E.O. 11988 (3 CFR, 1977 Comp. p. 117); Department of Transportation Order 5650.2 dated April 23, 1979 (44 FR 24678); sec. 161 of Public Law 97-424, 96 Stat. 2097, 3135; sec. 4(b) of Public Law 97-134, 95 Stat. 1699; and sec. 1057 of Public Law 102-240, 105 Stat. 2002; and sec. 1311 of Pub. L. 105-178, as added by Pub. L. 105-206, 112 Stat. 842 (1998).

■ 2. Revise subpart C to read as follows:

Subpart C—National Bridge Inspection Standards

Sec.

650.301	Purpose.
650.303	Applicability.
650.305	Definitions.
650.307	Bridge inspection organization.
650.309	Qualifications of personnel.
650.311	Inspection frequency.
650.313	Inspection procedures.
650.315	Inventory.
650.317	Reference manuals.

Subpart C—National Bridge Inspection Standards

§ 650.301 Purpose.

This subpart sets the national standards for the proper safety inspection and evaluation of all highway bridges in accordance with 23 U.S.C. 151.

§ 650.303 Applicability.

The National Bridge Inspection Standards (NBIS) in this subpart apply to all structures defined as highway bridges located on all public roads.

§ 650.305 Definitions.

Terms used in this subpart are defined as follows:

American Association of State Highway and Transportation Officials (AASHTO) Manual. "Manual for Condition Evaluation of Bridges," second edition, published by the American Association of State Highway and Transportation Officials

(incorporated by reference, see § 650.317).

Bridge. A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

Bridge inspection experience. Active participation in bridge inspections in accordance with the NBIS, in either a field inspection, supervisory, or management role. A combination of bridge design, bridge maintenance, bridge construction and bridge inspection experience, with the predominant amount in bridge inspection, is acceptable.

Bridge inspection refresher training. The National Highway Institute "Bridge Inspection Refresher Training Course"¹ or other State, local, or federally developed instruction aimed to improve quality of inspections, introduce new techniques, and maintain the consistency of the inspection program.

Bridge Inspector's Reference Manual (BIRM). A comprehensive FHWA manual on programs, procedures and techniques for inspecting and evaluating a variety of in-service highway bridges. This manual may be purchased from the U.S. Government Printing Office, Washington, DC 20402 and from National Technical Information Service, Springfield, Virginia 22161, and is available at the following URL: <http://www.fhwa.dot.gov/bridge/bripub.htm>.

Complex bridge. Movable, suspension, cable stayed, and other bridges with unusual characteristics.

Comprehensive bridge inspection training. Training that covers all aspects of bridge inspection and enables inspectors to relate conditions observed on a bridge to established criteria (see the Bridge Inspector's Reference Manual for the recommended material to be covered in a comprehensive training course).

Critical finding. A structural or safety related deficiency that requires immediate follow-up inspection or action.

Damage inspection. This is an unscheduled inspection to assess structural damage resulting from environmental factors or human actions.

¹ The National Highway Institute training may be found at the following URL: <http://www.nhi.fhwa.dot.gov/>

Fracture critical member (FCM). A steel member in tension, or with a tension element, whose failure would probably cause a portion of or the entire bridge to collapse.

Fracture critical member inspection. A hands-on inspection of a fracture critical member or member components that may include visual and other nondestructive evaluation.

Hands-on. Inspection within arms length of the component. Inspection uses visual techniques that may be supplemented by nondestructive testing.

Highway. The term "highway" is defined in 23 U.S.C. 101(a)(11).

In-depth inspection. A close-up, inspection of one or more members above or below the water level to identify any deficiencies not readily detectable using routine inspection procedures; hands-on inspection may be necessary at some locations.

Initial inspection. The first inspection of a bridge as it becomes a part of the bridge file to provide all Structure Inventory and Appraisal (SI&A) data and other relevant data and to determine baseline structural conditions.

Legal load. The maximum legal load for each vehicle configuration permitted by law for the State in which the bridge is located.

Load rating. The determination of the live load carrying capacity of a bridge using bridge plans and supplemented by information gathered from a field inspection.

National Institute for Certification in Engineering Technologies (NICET). The NICET provides nationally applicable voluntary certification programs covering several broad engineering technology fields and a number of specialized subfields. For information on the NICET program certification contact: National Institute for Certification in Engineering Technologies, 1420 King Street, Alexandria, VA 22314-2794.

Operating rating. The maximum permissible live load to which the structure may be subjected for the load configuration used in the rating.

Professional engineer (PE). An individual, who has fulfilled education and experience requirements and passed rigorous exams that, under State licensure laws, permits them to offer engineering services directly to the public. Engineering licensure laws vary from State to State, but, in general, to become a PE an individual must be a graduate of an engineering program accredited by the Accreditation Board for Engineering and Technology, pass the Fundamentals of Engineering exam,

gain four years of experience working under a PE, and pass the Principles of Practice of Engineering exam.

Program Manager. The individual in charge of the program, that has been assigned or delegated the duties and responsibilities for bridge inspection, reporting, and inventory. The program manager provides overall leadership and is available to inspection team leaders to provide guidance.

Public road. The term "public road" is defined in 23 U.S.C. 101(a)(27).

Quality assurance (QA). The use of sampling and other measures to assure the adequacy of quality control procedures in order to verify or measure the quality level of the entire bridge inspection and load rating program.

Quality control (QC). Procedures that are intended to maintain the quality of a bridge inspection and load rating at or above a specified level.

Routine inspection. Regularly scheduled inspection consisting of observations and/or measurements needed to determine the physical and functional condition of the bridge, to identify any changes from initial or previously recorded conditions, and to ensure that the structure continues to satisfy present service requirements.

Routine permit load. A live load, which has a gross weight, axle weight or distance between axles not conforming with State statutes for legally configured vehicles, authorized for unlimited trips over an extended period of time to move alongside other heavy vehicles on a regular basis.

Scour. Erosion of streambed or bank material due to flowing water; often considered as being localized around piers and abutments of bridges.

Scour critical bridge. A bridge with a foundation element that has been determined to be unstable for the observed or evaluated scour condition.

Special inspection. An inspection scheduled at the discretion of the bridge owner, used to monitor a particular known or suspected deficiency.

State transportation department. The term "State transportation department" is defined in 23 U.S.C. 101(a)(34).

Team leader. Individual in charge of an inspection team responsible for planning, preparing, and performing field inspection of the bridge.

Underwater diver bridge inspection training. Training that covers all aspects of underwater bridge inspection and enables inspectors to relate the conditions of underwater bridge elements to established criteria (see the Bridge Inspector's Reference Manual section on underwater inspection for the recommended material to be covered in

an underwater diver bridge inspection training course).

Underwater inspection. Inspection of the underwater portion of a bridge substructure and the surrounding channel, which cannot be inspected visually at low water by wading or probing, generally requiring diving or other appropriate techniques.

§ 650.307 Bridge inspection organization.

(a) Each State transportation department must inspect, or cause to be inspected, all highway bridges located on public roads that are fully or partially located within the State's boundaries, except for bridges that are owned by Federal agencies.

(b) Federal agencies must inspect, or cause to be inspected, all highway bridges located on public roads that are fully or partially located within the respective agency responsibility or jurisdiction.

(c) Each State transportation department or Federal agency must include a bridge inspection organization that is responsible for the following:

(1) Statewide or Federal agencywide bridge inspection policies and procedures, quality assurance and quality control, and preparation and maintenance of a bridge inventory.

(2) Bridge inspections, reports, load ratings and other requirements of these standards.

(d) Functions identified in paragraphs (c)(1) and (2) of this section may be delegated, but such delegation does not relieve the State transportation department or Federal agency of any of its responsibilities under this subpart.

(e) The State transportation department or Federal agency bridge inspection organization must have a program manager with the qualifications defined in § 650.309(a), who has been delegated responsibility for paragraphs (c)(1) and (2) of this section.

§ 650.309 Qualifications of personnel.

(a) A program manager must, at a minimum:

(1) Be a registered professional engineer, or have ten years bridge inspection experience; and

(2) Successfully complete a Federal Highway Administration (FHWA) approved comprehensive bridge inspection training course.

(b) There are five ways to qualify as a team leader. A team leader must, at a minimum:

(1) Have the qualifications specified in paragraph (a) of this section; or

(2) Have five years bridge inspection experience and have successfully completed an FHWA approved comprehensive bridge inspection training course; or

(3) Be certified as a Level III or IV Bridge Safety Inspector under the National Society of Professional Engineer's program for National Certification in Engineering Technologies (NICET) and have successfully completed an FHWA approved comprehensive bridge inspection training course, or

(4) Have all of the following:

(i) A bachelor's degree in engineering from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;

(ii) Successfully passed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination;

(iii) Two years of bridge inspection experience; and

(iv) Successfully completed an FHWA approved comprehensive bridge inspection training course, or

(5) Have all of the following:

(i) An associate's degree in engineering or engineering technology from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;

(ii) Four years of bridge inspection experience; and

(iii) Successfully completed an FHWA approved comprehensive bridge inspection training course.

(c) The individual charged with the overall responsibility for load rating bridges must be a registered professional engineer.

(d) An underwater bridge inspection diver must complete an FHWA approved comprehensive bridge inspection training course or other FHWA approved underwater diver bridge inspection training course.

§ 650.311 Inspection frequency.

(a) *Routine inspections.* (1) Inspect each bridge at regular intervals not to exceed twenty-four months.

(2) Certain bridges require inspection at less than twenty-four-month intervals. Establish criteria to determine the level and frequency to which these bridges are inspected considering such factors as age, traffic characteristics, and known deficiencies.

(3) Certain bridges may be inspected at greater than twenty-four month intervals, not to exceed forty-eight-months, with written FHWA approval. This may be appropriate when past inspection findings and analysis justifies the increased inspection interval.

(b) *Underwater inspections.* (1) Inspect underwater structural elements at regular intervals not to exceed sixty months.

(2) Certain underwater structural elements require inspection at less than sixty-month intervals. Establish criteria to determine the level and frequency to which these members are inspected considering such factors as construction material, environment, age, scour characteristics, condition rating from past inspections and known deficiencies.

(3) Certain underwater structural elements may be inspected at greater than sixty-month intervals, not to exceed seventy-two months, with written FHWA approval. This may be appropriate when past inspection findings and analysis justifies the increased inspection interval.

(c) *Fracture critical member (FCM) inspections.* (1) Inspect FCMs at intervals not to exceed twenty-four months.

(2) Certain FCMs require inspection at less than twenty-four-month intervals. Establish criteria to determine the level and frequency to which these members are inspected considering such factors as age, traffic characteristics, and known deficiencies.

(d) Damage, in-depth, and special inspections. Establish criteria to determine the level and frequency of these inspections.

§ 650.313 Inspection procedures.

(a) Inspect each bridge in accordance with the inspection procedures in the AASHTO Manual (incorporated by reference, *see* § 650.317).

(b) Provide at least one team leader, who meets the minimum qualifications stated in § 650.309, at the bridge at all times during each initial, routine, in-depth, fracture critical member and underwater inspection.

(c) Rate each bridge as to its safe load-carrying capacity in accordance with the AASHTO Manual (incorporated by reference, *see* § 650.317). Post or restrict the bridge in accordance with the AASHTO Manual or in accordance with State law, when the maximum unrestricted legal loads or State routine permit loads exceed that allowed under the operating rating or equivalent rating factor.

(d) Prepare bridge files as described in the AASHTO Manual (incorporated by reference, *see* § 650.317). Maintain reports on the results of bridge inspections together with notations of any action taken to address the findings of such inspections. Maintain relevant maintenance and inspection data to allow assessment of current bridge condition. Record the findings and results of bridge inspections on standard State or Federal agency forms.

(e) Identify bridges with FCMs, bridges requiring underwater inspection, and bridges that are scour critical.

(1) Bridges with fracture critical members. In the inspection records, identify the location of FCMs and describe the FCM inspection frequency and procedures. Inspect FCMs according to these procedures.

(2) Bridges requiring underwater inspections. Identify the location of underwater elements and include a description of the underwater elements, the inspection frequency and the procedures in the inspection records for each bridge requiring underwater inspection. Inspect those elements requiring underwater inspections according to these procedures.

(3) Bridges that are scour critical. Prepare a plan of action to monitor known and potential deficiencies and to address critical findings. Monitor bridges that are scour critical in accordance with the plan.

(f) *Complex bridges.* Identify specialized inspection procedures, and additional inspector training and experience required to inspect complex bridges. Inspect complex bridges according to those procedures.

(g) *Quality control and quality assurance.* Assure systematic quality control (QC) and quality assurance (QA) procedures are used to maintain a high degree of accuracy and consistency in the inspection program. Include periodic field review of inspection teams, periodic bridge inspection refresher training for program managers and team leaders, and independent review of inspection reports and computations.

(h) *Follow-up on critical findings.* Establish a statewide or Federal agency wide procedure to assure that critical findings are addressed in a timely manner. Periodically notify the FHWA of the actions taken to resolve or monitor critical findings.

§ 650.315 Inventory.

(a) Each State or Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS. Certain Structure Inventory and Appraisal (SI&A) data must be collected and retained by the State or Federal agency for collection by the FHWA as requested. A tabulation of this data is contained in the SI&A sheet distributed by the FHWA as part of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges," (December 1995) together with subsequent interim changes or the most recent version. Report the data using FHWA established procedures as

outlined in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."

(b) For routine, in-depth, fracture critical member, underwater, damage and special inspections enter the SI&A data into the State or Federal agency inventory within 90 days of the date of inspection for State or Federal agency bridges and within 180 days of the date of inspection for all other bridges.

(c) For existing bridge modifications that alter previously recorded data and for new bridges, enter the SI&A data into the State or Federal agency inventory within 90 days after the completion of the work for State or Federal agency bridges and within 180 days after the completion of the work for all other bridges.

(d) For changes in load restriction or closure status, enter the SI&A data into the State or Federal agency inventory within 90 days after the change in status of the structure for State or Federal agency bridges and within 180 days after the change in status of the structure for all other bridges.

§ 650.317 Reference manuals.

(a) The materials listed in this subpart are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these documents will be published in the **Federal Register**. The materials are available for purchase at the address listed below, and are available for inspection at the National Archives and Records Administration (NARA). These materials may also be reviewed at the Department of Transportation Library, 400 Seventh Street, SW., Washington, DC, in Room 2200. For information on the availability of these materials at NARA call (202) 741-6030, or go to the following URL: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. In the event there is a conflict between the standards in this subpart and any of these materials, the standards in this subpart will apply.

(b) The following materials are available for purchase from the American Association of State Highway and Transportation Officials, Suite 249, 444 N. Capitol Street, NW., Washington, DC 20001. The materials may also be ordered via the AASHTO bookstore located at the following URL: <http://www.aashto.org/aashto/home.nsf/FrontPage>.

(1) The Manual for Condition Evaluation of Bridges, 1994, second edition, as amended by the 1995, 1996, 1998, and 2000 interim revisions, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

(2) 2001 Interim Revision to the Manual for Condition Evaluation of Bridges, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

(3) 2003 Interim Revision to the Manual for Condition Evaluation of Bridges, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

[FR Doc. 04-27355 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF THE TREASURY

31 CFR Part 103

Financial Crimes Enforcement Network; Interpretive Release 2004-1—Anti-Money Laundering Program Requirements for Money Services Businesses With Respect to Foreign Agents or Foreign Counterparties

AGENCY: Financial Crimes Enforcement Network (FinCEN), Treasury.

ACTION: Final rule; interpretive release.

SUMMARY: This Interpretive Release sets forth an interpretation of the regulation requiring Money Services Businesses that are required to register with FinCEN to establish and maintain anti-money laundering programs. Specifically, this Interpretive Release clarifies that the anti-money laundering program regulation requires such Money Services Businesses to establish adequate and appropriate policies, procedures and controls commensurate with the risk of money laundering and the financing of terrorism posed by their relationship with foreign agents or foreign counterparties of the Money Services Business.

DATES: Effective June 13, 2005.

FOR FURTHER INFORMATION CONTACT: Office of Regulatory Policy and Programs Division, 1-800-800-2877, Office of Chief Counsel (703) 905-3590 (not a toll free number).

SUPPLEMENTARY INFORMATION: Section 5318(h) of the Bank Secrecy Act, which is codified in subchapter II of chapter 53 of title 31, United States Code, requires every financial institution to establish an anti-money laundering program. The Bank Secrecy Act regulations define financial institution to include money service businesses. On April 29, 2002, FinCEN issued interim final rules-31

CFR 103.125-concerning the application of the anti-money laundering program requirement to money services businesses. 67 FR 21114.

List of Subjects in 31 CFR Part 103

Authority delegations (government agencies), bank, banking, currency, investigations, reporting and recordkeeping requirements.

Department of the Treasury

31 CFR Chapter I

Authority and Issuance

■ For the reasons set forth in the preamble, part 103 of title 31 of the Code of Federal Regulations is amended as follows:

PART 103—FINANCIAL RECORDKEEPING AND REPORTING OF CURRENCY AND FOREIGN TRANSACTIONS

■ 1. The authority citation for part 103 continues to read as follows:

Authority: 12 U.S.C. 1829b and 1951-1959; 31 U.S.C. 5311-5314 and 5316-5332; title III, secs. 312, 313, 314, 319, 326, 352, Pub. L. 107-56, 115 Stat. 307, 12 U.S.C. 1786(q).

■ 2. Part 103 is amended by adding a new appendix C to read as follows:

APPENDIX C TO PART 103—INTERPRETIVE RULES

Release No. 2004-01

This Interpretive Guidance sets forth our interpretation of the regulation requiring Money Services Businesses that are required to register with FinCEN to establish and maintain anti-money laundering programs. See 31 CFR 103.125. Specifically, this Interpretive Guidance clarifies that the anti-money laundering program regulation requires Money Services Businesses to establish adequate and appropriate policies, procedures, and controls commensurate with the risks of money laundering and the financing of terrorism posed by their relationship with foreign agents or foreign counterparties of the Money Services Business.¹

Under existing Bank Secrecy Act regulations, we have defined Money Services Businesses to include five distinct types of financial services providers and the U.S. Postal Service: (1) Currency dealers or exchangers; (2) check cashers; (3) issuers of traveler's checks, money orders, or stored

¹ This Interpretive Guidance focuses on the need to control risks arising out of the relationship between a Money Service Business and its foreign counterparty or agent. Under existing FinCEN regulations, only Money Service Business principals are required to register with FinCEN, and only Money Service Business principals establish the counterparty or agency relationships. 31 CFR 103.41. Accordingly, this Interpretive Guidance only applies to those Money Service Businesses required to register with FinCEN, that is, only those Money Service Businesses that may have a relationship with a foreign agent or counterparty.

value; (4) sellers or redeemers of traveler's checks, money orders, or stored value; and (5) money transmitters. See 31 CFR 103.11(uu). With limited exception, Money Services Businesses are subject to the full range of Bank Secrecy Act regulatory controls, including the anti-money laundering program rule, suspicious activity and currency transaction reporting rules, and various other identification and recordkeeping rules.²

Many Money Services Businesses, including the vast majority of money transmitters in the United States, operate through a system of agents both domestically and internationally. We estimate that a substantial majority of all cross-border remittances by money transmitters are conducted using this model. Other Money Services Businesses may operate through more informal relationships, such as the trust-based hawala system.³ Regardless of the form of the relationship between a Money Services Business and its foreign agents or counterparties, Money Services Business transactions generally are initiated by customers seeking to send or receive funds, cash checks, buy or sell money orders or traveler's checks, or buy or sell currency. The customer directs the Money Services Business to execute the transactions; the Money Services Business does not unilaterally determine the recipient of its products or services. Although the customer can use the Money Services Business' services, the customer does not typically establish an account relationship with the Money Services Business. The focus of this Interpretive Guidance is the establishment of, and ongoing relationship between, a Money Services Business and its foreign agent or foreign counterparty that facilitates the flow of funds cross-border into and out of the United States on behalf of customers.

The Cross-Border Flow of Funds through Money Services Businesses and Associated Risks

Ensuring that financial institutions based in the United States establish and apply adequate and appropriate policies,

² See 31 CFR 103.125 (requirement for Money Service Businesses to establish and maintain an anti-money laundering compliance program); 31 CFR 103.22 (requirement for Money Service Businesses to file currency transaction reports); 31 CFR 103.20 (requirement for Money Service Businesses, other than check cashers and issuers, sellers, or redeemers of stored value, to file suspicious activity reports); 31 CFR 103.29 (requirement for Money Service Businesses that sell money orders, traveler's checks, or other instruments for cash to verify the identity of the customer and create and maintain a record of each cash purchase between \$3,000 and \$10,000, inclusive); 31 CFR 103.33(f) (requirement for Money Service Businesses that send or accept instructions to transmit funds of \$3,000 or more to verify the identity of the sender or receiver and create and maintain a record of the transmittal regardless of the method of payment); and 31 CFR 103.37 (requirement for currency exchangers to create and maintain a record of each exchange of currency in excess of \$1,000).

³ For an analysis of informal value transfer systems, see FinCEN's Report to Congress Pursuant to Section 359 of the Patriot Act, available on www.fincen.gov.

procedures, and controls in their anti-money laundering compliance programs to protect the international gateways to the U.S. financial system is an essential element of the Bank Secrecy Act regulatory regime. This Interpretive Guidance forms a part of our comprehensive approach to accomplishing this goal. To the extent Money Services Businesses utilize relationships with foreign agents or counterparties to facilitate the movement of funds into or out of the United States, they must take reasonable steps to guard against the flow of illicit funds, or the flow of funds from legitimate sources to persons seeking to use those funds for illicit purposes, through such relationships.

The money laundering or terrorism financing risks associated with foreign agents or counterparties are similar to the risks presented by domestic agents of Money Services Businesses. For example, the foreign agent of the domestic Money Services Business may have lax anti-money laundering policies, procedures, and internal controls, or actually may be complicit with those seeking to move illicit funds. In some instances, the risk with foreign agents can be greater than with domestic agents because foreign agents are not subject to the Bank Secrecy Act regulatory regime; the extent to which they are subject to anti-money laundering regulation, and the quality of that regulation, will vary with the jurisdictions in which they are located.

There are a variety of ways in which a Money Services Business may be susceptible to the unwitting facilitation of money laundering through foreign agents or counterparties. For example, our review of Bank Secrecy Act data revealed several instances of suspected criminal activity—detected by existing anti-money laundering and suspicious activity reporting programs of Money Services Businesses and banks—where foreign agents of Money Services Business have engaged in bulk sales of sequentially numbered, U.S. denominated traveler's checks or blocks of money orders, to one or two individuals. The individuals involved frequently purchased the instruments on multiple dates and in different locations, structuring the purchases to avoid reporting thresholds and issuer limits on daily instrument sales. The instruments usually had illegible signatures or failed to designate a beneficiary or payor. The instruments were then negotiated with one or more dealers in goods, such as diamonds, gems, or precious metals, deposited in foreign banks, and cleared through U.S. banks. In such cases, the clearing banks were so far removed from the transactions that they could not trace back or screen either the intervening transactions or the individuals involved in the transactions.

A case involving suspicious activity in a Money Services Business' domestic agent provides a further example of the type of high-risk activity that also may be engaged in by foreign agents or counterparties. In this instance, the domestic Money Service Business had policies, procedures, and controls that facilitated the detection of illicit activity at the agent. A group of six customers entered a money transmitter agent at approximately five-minute intervals to send

the same structured amounts (\$2,500) to the same receiver in a foreign country. Several weeks later, another group of six customers entered the same agent location and conducted an identical pattern of successive \$2,500 transfers (a few minutes apart) to the same recipient in the same foreign country as the first set of transactions. Some of the individuals in the second group had the same last names as customers in the first group. Additional suspicious activity reports filed by the primary Money Services Business identified several other groups of customers initiating money transfers at this same agent business location, in the same manner, and in the same overall time frame. This activity by an agent drew the scrutiny of the Money Services Business, and in addition to the filing of suspicious activity reports, led to the termination of the relationship of the Money Services Business with the agent.

These examples of illicit activity occurring at the agents of Money Services Businesses underscore the need for Money Services Businesses to include, as a part of their anti-money laundering programs, procedures, policies, and controls to govern relationships with foreign agents and counterparties to enable the Money Services Business to perform the appropriate level of suspicious activity and risk monitoring. We believe that this obligation is an essential part of each Money Services Business' existing obligation under 31 CFR 103.125 to develop and implement an effective anti-money laundering program.⁴ This Interpretive Guidance will aid Money Services Businesses in adopting appropriate risk-based policies, procedures, and controls on cross-border relationships with foreign agents and counterparties.

Anti-Money Laundering Program Elements Relating to Foreign Agents and Counterparties

Under 31 CFR 103.125(a), Money Services Businesses are required to develop, implement, and maintain an effective anti-money laundering program reasonably designed to prevent the Money Services Business from being used to facilitate money laundering and the financing of terrorist activities. The program must be commensurate with the risks posed by the location, size, nature, and volume of the financial services provided by the Money Services Business. Additionally, the program must incorporate policies, procedures, and controls reasonably designed to assure compliance with the Bank Secrecy Act and implementing regulations.

With respect to Money Services Businesses that utilize foreign agents or counterparties, a Money Services Business' anti-money laundering program must include risk-based policies, procedures, and controls designed to identify and minimize money laundering and terrorist financing risks associated with foreign agents and counterparties that facilitate the flow of funds into and out of the United States. The program must be aimed at

⁴ FinCEN previously interpreted 31 CFR 103.125 to impose a similar obligation on a money transmitter with respect to its domestic agents. See Matter of Western Union, No. 2003-2 (Mar. 6, 2003) (www.fincen.gov).

preventing the products and services of the Money Services Business from being used to facilitate money laundering or terrorist financing through these relationships and detecting the use of these products and services for money laundering or terrorist financing by the Money Services Business or agent. Relevant risk factors may include, but are not limited to:

- The foreign agent or counterparty's location and jurisdiction of organization, chartering, or licensing. This would include considering the extent to which the relevant jurisdiction is internationally recognized as presenting a greater risk for money laundering or is considered to have more robust anti-money laundering standards.
 - The ownership of the foreign agent or counterparty. This includes whether the owners are known, upon reasonable inquiry, to be associated with criminal conduct or terrorism. For example, have the individuals been designated by Treasury's Office of Foreign Assets Control as Specially Designated Nationals or Blocked Persons (*i.e.*, involvement in terrorism, drug trafficking, or the proliferation of weapons of mass destruction)?
 - The extent to which the foreign agent or counterparty is subject to anti-money laundering requirements in its jurisdiction and whether it has established such controls.
 - Any information known or readily available to the Money Services Business about the foreign agent or counterparty's anti-money laundering record, including public information in industry guides, periodicals, and major publications.
 - The nature of the foreign agent or counterparty's business, the markets it serves, and the extent to which its business and the markets it serves present an increased risk for money laundering or terrorist financing.
 - The types and purpose of services to be provided to, and anticipated activity with, the foreign agent or counterparty.
 - The nature and duration of the Money Services Business' relationship with the foreign agent or counterparty.
- Specifically, a Money Services Business' anti-money laundering program should include procedures for the following:

1. Conduct of Due Diligence on Foreign Agents and Counterparties

Money Services Businesses should establish procedures for conducting reasonable, risk-based due diligence on potential and existing foreign agents and counterparties to help ensure that such foreign agents and counterparties are not themselves complicit in illegal activity involving the Money Services Business' products and services, and that they have in place appropriate anti-money laundering controls to guard against the abuse of the Money Services Business' products and services. Such due diligence must, at a minimum, include reasonable procedures to identify the owners of the Money Services Business' foreign agents and counterparties, as well as to evaluate, on an ongoing basis, the operations of those foreign agents and counterparties and their implementation of policies, procedures, and controls reasonably

designed to help assure that the Money Services Business' products and services are not subject to abuse by the foreign agent's or counterparty's customers, employees, or contractors.⁵ The extent of the due diligence required will depend on a variety of factors specific to each agent or counterparty. We expect Money Services Businesses to assess such risks and perform due diligence in a manner consistent with that risk, in light of the availability of information.

2. Risk-based Monitoring of Foreign Agents or Counterparties

In addition to the due diligence described above, in order to detect and report suspected money laundering or terrorist financing, Money Services Businesses should establish procedures for risk-based monitoring and review of transactions from, to, or through the United States that are conducted through foreign agents and counterparties.⁶ Such procedures should also focus on identifying material changes in the agent's risk profile, such as a change in ownership, business, or the regulatory scrutiny to which it is subject.

The review of transactions should enable the Money Services Business to identify and, where appropriate, report as suspicious such occurrences as: instances of unusual wire activity, bulk sales or purchases of sequentially numbered instruments, multiple purchases or sales that appear to be structured, and illegible or missing customer information. Additionally, Money Services Businesses should establish procedures to assure that their foreign agents or counterparties are effectively implementing an anti-money laundering program and to discern obvious breakdowns in the implementation of the program by the foreign agent or counterparty.

Similarly, money transmitters should have procedures in place to enable them to review foreign agent or counterparty activity for signs of structuring or unnecessarily complex transmissions through multiple jurisdictions that may be indicative of layering. Such procedures should also enable them to discern attempts to evade identification or other requirements, whether imposed by applicable law or by the Money Services Business' own internal policies. Activity by agents or counterparties that appears aimed at evading the Money Services Business' own controls can be indicative of complicity in illicit conduct; this activity must be scrutinized, reported as appropriate, and corrective action taken as warranted.

⁵ Our anti-money laundering program rule, 31 CFR 103.125(d)(iii), permits Money Service Businesses to satisfy this last requirement with regard to their domestic agents (which are also Money Service Businesses under the BSA regulations), by allocating responsibility for the program to their agents. Such an allocation, however, does not relieve a Money Service Business from ultimate responsibility for establishing and maintaining an effective anti-money laundering program. *Id.*

⁶ Nothing in this Interpretive Guidance is intended to require Money Service Businesses to monitor or review, for purposes of the Bank Secrecy Act, transactions or activities of foreign agents or counterparties that occur entirely outside of the United States and do not flow from, to, or through the United States.

3. Corrective Action and Termination

Money Services Businesses should have procedures for responding to foreign agents or counterparties that present unreasonable risks of money laundering or the financing of terrorism. Such procedures should provide for the implementation of corrective action on the part of the foreign agent or counterparty or for the termination of the relationship with any foreign agent or counterparty that the Money Services Business determines poses an unacceptable risk of money laundering or terrorist financing, or that has demonstrated systemic, willful, or repeated lapses in compliance with the Money Services Business' own anti-money laundering procedures or requirements.

While Money Services Businesses may already have implemented some or all of the procedures described in this Interpretive Guidance as a part of their anti-money laundering programs, we wish to provide a reasonable period of time for all affected Money Services Businesses to assess their operations, review their existing policies and programs for compliance with this Advisory, and implement any additional necessary changes. We will expect full compliance with this Interpretive Release within 180 days.

Finally, we are mindful of the potential impact that this Interpretive Release may have on continuing efforts to bring informal value transfer systems into compliance with the existing regulatory framework of the Bank Secrecy Act. Experience has demonstrated the challenges in securing compliance by, for instance, hawalas and other informal value transfer systems. Further specification of Bank Secrecy Act compliance obligations carries with it the risk of driving these businesses underground, thereby undermining our ultimate regulatory goals. On balance, however, we believe that outlining the requirements for dealing with foreign agents and counterparties, including informal networks, is appropriate in light of the risks of money laundering and the financing of terrorism.

William J. Fox,
Director.

[FR Doc. 04-27287 Filed 12-13-04; 8:45 am]

BILLING CODE 4810-02-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[CGD01-04-146]

Drawbridge Operation Regulations: Merrimack River, MA

AGENCY: Coast Guard, DHS.

ACTION: Notice of temporary deviation from regulations.

SUMMARY: The Commander, First Coast Guard District, has issued a temporary deviation from the drawbridge operation

regulations for the Essex Merrimack Bridge, mile 5.8, across the Merrimack River, at Newburyport, Massachusetts. This deviation allows the bridge to remain in the closed position from 6 a.m. on December 13, 2004 through 6 p.m. on December 17, 2004. This temporary deviation is necessary to facilitate structural repairs at the bridge.

DATES: This deviation is effective from December 13, 2004 through December 17, 2004.

FOR FURTHER INFORMATION CONTACT: John McDonald, Project Officer, First Coast Guard District, at (617) 223-8364.

SUPPLEMENTARY INFORMATION: The Essex Merrimack Bridge, at mile 5.8, across the Merrimack River, has a vertical clearance of 15 feet at mean high water, and 22 feet at mean low water in the closed position. The existing regulations are listed at 33 CFR § 117.605(c).

The bridge owner, Massachusetts Highway Department, requested a temporary deviation from the drawbridge operating regulations to facilitate necessary structural repairs to the balance wheels at the bridge.

This deviation to the operating regulations allows the bridge to remain in the closed position from 6 a.m. on December 13, 2004 through 6 p.m. on December 17, 2004.

This deviation from the operating regulations is authorized under 33 CFR § 117.35 and will be performed with all due speed in order to return the bridge to normal operation as soon as possible.

Dated: December 3, 2004.

David P. Pekoske,
Rear Admiral, U.S. Coast Guard, Commander,
First Coast Guard District.

[FR Doc. 04-27303 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-15-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[CGD05-04-216]

RIN 1625-AA00

Security Zone; Cape Fear River, Eagle Island, North Carolina State Port Authority Terminal, Wilmington, NC

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary security zone at the North Carolina State Port Authority (NCSPA), Wilmington to include the Cape Fear River and Eagle

Island. Entry into or movement within the security zone will be prohibited without authorization from the COTP. This action is necessary to safeguard the vessels and the facility from sabotage, subversive acts, or other threats.

DATES: This rule is effective from December 3, 2004, until April 1, 2005.

ADDRESSES: Documents indicated in this preamble as being available in the docket are part of docket CGD05-04-216 and are available for inspection or copying at the Marine Safety Office 721 Medical Center Drive, Suite 100, Wilmington, North Carolina 28401 between 7:30 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: LCDR Charles A. Roskam II, Chief Port Operations (910) 772-2200 or toll free (877) 229-0770.

SUPPLEMENTARY INFORMATION:

Regulatory Information

We did not publish a notice of proposed rulemaking (NPRM) for this rule. The Coast Guard is promulgating this security zone regulation to protect NCSPA Wilmington and the surrounding vicinity from threats to national security. Accordingly, based on the military function exception set forth in the Administrative Procedure Act, 5 U.S.C. 553(a)(1), notice and comment rule-making and advance publication are not required for this regulation.

Background and Purpose

Vessels frequenting the North Carolina State Port Authority (NCSPA) Wilmington facility serve as a vital link in the transportation of military munitions, explosives, equipment, and personnel in support of Department of Defense missions at home and abroad. This vital transportation link is potentially at risk to acts of terrorism, sabotage and other criminal acts. Munitions and explosives laden vessels also pose a unique threat to the safety and security of the NCSPA Wilmington, vessel crews, and others in the maritime and surrounding community should the vessels be subject to acts of terrorism or sabotage, or other criminal acts. The ability to control waterside access to vessels laden with munitions and explosives, as well as those used to transport military equipment and personnel, moored at the NCSPA Wilmington is critical to national defense and security, as well as to the safety and security of the NCSPA Wilmington, vessel crews, and others in the maritime and surrounding community. Therefore, the Coast Guard is establishing this security zone to safeguard human life, vessels and

facilities from sabotage, terrorist acts or other criminal acts.

Discussion of Rule

The security zone is necessary to provide security for, and prevent acts of terrorism against vessels loading or offloading at the NCSPA Wilmington facility during a military operation. It will include an area from 800 yards south of the Cape Fear River Bridge encompassing the southern end of Eagle Island, the Cape Fear River, and the grounds of the State Port Authority Terminal south to South Wilmington Terminal. The security zone will prevent access to unauthorized persons who may attempt to enter the secure area via the Cape Fear River, the North Carolina State Port Authority terminal, or use Eagle Island as vantage point for surveillance of the secure area. The security zone will protect vessels moored at the facility, their crews, others in the maritime community and the surrounding communities from subversive or terrorist attack that could cause serious negative impact to vessels, the port, or the environment, and result in numerous casualties.

No person or vessel may enter or remain in the security zone at any time without the permission of the Captain of the Port, Wilmington. Each person or vessel operating within the security zone will obey any direction or order of the Captain of the Port. The Captain of the Port may take possession and control of any vessel in a security zone and/or remove any person, vessel, article or thing from this security zone.

Regulatory Evaluation

This rule is not a "significant regulatory action" under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order. It is not "significant" under the regulatory policies and procedures of the Department of Homeland Security (DHS).

Although this regulation restricts access to the security zone, the effect of this regulation will not be significant because: (i) The COTP or his or her representative may authorize access to the security zone; (ii) the security zone will be enforced for limited duration; and (iii) the Coast Guard will make notifications via maritime advisories so mariners can adjust their plans accordingly.

Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), we have considered whether this rule would have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

This rule will affect the following entities, some of which may be small entities: the owners or operators of vessels intending to transit or anchor in a portion of the Cape Fear River that is within the security zone.

This security zone will not have a significant economic impact on a substantial number of small entities for the following reasons. Although the security-zone will apply to the entire width of the river, traffic will be allowed to pass through the zone with the permission of the COTP or his or her designated representative. Before the effective period, we will issue maritime advisories widely available to users of the river.

Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Public Law 104-121), we offer to assist small entities in understanding the rule so that they can better evaluate its effects on them and participate in the rulemaking process. If the rule will affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the address listed under **ADDRESSES**.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247).

Collection of Information

This rule calls for no new collection of information under the Paperwork

Reduction Act of 1995 (44 U.S.C. 3501-3520).

Federalism

A rule has implications for federalism under Executive Order 13132. Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 or more in any one year. Though this rule will not result in such expenditure, we do discuss the effects of this rule elsewhere in this preamble.

Taking of Private Property

This rule will not affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

Energy Effects

We have analyzed this rule under Executive Order 13211, Actions

Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a "significant energy action" under that order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

Environment

We have analyzed this rule under Commandant Instruction M16475.1D, which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4370f), and have concluded that there are no factors in this case that would limit the use of a categorical exclusion under section 2.B.2 of the Instruction. Therefore, this rule is categorically excluded, under figure 2-1, paragraph (34)(g), of the Instruction, from further environmental documentation. A final "Environmental Analysis Check List" and a final "Categorical Exclusion Determination" are available in the docket where indicated under **ADDRESSES**.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

■ For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C 191, 195; 33 CFR 1.05-1(g), 6.04-1, 6.04-6, and 160.5; Pub. L. 107-295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add temporary § 165.T05-216 to read as follows:

§ 165.T05-216 Security Zone: Cape Fear River, Eagle Island and North Carolina State Port Authority Terminal, Wilmington, NC.

(a) *Location.* The following area is a security zone: The grounds of the North Carolina State Port Authority, Wilmington Terminal and the southern portion of Eagle Island; and an area encompassed from South Wilmington Terminal at 34°10'38.394" N, 077°57'16.248" W (Point 1); across Cape Fear River to Southernmost entrance of Brunswick River on the West Bank at 34°10'38.052" N, 077°57'43.143" W (Point 2); extending along the West bank of the Brunswick River for approximately 750 yards to 34°10'57.062" N, 077°58'01.342" W (Point 3); proceeding North across the Brunswick River to the east bank at 34°11'04.846" N, 077°58'02.861" W (Point 4) and continuing north on the east bank for approximately 5000 yards along Eagle Island to 34°13'17.815" N, 077°58'30.671" W (Point 5); proceeding East to 34°13'19.488" N, 077°58'24.414" W (Point 6); and then approximately 1700 yards to 34°13'27.169" N, 077°57'51.753" W (Point 7); proceeding East to 34°13'21.226" N, 077°57'19.264" W (Point 8); then across Cape Fear River to the Northeast corner of the Colonial Terminal Pier at 34°13'18.724" N, 077°57'07.401" W (Point 9), 800 yards South of Cape Fear Memorial Bridge; Proceeding South along shoreline (east bank) of Cape Fear River for approximately 500 yards; Proceeding east inland to Wilmington State Port property line at 34°13'03.196" N, 077°56'52.211" W (Point 10); extending South along Wilmington State Port property line to 34°12'43.409" N, 077°56'50.815" W (Point 11); Proceeding to the North entrance of Wilmington State Port at 34°12'28.854" N, 077°57'01.017" W (Point 12); Proceeding South along Wilmington State Port property line to 34°12'20.819" N, 077°57'08.871" W (Point 13); Continuing South along the Wilmington State Port property line to 34°12'08.164" N, 077°57'08.530" W (Point 14); Continuing along State Port property to 34°11'44.426" N, 077°56'55.003" W (Point 15); Proceeding South to the main

gate of the Wilmington State Port at 34°11'29.578" N, 077°56'55.240" W (Point 16); Proceeding South approximately 750 yards to the Southeast property corner of the Apex facility at 34°11'10.936" N, 077°57'04.798" W (Point 17); Proceeding West to East bank of Cape Fear River at 34°11'11.092" N, 077°57'17.146" W (Point 18); Proceeding South along East bank of Cape Fear River to Original point of origin at 34°10'38.394" N, 077°57'16.248" W (Point 1). (NAD 1983)

(b) *Captain of the Port.* *Captain of the Port* means the Commanding Officer of the Marine Safety Office Wilmington, NC, or any Coast Guard commissioned, warrant, or petty officer who has been authorized to act on her behalf.

(c) *Regulations.* (1) All persons are required to comply with the general regulations governing security zones in 33 CFR 165.33.

(2) Persons or vessels with a need to enter or get passage within the security zone, must first request authorization from the Captain of the Port. The Captain of the Port's representative enforcing the zone can be contacted on VHF marine band radio, channel 16. The Captain of the Port can be contacted at (910) 772-2200 or toll free (877) 229-0770.

(3) The operator of any vessel within this security zone must:

(i) Stop the vessel immediately upon being directed to do so by the Captain of the Port or his or her designated representative.

(ii) Proceed as directed by the Captain of the Port or his or her designated representative.

(d) *Effective period.* This section is effective from December 3, 2004, until April 1, 2005.

Dated: November 30, 2004.

Jane M. Hartley,

Captain, U.S. Coast Guard, Captain of the Port, Wilmington, North Carolina.

[FR Doc. 04-27304 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-15-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 271

[FRL-7847-9]

North Carolina: Final Authorization of State Hazardous Waste Management Program Revision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Immediate final rule.

SUMMARY: North Carolina has applied to EPA for Final authorization of the

changes to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA has determined that these changes satisfy all requirements needed to qualify for final authorization, and is authorizing the State's changes through this immediate final action. EPA is publishing this rule to authorize the changes without a prior proposal because we believe this action is not controversial and do not expect comments that oppose it. Unless we get written comments which oppose this authorization during the comment period, the decision to authorize North Carolina's changes to their hazardous waste program will take effect. If we get comments that oppose this action, we will publish a document in the **Federal Register** withdrawing this rule before it takes effect and a separate document in the proposed rules section of this **Federal Register** will serve as a proposal to authorize the changes.

DATES: This Final authorization will become effective on February 14, 2005, unless EPA receives adverse written comment by January 13, 2005. If EPA receives such comment, it will publish a timely withdrawal of this immediate final rule in the **Federal Register** and inform the public that this authorization will not take effect.

ADDRESSES: Send written comments to Thornell Cheeks, North Carolina Authorizations Coordinator, RCRA Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, GA, 30303-3104; (404) 562-8479. You may also e-mail your comments to Cheeks.Thornell@epa.gov or submit your comments at <http://www.regulation.gov>. Copies of North Carolina's applications may be viewed from 9 a.m. to 4 p.m. at the following addresses: North Carolina Department of Environment and Natural Resources, 401 Oberlin Rd., Suite 150, Raleigh, North Carolina 29201, (919) 733-2178; and EPA Region 4, Atlanta Federal Center, Library, 61 Forsyth Street, SW., Atlanta, Georgia 30303; (404) 562-8190, John Wright, Librarian.

FOR FURTHER INFORMATION CONTACT: Thornell Cheeks, North Carolina Authorizations Coordinator, RCRA Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, GA, 30303-3104; (404) 562-8479.

SUPPLEMENTARY INFORMATION:

A. Why Are Revisions to State Programs Necessary?

States which have received final authorization from EPA under RCRA section 3006(b), 42 U.S.C. 6926(b), must maintain a hazardous waste program that is equivalent to, consistent with, and no less stringent than the Federal program. As the Federal program changes, States must change their programs and ask EPA to authorize the changes. Changes to State programs may be necessary when Federal or State statutory or regulatory authority is modified or when certain other changes occur. Most commonly, States must change their programs because of changes to EPA's regulations in 40 Code of Federal Regulations (CFR) parts 124, 260 through 266, 268, 270, 273 and 279.

B. What Decisions Have We Made in This Rule?

We conclude that North Carolina's applications to revise its authorized program meets all of the statutory and regulatory requirements established by RCRA. Therefore, we grant North Carolina Final authorization to operate its hazardous waste program with the changes described in the authorization applications. North Carolina has responsibility for permitting Treatment, Storage, and Disposal Facilities (TSDFs) within its borders (except in Indian Country) and for carrying out the aspects of the RCRA program described in its revised program application, subject to the limitations of the Hazardous and Solid Waste Amendments of 1984 (HSWA). New Federal requirements and prohibitions imposed by Federal regulations that EPA promulgates under the authority of HSWA take effect in authorized States before they are requirements. Thus, EPA will implement those requirements and prohibitions in North Carolina, including issuing permits, until the State is granted authorization to do so.

C. What Is the Effect of Today's Authorization Decision?

The effect of this decision is that a facility in North Carolina subject to RCRA will now have to comply with the authorized State requirements instead of the equivalent Federal requirements in order to comply with RCRA. North Carolina has enforcement responsibilities under its State hazardous waste program for violations of such program, but EPA retains its authority under RCRA sections 3007,

3008, 3013, and 7003, which include, among others, authority to:

- Do inspections, and require monitoring, tests, analyses or reports
- Enforce RCRA requirements and suspend or revoke permits
- Take enforcement actions regardless of whether the State has taken its own actions.

This action does not impose additional requirements on the regulated community because the regulations for which North Carolina is being authorized by today's action are already effective, and are not changed by today's action.

D. Why Wasn't There a Proposed Rule Before Today's Rule?

EPA did not publish a proposal before today's rule because we view this as a routine program change and do not expect comments that oppose this approval. We are providing an opportunity for public comment now. In addition to this rule, in the proposed rules section of today's **Federal Register** we are publishing a separate document that proposes to authorize the State program changes.

E. What Happens if EPA Receives Comments That Oppose This Action?

If EPA receives comments that oppose this authorization, we will withdraw this rule by publishing a document in the **Federal Register** before the rule becomes effective. EPA will base any further decision on the authorization of the State program changes on the proposal mentioned in the previous paragraph. We will then address all public comments in a later final rule. You may not have another opportunity to comment. If you want to comment on this authorization, you must do so at this time.

If we receive comments that oppose only the authorization of a particular change to the State hazardous waste program, we will withdraw that part of this rule but the authorization of the program changes that the comments do not oppose will become effective on the date specified above. The **Federal Register** withdrawal document will specify which part of the authorization will become effective, and which part is being withdrawn.

F. What Has North Carolina Previously Been Authorized for?

North Carolina initially received final authorization on December 14, 1984, effective December 31, 1984 (49 FR 48694), to implement its base hazardous

waste management program. We granted authorization for changes on March 25, 1986 (51 FR 10211), effective April 8, 1986, August 5, 1988 (53 FR 1988), effective October 4, 1988, February 9, 1989 (54 FR 6290), effective April 10, 1989, September 22, 1989 (54 FR 38993), effective November 21, 1989, January 18, 1991 (56 FR 1929), effective March 19, 1991, April 10, 1991 (56 FR 14474), effective June 9, 1991, July 19, 1991 (56 FR 33206), effective September 17, 1991, April 27, 1992 (57 FR 15254), effective June 26, 1992, December 12, 1992 (57 FR 59825), effective February 16, 1993, June 3, 1993 (58 FR 31474) effective June 3, 1993, January 27, 1994 (59 FR 3792), effective March 28 1994, April 4, 1994 (59 FR 15633), effective June 3, 1994, June 23, 1994 (59 FR 32378), effective August 22, 1994, November 10, 1994 (59 FR 56000), effective January 9, 1995, September 27, 1995 (60 FR 49800), effective November 27, 1995, April 25, 1996 (61 FR 18284), effective June 24, 1996, October 23, 1996 (63 FR 56834), effective December 22, 1998, August 25 1999 (64 FR 46298), effective October 25, 1999. North Carolina most recently received authorization for revisions to its program on February 28, 2002 (67 FR 9219), effective April 29, 2002.

G. What Changes Are We Authorizing With Today's Action?

On April 27, 2001, and March 25, 2002, North Carolina submitted a final complete program revision application, seeking authorization of their changes in accordance with 40 CFR 271.21. North Carolina's provisions consists of provisions promulgated July 1, 1997, through June 30, 1998 (RCRA VIII), and July 1, 1998, through June 30, 2000, otherwise known as RCRA IX and X. The rule adoption for the provisions of RCRA VIII, IX, and X covered in this action became effective August 1, 2000, unless otherwise noted. North Carolina Statutes at section 150B-21.6 and section 130A-294 allow the North Carolina Department of Environment and Natural Resources to administer the rules governing hazardous waste management. We now make an immediate final decision, subject to receipt of written comments that oppose this action, that North Carolina's hazardous waste program revisions satisfy all of the requirements necessary to qualify for Final authorization. Therefore, we grant North Carolina Final authorization for the following program changes:

Federal Register	Federal Register	Analogous State authority ¹
Land Disposal Restrictions Phase IV—Hazardous Soils Treatment Standards and Exclusions; Checklist 167 B RCRA Cluster VIII, HSWA Provision.	63 FR 28556–28753, May 26, 1998	15A NCAC 13A.0112(a) 15A NCAC 13A.0112(c) 15A NCAC 24B.0001
Hazardous Waste Combusters; Revised Standards; Checklist 168 RCRA VIII.	63 FR 33782–33829, June 19, 1998	15A NCAC 13A.0106(a) 15A NCAC 13A.0106(d) 15A NCAC 13A.0113(g) 15A NCAC 13A.0113(j)
Petroleum Refining Process Wastes; Checklist 169 RCRA Cluster IX, HSWA/non-HSWA Provision.	63 FR 42110–42189, August 6, 1998	15A NCAC 13A.0106(a) 15A NCAC 13A.0106(d) 15A NCAC 13A.0106(e) 15A NCAC 13A.0111(d) 15A NCAC 13A.0112(b) 15A NCAC 13A.0112(c)
Land Disposal Restrictions Phase IV—Zinc Micronutrient Fertilizers, Amendment; Checklist 170 RCRA Cluster IX, HSWA Provision.	63 FR 46332–46334, August 31, 1998.	15A NCAC 13A.0112(c)
Emergency Revision of the Land Disposal Restrictions (LDR) Treatment Standards for Listed Hazardous Waste from Carbamate Production. Checklist 171 RCRA Cluster IX, HSWA Provision.	63 FR 47410–47418, September 4, 1998.	15A NCAC 13A.0112(c)
Land Disposal Restrictions Phase IV—Extension of Compliance Date for Characteristic Slags; Checklist 172 RCRA Cluster IX, HSWA Provision.	63 FR 48124–48127, September 9, 1998.	15A NCAC 13A.0112(b)
Land Disposal Restrictions; Treatment Standards for Spent Potliners from Primary Aluminum Reduction (K088); Final Rule; Checklist 173 RCRA Cluster IX, HSWA Provision.	63 FR 51254–51267, September 24, 1998.	15A NCAC 13A.0112(c)
Post-Closure Permit Requirement and Closure Process; Checklist 174 RCRA Cluster IX, HSWA /non-HSWA Provision.	63 FR 56710–56735, October 22, 1998.	15A NCAC 13A.0109(b) 15A NCAC 13A.0109(g) 15A NCAC 13A.0109(h) 15A NCAC 13A.0109(i) 15A NCAC 13A.0110(f) 15A NCAC 13A.0110(g) 15A NCAC 13A.0110(h) 15A NCAC 13A.0113(a) ² 15A NCAC 13A.0113(b)
- HWIR-Media; Checklist 175 RCRA Cluster IX, non-HSWA Provision	63 FR 65874–65947, November 30, 1998.	15A NCAC 13A.0102(b) 15A NCAC 13A.0106(a) 15A NCAC 13A.0109(b) 15A NCAC 13A.0109(f) 15A NCAC 13A.0109(g) 15A NCAC 13A.0109(s) 15A NCAC 13A.0110(a) 15A NCAC 13A.0112(a) 15A NCAC 13A.0112(d) 15A NCAC 13A.0113(a) 15A NCAC 13A.0113(b) 15A NCAC 13A.0113(g) 15A NCAC 13A.0113(j)
Universal Waste Rule Technical Amendments; Checklist 176 RCRA Cluster IX, non HSWA Provision.	63 FR 71225–71230, December 24, 1998.	15A NCAC 13A.0111(c) 15A NCAC 13A.0119(a) ³
Organic Air Emissions Standards; Clarification and Technical Amendments; Checklist 177 RCRA Cluster IX, HSWA Provision.	64 FR 3382, January 21, 1999	15A NCAC 13A.0107(c) 15A NCAC 13A.0109(v) ⁴ 15A NCAC 13A.0109(x) 15A NCAC 13A.0110(u)
Petroleum Refining Process Wastes Leachate Exemption; Checklist 178 RCRA Cluster IX, HSWA Provision.	64 FR 6806, February 11, 1999	15A NCAC 13A.0106(a)
Land Disposal Restrictions Phase IV—Technical Corrections and Clarifications to Treatment Standards; Checklist 179 RCRA Cluster IX, HSWA/non-HSWA Provision.	64 FR 25408–25417, May 11, 1999	15A NCAC 13A.0106(a) 15A NCAC 13A.0107(c) ⁵ 15A NCAC 13A.0112(a) 15A NCAC 13A.0112(c)
Test Procedures for the Analysis of Oil and Grease and Non-Polar Material; Checklist 180 RCRA Cluster IX, non-HSWA Provision.	64 FR 26315–26327, May 14, 1999	15A NCAC 13A.0101(e)
Universal Waste Rule: Specific Provisions for Hazardous Waste Lamps; Checklist 181 RCRA Cluster X, non-HSWA Provision.	64 FR 36466–36490, July 6, 1999 ...	15A NCAC 13A.0102(b) 15A NCAC 13A.0106(a) 15A NCAC 13A.0109(b) 15A NCAC 13A.0110(a) 15A NCAC 13A.0112(a) 15A NCAC 13A.0113(a) 15A NCAC 13A.0119(a) 15A NCAC 13A.0119(b) 15A NCAC 13A.0119(c) 15A NCAC 13A.0119(d) 15A NCAC 13A.0119(e) 15A NCAC 13A.0119(g)

Federal Register	Federal Register	Analogous State authority ¹
Hazardous Air Pollutant Standards for Combusters; Checklist 182 RCRA Cluster X, HSWA/non-HSWA Provision.	64 FR 52828-53077, September 30, 1999.	15A NCAC 13A.0102(b) 15A NCAC 13A.0106(d) 15A NCAC 13A.0109(q) 15A NCAC 13A.0109(u) 15A NCAC 13A.0110(o) 15A NCAC 13A.0111(d) 15A NCAC 13A.0111(f) 15A NCAC 13A.0113(b) 15A NCAC 13A.0113(g) 15A NCAC 13A.0113(i)
Land Disposal Restrictions Phase IV—Technical Corrections; Checklist 183 RCRA Cluster X, HSWA/non-HSWA Provision.	64 FR 56469-56472, October 20, 1999.	15A NCAC 13A.0106(d) 15A NCAC 13A.0107(c) 15A NCAC 13A.0112(a) 15A NCAC 13A.0112(c)
Accumulation Time for Waste Water Treatment Sludges; Checklist 184 RCRA Cluster X, non-HSWA Provision.	65 FR 12378-12398, March 8, 2000	15A NCAC 13A.0107(c)
Organobromine Production Waste Vacatur; Checklist 185 RCRA Cluster X, HSWA Provision.	65 FR 14472-14475, March 17, 2000.	15A NCAC 13A.0106(d) 15A NCAC 13A.0106(e) 15A NCAC 13A.0112(b) 15A NCAC 13A.0112(c)
Petroleum Refining Process Wastes—Clarification; Checklist 187 RCRA Cluster X, HSWA Provision.	64 FR 36365-36367, June 8, 2000 ..	15A NCAC 13A.0106(d) 15A NCAC 13A.0112(e)

¹ The North Carolina provisions are from the North Carolina Hazardous Waste Management Rules 15A NCAC 13A, August 1, 2000 and Solid Waste Management Law (October 1999), unless otherwise stated.

² 15A NCAC 13A.0113; effective November 19, 1980; Recodified from 15A 13A. 0013 effective December 20, 1996; Amended effective April 1, 2001.

³ 15A NCAC 13A.0119; effective January 1, 1996; Recodified from 15A 13A. 0019 effective December 20, 1996; Amended effective April 1, 2001.

⁴ 15A NCAC 13A.0109; effective November 19, 1980; Amended effective. July 1, 1995, Recodified from 15A 13A. 0009 Eff. December 20, 1996; Amended effective April 1, 2001.

⁵ 15A NCAC 13A.0107; effective November 19, 1980; Recodified from 15A 13A. 0007 effective December 20, 1996; Amended effective April 1, 2001.

H. Where Are the Revised State Rules Different From the Federal Rules?

There are no State requirements that are more stringent or broader in scope than the Federal requirements.

I. Who Handles Permits After the Authorization Takes Effect?

North Carolina will issue permits for all the provisions for which it is authorized and will administer the permits it issues. EPA will continue to administer any RCRA hazardous waste permits or portions of permits which we issued prior to the effective date of this authorization. We will not issue any more new permits or new portions of permits for the provisions listed in the Table above after the effective date of this authorization. EPA will continue to implement and issue permits for HSWA requirements for which North Carolina is not yet authorized.

J. How Does Today's Action Affect Indian Country (18 U.S.C. 115) in North Carolina?

North Carolina is authorized to carry out its hazardous waste program in Indian Country within the State, which includes the Cherokee Indian Nation. Therefore, this action has no effect on Indian Country. EPA will continue to implement and administer the RCRA program in these lands.

K. What Is Codification and Is EPA Codifying North Carolina's Hazardous Waste Program as Authorized in This Rule?

Codification is the process of placing the State's statutes and regulations that comprise the State's authorized hazardous waste program into the Code of Federal Regulations. We do this by referencing the authorized State rules in 40 CFR part 272. We reserve the amendment of 40 CFR part 272, subpart PP for this authorization of North Carolina's program changes until a later date.

L. Administrative Requirements

The Office of Management and Budget has exempted this action from the requirements of Executive Order 12866 (58 FR 51735, October 4, 1993), and therefore this action is not subject to review by OMB. This action authorizes State requirements for the purpose of RCRA 3006 and imposes no additional requirements beyond those imposed by State law. Accordingly, I certify that this action will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this action authorizes pre-existing requirements under State law and does not impose any additional enforceable duty beyond that required by State law, it does not contain any

unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4). For the same reason, this action also does not significantly or uniquely affect the communities of Tribal governments, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). This action will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely authorizes State requirements as part of the State RCRA hazardous waste program without altering the relationship or the distribution of power and responsibilities established by RCRA. This action also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant and it does not make decisions based on environmental health or safety risks. This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, (May 22, 2001)) because it is not a significant regulatory action under Executive Order 12866.

Under RCRA section 3006(b), EPA grants a State's application for authorization as long as the State meets the criteria required by RCRA. It would thus be inconsistent with applicable law for EPA, when it reviews a State authorization application, to require the use of any particular voluntary consensus standard in place of another standard that otherwise satisfies the requirements of RCRA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272) do not apply. As required by Section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this document and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This action will be effective February 14, 2005.

List of Subjects in 40 CFR Part 271

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Indians lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements.

Authority: This action is issued under the authority of sections 2002(a), 3006 and

7004(b) of the Solid Waste Disposal Act as amended 42 U.S.C. 6912(a), 6926, 6974(b).

Dated: December 7, 2004.

A. Stanley Meiburg,

Deputy Regional Administrator, Region 4.

[FR Doc. 04-27363 Filed 12-13-04; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[FRL-7844-6]

National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List

AGENCY: Environmental Protection Agency.

ACTION: Direct final deletion of the York County Solid Waste and Refuse Authority Superfund Site from the National Priorities List.

SUMMARY: The Environmental Protection Agency (EPA) Region III is publishing a direct final notice of deletion of the York County Solid Waste and Refuse Authority Superfund Site (Site) located in Hopewell Township, York County, Pennsylvania, from the National Priorities List (NPL).

The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is appendix B of 40 CFR part 300, which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This direct final notice of deletion is being published by EPA with the concurrence of the Commonwealth of Pennsylvania, through the Pennsylvania Department of Environmental Protection (PADEP) because EPA has determined that all appropriate response actions under CERCLA have been completed and, therefore, further remedial action pursuant to CERCLA is not appropriate. **DATES:** This direct final deletion will be effective February 14, 2005, unless EPA receives adverse comments by January 13, 2005. If adverse comments are received, EPA will publish a timely withdrawal of the direct final deletion in the **Federal Register** informing the public that the deletion will not take effect.

ADDRESSES: Comments may be mailed to: Larry Johnson, Community Involvement Coordinator (3HS43), U.S. EPA Region III, 1650 Arch Street, Philadelphia, PA 19103 ((215) 814-3239).

Information Repositories:

Comprehensive information about the Site is available for viewing and copying at the Site Information Repositories at the following location: U.S. EPA Region III, Regional Center for Environmental Information (RCEI), 1650 Arch Street, Philadelphia, PA 19103 (phone: (215) 814-5364, open Monday through Friday 8 a.m. to 4:30 p.m.) and the Mason-Dixon Public Library, Main Street, Stewartstown, Pennsylvania 17363.

FOR FURTHER INFORMATION CONTACT: Romuald A. Roman, Remedial Project Manager (3HS22), U.S. EPA Region III, 1650 Arch Street, Philadelphia, PA 19103 (phone: (215) 814-3212; fax: (215) 814-3002; e-mail: roman.romuald@epa.gov).

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
- II. NPL Deletion Criteria
- III. Deletion Procedures
- IV. Basis for Site Deletion
- V. Deletion Action

I. Introduction

EPA Region III is publishing this direct final deletion of the York County Solid Waste and Refuse Authority Superfund Site from the NPL.

The EPA identifies sites that appear to present a significant risk to public health or the environment and maintains the NPL as the list of those sites. As described in § 300.425(e)(3) of the NCP, sites deleted from the NPL remain eligible for remedial actions if conditions at a deleted site warrant such action.

Because EPA considers this action to be noncontroversial and routine, EPA is taking it without prior publication of a notice of intent to delete. This action will be effective February 14, 2005 unless EPA receives adverse comments by January 13, 2005 on this notice or the parallel notice of intent to delete published in the Proposed Rules section of today's **Federal Register**. If adverse comments are received within the 30-day public comment period on this notice or the notice of intent to delete, EPA will publish a timely withdrawal of this direct final deletion before the effective date of the deletion and the deletion will not take effect. EPA will, as appropriate, prepare a response to comments and continue with the deletion process on the basis of the notice of intent to delete and the comments already received. There will be no additional opportunity to comment.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses procedures

that EPA is using for this action. Section IV discusses the York County Solid Waste and Refuse Authority Superfund Site and demonstrates how it meets the deletion criteria. Section V discusses EPA's action to delete the Site from the NPL unless adverse comments are received during the public comment period.

II. NPL Deletion Criteria

Section 300.425(e) of the NCP provides that releases may be deleted from the NPL where no further response is appropriate. In making a determination to delete a release from the NPL, EPA shall consider, in consultation with the State, whether any of the following criteria have been met:

- i. Responsible parties or other persons have implemented all appropriate response actions required;
- ii. All appropriate Fund-financed (Hazardous Substance Superfund Response Trust Fund) response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or
- iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Even if a site is deleted from the NPL, where hazardous substances, pollutants, or contaminants remain at the deleted site above levels that allow for unlimited use and unrestricted exposure, CERCLA Section 121(c), 42 U.S.C. 9621(c), requires that a subsequent review of the site be conducted at least every five years after the initiation of the remedial action at the deleted site to ensure that the action remains protective of public health and the environment. If new information becomes available which indicates a need for further action, EPA may initiate remedial actions. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

III. Deletion Procedures

The following procedures apply to deletion of the Site:

- (1) The EPA consulted with the Commonwealth of Pennsylvania on the deletion of the Site from the NPL prior to developing this direct final notice of deletion.
- (2) The Commonwealth of Pennsylvania concurred with the deletion of the Site from the NPL.
- (3) Concurrently with the publication of this direct final deletion, a notice of the availability of the parallel notice of intent to delete published today in the

"Proposed Rules" section of the **Federal Register** is being published in a major local newspaper of general circulation at or near the Site and is being distributed to the appropriate federal, state, and local government officials and other interested parties; the newspaper notice announces the 30-day public comment period concerning the notice of intent to delete the Site from the NPL.

(4) The EPA placed copies of documents supporting the deletion in the Site information repositories identified above.

(5) If adverse comments are received within the 30-day public comment period on this notice or the companion notice of intent to delete also published in today's **Federal Register**, EPA will publish a timely withdrawal of this direct final notice of deletion before its effective date and will prepare a response to comments and continue with the deletion process on the basis of the notice of intent to delete and the comments already received.

Deletion of a Site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

IV. Basis For Site Deletion

The following information provides EPA's rationale for deleting the Site from the NPL:

A. Site Location

The York County Solid Waste and Refuse Authority Superfund Site (Site) is located in Hopewell Township, York County, Pennsylvania, approximately two miles northwest of the center of Stewartstown Borough, Pennsylvania. The Site consists of a 135-acre inactive municipal landfill containing three unlined cells and a plume of contamination emanating from these cells. Adjacent to the former landfill is a currently operating, permitted landfill of approximately 45 acres that is not part of the NPL Site.

B. Site History

The York County Solid Waste and Refuse Authority (YCSWRA) was established in 1971 and commenced landfill operations at the Site by 1974. The landfill operated between 1974 and 1985 and received approximately 400

tons of waste daily. The landfill ceased operation in 1985 and was closed in accordance with a closure plan approved by the Pennsylvania Department of Environmental Resources (PADER, now the Pennsylvania Department of Environmental Protection or PADEP).

An investigation conducted by PADER between 1982 and 1984 revealed that volatile organic compounds (VOCs) were migrating from the landfill and contaminating adjacent residential wells. In 1984, YCSWRA entered into an Agreement for Amicable Action and Consent Decree with PADER (1984 PADER Agreement) which required YCSWRA to, among other things, construct a lined landfill, implement a ground water treatment and monitoring program for the Site, and provide potable water to the residents whose water was contaminated by the Site. In 1984 and 1985, YCSWRA installed additional ground water monitoring wells, constructed and started operating the adjacent lined landfill, and constructed and started operating the ground water contamination containment/extraction and treatment system for the Site. The treatment system currently in operation consists of seventeen pumping wells and three air stripping treatment towers. Effluent from the air stripping towers is discharged to two National Pollutant Discharge Elimination System (NPDES) permitted outfalls on streams adjacent to the former landfill. Additionally, YCSWRA currently supplies and maintains a point-of-entry carbon filter treatment system for eight residents and provides bottled drinking water to two residents whose domestic wells do not appear to have been impacted by the Site.

EPA completed a Preliminary Assessment/Site Investigation (PA/SI) for the Site in July 1984. The PA/SI confirmed the earlier findings that ground water beneath and beyond the landfill was contaminated with VOCs and that contamination had migrated to adjacent wells. EPA proposed the Site for inclusion on the National Priorities List (NPL) in April 1985. The Site was finalized on the NPL on July 22, 1987.

In December 1987, PADER and the YCSWRA entered into a Consent Order and Agreement requiring YCSWRA to perform a Remedial Investigation and Feasibility Study (RI/FS) at the Site to ascertain the nature and extent of contamination and evaluate cleanup actions. The RI/FS was started in 1988 and was finalized in 1994. The Risk Assessment (RA) completed during the RI/FS identified ground water contamination beneath and beyond the

boundaries of the Site as posing an unacceptable level of risk.

On December 29, 1994, EPA issued a Record of Decision (ROD) selecting remedial action for implementation at the Site. The selected remedy consisted of the following components:

1. Continued operation of the currently existing ground water extraction and air stripper treatment system at the landfill;
2. Continued operation and maintenance of the point of entry ground water carbon filter treatment systems and/or provision of bottled water for affected private wells as necessary;
3. Continued maintenance of the landfill's soil and vegetated cap and the passive gas venting system currently in place at the landfill;
4. Continued sampling of ground water and treated water to ensure that treatment components are effective and ground water remediation is progressing toward required cleanup levels;
5. Implementation of a monitoring program to assess the effectiveness of the ground water treatment system and its impact on down-gradient surface water and wetland habitat;
6. Implementation of a monitoring program to assess the impact of the treated effluent discharge on the environmental quality of surface waters and sediments in the streams where the outfalls are located;
7. Deed restrictions to prohibit the installation of new on-Site wells in areas of contamination that do not meet applicable or relevant and appropriate requirements (ARARs), which restrictions can be withdrawn when ARARs are achieved; and
8. Deed restrictions to prohibit the excavation or disturbance of the soil cap which results in exposing the fill materials.

In 1997, the YCSWRA entered into a Consent Order (1997 Consent Order) with EPA which required YCSWRA to implement a removal action consisting of certain actions selected by EPA in the ROD. The 1997 Consent Order did not expressly require that YCSWRA continue implementation of the pump and treat, maintenance, and sampling activities called for in the 1984 PADER Agreement; rather, the 1997 Consent Order required that YCSWRA describe to EPA, on a monthly basis, all actions undertaken at the Site to comply with that 1984 PADER Agreement. Since 1997, YCSWRA has complied with the 1997 Consent Order by, among other things, identifying all actions taken at the Site pursuant to the 1984 PADER Agreement, performed monitoring to assess the effectiveness of the actions

taken pursuant to the 1984 PADER Agreement on down gradient surface water and wetland habitat and the impact of the treated effluent discharge on the environmental quality of surface waters where outfalls are located, implemented deed restrictions to prohibit the extraction of groundwater from the Site for drinking water and other residential uses; and implemented deed restrictions to prohibit all extraction or disturbance of the soil cap which may result in the exposure of fill material (except for certain limited exceptions). Deed restrictions were developed and placed in the deed to the Site by filing the restrictions with the Recorder of Deeds. The deed restrictions prohibit the use of ground water at the Site and prohibit unauthorized excavation or disturbance of the soil cap. The continued need for deed restrictions will be reevaluated during the Five-Year Reviews which will be conducted for the Site.

On September 27, 2004 EPA issued an Explanation of Significant Differences (ESD) which announced a significant, but not fundamental, change to the remedial action selected in the ROD. The ESD eliminated the items numbered 1-4 in the list above from the components of the remedial action. EPA made this change because (a) the 1984 PADER Agreement requires that YCSWRA conduct these actions under PADEP's oversight, (b) based on YCSWRA's past performance under the 1984 PADEP Agreement, EPA expects that YCSWRA will continue to conduct these actions under PADEP's oversight, and (c) YCSWRA is required, under the 1997 Consent Order with EPA, to report to EPA all actions taken to comply with the 1984 PADEP Agreement on a monthly basis. The ESD explained that EPA will continue to monitor YCSWRA's performance of these actions that are required by the 1984 PADEP Agreement through the monthly reports received pursuant to the 1997 Consent Order.

C. Characterization of Risk

An assessment of the risk associated with the Site was conducted during the Remedial Investigation to characterize the current and potential threats to human health and the environment based on reasonable maximum exposures to contaminants in the ground water, soil, migration of contaminants to surface water, sediments, and exposure to the air. The Risk Assessment (RA) identified ground water contamination beneath and beyond the boundaries of the Site as posing an unacceptable level of risk. The RA was used to evaluate the need

for remedial action and to determine the levels to which site related contaminants would need to be treated to ensure the protection of human health and the environment. Current land use in the vicinity of the Site is residential and agricultural and is expected to remain as such in the future. Ground water beneath the Site is classified as a source of drinking water and contaminants from the Site have migrated towards private drinking water wells through the ground water flow system. Residents who obtain water from private wells which have an in-place point of entry (POE) carbon filter treatment systems filter treatment system. The supply, maintenance and proper disposal of the filters is conducted by YCSWRA and is required by the 1984 PADER Agreement.

Currently there is a 3½-13 foot vegetated soil cover over the former landfill. As a result no risk to human health or the environment is currently present nor should any future risk occur as long as the cap integrity is maintained.

D. Future Activity

Operation and Maintenance

The YCSWRA maintains a permanent office at the landfill and performs regularly scheduled monitoring and response activities which include monitoring NPDES discharges, flow rates from remediation wells, depth-to-water in remediation wells, water quality in remediation and monitoring wells, water quality in residential wells, and groundwater flow; maintaining residential filters; and maintaining the cap and vegetative cover. Pumping and treating, which is being completed under the 1984 PADER Agreement, has been successful in containing contaminated ground water and in providing a potable water supply to residents with impacted wells. Pumping and treating will be continued until the maximum contaminant levels (MCLs) for each contaminant of concern or background, which ever is more stringent, is achieved and maintained throughout the entire plume of contamination for a period of 12 consecutive quarters. Residential filtration units will continue to be maintained for those residences whose wells are affected.

Five-Year Reviews

The NCP requires that if EPA selects remedial action that results in any hazardous substances remaining at a site above levels that allow for unlimited use and unrestricted exposure, EPA must conduct a review of such remedial

action no less often than every five years following initiation of that remedial action to ensure that human health and the environment are being protected. EPA has determined as a matter of policy that such reviews will also be conducted if a removal action leaves hazardous substances on site above levels that allow for unlimited use and unrestricted exposure and no remedial action has taken or will take place. Since ground water contamination remains at the Site above levels that allow for unlimited use and unrestricted exposure, EPA will use the five-year review process to ensure protection of human health and the environment. EPA completed the first five-year review of the Site on September 30, 2002. In that five-year review, EPA determined that the immediate threats have been addressed and the actions taken have been protective of human health and the environment. EPA plans to complete the next five year review prior to September 30, 2009.

E. Community Involvement

Public participation activities have been satisfied as required in CERCLA Section 113(k), 42 U.S.C. 9613(k), and CERCLA Section 117, 42 U.S.C. 9617. Documents in the deletion docket which EPA relied on for recommendation of the deletion from the NPL are available to the public in the information repositories.

V. Deletion Action

The EPA, with the concurrence of the Commonwealth of Pennsylvania, has determined that all appropriate responses under CERCLA have been completed, and that no further response actions, under CERCLA, other than O&M of the existing treatment system which will be completed under the 1984 PADER Agreement and five-year reviews, are necessary. Therefore, EPA is deleting the Site from the NPL.

Because EPA considers this action to be noncontroversial and routine, EPA is taking it without prior publication of a notice of intent to delete. This action will be effective February 14, 2005 unless EPA receives adverse comments by January 13, 2005 on a parallel notice of intent to delete published in the Proposed Rule section of today's **Federal Register**. If adverse comments are received within the 30-day public comment period on the proposal, EPA will publish a timely withdrawal of this direct final notice of deletion before the effective date of the deletion and the deletion will not take effect. EPA will prepare a response to comments and continue with the deletion process on the basis of the notice of intent to delete

and the comments already received. There will be no additional opportunity to comment.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Dated: October 26, 2004.

Richard J. Kampf,

Acting Regional Administrator, Region III.

■ For the reasons set out in this document, 40 CFR part 300 is amended as follows:

PART 300—[AMENDED]

■ 1. The authority citation for part 300 continues to read as follows:

Authority: 33 U.S.C. 1321(c)(2); 42 U.S.C. 9601–9657; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p.351; E.O. 12580, 52 FR 2923, 3 CFR., 1987 Comp., p. 193.

Appendix B—[Amended]

■ 2. Table 1 of Appendix B to part 300 is amended by removing the site name "York County Solid Waste and Refuse Authority, Hopewell Township, PA."

[FR Doc. 04–27168 Filed 12–13–04; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of Inspector General

42 CFR Part 1003

RIN 0991–AB30

Medicare and State Health Care Programs; Fraud and Abuse: OIG Civil Money Penalties Under the Medicare Prescription Drug Discount Card Program

AGENCY: Office of Inspector General (OIG), HHS.

ACTION: Final rule.

SUMMARY: In accordance with section 1860D–31 of the Social Security Act, this rule finalizes OIG's new authority for imposing civil money penalties (CMPs) against endorsed sponsors under the Medicare prescription drug discount card program that knowingly engage in false or misleading marketing practices; overcharge program enrollees; or misuse transitional assistance funds.

DATES: The interim rule amending 42 CFR part 1003 became effective on June 18, 2004.

FOR FURTHER INFORMATION CONTACT: Joel Schaer, Office of External Affairs, (202) 619–0089.

SUPPLEMENTARY INFORMATION:

I. Background

A. OIG Civil Money Penalties

In 1981, Congress enacted the civil money penalty statute, section 1128A of the Social Security Act (the Act) (42 U.S.C. 1320a–7a), as one of several administrative remedies to combat increases in fraud and abuse. The civil money penalty (CMP) law authorized the HHS Secretary and the Inspector General to impose CMPs and program exclusions on individuals and entities whose wrongdoing caused injury to HHS programs or their beneficiaries. Since 1981, the CMP provisions have been expanded to apply by reference to numerous types of fraudulent and abusive activities.

B. The Medicare Prescription Drug, Improvement, and Modernization Act

Section 101 of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003, as enacted by Public Law 108–173 and codified in section 1860D–31 of the Act, provides for a voluntary prescription drug discount card program for Medicare beneficiaries entitled to benefits, or enrolled, under Part A or enrolled under Part B, excluding beneficiaries entitled to medical assistance for outpatient prescription drugs under Medicaid, including section 1115 waiver demonstrations. Eligible beneficiaries may access negotiated prices on prescription drugs by enrolling in drug discount card programs offered by Medicare-endorsed sponsors.¹ The Medicare drug discount card program is intended to serve as a transitional program providing immediate assistance to Medicare beneficiaries with prescription drug costs during calendar years 2004 and 2005 while preparations are made for implementation of the Medicare drug benefit under Medicare Part D in 2006.

The implementing regulations establishing the requirements for the MMA program were published in the **Federal Register** as an interim final rule with comment period by the Centers for

¹ Eligible beneficiaries may enroll in the Medicare drug discount card program beginning no later than 6 months after the date of enactment of MMA and ending December 31, 2005. After December 31, 2005, beneficiaries enrolled in the program may continue to use their drug discount card during a short transition period beginning January 1, 2006 and ending upon the effective date of a beneficiary's outpatient drug coverage under Medicare Part D, but no later than the last day of the initial open enrollment period under Part D.

Medicare & Medicaid Services (CMS) on December 15, 2003 (68 FR 69840).²

1. Eligibility Procedures and Enrollment

Sections 1860D-31(b)(1) and (2) of the Act, and 42 CFR 403.810(a) and (b) of the CMS regulations, establish the eligibility criteria for the Medicare drug discount card program and for transitional assistance. Section 1860D-31(f)(1)(A) of the Act directs the Secretary to specify the procedures for determining a beneficiary's eligibility for the Medicare drug discount card program or transitional assistance, and section 1860D-31(c)(1) directs the Secretary to establish a process for eligible beneficiaries enrolling in, and disenrolling from, an endorsed program. These provisions have been codified, respectively, in 42 CFR 403.810 and 403.811 of the CMS regulations.

2. Endorsed Sponsors

Section 1860D-31(a)(1)(A) of the Act requires the Secretary to endorse qualified applicants seeking to offer endorsed discount card programs to Medicare beneficiaries. MMA sets forth specific requirements that applicants must satisfy to be eligible for endorsement and that endorsed sponsors must meet to retain their endorsement. The obligations of endorsed sponsors related to eligibility determinations and enrollment are specifically set forth in section II.C.6. of the preamble to the interim final rule.

3. Transitional Assistance

Under MMA, certain low-income Medicare beneficiaries enrolled in the Medicare drug discount card program are eligible to receive transitional assistance of up to \$600 per year, which may be applied toward the cost of covered discount card drugs obtained under the program. Section 1860D-31(h)(1)(C) of the Act requires endorsed sponsors to administer the transitional assistance on behalf of CMS and to demonstrate to the Secretary that they have satisfactory arrangements to account for the transitional assistance provided to transitional assistance enrollees. These requirements are codified in 42 CFR 403.806(e).

4. Information and Outreach

Section 1860D-31(d)(2)(A) of the Act requires that each prescription drug card endorsed sponsor that offers an endorsed discount card program make available to beneficiaries eligible for the

discount card program—through the internet and otherwise—information that the Secretary identifies as being necessary to promote informed choice among endorsed discount card programs, including information on enrollment fees and negotiated prices for covered discount card drugs. In addition, section 1860D-31(h)(7)(A) of the Act limits drug card endorsed sponsors to providing under their endorsements only products and services directly related to covered discount card drugs, or discounts on over-the-counter drugs; and section 1860D-31(h)(7)(B) prohibits endorsed sponsors from marketing, under their endorsements, any products and services other than those described in section 1860D-31(h)(7)(A). The requirements for information to be included in materials are contained in the CMS regulations at 42 CFR 403.806(g).

C. Civil Money Penalties Under Public Law 108-173

Section 1860D-31(i)(3) of the Act authorizes the imposition of CMPs against endorsed sponsors that knowingly engage in conduct that violates the requirements of section 1860D-31 of the Act or engage in false or misleading marketing practices. Section 403.820(b) of the CMS regulations interpreted this to mean that those endorsed sponsors that knowingly engage in conduct that violates the conditions of their endorsement agreement with the Department or that constitutes false or misleading marketing practices may be subject to CMPs.

The Department has divided the sanction authority between CMS and OIG. Where CMP authority is shared between CMS and OIG, the Department has assigned sanction authority to OIG for those violations that concern *misleading or defrauding* a beneficiary. The Department also assigned sanction authority to OIG for misuse of transitional assistance funds.³ On the other hand, CMS has the authority to impose CMPs in those instances where the endorsed sponsor's conduct constitutes *non-compliance with an operational requirement* not directly related to beneficiary protection. (Section 403.820(b)(2) of the CMS regulations sets forth a full listing of the CMS CMP authorities related to the

Medicare prescription drug card program.)

As a result, in accordance with CMS's Medicare prescription drug discount card implementing regulations (68 FR 69787; December 15, 2003), in addition to or in place of sanctions that CMS may impose, as set forth in 42 CFR 403.820(a), OIG has been authorized to impose CMPs against an endorsed sponsor whom it determines knowingly (as defined in 42 CFR 1003.102(e)):

- Misrepresented or falsified information in outreach material or comparable material provided to a program enrollee or other person;
- Charged a program enrollee in violation of the terms of the endorsement contract; or
- Used transitional assistance funds in any manner that is inconsistent with the purpose of the transitional assistance program.

OIG may impose CMPs of no more than \$10,000 for each of these violations. A violation is deemed to occur in each instance when an endorsed sponsor (1) provides misleading information to a program enrollee or other person; (2) overcharges a program enrollee; or (3) misuses the transitional assistance funds of a program enrollee. Appeal rights will be afforded in accordance with the appeal procedures set forth in 42 CFR parts 1003 and 1005.

II. Summary Provisions of the Interim Final Rule With Comment Period

On May 19, 2004, we published in the **Federal Register** (69 FR 28842) an interim final rule with comment period to address these new OIG civil money penalty authorities. The interim final rule amended 42 CFR part 1003 as follows:

- In § 1003.100, Basis and purpose, we revised paragraphs (a) and (b) to state the broad purpose of these new CMP authorities.
- In § 1003.101, Definitions, we added a definition for the term "transitional assistance," consistent with the definition in 42 CFR 403.802.
- In § 1003.102, Basis for CMPs and assessments, we added new paragraphs (b)(17), (b)(18) and (b)(19) to cross-reference the implementing CMS regulations and OIG's authority to impose penalties for violations.
- In § 1003.103, Amount of penalty, we added a new paragraph (k) to address the \$10,000 maximum penalty amounts for each of these violations.

The interim final rule noted that in addition to the CMPs set forth above, a card sponsor's misuse of the Medicare name or emblem may subject them to CMPs in accordance with 42 U.S.C.

² Section 902 of MMA has established timelines for the publication of the Medicare rules under section 1871(a) of the Act. This provision requires CMS to publish a final rule within 3 years of the publication of the interim final rule.

³ Transitional assistance, as defined in § 403.802 of the CMS regulations, refers to the subsidy funds that transitional enrollees may apply toward the cost of covered discount card drugs in the manner described in § 403.806(d).

1320b-10 and OIG regulations at § 1003.102(b)(7), which prohibit the misuse of the Medicare name and emblem. In general, in accordance with the statute and the implementing regulations, OIG may impose penalties on any person who misuses the term "Medicare," or other names associated with DHHS in any item constituting a communication in a manner which the person knows or should know gives the false impression that the item is approved, endorsed, or authorized by the Department. Violators are subject to fines of up to \$5,000 per violation or, in the case of a broadcast or telecast violation, \$25,000.

III. Analysis of and Responses to Public Comments

We received no public comments in response to the May 19, 2004 interim final rule.

IV. Provisions of the Final Regulations

The provisions of this final rule are identical to the provisions of the May 19, 2004 interim final rule with comment period.

V. Regulatory Impact Statement

A. Regulatory Analysis

We have examined the impacts of this rule as required by Executive Order 12866, the Regulatory Flexibility Act (RFA) of 1980, the Unfunded Mandates Reform Act of 1995, and Executive Order 13132.

1. Executive Order 12866

Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, if regulations are necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health, and safety effects; distributive impacts; and equity). A regulatory impact analysis must be prepared for major rules with economically significant effects (\$100 million or more in any given year). This is not a major rule as defined at 5 U.S.C. 804(2), and it is not economically significant since it would not have a significant effect on program expenditures and there would be no additional substantive cost to implement the resulting provisions. OIG has significant experience in enforcing CMPs for a wide variety of violations and fraudulent conduct. Over the past three fiscal years (FYs), total CMPs levied by OIG for various violations and fraudulent conduct has averaged about \$2.2 million annually (\$1.1 million in FY 2001; \$2.4 million in FY 2002; and \$3.1 million in FY 2003). In addition, the revisions to 42 CFR part 1003 set

forth in this rule are designed to further clarify statutory requirements, and hence the economic effect of these regulatory provisions should impact only those limited few endorsed sponsors that would perhaps engage in prohibited behavior in violation of the statute. Given OIG's enforcement history and the nature of the entities subject to CMPs, we do not believe that these regulations will result in a significant economic impact or have an appreciable effect on the economy or on Federal or State expenditures.

2. Regulatory Flexibility Act

The RFA, and the Small Business Regulatory Enforcement and Fairness Act of 1996, which amended the RFA, require agencies to analyze options for regulatory relief of small businesses. For purposes of the RFA, small entities include small businesses, nonprofit organizations, and government agencies. Most providers are considered to be small entities by having revenues of \$6 million to \$29 million or less in any one year. For purposes of the RFA, most physicians and suppliers are considered to be small entities. In addition, section 1102(b) of the Social Security Act requires us to prepare a regulatory impact analysis if a rule may have a significant impact on the operations of a substantial number of small rural providers. This analysis must conform to the provisions of section 604 of the RFA.

Because of the requirements to be an endorsed sponsor, we anticipate that few, if any, endorsed sponsors will be small entities and none will be rural providers. However, even if some sponsored entities are small entities, we believe that the aggregate economic impact of this rulemaking is minimal since it is the nature of the conduct and not the size or type of the entity that would result in a violation of the statute and the regulations. As a result, we have concluded that this rulemaking rule should not have a significant impact on the operations of a substantial number of small or rural providers, and that a regulatory flexibility analysis is not required for this rulemaking.

3. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) also requires that agencies assess anticipated costs and benefits before issuing any rule that may result in expenditure in any one year by State, local, or tribal governments, in the aggregate, or by the private sector, of \$110 million. As indicated, these proposed revisions comport with congressional and statutory intent and

clarify the Department's legal authorities against those who defraud or otherwise act improperly against the Federal and State health care programs. As a result, we believe that there are no significant expenditures required by these revisions that would impose any mandates on State, local, or tribal governments, or the private sector that will result in an expenditure of \$110 million or more (adjusted for inflation) in any given year, and that a full analysis under the Unfunded Mandates Reform Act is not necessary.

4. Executive Order 13132

Executive Order 13132, Federalism, establishes certain requirements that an agency must meet when it promulgates a rule that imposes substantial direct requirements or costs on State and local governments, preempts State law, or otherwise has Federalism implications. In reviewing this rule under the threshold criteria of Executive Order 13132, we have determined that this proposed rule would not significantly affect the rights, roles, and responsibilities of State or local governments.

The Office of Management and Budget (OMB) has reviewed this final rule in accordance with Executive Order 12866.

B. Paperwork Reduction Act

The provisions of this rulemaking impose no express new reporting or recordkeeping requirements on health care providers or endorsed sponsors.

List of Subjects in 42 CFR Part 1003

Administrative practice and procedure, Fraud, Grant programs—health, Health facilities, Health professions, Maternal and child health, Medicaid, Medicare, Penalties, Social security.

PART 1003—CIVIL MONEY PENALTIES, ASSESSMENTS AND EXCLUSIONS

■ Accordingly, the interim final rule with comment period amending 42 CFR part 1003, which was published on May 19, 2004 in the *Federal Register* at 69 FR 28842-28846 is adopted as a final rule without change.

Dated: August 23, 2004.

Lewis Morris,
Chief Counsel to the Inspector General.

Approved: November 9, 2004.

Tommy G. Thompson,
Secretary.

[FR Doc. 04-27341 Filed 12-13-04; 8:45 am]
BILLING CODE 4152-01-P

DEPARTMENT OF TRANSPORTATION**Maritime Administration****46 CFR Part 310**

[Docket No. MARAD 2004-17759]

RIN 2133-AB58

Deferment of Service Obligations of Midshipmen Recipients of Scholarships or Fellowships**AGENCY:** Maritime Administration, DOT.
ACTION: Final rule.

SUMMARY: This rule adopts as final, without change, the interim final rule published in the *Federal Register* (69 FR 29079) on May 20, 2004. This final rule amends the Maritime Administration's (MARAD's) regulations so that the Maritime Administrator's authority to defer service obligations of United States Merchant Marine Academy (USMMA) midshipmen recipients of scholarships or fellowships of national significance is not conditioned on enrollment in postgraduate marine or maritime-related courses of study.

DATES: This final rule is effective on December 14, 2004.

ADDRESSES: This final rule is available for inspection and copying between 10 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays at the Docket Clerk, U.S. DOT Dockets, Room PL-401, Department of Transportation, 400 7th St., SW., Washington, DC 20590. An electronic version of this document along with all documents entered into this docket are available on the World Wide Web at <http://dms.dot.gov>.

FOR FURTHER INFORMATION CONTACT: Rita Jackson, Academies Program Officer, Office of Policy and Plans, Maritime Administration, Department of Transportation, 400 7th St., SW., Room 7302, Washington, DC 20590; Telephone: (202) 366-0284.

SUPPLEMENTARY INFORMATION: 46 App. U.S.C. 1295b(e)(5) states that the Maritime Administrator, relying on a delegation of authority from the Secretary may defer the service obligation of any student graduating from the USMMA for up to two years provided that student is enrolled in an approved course of study.

46 CFR 310.58(g) states that the Maritime Administrator may grant a deferment of a service obligation contract, for up to two years only for graduate students enrolled in a marine or maritime-related graduate course of study approved by the Administrator.

The differences in the terms of 46 App. U.S.C. 1295b(e)(5) and 46 CFR 310.58 may hinder midshipmen with superior credentials from pursuing postgraduate scholarships and fellowships. Specifically, since service obligations may be deferred only if postgraduate course work involves a marine or maritime-related course of study, graduate studies are limited.

The Administrator's discretion to defer the service obligations of USMMA midshipmen recipients of scholarships is not limited by the U.S. Code. Therefore, we are amending 46 CFR 310.58(g) to reflect the terms of 46 App. U.S.C. 1295b(e)(5) so that the amended regulation will not condition the Administrator's ability to defer the service obligations of recipients of scholarships and fellowships of national significance on enrollment in a marine or maritime-related course of study.

On May 20, 2004, MARAD published the interim final rule that preceded this action in the *Federal Register* (69 FR 29079). While MARAD solicited public comments on the interim rule, no comments were received. Accordingly, MARAD adopts the interim final rule as a final rule without change.

Rulemaking Analyses and Notices*Executive Order 12866 (Regulatory Planning and Review), and Department of Transportation (DOT) Regulatory Policies and Procedures*

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866, and therefore, was not reviewed by the Office of Management and Budget. This final rule is not likely to result in an annual effect on the economy of \$100 million or more. This final rule is also not significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034, February 26, 1979). The costs and overall economic impact of this rulemaking are so minimal that no further analysis is necessary.

Administrative Procedure Act

The Administrative Procedure Act (5 U.S.C. 553) provides an exception to notice and comment procedures when they are unnecessary or contrary to the public interest. MARAD finds that under 5 U.S.C. 553(b)(3)(B), good cause exists for not providing notice and comment since this final rule only expands the subject area of courses of study that may be approved by the Maritime Administrator. Under 5 U.S.C. 553(d)(3), MARAD finds that, for the same reason listed above, good cause exists for making this rule effective less

than 30 days after publication in the *Federal Register*.

Federalism

We analyzed this final rule in accordance with the principles and criteria contained in E.O. 13132 ("Federalism") and have determined that it does not have sufficient federalism implications to warrant the preparation of a federalism summary impact statement. The regulations have no substantial effect on the States, the current Federal-State relationship, or the current distribution of power and responsibilities among local officials. Therefore, consultation with State and local officials was not necessary.

Regulatory Flexibility

The Maritime Administrator certifies that this final rule will not have a significant economic impact on a substantial number of small entities. This final rule merely broadens the area of consideration for courses of study that may allow deferred service obligations.

Executive Order 13175

MARAD does not believe that this final rule will significantly or uniquely affect the communities of Indian tribal governments when analyzed under the principles and criteria contained in Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments). Therefore, the funding and consultation requirements of this Executive Order do not apply.

Environmental Assessment

We have analyzed this final rule for purposes of compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and have concluded that under the categorical exclusions provision in section 4.05 of Maritime Administrative Order (MAO) 600-1, "Procedures for Considering Environmental Impacts," 50 FR 11606 (March 22, 1985), neither the preparation of an Environmental Assessment, an Environmental Impact Statement, nor a Finding of No Significant Impact for this rulemaking is required. This rulemaking has no environmental impact.

Paperwork Reduction Act

This rulemaking contains no new or amended information collection or recordkeeping requirements that have been approved or require approval by the Office of Management and Budget.

Unfunded Mandates Reform Act of 1995

This final rule will not impose an unfunded mandate under the Unfunded

Mandates Reform Act of 1995. It will not result in costs of \$100 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector. This final rule is the least burdensome alternative that achieves this objective of U.S. policy.

List of Subjects in 46 CFR Part 310

Federal Aid Programs, Reporting and recordkeeping requirements, Schools, Seamen.

Interim Rule Adopted as Final Without Change

■ Accordingly, MARAD adopts the interim final rule amending 46 CFR part 310 that was published in the **Federal Register** on May 20, 2004 (69 FR 29079) as a final rule without change.

By Order of the Maritime Administrator.

Dated: December 9, 2004.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 04-27334 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-81-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 041202339-4339-01; I.D. 112204D]

Fisheries of the Exclusive Economic Zone Off Alaska; Gulf of Alaska; Interim 2005 Harvest Specifications for Groundfish

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

ACTION: Temporary rule; interim specifications.

SUMMARY: NMFS issues interim 2005 total allowable catch (TAC) amounts for each category of groundfish, American Fisheries Act (AFA) sideboard limits, and prohibited species catch (PSC) amounts for the groundfish fishery of the Gulf of Alaska (GOA). The intended effect is to conserve and manage the groundfish resources in the GOA.

DATES: The interim harvest specifications are effective from 0001 hrs, Alaska local time (A.l.t.), January 1, 2005, until the effective date of the final 2005 and 2006 harvest specifications for groundfish of the GOA, which will be published in the **Federal Register**.

ADDRESSES: Copies of the Environmental Assessment (EA)

prepared for this action are available from the NMFS Alaska Region homepage at <http://www.fakr.noaa.gov>. The final 2003 Stock Assessment and Fishery Evaluation (SAFE) report, dated November 2003, is available from the North Pacific Fishery Management Council, 605 West 4th Avenue, Suite 306, Anchorage, AK 99501-2252, telephone (907) 271-2809, or from its homepage at <http://www.fakr.noaa.gov/npfmc>.

FOR FURTHER INFORMATION CONTACT: Thomas Pearson, 907-481-1780 or tom.pearson@noaa.gov.

SUPPLEMENTARY INFORMATION:

Background

Federal regulations at 50 CFR part 679 implementing the Fishery Management Plan (FMP) for Groundfish of the GOA govern the groundfish fisheries in the GOA. The North Pacific Fishery Management Council (Council) prepared the FMP, and NMFS approved it under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). General regulations that also pertain to the U.S. fisheries appear at subpart H of 50 CFR part 600.

Proposed Steller Sea Lion Protection Measures Revisions

In June 2004, the Council unanimously recommended revisions to the Steller sea lion protection measures in the GOA to alleviate some of the economic burden on coastal communities while maintaining protection for Steller sea lions and their critical habitat. These revisions would adjust pollock and Pacific cod fishing closures near four Steller sea lion haulouts and would revise seasonal management of pollock harvest. NMFS concluded in an Endangered Species Act, section 7, informal consultation, dated August 26, 2004, that fishing under the proposed revisions is not likely to adversely affect Steller sea lions beyond those effects already considered in the 2001 Biological Opinion on the Steller sea lion protection measures and its June 19, 2003, supplement (see **ADDRESSES**). To implement these provisions, NMFS published a proposed rule on September 21, 2004 (69 FR 56384), inviting comments through October 21, 2004. The final rulemaking is expected before the beginning of the 2005 fishing year. If adopted, the pollock harvest management revisions would affect the annual specifications by extending the pollock A and C season dates from January 20 through February 25 to January 20 through March 10 and by

providing clarification as to how the Regional Administrator would rollover under harvested amounts of pollock between seasons.

The Council met in October 2004 to review scientific information concerning groundfish stocks, including the 2003 SAFE report and the EA (see **ADDRESSES**), and to recommend proposed 2005 and 2006 specifications. The Council recommended and NMFS proposed a total acceptable biological catch (ABC) of 514,864 mt and a TAC of 264,265 mt for the 2005 fishing year and a total ABC of 514,240 mt and a TAC of 253,867 mt for the 2006 fishing year. The proposed TAC amounts for each species were based on the best available biological and socioeconomic information.

Under § 679.20(c)(1)(ii), NMFS published in the **Federal Register** proposed harvest specifications for groundfish in the GOA for the 2005 and 2006 fishing years (December 7, 2004; 69 FR 70605). That document contains a detailed discussion of the proposed 2005 and 2006 TACs, groundfish reserves, apportionments of TAC, ABC amounts, overfishing levels (OFLs), PSC amounts, and apportionments of the GOA groundfish fishery.

This action provides interim harvest specifications and apportionments for the 2005 fishing year that will become available on January 1, 2005, and will remain in effect until superseded by the final 2005 and 2006 harvest specifications. Background information concerning the 2005 groundfish harvest specification process, upon which this interim action is based, is provided in the above mentioned proposed specification document.

Establishment of Interim TACs

Section 679.20(c)(2)(i) requires that one-fourth of each proposed TAC and apportionment (not including the reserves and the first seasonal allowance of pollock and Pacific cod) and one-fourth of the halibut PSC amounts become effective at 0001 hours, A.l.t., January 1, on an interim basis and remain in effect until superseded by the final harvest specifications. As stated in the proposed specifications (December 7, 2004; 69 FR 70605), no harvest of groundfish is authorized before the effective date of this action implementing the interim harvest specifications.

Section 679.20(a)(6)(i) and (ii) allocates 100 percent of the pollock TAC to vessels catching pollock for processing by the inshore component, 90 percent of the Pacific cod TAC to vessels catching Pacific cod for processing by the inshore component,

and 10 percent to vessels catching Pacific cod for processing by the offshore component.

The reserves for the GOA are 20 percent of the TAC amounts for pollock, Pacific cod, flatfish species, and the "other species" category (§ 679.20(b)(2)). The GOA groundfish TAC amounts have been utilized fully since 1987, and NMFS expects this trend to continue in 2005. Therefore, NMFS has proposed reapportioning all the reserves to TAC. The interim TAC amounts contained in Table 1 reflect the reapportionment of reserves to the TAC.

Interim 2005 Groundfish Harvest Specifications and Apportionments

Table 1 provides interim TAC amounts, the first seasonal allowance of pollock in the combined Western and Central Regulatory Areas, the first seasonal allowance of Pacific cod in the Western and Central Regulatory Areas, interim TAC allocations of Pacific cod to the inshore and offshore components, and interim sablefish TAC apportionments to hook-and-line and trawl gear. These interim TAC amounts and apportionments become effective at 0001 hours, A.L.T., January 1, 2005.

TABLE 1—INTERIM 2005 TAC AMOUNTS OF GROUND FISH FOR THE COMBINED WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULFWIDE (GW) DISTRICTS OF THE GULF OF ALASKA (GOA)^{1,2}; THE FIRST SEASONAL ALLOWANCES OF POLLOCK IN THE COMBINED W/C REGULATORY AREAS; THE FIRST SEASONAL ALLOWANCES OF PACIFIC COD; INTERIM SABLEFISH TAC APPORTIONMENTS TO HOOK-AND-LINE (H/L) AND TRAWL (TRW) GEAR

(Interim TAC amounts have been rounded to nearest mt)

Species	Area	Interim TAC (mt)
Pollock ^{3,4}	W (610)	3,747
	C (620)	9,027
	C (630)	3,091
	W/C	15,865
Subtotal	WYK (640)	320
	SEO (650)	1,630
	Total	17,815
Pacific cod ⁵	Inshore W	8,588
	Offshore W	954
	Inshore C	13,733
	Offshore C	1,526
	Inshore E	835
	Offshore E	93

TABLE 1—INTERIM 2005 TAC AMOUNTS OF GROUND FISH FOR THE COMBINED WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULFWIDE (GW) DISTRICTS OF THE GULF OF ALASKA (GOA)^{1,2}; THE FIRST SEASONAL ALLOWANCES OF POLLOCK IN THE COMBINED W/C REGULATORY AREAS; THE FIRST SEASONAL ALLOWANCES OF PACIFIC COD; INTERIM SABLEFISH TAC APPORTIONMENTS TO HOOK-AND-LINE (H/L) AND TRAWL (TRW) GEAR—Continued

(Interim TAC amounts have been rounded to nearest mt)

Species	Area	Interim TAC (mt)
Total		25,729
Flatfish, Deep-water ⁶	W	78
	C	743
	WYK	470
	SEO	228
Total		1,519
Rex sole	W	420
	C	1,835
	WYK	335
	SEO	573
Total		3,163
Flathead sole	W	500
	C	1,250
	WYK	748
	SEO	98
Total		2,596
Flatfish, Shallow-water ⁷	W	1,125
	C	3,250
	WYK	508
	SEO	302
Total		5,185
Arrowtooth flounder	W	2,000
	C	6,250
	WYK	625
	SEO	625
Total		9,500
Sablefish ^{8,9,10}	H/L W	N/A (482)
	TRW W	121
	H/L C	N/A (1,179)
	TRW C	295
	TRW WYK	64
	H/L WYK	N/A (446)
Total	H/L SEO	N/A (761)
		3,346
Pacific ocean perch ¹¹	W	622
	C	2,063
	WYK	201
	SEO	389

TABLE 1—INTERIM 2005 TAC AMOUNTS OF GROUND FISH FOR THE COMBINED WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULFWIDE (GW) DISTRICTS OF THE GULF OF ALASKA (GOA)^{1,2}; THE FIRST SEASONAL ALLOWANCES OF POLLOCK IN THE COMBINED W/C REGULATORY AREAS; THE FIRST SEASONAL ALLOWANCES OF PACIFIC COD; INTERIM SABLEFISH TAC APPORTIONMENTS TO HOOK-AND-LINE (H/L) AND TRAWL (TRW) GEAR—Continued

(Interim TAC amounts have been rounded to nearest mt)

Species	Area	Interim TAC (mt)
Total		3,275
Shortraker/rougheye ¹²	W	64
	C	164
	E	102
Total		330
Rockfish, northern ¹³	W	183
	C	968
	E	N/A
Total		1,150
Rockfish, other ^{14,15}	W	10
	C	75
	WYK	33
	SEO	50
Total		268
Rockfish, pelagic shelf ¹⁶	W	92
	C	753
	WYK	53
	SEO	220
Total		1,118
Rockfish, demersal shelf SEO ¹⁷	SEO	113
Thornyhead rockfish	W	102
	C	253
Total	E	130
		485
Big and longnose ¹⁸	C	821
Skates	GW	927
Other Skates ¹⁹	GW	1,748
Total		
Atka mackerel	GW	150

TABLE 1—INTERIM 2005 TAC AMOUNTS OF GROUND FISH FOR THE COMBINED WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULFWIDE (GW) DISTRICTS OF THE GULF OF ALASKA (GOA)^{1,2}; THE FIRST SEASONAL ALLOWANCES OF POLLOCK IN THE COMBINED W/C REGULATORY AREAS; THE FIRST SEASONAL ALLOWANCES OF PACIFIC COD; INTERIM SABLEFISH TAC APPORTIONMENTS TO HOOK-AND-LINE (H/L) AND TRAWL (TRW) GEAR—Continued

(Interim TAC amounts have been rounded to nearest mt)

Species	Area	Interim TAC (mt)
Other species ²⁰		3,146
GOA Total Interim TAC		80,532

¹Reserves have been reapportioned back to each species TAC and are reflected in the interim TAC amounts. (See § 679.20(a)(2)).

²See § 679.2 for definitions of regulatory area and statistical area. See Figure 3b to part 679 for a description of regulatory districts.

³The first seasonal allowance of pollock TAC in the W/C combined area is set at 25% of the annual TAC for the area which is 15,865 mt. Within the W/C area pollock is apportioned between Statistical Areas 610, 620, and 630 based an adjusted estimate of the relative distribution of pollock biomass in the area which is approximately 23.63% in Area 610 (3,747 mt), 56.9% in Area 620 (9,027 mt), and 19.48% in Area 630 (3,091 mt). In the Eastern Regulatory Area, pollock is not divided into less than annual allowances, and one-fourth of the TAC is available on an interim basis.

⁴The pollock TAC in all regulatory areas will be allocated 100 percent to vessels catching groundfish for processing by the inshore component after subtraction of amounts that are determined by the Regional Administrator, NMFS, to be necessary to support the bycatch needs of the offshore component in directed fisheries for other groundfish species. At this time, these bycatch amounts are unknown and will be determined during the fishing year. (See § 679.20(a)(6)(ii).)

⁵The Pacific cod TAC in all regulatory areas is allocated 90 percent to vessels catching groundfish for processing by the inshore component and 10 percent to vessels catching groundfish for processing by the offshore component (See § 679.20(a)(6)(iii)). The first seasonal apportionment of Pacific cod in the GOA is 60% of the annual TAC.

⁶"Deep-water flatfish" means Dover sole, Greenland turbot and deepsea sole.

⁷"Shallow-water flatfish" means flatfish not including "deep-water flatfish", flathead sole, rex sole, or arrowtooth flounder.

⁸Sablefish TAC amounts for each of the regulatory areas and districts are assigned to hook-and-line and trawl gear. In the Central and Western Regulatory Areas, 80 percent of the TAC is allocated to hook-and-line gear and 20 percent to trawl gear. In the Eastern Regulatory Area, 95 percent of the TAC is assigned to hook-and-line gear. Five percent is allocated to trawl gear and may only be used as bycatch to support directed fisheries for other target species. (See § 679.20(a)(4).)

⁹The sablefish hook-and-line gear fishery is managed under the Individual Fishing Quota (IFQ) program and is subject to regulations contained in subpart D of 50 CFR part 679. Annual IFQ amounts are based on the final TAC amount specified for the sablefish hook-and-line gear fishery as contained in the final specifications for groundfish. Under § 679.7(f)(3), retention of sablefish caught with hook-and-line gear is prohibited unless the harvest is authorized under a valid IFQ permit and IFQ card. In 2005, IFQ permits and IFQ cards will not be valid prior to the effective date of the 2005 final specifications. Thus, fishing for sablefish with hook-and-line gear will not be authorized under these interim harvest specifications. Nonetheless, interim amounts are shown in parentheses to reflect assignments of one-fourth of the proposed TAC amounts among gear categories and regulatory areas in accordance with § 679.20(c)(2)(i). See § 679.40 for guidance on the annual allocation of IFQ.

¹⁰Sablefish caught in the GOA with gear other than hook-and-line or trawl gear must be treated as prohibited species and may not be retained.

¹¹"Pacific ocean perch" means *Sebastes alutus*.

¹²"Shortraker/rougheye rockfish" means *Sebastes borealis* (shortraker) and *S. aleutianus* (rougheye).

¹³"Northern rockfish" means *Sebastes polyspinis*.

¹⁴"Other rockfish" in the Western and Central Regulatory Areas and in the West Yakutat District means slope rockfish and demersal shelf rockfish. The category "other rockfish" in the Southeast Outside District means slope rockfish.

¹⁵"Slope rockfish" means *Sebastes aurora* (aurora), *S. melanostomus* (blackgill), *S. paucispinis* (bocaccio), *S. gooderi* (chilipepper), *S. crameri* (darkblotch), *S. elongatus* (greenstriped), *S. variegatus* (harlequin), *S. wilsoni* (pygmy), *S. proriger* (redstripe), *S. zacentrus* (sharpchin), *S. jordani* (shortbelly), *S. brevispinis* (silvergry), *S. diploproa* (splitnose), *S. saxicola* (stripetail), *S. miniatus* (vermillion), *S. babcocki* (redtanded), and *S. reedi* (yellowmouth).

¹⁶"Pelagic shelf rockfish" includes *Sebastes ciliatus* (dusky), *S. entomelas* (widow), and *S. flavidus* (yellowtail). "Offshore Pelagic shelf rockfish" includes *S. ciliatus* (dusky), *S. entomelas* (widow), and *S. flavidus* (yellowtail).

¹⁷"Demersal shelf rockfish" means *Sebastes pinniger* (canary), *S. nebulosus* (china), *S. caurinus* (copper), *S. maliger* (quillback), *S. helvomaaculatus* (rosethorn), *S. nigrocinctus* (tiger), and *S. ruberrimus* (yelloweye).

¹⁸Big skate means "*Raja binoculata*" and longnose skates means "*Raja rhina*".

¹⁹Other skates mean big and longnose skates in the W and E GOA and "*Bathyraja*" spp. Gulfwide.

²⁰"Other species" includes sculpins, sharks, squid, and octopus. The TAC for "other species" equals 5 percent of the TAC amounts of target species.

Interim 2005 Halibut PSC Limits

Under § 679.21(d), annual halibut PSC limits are established for trawl and hook-and-line gear and may be established for pot gear. The Council recommended and NMFS proposed to reestablish the 2004 halibut mortality limits for 2005 because no new information was available. Consistent with 2004, the Council recommended and NMFS proposed exemptions for pot gear, jig gear, and the sablefish hook-and-line fishery from halibut PSC limits for 2005. The fishery specific interim PSC allowances for halibut are in effect at 0001 hours, A.l.t., January 1, 2005, and remain in effect until superseded by the final 2005 harvest specifications. The interim halibut PSC limits are (1) 500 mt to trawl gear, (2) 72.5 mt to hook-and-line gear for fisheries other than demersal shelf rockfish, and (3) 2.5 mt to hook-and-line gear for the demersal shelf rockfish fishery in the Southeast Outside District.

Section 679.21(d)(3)(iii) authorizes apportionments of the trawl halibut PSC limit as bycatch allowances to a deep-water species complex, comprised of rex sole, sablefish, rockfish, deep-water flatfish, and arrowtooth flounder, and a shallow-water species complex, comprised of pollock, Pacific cod, shallow-water flatfish, flathead sole, Atka mackerel, skates, and "other species." The interim 2005 apportionment for the shallow-water species complex is 409 mt, and for the deep-water species complex is 91 mt.

Interim 2005 Non-exempt American Fisheries Act (AFA) Catcher Vessel Groundfish and PSC Sideboard Limits

Section 679.64 established groundfish harvesting and processing sideboard limits on AFA catcher/processors and catcher vessels in the GOA. These sideboard limits are necessary to protect the interests of fishermen and processors who do not directly benefit from the AFA from fishermen and processors who have received exclusive harvesting and processing privileges under the AFA. In the GOA, listed AFA catcher/processors are prohibited from fishing for any species of fish (§ 679.7(k)(1)(ii)) and from processing any groundfish harvested in Statistical Area 630 of the GOA (§ 679.7(k)(1)(iv)). The Council recommended and NMFS concurs that certain AFA catcher vessels in the GOA be exempt from groundfish sideboard limits. Section 679.64(b)(2)(ii) exempts AFA catcher vessels in the GOA less than 125 ft (38.1 m) length overall (LOA) whose annual Bering Sea and Aleutian Islands management area pollock landings totaled less than 5,100

mt and that made 40 or more GOA groundfish landings from 1995 through 1997.

For non-exempt AFA catcher vessels in the GOA, sideboard limits are based upon their traditional harvest levels of TAC in groundfish fisheries covered by

the GOA FMP. Section 679.64(b)(3)(iii) establishes the groundfish sideboard limits in the GOA based on the retained catch of non-exempt AFA catcher vessels of each sideboard species from 1995 through 1997 divided by the TAC for that species over the same period.

These amounts are listed in Table 2. All catch of sideboard species made by non-exempt AFA catcher vessels, whether as targeted catch or as incidental catch, will be deducted from the sideboard limits in Table 2.

TABLE 2—INTERIM 2005 GOA NON-EXEMPT AMERICAN FISHERIES ACT CATCHER VESSEL (CV) GROUND FISH HARVEST SIDEBOARD LIMITS

Species	Apportionments and allocations by area/season/processor/gear	Ratio of 1995–1997 non-exempt AFA CV catch to 1995–1997 TAC	2005 Interim TAC (mt)	2005 Non-Exempt AFA Catcher vessel sideboard limit (mt)
Pollock	Shumagin (610)	0.6112	2,290	
	Chirikof (620)	0.1427	9,027	1,288
	Kodiak (630)	0.2438	3,091	754
	WYK (640)	0.3499	320	112
	SEO (650)	0.3499	1,630	570
Pacific cod	W inshore	0.1423	8,588	1,222
	W offshore	0.1026	954	98
	C inshore	0.0722	13,733	992
	C offshore	0.0721	1,526	110
	E inshore	0.0079	835	7
	E offshore	0.0078	93	1
Flatfish deep-water	W	0	78	0
	C	0.067	743	50
	E	0.0171	699	12
Rex sole	W	0.001	420	0
	C	0.0402	1,835	74
	E	0.0153	908	14
Flathead sole	W	0.0036	500	2
	C	0.0261	1,250	33
	E	0.0048	846	4
Flatfish shallow-water	W	0.0156	1,125	18
	C	0.0598	3,250	194
	E	0.0126	810	10
Arrowtooth flounder	W	0.0021	2,000	4
	C	0.0309	6,250	193
	E	0.002	1,250	2
Sablefish	W trawl gear	0	121	0
	C trawl gear	0.072	295	21
	WYK trawl gear	0.0488	64	3
Pacific ocean perch	W	0.0623	622	39
	C	0.0866	2,063	179
	E	0.0466	590	27
Shortraker/Rougheye	W	0	64	0
	C	0.0237	164	4
	E	0.0124	102	1
Other rockfish	W	0.0034	10	0
	C	0.2065	75	15
	E	0	83	0
Northern rockfish	W	0.0003	183	0
	C	0.0366	968	35
Pelagic shelf rockfish	W	0.0001	92	0
	C	0	753	0
	E	0.0067	273	2
Thornyhead rockfish	W	0.0308	102	3
	C	0.0308	253	8
	E	0.0308	130	4

TABLE 2—INTERIM 2005 GOA NON-EXEMPT AMERICAN FISHERIES ACT CATCHER VESSEL (CV) GROUND FISH HARVEST SIDEBOARD LIMITS—Continued

Species	Apportionments and allocations by area/season/processor/gear	Ratio of 1995–1997 non-exempt AFA CV catch to 1995–1997 TAC	2005 Interim TAC (mt)	2005 Non-Exempt AFA Catcher vessel sideboard limit (mt)
Demersal shelf rockfish	SEO	0.002	113	0
Big and longnose skates	C	0.009	821	7
Other skates	Gulfwide	0.009	927	8
Atka mackerel	Gulfwide	0.0309	150	5
Other species	Gulfwide	0.009	3,146	28

In accordance with § 679.64(b)(4), PSC bycatch limits for the non-exempt AFA catcher vessels in the GOA are based on the ratio of aggregate retained

groundfish catch by non-exempt AFA catcher vessels in each PSC target category from 1995 through 1997, relative to the retained catch of all

vessels in that fishery from 1995 through 1997. These amounts are shown in Table 3.

TABLE 3—INTERIM 2005 NON-EXEMPT AMERICAN FISHERIES ACT CATCHER VESSEL PROHIBITED SPECIES CATCH (PSC) SIDEBOARD LIMITS FOR THE GOA.

(Values are in mt)

PSC species	Target fishery	Ratio of 1995–1997 non-exempt AFA CV retained catch to total retained catch	2005 Interim PSC limit	2005 non-exempt AFA catcher vessel PSC limit
Halibut (mortality in mt)	shallow water targets	0.340	409	139
	deep water targets	0.070	91	6

Directed Fishing Closures

In accordance with § 679.20(d)(1)(i), if the Regional Administrator determines that any allocation or apportionment of a target species or "other species" category apportioned to a fishery or, with respect to pollock and Pacific cod, to an inshore or offshore component allocation will be reached, the Regional Administrator may establish a directed fishing allowance for that species or species group. If the Regional Administrator establishes a directed fishing allowance and that allowance is or will be reached before the end of the fishing year, NMFS will prohibit directed fishing for that species or species group in the specified GOA regulatory area or district (§ 679.20(d)(1)(iii)).

The Regional Administrator has determined that the following TAC amounts in Table 4 are necessary as incidental catch to support other anticipated groundfish fisheries for the 2005 fishing year.

TABLE 4—INCIDENTAL CATCH NEEDED TO SUPPORT OTHER DIRECTED FISHERIES IN THE GOA IN 2005

(Amounts are in mt)

Target	Regulatory Area	Gear/Component	Amount
Atka mackerel	entire GOA	all	150
Thornyhead rockfish	entire GOA	all	485
Shortraker/Rougheye rockfish	entire GOA	all	330
Other rockfish	entire GOA	all	168
Sablefish	entire GOA	trawl	480
Pollock	entire GOA	all/off-shore	0

In accordance with § 679.20(d)(1)(i), the Regional Administrator establishes the directed fishing allowances for the above species or species groups as zero. Therefore, in accordance with § 679.20(d)(1)(iii), NMFS is immediately prohibiting directed fishing for those

species, areas, gear types, and components listed in Table 4. These closures will remain in effect until superceded by the final 2005 harvest specifications.

Section 679.64(b)(5) provides for management of AFA catcher vessel groundfish harvest limits and PSC bycatch limits using directed fishing closures and PSC closures according to procedures set out at §§ 679.20(d)(1)(iv), 679.21(d)(8), and 679.21(e)(3)(v). The Regional Administrator has determined that, in addition to the closures listed above, many of the non-exempt AFA catcher vessel sideboard limits listed in Table 2 are necessary as incidental catch to support other anticipated groundfish fisheries for the 2005 fishing year. In accordance with § 679.20(d)(1)(iv), the Regional Administrator establishes these amounts as directed fishing allowances. The Regional Administrator finds that many of these directed fishing allowances will be reached before the end of the year. Therefore, in accordance with § 679.20(d)(1)(iii), NMFS is prohibiting directed fishing by non-exempt AFA catcher vessels in the GOA for the species and specified areas in Table 5. These closures will remain in effect until superceded by the final 2005 harvest specifications.

TABLE 5—2005 NON-EXEMPT AMERICAN FISHERIES ACT CATCHER VESSEL SIDEBOARD LIMIT DIRECTED FISHING CLOSURES IN THE GOA

Species	Regulatory Area/District	Gear
Pacific cod	Eastern GOA	all
Deep-water flatfish	Western and Eastern GOA	all
Rex sole	Western and Eastern GOA	all
Flathead sole	Eastern GOA	all
Shallow-water flatfish	Eastern GOA	all
Arrowtooth flounder	Eastern GOA	all
Pacific Ocean perch	Western GOA	all
Northern rockfish	Western GOA	all
Pelagic shelf rockfish	entire GOA	all
Demersal shelf rockfish	SEO District	all
Other species	entire GOA	all

Classification

This action is authorized under 50 CFR 679.20 and is exempt from review under Executive Order 12866.

Because this action is a final action by NMFS, analyses required under the Magnuson-Stevens Act must be completed and considered by the agency prior to promulgation of the interim harvest specifications.

Section 679.20(c)(2) requires NMFS to specify harvest specifications to be effective January 1 and to remain in effect until superceded by the final specifications. Without interim harvest specifications in effect on January 1, the groundfish fisheries would not be able to open, resulting in disruption within

the fishing industry. NMFS cannot publish interim harvest specifications until proposed specifications are completed because the interim harvest specifications are derived from the proposed specifications, as required by § 679.20(c)(2).

The proposed specifications are based on the preliminary recommendations of the Plan Team, which were reviewed by the Scientific and Statistical Committee and Council in October 2004, in projecting 2005 biomass amounts, as identified in the 2003 SAFE report, for the proposed 2005 and 2006 ABC, overfishing levels, and TAC amounts. The Plan Team recommendations incorporate the most current data available from a number of sources, including current-year industry catch levels, and current-year trawl and hydro-acoustic surveys. These data are not available in time for Council review prior to the October Council meeting, as the surveys are conducted during the summer months, and industry catch levels reflect current year activity. These updated data sources represent the best available scientific information. These data provide the basis for the proposed and interim harvest specifications.

The proposed specifications, as required by § 679.20(c)(1)(i)(A), must be published as soon as practicable after consultation with the Council, which occurs at the Council's October meeting. Because the interim harvest specifications are derived from the proposed specifications, the proposed specifications publication requirement, along with the requirement of National Standard 2 of the Magnuson-Stevens Act to use the best scientific information available, prevents NMFS from publishing the interim harvest specifications in sufficient time to have a public comment period and to have the interim harvest specifications effective on January 1.

As stated above, disruption of the fishing industry and consequent impacts to fishing communities and to the public would occur if the interim harvest specifications were not effective January 1. Additionally, the public is provided an opportunity to comment on the proposed specifications, from which these interim harvest specifications are

derived. For these reasons, good cause exists under 5 U.S.C. 553(b)(B) to waive prior notice and opportunity for public comment on this action as such procedures would be impracticable and contrary to the public interest.

Likewise, the Assistant Administrator finds good cause to waive the 30-day delay in effectiveness date of the interim harvest specifications. Section 679.20(c)(2) requires NMFS to establish interim harvest specifications to be effective on January 1 and to remain in effect until superceded by the publication of final harvest specifications by the office of the Federal Register. NMFS interprets § 679.20(c)(2) as requiring the filing of interim harvest specifications with the Office of the Federal Register before any harvest of groundfish is authorized. The interim harvest specifications are based on the proposed 2005 specifications.

The interim harvest specifications rely on data used to propose the 2005 specifications, and those data are not available until after the summer surveys are conducted (see above). Without interim harvest specifications in effect on January 1, the groundfish fisheries would not be able to open on that date, resulting in disruption of the fishing industry. These reasons constitute good cause pursuant to U.S.C. 553(d)(3) to waive the 30-day delay in effectiveness date.

Because these interim harvest specifications are not required to be issued with prior notice and opportunity for comment pursuant to 5 U.S.C. 553, or any other law, the analytical requirements of the Regulatory Flexibility Act do not apply. Consequently, no regulatory flexibility analysis has been prepared for this action.

Authority: 16 U.S.C. 773 *et seq.*, 1801 *et seq.*, and 3631 *et seq.*; 16 U.S.C. 1540(f); Pub. L. 105 277, Title II of Division C; Pub. L. 106 31, Sec. 3027; Pub. L. 106 554, Sec. 209; and Pub. L. 108-199, Sec. 803.

Dated: December 7, 2004.

William T. Hogarth,

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

[FR Doc. 04-27367 Filed 12-13-04; 8:45 am]
BILLING CODE 3510-22-S

Proposed Rules

Federal Register

Vol. 69, No. 239

Tuesday, December 14, 2004

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19809; Directorate Identifier 2003-NM-284-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-9-10 Series Airplanes; Model DC-9-20 Series Airplanes; Model DC-9-30 Series Airplanes; Model DC-9-40 Series Airplanes; Model DC-9-50 Series Airplanes; Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) Airplanes; and Model MD-88 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede an existing airworthiness directive (AD) that applies to certain SAFT America Inc., P/N 021929-000 (McDonnell Douglas P/N 43B034LB02) and P/N 021904-000 (McDonnell Douglas P/N 43B034LB03) nickel cadmium batteries. The existing AD currently requires replacing all battery terminal screws, verifying that the battery contains design specification cells, and replacing the cells if the battery contains non-design specification cells. This proposed AD would require an inspection for certain nickel cadmium batteries and, if necessary, replacing battery terminal screws with new hex head bolts and adding shims. This proposed AD is prompted by a report of battery screws shearing off while under normal torque loads. We are proposing this AD to prevent internal shorting, arcing, and loss of emergency battery power due to failed battery screws, which could result in loss of emergency power to electrical flight components or other emergency power systems required in the event of

loss of the aircraft primary power source.

DATES: We must receive comments on this proposed AD by January 28, 2005.

ADDRESSES: Use one of the following addresses to submit comments on this proposed AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-4Q1, Washington, DC 20590.

- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024).

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, on the plaza level of the Nassif Building, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

Technical information: Daniel Bui, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5339; fax (562) 627-5210.

Plain language information: Marcia Walters, marcia.walters@faa.gov.

SUPPLEMENTARY INFORMATION:

Docket Management System (DMS)

The FAA has implemented new procedures for maintaining AD dockets electronically. As of May 17, 2004, new AD actions are posted on DMS and assigned a docket number. We track each action and assign a corresponding directorate identifier. The DMS AD docket number is in the form "Docket

No. FAA-2004-99999." The Transport Airplane Directorate identifier is in the form "Directorate Identifier 2004-NM-999-AD." Each DMS AD docket also lists the directorate identifier ("Old Docket Number") as a cross-reference for searching purposes.

Comments Invited

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2004-19809; Directorate Identifier 2003-NM-284-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of our docket Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You can review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78), or you can visit <http://dms.dot.gov>.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications that affect you. You can get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

Examining the Docket

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza

level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the DMS receives them.

Discussion

On September 14, 1998, we issued AD 98-20-17, amendment 39-10784 (63 FR 50979, September 24, 1998), for certain SAFT America Inc., Part Number (P/N) 021929-000 (McDonnell Douglas P/N 43BO34LB02) and P/N 021904-000 (McDonnell Douglas P/N 43BO34LB03) nickel cadmium batteries manufactured prior to December 1997 that are installed on, but not limited to McDonnell Douglas Model DC-9 and MD-80 airplanes, all serial numbers. (Since the issuance of that AD, we have re-identified certain McDonnell Douglas airplane model designations to correlate with the most recent type certificate data sheets for the affected models.) That AD requires replacing all battery terminal screws, verifying that the battery contains design specification cells, and replacing the cells if the battery contains non-design specification cells. That AD was prompted by an incident where the cell screws on one of the affected batteries were exposed to chloride, which caused the heads of some fasteners to shear off and eventually resulted in the battery exploding. We issued that AD to prevent that type of occurrence, which could result in loss of emergency power to electrical flight components or other emergency power systems required in the event of loss of the aircraft primary power source.

Actions Since Existing AD Was Issued

Since we issued AD 98-20-17, we have received a report indicating that the main airplane battery screws that attach the link to individual battery cells were broken on a McDonnell Douglas Model DC-9-83 (MD-83) airplane. Investigation revealed that the screws failed to meet manufacturing quality specifications and resulted in the screw heads shearing off while under normal torque loads. We have also determined that the SAFT nickel cadmium batteries specified in the applicability of AD 98-20-17 are installed only on the McDonnell Douglas airplane models specified in the applicability of this NPRM, and cannot be installed on any other airplane model.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin (ASB) DC9-24A195, dated December 4, 2003. The ASB describes procedures for a visual

inspection to determine if SAFT batteries having part number (P/N) 021904-000 (Type 43BO34LB03) or P/N 021929-000 (Type 43BO34LB02) are installed in the airplane and an inspection to determine the code date of the battery. For battery codes prior to May 2003, the ASB describes procedures to modify the batteries. The modification consists of replacing the screws in the battery with new hex head bolts and installing a shim. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

The ASB refers to SAFT Service Bulletin 01-02, Revision 2, dated August 11, 2003, as an additional source of service information for accomplishing the modification.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other products of this same type design. This proposed AD would supersede AD 98-20-17. This proposed AD would require accomplishing the actions specified in the service bulletin described previously.

Clarification of Applicability

The Planning Information section of the ASB does not specify Model DC-9-11, -12, -13, and -15F airplanes in the effectivity of the ASB. The manufacturer has advised us that those certain models are not currently in service. Although those models may not currently be in service, we have no verification that any of those airplanes could not be returned to service at a future date. Therefore, the applicability of the proposed AD includes those models.

Although the Planning Information section of the ASB does include a "DC-9-33" airplane, the proposed AD does not specify that airplane model in the applicability. The manufacturer has advised that the listing of model was inadvertently included in the ASB. The manufacturer plans to issue an Information Notice to remove the "DC-9-33" airplanes from the effectivity of the ASB.

Costs of Compliance

There are about 1,828 airplanes worldwide of the affected design. This proposed AD would affect about 1,087 airplanes of U.S. registry.

The proposed inspection to determine if certain SAFT batteries are installed would take about 1 work hour per airplane, at an average labor rate of \$65 per work hour. Based on these figures,

the estimated cost of the new actions specified in this proposed AD for U.S. operators is \$70,655, or \$65 per airplane.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, section 106 describes the authority of the FAA administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing amendment 39-10784 (63 FR 50979, September 24, 1998) and adding the following new airworthiness directive (AD):

McDonnell Douglas: Docket No. FAA-2004-19809; Directorate Identifier 2003-NM-284-AD.

Comments Due Date

(a) The Federal Aviation Administration must receive comments on this airworthiness directive (AD) action by January 28, 2005.

Affected ADs

(b) This AD supersedes AD 98-20-17, amendment 39-10784 (63 FR 50979, September 24, 1998).

Applicability

(c) This AD applies to McDonnell Douglas Model DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes; Model DC-9-21 airplanes; Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B) airplanes; Model DC-9-41 airplanes; Model DC-9-51 airplanes; Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes; and Model MD-88 airplanes; equipped with SAFT America Inc. nickel cadmium batteries having part number (P/N) 021929-000 or P/N 021904-000 that were manufactured before May 2003; certificated in any category.

Unsafe Condition

(d) This AD was prompted by a report of battery screws shearing off while under normal torque loads. We are issuing this AD to prevent internal shorting, arcing, and loss of emergency battery power due to failed battery screws, which could result in loss of emergency power to electrical flight components or other emergency power systems required in the event of loss of the aircraft primary power source.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection for SAFT Nickel Cadmium Battery

(f) Within 18 months of the effective date of this AD, perform a general visual inspection to determine if a nickel cadmium battery having P/N 021904-000 (Type 43BO34LB03) or P/N 021929-000 (Type 43BO34LB02) is installed, in accordance with Boeing Alert Service Bulletin (ASB) DC9-24A195, dated December 4, 2003.

(1) If neither P/N is installed, no further action is required by this paragraph.

(2) If either P/N is installed, before further flight, inspect the battery to determine if the battery code date is before May 2003, in accordance with the ASB.

(i) If the battery code is dated May 2003 or later, no further action is required by this paragraph.

(ii) If the battery code is dated before May 2003, before further flight, modify the battery in accordance with the ASB.

Note 1: For the purposes of this AD, a general visual inspection is "a visual examination of a interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normal available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked."

Parts Installation

(g) As of the effective date of this AD, no person may install on any airplane a SAFT nickel cadmium battery having either P/N 021904-000 (Type 43BO34LB03) or P/N 021929-000 (Type 43BO34LB02), unless the battery has been modified in accordance with this AD or the battery code is dated May 2003 or later.

Alternative Methods of Compliance (AMOCs)

(h) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Issued in Renton, Washington, on December 1, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27327 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2004-19768; Directorate Identifier 2004-NM-184-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-90-30 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all

McDonnell Douglas Model MD-90-30 airplanes. This proposed AD would require a general visual inspection in the electrical/electronics (E/E) compartment for damage of the wire bundle and aft right radio rack structure at station 160.000, and corrective actions if necessary. This proposed AD would also require modifying the radio rack structure and wire bundle routing. This proposed AD is prompted by a report indicating that burnt wiring was discovered in the wire bundle at station 160.000 in the E/E compartment. We are proposing this AD to detect and correct chafing of the wire bundle at station 160.000 against the support bracket located on the aft right radio rack, which could lead to shorted or burnt wires and consequent smoke and fire in the E/E compartment.

DATES: We must receive comments on this proposed AD by January 28, 2005.

ADDRESSES: Use one of the following addresses to submit comments on this proposed AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, room PL-401, Washington, DC 20590.

- By fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024).

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, on the plaza level of the Nassif Building, Washington, DC. This docket number is FAA-2004-19768; the directorate identifier for this docket is 2004-NM-184-AD.

FOR FURTHER INFORMATION CONTACT:

Technical information: George Mabuni, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard,

Lakewood, California 90712-4137; telephone (562) 627-5341; fax (562) 627-5210.

Plain language information: Marcia Walters, marcia.walters@faa.gov.

SUPPLEMENTARY INFORMATION:

Docket Management System (DMS)

The FAA has implemented new procedures for maintaining AD docket electronically. As of May 17, 2004, new AD actions are posted on DMS and assigned a docket number. We track each action and assign a corresponding directorate identifier. The DMS AD docket number is in the form "Docket No. FAA-2004-99999." The Transport Airplane Directorate identifier is in the form "Directorate Identifier 2004-NM-999-AD." Each DMS AD docket also lists the directorate identifier ("Old Docket Number") as a cross-reference for searching purposes.

Comments Invited

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2004-19768; Directorate Identifier 2004-NM-184-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments submitted by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You can review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78), or you can visit <http://dms.dot.gov>.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications that affect you. You can get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

Examining the Docket

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the DMS receives them.

Discussion

We have received a report indicating that, during operator troubleshooting of a chronic "Stall Ind Failure" message on an MD-90-30 airplane, burnt wiring was discovered in the wire bundle at station 160.000 in the electrical/electronics (E/E) compartment. Operator investigation determined that this was caused by chafing of the wire bundle against the support bracket located on the aft right radio rack. The operator discovered the wire bundle riding the support bracket on 15 more airplanes and the manufacturer found similar riding and wire chafing on two more airplanes. In addition, the manufacturer's inspection revealed another location of wire chafing on the aft right radio rack. This condition, if not corrected, could lead to shorted or burnt wires and consequent smoke and fire in the E/E compartment.

Relevant Service Information

We have reviewed McDonnell Douglas Alert Service Bulletin MD90-24A080, Revision 1, dated August 5, 2004. The service bulletin describes procedures for a general visual inspection in the electrical/electronics (E/E) compartment for damage of the wire bundle and aft right radio rack structure at station 160.000, and corrective actions if necessary. The corrective actions include repairing or replacing damaged wires and repairing any radio rack structural damage. The service bulletin also describes procedures for modifying the radio rack structure and rerouting the wire assembly. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same type design. Therefore, we are proposing this AD, which would require

accomplishing the actions specified in the service information described previously.

Clarification of Inspection Terminology

In this proposed AD, the "visual inspection" specified in the Boeing service bulletin is referred to as a "general visual inspection." We have included the definition for a general visual inspection in Note 1 of this proposed AD.

Costs of Compliance

There are about 105 airplanes of the affected design in the worldwide fleet. This proposed AD would affect about 21 airplanes of U.S. registry. The proposed actions would take about 5 work hours per airplane, at an average labor rate of \$65 per work hour. Required parts would cost about \$3,479 per airplane. Based on these figures, the estimated cost of the proposed AD for U.S. operators is \$79,884, or \$3,804 per airplane.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, the FAA is charged with promoting safety flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

McDonnell Douglas: Docket No. FAA-2004-19768; Directorate Identifier 2004-NM-184-AD.

Comments Due Date

(a) The Federal Aviation Administration (FAA) must receive comments on this AD action by January 28, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all McDonnell Douglas Model MD-90-30 airplanes; certificated in any category.

Unsafe Condition

(d) This AD was prompted by a report indicating that burnt wiring was discovered in the wire bundle at station 160.000 in the electrical/electronics (E/E) compartment. We are issuing this AD to detect and correct chafing of the wire bundle at station 160.000 against the support bracket located on the aft right radio rack, which could lead to shorted or burnt wires and consequent smoke and fire in the E/E compartment.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection

(f) Within 18 months after the effective date of this AD, perform a general visual

inspection in the E/E compartment for damage of the wire bundle and aft right radio rack structure at station 160.000; do any applicable corrective actions; and modify the radio rack structure and reroute the wire assembly; by accomplishing all of the actions specified in the Accomplishment Instructions of McDonnell Douglas Alert Service Bulletin MD90-24A080, Revision 1, dated August 5, 2004.

Note 1: For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Los Angeles Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Issued in Renton, Washington, on November 26, 2004.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27328 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19810; Directorate Identifier 2004-NM-119-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, and -800 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Boeing Model 737-600, -700, and -800 series airplanes. This proposed AD would require doing a general visual inspection for sealant at the interface of the upper spar fittings, strut side skins, and the fittings of the thrust reverser strut fairing on the engine struts; and applying an injection

seal or silicone sponge rubber with fillet seal if necessary. This proposed AD is prompted by a report that an injection seal in the engine strut area may not have been properly completed or installed during production. We are proposing this AD to prevent flammable fluid (such as fuel or hydraulic fluid) from leaking onto a hot engine exhaust nozzle or into the engine core fire zone, and consequently cause an uncontrolled fire or explosion.

DATES: We must receive comments on this proposed AD by January 28, 2005.

ADDRESSES: Use one of the following addresses to submit comments on this proposed AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC 20590.

- By fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, on the plaza level of the Nassif Building, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Technical information: Doug Pegors, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6504; fax (425) 917-6590.

Plain language information: Marcia Walters, marcia.walters@faa.gov.

SUPPLEMENTARY INFORMATION:

Docket Management System (DMS)

The FAA has implemented new procedures for maintaining AD dockets electronically. As of May 17, 2004, new AD actions are posted on DMS and assigned a docket number. We track each action and assign a corresponding directorate identifier. The DMS AD docket number is in the form "Docket No. FAA-2004-99999." The Transport

Airplane Directorate identifier is in the form "Directorate Identifier 2004-NM-999-AD." Each DMS AD docket also lists the directorate identifier ("Old Docket Number") as a cross-reference for searching purposes.

Comments Invited

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2004-19810; Directorate Identifier 2004-NM-119-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments submitted by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of that website, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You can review DOT's complete Privacy Act Statement in the *Federal Register* published on April 11, 2000 (65 FR 19477-78), or you can visit <http://dms.dot.gov>.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications that affect you. You can get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

Examining the Docket

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the DMS receives them.

Discussion

We have received a report indicating that the injection seal at the interface of the upper spar fittings, strut side skins, and thrust reverser strut fairing fittings may not have been completed during production on certain Boeing Model 737-600, -700, and -800 series airplanes. The affected area is in a flammable fluid leakage zone, which requires absolute sealing of all openings. This condition, if not corrected, could result in flammable fluid (such as fuel or hydraulic fluid) leaking onto a hot engine exhaust nozzle or into the engine core fire zone, and consequently cause an uncontrolled fire or explosion.

Relevant Service Information

We have reviewed Boeing Special Attention Service Bulletin 737-54-1040, dated November 14, 2002; and Revision 1, dated August 14, 2003. The service bulletins describe procedures for doing a general visual inspection for sealant at the interface of the upper spar fittings, strut side skins, and the fittings of the thrust reverser strut fairing on the engine struts; and applying an injection seal or silicone sponge rubber with fillet seal if necessary. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same type design. Therefore, we are proposing this AD, which would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

This proposed AD would affect about 257 airplanes worldwide and 99 airplanes of U.S. registry. The proposed inspection would take about 2 work hours per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the estimated cost of the proposed AD for U.S. operators is \$12,870, or \$130 per airplane.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in subtitle

VII, part A, subpart III, section 44701, "General requirements." Under that section, the FAA is charged with promoting safety flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this proposed AD.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Boeing: Docket No. FAA-2004-19810; Directorate Identifier 2004-NM-119-AD.

Comments Due Date

(a) The Federal Aviation Administration (FAA) must receive comments on this AD action by January 28, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 737-600, -700, and -800 series airplanes, as listed in Boeing Special Attention Service Bulletin 737-54-1040, Revision 1, dated August 14, 2003; certificated in any category.

Unsafe Condition

(d) This AD was prompted by a report that an injection seal in the engine strut area may not have been properly completed or installed during production. We are issuing this AD to prevent flammable fluid (such as fuel or hydraulic fluid) leaking onto a hot engine exhaust nozzle or into the engine core fire zone, and consequently cause an uncontrolled fire or explosion.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection and Corrective Action

(f) Within 18 months or 3,500 flight cycles after the effective date of this AD, whichever occurs first: Do a general visual inspection for sealant at the interface of the upper spar fittings, strut side skins, and the fittings of the thrust reverser strut fairing on the engine struts, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-54-1040, dated November 14, 2002; or Revision 1, dated August 14, 2003.

(1) If the injection seal is found to properly seal the entire gap, no further action is required by this AD.

(2) If the injection seal is not found to properly seal the entire gap or if the injection seal is found to be missing, before further flight, apply an injection seal or silicone sponge rubber with fillet seal in accordance with the Accomplishment Instructions of the service bulletin.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Issued in Renton, Washington, on December 1, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27329 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-P

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 271**

[FRL-7848-1]

North Carolina: Final Authorization of State Hazardous Waste Management Program Revisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: North Carolina has applied to EPA for Final authorization of the changes to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA proposes to grant final authorization to North Carolina. In the "Rules and Regulations" section of this **Federal Register**, EPA is authorizing the changes by an immediate final rule. EPA did not make a proposal prior to the immediate final rule because we believe this action is not controversial and do not expect comments that oppose it. We have explained the reasons for this authorization in the preamble to the immediate final rule. Unless we get written comments which oppose this authorization during the comment period, the immediate final rule will become effective on the date it establishes, and we will not take further action on this proposal. If we get comments that oppose this action, we will withdraw the immediate final rule and it will not take effect. We will then respond to public comments in a later final rule based on this proposal. You may not have another opportunity for comment. If you want to comment on this action, you must do so at this time.

DATES: Send your written comments by January 13, 2005.

ADDRESSES: Send written comments to Thornell Cheeks, North Carolina Authorization Coordinator, RCRA Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street, SW., Atlanta, GA, 30303-3104; (404) 562-8479. You may also e-mail your comments to Cheeks.Thornell@epa.gov or submit your comments at <http://www.regulation.gov>. Copies of the applications submitted by North Carolina can be examined during normal business hours at the following locations: EPA Region IV Library, Atlanta Federal Center, Library, 61 Forsyth Street, SW., Atlanta, Georgia 30303; phone number: (404) 562-8190, or the North Carolina Department of Environment, Health and Natural

Resources, P.O. Box 27687, Raleigh, North Carolina 29201, (919) 733-2178.

FOR FURTHER INFORMATION CONTACT:

Thornell Cheeks, North Carolina Authorization Coordinator, RCRA Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, 61 Forsyth Street, SW., Atlanta, GA, 30303-3104; (404) 562-8479.

SUPPLEMENTARY INFORMATION: For additional information, please see the immediate final rule published in the "Rules and Regulations" section of this **Federal Register**.

Dated: December 7, 2004.

A. Stanley Meiburg,

Deputy Regional Administrator, Region 4.

[FR Doc. 04-27364 Filed 12-13-04; 8:45 am]

BILLING CODE 5560-50-P

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 300**

[FRL-7844-7]

National Oil and Hazardous Substance Pollution Contingency Plan; National Priorities List

AGENCY: Environmental Protection Agency.

ACTION: Notice of intent to delete the York County Solid Waste and Refuse Authority Superfund Site from the National Priorities List (NPL).

SUMMARY: The Environmental Protection Agency (EPA) Region III is issuing a notice of intent to delete the York County Solid Waste and Refuse Authority Superfund Site (Site) located in Hopewell Township, York County, Pennsylvania from the National Priorities List (NPL) and requests public comment on this notice of intent. The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, is found at appendix B of 40 CFR part 300 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The EPA and the Commonwealth of Pennsylvania, through the Pennsylvania Department of Environmental Protection (PADEP), have determined that all appropriate response actions under CERCLA, other than operation and maintenance and five year reviews, have been completed. However, this deletion does not preclude future actions under Superfund. In the "Rules and Regulations" section of today's **Federal Register**, we are publishing a direct final notice of deletion of the York County

Solid Waste and Refuse Authority Superfund Site without prior notice of intent to delete because we view this as a noncontroversial revision and anticipate no adverse comment. We have explained our reasons for this deletion in the preamble to the direct final deletion. If we receive no adverse comment(s) on this notice of intent to delete or the direct final notice of deletion, we will not take further action on this notice of intent to delete. If we receive adverse comment(s), we will withdraw the direct final notice of deletion and it will not take effect. We will, as appropriate, address all public comments in a subsequent final deletion notice based on this notice of intent to delete. We will not institute a second comment period on this notice of intent to delete. Any parties interested on commenting must do so at this time. For additional information, see the direct final notice of deletion which is located in the Rules section of this **Federal Register**.

DATES: Comments concerning this Site must be received by January 13, 2005.

ADDRESSES: Written comments should be addressed to Larry Johnson, Community Involvement Coordinator, 3HS43, U.S. EPA Region III, 1650 Arch Street, Philadelphia, PA 19103, (215) 814-3239.

FOR FURTHER INFORMATION CONTACT: Romuald Roman, Remedial Project Manager, 3HS22, U.S. EPA Region III, 1650 Arch Street, Philadelphia, PA 19103, (215) 814-3212. fax: (215) 814-3002; e-mail: roman.romuald@epa.gov.

SUPPLEMENTARY INFORMATION: For additional information, see the Direct Final Notice of Deletion which is located in the Rules and Regulations section of this **Federal Register**.

Information Repositories: Repositories have been established to provide detailed information concerning this decision at the following address: U.S. EPA Region III, Regional Center for Environmental Information (RCEI), 1650 Arch Street, Philadelphia, PA 19103, (215) 814-5364 (Monday through Friday 8 a.m. to 4:30 p.m.) and the Mason-Dixon Public Library, Main Street, Stewartstown, Pennsylvania 17363.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous waste, Hazardous substances, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Authority: 33 U.S.C. 1321(c)(2); 42 U.S.C. 9601-9657; E.O. 12777, 56 FR 54757, 3 CFR,

1991 Comp., p. 351; E.O. 12580, 52 FR 2923; 3 CFR, 1987 Comp., p. 193.

Dated: October 26, 2004.

Richard J. Kampf,

Acting Regional Administrator, Region III.

[FR Doc. 04-27169 Filed 12-13-04; 8:45 am]

BILLING CODE 6560-50-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AT74

Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley milk-vetch)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley milk-vetch) pursuant to the Endangered Species Act of 1973, as amended (Act). We are proposing to designate approximately 3,583 acres (ac) (1,450 hectares (ha)) of critical habitat in three units in Riverside and San Bernardino counties, California. Habitat essential to the conservation of the species in Riverside and San Bernardino counties is being excluded from critical habitat under section 4(b)(2) of the Act.

DATES: We will accept comments from all interested parties until February 14, 2005. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by January 28, 2005.

ADDRESSES: If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods:

1. You may submit written comments and information to Jim Bartel, Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Carlsbad, California, 92009.

2. You may hand-deliver written comments to our Office, at the address given above.

3. You may send comments by electronic mail (e-mail) to fw1cfwocvmv@fws.gov. Please see the Public Comments Solicited section below for file format and other information about electronic filing.

4. You may fax your comments to (760) 431-9618.

Comments and materials received, as well as supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the Carlsbad Fish and Wildlife Office at the address given above (760) 431-9440).

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

SUPPLEMENTARY INFORMATION:

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. In particular, we are seeking comments concerning:

(1) The reasons any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act, including whether the benefit of designation will outweigh any threats to the species due to designation;

(2) Specific information on the amount and distribution of habitat, and what habitat is essential to the conservation of the species and why;

(3) Whether unoccupied habitat identified as such and which serves as a source of sand for the areas proposed as critical habitat should be included in the designation;

(4) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(5) Any foreseeable economic, national security, or other potential impacts resulting from the proposed designation and, in particular, any impacts on small entities;

(6) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments;

(7) The exclusion of Federal lands (e.g., Bureau of Land Management and the U.S. Forest Service) from critical habitat based on their participation in and contribution to the conservation of *Astragalus lentiginosus* var. *coachellae* under the proposed Coachella Valley Multiple Species Habitat Conservation Plan.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of

several methods (see ADDRESSES above). Please submit e-mail comments to fw1cfwocvmv@fws.gov in ASCII file format and avoid the use of special characters or any form of encryption. Please also include "Attn: Coachella Valley milk-vetch" in your e-mail subject header and your name and return address in the body of your message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Carlsbad Fish and Wildlife Office (see ADDRESSES section). Please note that the e-mail address fw1cfwocvmv@fws.gov will be closed out at the termination of the public comment period.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home addresses from the rulemaking record, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Designation of Critical Habitat Provides Little Additional Protection to Species

In 30 years of implementing the Act, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of available conservation resources. The Service's present system for designating critical habitat has evolved since its original statutory prescription into a process that provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. The Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit

to the species most in need of protection.

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, "Because the Act can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7." Currently, only 445 species or 36 percent of the 1,244 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,244 listed species through conservation mechanisms such as listing, section 7 consultations, the Section 4 recovery planning process, the Section 9 protective prohibitions of unauthorized take, Section 6 funding to the States, and the Section 10 incidental take permit process. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

We note, however, that a recent 9th Circuit judicial opinion, *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*, has invalidated the Service's regulation defining destruction or adverse modification of critical habitat. We are currently reviewing the decision to determine what effect it may have on the outcome of consultations pursuant to Section 7 of the Act.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent

(NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with almost no ability to provide for adequate public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals due to the risks associated with noncompliance with judicially-imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, is very expensive, and in the final analysis provides relatively little additional protection to listed species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA). None of these costs result in any benefit to the species that is not already afforded by the protections of the Act enumerated earlier, and they directly reduce the funds available for direct and tangible conservation actions.

Background

Astragalus lentiginosus var. *coachellae* is found on loose wind-blown sands in dunes and flats, and in sandy alluvial washes in the northern Coachella Valley area, and to a limited extent, in northern Chuckwalla Valley. Its distribution in the Coachella Valley area roughly spans from just east of Cabezon to the dunes off Washington Avenue, north and west of Indio. The occurrences in the Chuckwalla Valley are all along a 5-mile stretch of Highway 177 just north of Desert Center.

Please refer to the final listing rule published in the **Federal Register** on October 6, 1998 (63 FR 53596) for a detailed discussion on the taxonomic history and description of this taxon. It is our intent in this document to reiterate and discuss only those topics directly relevant to the development and designation of critical habitat or relevant information obtained since the final listing.

The primary threat to *Astragalus lentiginosus* var. *coachellae* is the

extensive urban development in the Coachella Valley (63 FR 53596). Urbanization has both direct and indirect effects on *A. l. var. coachellae*. Urbanization can destroy plants and suitable and occupied habitat on-site, and indirectly degrade suitable and occupied habitat by blocking sand transport downwind of the development. Other threats include habitat destruction from future wind energy projects, off-highway vehicle (OHV) use, and spread of exotic plants, such as Saharan mustard (*Brassica tournefortii*) and Mediterranean grass (*Schismus barbatus*) (63 FR 53596).

Previous Federal Actions

The following section summarizes the Federal actions that occurred since the final listing rule of this species as endangered was published in the **Federal Register** on October 6, 1998. Please refer to the final listing rule (63 FR 53596) for a discussion of Federal actions that occurred prior to the species being federally-listed.

At the time of listing we determined that designation of critical habitat would not provide any additional conservation benefits beyond those provided by listing the species and that the designation could lead to acts of collection or vandalism (63 FR 53596). On November 15, 2001, the Center for Biological Diversity and the California Native Plant Society filed a lawsuit against Secretary Gale Norton and the Service alleging that the Service violated the Act and the Administrative Procedure Act (APA) by determining that designating critical habitat for eight plant species listed as endangered or threatened, including *Astragalus lentiginosus* var. *coachellae*, was not prudent (*Center for Biological Diversity et al. v. Norton*, No. 01 CV 2101). A second lawsuit also asserting the same challenge was filed on November 21, 2001, by the Building Industry Legal Defense Foundation (*Building Industry Legal Defense Foundation v. Norton*, No. 01 CV 2145).

The Court convened an Early Neutral Evaluation Conference on March 19, 2002, in which the Center for Biological Diversity, California Native Plant Society, and the Building Industry Legal Defense Foundation participated. At the conference, the parties agreed that (1) the critical habitat determinations for the eight plant species at issue would be remanded to the Service for reconsideration of its previous "not prudent" determinations and (2) that the two cases should be consolidated into a single case. The parties did not come to agreement on an appropriate timeline for issuance of proposed and

final determinations of critical habitat on the remand during the conference, but did agree to brief the Court regarding the appropriate schedule for reconsideration of the not prudent determination and to be bound by the Court's determination. Following the conference, on April 8, 2002, the court granted a motion to intervene filed by the American Sand Association, the California Off-Road Vehicle Association, the American Motorcycle Association, Inc.—District 37, the San Diego Off-Road Coalition, and the Off-Road Business Association (collectively, "intervenor"). The motion limited the intervenors' participation to resolution of an appropriate timeline for reconsideration of the critical habitat determination.

On July 1, 2002, the Court ordered the Service to reconsider its not prudent determination and publish a proposed critical habitat designation, if prudent, for *Astragalus lentiginosus* var. *coachellae* on or before November 30, 2004, and to publish a final critical habitat designation on or before November 30, 2005.

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat.

To be included in a critical habitat designation, the habitat must first be "essential to the conservation of the species." Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species

(i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Our regulations state that, "The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species" (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographic area occupied by the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and our U.S. Fish and Wildlife Service Information Quality Guidelines (2002) provide criteria, establish procedures, and provide guidance to ensure that our decisions represent the best scientific and commercial data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

Critical habitat designations do not signal that habitat outside the designation is unimportant to *Astragalus lentiginosus* var. *coachellae*. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1), and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation

plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Methods

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available in determining areas that are essential to the conservation of *Astragalus lentiginosus* var. *coachellae*. This includes information from our own documents, including the final rule listing the taxon as endangered (63 FR 53596), recent biological surveys, reports, aerial photos, and other documentation. We also used the habitat model developed by the Coachella Valley Mountain Conservancy (CVMC) for the proposed Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) (CVMC 2004), as a starting point for identification of essential habitat and compared it to data from other plant surveys.

We have also reviewed available information that pertains to the habitat requirements of this species. We used published historical surveys for *Astragalus lentiginosus* var. *coachellae* and ecological descriptions of the Sonoran Desert (Abrams 1944, Munz and Keck 1959, Shreve and Wiggins 1964, Turner and Brown 1982, Holland 1986) to describe the range of environmental conditions in which the plant existed prior to current landscape changes that have resulted in the loss of the species' habitats. We used data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits to evaluate the habitat model developed for the plant (Sanders and Thomas Olsen Associates 1996, Service unpublished Geographic Information System (GIS) data). We also used agency and academic reports to describe the sand transport systems (Lancaster *et al.* 1993, Griffiths *et al.* 2002) and used reports about related varieties of *Astragalus lentiginosus* to describe its ecology and phenology (Beatley 1974, Forseth *et al.* 1984, and Pavlik 1985).

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we are required to base critical habitat determinations on the best scientific and commercial data available and to consider those physical and biological features (primary constituent elements (PCEs)) that are essential to the conservation of the species, and that

may require special management considerations and protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The primary constituent elements required for *Astragalus lentiginosus* var. *coachellae* habitat are derived from the physical and biological features that are essential to the conservation of the species as described below.

Space for Individual and Population Growth Within the Eolian (Wind-Blown) Sand Transport System

Astragalus lentiginosus var. *coachellae* has a limited distribution. The majority of populations are found in the Coachella Valley area, mostly in and around Snow Creek, Whitewater River, Mission and Morongo Creeks, Willow Hole, Big Dune, and Coachella Valley Preserve areas (Bureau of Land Management, unpublished data 2001a). There are also several historic and recent records southeast of the Coachella Valley in the Chuckwalla Valley, along approximately a 5-mile portion of Highway 177 northeast of Desert Center (Bureau of Land Management, unpublished data 2001b).

Astragalus lentiginosus var. *coachellae* populations in the Coachella Valley are strongly affiliated with active, stabilized, and shielded sandy substrates (Sanders and Thomas Olsen Associates 1996, White 2004). This taxon is primarily found on loose eolian (wind transported) or alluvial (water transported) sands that are located on dunes or flats, and along disturbed margins of sandy washes. The highest densities of *A. l.* var. *coachellae* have been found in locations containing large areas of eolian sand, including Snow Creek (Sanders and Thomas Olsen Associates 1996), Big Dune, and Willow Hole area (Bureau of Land Management, unpublished data 2001a). Within active and stabilized sand fields and dunes, *A. l.* var. *coachellae* tends to occur in coarser sands in the margins of dunes, but not in most active windswept sand areas (White 2004).

Active dunes are generally characterized as barren expanses of moving sand where perennial shrub species are sparse. These dunes may intergrade with stabilized or partially stabilized dunes, which have similar sand accumulations and formations, but

are stabilized by evergreen or deciduous shrubs, scattered low annuals, and perennial grasses.

Active sand fields are similar to active dunes, but are characterized as smaller sand accumulations that are not of sufficient depth to form dune formations. These may be characterized as hummocks forming behind individual shrubs or clumps of vegetation.

Stabilized sand fields are similar to active sand fields, but contain sand accumulations that are stabilized by vegetation or are armored. Armoring is the process where the wind picks up and moves small sand grains, and leaves behind larger sand grains forming an "armor" that prevents wind from moving additional smaller particles trapped below (Sharp and Saunders 1978). The stabilized sand fields in the latter case are temporary, becoming active when the armor is disturbed over large areas, or new blow sand is deposited from upwind fluvial depositional areas.

A. l. var. *coachellae* are also found in shielded sand dunes and fields. These areas have similar sand formations as compared to active and stabilized sand dunes and fields, except that sand source and transport systems that would normally replenish these areas have been interrupted or shielded by human development.

Astragalus lentiginosus var. *coachellae* also occurs in localized patches of eolian sand or in active washes that are, in some cases, fairly distant from large dunes or sand field areas (White 2004). Some of these localized patches of eolian sands are characterized as ephemeral sand accumulations lacking dune formation. This type of habitat generally occurs at the western end of the Coachella Valley where wind velocities are highest (Sharp and Saunders 1978).

The sandy substrates that provide suitable habitat for *Astragalus lentiginosus* var. *coachellae* are extremely dynamic in terms of spatial mobility and tendency to change back and forth from active to stabilized (Lancaster 1995). This has significant consequences for *A. l.* var. *coachellae* because their population densities vary with different types of sandy substrates. For instance, the greatest densities of plants have been recorded on dune and hummock habitats, such as Big Dune, Snow Creek and Willow Hole, whereas smaller densities of plants have been recorded on stabilized sand fields (Bureau of Land Management, unpublished GIS data 2001a). Conserving a wide variety of sandy substrate types is important for the

conservation of *A. l. var. coachellae* because of the dynamics of the eolian sand transport processes.

Astragalus lentiginosus var. *coachellae* fruiting bodies are inflated, an apparent adaptation for being dispersed by wind. Protecting wind transport corridors between *A. l. var. coachellae* populations from obstruction is also important for facilitating adequate gene flow and maintaining areas that may serve as ephemeral habitat.

Areas Containing the Fluvial and Eolian Processes That Generate Suitable Habitat

Sandy habitat in the Coachella Valley is highly dynamic and is controlled by two main factors: (1) The supply of sand-size sediment released by the fluvial system (water-transported), and (2) the rate of eolian (wind-blown) transport (Griffiths *et al.* 2002). The latter is affected primarily by wind fetch (the length of unobstructed area exposed to the wind), and less by wind speed and duration, availability and size of sand in channel bottoms, presence of natural and artificial windbreaks, and the density and size of natural vegetation in channels and among sand dunes.

Most of the suitable sandy habitats in the Coachella Valley are generated from several drainage basins in the San Bernardino, Little San Bernardino, and San Jacinto mountains and Indio Hills (Griffiths *et al.* 2002, Lancaster 1997). Sediment is washed from hill slopes and channels in the headwaters and is transported downstream in stream channels during infrequent flood events (Griffiths *et al.* 2002). Fluvial transport is the dominant mechanism that moves sediment into fluvial depositional areas in the Coachella Valley (Griffiths *et al.* 2002). Some sediment is stored on terraces within the channels, whereas during larger flood events, sediment is stored on the bajada (large, coalescing alluvial fans) surface as floodplain deposits or is transported through the bajada in channelized washes and deposited over broad depositional areas. The largest depositional area in the Coachella Valley is in the western end of the Whitewater River, northwest of the City of Palm Springs (Griffiths *et al.* 2002). For sufficient fine-grained sands to reach the eolian system in the valley floor and become suitable *Astragalus lentiginosus* var. *coachellae* habitat, it is necessary to protect major fluvial channels that transport source sand from the surrounding drainage basins as well as bajadas and depositional areas. The Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP)

identifies the protection of the above-mentioned essential ecological processes, including sand source/transport systems as a species conservation goal.

The narrow San Gorgonio Pass is between the two highest peaks in southern California, San Gorgonio Mountain (11,510 ft., 3,508 m) to the north and San Jacinto Mountain (10,837 ft., 3,303 m) to the south. Westerly winds funneling through San Gorgonio Pass are the dominant mechanism by which eolian sands are transported from bajadas and fluvial depositional areas to eolian deposits in the Coachella Valley (Sharp and Saunders 1978, Griffiths *et al.* 2002). *Astragalus lentiginosus* var. *coachellae* is associated with various types of sandy habitats that are formed by these eolian deposits (Sanders and Thomas Olsen Associates 1996, White 2004). In order to maintain adequate replenishment of eolian sands into eolian depositional areas, it is important that sand-transport corridors between fluvial and eolian depositional areas remain unobstructed for wind passage. The strong wind energy in this region can also erode sands from wash margins and suitable *A. l. var. coachellae* habitat, thereby shifting *A. l. var. coachellae* habitat into other areas, and thereby allowing the taxon to disperse and colonize new habitat. As a result, it is also necessary to protect sufficient areas that allow for these dynamic eolian sands to shift in their distribution.

Pursuant to our regulations, we are required to identify primary constituent elements essential to the conservation of *Astragalus lentiginosus* var. *coachellae*, together with the proposed designation of critical habitat that is essential to the conservation of the species. In identifying primary constituent elements, we used the best available scientific and commercial data available. The physical ranges described below in the primary constituent elements may not capture all of the variability that is inherent in the natural systems that support *A. l. var. coachellae*. The primary constituent elements determined essential to the conservation of *A. l. var. coachellae* are the following:

1. Unconsolidated sands stored within rivers and tributaries in the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills. The unconsolidated sands stored in these rivers and tributaries are not occupied by *A. l. var. coachellae*, but represent the original source of the loose sand that form the sand dunes and flats that are occupied by this plant.

2. Unconsolidated sands deposited on the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills. The unconsolidated sands deposited on these alluvial fans are sporadically occupied by *A. l. var. coachellae*; and, importantly, are transported by wind and water to form the fluvial and eolian sand dunes and flats that are occupied in greater numbers by this plant;

3. Suitable flooding regimes to transport unconsolidated sands from rivers and tributaries to the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills;

4. Suitable wind and flooding regimes to transport unconsolidated sands deposited on the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills to the fluvial and eolian depositional areas, including areas west of Edom Hill/Willow Hole reserve, areas west of Coachella Valley Preserve, and the Whitewater Floodplain area that are occupied by *A. l. var. coachellae*.

5. Eolian sands on active, stabilized, and shielded sand dunes or fields, and sandy alluvial sites in washes within the San Gorgonio/Whitewater River eolian sand transport system, Mission Creek/Morongo Wash eolian sand transport system, and the Thousand Palms eolian sand transport system that are occupied by *A. l. var. coachellae*.

Criteria Used To Identify Critical Habitat

We are proposing to designate critical habitat on lands that we have determined contain primary constituent elements and may be in need of special management or protection for the conservation of *Astragalus lentiginosus* var. *coachellae*. These areas have the primary constituent elements described above. We have also identified and are seeking comment on whether to include a number of unoccupied areas which serve as a source of the sand identified as a primary constituent element for the species.

Astragalus lentiginosus var. *coachellae* is one of the species suggested for coverage by the proposed Coachella Valley MSHCP. A spatially explicit habitat model for the plant in the Coachella Valley spanning from Cabezon to Thousand Palms was created to assist in the design of preserves and to evaluate the potential benefits of the MSHCP on *Astragalus lentiginosus* var. *coachellae* (Coachella Valley Mountain Conservancy (CVMC) 2004). We are using this habitat model to assist us in identifying specific areas essential to the conservation of the taxon.

The model was developed from occurrence data for *Astragalus lentiginosus* var. *coachellae* (Bureau of Land Management, unpublished data 2001a). Environmental variables associated with the occurrence locations were identified and maps containing those variables were combined with GIS land use and habitat information to create the model. Eight types of habitats were used in the model: (1) Margins of active dunes, (2) active shielded desert dunes, (3) stabilized desert dunes, (4) stabilized sand fields, (5) stabilized shielded sand fields, (6) ephemeral sand fields, (7) active sand fields, and (8) mesquite hummocks. The habitat types used to create the model represented conditions that result from the dynamic process of sand movement in the Coachella Valley floor. The active dunes and sand fields form where sand movement from fluvial systems cross the eolian sand transport corridor where it is relatively unobstructed. Mesquite hummocks are areas where large clumps of low-growing mesquite may form hummocks within sand dunes. The hummocks are created by the mesquite, which reduces the wind velocity occurring across the ground, thus causing sediment to fall from the wind and collect near the plant. Large sand deposits onto the valley floor are episodic (Griffiths *et al.* 2002). In between flood events that deposit large amounts of sand available for transportation onto the valley floor, strong winds are constantly moving sand forward and leaving patches of gravel or cobble in the middle of sand fields. Holland (1986) defined this mosaic of sandy patches as an "ephemeral sand field." The Coachella Valley floor now contains several development projects in front of or on top of sand sources or transport corridors that have shielded some sandy areas from being replenished with new eolian sands (CVMC 2004). Stabilized sand fields and dunes are sandy areas where sand movement is limited due to natural obstruction of wind from shrubs, herbs, and grasses (Holland 1986).

Because the model has not been refined with any field data since it was developed (CVMC 2004), we reviewed the validity of the environmental variables used to create the model with occurrence data and information about the plant's ecology. We found records for *Astragalus lentiginosus* var. *coachellae* in all of the natural communities used to create the model. The proposed critical habitat includes a mosaic of these habitat types, as well as intervening areas of ephemeral habitat to allow for the transport of wind-

dispersed seed pods and eolian sands between locations containing large areas of habitat.

Astragalus lentiginosus var. *coachellae* seeds germinate in response to winter rains (White 2004). Also in response to these winter rains, seasonally dormant root crowns (the point at which the root and stem of a plant meet) sprout new shoots. The date of first flowering may be as early as December and can continue into May, though the majority of flowering specimens have been collected in March and especially in April (White 2004). The first date of fruit may be as early as February, but fruit peaks in April and May as determined by seasonal collections. At maturity, the pods dry and fall to the ground, where they are then dispersed by wind. As summer progresses, the vegetation dies above the root mass, with an unknown proportion of plants persisting into the following summer and fall as dormant root crowns (White 2004). *A. l.* var. *coachellae* populations can survive drought periods as dormant seeds (seed bank), and as a consequence, the numbers of above-ground plants at any given time is only a limited temporal indication of population size (White 2004). It is not known how long *A. l.* var. *coachellae* seeds may remain viable, but studies on another *Astragalus lentiginosus* variety (var. *micans*) demonstrate that buried seeds may remain viable for at least eight years (Pavlik and Barbour 1986). Therefore, we also considered areas as essential where suitable habitat did not contain above-ground individuals, but may contain seed banks and dormant root crowns necessary for the survival and recovery of *A. l.* var. *coachellae*.

As stated earlier, the sand transport systems are very important for sustaining the various types of sandy habitats required by *Astragalus lentiginosus* var. *coachellae* in the Coachella Valley. The eolian sands in the valleys originate in the drainage basins in the surrounding mountains. Major precipitation and flooding episodes erode sediment from the hillslopes and carry it downstream through the fluvial systems. Fine-grained sediments are deposited in either bajadas (alluvial fans) or depositional areas that form the supply of sand for the eolian sand transport system. We have identified but have not at this time proposed for designation as critical habitat major channels (> 15.24 m (50 ft) in width) in the fluvial systems from mountain watersheds surrounding the Coachella Valley into the valley floors. The width of the channels selected for identification as possible critical habitat include only major

channels and not all minor tributaries in the drainages. The identified but not proposed areas also include bajadas and depositional areas where channels deposit sands for the eolian sand-transport system.

Habitat eligible for designation was mapped using GIS and refined using topographical and aerial map coverages. To accomplish this, we first identified and mapped areas of suitable habitat supporting *Astragalus lentiginosus* var. *coachellae* that contained the primary constituent elements and belonged to one of three major sand transport systems (San Gorgonio and Whitewater River system, Mission creek/Morongo Wash system, and the Indio Hills/Thousand Palms system) in the Coachella Valley; these systems support a majority of *Astragalus lentiginosus* var. *coachellae*'s population. We determined eligible habitat as consisting of large contiguous areas of suitable habitat as well as small intervening areas of unsuitable habitat for maintenance of sand movement between areas of suitable habitat. Some outlying areas of suitable habitat were not included because they were either too distant from other large areas of suitable habitat or were isolated by development. We also decided that suitable habitat outside of the preferred alternative reserve design for the draft Coachella Valley MSHCP was not necessary to this designation since adequate areas for conservation are generally being proposed within the MSHCP's reserve system.

Next, based on studies on the geomorphological processes of sediment movement in the Coachella Valley by Lancaster (1993) and Griffith *et al.* (2002), we identified and mapped drainage basins that provide sediment for the three major sand transport systems in the Coachella Valley. Based on Griffith *et al.* (2002), the drainages in eastern San Bernardino, western Little San Bernardino Mountains, northern San Jacinto Mountains, and Indio Hills, that contribute sediment to the Coachella Valley include the San Gorgonio River, Whitewater River, Snow Canyon, San Jacinto 1 and 2, Stubbes Canyon, Cottonwood Canyon, Garnet Wash, Mission Creek, Dry Morongo, lower Little Morongo Creek, lower Big Morongo south of Morongo Valley, and drainages in the southern flank of Indio Hills west of Thousand Palms Canyon. While Griffiths *et al.* (2002) identified whole drainage areas of the above-mentioned washes that contribute sediment to depositional areas on the floor of the Coachella Valley, we only included the stream channels themselves. Thus, we were

able to substantially decrease the amount of land identified for possible addition to the critical habitat designation. We are also considering major rivers and tributaries draining the surrounding mountains and hills, bajadas, and depositional areas in the floodplains where the fluvial channels deposit sediment. The combined extent of these areas are shown on the maps accompanying this proposal as "unoccupied habitat:sand source".

One of the Coachella Valley Association of Government's (CVAG) objectives for conserving *A. l. var. coachellae* in their draft Coachella Valley MSHCP is to protect ecological processes, including sand source/transport systems and biological corridors and linkages among conserved populations for seed dispersal and shifts in species distribution over time (CVMC 2004). The draft MSHCP included areas containing these ecological processes and biological corridors in their preferred alternative reserve design. Essential areas proposed for critical habitat include the same areas mentioned above as well as several other drainages that are beyond the draft MSHCP planning area boundary.

After creating a GIS coverage of the essential areas, we legally described the boundaries of the proposed critical habitat, areas proposed for exclusion, and the unoccupied habitat identified for possible inclusion using a 100-meter grid to establish Universal Transverse Mercator (UTM) North American Datum 27.

Whenever possible, areas not containing the primary constituent elements, such as developed areas, were not included in the boundaries of proposed critical habitat. However, we did not map critical habitat in enough detail to exclude all developed areas, or other areas unlikely to contain the primary constituent elements essential for the conservation of *Astragalus lentiginosus var. coachellae*. Areas within the boundaries of the mapped units, such as buildings, roads, parking lots, railroad tracks, canals, and other paved areas, are excluded from the designation by text, but these exclusions do not show on the maps because their scale is too small.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas determined to have primary constituent elements may require special management

considerations or protections. As we undertake the process of designating critical habitat for a species, we first evaluate lands defined by those physical and biological features essential to the conservation of the species for inclusion in the designation pursuant to section 3(5)(A) of the Act. Secondly, we evaluate lands defined by those features to assess whether they may require special management considerations or protection. Threats to those primary constituent elements are caused by the direct and indirect effects of urban development, golf course construction, exotic plant species, energy projects, and OHV impacts.

On private lands, urban and golf course developments destroy plants and occupied habitat directly. Large housing and golf course developments may also affect the localized wind and flooding regimes by reducing wind movement by the structures and landscaping and by changing the flooding and drainage patterns. Occupied habitats downstream and downwind of these developments, dependent upon the continuous supply of loose unconsolidated sands for their long-term existence, may be degraded by the alteration, blockage, and reduction in their supply of sand. Threats to the species may occur from urban developments that are not designed to reduce direct impacts to *Astragalus lentiginosus var. coachellae* and do not allow sand transport to occupied habitats downstream and downwind from these projects.

On both private and public lands, invasive exotic plant species, such as Saharan mustard (*Brassica tournefortii*), Mediterranean grass (*Schismus barbatus*), and Russian thistle (*Salsola tragus*), out compete and displace *Astragalus lentiginosus var. coachellae* and stabilize loose sediments and thus reduce transport of sediment to downwind habitats occupied by this species. Dense populations of Saharan mustard have recently invaded the Snow Creek area, which stabilizes the soils and thus reduces eolian sand transport to downwind depositional areas. The dense numbers of mustard may also compete with *A. l. var. coachellae* for limited resources, such as water. Russian thistle is also thought to stabilize soils as well as compete with *A. l. var. coachellae* for limited resources. Mediterranean grasses have been a problem in the Coachella Valley because they grow on loose sandy soils, which eventually causes stabilization of the soil and a degradation of suitable

habitat, as well as possibly out competing *A. l. var. coachellae* for limited resources. The survival of *A. l. var. coachellae* is threatened by these invasive species.

On both private and public lands, unauthorized OHV use may destroy plants and occupied habitats directly. The *A. l. var. coachellae* is threatened by lack of law enforcement patrols which could reduce unauthorized OHV use on private lands occupied by this plant and to direct OHV use to areas approved for this recreation activity.

On public lands, the construction and operation of sand and gravel mining, dams, and percolation ponds can directly impact plants and occupied habitat and decrease the amount of fluvial transported sediments to deposition areas downstream occupied habitats. For example, the percolation ponds constructed on Bureau of Land Management areas resulted in the direct loss of plants and occupied habitat and may have altered the transport of sand to downstream occupied habitats. Threats to the species are the lack of project design and operation of sand and gravel mining, dams, and percolation ponds to reduce direct impacts to *Astragalus lentiginosus var. coachellae* and that reduce sand transport to occupied habitats downstream and downwind from these facilities.

Proposed Critical Habitat Designation

We determined that approximately 20559 ac (8320 ha) of eligible occupied habitat exists for *Astragalus lentiginosus var. coachellae* in San Bernardino and Riverside Counties, California (Table 1). We are proposing a designation of 3583 ac (1450 ha) in three units as critical habitat for *A. l. var. coachellae* (Table 2). Eligible occupied habitat in Riverside County is being excluded from the proposed critical habitat designation (See Exclusions Under Section 4(b)(2) of the Act for a detailed discussion below.). The proposed critical habitat designation described below constitutes our best assessment of the areas occupied by *A. l. var. coachellae* with primary constituent elements that may require special management or protection. The three units proposed for designation as critical habitat are: (1) Whitewater River System, (2) Mission Creek and Morongo Wash System, and (3) Thousand Palms System.

TABLE 1.—AREAS DETERMINED TO BE ESSENTIAL FOR *ASTRAGALUS LENTIGINOSUS* VAR. *COACHELLAE* (COACHELLA VALLEY MILK-VETCH) AND THE AREAS PROPOSED FOR EXCLUSION FROM THE FINAL CRITICAL HABITAT DESIGNATION.

Critical habitat unit	Area determined to be essential (Ac/Ha)	Area proposed for exclusion from the proposed critical habitat designation (Ac/Ha)
1. Whitewater River System	9,625 ac (3,895 ha)	6,704 ac (2,713 ha)
2. Mission Creek/Morongo Wash System	5,834 ac (2,361 ha)	5,229 ac (2,116 ha)
3. Thousand Palms System	5,101 ac (2,064 ha)	5,043 ac (2,041 ha)
Total	20,559 ac (8,320 ha)	16,976 ac (6,870 ha)

TABLE 2.—CRITICAL HABITAT UNITS PROPOSED FOR *ASTRAGALUS LENTIGINOSUS* VAR. *COACHELLAE* (COACHELLA VALLEY MILK-VETCH) BY COUNTY AND LAND OWNERSHIP.

Critical habitat unit	County	BLM	FWS	State lands commission	Private	Total
1. Whitewater River System	Riverside, San Bernardino ...	2,537 ac (986 ha)	0 ac (0 ha)	32 ac (13 ha)	452 ac (183 ha)	2,921 ac (1,182 ha)
2. Mission Creek and Morongo Wash System.	Riverside, San Bernardino ...	415 ac (168 ha)	0 ac (0 ha)	0 ac (0 ha)	190 ac (77 ha)	605 ac (245 ha)
3. Thousand Palms System	Riverside	24 ac (10 ha)	32 ac (12 ha)	1 ac (1 ha)	0 ac (0 ha)	57 ac (23 ha)
Total .....	.....	2,876 ac (1,164 ha)	32 ac (12 ha)	33 ac (14 ha)	643 ac (260 ha)	3,583 ac (1,450 ha)

We present brief descriptions of all units, and reasons why their primary constituent elements may be in need of special management or protection, below.

Unit 1: Whitewater River Unit, Riverside County, California

Unit 1 is 2921 ac (1182 ha) in size and includes the physical and biological components necessary for the conservation of *Astragalus lentiginosus* var. *coachellae* and require special management considerations. The Whitewater Unit is comprised of Bureau of Land Management (BLM) and State Commission lands between just east of Cabezon, California in the San Geronio Pass to Palm Drive, south of Interstate Highway 10. This Unit is essential to the conservation of the species because it is part of a complete sand transport system for the Whitewater River System that is occupied by *A. l.* var. *coachellae*. Fluvial sediments from these drainages are transported downstream in flood events into either the San Geronio or Whitewater River and are then deposited in the Whitewater River fluvial deposition zones on both sides of Indian Avenue. Strong westerly and northwesterly winds funneling through the San Geronio Pass transport eolian sands from these fluvial depositional zones along the Whitewater River sand

transport corridor. Expansion of the Coachella Valley downwind results in a rapid decrease of wind energy toward Indio (Sharp and Saunders 1978), which results in deposition of eolian sands. Historically, the eolian depositional area was east of Palm Springs in an area called the Big Dune. Recent development has reduced or eliminated the natural transport of eolian sands into Big Dune and as a consequence much of these sands are now deposited on the windward side of this development south of Interstate 10. This sand transport system contains records of several large populations of *A. l.* var. *coachellae* in the Snow Creek area and Whitewater River floodplain. Because of the ephemeral nature of the sandy habitats in the Coachella Valley and given that there is little known about which sandy habitats are most suitable for the taxon, protecting the wide variety of sandy substrates in this unit is important for ensuring the long-term persistence and recovery of *A. l.* var. *coachellae*. We considered these other parts of the sand transport system as essential, but excluded them from this proposed rule because they are within the Coachella Valley MSHCP preferred alternative reserve design on lands that are being conserved by Permittees to the MSHCP (see Discussion in Relationship of Critical Habitat to the pending

Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP).

Unit 1 contains all of the primary constituent elements described in the Primary Constituents Element section above, including areas that receive sands from source/transport areas, which include the following: Unconsolidated sands that originate from rivers and tributaries in the San Bernardino and San Jacinto Mountains (PCE number 1); unconsolidated sands that originate from sand deposited on the alluvial fans and floodplains of the San Bernardino and San Jacinto Mountains (PCE number 2); suitable flooding regimes to transport unconsolidated sands from rivers and tributaries to the alluvial fans and floodplains of the San Bernardino and San Jacinto Mountains (PCE number 3); suitable wind regimes to transport unconsolidated sands deposited on the alluvial fans and floodplains of the San Bernardino and San Jacinto Mountains to the eolian depositional areas (PCE number 4); and eolian sands on active, stabilized, and shielded sand dunes or fields, and sandy alluvial sites in washes within the San Geronio/Whitewater River eolian sand transport system (PCE number 5).

The primary constituent elements found in Unit 1 may be in need of special management or protection

because the reduction or loss of the transport of eolian sand, which maintains suitable habitat for *Astragalus lentiginosus* var. *coachellae* and the invasion of exotic weeds. There are already obstructions to sand transport within this unit, such as the percolation ponds located in the Whitewater River. The Whitewater River fluvial depositional area has been reduced by nearly 50 percent by the percolation ponds along the south edge of the river (Griffiths *et al.* 2002). The percolation ponds trap fluvial sediment that would become available for the eolian transport system. Special management may be required to alter the position of these percolation ponds so that more fluvial sediment is allowed to pass down the river channel into the depositional area (Griffiths *et al.* 2002). This unit is also threatened by obstructions in major channels (*i.e.*, sand mining operations) that transport fluvial sediment downstream to fluvial depositional areas. This unit is also threatened by the effects of invasive weeds, such as *Brassica tournefortii* (Saharan mustard) and *Shismus barbatus* (Mediterranean grass) to *A. l. var. coachellae* (63 FR 53596, October 6, 1998). Saharan mustard and Mediterranean grasses are extremely dense in the western portion of this unit, particularly around the Snow Creek area, and there are concerns that this dense population of weeds may out compete *A. l. var. coachellae* for limited resources.

Unit 2: Mission Creek and Morongo Wash Unit, Riverside County, California

Unit 2 is 605 ac (245 ha) in size and includes the full physical and biological components necessary for the conservation of *Astragalus lentiginosus* var. *coachellae* and supports habitats that contain the physical and biological features essential to the conservation of the species and require special management considerations. The Mission Creek and Morongo Wash Unit is BLM lands north of Interstate Highway 10 between Palm Drive and Date Palm Drive, south of 20th Avenue. This Unit is essential to the conservation of the species because it is part of a complete sand transport system for the Mission Creek/Morongo Wash System that is occupied by *A. l. var. coachellae*. Fluvial sediment from these drainages is transported downstream into the Mission Creek-Morongo Wash fluvial deposition zones between the west splay of Mission Creek and the east splay of Morongo Creek north of Interstate 10 and south of the Banning (San Andreas) Fault (Griffiths *et al.* 2002). Strong westerly and

northwesterly winds funneling through the San Gorgonio Pass transport eolian sands from these fluvial depositional zones across the sand transport corridor and into the aggradation areas in the Edom Hill/Willow Hole Reserve area. We considered these other parts of the sand transport system as essential, but excluded them from this proposed rule because they are within the Coachella Valley MSHCP preferred alternative reserve design on lands that are being conserved by Permittees to the MSHCP (see Discussion in Relationship of Critical Habitat to the pending Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP).

This unit provides habitat for several *A. l. var. coachellae* populations, such as a large population of nearly 1,000 plants recorded in 1982 (CVAG unpublished data 2004). This unit also contains the Edom Hill/Willow Hole Reserve area that protect significant habitat for *A. l. var. coachellae*.

Unit 2 contains all of the primary constituent elements described in the Primary Constituents Element section above, including areas that receive sands from source/transport areas, which include the following: Unconsolidated sands stored within rivers and tributaries in the San Bernardino and Little San Bernardino Mountains (PCE number 1); unconsolidated sands deposited on alluvial fans of the San Bernardino and Little San Bernardino (PCE number 2); suitable flooding regimes to transport unconsolidated sands from rivers and tributaries to the alluvial fans of the San Bernardino and Little San Bernardino Mountains which are then transported to eolian depositional areas (PCE number 3); suitable wind and flooding regimes to transport unconsolidated sands deposited on the alluvial fans of the San Bernardino and Little San Bernardino Mountains to the fluvial and eolian depositional areas (PCE number 4); and eolian sands on active, stabilized, and shielded sand dunes or fields, and sandy alluvial sites in washes within the Mission Creek/Morongo Wash eolian sand transport system (PCE number 5).

The primary constituent elements found in Unit 2 may be in need of special management or protection because Unit 2 is threatened by the loss of the transport of eolian sand to maintain suitable habitat for the plant. Exotic weeds are also invading areas of suitable habitat and are a threat to *Astragalus lentiginosus* var. *coachellae*. For further information on the threats to this species in Unit 2 see the final listing rule for *A. l. var. coachellae* (63 FR 53596, October 6, 1998).

Unit 3: Thousand Palms Unit, Riverside County, California

Unit 3 consists of 57 ac (23 ha) in size and includes some physical and biological components necessary for the conservation of *Astragalus lentiginosus* var. *coachellae* and supports habitats that contain the physical and biological features essential to the conservation of the species and require special management considerations. The Thousand Palms Unit is comprised of BLM lands in the Coachella Valley Preserve along Ramon Road. This Unit is essential to the conservation of the species because it is part of a complete sand transport system for the Coachella Valley Preserve that is occupied by *A. l. var. coachellae*. Fluvial sediment from the surrounding mountain drainages is transported downstream into the alluvial fans south of Indio Hills. Strong westerly and northwesterly winds transport eolian sands from these fluvial depositional zones across the sand transport corridor and into the aggradation areas in the Coachella Valley Preserve. We considered these other parts of the sand transport system as essential, but excluded them from this proposed rule because they are within the Coachella Valley MSHCP preferred alternative reserve design on lands that are being conserved by Permittees to the MSHCP (see Discussion in Relationship of Critical Habitat to the pending Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP).

The Coachella Valley Preserve was originally established to conserve the endangered fringe-toed lizard (*Uma inornata*) and includes Federal, State of California, and private lands. The Coachella Valley Preserve is managed to conserve sand-dependent species and the long-term viability of these lands for *A. l. var. coachellae* is dependent upon maintaining a functional sand transport system. Conserving a complete sand transport system increases the likelihood that fresh eolian and fluvial sands will be brought into areas of suitable habitat and create a variety of sandy habitats that support *A. l. var. coachellae*, such as sandy washes, dunes, and flats. Moreover, this unit is essential because it is located in the easternmost portion of *A. l. var. coachellae*'s range in the Coachella Valley. Maintaining the historical range with a distribution that is hydrologically independent and physically isolated from the other units will reduce the potential vulnerability and increase the ability of this species to recover from environmental fluctuations and catastrophic events that may occur

elsewhere within the range of this species. This unit is also part of a sand transport system that supports several large populations of *A. l. var. coachellae*, including two records in 1995 of approximately 300 plants (CVAG unpublished data 2004).

Unit 3 contains two of the primary constituent elements described in the Primary Constituents Element section above, including suitable flooding regimes to transport unconsolidated sands from rivers and tributaries to the alluvial fans of the Indio Hills which are then transported to the eolian depositional areas (PCE number 3); and sandy alluvial sites in washes within the Thousand Palms eolian sand transport system (PCE number 5).

The primary constituent elements found within Unit 3 may be in need of special management or protection because of potential threats to fluvial transport of sediment and the eolian sand transport corridor in the Thousand Palms area.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. We are currently reviewing the regulatory definition of adverse modification in relation to the conservation of the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory. If a species is listed or critical habitat is designated, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed

species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, the action agency ensures that the permitted actions do not destroy or adversely modify critical habitat.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. "Reasonable and prudent alternatives" are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate consultation on previously reviewed actions in instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinstatement of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain an opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

Activities on Federal lands that may affect *Astragalus lentiginos* var. *coachellae* or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the Army Corps under section 404 of the Clean Water Act, a

section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (e.g., Federal Highway Administration or Federal Emergency Management Agency funding), will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

To properly portray the effects of critical habitat designation, we must first compare the section 7 requirements for actions that may affect critical habitat with the requirements for actions that may affect a listed species. Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Actions likely to "jeopardize the continued existence" of a species are those that would appreciably reduce the likelihood of the species' survival and recovery. Actions likely to "destroy or adversely modify" critical habitat are those that would appreciably reduce the value of critical habitat to the listed species.

Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would often result in jeopardy to the species concerned when the area of the proposed action is occupied by the species concerned.

Federal agencies already consult with us on activities in areas currently occupied by the species to ensure that their actions do not jeopardize the continued existence of the species. These actions include, but are not limited to:

- (1) Activities that result in sediment from being transported downstream in stream channels, such as sand and gravel pits in stream channels;
- (2) Activities that divert, dam, or affect water flow;
- (3) Activities that block wind transport of eolian sands, such as development, planting of tamarisk rows;

(4) Activities that foster invasion of exotic weeds (e. g., roads, landscaping, soil disturbance) and fragmentation of habitat.

All three critical habitat units are known to be occupied by *Astragalus lentiginosus* var. *cochellae* (Bureau of Land Management, unpublished data 2001a). Federal agencies already consult with us on activities in areas currently occupied by the taxon or if the taxon may be affected by the action to ensure that their actions do not jeopardize the continued existence of the *A. l.* var. *cochellae*.

Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species.

In our critical habitat designations, we use provisions outlined in section 4(b)(2) of the Act to evaluate those specific areas that we are considering to propose as critical habitat as well as for those areas that are formally proposed for designation as critical habitat. Lands we have excluded pursuant to section 4(b)(2) include those covered by the following types of plans if they provide assurances that the conservation measures they outline will be implemented and effective: (1) Legally operative HCPs that cover the species, (2) draft HCPs that cover the species and have undergone public review and comment (i.e., pending HCPs), (3) Tribal conservation plans that cover the species, (4) State conservation plans that cover the species, and (5) National Wildlife Refuge System Comprehensive Conservation Plans. A summary of the exclusions proposed in this rule follow in Table 3.

TABLE 3.—APPROXIMATE ESSENTIAL HABITAT, EXCLUDED ESSENTIAL HABITAT, AND PROPOSED CRITICAL HABITAT (ACRES (AC); HECTARES (HA)) FOR *ASTRAGALUS LENTIGINOSUS* VAR. *COACHELLAE* IN SAN BERNARDINO AND RIVERSIDE COUNTIES, CALIFORNIA

Total essential habitat identified for <i>Astragalus lentiginosus</i> var. <i>cochellae</i> .	20,559 ac. (8,320 ha).
Essential habitat excluded from the proposed critical habitat designation pursuant to section 4(b)(2) of the Act: Draft Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP).	16,976 ac. (6,870 ha).
Total essential habitat proposed as critical habitat.	3,583 ac. (1,450 ha).

Relationship of Critical Habitat to Pending Habitat Conservation Plans and Exclusions Under 4(b)(2)

Section 4(b)(2) of the Act requires us to consider other relevant impacts, in addition to economic impacts, when designating critical habitat. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed wildlife species incidental to otherwise lawful activities. Development of an HCP is a prerequisite for the issuance of an incidental take permit pursuant to section 10(a)(1)(B) of the Act. An incidental take permit application must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the permitted incidental take.

HCPs vary in size and may provide for incidental take coverage and conservation management for one or many federally listed species. Additionally, more than one applicant may participate in the development and implementation of an HCP. Some areas occupied by *Astragalus lentiginosus* var. *cochellae* involve a very complex HCP that addresses multiple species, covers large areas, and is important to many participating permittees. Large regional HCPs expand upon the basic requirements set forth in section 10(a)(1)(B) of the Act because they reflect a voluntary, cooperative approach to large-scale habitat and species conservation planning. Many of the large regional HCPs in southern California have been, or are being, developed to provide for the conservation of numerous federally-listed species and unlisted sensitive species and the habitat that provides for their biological needs. These HCPs are designed to proactively implement

conservation actions to address future projects that are anticipated to occur within the planning area of the HCP. However, given the broad scope of these regional HCPs, not all projects envisioned to potentially occur may actually take place.

In the case of an approved regional HCP and accompanying IA (e.g., those sponsored by cities, counties, or other local jurisdictions) that provide for incidental take coverage for *Astragalus lentiginosus* var. *cochellae*, a primary goal of these regional plans is to provide for the protection and management of habitat essential for the species' conservation while directing development to other areas. The regional HCP development process provides an opportunity for more intensive data collection and analysis regarding particular habitat areas occupied by *A. l.* var. *cochellae*. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a system of interlinked habitat blocks that provide for its biological needs.

In developing critical habitat designations, the Service has analyzed habitat conservation planning efforts to determine if the benefits of excluding them from critical habitat outweigh the benefits of including them in designated critical habitat. In reviewing HCPs, the Service has assessed the potential impacts of critical habitat designation on lands covered by HCPs on future partnerships, the status of HCP efforts and progress made in developing and implementing such plans, and their relationship to the conservation of species. In certain circumstances, the Service has determined that an HCP not yet completed may be considered for exclusion from critical habitat designation pursuant to section 4(b)(2) of the Act. For example, the Service determined that exclusion of the draft Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) from critical habitat designation for vernal pool species was appropriate given the sustained progress and support for the plan of the participating jurisdictions (68 FR 46684, August 6, 2003).

Relationship of Critical Habitat to the Pending Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP)

The draft MSHCP has been in development from the mid-1990s to present, pursuant to an application to the Service for a Section 10(a)(1)(B) permit under the Act, under the

auspices of the following entities: Coachella Valley Association of Governments (CVAG); the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage; County of Riverside; U.S. Fish and Wildlife Service; California Department of Fish and Game; Bureau of Land Management; U.S. Forest Service; and the National Park Service, who signed a Memorandum of Understanding (Planning Agreement) to govern the preparation of the MSHCP. Subsequently, California Department of Transportation, Coachella Valley Water District, Imperial Irrigation District, Riverside County Flood Control and Water Conservation District, Riverside County Regional Parks and Open Space District, Riverside County Waste Management District, California Department of Parks and Recreation, and Coachella Valley Mountains Conservancy also decided to participate in preparation of the Plan. The parties later amended the Planning Agreement to also address the requirements of the Natural Community Conservation Planning (NCCP) Act and prepare a NCCP pursuant to California Fish and Game Code Section 2810. The MSHCP/NCCP area encompasses approximately 1.2 million ac (485,623 ha), of which 69,000 ac (27,923 ha) is owned by an Indian Reservations and are not included in the MSHCP/NCCP, leaving a total of 1.1 million ac (445,154 ha) addressed by the MSHCP/NCCP in Riverside County.

CVAG estimates there are 36,398 ac (14,730 ha) of habitat for *Astragalus lentiginosus* var. *coachellae* habitat in the MSHCP/NCCP area. The draft MSHCP/NCCP proposes to conserve 19,321 ac (7,819 ha) of modeled *A. l.* var. *coachellae* habitat as part of the preferred alternative reserve design that includes large areas of suitable habitat and other important conservation areas, such as sand sources and sand transport corridors. Core habitat areas include: Snow Creek/Windy Point Conservation Area; Whitewater Floodplain Conservation Area; Willow Hole Conservation Area; and Thousand Palms Conservation Area. Other goals of this draft MSHCP/NCCP include: (1) Protecting other important conservation areas to allow for population fluctuation and promote genetic diversity; (2) protecting essential ecological processes, such as sand transport systems, necessary to maintain core habitat and other conserved areas; (3) maintaining biological corridors and linkages among all conserved

populations to the maximum extent feasible; and (4) ensuring conservation of habitat quality through biological monitoring and adaptive management actions.

The draft MSHCP/NCCP states that, although the percentage of modeled *Astragalus lentiginosus* var. *coachellae* habitat that could be lost to development appears to be substantial, the actual reduction in habitat value is expected to be considerably less severe to the species than indicated by raw acreage numbers because: (1) Conserved habitat areas are large enough to maintain self-sustaining populations of *A. l.* var. *coachellae* and incorporate key habitat elements for the species; (2) potential adverse effects within conservation areas would not eliminate or significantly impact any core populations; (3) potential development would not adversely impact the essential ecological processes (e.g., sand source and transport system) needed to maintain currently viable habitat, and (4) lands in the MSHCP/NCCP reserve system would be managed and monitored (CVMC 2004).

CVAG has demonstrated a sustained commitment to develop the MSHCP to comply with section 10(a)(1)(B) of the Act, the California Endangered Species Act, and the State's NCCP program. On November 5, 2004, the Service published a Notice of Availability of a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the MSHCP.

Although not yet completed and implemented, CVAG has made significant progress in the development of its MSHCP to meet the requirements outlined in section 10(a)(1)(B) of the Act. In light of the Service's confidence that CVAG will reach a successful conclusion to its MSHCP development process, we are excluding lands within their preferred alternative reserve design from proposed critical habitat designation for *Astragalus lentiginosus* var. *coachellae*.

(1) Benefits of Inclusion

As stated previously, the benefits of designating critical habitat on lands within the boundaries of approved HCPs are normally small. Where HCPs are in place that include coverage for *Astragalus lentiginosus* var. *coachellae*, our experience has shown that the HCPs and their Implementing Agreements include management measures and protections designed to protect, restore, enhance, manage, and monitor habitat that benefit the long-term protection of the species. The principal benefit of designating critical habitat is that projects carried out, authorized, or

funded by Federal agencies that may affect a listed species require the action agency to consult with the Service to ensure such activities do not destroy or adversely modify designated critical habitat. In the case of the CVAG, their MSHCP will be analyzed by the Service to determine the effects of the MSHCP on the species for which the participants are seeking incidental take permits. The MSHCP currently under review by the Service reflects revisions made to the plan based on comments and input from the Service and California Department of Fish and Game.

(2) Benefits of Exclusion

Excluding lands within CVAG's MSHCP preferred alternative reserve design area from critical habitat designation will enhance our ability to work with them in the spirit of cooperation and partnership. A more detailed discussion concerning our rationale for excluding HCPs from critical habitat designation is outlined under the previous section. Further, the Service believes the analysis conducted to evaluate the benefits of excluding approved HCPs from critical habitat designation is applicable and appropriate to apply to CVAG's MSHCP.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

In general, we find that the benefits of critical habitat designation on lands within pending HCPs that cover those species are small while the benefits of excluding such lands from designation of critical habitat are substantial. After weighing the small benefits of including lands within the MSHCP area against the much greater benefits derived from exclusion, we have excluded the preferred alternative reserve design in CVAG's MSHCP from proposed critical habitat. Areas within the MSHCP planning area that are still included as proposed critical habitat are lands owned by public agencies that are not signatories to the MSHCP (i.e., U.S. Forest Service and Bureau of Land Management); however, these agencies are contributing to the MSHCP's reserve design. We have requested public comments on the potential exclusion of Federal lands (e.g., Bureau of Land Management and the U.S. Forest Service) from critical habitat based on their participation in and contribution to the conservation of *Astragalus lentiginosus* var. *coachellae* under the proposed Coachella Valley Multiple Species Habitat Conservation Plan.

Unoccupied Areas Identified for Possible Inclusion

The Act has different standards for designation of critical habitat in occupied and unoccupied habitat. For areas occupied by the species, these are: (i) The specific areas on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection. For areas not occupied, a determination is required that the entire area is essential for the conservation of the species before it can be included in critical habitat. Congress has also cautioned the Service to be "exceedingly circumspect" in designating unoccupied habitat.

This presents a highly unusual situation with respect to critical habitat for *Astragalus lentiginosus* var. *coachellae*, in that the species depends on sand being continually replenished from outside the areas it occupies, yet Congress has directed us to be exceedingly circumspect in including unoccupied areas in critical habitat designations. We are accordingly identifying areas which serve as a source for this sand and requesting comment on whether they should be included in the designation. Aspects of the situation upon which we seek comment include whether all, only a portion, or none of the areas identified below are needed to ensure sufficient sand supplies to maintain occupied habitat in its current condition, whether the draft CVAG MSHCP will provide for sand flow sufficient to maintain the species, and whether there are threats to the sand source areas that would be addressed by designating them as critical habitat.

The identified areas are:

Possible Addition to Unit 1

Unit 1 is dependent on the largest sand transport system where *Astragalus lentiginosus* var. *coachellae* exists. This large sand transport system contains several mountain drainages in the San Bernardino and San Jacinto mountains that are essential for providing sediment to several large populations of *A. l.* var. *coachellae* in the Snow Creek area and Whitewater River floodplain. Protecting the wide variety of physical and ecological features of this unit is important for ensuring the long-term persistence and recovery of *A. l.* var. *coachellae*.

The Whitewater River System begins in the mountain drainages in eastern San Bernardino and northern San Jacinto Mountains, which includes the San Gorgonio River, Whitewater River,

Snow Canyon, San Jacinto Canyons 1 and 2, Stubbes Canyon, Cottonwood Canyon, and Garnet Wash (Griffiths *et al.* 2002). Major channels (>15.24 m (50 ft) in width) within each of these drainage areas were determined as being important to the conservation of the species. The San Gorgonio and Whitewater River systems constitute the primary sediment sources within the Whitewater/San Gorgonio River depositional area, contributing a total of about 76% (Griffiths *et al.* 2002). Snow Canyon, San Jacinto Canyons 1 and 2, Stubbes Canyon, and Garnet Wash contribute a total of about 19% of the sediment within the Whitewater/San Gorgonio River system (Griffiths *et al.* 2002). We are seeking public comment on the importance of these and smaller drainages to overall sediment transport to the Coachella Valley.

Possible Addition to Unit 2

Unit 2 is dependent upon an important sand transport system which is largely intact and sandy habitats, including active and stabilized sand dunes and fields, and alluvial sand deposits in washes are generally not shielded or blocked by upstream development. The Mission Creek and Morongo Wash System begins in the mountain drainages in the eastern San Bernardino and Little San Bernardino Mountains, including Mission Creek, Dry Morongo, lower Little Morongo Creek, lower Big Morongo south of Morongo Valley, and Long Canyon (Griffiths *et al.* 2002). Major channels (>15.24 m (50 ft) in width) within each of these drainage areas, with the exception of Long Canyon, were delineated as being essential to the conservation of the species. The depositional area in Long Canyon has been significantly reduced due to development and was therefore not considered essential for sand transport. Mission Creek and Little Morongo Creek contribute a total of about 76% of the sediment within the Mission/Morongo depositional area (Griffiths *et al.* 2002). Big Morongo Creek contributes about 11% of the sediment to the Mission/Morongo depositional area (Griffiths *et al.* 2002). We are seeking public comment on the importance of this smaller drainage to overall sediment transport to the Coachella Valley.

Possible Addition to Unit 3

Unit 3 is dependent upon an important sand transport system which is largely intact and sandy habitats, including active and stabilized sand dunes and fields, and alluvial sand deposits in washes are generally not shielded or blocked by upstream

development. The Coachella Valley Preserve System begins in the mountain drainages in the Indio Hills Indio Hills west of Thousand Palms Canyon. Major channels (> 15.24 m (50 ft) in width) within each of these drainage areas were delineated as being essential to the conservation of the species. We are seeking public comment on the importance of this smaller drainage to overall sediment transport to the Coachella Valley.

Relationship of Unoccupied Areas Identified for Possible Inclusion to Morongo Indian Reservation

Possible additions to Unit 1 include parts of the Morongo Indian Reservation located on stream and river channels in the San Gorgonio River basin containing unconsolidated sands that maintain downstream areas of suitable habitat that are occupied by *Astragalus lentiginosus* var. *coachellae*. Section 4(b)(2) of the Act requires us to gather information regarding the designation of critical habitat and the effects thereof from all relevant sources, including Indian Pueblos and Tribes. In accordance with Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997); the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments," and Executive Order 13175, we recognize the need to consult with federally-recognized Tribes on a government-to-government basis when considering the designation of critical habitat in an area that may impact Tribal trust resources, tribally-owned fee lands, or the exercise of Tribal rights. Critical habitat shall not be designated in such areas unless it is determined essential to conserve a listed species. In designating critical habitat, we must evaluate and document the extent to which the conservation needs of the listed species can be achieved by limiting the designation to other lands. We are committed to working with the Morongo Band of Mission Indians on matters regarding critical habitat.

Economic Analysis

An analysis of the economic impacts of proposing critical habitat for this species is being prepared. We will announce the availability of the draft economic analysis in the **Federal Register** as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://Carlsbad.fws.gov>, or by contacting the Carlsbad Fish and

Wildlife Office directly (see ADDRESSES section).

Peer Review

In accordance with our joint policy published in the *Federal Register* on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the *Federal Register*. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be made in writing at least 15 days prior to the close of the public comment period. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings in the *Federal Register* and local newspapers at least 15 days prior to the first hearing.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, and so forth) aid or reduce its clarity? (4) Is the description of the notice in the SUPPLEMENTARY INFORMATION section of the preamble helpful in understanding the proposed rule? (5) What else could we do to make this proposed rule easier to understand?

Send a copy of any comments on how we could make this proposed rule easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW.,

Washington, DC 20240. You may e-mail your comments to this address: Exsec@ios.doi.gov.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but it is not anticipated to have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the *Federal Register*, the Office of Management and Budget (OMB) has not formally reviewed this rule. We are preparing a draft economic analysis of this proposed action, which will be available for public comment, to determine the economic consequences of designating the specific area as critical habitat. This economic analysis also will be used to determine compliance with Executive Order 12866, Regulatory Flexibility Act, Small Business Regulatory Enforcement Fairness Act, and Executive Order 12630.

Within these areas, the types of Federal actions or authorized activities that we have identified as potential concerns are listed above in the section on Section 7 Consultation. The availability of the draft economic analysis will be announced in the *Federal Register* and in local newspapers so that it is available for public review and comments. The draft economic analysis can be obtained from the Internet at <http://Carlsbad.fws.gov>, or by contacting the Carlsbad Fish and Wildlife Office directly (see ADDRESSES section).

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Our assessment of economic effect will be completed prior to final rulemaking based upon review of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This analysis is for the purposes of compliance with the Regulatory Flexibility Act and does not reflect our position on the type of economic analysis required by *New Mexico Cattle Growers Assn. v. U.S. Fish & Wildlife Service* 248 F.3d 1277 (10th Cir. 2001).

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment

a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, the Service lacks the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, the RFA finding is deferred until completion of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, the Service will publish a notice of availability of the draft economic analysis of the proposed designation and reopen the public comment period for the proposed designation for an additional 60 days. The Service will include with the notice of availability, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. The Service has concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that the Service makes a sufficiently informed determination based on adequate economic information and provides the necessary opportunity for public comment.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule to designate critical habitat for *Astragalus lentiginos* var. *coachellae* is not a significant regulatory action under Executive Order 12866, and it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a

significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501), the Service makes the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the

legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments. The term "small governmental jurisdiction" means governments of cities, counties, town, townships, villages, school districts, or special districts with a population of less than 50,000 (U.S.C. title 5, part 1, chapter 6, section 601[5]). The lands being proposed for designation as critical habitat for *Astragalus lentiginosus* var. *coachellae* are owned by Federal, State, and local government entities. None of these government entities fit the definition of "small governmental jurisdiction." As such, Small Government Agency Plan is not required. We will, however, further evaluate this issue as we conduct our economic analysis and revise this assessment if appropriate.

Takings

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating 31,270 ac (12,656 ha) of lands in Riverside and San Bernardino Counties, California, as critical habitat for *Astragalus lentiginosus* var. *coachellae* in a takings implication assessment. The takings implications assessment concludes that this proposed designation of critical habitat for *Astragalus lentiginosus* var. *coachellae* does not pose significant takings implications. However, we have not yet completed the economic analysis for this proposed rule. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation of critical

habitat in areas currently occupied by *Astragalus lentiginosus* var. *coachellae* imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of *Astragalus lentiginosus* var. *coachellae*.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. No Indian Reservation lands are essential for the conservation of *Astragalus lentiginosus* var. *coachellae*, however, there are unoccupied areas identified for possible inclusion on the Morongo Indian Reservation that support important stream channels providing unconsolidated sands that maintain suitable habitat for this taxon. Activities conducted or planned on those lands may adversely affect the conservation of the *A. l.* var. *coachellae*. Therefore, we

are committed to working on partnerships with the Morongo Tribe on matters regarding critical habitat. Information relative to Tribal lands is included in the critical habitat unit descriptions and under Relationship of Unoccupied Areas Identified for Possible Inclusion to Morongo Indian Reservation.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (see ADDRESSES section).

Author(s)

The primary authors of this package are the Carlsbad Fish and Wildlife Office staff.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.12(h), revise the entry in the table for *Astragalus lentiginosus* var. *coachellae* under "FLOWERING PLANTS," to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
<i>Astragalus lentiginosus</i> var. <i>coachellae</i> .	Coachella Valley milk-vetch.	U.S.A. (CA)	Fabaceae	E	647	17.96(a)	NA

3. Amend § 17.96(a), by adding critical habitat for "*Astragalus lentiginosus* var. *coachellae*" under "FLOWERING PLANTS" in the same alphabetical order as the species occurs in § 17.12(h) to read as follows:

§ 17.96 Critical habitat—plants.

(a) Flowering plants.

* * * * *

Family Fabaceae: *Astragalus lentiginosus* var. *coachellae* (Coachella Valley milk-vetch)

(1) Critical habitat units are depicted for Riverside and San Bernardino counties, California, on the maps below.

(2) The primary constituent elements of critical habitat for this species are the habitat components that provide:

(i) Unconsolidated sands stored within rivers and tributaries in the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills. The unconsolidated sands stored in these rivers and tributaries are not occupied by *A. l.* var. *coachellae*, but

represent the original source of the loose sand that form the sand dunes and flats that are occupied by this plant.

(ii) Unconsolidated sands deposited on the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills. The unconsolidated sands deposited on these alluvial fans are not occupied by *A. l.* var. *coachellae*; instead, these sands are transported by wind and water to form the fluvial and eolian sand dunes and flats that are occupied by this plant;

(iii) Suitable flooding regimes to transport unconsolidated sands from rivers and tributaries to the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills;

(iv) Suitable wind and flooding regimes to transport unconsolidated sands deposited on the alluvial fans of the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills to the fluvial and eolian

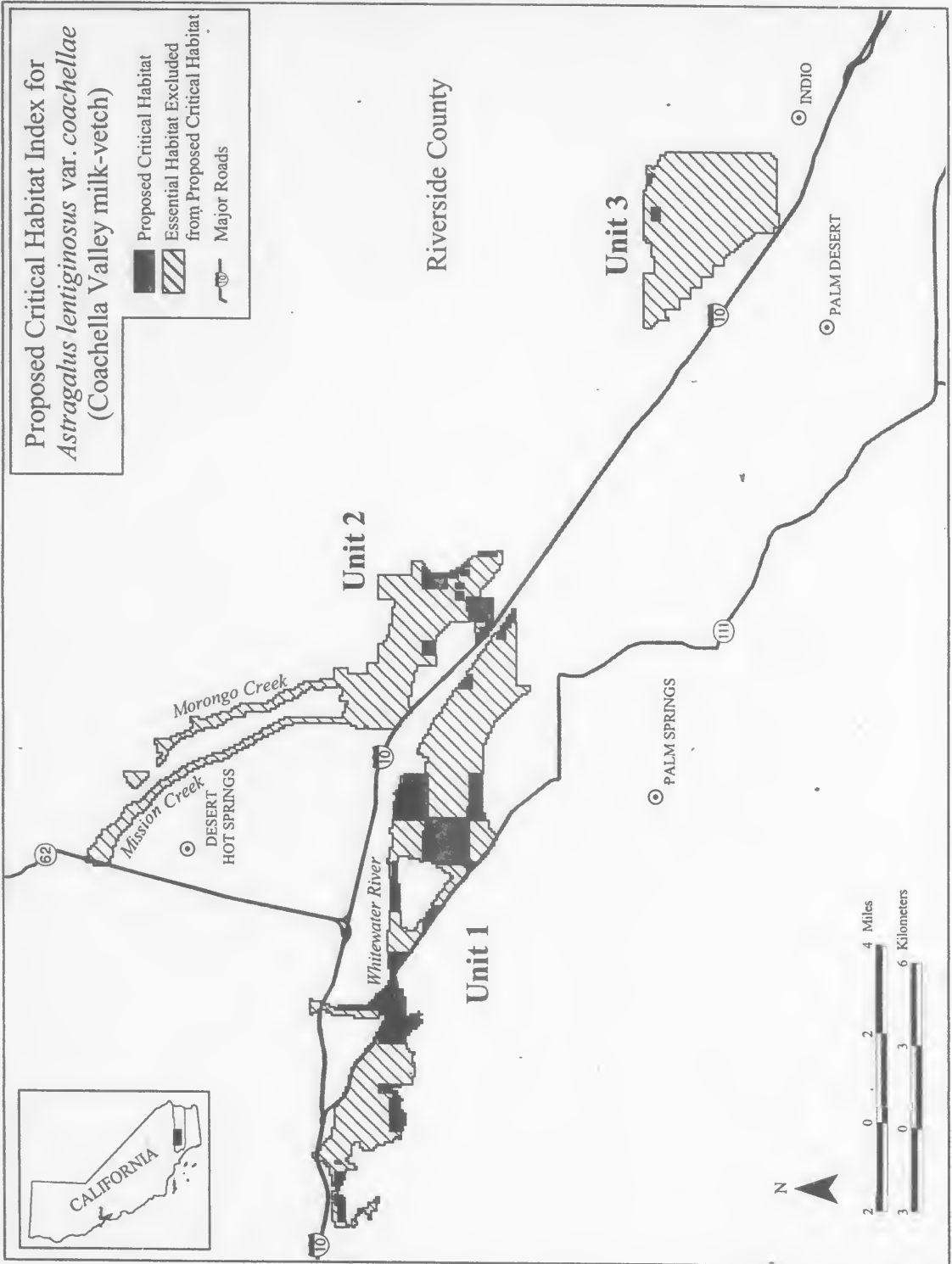
depositional areas, including areas west of EDOM Hill/Willow Hole reserve, areas west of Coachella Valley Preserve, and the Whitewater Floodplain area that are occupied by *A. l.* var. *coachellae*.

(v) Eolian sands on active, stabilized, and shielded sand dunes or fields, and sandy alluvial sites in washes within the San Geronio/Whitewater River eolian sand transport system, Mission Creek/Morongo Wash eolian sand transport system, and the Thousand Palms eolian sand transport system that are occupied by *A. l.* var. *coachellae*.

(3) Critical habitat does not include man-made structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, aqueducts, airports, and roads, and the land on which such structures are located.

(4) The index maps of *Astragalus lentiginosus* var. *coachellae* proposed critical habitat (Map 1) follows:

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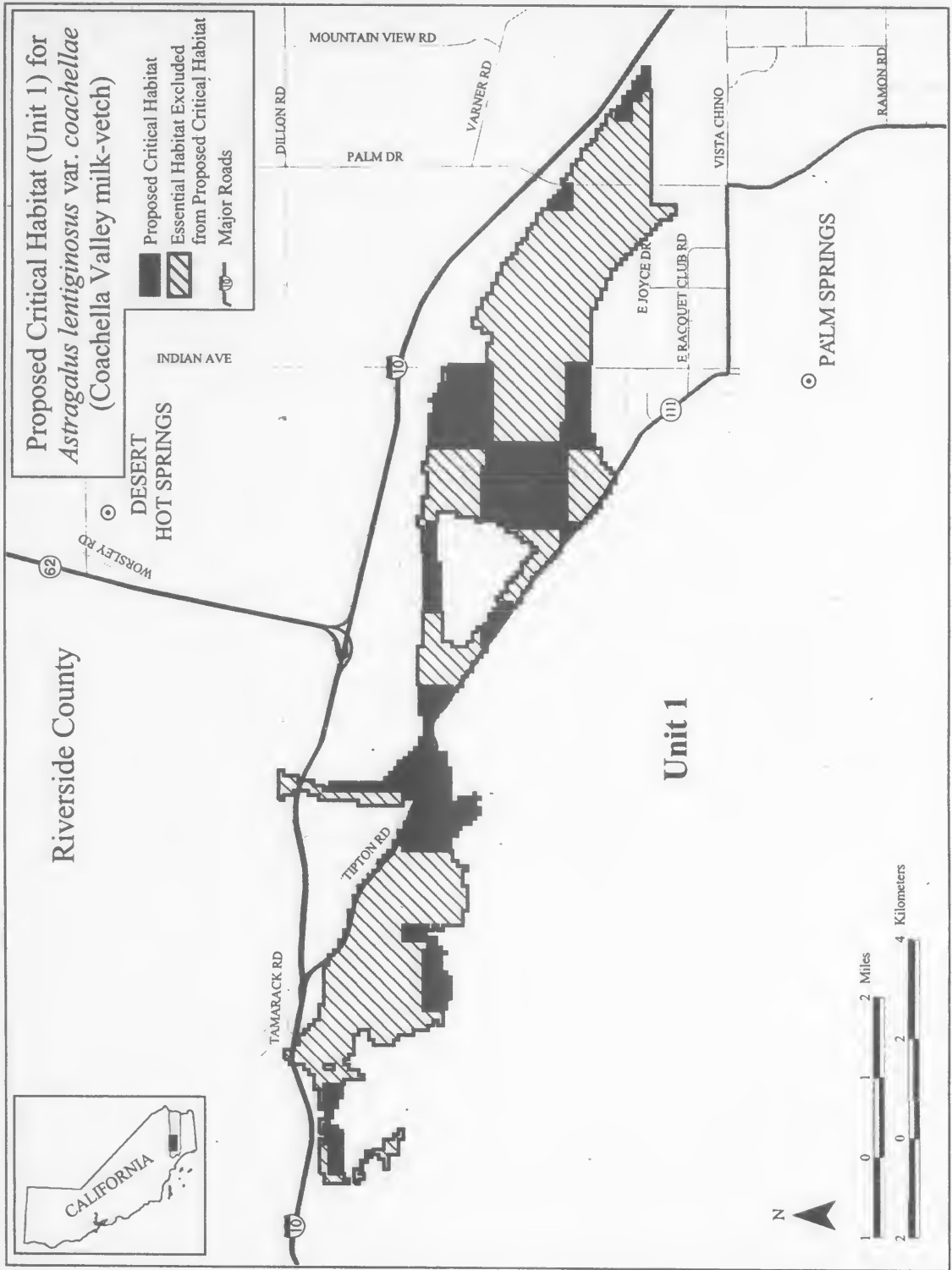
(5) Unit 1: Whitewater River Unit, Riverside and San Bernardino Counties, California.

(i) Map Unit 1: Whitewater River, Riverside County, California. From USGS 1:24,000 quadrangle maps Whitewater, Desert Hot Springs, Palm Springs and Cathedral City, California, lands bounded by the following UTM NAD27 coordinates (E, N): 526500, 3753000; 526900, 3753000; 526900, 3752700; 526800, 3752700; 526800, 3752600; 525900, 3752600; 525900, 3752900; 526500, 3752900; returning to 526500, 3753000; land bounded by 527000, 3753000; 527700, 3753000; 527700, 3752600; 527400, 3752600; 527400, 3752700; 527200, 3752700; 527200, 3752800; 527000, 3752800; returning to 527000, 3753000; land bounded by 533600, 3753000; 533700, 3753000; 533700, 3752900; 533800, 3752900; 533800, 3751800; 533900, 3751800; 533900, 3751700; 534000, 3751700; 534000, 3751600; 534100, 3751600; 534100, 3751400; 534300, 3751400; 534300, 3751300; 534400, 3751300; 534500, 3751200; 534500, 3751100; 534700, 3751100; 534700, 3751000; 535100, 3751000; 535100, 3751100; 535700, 3751100; 535700, 3750400; 535400, 3750400; 535400, 3750500; 535300, 3750500; 535300, 3750600; 535200, 3750600; 535200, 3750800; 534500, 3750800; 534500, 3750700; 534400, 3750700; 534400, 3750500; 534100, 3750500; 534100, 3750400; 533400, 3750400; 533400, 3750300; 533500, 3750300; 533500, 3750000; 533600, 3750000; 533600, 3749900; 533500, 3749900; 533500, 3749800; 533400, 3749800; 533400, 3749900; 533300,

3749900; 533300, 3749800; 533100, 3749800; 533100, 3749900; 533000, 3749900; 533000, 3750000; 532900, 3750000; 532900, 3750200; 532800, 3750200; 532800, 3750400; 532400, 3750400; 532400, 3751400; 533000, 3751400; 533000, 3751300; 533200, 3751300; 533200, 3751200; 533400, 3751200; 533400, 3751400; 533600, 3751400; returning to 533600, 3753000; land bounded by 525900, 3752300; 526200, 3752300; 526200, 3752200; 526400, 3752200; 526400, 3752000; 526200, 3752000; 526200, 3752100; 526100, 3752100; 526100, 3752200; 525900, 3752200; returning to 525900, 3752300; land bounded by 530600, 3751400; 530900, 3751400; 530900, 3750900; 530700, 3750900; 530700, 3750700; 530500, 3750700; 530500, 3750600; 530400, 3750600; 530400, 3750500; 530300, 3750500; 530300, 3750600; 530000, 3750600; 530000, 3750500; 529900, 3750500; 529900, 3750400; 529400, 3750400; 529400, 3750500; 529200, 3750500; 529200, 3751000; 530400, 3751000; 530400, 3750900; returning to 530600, 3751400; land bounded by 537200, 3751000; 538400, 3751000; 538400, 3750900; 539000, 3750900; 539000, 3750700; 538200, 3750700; 538200, 3750600; 537200, 3750600; returning to 537200, 3751000; land bounded by 540500, 3750900; 541200, 3750900; 541400, 3750900; 541400, 3750800; 541500, 3750800; 541500, 3750900; 541600, 3750800; 541600, 3750700; 541800, 3750700; 541800, 3750500; 542200, 3750500; 542200, 3749600; 540600, 3749600; 540600, 3748200; 541000, 3748200; 541000, 3748100; 542200,

3748100; 542200, 3747600; 540800, 3747600; 540800, 3747500; 540500, 3747500; 540500, 3748100; 539000, 3748100; 539000, 3747900; 538800, 3747900; 538800, 3748000; 538700, 3748000; 538700, 3748000; 538600, 3748100; 538600, 3748200; 538900, 3748200; 538900, 3749500; 539000, 3749500; 540100, 3749500; 540100, 3749700; 540500, 3749700; returning to 540500, 3750900; land bounded by 530800, 3750800; 530900, 3750800; 530900, 3750700; 530800, 3750700; 530800, 3750800; land bounded by 536500, 3749800; 537000, 3749800; 537000, 3749700; 537200, 3749700; 537200, 3749600; 537300, 3749600; 537300, 3749500; 537400, 3749500; 537400, 3749200; 537200, 3749200; 537000, 3749300; 537000, 3749400; 536900, 3749400; 536900, 3749500; 536700, 3749500; 536700, 3749600; 536600, 3749600; 536600, 3749700; 536500, 3749700; returning to 536500, 3749800; land bounded by 545300, 3748500; 545500, 3748500; 545500, 3748400; 545600, 3748400; 545600, 3748300; 545700, 3748300; 545700, 3748200; 545800, 3748200; 545800, 3748000; 545300, 3748000; returning to 545300, 3748500; and land bounded by 547100, 3747100; 547400, 3747100; 547400, 3747000; 547600, 3747000; 547600, 3746900; 547700, 3746900; 547700, 3746800; 547900, 3746800; 547900, 3746700; 548000, 3746700; 548000, 3746600; 548200, 3746600; 548200, 3746400; 547700, 3746400; 547500, 3746600; 547500, 3746800; 547100, 3746800; returning to 547100, 3747100.

(ii) Note: Unit 1 (Map 2) follows:



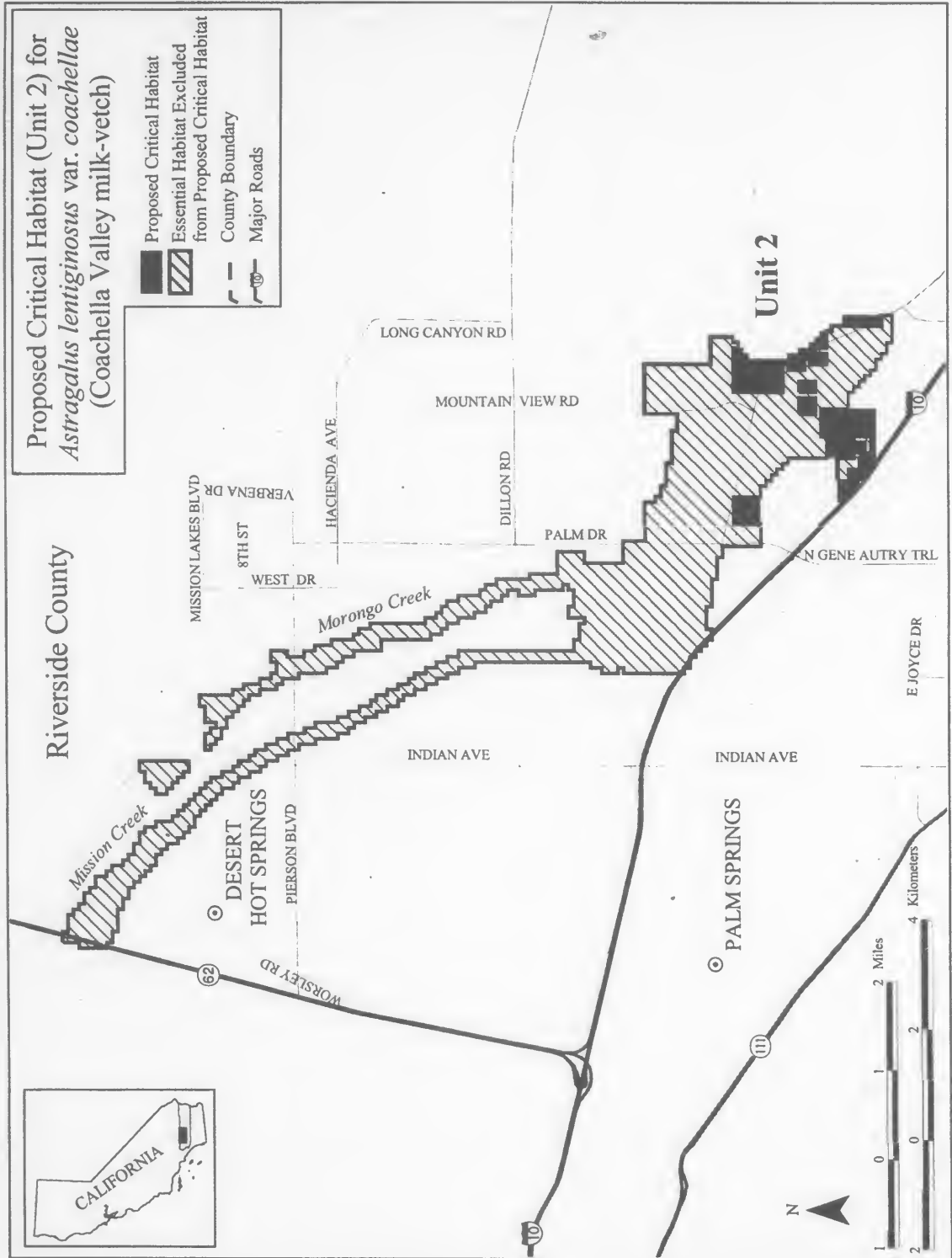
(6) Unit 2: Mission Creek and Morongo Wash Unit, Riverside and San Bernardino Counties, California.

(i) Map Unit 2: Mission Creek and Morongo Wash, Riverside County, California. From USGS 1:24,000 quadrangle maps Seven Palms Valley and Cathedral City, California, lands bounded by the following UTM NAD27 coordinates (E, N): 546500, 3749800; 547000, 3749800; 547000, 3749300; 546500, 3749300; returning to 546500, 3749800; and land bounded by 548900, 3749800; 549700, 3749800; 549700, 3749600; 549600, 3749600; 549600, 3749500; 549500, 3749500; 549500, 3748800; 549600, 3748800; 549600, 3748600; 549700, 3748600; 549700, 3748400; 549800, 3748400; 549800, 3748300; 549900, 3748300; 549900, 3748200; 550000, 3748200; 550000,

3748100; 549700, 3748100; 549700, 3748300; 549600, 3748300; 549600, 3748100; 549400, 3748100; 549400, 3748400; 549500, 3748400; 549500, 3748500; 549300, 3748500; 549300, 3748800; 549400, 3748800; 549400, 3748900; 548900, 3748900; returning to 548900, 3749800; land bounded by 548500, 3748600; 548800, 3748600; 548800, 3748300; 548500, 3748300; returning to 548500, 3748600; land bounded by 545300, 3748500; 545500, 3748500; 545500, 3748400; 545600, 3748400; 545600, 3748300; 545700, 3748300; 545700, 3748200; 545800, 3748200; 545800, 3748000; 545300, 3748000; returning to 545300, 3748500; land bounded by 550100,

3747800; 550300, 3747800; 550300, 3747100; 550100, 3747100; returning to 550100, 3747800; and land bounded by 548100, 3748200; 548600, 3748200; 548600, 3747200; 547500, 3747200; 547500, 3747300; 547400, 3747300; 547400, 3747400; 547300, 3747400; 547100, 3747500; 547100, 3747600; 547000, 3747600; 547000, 3747700; 546900, 3747700; 546900, 3747900; 547300, 3747900; 547500, 3747500; 547800, 3747500; 547800, 3747600; 547700, 3747600; returning to 548100, 3748200; excluding land bounded by 548000, 3747600; 548000, 3747400; 547800, 3747400; 547800, 3747300; 548100, 3747300; 548100, 3747600; 548000, 3747600.

(ii) Note: Unit 2 (Map 3) follows:



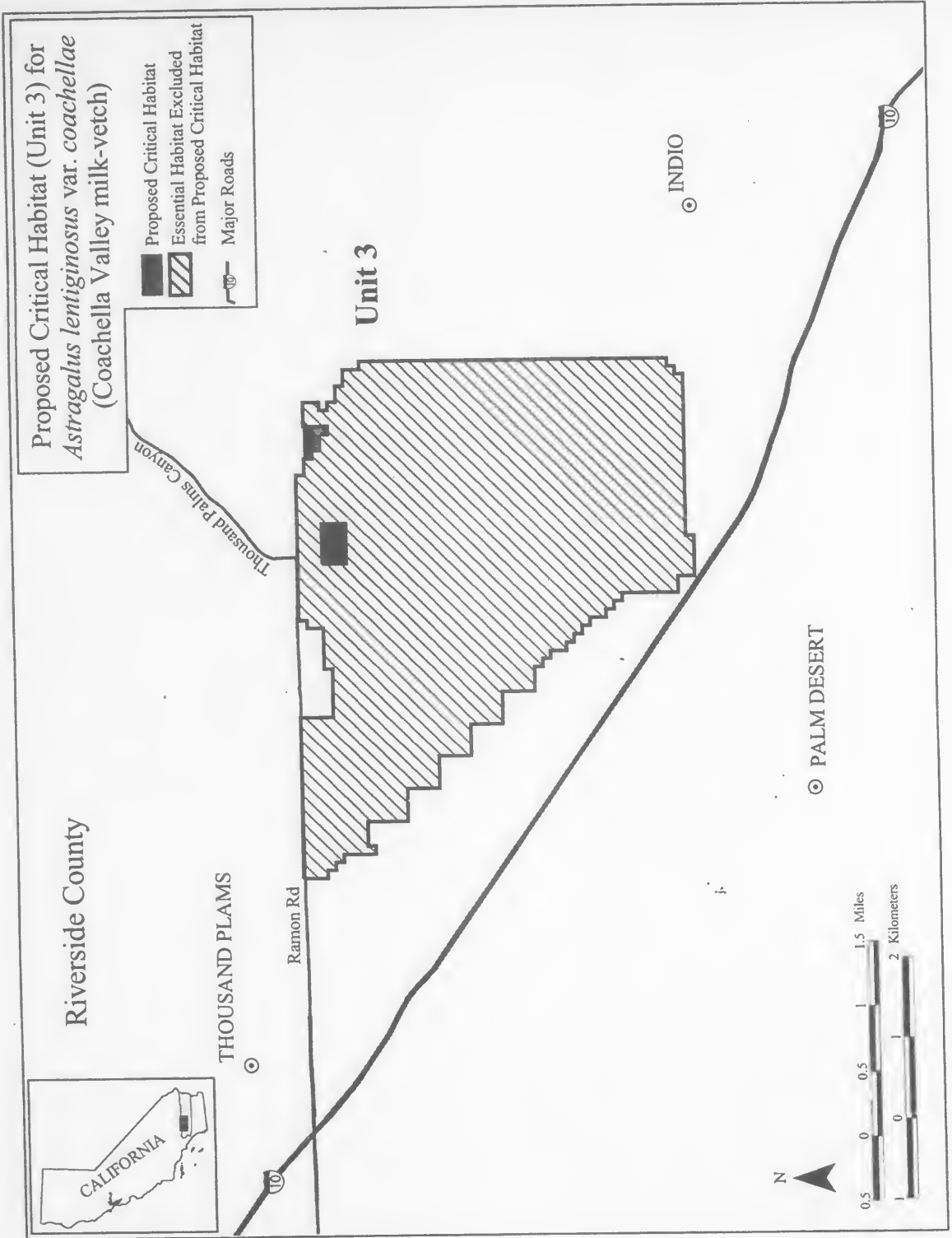
(7) Unit 3: Thousand Palms Unit, Riverside County, California.

(i) Map Unit 3: Thousand Palms, Riverside County, California. From USGS 1:24,000 quadrangle map Myoma, California, lands bounded by the

following UTM NAD27 coordinates (E, N): 563600, 3741700; 564000, 3741700; 564000, 3741400; 563900, 3741400; 563900, 3741500; 563700, 3741500; 563700, 3741600; 563600, 3741600;

returning to 563600, 3741700; and land bounded by 562300, 3741500; 562800, 3741500; 562800, 3741200; 562300, 3741200; returning to 562300, 3741500.

(ii) **Note:** Unit 3 (Map 4) follows:



* * * * *

Dated: November 30, 2004.

Craig Manson,

*Assistant Secretary for Fish and Wildlife and
Parks.*

[FR Doc. 04-26690 Filed 12-13-04; 8:45 am]

BILLING CODE 4310-55-C

Notices

Federal Register

Vol. 69, No. 239

Tuesday, December 14, 2004

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES

Meeting of the Advisory Committee

AGENCY: Joint Board for the Enrollment of Actuaries.

ACTION: Notice of Federal Advisory Committee meeting.

SUMMARY: The Executive Director of the Joint Board for the Enrollment of Actuaries gives notice of a meeting of the Advisory Committee on Actuarial Examinations (portions of which will be open to the public) in Washington, DC at the Office of Professional Responsibility on January 10 and 11, 2005.

DATES: Monday, January 10, 2005, from 9 a.m. to 5 p.m., and Tuesday, January 11, 2005, from 8:30 a.m. to 5 p.m.

ADDRESSES: The meeting will be held in Room 6505IR, Internal Revenue Service, 1111 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Patrick W. McDonough, Executive Director of the Joint Board for the Enrollment of Actuaries, 202-622-8225.

SUPPLEMENTARY INFORMATION: Notice is hereby given that the Advisory Committee on Actuarial Examinations will meet in Room 6505IR, 1111 Constitution Avenue, NW., Washington, DC on Monday, January 10, 2005, from 9 a.m. to 5 p.m., and Tuesday, January 11, 2005, from 8:30 a.m. to 5 p.m.

The purpose of the meeting is to discuss topics and questions which may be recommended for inclusion on future Joint Board examinations in actuarial mathematics and methodology referred to in 29 U.S.C. 1242(a)(1)(B) and to review the November 2004 Pension (EA-2A) Joint Board Examination in order to make recommendations relative thereto, including the minimum acceptable pass score. Topics for inclusion on the syllabus for the Joint Board's examination program for the

May 2005 Basic (EA-1) Examination and the May 2005 Pension (EA-2B) Examination will be discussed.

A determination has been made as required by section 10(d) of the Federal Advisory Committee Act, 5 U.S.C. App., that the portions of the meeting dealing with the discussion of questions which may appear on the Joint Board's examinations and review of the November 2004 Joint Board examination fall within the exceptions to the open meeting requirement set forth in 5 U.S.C. 552b(c)(9)(B), and that the public interest requires that such portions be closed to public participation.

The portion of the meeting dealing with the discussion of the other topics will commence at 1 p.m. on January 10 and will continue for as long as necessary to complete the discussion, but not beyond 3 p.m. Time permitting, after the close of this discussion by Committee members, interested persons may make statements germane to this subject. Persons wishing to make oral statements should notify the Executive Director in writing prior to the meeting in order to aid in scheduling the time available and should submit the written text, or at a minimum, an outline of comments they propose to make orally. Such comments will be limited to 10 minutes in length. All persons planning to attend the public session should notify the Executive Director in writing to obtain building entry. Notifications of intent to make an oral statement or to attend must be faxed, no later than December 31, 2004, to 202-622-8300, Attn: Executive Director. Any interested person also may file a written statement for consideration by the Joint Board and the Committee by sending it to the Executive Director: Joint Board for the Enrollment of Actuaries, c/o Internal Revenue Service, Attn: Executive Director SE:OPR, 1111 Constitution Avenue, NW., Washington, DC 20224.

Dated: December 7, 2004.

Patrick W. McDonough,
Executive Director, Joint Board for the Enrollment of Actuaries.

[FR Doc. 04-27372 Filed 12-13-04; 8:45 am]

BILLING CODE 4830-01-P

DEPARTMENT OF AGRICULTURE

Forest Service

Extension of Comment Period; Application for Transportation and Utility Systems and Facilities for the Village at Wolf Creek Draft Environmental Impact Statement

AGENCY: Forest Service, Rio Grande National Forest.

ACTION: Extension of comment period.

SUMMARY: The United States Department of Agriculture (USDA) Forest Service (USFS), Rio Grande National Forest (RGNF) announces an additional extension of the comment period for the *Application for Transportation and Utility Systems and Facilities for the Village at Wolf Creek Draft Environmental Impact Statement* (EIS). The comment period ends January 5, 2005.

FOR FURTHER INFORMATION CONTACT: Mr. Robert Dalrymple, Forest Planner, USDA-USFS, Rio Grande National Forest, (719) 852-5941.

Dated: December 6, 2004.

Peter L. Clark,
Forest Supervisor.

[FR Doc. 04-27342 Filed 12-13-04; 8:45 am]

BILLING CODE 3410-11-M

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Docket 57-2004]

Foreign-Trade Zone 222—Montgomery, AL; Application for Expansion

An application has been submitted to the Foreign-Trade Zones (FTZ) Board (the Board) by the Montgomery Area Chamber of Commerce, grantee of FTZ 222, requesting authority to expand its zone in Montgomery County, Alabama, adjacent to the Birmingham Customs port of entry. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Board (15 CFR part 400). It was formally filed on December 8, 2004.

FTZ 222 was approved on May 30, 1997 (Board Order 888, 62 FR 32290, 6/13/97). The general-purpose zone project currently consists of 2 sites

(5,725 acres) in the Montgomery County area: *Site 1* (5,170 acres)—Dannelly Field Airport Industrial Complex located on Interstate 65 on the south side of Montgomery (1,968 acres), the adjacent Interstate Enterprise Zone (3,024 acres), and the adjoining Catoma Industrial Park (178 acres); and, *Site 2* (555 acres)—Gunter Industrial Park located adjacent to Montgomery's Northern Bypass.

The applicant is now requesting authority to expand the general purpose zone to include two additional sites (1,412 acres) in Montgomery County: *Proposed Site 3* (1,044 acres)—Airport Industrial Commercial Park located on U.S. Highway 80; and, *Proposed Site 4* (368 acres)—Montgomery County Technology Park located on Interstate 85 east and north of existing *Site 1*. *Proposed Site 3* is currently being utilized by a variety of tenants for light manufacturing activities and has additional lots available for build-to-suit applications. *Proposed Site 4* is currently under development and will be zoned for manufacturing and warehousing activities. *Proposed Site 3* is primarily owned by Elias Industries, Inc., and *Proposed Site 4* is owned by the Montgomery County Commission. No specific manufacturing requests are being made at this time. Such requests would be made to the board on a case-by-case basis. The sites will provide public warehousing and distribution services to area businesses.

In accordance with the Board's regulations, a member of the FTZ Staff has been designated examiner to investigate the application and report to the Board.

Public comment on the application is invited from interested parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at one of the following addresses:

1. *Submissions via Express/Package Delivery Services*: Foreign-Trade Zones Board, U.S. Department of Commerce, Franklin Court Building-Suite 4100W, 1099 14th Street, NW., Washington, DC 20005; or,

2. *Submissions via the U.S. Postal Service*: Foreign-Trade Zones Board, U.S. Department of Commerce, FCB-Suite 4100W, 1401 Constitution Avenue, NW., Washington, DC 20230.

The closing period for their receipt is February 14, 2005. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period (to February 28, 2005).

A copy of the application and accompanying exhibits will be available during this time for public inspection at

the address Number 1 listed above, and at the Montgomery Area Chamber of Commerce, 41 Commerce Street, Montgomery, AL 36104.

Dated: December 8, 2004.

Dennis Puccinelli,
Executive Secretary.
[FR Doc. 04-27379 Filed 12-13-04; 8:45 am]
BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Order No. 1361]

Approval for Expansion of Subzone 77A, Sharp Manufacturing Company of America Plant (Microwave Ovens, Computer Products, and Solar Cell Modules); Shelby County, TN

Pursuant to its authority under the Foreign-Trade Zones Act of June 18, 1934, as amended (19 U.S.C. 81a-81u), the Foreign-Trade Zones Board (the Board) adopts the following Order:

Whereas, the City of Memphis, Tennessee, grantee of FTZ 77, has requested authority on behalf of Sharp Manufacturing Company of America to expand the scope of manufacturing authority under zone procedures (multifunction office machines and solar cell modules) at Subzone 77A at the Sharp Manufacturing Company of America plant in Shelby County, Tennessee (FTZ Docket 61-2003, filed 11/6/2003);

Whereas, notice inviting public comment has been given in the **Federal Register** (68 FR 65246, 11/19/03);

Whereas, the Board adopts the findings and recommendation of the examiner's report, and finds that the requirements of the FTZ Act and Board's regulations are satisfied, and that the proposal is in the public interest;

Now, therefore, the Board hereby orders:

The application to expand the scope of authority under zone procedures within Subzone 77A on behalf of the Sharp Manufacturing Company of America, is approved, subject to the FTZ Act and the Board's regulations, including Section 400.28.

Signed in Washington, DC, this 6th day of December, 2004.

James J. Jochum,
Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign-Trade Zones Board.

Attest:

Dennis Puccinelli,
Executive Secretary.
[FR Doc. 04-27377 Filed 12-13-04; 8:45 am]
BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Docket 34-2004]

Proposed Foreign-Trade Zone—Conroe (Montgomery County), TX Extension of Rebuttal Comment Period

The rebuttal comment period for the application to establish a general-purpose foreign-trade zone in Conroe (Montgomery County), Texas, submitted by the City of Conroe, Texas (69 FR 51060, 8/17/04), is being extended to December 20, 2004, at the request of the applicant.

Dated: December 6, 2004.

Dennis Puccinelli,
Executive Secretary.
[FR Doc. 04-27378 Filed 12-13-04; 8:45 am]
BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

(A-475-818)

Certain Pasta from Italy: Extension of Time Limits for the Preliminary Results of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the Department) is extending the due date for the preliminary results of review of the antidumping duty order on certain pasta from Italy from April 4, 2005, to July 18, 2005.

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Dennis McClure at (202) 482-5973, AD/CVD Operations, Office 3, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Ave, NW, Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Statutory Time Limits

Section 751(a)(3)(A) of the Tariff Act of 1930, as amended (the Act), requires the Department to issue the preliminary results of a review within 245 days after the last day of the anniversary month of an order/finding for which a review is requested and the final results within 120 days after the date on which the preliminary results are published. However, if it is not practicable to complete the review within that time period, section 751(a)(3)(A) of the Act allows the Department to extend the time limit for the preliminary results to a maximum of 365 days and for the final results to 180 days (or 300 days if the Department does not extend the time limit for the preliminary results) from the date of the publication of the preliminary results.

Background

On August 30, 2004, the Department published a notice of initiation of the administrative review of the antidumping duty order on certain pasta from Italy, covering the period July 1, 2003, to June 30, 2004 (69 FR 52857). The preliminary results are currently due no later than April 4, 2005.

Extension of Preliminary Results of Review

There are six Italian respondents in this review, two of whom have requested revocation. The Department needs additional time to consider issues related to whether revocation is appropriate for the companies requesting it and to conduct verifications, if needed. Specifically, certain of the companies have multiple factories and sales offices and have presented issues of affiliation which will require additional time to analyze.

We, therefore, determine that it is not practicable to complete the preliminary results of this review within the original time limit and are extending the time limit for completion of the preliminary results until no later than July 18, 2005. We intend to issue the final results no later than 120 days after the publication of the notice of preliminary results of this review.

This extension is in accordance with section 751(a)(3)(A) of the Act.

Dated: December 7, 2004.

Barbara E. Tillman,

Acting Deputy Assistant Secretary for Import Administration.

[FR Doc. E4-3639 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

International Trade Administration

[A-475-818]

Certain Pasta from Italy: Notice of Partial Rescission of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: In response to requests by Pastificio Carmine Russo S.p.A. and its affiliate, Pastificio DiNola S.p.A. (collectively, Russo/DiNola), and others, the Department of Commerce (the Department) initiated an administrative review of the antidumping duty order on certain pasta (pasta) from Italy for the period July 1, 2003, through June 30, 2004. We initiated the review on a total of seven companies including Russo/DiNola. Based on a timely withdrawal of its request for review, we are rescinding the administrative review of Russo/DiNola. The administrative review of the antidumping duty order continues with respect to Barilla, G.e.R. (Barilla), Corticella Molini E Pastifici S.p.A. and its affiliate Pasta Combattenti S.p.A. (collectively, Corticella/Combattenti), Industria Alimentare Colvaiva S.p.A. and its affiliate Fusco S.r.L. (collectively, Indalco), Pastificio Fratelli Pagani S.p.A. (Pagani), Pastificio Antonio Pallante S.r.L. and its affiliate Industrie Alimentari Molisane S.r.L. (collectively, Pallante/IAM) and Pastificio Riscossa F.lli Mastromauro S.r.L. (Riscossa).

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: James Terpstra or Dennis McClure, AD/CVD Operations, Office 3, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482-3965, or (202) 482-5973, respectively.

SUPPLEMENTARY INFORMATION:

Scope of Review

Imports covered by this order are shipments of certain non-egg dry pasta in packages of five pounds four ounces or less, whether or not enriched or fortified or containing milk or other optional ingredients such as chopped vegetables, vegetable purees, milk, gluten, diastasis, vitamins, coloring and flavorings, and up to two percent egg white. The pasta covered by this scope is typically sold in the retail market, in fiberboard or cardboard cartons, or polyethylene or polypropylene bags of varying dimensions.

Excluded from the scope of this review are refrigerated, frozen, or canned pastas, as well as all forms of egg pasta, with the exception of non-egg dry pasta containing up to two percent egg white. Also excluded are imports of organic pasta from Italy that are accompanied by the appropriate certificate issued by the Istituto Mediterraneo Di Certificazione, by Bioagricert International (formerly Bioagricoop Scrl), by QC&I International Services, by Ecocert Italia, by Consorzio per il Controllo dei Prodotti Biologici, or by Associazione Italiana per l'Agricoltura Biologica.

The merchandise subject to review is currently classifiable under item 1902.19.20 of the *Harmonized Tariff Schedule of the United States (HTSUS)*. Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise subject to the order is dispositive.

Background

On July 1, 2004, the Department published a notice of opportunity to request an administrative review of the antidumping duty order on certain pasta from Italy. See *Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review*, 69 FR 39903 (July 1, 2004). On August 30, 2004, pursuant to requests made by Russo/DiNola, Pagani, Pallante/IAM, Corticella/Combattenti, Indalco, Barilla, and the petitioners (New World Pasta Company, American Italian Pasta Company, and Dakota Growers Pasta Company), the Department initiated an administrative review of the antidumping duty order on certain pasta from Italy. See *Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 69 FR 52857 (August 30, 2004). On October 19, 2004, Russo/DiNola timely withdrew its request for an administrative review.

Rescission of Review

If a party that requested a review withdraws the request within 90 days of the date of publication of notice of initiation of the requested review, the Secretary will rescind the review pursuant to 19 CFR 351.213(d)(1). In this case, Russo/DiNola withdrew its request for an administrative review within 90 days from the date of initiation. No other interested party requested a review of this company. Because Russo/DiNola filed a timely request for withdrawal of this administrative review by the deadline and it was the only request for review

made for Russo/DiNola, we are rescinding the antidumping duty administrative review of Russo/DiNola. As a result of this rescission, the administrative review of the antidumping duty order on certain pasta from Italy covering the period July 1, 2003, through June 30, 2004, now covers the following companies: Barilla, Corticella/Combattenti, Indalco, Pagani, Pallante/IAM, and Riscossa.

The Department will issue appropriate assessment instructions directly to U.S. Customs and Border Protection (CBP) within 15 days of the publication of this notice. In accordance with 19 CFR 351.212(c)(1)(i), the Department will direct CBP to assess antidumping duties for each company for which this review is rescinded at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, for entries during the period July 1, 2003, through June 30, 2004.

Notification to Importers

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f) to file a certificate regarding the reimbursement of antidumping and countervailing duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping and countervailing duties occurred and the subsequent increase in antidumping duties by the amount of antidumping and countervailing duties reimbursed.

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This notice is in accordance with section 777(i)(1) of the Act and 19 CFR 251.213(d)(4).

Dated: December 7, 2004.

Barbara E. Tillman,

Acting Deputy Assistant Secretary for Import Administration.

[FR Doc. E4-3640 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

International Trade Administration

(A-533-824)

Certain Polyethylene Terephthalate Film, Sheet and Strip from India: Extension of Time Limit for Final Results of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Jeff Pedersen or Drew Jackson, AD/CVD Operations, Office 4, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone (202) 482-2769 or (202) 482-4406, respectively.

SUPPLEMENTARY INFORMATION:

Background

On August 22, 2003, the Department of Commerce (the Department) published in the *Federal Register* a notice of initiation of an administrative review of the antidumping duty order on certain polyethylene terephthalate film, sheet and strip from India, covering the period December 21, 2001 through June 30, 2003. See *Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 68 FR 50750.

On August 12, 2004, the Department published in the *Federal Register* the preliminary results of review. See *Certain Polyethylene Terephthalate Film, Sheet and Strip From India: Preliminary Results and Rescission in Part of Antidumping Duty Administrative Review*, 69 FR 49872 (August 12, 2004). The final results of review are currently due no later than December 10, 2004.

Statutory Time Limits

Section 751(a)(3)(A) of the Tariff Act of 1930, as amended (the Act), requires the Department to make a preliminary determination in an administrative review within 245 days after the last day of the anniversary month of an order for which a review is requested and a final determination within 120 days after the date on which the preliminary determination is published. However, if it is not practicable to complete the review within these time periods, section 751(a)(3)(A) of the Act allows the Department to extend these deadlines to a maximum of 365 days and 180 days (or 300 days if the

Department does not extend the time limit for the preliminary determination), respectively.

Extension of Time Limit for Final Results of Review

We have determined that it is not practicable to complete the final results of this review within the original time limit because needs additional time to consider a complex issue relating to the U.S. price adjustment for countervailing duties imposed to offset export subsidies. Therefore, the Department is extending the time limit for completion of the final results by 60 days. We intend to issue the final results of review no later than February 8, 2005.

This extension is in accordance with section 751(a)(3)(A) of the Act.

Dated: December 7, 2004.

Barbara E. Tillman,

Acting Deputy Assistant Secretary for Import Administration.

[FR Doc. E4-3638 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

International Trade Administration

A-423-808

Stainless Steel Plate in Coils from Belgium: Final Results of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, U.S. Department of Commerce.

SUMMARY: On June 10, 2004, the Department of Commerce (the Department) published the preliminary results of its administrative review of the antidumping duty order on certain stainless steel plate in coils from Belgium. See *Stainless Steel Plate in Coils from Belgium: Preliminary Results of Antidumping Duty Administrative Review*, 69 FR 32501 (June 10, 2004) (*Preliminary Results*). The review covers shipments of this merchandise to the United States during the period from May 1, 2002, through April 30, 2003, by Ugine & ALZ, N.V. Belgium (U&A Belgium).

We gave interested parties an opportunity to comment on our preliminary results. Based on our analysis of the comments received, we have made changes to the preliminary results. For the final dumping margins see the "Final Results of Review" section below.

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Elfi Blum or Toni Page at (202) 482-0197 or (202) 482-1398, respectively; AD/CVD,

Office 6, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Background

On June 10, 2004, the Department published the preliminary results of its administrative review of the antidumping duty order on certain stainless steel plate in coils from Belgium. See *Preliminary Results*. In the *Preliminary Results*, we determined that U.S. sales had been made below normal value (NV). We gave interested parties an opportunity to comment on our preliminary results. On October 27, 2004, we received case briefs from Allegheny Ludlum, AK Steel Corporation, Butler Armcro Independent Union, United Steelworkers of America, AFL-CIO/CLC, and Zanesville Armcro Independent Organization (Petitioners) and U&A Belgium (Respondent). On November 3, 2004, both parties filed rebuttal briefs. Neither party requested a hearing. The Department has now completed this review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act).

Scope of the Antidumping Duty Order

Effective March 11, 2003, in accordance with *Allegheny Ludlum Corp. v. United States*, 287 F.3d 1365 (Fed. Cir. 2002) remanded to CIT No. 99-06-00361, slip op. 2002-147 (CIT Dec. 12, 2002), and *Notice of Amended Antidumping Duty Orders: Certain Stainless Steel Plate in Coils from Belgium, Canada, Italy, the Republic of Korea, South Africa, and Taiwan*, 68 FR 11520 (March 11, 2003), the scope of this order was amended. Therefore, for purposes of this review, two separate scopes were in effect. These scopes are set forth below. Respondent has appropriately reported only those U.S. sales during the relevant period covered by each scope.

Scope of Order from May 1, 2002, through March 10, 2003

The product covered by this order is certain stainless steel plate in coils. Stainless steel is an alloy steel containing, by weight, 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements. The subject plate products are flat-rolled products, 254 mm or over in width and 4.75 mm or more in thickness, in coils, and annealed or otherwise heat treated and pickled or otherwise descaled. The subject plate may also be further processed (e.g., cold-rolled, polished, etc.) provided

that it maintains the specified dimensions of plate following such processing. Excluded from the scope of this order are the following: (1) plate not in coils, (2) plate that is not annealed or otherwise heat treated and pickled or otherwise descaled, (3) sheet and strip, and (4) flat bars. In addition, certain cold-rolled stainless steel plate in coils is also excluded from the scope of this order. The excluded cold-rolled stainless steel plate in coils is defined as that merchandise which meets the physical characteristics described above that has undergone a cold-reduction process that reduced the thickness of the steel by 25 percent or more, and has been annealed and pickled after this cold reduction process.

The merchandise subject to this order is currently classifiable in the Harmonized Tariff Schedule of the United States (HTSUS) at subheadings: 7219110030, 7219110060, 7219120005, 7219120020, 7219120025, 7219120050, 7219120055, 7219120065, 7219120070, 7219120080, 7219310010, 7219900010, 7219900020, 7219900025, 7219900060, 7219900080, 7220110000, 7220201010, 7220201015, 7220201060, 7220201080, 7220206005, 7220206010, 7220206015, 7220206060, 7220206080, 7220900010, 7220900015, 7220900060, and 7220900080. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of this order is dispositive.

Scope of Order On or After March 11, 2003

The product covered by this order is certain stainless steel plate in coils. Stainless steel is an alloy steel containing, by weight, 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements. The subject plate products are flat-rolled products, 254 mm or over in width and 4.75 mm or more in thickness, in coils, and annealed or otherwise heat treated and pickled or otherwise descaled. The subject plate may also be further processed (e.g., cold-rolled, polished, etc.) provided that it maintains the specified dimensions of plate following such processing. Excluded from the scope of this order are the following: (1) plate not in coils, (2) plate that is not annealed or otherwise heat treated and pickled or otherwise descaled, (3) sheet and strip, and (4) flat bars.

The merchandise subject to this order is currently classifiable in the HTSUS at subheadings: 7219.11.00.30, 7219.11.00.60, 7219.12.00.06, 7219.12.00.21, 7219.12.00.26, 7219.12.00.51, 7219.12.00.56,

7219.12.00.66, 7219.12.00.71, 7219.12.00.81, 7219.31.00.10, 7219.90.00.10, 7219.90.00.20, 7219.90.00.25, 7219.90.00.60, 7219.90.00.80, 7220.11.00.00, 7220.20.10.10, 7220.20.10.15, 7220.20.10.60, 7220.20.10.80, 7220.20.60.05, 7220.20.60.10, 7220.20.60.15, 7220.20.60.60, 7220.20.60.80, 7220.90.00.10, 7220.90.00.15, 7220.90.00.60, and 7220.90.00.80. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise subject to these orders is dispositive.

Verification

As provided in section 782(i) of the Act, we verified the information submitted by U&A Belgium for use in our final results. We used standard verification procedures, including on-site examination of relevant accounting and production records and original source documents provided by U&A Belgium. Additionally, we verified the information provided by U&A Belgium's U.S. subsidiaries, TrefilARBED and Arcelor Stainless U.S.A. Our verification results are outlined in the *Memorandum to The File Through Maureen Flannery from Scot Fullerton and Elfi Blum: Sales and Cost Verification of Ugin & ALZ Belgium, N.V. in the Antidumping Administrative Review of Stainless Steel Plate in Coils (SSPC) from Belgium* (October 6, 2004) (*U&A Belgium Verification Report*) and *Memorandum to The File Through Maureen Flannery from Scot Fullerton and Elfi Blum: U.S. Sales Verification of TrefilARBED (Trefil) and Arcelor Stainless U.S.A. in the Antidumping Administrative Review of Stainless Steel Plate in Coils (SSPC) from Belgium* (October 6, 2004) (*U.S. Verification Report*).

Affiliation of Parties

In the *Preliminary Results*, we found that Arbed S.A., parent company of ALZ, N.V., is affiliated with Usinor, Arcelor, and Aceralia and their subsidiaries. No parties commented on our findings. Therefore, for these final results, we continue to determine that Arbed S.A. is affiliated with Usinor, Arcelor, and Aceralia and their subsidiaries. For a complete discussion of the basis for this decision, see the *Preliminary Results*, 69 FR 32501, 32502-32503.

Successorship.

In the *Preliminary Results*, we found that U&A Belgium is the successor to ALZ, N.V. No parties commented on our findings. Therefore, for these final

results we continue to determine that U&A Belgium is the successor to ALZ, N.V. for purposes of determining antidumping duty liability. For a complete discussion of the basis for this decision, see the *Preliminary Results*, 69 FR 32501, 32503. Therefore, U&A Belgium shall be assigned the antidumping duty deposit rate in these Final Results.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this administrative review are addressed in the *Issues and Decision Memorandum* from Barbara E. Tillman, Acting Deputy Assistant Secretary for Import Administration to James J. Jochum, Assistant Secretary for Import Administration: *Issues and Decision Memorandum for the Final Results of*

the *Fourth Administrative Review*, dated December 7, 2004 (*Decision Memo*), which is hereby adopted by this notice.

A list of the issues which parties have raised and to which we have responded, all of which are included in the *Decision Memo*, is attached to this notice as an appendix. Parties can find a complete discussion of all issues raised in this review and the corresponding recommendations in this memorandum, which is on file in the Central Records Unit, room B-099 of the main Commerce Building. In addition, a complete version of the *Decision Memo* can be accessed directly on the Web at <http://ia.ita.doc.gov>. The paper copy and electronic version of the *Decision Memo* are identical in content.

Changes Since the Preliminary Results

Based on our analysis of comments received and our findings at the on-site verification, we have made certain changes in the margin calculations for U&A Belgium. We have also addressed the alleged ministerial errors submitted in the briefs. For further detail, see the *Decision Memo and the Memorandum to The File from Toni Page and Elfi Blum to Maria MacKay: Analysis for Uginé & ALZ, N.V. Belgium (U&A Belgium) for the Final Results of the Fourth Administrative Review of Stainless Steel Plate in Coils (SSPC) from Belgium* (December 7, 2004).

Final Results of Review

As a result of our review, we determine the antidumping margin for Uginé & ALZ Belgium (U&A Belgium) to be as follows:

Manufacturer/Exporter	Time Period	Margin
U&A Belgium	05/01/2002 - 04/30/2003	4.07 percent

Duty Assessment

The Department shall determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries. Pursuant to 19 CFR 351.212(b), the Department calculates an assessment rate for each importer of the subject merchandise for each respondent. The Department will issue appropriate assessment instructions directly to CBP within 15 days of publication of the final results of review.

Cash Deposit Requirements

The following antidumping duty deposit rates will be required on all shipments of SSPC from Belgium entered, or withdrawn from warehouse, for consumption on or after the publication date of these final results, as provided for by section 751(a)(1) of the Act: (1) for U&A Belgium, the cash deposit rate will be the rate established in the final results of this review; (2) for previously reviewed or investigated companies other than U&A Belgium, the cash deposit rate will be the company-specific rate established for the most recent period; (3) if the exporter is not a firm covered in this review, a prior review, or the less-than-fair-value (LTFV) investigation, but the manufacturer is, the cash deposit rate will be the rate established for the most recent period for the manufacturer of the subject merchandise; and (4) if neither the exporter nor the manufacturer is a firm covered by this review, a prior review, or the LTFV

investigation, the cash deposit rate shall be the all others rate established in the LTFV investigation, which is 9.86 percent *ad valorem*. See *Notice of Final Determination of Sales at Less Than Fair Value: Stainless Steel Plate in Coils from Belgium*, 64 FR 15476 (March 31, 1999). These deposit rates, when imposed, shall remain in effect until publication of the final results of the next administrative review.

Notification to Importers

This notice also serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of doubled antidumping duties, pursuant to 19 CFR 351.402(f)(3).

Notification Regarding APOs

This notice also serves as a reminder to parties subject to administrative protective orders (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations

and terms of an APO is a sanctionable violation.

This administrative review and notice are in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

Dated: December 7, 2004.

Joseph A. Spetrini,
Acting Assistant Secretary for Import Administration.

APPENDIX

List of Issues

1. Changes in Methodology for Sale without Pay Date
 2. U.S. Indirect Selling Expenses/General and Administrative (G&A) Expenses
 3. Home-Market Commissions (COMM1H) and Indirect Selling Expenses (INDIRSH)
 4. Products Hot-Rolled in Germany
 5. Scope Language
 6. The Reporting of Home-Market and U.S. Sales of Cold-Rolled SSPC
 7. Start-Up Costs Incurred by U&A Belgium
 8. Offsetting Margins with Above-Normal Value Transactions
 9. Ministerial Errors: Constructed Export Price Revenue Calculation and Merging Dates of Payment
- [FR Doc. E4-3641 Filed 12-13-04; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

(A-449-804)

Notice of Final Results of Antidumping Duty Administrative Review: Steel Concrete Reinforcing Bars from Latvia

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: On June 10, 2004, the Department of Commerce (the Department) published the preliminary results of its second administrative review of the antidumping duty order on steel concrete reinforcing bars (rebar) from Latvia. The review covers one producer of the subject merchandise. The period of review (POR) is September 1, 2002, through August 31, 2003. Based on our analysis of comments received, these final results differ from the preliminary results. The final results are listed below in the Final Results of Review section.

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Daniel O'Brien at (202) 482-1376 or Shane Subler at (202) 482-0189; AD/CVD Operations, Office 1, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street & Constitution Avenue, NW, Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Background

On June 10, 2004, the Department published in the *Federal Register* the preliminary results of the second administrative review of the antidumping duty order on rebar from Latvia. See *Notice of Preliminary Results of Antidumping Duty Administrative Review: Steel Concrete Reinforcing Bars from Latvia*, 69 FR 32508 (June 10, 2004) (Preliminary Results).

We invited parties to comment on the *Preliminary Results*. On July 13, 2004, we received a case brief from the Rebar Trade Action Coalition (RTAC) and its individual members, the petitioners in the proceeding. On July 19, 2004, we received a rebuttal brief from the sole respondent, Joint Stock Company Liepajas Metalurgs (LM).¹ In addition, on August 26, 2004, we released a supplemental questionnaire to LM. We

¹ On August 2, 2004, we rejected both the petitioners' case brief and the respondent's rebuttal brief because both included unsolicited new factual information submitted past the Department's regulatory deadline. The respondent submitted its revised rebuttal brief on August 4, 2004; the petitioners submitted their revised case brief on August 9, 2004.

provided an opportunity for interested parties to submit comments on any new factual information that LM submitted in response to the questionnaire. LM submitted its supplemental questionnaire response on September 2, 2004. The petitioners submitted comments on September 14, September 21, and September 24, 2004.² The respondents submitted comments on September 17, 2004. We did not hold a public hearing, as none was requested.

Scope of the Order

For purposes of this order, the product covered is all steel concrete reinforcing bars sold in straight lengths, currently classifiable in the Harmonized Tariff Schedule of the United States (HTSUS) under item number 7214.20.00 or any other tariff item number. Specifically excluded are plain rounds (*i.e.*, non-deformed or smooth bars) and rebar that has been further processed through bending or coating. The HTSUS subheading is provided for convenience and customs purposes. The written description of the scope of this proceeding is dispositive.

Analysis of Comments Received

The issues raised in the case briefs by parties to this administrative review are addressed in the *Issues and Decision Memorandum* to Joseph A. Spetrini, Acting Assistant Secretary for Import Administration, from Barbara Tillman, Acting Deputy Assistant Secretary (*Decision Memorandum*), which is hereby adopted by this notice. A list of the issues addressed in the *Decision Memorandum* is appended to this notice. The *Decision Memorandum* is on file in Room B-099 of the main Commerce building, and can also be accessed directly on the Web at www.ia.ita.doc.gov/frn. The paper copy and electronic version of the *Decision Memorandum* are identical in content.

Changes Since the Preliminary Results

Based on our analysis of comments received, we have corrected three calculation errors. These adjustments are discussed in detail in the *Decision Memorandum*.

² On September 24, 2004, acting in accordance with the Department's regulations, we rejected the petitioners' three sets of comments because they contained information that went beyond a rebuttal, clarification, or correction of the information in LM's supplemental response. We also instructed LM to eliminate any references to this information in its September 17, 2004, comments. The petitioners submitted revised versions of their three sets of comments on September 28, 2004; the respondents submitted a revised set of comments on September 29, 2004.

Final Results of Review

As a result of our review, we determine that the following weighted-average margin exists for the period of September 1, 2002, through August 31, 2003:

Producer	Weighted-Average Margin (Percentage)
Joint Stock Company Liepajas Metalurgs	3.01

Assessment

The Department will determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries, pursuant to 19 CFR 351.212(b). The Department calculated importer-specific duty assessment rates on the basis of the ratio of the total amount of antidumping duties calculated for the examined sales to the total entered value of the examined sales for that importer. Where the assessment rate is above *de minimis*, we will instruct CBP to assess duties on all entries of subject merchandise by that importer. The Department will issue appropriate assessment instructions directly to CBP within 15 days of publication of these final results of review.

Cash Deposits

Furthermore, the following deposit requirements will be effective upon publication of the final results of this administrative review for all shipments of rebar from Latvia entered, or withdrawn from warehouse, for consumption on or after the publication date of these final results, as provided by section 751(a) of the Tariff Act of 1930, as amended (the Act): (1) for LM, the cash deposit rate will be 3.01 percent; (2) for merchandise exported by producers or exporters not covered in this review but covered in a previous segment of this proceeding, the cash deposit rate will continue to be the company-specific rate published in the most recent final results in which that producer or exporter participated; (3) if the exporter is not a firm covered in this review or in any previous segment of this proceeding, but the producer is, the cash deposit rate will be that established for the producer of the merchandise in these final results of review or in the most recent final results in which that producer participated; and (4) if neither the exporter nor the producer is a firm covered in this review or in any previous segment of this proceeding, the cash deposit rate will be 17.21 percent, the "All Others" rate established in the less-than-fair-value investigation.

These deposit requirements shall remain in effect until publication of the final results of the next administrative review.

This notice also serves as a final reminder to importers of their responsibility under 19 CFR 351.402 (f) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred, and in the subsequent assessment of double antidumping duties.

This notice also is the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

We are issuing and publishing these results and notice in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

Dated: December 7, 2004.

Joseph A. Spetrini,
Acting Assistant Secretary for Import Administration.

APPENDIX

Comment 1: LM's Reported Scrap Prices

Comment 2: The Department's Treatment of LM's Merchandise Reported as "Off-spec"

Comment 3: Calculation Errors

[FR Doc. E4-3643 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

International Trade Administration

The J. David Gladstone Institutes; Notice of Decision on Application for Duty-Free Entry of Electron Microscope

This decision is made pursuant to section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, 80 Stat. 897; 15 CFR part 301). Related records can be viewed between 8:30 a.m. and 5 p.m. in Suite 4100W, Franklin Court Building, U.S. Department of Commerce, 1099 14th Street, NW., Washington, DC.

Docket Number: 04-021. *Applicant:* The J. David Gladstone Institutes, San Francisco, CA. *Instrument:* Electron Microscope, Model JEM-1230. *Manufacturer:* JEOL Ltd., Japan. *Intended Use:* See notice at 69 FR 67320, November 17, 2004. *Order Date:* February 27, 2004.

Comments: None received. *Decision:* Approved. No instrument of equivalent scientific value to the foreign instrument, for such purposes as the instrument is intended to be used, was being manufactured in the United States at the time the instrument was ordered. *Reasons:* The foreign instrument is a conventional transmission electron microscope (CTEM) and is intended for research or scientific educational uses requiring a CTEM. We know of no CTEM, or any other instrument suited to these purposes, which was being manufactured in the United States either at the time of order of the instrument OR at the time of receipt of the application by U.S. Customs and Border Protection.

Gerald A. Zerdy,

Program Manager, Statutory Import Programs Staff.

[FR Doc. E4-3645 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

University of California, Los Alamos National Laboratory et al.; Notice of Consolidated Decision on Applications for Duty-Free Entry of Scientific Instruments

This is a decision consolidated pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, 80 Stat. 897; 15 CFR part 301). Related records can be viewed between 8:30 a.m. and 5 p.m. in Suite 4100W, Franklin Court Building, U.S. Department of Commerce, 1099 14th Street, NW., Washington, DC.

Comments: None received. *Decision:* Approved. No instrument of equivalent scientific value to the foreign instruments described below, for such purposes as each is intended to be used, is being manufactured in the United States.

Docket Number: 04-018. *Applicant:* University of California, Los Alamos National Laboratory, Los Alamos, NM. *Instrument:* Hydraulic Press for Nuclear Fuel. *Manufacturer:* Osterwalder AG, Switzerland. *Intended Use:* See notice at 69 FR 67320, November 17, 2004. *Reasons:* The foreign instrument

provides both: (1) A 20-30 ton CNC-controlled hydraulic press which meets the specifications of ram control to ± 0.01 mm and load control to $\pm 1\%$ and (2) extensive experience (25 years) in supplying hydraulic presses for the nuclear fuels industry, meeting its very stringent quality standards. Advice received from: a university nuclear engineering laboratory, December 6, 2004.

Docket Number: 04-020. *Applicant:* Johns Hopkins University, Baltimore, MD. *Instrument:* Dual-Beam Focused Ion Beam System, Model Number NOVA 600 NanoLab (FP 2067/31). *Manufacturer:* FEI Company, The Netherlands. *Intended Use:* See notice at 69 FR 67320, November 17, 2004. *Reasons:* The foreign instrument provides the ability to cut lines with the narrowest width, circles with the smallest radius, the accuracy for programmed milling to create arrays of small entities, and to create a single device of the smallest dimensions for research on spintronic devices, cantilevers, stencil mask fabrication and TEM sample preparation. Advice received from: Sandia National Laboratories, February 18, 2004 (comparable case) and from a domestic manufacturer of similar equipment.

We know of no other instrument or apparatus being manufactured in the United States which is of equivalent scientific value to any of the foreign instruments.

Gerald A. Zerdy,

Program Manager, Statutory Import Programs Staff.

[FR Doc. E4-3644 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

Application for Duty-Free Entry of Scientific Instrument

Pursuant to section 6(c) of the Educational, Scientific and Cultural Materials Importation Act of 1966 (Pub. L. 89-651; 80 Stat. 897; 15 CFR part 301), we invite comments on the question of whether an instrument of equivalent scientific value, for the purposes for which the instrument shown below is intended to be used, is being manufactured in the United States.

Comments must comply with 15 CFR 301.5(a)(3) and (4) of the regulations and be filed within 20 days with the Statutory Import Programs Staff, U.S. Department of Commerce, Washington, DC 20230. Applications may be

examined between 8:30 a.m. and 5 p.m. in Suite 4100W, U.S. Department of Commerce, Franklin Court Building, 1099 14th Street, NW., Washington, DC

Docket Number: 04-022. *Applicant:* Virginia Commonwealth University, Department of Anatomy and Neurobiology, 1101 E. Marshall Street, Room 12-050, Box 980709, Richmond, VA 23298. *Instrument:* Transmission Electron Microscope, Model JEM-1230. *Manufacturer:* JEOL, Ltd., Japan. *Intended Use:* The instrument will be used to examine, analyze and reconstruct images of brain tissue derived from experimental animals subject to traumatic brain injury, various forms of epileptic seizure and various neurodegenerative disorders. Experiments with various antibodies will be used to determine various forms of neuronal cell injury and repair with computer-assisted reconstruction used to analyze related organelle and cytoskeletal change within neuronal somata and their dendritic and axonal processes. *Application accepted by Commissioner of Customs:* November 18, 2004.

Gerald A. Zerdy,

Program Manager, Statutory Import Programs Staff.

[FR Doc. E4-3646 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

Notice of Allocation of Tariff Rate Quotas on the Import of Certain Worsted Wool Fabrics for Calendar Year 2005

December 8, 2004.

AGENCY: Department of Commerce, International Trade Administration.

ACTION: Notice of allocation of 2005 worsted wool fabric tariff rate quota.

SUMMARY: The Department of Commerce (Department) has determined the allocation for Calendar Year 2005 of imports of certain worsted wool fabrics under tariff rate quotas established by Title V of the Trade and Development Act of 2000 as amended by the Trade Act of 2002. The companies that are being provided an allocation are listed below.

FOR FURTHER INFORMATION CONTACT: Sergio Botero, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 482-4058.

SUPPLEMENTARY INFORMATION:

BACKGROUND:

Title V of the Trade and Development Act of 2000 (The Act) as amended by the Trade Act of 2002 creates two tariff rate quotas, providing for temporary reductions in the import duties on two categories of worsted wool fabrics suitable for use in making suits, suit-type jackets, or trousers. For worsted wool fabric with average fiber diameters greater than 18.5 microns (Harmonized Tariff Schedule of the United States (HTSUS) heading 9902.51.11), the reduction in duty is limited to 4,500,000 square meters per year. For worsted wool fabric with average fiber diameters of 18.5 microns or less (HTSUS heading 9902.51.12), the reduction is limited to 3,500,000 square meters per year. The Act requires the President to ensure that such fabrics are fairly allocated to persons (including firms, corporations, or other legal entities) who cut and sew men's and boys' worsted wool suits and suit-like jackets and trousers in the United States and who apply for an allocation based on the amount of such suits cut and sewn during the prior calendar year. Presidential Proclamation 7383, of December 1, 2000, authorized the Secretary of Commerce to allocate the quantity of worsted wool fabric imports under the tariff rate quotas. On January 22, 2001 the Department published regulations establishing procedures for applying for, and determining, such allocations (66 FR 6459, 15 CFR 335).

On August 28, 2004, the Department published a notice in the *Federal Register* (68 FR 51767) soliciting applications for an allocation of the 2004 tariff rate quotas with a closing date of September 29, 2003. The Department received timely applications for the HTS 9902.51.11 tariff rate quota from 11 firms. The Department received timely applications for the HTS 9902.51.12 tariff rate quota from 14 firms. All applicants were determined eligible for an allocation. Most applicants submitted data on a business confidential basis. As allocations to firms were determined on the basis of this data, the Department considers individual firm allocations to be business confidential.

FIRMS THAT RECEIVED ALLOCATIONS: HTS 9902.51.11, fabrics, of worsted wool, with average fiber diameter greater than 18.5 micron, certified by the importer as suitable for use in making suits, suit-type jackets, or trousers (provided for in subheading 5112.11.60 and 5112.19.95). Amount allocated: 4,500,000 square meters.

Companies Receiving Allocation:

Hartmarx Corporation--Chicago, IL
Hartz & Company, Inc.--Frederick, MD
Hugo Boss Cleveland, Inc.--Brooklyn, OH
JA Apparel Corp.--New York, NY
John H. Daniel Co.--Knoxville, TN
Majer Brands Company, Inc.--Hanover, PA
Saint Laune Ltd.--New York, NY
Sewell Clothing Company, Inc.--Bremen, GA
Southwick Clothing L.L.C.--Lawrence, MA
Toluca Garment Company-Toluca, IL
The Tom James Co.--Franklin, TN

HTS 9902.51.12, fabrics, of worsted wool, with average fiber diameter of 18.5 micron or less, certified by the importer as suitable for use in making suits, suit-type jackets, or trousers (provided for in subheading 5112.11.30 and 5112.19.60). Amount allocated: 3,500,000 square meters.

Companies Receiving Allocation:

Eleeve Custom Clothing-Van Nuys, CA
Retail Brand Alliance, Inc. d/b/a Brooks Brothers--New York, NY
Hartmarx Corporation--Chicago, IL
Hartz & Company, Inc.--Frederick, MD
Hugo Boss Cleveland, Inc.--Brooklyn, OH
JA Apparel Corp.--New York, NY
John H. Daniel Co.--Knoxville, TN
Majer Brands Company, Inc.--Hanover, PA
Martin Greenfield--Brooklyn, NY
Saint Laune Ltd.--New York, NY
Sewell Clothing Company, Inc.--Bremen, GA
Southwick Clothing L.L.C.--Lawrence, MA
Toluca Garment Company-Toluca, IL
The Tom James Co.--Franklin, TN

Dated: December 8, 2004.

James C. Leonard III,
Deputy Assistant Secretary for Textiles and Apparel.

[FR Doc. E4-3642 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

Patent and Trademark Office

Privacy Act of 1974; System of Records

AGENCY: United States Patent and Trademark Office, Commerce.

ACTION: Notice of proposed new Privacy Act system of records.

SUMMARY: In accordance with the requirements of the Privacy Act of 1974, as amended, the United States Patent and Trademark Office (USPTO) gives notice of a proposed new system of records entitled "COMMERCE/PAT-TM-17 USPTO Security Access Control and Certificate Systems." We invite the public to comment on the system announced in this publication.

DATES: Written comments must be received no later than January 13, 2005. The proposed system of records will be effective on January 13, 2005, unless the

USPTO receives comments that would result in a contrary determination.

ADDRESSES: You may submit written comments by any of the following methods:

- E-mail:

Chris.Rutherford@uspto.gov.

- Fax: (571) 273-5357, marked to the attention of Chris Rutherford.

- Mail: Chris Rutherford, IT Security Program Office, United States Patent and Trademark Office, Madison Building West-Room 5A19, 600 Dulany Street, Alexandria, VA 22314.

All comments received will be available for public inspection at the Public Search Facilities, Madison East-1st Floor, 600 Dulany Street, Alexandria, VA 22314.

FOR FURTHER INFORMATION CONTACT:

Director, IT Security Program Office, United States Patent and Trademark Office, Madison Building West-Room 5A05, 600 Dulany Street, Alexandria, VA 22314, (571) 272-5356.

SUPPLEMENTARY INFORMATION: The United States Patent and Trademark Office (USPTO) is giving notice of a new system of records that is subject to the Privacy Act of 1974. The proposed system of records will maintain information on all employees and contractors and other affiliates who require public key infrastructure (PKI) authenticated access to USPTO automated information systems (AISs).

The proposed system of records is necessary in order to implement a new internal PKI in which the digital certificates produced by the PKI are carried on smart cards that also support the physical Access Control System for the USPTO, including the main offices at the Carlyle campus in Alexandria, VA. The smart card-based system will use electronic access credentials, such as digital public key or PKI certificates. Access to electronic agency assets, including the USPTO computer network and the USPTO desktop and laptop computers, will be controlled using this new process. This will provide a high level of security authentication in accord with recent Office of Management and Budget (OMB) and Federal Identity Credentialing Committee guidance.

The proposed new system of records, "COMMERCE/PAT-TM-17 USPTO Security Access Control and Certificate Systems," is published in its entirety below.

COMMERCE/PAT-TM-17

SYSTEM NAME:

USPTO Security Access Control and Certificate Systems.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

IT Security Program Office, United States Patent and Trademark Office, Madison Building West-Room 5A29, 600 Dulany Street, Alexandria, VA 22314.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

USPTO employees, contractors, and other affiliates requiring PKI-authenticated access to USPTO electronic assets including the network, desktops, and laptops.

CATEGORIES OF RECORDS IN THE SYSTEM:

The system contains information needed to establish identity, accountability, and audit control of digital certificates issued by the new USPTO internal PKI that have been assigned to personnel who require access to USPTO electronic assets, including the USPTO network, as well as those who transmit electronic data that requires the protection of PKI security services. The records are created and maintained to provide assurance that the digital certificates are issued and delivered to the correct individual, who typically has been issued a smart card by the USPTO Office of Security.

Records may include the individual's name; organization; work telephone number; social security number; driver's license number; passport number; date of birth; employee number; smart card serial number; work e-mail address; status as an employee, contractor or other affiliation with the USPTO; title; home address and phone number.

Records also include information on the creation, renewal, replacement or revocation of digital certificates, including evidence provided by applicants for proof of identity and authority, sources used to verify an applicant's identity and authority, and the certificates issued, denied and revoked, including reasons for denial and revocation.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 301; 35 U.S.C. 2; the Electronic Signatures in Global and National Commerce Act, Pub. L. 106-229; and E.O. 9397.

PURPOSE(S):

To improve security for USPTO electronic assets; to maintain accountability for issuance and disposition of security access; to maintain an electronic system to facilitate secure on-line communication between Federal automated systems,

between Federal employees or contractors, and with the public, using digital signature technologies to authenticate and verify identity; to provide a means of access to USPTO electronic assets including the USPTO network, desktops, and laptops; and to provide mechanisms for non-repudiation of personal identification and access to sensitive electronic systems, including but not limited to human resource, financial, procurement, travel and property systems, as well as systems containing information on intellectual property and other mission critical systems. The system also maintains records relating to the issuance of digital certificates utilizing public key cryptography to employees and contractors for the transmission of sensitive electronic material that requires protection.

Routine uses of records maintained in the system, including categories of users and the purposes of such uses:

See Prefatory Statement of General Routine Uses Nos. 1-13, as found at 46 FR 63501-63502 (December 31, 1981).

DISCLOSURE TO CONSUMER REPORTING AGENCIES:

Not applicable.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are stored as electronic media and paper records.

RETRIEVABILITY:

Records are retrieved by individual's name, social security number, employment status, organization and/or security access badge number.

SAFEGUARDS:

Entrance to data centers and support organization offices is restricted to those employees whose work requires them to be there for the system to operate. Identification cards are verified to ensure that records are in areas accessible only to authorized personnel who are properly screened, cleared, and trained. Disclosure of electronic information through remote terminals is restricted through the use of passwords and sign-on protocols that are periodically changed. Reports produced from the remote printers are in the custody of personnel and financial management officers and are subject to the same privacy controls as other documents of like sensitivity.

Digital certificates ensure secure local and remote access and allow only authorized employees, contractor employees, or other affiliated

individuals to gain access to federal information assets available through secured systems access.

Access to sensitive records is available only to authorized employees and contractor employees responsible for the management of the system and/or employees of program offices who have a need for such information. Paper records are maintained in locked safes and/or file cabinets. Electronic records are password-protected or PKI-protected. During non-work hours, records are stored in locked safes and/or cabinets in locked rooms.

RETENTION AND DISPOSAL:

The records on government employees and contractor employees are retained for the duration of their employment at the USPTO. Other individuals' records are kept for the duration of their affiliation with the USPTO and then treated as employee records. The records on separated employees are destroyed or sent to the Federal Records Center in accordance with General Records Schedule 18.

SYSTEM MANAGER(S) AND ADDRESS:

Director, IT Security Program Office, United States Patent and Trademark Office, Madison Building West—Room 5A05, 600 Dulany Street, Alexandria, VA 22314.

NOTIFICATION PROCEDURE:

Information may be obtained from either the Director, IT Security Program Office, United States Patent and Trademark Office, Madison Building West—Room 5A05, 600 Dulany Street, Alexandria, VA 22314; or the Chief Information Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. Requesters should provide the appropriate information in accordance with the inquiry provisions appearing at 37 CFR Part 102 Subpart B.

RECORD ACCESS PROCEDURES:

USPTO employees wishing to inquire whether this system of records contains information about them should contact the system manager indicated. Individuals must furnish their full names for their records to be located and identified. See "Notification procedure" above.

CONTESTING RECORD PROCEDURES:

USPTO employees wishing to request amendment of their records should contact the system manager indicated. Individuals must furnish their full names for their records to be located and identified. See "Notification procedure" above.

RECORD SOURCE CATEGORIES:

The information contained in these records is provided by or verified by the subject individual of the record, supervisors, other personnel documents, and non-Federal sources such as private employers.

EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

Dated: December 7, 2004.

Susan K. Brown,

Records Officer, USPTO, Office of the Chief Information Officer, Office of Data Architecture and Services, Data Administration Division.

[FR Doc. 04-27321 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-16-P

DEPARTMENT OF COMMERCE

Patent and Trademark Office

Privacy Act of 1974; System of Records

AGENCY: United States Patent and Trademark Office, Commerce.

ACTION: Notice of proposed new Privacy Act system of records.

SUMMARY: In accordance with the requirements of the Privacy Act of 1974, as amended, the United States Patent and Trademark Office (USPTO) gives notice of a proposed new system of records entitled "COMMERCE/PAT-TM-18 USPTO Identification and Security Access Control Systems." We invite the public to comment on the system announced in this publication.

DATES: Written comments must be received no later than January 13, 2005. The proposed system of records will be effective on January 13, 2005, unless the USPTO receives comments that would result in a contrary determination.

ADDRESSES: You may submit written comments by any of the following methods:

- E-mail: Calib.Garland@uspto.gov.
- Fax: (703) 746-8050, marked to the attention of J.R. Garland.
- Mail: J.R. Garland, Director, Security Office, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

All comments received will be available for public inspection at the Public Search Facilities, Madison East—1st Floor, 600 Dulany Street, Alexandria, VA 22314.

FOR FURTHER INFORMATION CONTACT: J.R. Garland, Director, Security Office, USPTO, (703) 306-9000.

SUPPLEMENTARY INFORMATION: The United States Patent and Trademark Office (USPTO) is giving notice of a new

system of records that is subject to the Privacy Act of 1974. The proposed system of records will maintain information on all employees and contractors working for the USPTO for the purpose of providing additional physical security for agency assets. New identification badges will be issued to employees and contractors containing the person's photograph, name, agency name, and identification of active employee or contractor status. Related access controls will be assigned as appropriate.

The USPTO plans to implement a new Access Control System for USPTO facilities, including the main offices at the Carlyle campus in Alexandria, VA. The Access Control System will use new USPTO identification badges to control access to physical assets.

The proposed new system of records, "COMMERCE/PAT-TM-18 USPTO Identification and Security Access Control Systems," is published in its entirety below.

COMMERCE/PAT-TM-18

SYSTEM NAME:

USPTO Identification and Security Access Control Systems.

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Office of Administrative Services, Security Office, United States Patent and Trademark Office, 600 Dulany Street, Alexandria, VA 22314.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

USPTO employees, contractors, and other individuals requiring access to USPTO facilities or receiving government property.

CATEGORIES OF RECORDS IN THE SYSTEM:

Individual's photograph, registers, and logs reflecting sequential numbering of security/access badges. Records may include the individual's name, organization, work telephone number, date of birth, identification number, photographic image, and records of access to secured facilities.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 301; 35 U.S.C. 2; and E.O. 9397.

PURPOSE(S):

To improve security for USPTO physical assets; to maintain records concerning the security/access badges issued; to restrict entry to installations and activities; to ensure positive identification of personnel authorized to access restricted areas; and to maintain

accountability for issuance and disposition of security/access badges and similar physical access tools.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

See Prefatory Statement of General Routine Uses Nos. 1-13, as found at 46 FR 63501-63502 (December 31, 1981).

The USPTO will use the records to issue official U.S. Government identification badges and cards to USPTO employees and contract employees requiring access to USPTO buildings and offices. The records will also be used to maintain a record of all holders of identification badges and cards, for renewal and recovery of expired badges and/or cards, and to identify those that are lost or stolen.

DISCLOSURE TO CONSUMER REPORTING AGENCIES:

Not applicable.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are maintained in electronic media.

RETRIEVABILITY:

Records are retrieved by individual's name and/or card number.

SAFEGUARDS:

Access to this system of records is limited to security and guard force personnel. Records are stored in guarded security areas and in controlled-access systems.

Access to sensitive records is available only to authorized employees responsible for the management of the system and/or employees of program offices who have a need for such information. Electronic records are password-protected. During non-work hours, records are stored in locked safes and/or cabinets in locked rooms.

RETENTION AND DISPOSAL:

The records on government employees and contractor employees are retained for the duration of their employment at the USPTO. Other individuals' records are kept for the duration of their affiliation with the USPTO and then treated as employee records. The records on separated employees are destroyed or sent to the Federal Records Center in accordance with General Records Schedule 18.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Security Office, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

NOTIFICATION PROCEDURE:

Information may be obtained from the Security Office, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. Requesters should provide the appropriate information in accordance with the inquiry provisions appearing at 37 CFR Part 102 Subpart B.

RECORD ACCESS PROCEDURES:

USPTO employees wishing to inquire whether this system of records contains information about them should contact the system manager indicated. Individuals must furnish their full names for their records to be located and identified. See "Notification procedure" above.

CONTESTING RECORD PROCEDURES:

USPTO employees wishing to request amendment of their records should contact the system manager indicated. Individuals must furnish their full names for their records to be located and identified. See "Notification procedure" above.

RECORD SOURCE CATEGORIES:

The information contained in these records is provided by or verified by the subject individual of the record, supervisors, other personnel documents, and non-Federal sources such as private employers.

EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

Dated: December 7, 2004.

Susan K. Brown,
Records Officer, USPTO, Office of the Chief Information Officer, Office of Data Architecture and Services, Data Administration Division.

[FR Doc. 04-27322 Filed 12-13-04; 8:45 am]

BILLING CODE 3510-16-P

DEPARTMENT OF DEFENSE

Office of the Secretary

Submission for OMB Review; Comment Request

ACTION: Notice.

The Department of Defense has submitted to OMB for clearance, the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

DATES: Consideration will be given to all comments received by January 13, 2005.

Title, Form, and OMB Number: Estuary Habitat Restoration Project Application; Eng Form 6019-R; OMB Control Number 0710-0014.

Type of Request: New.
Number of Respondents: 100.
Responses Per Respondent: 1.
Annual Responses: 100.
Average Burden Per Response: 10 hours.

Needs and Uses: The Corps will solicit applications for estuary habitat restoration projects under section 104 of the Estuary Restoration Act 2000. Requested information will include proposed project location, types and acreage of habitat to be restored, and project description including restoration techniques, project goals and expected benefits, monitoring plan, costs, and other supporting information. Project applications may be submitted either electronically or in paper format. This information is needed to select projects for funding.

Affected Public: State, local, or tribal government and not-for-profit institutions.

Frequency: Annually.

Respondents Obligation: Required to obtain or retain benefits.

OMB Desk Officer: Ms. Jacqueline Zeiher.

Written comments and recommendations on the proposed information collection should be sent to Ms. Zeiher at the Office of Management and Budget, Desk Officer for DoD, Room 10236, New Executive Office Building, Washington, DC 20503.

DOD Clearance Officer: Ms. Patricia Toppings.

Written requests for copies of the information collection proposal should be sent to Ms. Toppings, WHS/ESCD/Information Management Division, 1225 South Clark Street, Suite 504, Arlington, VA 22202-4326.

Dated: December 6, 2004.

Patricia L. Toppings,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 04-27307 Filed 12-13-04; 8:45 am]

BILLING CODE 5001-06-M

DEPARTMENT OF DEFENSE

Office of the Secretary

Submission for OMB Review; Comment Request

ACTION: Notice.

The Department of Defense has submitted to OMB for clearance, the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

DATES: Consideration will be given to all comments received by January 13, 2005.

Title, Form, and OMB Number:
Description of Vessel; Eng Form 3931;
Description of Operation; Eng Form
3932; OMB Control Number 0710-0009.

Type of Request: Revision.
Number of Respondents: 3,058.
Responses per Respondent: 1.
Annual Responses: 3,058.
Average Burden per Response: 40
minutes.

Annual Burden Hours: 2,048.
Needs and Uses: The Corps of
Engineers used ENG Forms 3931 and
3932 as the basic instruments to collect
vessel and operating descriptions for
use in waterborne commerce statistics.
These data constitute the sole source for
domestic vessel characteristics and
operating descriptions for domestic
vessels operating on U.S. navigable
waterways. These data are collected
from vessel operating companies. These
data are essential to plans for
maintaining U.S. navigable waterways.
These data are also critical to the
enforcement of the "Harbor
Maintenance Tax" authorized under
section 1402 of Public Law 99-662.

Affected Public: Business or other for-
profit.

Frequency: Annually.
Respondent's Obligation: Mandatory.
OMB Desk Officer: Ms. Jacqueline
Zeiber.

Written comments and
recommendations on the proposed
information collection should be sent to
Ms. Zeiber at the Office of Management
and Budget, Desk Officer for DoD, Room
10236, New Executive Office Building,
Washington, DC 20503.

DOD Clearance Officer: Ms. Patricia
Toppings.

Written requests for copies of the
information collection proposal should
be sent to Ms. Toppings, WHS/ESCD/
Information Management Division, 1225
South Clark Street, Suite 504, Arlington,
VA 22202-4326.

Dated: December 6, 2004.

Patricia L. Toppings,
*Alternate OSD Federal Register Liaison
Officer, Department of Defense.*

[FR Doc. 04-27308 Filed 12-13-04; 8:45 am]

BILLING CODE 5001-06-M

DEPARTMENT OF DEFENSE

Office of the Secretary

Submission for OMB Review; Comment Request

ACTION: Notice.

The Department of Defense has
submitted to OMB for clearance, the
following proposal for collection of

information under the provisions of the
Paperwork Reduction Act (44 U.S.C.
Chapter 35).

DATES: Consideration will be given to all
comments received by January 13, 2005.

Title, Form, and OMB Number:
Application for a Department of Army
Permit; Eng Form 4345; OMB Control
Number 0710-0003.

Type of Request: Revision.
Number of Respondents: 85,500.
Responses Per Respondent: 1.
Annual Responses: 85,500.

Average Burden Per Response: 10
hours.

Annual Burden Hours: 340,000.

Needs and Uses: Information
collected is used to evaluate, as required
by law, proposed construction or filing
in waters of the United States that result
in impacts to the aquatic environment
and nearby properties, and to determine
if issuance of a permit is in the public
interest. Respondents are private
landowners, businesses, non-profit
organizations, and government agencies.

Affected Public: Individuals or
households; business or other for-profit;
not-for-profit institutions; farms; Federal
government; State, local or tribal
government.

Frequency: On occasion.
Respondents Obligation: Mandatory.
OMB Desk Officer: Ms. Jacqueline
Zeiber.

Written comments and
recommendations on the proposed
information collection should be sent to
Ms. Zeiber at the Office of Management
and Budget, Desk Officer for DoD, Room
10236, New Executive Office Building,
Washington, DC 20503.

DOD Clearance Officer: Ms. Patricia
Toppings.

Written requests for copies of the
information collection proposal should
be sent to Ms. Toppings, WHS/ESCD/
Information Management Division, 1225
South Clark Street, Suite 504, Arlington,
VA 22202-4326.

Dated: December 6, 2004.

Patricia L. Toppings,
*Alternate OSD Federal Register Liaison
Officer, Department of Defense.*

[FR Doc. 04-27309 Filed 12-13-04; 8:45 am]

BILLING CODE 5001-06-M

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[OMB Control No. 9000-0153]

Federal Acquisition Regulation; Information Collection; OMB Circular A-119

AGENCIES: Department of Defense (DOD),
General Services Administration (GSA),
and National Aeronautics and Space
Administration (NASA).

ACTION: Notice of request for public
comments regarding an extension to an
existing OMB clearance (9000-0153).

SUMMARY: Under the provisions of the
Paperwork Reduction Act of 1995 (44
U.S.C. Chapter 35), the Federal
Acquisition Regulation (FAR)
Secretariat will be submitting to the
Office of Management and Budget
(OMB) a request to review and approve
an extension of a currently approved
information collection requirement
concerning OMB Circular A-119. The
clearance currently expires on March
31, 2005.

Public comments are particularly
invited on: Whether this collection of
information is necessary for the proper
performance of functions of the FAR,
and whether it will have practical
utility; whether our estimate of the
public burden of this collection of
information is accurate, and based on
valid assumptions and methodology;
ways to enhance the quality, utility, and
clarity of the information to be
collected; and ways in which we can
minimize the burden of the collection of
information on those who are to
respond, through the use of appropriate
technological collection techniques or
other forms of information technology.

DATES: Submit comments on or before
February 14, 2005.

ADDRESSES: Submit comments regarding
this burden estimate or any other aspect
of this collection of information,
including suggestions for reducing this
burden to the General Services
Administration, FAR Secretariat (V),
1800 F Streets, NW., Room 4035,
Washington, DC 20405. Please cite OMB
Control No. 9000-0153, OMB Circular
A-119, in all correspondence.

FOR FURTHER INFORMATION CONTACT
Jeritta Parnell, Contract Policy Division,
GSA (202) 501-4082.

SUPPLEMENTARY INFORMATION:

A. Purpose

On February 19, 1998, a revised OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," was published in the *Federal Register* at 63 FR 8545, February 19, 1998. FAR Subparts 11.1 and 11.2 were revised and a solicitation provision was added at 52.211-7, Alternatives to Government-Unique Standards, to implement the requirements of the revised OMB circular. If an alternative standard is proposed, the offeror must furnish data and/or information regarding the alternative in sufficient detail for the Government to determine if it meets the Government's requirements.

B. Annual Reporting Burden

Respondents: 100.
Responses Per Respondent: 1.
TOTAL RESPONSES: 100.
Hours Per Response: 1.
Total Burden Hours: 100.

Obtaining Copies of Proposals:

Requesters may obtain a copy of the information collection documents from the General Services Administration, FAR Secretariat (V), Room 4035, 1800 F Street, NW, Washington, DC 20405, telephone (202) 501-4755. Please cite OMB Control No. 9000-0153, OMB Circular A-119, in all correspondence.

Dated: December 7, 2004

Laura Auletta

Director, Contract Policy Division.

[FR Doc. 04-27315 Filed 12-13-04; 8:45 am]

BILLING CODE 6820-EP-S

DEPARTMENT OF DEFENSE**GENERAL SERVICES ADMINISTRATION****NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

[OMB Control No. 9000-0043]

Federal Acquisition Regulation; Information Collection; Delivery Schedules

AGENCIES: Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

ACTION: Notice of request for public comments regarding an extension to an existing OMB clearance.

SUMMARY: Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the Federal Acquisition Regulation (FAR) Secretariat will be submitting to the

Office of Management and Budget (OMB) a request to review and approve an extension of a currently approved information collection requirement concerning delivery schedules. The clearance currently expires on March 31, 2005.

Public comments are particularly invited on: Whether this collection of information is necessary for the proper performance of functions of the FAR, and whether it will have practical utility; whether our estimate of the public burden of this collection of information is accurate, and based on valid assumptions and methodology; ways to enhance the quality, utility, and clarity of the information to be collected; and ways in which we can minimize the burden of the collection of information on those who are to respond, through the use of appropriate technological collection techniques or other forms of information technology.

DATES: Submit comments on or before February 14, 2005.

ADDRESSES: Submit comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the General Services Administration, FAR Secretariat (V), 1800 F Street, NW, Room 4035, Washington, DC 20405. Please cite OMB Control No. 9000-0043, Delivery Schedules, in all correspondence.

FOR FURTHER INFORMATION CONTACT Jeritta Parnell, Contract Policy Division, GSA (202) 501-4082.

SUPPLEMENTARY INFORMATION:**A. Purpose**

The time of delivery or performance is an essential contract element and must be clearly stated in solicitations and contracts. The contracting officer may set forth a required delivery schedule or may allow an offeror to propose an alternate delivery schedule. The information is needed to assure supplies or services are obtained in a timely manner.

B. Annual Reporting Burden

Respondents: 3,440.
Responses Per Respondent: 5.
Total Responses: 17,200.
Hours Per Response: .167.
Total Burden Hours: 2,872.

Obtaining Copies of Proposals:

Requesters may obtain a copy of the information collection documents from the General Services Administration, FAR Secretariat (V), 1800 F Street, NW, Room 4035, Washington, DC 20405, telephone (202) 501-4755. Please cite OMB Control No. 9000-0043, Delivery Schedules, in all correspondence.

Dated: December 7, 2004

Laura Auletta

Director, Contract Policy Division.

[FR Doc. 04-27316 Filed 12-13-04; 8:45 am]

BILLING CODE 6820-EP-S

DEPARTMENT OF DEFENSE**Defense Logistics Agency****Cost Sharing Cooperative Agreement Applications**

AGENCY: Defense Logistics Agency (DLA).

ACTION: Notice of solicitation for cost sharing cooperative agreement applications.

SUMMARY: The Defense Logistics Agency (DLA) issued a solicitation for cooperative agreement applications (SCAA) to assist state and local governments and other nonprofit eligible entities in establishing or maintaining procurement technical assistance centers (PTACs). These centers help business firms market their goods and services to the Department of Defense (DoD), other federal agencies, and state and/or local government agencies. Notice of the issuance of this SCAA was published in the March 18, 2003 *Federal Register* (Volume 68, Number 52, page 12897). This solicitation governs the submission of applications for calendar years 2003 thru 2007 and applies to all applications from all eligible entities, including Indian Economic Enterprises and Indian Tribal Organizations. The current and applicable SCAA is available at the Internet Web site listed below. The FY 2005 DoD Appropriations Act (Pub. L. 108-287) has appropriated funds for the continuance of the program in FY 2005 and requires DoD to make available not less than \$3.6 million for applicants that meet the definition 10 U.S.C. 2411(1)(D). The 3 existing PTACs meeting this definition will not utilize the entire \$3.6 million, therefore, pursuant to Section "I" paragraph "K" of the SCAA, notice is hereby given that limited additional funds are available in order to accept applications for additional new programs from eligible entities, but limited only to those that meet either definition listed in Section "II" paragraphs "19.d" (Indian Economic Enterprise) or "19.e" (Indian Tribal Organization) of the SCAA. However, applications will only be accepted from eligible entities that propose programs that will provide service to areas that are not currently receiving service from an existing program. This provision prohibiting

applications from new programs proposing to service areas currently receiving service from an existing program is absolute, and the provisions of the last sentence of Section V, paragraph C. of the SCAA do not apply should a new applicant propose to service an area currently receiving service from an existing program.

DATES: On-line submissions of applications for new programs will be available on or about December 10, 2004. The closing date for the submission of applications is January 21, 2005 (see Section IV, paragraph C. regarding timely applications). Applications received after January 21, 2005 will not be accepted.

The SCAA is currently available for review on the Internet Web site: <http://www.dla.mil/db/scaa2003.pdf>.

Printed copies are not available for distribution.

Eligible entities may only submit an application as outlined in Section IV of the SCAA. In order to comply with the electronic portion of the submission, applicants must obtain a log in account and password from DLA. To obtain these, applicants must furnish the Grants Officer written evidence that they meet the criteria of an eligible entity as set forth in either paragraph "19.d" or "19.e" of Section II of the SCAA. This information should be mailed or otherwise delivered to: HQ, Defense Logistics Agency, Small and Disadvantaged Business Utilization Office (DB Room 1127), 8725 John J. Kingman Road, Ft. Belvoir, VA 22060-6221.

FOR FURTHER INFORMATION CONTACT: If you have any questions or need additional information please contact Ms. Diana Maykowskyj at (703) 767-1656.

Anthony J. Kuders,

Program Manager, DoD, Procurement Technical Assistance Program.

[FR Doc. 04-27323 Filed 12-13-04; 8:45 am]

BILLING CODE 3620-01-M

DEPARTMENT OF EDUCATION

[CFDA Nos: 84.015A and 84.015B]

Office of Postsecondary Education, International Education Programs Service

ACTION: Notice announcing technical assistance workshop for fiscal year (FY)2006 National Resource Centers for Foreign Language and Area Studies or Foreign Language and International Studies and Foreign Language and Area Studies Fellowships Programs.

SUMMARY: This notice provides information about a workshop to assist institutions of higher education interested in preparing grant applications for FY2006 new awards under the Title VI, National Resource Centers (NRC) and Foreign Language and Area Studies (FLAS) Fellowships Programs. Program staff will present information about the purpose of these programs, selection criteria, application content, submission procedures, and reporting requirements.

Although the Department has not yet announced an application deadline date in the **Federal Register** for the FY2006 NRC and FLAS competition, the Department is holding this workshop to give potential applicants guidance for preparing applications for the competition we expect to conduct in FY2006. Specific requirements for the FY2006 competition will be published in a separate **Federal Register** notice. This notice announces the technical assistance workshop only.

FOR FURTHER INFORMATION CONTACT: Cheryl Gibbs, Ed McDermott, Sara Starke, Karla Ver Bryck Block, or Amy Wilson, International Education Programs Service, U.S. Department of Education, 1990 K Street, NW., 6th Floor, Washington, DC 20006-8521. Telephone: (202) 501-7700 or by e-mail: OPE_NRC-FLAS@ed.gov.

If you use a telecommunications device for the deaf (TDD), you may call the Federal Information Relay Service (FIRS) at 1-800-877-8339.

Individuals with disabilities may obtain this document in an alternative format (e.g., Braille, large print, audiotape, or computer diskette) on request to the program contact persons listed in this section.

SUPPLEMENTARY INFORMATION: The technical assistance workshop will be held as follows:

Arlington, Virginia: Registration, 5 p.m.-7 p.m., Sunday, February 13. Technical Assistance Workshop sessions will be conducted 8 a.m.-5 p.m., Monday and Tuesday, February 14-15, 2005. Crystal Gateway Marriott, 1700 Jefferson Davis Highway, Arlington, Virginia 22202, Telephone: 1 (800) 228-9290 or (703) 920-3230.

There is no registration fee for this workshop. However, space at the workshop is limited. Attendees are required to make their own reservations directly with the hotel. The Department has reserved a limited number of rooms at the hotel at a special government per diem room rate of \$150.00. To reserve this rate, be certain to inform the hotel that you are attending the "U.S. Department of Education NRC and

FLAS Technical Assistance Workshop." You must make your reservations on or before Saturday, January 22, 2005.

Assistance to Individuals With Disabilities Attending the Technical Assistance Workshop

The technical assistance workshop site is accessible to individuals with disabilities. If you will need an auxiliary aid or service to participate in the workshop (e.g., interpreting service, assistive listening device, or materials in an alternative format) notify the contact persons listed under **FOR FURTHER INFORMATION CONTACT** at least two weeks before the scheduled workshop date. Although we will attempt to meet a request received after this date, we may not be able to make available the requested auxiliary aid or service because of insufficient time to arrange it.

Electronic Access to this Document: You may view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Adobe Portable Document Format (PDF) on the Internet at the following site: <http://www.ed.gov/news/fedregister>.

To use PDF you must have Adobe Acrobat Reader, which is available free at this site. If you have questions about using PDF, call the U.S. Government Printing Office (GPO), toll free, at 1-888-293-6498; or in the Washington, DC area at (202) 512-1530.

Note: The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available on GPO Access at: <http://www.gpoaccess.gov/nara/index.html>.

Dated: December 8, 2004.

Sally L. Stroup,

Assistant Secretary for Postsecondary Education.

[FR Doc. E4-3637 Filed 12-13-04; 8:45 am]

BILLING CODE 4000-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. IC05-724-000, FERC-724]

Proposed Information Collection and Request for Comments

December 10, 2004.

AGENCY: Federal Energy Regulatory Commission.

ACTION: Request for Office of Management and Budget emergency

processing of proposed information collection and request for comments.

SUMMARY: The Federal Energy Regulatory Commission (Commission) is providing notice of its request to the Office of Management and Budget (OMB) for emergency processing of a proposed collection of information in connection with the training of operators of the bulk power system, and is soliciting public comment on that information collection.

DATES: The Commission and OMB must receive comments on or before December 20, 2004.

ADDRESSES: Send comments to:

(1) John Asalone, FERC Desk Officer, Office of Information and Regulatory Affairs, Office of Management and Budget. Mr. Asalone may be reached by telephone at (202) 395-4650 or by fax at (202) 395-7285 and

(2) Michael Miller, Office of the Executive Director, ED-30, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426. Mr. Miller may be reached by telephone at (202) 502-8415 and by e-mail at michael.miller@ferc.gov.

FOR FURTHER INFORMATION CONTACT: Christy Walsh, Office of the General Counsel, Federal Energy Regulatory Commission. Ms. Walsh may be reached by telephone at (202) 502-6523 and by e-mail at christy.walsh@ferc.gov.

SUPPLEMENTARY INFORMATION: On August 14, 2003, an electric power blackout occurred over large portions of the Northeast and Midwest United States and Ontario, Canada. The power blackout lasted up to two days in some areas of the United States and for a longer period of time in some areas of Canada. It affected an area with over 50 million people and 61,800 megawatts of electric load. In the wake of the blackout, a joint U.S.-Canada Power System Outage Task Force (Task Force) undertook a study of the causes of that blackout and possible solutions to avoid future such blackouts.

On April 5, 2004, the Task Force issued the Final Report on the August 14, 2003 Blackout in the U.S. and Canada (Blackout Report). The report found that a major cause of the August 14, 2003 electric power blackout was that control area operators had not received adequate training in recognizing and responding to system emergencies. Most notable was the lack of realistic simulations and drills to train and verify the capabilities of operating personnel. Such simulations are essential if operators and other staff are to be able to respond adequately to emergencies. This training deficiency

contributed to the lack of situational awareness and failure to declare an emergency on August 14, 2003 while operator intervention was still possible (before events began to occur at a speed beyond human control). This failure has been a common factor that has contributed to the August 14, 2003 blackout and many previous regional electric system outages.

The Commission intends to issue an order that requires surveys to be answered by power system operators, whether or not they are otherwise subject to the Commission's jurisdiction as a public utility, containing questions intended to evaluate the status of training throughout the industry, identify best practices and determine minimum requirements for operator training within the industry. The survey will be sent to no more than 160 transmission grid operators. The participants selected will include transmission providers and control area operators to identify training deficiencies and opportunities for improved training in the bulk power sector. The Commission will analyze the data and provide a timely report to Congress on the need for legislation to ensure the reliability of the U.S. bulk power system.

Section 311 of the Federal Power Act, 16 U.S.C. 825j (2000), authorizes the Commission to conduct investigations in order to secure information necessary or appropriate as a basis for recommending legislation. Section 311 makes clear that the Commission's authority in conducting an investigation extends to entities that are otherwise not subject to the Commission's jurisdiction "including the generation, transmission, distribution, and sale of electric energy by any agency, authority, or instrumentality of the United States, or of any State or municipality * * *." The information collected from this survey will be reflected in a Commission report to Congress on the need for legislation on the reliability of the nation's interstate bulk electric systems, consistent with section 311 of the FPA.

In the Blackout Report, the Task Force noted severe limitations in training for operators, reliability, coordinators, and operator support staff. Due to the inadequacies of power system operator training that have contributed to multiple system outages, one of the recommendations of the Blackout Report is for greater near-term and long-term training and certification requirements for operators, reliability coordinators, and operator support staff (Recommendation 19c). The Task Force specifically recommended the

commission of an advisory report by an independent panel to address a wide range of issues concerning reliability training programs and certification requirements. It concluded that the independent panel should deliver the advisory report by March 31, 2005, "under the oversight of FERC and appropriate Canadian authorities." The Commission and Canadian authorities, in consultation with the North American Electric Reliability Council (NERC) and other, should evaluate the report and consider its findings in evaluating minimum training and certification requirements for control areas and reliability coordinators.

Since the release of the Blackout Report in April 2004, only limited action has been taken in addressing the issue of operator training. As a consequence, while it was initially contemplated that the Commission's role would be strictly one of oversight, the Commission has now stepped in to take a leadership role by commissioning and managing an industry survey to determine both minimally acceptable and best practices for operator training in the same time frame recommended by the Task Force. The Commission must act quickly to meet the target set out by the Task Force. The information the Commission is seeking in the operator training survey is an important facet in achieving the overarching goal of ensuring safe and reliable operation of the transmission system. In light of the urgency of moving forward with the survey, the ability to collect this information prior to the expiration of a normal OMB 60-day review time frame is essential to the mission of the Commission, and as such, the Commission has requested emergency processing of this proposed information collection. Because the Commission requires the survey results as soon as possible, the Commission will require completion of the survey by January 31, 2005.

The Commission will refer to the reports being requested as FERC Form 724: Bulk Power System Operator Training Survey. Respondent would provide a one-time-only completed survey no later than January 31, 2005. The survey, which is patterned after a survey prepared by the Department of Energy to address operator training standards in the nuclear industry, is designed to determine:

- Educational methods.
- Training and certification approaches.
- Re-certification procedures.
- Use of simulator-based training.
- Required hours of annual training for emergency and normal operations.

- Staffing levels.
- Communication levels.

The Complete survey is available at <http://www.ferc.gov/industries/electric/indus-act/reliability/2004-sys-op-survey.pdf>.

The Commission estimates that no more than 160 entities will be the subject of this reporting request with the survey going out to approximately eight different personnel at each chosen entity and that it would take each entity no more than 2 hours to complete the survey—larger entities may require additional respondents while smaller entities will likely have fewer respondents. Therefore, the total number of hours it would take to comply with the reporting requirement would be 320. The Commission estimates a total cost of \$18,720 to respondents at \$58.50 per hour, based on salaries for professional and clerical staff, as well as direct and indirect overhead costs.

The Commission has submitted this reporting requirement to OMB for approval. OMB's regulations describe the process that federal agencies must follow in order to obtain OMB approval of reporting requirements. See 5 CFR part 1320. The standards for emergency processing of information collections appear at 5 CFR 1320.13. If OMB approves a reporting requirement, then it will assign an information collection control number to that requirement. If a request for information subject to OMB review has not been given a valid control number, then the recipient is not required to respond.

OMB required federal agencies seeking approval of reporting requirements to allow the public an opportunity to comment on the proposed reporting requirement. 5 CFR 1320.5(a)(1)(iv). Therefore, the Commission is soliciting comment on:

- (1) Whether the collection of information is necessary for the proper performance of the Commission's functions, including whether the information will have practical utility;
- (2) The accuracy of the Commission's estimate of the burden of the collection of this information, including the validity of the methodology and assumptions used;
- (3) The quality, utility, and clarity of the information to be collected; and
- (4) How to minimize the burden of the collection of this information on respondents, including the use of appropriate automated electronic,

mechanical, or other forms of information technology.

C.B. Spencer,

Acting Secretary.

[FR Doc. 04-27463 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-106-000]

Algonquin Gas Transmission, LLC; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on December 1, 2004, Algonquin Gas Transmission, LLC (Algonquin) tendered for filing as part of its FERC Gas Tariff, Fifth Revised Volume No. 1, First Revised Sheet No. 507, proposed to become effective January 1, 2005.

Algonquin states that copies of the filing were served upon all affected customers of Algonquin and interested state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public

Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3621 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-98-000]

Alliance Pipeline L.P.; Notice of Tariff Filing

December 7, 2004.

Take notice that on November 30, 2004, Alliance Pipeline L.P. (Alliance) tendered for filing as part of its FERC Gas Tariff, Original Volume No. 1, the following tariff sheets, proposed to become effective January 1, 2005:

Fourth Revised Sheet No. 11
Fourth Revised Sheet No. 12
Fourth Revised Sheet No. 13
Fourth Revised Sheet No. 14

Alliance states that its filing is made pursuant to the authorization set forth in its negotiated rate agreements and section 39 of the General Terms and Conditions of its FERC Gas Tariff.

Alliance states that copies of its filing have been mailed to all customers, state commissions, and other interested parties.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or

protests on persons other than the Applicant.

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This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3630 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2100-052-CA]

California Department of Water Resources; Notice of Designation of Certain Commission Personnel as Non-Decisional

December 7, 2004.

Commission staff member Kenneth Hogan (Office of Energy Projects; kenneth.hogan@ferc.gov, 202-502-8434;) is assigned to help resolve environmental and other issues associated with the development of a comprehensive settlement agreement for the Oroville Project. The parties involved in the settlement process wish to complete a comprehensive settlement agreement and file an offer of settlement before the license application is due in January 2005.

As non-decisional staff, Mr. Hogan will not participate in an advisory capacity in the Commission's review of any offer of settlement or settlement agreement, or deliberations concerning the disposition of the relicense application once it is filed for the project.

Different Commission advisory staff will be assigned to review any offer of settlement or settlement agreement, and

process the relicense application, including providing advice to the Commission with respect to the agreement and application. Non-decisional staff and advisory staff will be prohibited from communicating with one another concerning any filed settlement and relicense application for the project.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3614 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-115-000]

CenterPoint Energy—Mississippi River Transmission Corporation; Notice of Penalty Revenue Credit Report

December 7, 2004.

Take notice that on December 3, 2004, CenterPoint Energy—Mississippi River Transmission Corporation (MRT) tendered for filing its "Annual Report of Penalty Revenue Credits" covering such activity during the twelve month period ended July 31, 2004.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the date as indicated below. Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for

review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Intervention and Protest Date: 5 p.m. Eastern Time on December 14, 2004.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3629 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-111-000]

CenterPoint Energy Gas Transmission Company; Notice of Tariff Filing

December 7, 2004.

Take notice that on December 1, 2004, CenterPoint Energy Gas Transmission Company (CEGT) tendered for filing as part of its FERC Gas Tariff, Sixth Revised Volume No. 1, First Revised Sheet No. 452 and First Revised Sheet No. 453, to be effective on January 1, 2005.

CEGT states that the purpose of this filing is to provide an opportunity for its local distribution company customers to negotiate arrangements to address unbundling orders.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and

interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible online at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3625 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-102-000]

Colorado Interstate Gas Company; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on November 30, 2004, Colorado Interstate Gas Company (CIG) tendered for filing as part of its FERC Gas Tariff, First Revised Volume No 1, Thirty-Fifth Revised Sheet No. 11A, to become effective January 1, 2005.

CIG states that the tariff sheet is being filed to revise the fuel reimbursement percentage applicable to lost, unaccounted-for and other fuel gas.

CIG states that copies of its filing have been sent to all firm customers, interruptible customers, and affected state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance

with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3617 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-112-000]

Enbridge Pipelines (KPC); Notice of Tariff Filing

December 7, 2004.

Take notice that on December 1, 2004, Enbridge Pipelines (KPC) tendered for filing its Annual Excess Interruptible Revenue Refund Report for the 12 month period ending September 30, 2004.

KPC states that copies of its transmittal letter and appendices have been mailed to all affected customers and interested state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will

not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3626 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-105-000]

Equitrans, L.P.; Notice of Tariff Filing

December 7, 2004.

Take notice that on November 30, 2004, Equitrans, L.P. (Equitrans) tendered for filing as part of its FERC Gas Tariff, Original Volume No. 1, the revised tariff sheets listed on Appendix A to the filing, proposed to become effective on December 1, 2004.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by

the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3620 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-99-000]

Gas Transmission Northwest Corporation; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on November 30, 2004, Gas Transmission Northwest Corporation (GTN) tendered for filing as part of its FERC Gas Tariff, Third Revised Volume No. 1-A, the tariff sheets listed on Appendix A to the filing, to become effective January 1, 2005.

GTN states that these tariff sheets are being submitted to reflect termination of its MRRS and equivalent CES surcharge, consistent with the Stipulation and Agreement from GTN's last general section 4 rate case in Docket Nos. RP94-149, *et al.*

GTN further states that a copy of this filing has been served on GTN's jurisdictional customers and interested state regulatory agencies.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of § 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3613 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-100-000]

Gas Transmission Northwest Corporation; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on November 30, 2004, Gas Transmission Northwest (GTN) tendered for filing as part of its FERC Gas Tariff, Third Revised Volume No. 1-A, Fourth Revised Sheet No. 6, to become effective January 1, 2005.

GTN states that this tariff sheet is being submitted to implement its semi-annual fuel charge adjustment in compliance with Paragraph 37 of the General Terms and Conditions of GTN's tariff.

GTN further states that a copy of this filing has been served on GTN's jurisdictional customers and interested state regulatory agencies.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible online at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a

document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3615 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-107-000]

Mojave Pipeline Company; Notice of Tariff Filing

December 7, 2004.

Take notice that on December 1, 2004, Mojave Pipeline Company (Mojave) tendered for filing as part of its FERC Gas Tariff, Second Revised Volume No. 1, Twelfth Revised Sheet No. 11, to become effective January 1, 2005.

Mojave states that the tariff sheet is being filed to revise the fuel charge applicable to transportation service on its system.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the

"eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3622 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-113-000]

Northern Natural Gas Company; Notice of Tariff Filing

December 7, 2004.

Take notice that on December 1, 2004, Northern Natural Gas Company (Northern), tendered for filing as part of its FERC Gas Tariff, Fifth Revised Volume No. 1, the following tariff sheets, proposed to be effective January 1, 2005:

70 Revised Sheet No. 50
71 Revised Sheet No. 51
69 Revised Sheet No. 53

Northern states that this filing establishes the system balancing agreement (SBA) cost recovery surcharge to be effective January 1, 2005 for the period January 1 through December 31, 2005.

Northern further states that copies of the filing have been mailed to each of its customers and interested state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or

before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,

Secretary.

[FR Doc. E4-3627 Filed 12-13-04; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-109-000]

Panhandle Eastern Pipe Line Company, LP; Notice of Report of Flow Through of Penalty Revenues

December 7, 2004.

Take notice that on December 1, 2004, Panhandle Eastern Pipe Line Company, LP (Panhandle) tendered for filing its Annual Report of Flow Through of Penalty Revenues.

Panhandle states that this filing is made in accordance with section 25.2(c)(i) of the General Terms and Conditions in Panhandle's FERC Gas Tariff, Third Revised Volume No. 1.

Panhandle further states that copies of this filing are being served on all affected customers and applicable state regulatory agencies.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to

the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3623 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-104-000]

Questar Pipeline Company; Notice of Tariff Filing

December 7, 2004.

Take notice on December 1, 2004, Questar Pipeline Company (Questar) tendered for filing as part of its FERC Gas Tariff, the following tariff sheets, to be effective January 1, 2005:

First Revised Volume No. 1
Thirty-Third Revised Sheet No. 5
Original Volume No. 3
Fortieth Revised Sheet No. 8

Questar states that the tendered tariff sheets revise Questar's fuel gas

reimbursement percentage (FGRP) from the currently effective 2.0% to 2.6%.

Questar states that a copy of this filing has been served upon its customers, the Public Service Commission of Utah and the Public Service Commission of Wyoming.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of § 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.
[FR Doc. E4-3619 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-101-000]

Southern Natural Gas Company; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on November 30, 2004, Southern Natural Gas Company (Southern) tendered for filing as part of its FERC Gas Tariff, Seventh Revised Volume No. 1, the following tariff sheets, to become effective January 1, 2005:

First Revised Sixty-Third Revised Sheet No. 14
First Revised Eighty-Fourth Revised Sheet No. 15
First Revised Sixty-Third Revised Sheet No. 16
First Revised Eighty-Fourth Revised Sheet No. 17
First Revised Forty-Seventh Revised Sheet No. 18

Southern states that copies of the filing were served upon Southern's customers and interested state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of § 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for

review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3616 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-103-000]

Southern Star Central Gas Pipeline, Inc.; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on December 1, 2004, Southern Star Central Gas Pipeline, Inc. (Southern Star) tendered for filing as part of its FERC Gas Tariff, Volume No. 1, the following tariff sheets, to become effective January 1, 2005:

Third Revised Sheet No. 12
Second Revised Sheet No. 266
First Revised Sheet No. 267
Original Sheet No. 267A
Original Sheet No. 267B
Original Sheet No. 267C

Alternate Filing

Alternate Third Revised Sheet No. 12

Southern states that copies of the tariff sheets are being mailed to Southern Star's jurisdictional customers and interested state commissions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or

protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3618 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-114-000]

Transcontinental Gas Pipe Line Corporation; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on December 2, 2004, Transcontinental Gas Pipe Line Corporation (Transco) tendered for filing as part of its FERC Gas Tariff, Third Revised Volume No. 1, the following tariff sheets, to become effective December 4, 2004:

Thirty-First Revised Sheet No. 35A
Fiftieth Revised Sheet No. 38
Eighteenth Revised Sheet No. 40.02
Tenth Revised Sheet No. 42.01
Thirtieth Revised Sheet No. 60

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or

protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3628 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP05-110-000]

Trunkline LNG Company, LLC; Notice of Proposed Changes in FERC Gas Tariff

December 7, 2004.

Take notice that on December 1, 2004, Trunkline LNG Company, LLC (TLNG) tendered for filing as part of its FERC Gas Tariff, Second Revised Volume No. 1-A, Fourth Revised Sheet No. 5, to become effective January 1, 2005.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to

become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed in accordance with the provisions of Section 154.210 of the Commission's regulations (18 CFR 154.210). Anyone filing an intervention or protest must serve a copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3624 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EL05-33-000, et al.]

City of Anaheim, CA, et al.; Electric Rate and Corporate Filings

December 6, 2004.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

1. City of Anaheim, California

[Docket No. EL05-33-000]

Take notice that on December 1, 2004, the City of Anaheim, California (Anaheim) submitted for filing changes to its transmission revenue balancing account adjustment (TRBAA) and to Appendix I of its transmission owner (TO) tariff. Anaheim requests a January

1, 2005 effective date for its filing. Anaheim further requests that the Commission waive any fees for the filing of its revised TRBAA.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

2. Xcel Energy Services Inc.

[Docket No. ER04-59-001]

Take notice that, on December 1, 2004, Xcel Energy Services Inc. submitted a compliance filing pursuant to a letter order issued on December 9, 2003, conditionally accepting an interconnection agreement between Public Service Company of Colorado and Colorado Green Holdings, LLC, in Docket No. ER04-59-000.

Xcel Energy Services Inc. states that copies of the filing were served on parties on the official service list in the above-captioned proceeding.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

3. New York Independent System Operator, Inc.

[Docket No. ER04-294-003]

Take notice that on December 1, 2004, the New York Independent System Operator, Inc. (NYISO) submitted a report regarding the mandatory resale of transmission congestion contracts (TCCs) for existing transmission capacity for native load (ETCNL) and residual capacity reservation rights (RCRR).

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

4. Southwest Power Pool, Inc.

[Docket No. ER04-1096-002]

Take notice that on December 1, 2004, Southwest Power Pool, Inc. (SPP) submitted for filing an executed Joint Operating Agreement with the Midwest Independent Transmission System Operator, Inc. (Midwest ISO), including a draft Congestion Management Plan, intended to comply with the Commission's October 1, 2004 "Order on Proposed Joint Operating Agreement." SPP states that this compliance filing reflects minimal changes to the draft Joint Operating Agreement previously submitted by the Midwest ISO in this proceeding. SPP requests an effective date of December 1, 2004.

SPP states that it has served a copy of its transmittal letter on each of its Members and Customers. SPP also states that a complete copy of this filing will be posted on the SPP Web site <http://www.spp.org>, and is also being served on all affected state commissions and all persons identified on the service list in this proceeding.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

5. Midwest Independent Transmission System Operator, Inc.

[Docket No. ER04-1165-002]

Take notice that, on December 1, 2004, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) submitted a compliance filing pursuant to the Commission's November 1, 2004 Order, *Midwest Independent Transmission System Operator, Inc.*, 109 FERC ¶ 61,129 (2004). Midwest ISO states that the purpose of this filing is to revise the Midwest ISO's OATT to amend and clarify the application of section 2.2 (Reservation Priority for Existing Firm Service Customers) in compliance with the Commission's directives in the November 1 Order.

The Midwest ISO states that it has also requested waiver of the service requirements set forth in 18 CFR 385.210. The Midwest ISO also states that it has electronically served a copy of this filing, with attachments, upon all Midwest ISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, the Midwest ISO Advisory Committee participants, as well as all state commissions within the region. In addition, the Midwest ISO further states that the filing has been electronically posted on the Midwest ISO's Web site at www.midwestiso.org under the heading "Filings to FERC" for other interested parties in this matter. The Midwest ISO will provide hard copies to any interested parties upon request.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

6. KPIC North America Corporation

[Docket No. ER05-268-000]

Take notice that on November 30, 2004, KPIC North America Corporation (KPIC) submitted for filing a Notice of Cancellation of a rate schedule FERC No. 1 KPIC requests an effective date of November 17, 2004.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

7. PacifiCorp

[Docket No. ER05-269-000]

Take notice that on November 30, 2004, PacifiCorp tendered for filing in accordance with 18 CFR 35 of the Commission's Rules and Regulations a Notice of Cancellation of a May 24, 1967 agreement providing each party with 50 megawatts of non-firm transmission service on the transmission system of the other party (PacifiCorp's Rate Schedule FERC No. 77).

PacifiCorp states that copies of this filing were supplied to the Public Utility Commission of Oregon, the Washington Utilities and Transportation Commission, and NorthWestern Energy (on behalf of Montana Power Co.).

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

8. Virginia Electric and Power Company

[Docket No. ER05-272-000]

Take notice that on November 30, 2004, Virginia Electric and Power Company, doing business as Dominion Virginia Power (the Company), filed copies of a service agreement with Old Dominion Electric Cooperative providing for the sale of supplement energy under the Company's cost-based power sales tariff, Original Volume No. 7. The Company requests an effective date of November 1, 2004.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

9. Midwest Independent Transmission System Operator, Inc.

[Docket No. ER05-273-000]

Take notice that on November 30, 2004, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) submitted revisions to section 22 of their Open Access Transmission Tariff to clarify the charges associated with a Transmission Customer's decision to redirect its Firm Point-To-Point Transmission Service reservations to Non-Firm Point-To-Point Transmission Service. The Midwest ISO requests an effective date of December 1, 2004.

The Midwest ISO has also requested waiver of the service requirements set forth in 18 CFR 385.2010. The Midwest ISO states that it has electronically served a copy of this filing, with its attachments, upon all Midwest ISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, the Midwest ISO Advisory Committee participants, Policy Subcommittee participants, as well as all state commission within the region. In addition, the filing has been electronically posted on the Midwest ISO's Web site at www.midwestiso.org under the heading "Filings to FERC" for other interested parties in this matter. The Midwest ISO further states that it will provide hard copies to any interested party upon request.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

10. PacifiCorp

[Docket No. ER05-274-000]

Take notice that on November 30, 2004, PacifiCorp filed of the

Commission's Rules and Regulations a Notice of Cancellation of the August 19, 1950 agreement between PacifiCorp and the Coos-Curry Electric Cooperative, Inc. providing for an emergency interconnection between the parties' transmission systems (PacifiCorp's Rate Schedule FERC No. 51).

PacifiCorp states that copies of this filing were supplied to the Public Utility Commission of Oregon, the Washington Utilities and Transportation Commission, and Coos-Curry Electric Cooperative, Inc.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

11. PacifiCorp

[Docket No. ER05-275-000]

Take notice that on November 30, 2004, PacifiCorp tendered for filing a Notice of Cancellation of its certificate of concurrence to an Idaho Power Company non-firm transmission agreement (PacifiCorp's Rate Schedule FERC No. 367).

PacifiCorp states that copies of this filing were supplied to the Public Utility Commission of Oregon, the Washington Utilities and Transportation Commission, and Idaho Power Co.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

12. PacifiCorp

[Docket No. ER05-276-000]

Take notice that on November 30, 2004, PacifiCorp tendered for filing in accordance with 18 CFR 35 of the Commission's Rules and Regulations a Notice of Cancellation of the August 27, 1956 agreement between PacifiCorp and the Western Area Power Administration providing for low voltage transmission service to Hanover and Bluff Substations (PacifiCorp's Rate Schedule FERC No. 72).

PacifiCorp states that copies of this filing were supplied to the Public Utility Commission of Oregon, the Washington Utilities and Transportation Commission, and Western Area Power Administration.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

13. California Independent System Operator Corporation

[Docket No. ER05-277-000]

Take notice that, on November 30, 2004, the California Independent System Operator Corporation (ISO) tendered for filing a revision to the ISO Tariff, Amendment No. 64, for acceptance by the Commission. The ISO states that the purpose of Amendment No. 64 is to indefinitely suspend the effective date of uninstructed deviation

penalties. The ISO further states that a separate revision to the ISO Tariff will be subsequently filed seeking a specific effective date for the tariff language governing Uninstructed Deviation Penalties. The ISO requests an effective date of December 1, 2004.

The ISO states that this filing has been served on the Public Utilities Commission, the California Energy Commission, the California Electricity Oversight Board, parties in Docket Nos. ER03-1046, ER04-609, and ER04-1087, and parties with effective Scheduling Coordinator Agreements under the ISO Tariff.

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

14. PacifiCorp

[Docket No. ER05-278-000]

Take notice that on November 30, 2004, PacifiCorp tendered for filing a Notice of Cancellation of the September 1, 1981 agreement between PacifiCorp and the Montana Power Company providing for non-firm transmission service on each party's transmission system (PacifiCorp's Rate Schedule FERC No. 214).

PacifiCorp states that copies of this filing were supplied to the Public Utility Commission of Oregon, the Washington Utilities and Transportation Commission, and NorthWestern Energy (on behalf of Montana Power Co.).

Comment Date: 5 p.m. Eastern Time on December 21, 2004.

15. New England Power Pool

[Docket No. ER05-279-000]

Take notice that on December 1, 2004, the New England Power Pool (NEPOOL) Participants Committee filed for acceptance materials to permit NEPOOL to expand its membership to include Blackstone Hydro, Inc. (Blackstone); Boralex Stratton Energy Inc. (Boralex); Morin Brick Company, Inc. (Morin Brick); Morin Energy, LLC (Morin Energy); Telegraph Publishing Company (Telegraph); The Westerly Hospital (Westerly); and Westerly Hospital Energy Company, LLC (WHEC) (collectively, the Applicants). NEPOOL Participants Committee requests an effective date of December 1, 2004.

NEPOOL Participants Committee states that copies of these materials were sent to the New England state governors and regulatory commissions and the Participants in NEPOOL.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

16. Duke Energy Corporation

[Docket No. ER05-281-000]

Take notice that on December 1, 2004, Duke Energy Corporation, on behalf of

Duke Electric Transmission, (collectively, Duke) submitted a revised Network Integration Service Agreement (NITSA) with North Carolina Electric Membership Corporation (NCEMC) which is designated as Fourth Revised Service Agreement No. 208 under Duke Electric Transmission FERC Electric Tariff Third Revised Volume No. 4.

Duke states that copies of the filing were served upon NCEMC and the South Carolina and North Carolina state public service commissions.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

17. Western Systems Power Pool, Inc.

[Docket No. ER05-284-000]

Take notice that on December 1, 2004, the Western Systems Power Pool, Inc. (WSPP) submitted changes to the WSPP Agreement intended to update and clarify the Agreement. WSPP states that the Executive Committee approved these changes. WSPP requests an effective date of February 1, 2005.

WSPP states that copies of the transmittal letter have been served on all state commissions (without attachments). The filing has been emailed to certain WSPP lists and is posted on the WSPP Home page (www.wspp.org) thereby providing notice to all WSPP members.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

18. CED Rock Springs, LLC

[Docket No. ER05-288-000]

Take notice that on December 2, 2004, CED Rock Springs, LLC (CED Rock Springs) submitted for filing a rate schedule under which it specifies its revenue requirement for providing cost-based reactive support and voltage control from generation sources service from the natural gas-fired generating facility located in Rising Sun, Maryland in the PJM control area administered by PJM Interconnection, L.L.C. Rock Springs requests an effective date of February 1, 2005.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

19. Ocean Peaking Power, LLC

[Docket No. ER05-289-000]

Take notice that on December 1, 2004, Ocean Peaking Power, LLC (OPP) submitted for filing a rate schedule under which it specifies its revenue requirement for providing cost-based reactive support and voltage control from generation sources service from the natural gas-fired generating facility located in Lakewood, New Jersey in the PJM control area administered by PJM Interconnection, L.L.C. OPP requests an effective date of February 1, 2005.

Comment Date: 5 p.m. Eastern Time on December 22, 2004.

20. Corbin A. McNeill, Jr.

[Docket No. ID-4187-000]

Take notice that on November 30, 2004, Corbin A. McNeill, Jr., submitted an application for authorization under section 305(b) of the Federal Power Act to hold an interlocking position as a director of North Western Corporation and Portland General Electric Company.

Comment Date: 5 p.m. Eastern Time on January 5, 2005.

21. Midwest Independent Transmission System Operator, Inc.

[Docket Nos. RT01-87-000, ER02-106-000, ER02-108-000]

Take notice that on November 30, 2004, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO), the Midwest ISO Transmission Owners, and the Midwest Stand Alone Transmission Companies submitted a Settlement Agreement between transmission owners and Midwest ISO on filing rights (Settlement Agreement), along with an explanatory statement and changes to the Midwest ISO open access transmission tariff and to the agreement of transmission facilities owners to organize the Midwest Independent Transmission System Operator, Inc. that implements the Settlement Agreement.

The Midwest ISO requested waiver of the requirements of 18 CFR 385.2010. The Midwest ISO states that it has electronically served a copy of the above-referenced documents upon all Midwest ISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, the Midwest ISO Advisory Committee participants, as well as all state commissions within the Region. In addition, this filing has been posted electronically on the Midwest ISO's Web site at www.midwestiso.org under the heading "Filings to FERC" for other interested parties in this matter. The Midwest ISO also states that paper copies are available upon request by contacting Lori A. Spence, counsel of record, at the Midwest ISO.

Comment Date: 5 p.m. Eastern Time on January 3, 2005.

22. Southwest Power Pool, Inc.

[Docket Nos. RT04-1-006 and ER04-48-006]

Take notice that on November 4, 2004 and November 8, 2004, Southwest Power Pool, Inc. (SPP) tendered for filing amendments to its November 1, 2004 compliance filing filed pursuant to *Southwest Power Pool, Inc.*, 109 FERC ¶ 61,009 (2004). The amendments to the

compliance filing consist of redlined pages and an affidavit of Carl A. Monroe.

Comment Date: 5 p.m. Eastern Time on December 16, 2004.

Standard Paragraph

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant and all parties to this proceeding.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3632 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP05-18-000]

Equitrans, L.P.; Notice of Technical Conference

December 7, 2004.

On November 23, 2004, a Notice of Proceeding was issued, stating the Commission's intention to convene a

technical conference to address assertions by Equitrans, L.P. (Equitrans) that significant volumes of cushion gas are missing from its storage facilities. The technical conference will be held on Wednesday, December 15, 2004, at 1 p.m. (EST), in a room to be designated at the offices of the Federal Energy Regulatory Commission, 888 First Street, NE., Washington DC 20426.

At the technical conference, Equitrans shall present data and information to support its assertion that cushion gas has migrated from its storage facilities and to demonstrate the effects any such migration has on its storage operations. Equitrans also shall present its plan for implementing measures to ensure that its storage facilities can continue to operate without further gas loss within the defined geological parameters and without further reservoir or buffer expansion.

Attendance at this conference will be limited to those persons that have filed motions to intervene in this proceeding, in accordance with section 385.214 of the Commission's Rules and Regulations by the close of business on Monday, December 13, 2004. Persons planning to attend the December 15 conference should contact Amy Heyman at 202-502-8115 prior to the close of business on Tuesday, December 14, 2004.

FERC conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations please send an e-mail to accessibility@ferc.gov or call toll free (866) 208-3372 (voice) or 202-208-1659 (TTY), or send a FAX to 202-208-2106 with the required accommodations.

Magalie R. Salas,
Secretary.

[FR Doc. E4-3631 Filed 12-13-04; 8:45 am]
BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Notice

December 8, 2004.

The following notice of meeting is published pursuant to section 3(a) of the government in the Sunshine Act (Pub. L. 94-409), 5 U.S.C. 552b:

AGENCY HOLDING MEETING: Federal Energy Regulatory Commission.

DATE AND TIME: December 15, 2004.

PLACE: Room 2C, 888 First Street NE., Washington, DC 20426.

STATUS: Open.

MATTERS TO BE CONSIDERED: Agenda.

*Note—Items listed on the agenda may be deleted without further notice.

CONTACT PERSON FOR MORE INFORMATION: Magalie R. Salas, Secretary, Telephone (202) 502-8400. For a recorded listing items stricken from or added to the meeting, call (202) 502-8627.

This is a list of matters to be considered by the Commission. It does not include a listing of all papers relevant to the items on the agenda; however, all public documents may be examined in the Public Reference Room.

876th—Meeting, Regular Meeting

Administrative Agenda

A-1.

Docket # AD02-1-000, Agency Administrative Matters

A-2.

Docket # AD02-7-000, Customer Matters, Reliability, Security and Market Operations

A-3.

Docket # AD05-1-000, Presentation on Market Design Principles For Reactive Power

Markets, Tariffs, and Rates—Electric

E-1.

ER96-2495-002, AEP Power Marketing Inc.
ER97-1238-015, CSW Power Marketing, Inc.
ER97-4143-008, AEP Service Corporation
ER98-2075-014, CSW Energy Services, Inc.
ER98-542-010, Central and South West Services, Inc.
ER96-2495-021, AEP Power Marketing, Inc.
ER96-2495-022, AEP Power Marketing, Inc.
ER96-2495-023, AEP Power Marketing, Inc.
ER97-4143-009, AEP Service Corporation
ER97-4143-010, AEP Service Corporation
ER97-4143-011, AEP Service Corporation
ER98-2075-015, CSW Energy Services, Inc.
ER98-2075-016, CSW Energy Services, Inc.
ER98-2075-017, CSW Energy Services, Inc.
ER98-542-016, Central and South West Services, Inc.
ER98-542-012, Central and South West Services, Inc.
ER98-542-013, Central and South West Services, Inc.
ER97-1238-016, CSW Power Marketing, Inc.
ER97-1238-017, CSW Power

Marketing, Inc.

ER97-1238-018, CSW Power Marketing, Inc.

EL04-131-000, Central and South West Services, Inc.

E-2.

ER91-569-023, Entergy Services, Inc.

EL04-123-000, Entergy Services, Inc.

ER91-569-024, Entergy Services, Inc.

E-3.

ER99-3677-003, CMS Generation

Michigan Power L.L.C.

ER99-3677-004, CMS Generation

Michigan Power L.L.C.

ER98-4421-005, Consumers Energy

Company

ER98-4421-004, Consumers Energy

Company

ER98-4421-003, Consumers Energy

Company

ER98-4421-002, Consumers Energy

Company

ER96-2350-025, CMS Energy

Resource Management Company

ER96-2350-024, CMS Energy

Resource Management Company

ER96-2350-023, CMS Energy

Resource Management Company

ER99-791-003, Grayling Generating

Station Limited Partnership

ER99-791-002, Grayling Generating

Station Limited Partnership

ER99-806-002, Genesee Power

Station Limited Partnership

ER99-806-001, Genesee Power

Station Limited Partnership

ER01-570-005, Dearborn Industrial

Generation, L.L.C.

ER01-570-004, Dearborn Industrial

Generation, L.L.C.

ER01-570-003, Dearborn Industrial

Generation, L.L.C.

E-4.

ER98-4512-003 Consolidated Water

Power Company

ER98-4512-004 Consolidated Water

Power Company

ER98-4512-002 Consolidated Water

Power Company

E-5.

ER96-2602-004, Dayton Power and

Light Company

ER96-2602-006, Dayton Power and

Light Company

ER96-2602-007, Dayton Power and

Light Company

ER96-2601-018, DPL Energy, LLC

ER96-2601-017, DPL Energy, LLC

ER96-2601-015, DPL Energy, LLC

E-6.

ER96-110-010, Duke Power, a

Division of Duke Energy

Corporation

EL05-4-000, Bridgeport Energy, LLC;

ER96-110-011, Duke Power, Division

of Duke Energy Corporation

ER96-110-012, Duke Power, Division

of Duke Energy Corporation

ER03-956-002, Duke Energy

- Marketing America, LLC
ER03-956-003, Duke Energy Marketing America, LLC
ER98-2680-007, Duke Energy Moss Landing, LLC
ER98-2680-008, Duke Energy Moss Landing, LLC
ER98-2681-007, Duke Energy Morro Bay, LLC
ER98-2681-008, Duke Energy Morro Bay, LLC
ER98-2682-007, Duke Energy Oakland, LLC
ER98-2682-008, Duke Energy Oakland, LLC
ER99-1785-006, Duke Energy South Bay, LLC
ER99-1785-007, Duke Energy South Bay, LLC
ER98-2783-006, Bridgeport Energy, LLC
- E-7.
ER99-2416-002, El Paso Electric Company
ER99-2416-001, El Paso Electric Company
ER99-2416-003, El Paso Electric Company
ER99-2416-004, El Paso Electric Company
- E-8.
ER99-1005-001, Kansas City Power and Light Company
EL05-3-000, Kansas City Power and Light Company
ER99-1005-003, Kansas City Power and Light Company
ER02-725-004, Great Plains Power Incorporated
ER99-1005-002, Kansas City Power and Light Company
ER02-725-003, Great Plains Power Incorporated
- E-9.
ER00-2268-005, Pinnacle West Capital Corporation
ER00-2268-006, Pinnacle West Capital Corporation
ER00-2268-007, Pinnacle West Capital Corporation
ER99-4124-003, Arizona Public Service Company
ER99-4124-004, Arizona Public Service Company
ER99-4124-005, Arizona Public Service Company
EL05-10-000, Pinnacle West Capital Corporation
EL05-11-000, Arizona Public Service Company
ER00-3312-004, Pinnacle West Energy Corporation
ER00-3312-005, Pinnacle West Energy Corporation
ER00-3312-006, Pinnacle West Energy Corporation
EL05-12-000, Pinnacle West Energy Corporation
ER99-4122-006, APS Energy Services Company, Inc.
ER99-4122-007, APS Energy Services Company, Inc.
ER99-4122-008, APS Energy Services Company, Inc.
EL05-13-000, APS Energy Services Company, Inc.
- E-10.
ER99-845-004, Puget Sound Energy, Inc.
ER99-845-005, Puget Sound Energy, Inc.
ER99-845-006, Puget Sound Energy, Inc.
ER99-845-007, Puget Sound Energy, Inc.
EL05-37-000, Puget Sound Energy, Inc.
- E-11.
ER96-1551-007, Public Service Company of New Mexico
ER96-1551-008, Public Service Company of New Mexico
ER96-1551-009, Public Service Company of New Mexico
ER01-615-004, Public Service Company of New Mexico;
ER01-615-005, Public Service Company of New Mexico
ER01-615-006, Public Service Company of New Mexico
EL05-2-000, Public Service Company of New Mexico
- E-12.
ER97-4166-015, Southern Company Energy Marketing, Inc.
ER97-4166-016, Southern Company Energy Marketing, Inc.
ER96-780-005, Southern Company Services, Inc.
ER96-780-006, Southern Company Services, Inc.
EL04-124-000, Southern Company Services, Inc.
- E-13.
ID-3998-000, Douglas R. Oberhelman
- E-14.
EL02-113-007, El Paso Electric Company, Enron Power Marketing, Inc., and Enron Capital and Trade Resources Corporation
EL-180-007, Enron Power Marketing, Inc., and Enron Energy Services, Inc.
EL03-154-004, Enron Power Marketing, Inc. and Enron Energy Services, Inc.
- E-15.
Omitted
- E-16.
Omitted
- E-17.
Omitted
- E-18.
Docket #ER04-691-007, Midwest Independent Transmission System Operator, Inc.
ER04-691-004, Midwest Independent Transmission System Operator, Inc.
EL04-104-006, Public Utilities with Grandfathered Agreements in Midwest ISO Region
- E-19.
TX04-2-001, Nevada Power Company
- E-20.
PL03-1-000, Pricing Policy for Efficient Operation and Expansion of Transmission Grid
- E-21.
EL04-93-000, R.W. Beck Plant Management, Ltd.
- E-22.
RM02-1-005, Standardization of Generator Interconnection Agreements and Procedures
- E-23.
EL05-24-000, Survey on Operator Training Practices
- E-24.
ER04-1255-000, ISO New England, Inc.
- E-25.
ER05-68-000, Pastoria Energy Center, LLC
- E-26.
Omitted
- E-27.
Omitted
- E-28.
ER04-1144-000, New York Independent System Operator Inc.
ER04-1144-001 New York Independent System Operator Inc.
- E-29.
Omitted
- E-30.
ER05-164-000, Wisconsin Public Service Corporation
- E-31.
Omitted
- E-32.
Omitted
- E-33.
ER05-82-000, Pacific Gas and Electric Company
ER03-409-000, Pacific Gas and Electric Company
EL05-35-000, Pacific Gas and Electric Company
ER04-666-000, Pacific Gas and Electric Company
- E-34.
ER05-69-000, Boston Edison Company
- E-35.
ER04-1137-000, MeadWestvaco Energy Services, LLC
ER04-1137-001, MeadWestvaco Energy Services, LLC
ER04-1137-002, MeadWestvaco Energy Services, LLC
- E-36.
Omitted
- E-37.
Omitted
- E-38.
Omitted

- E-39.
ER98-2270-003, PEI Power Corporation
ER98-2270-004, PEI Power Corporation
ER98-2270-005, PEI Power Corporation
- E-40.
ER99-230-002, Alliant Energy Corporate Services, Inc.
ER99-230-004, Alliant Energy Corporate Services, Inc.
EL05-5-000, Alliant Energy Corporation Services, Inc.
ER99-230-005, Alliant Energy Corporate Services, Inc.
ER99-230-006, Alliant Energy Corporate Services, Inc.
ER03-762-005, Alliant Energy Corporate Services, Inc.
ER03-762-001, Alliant Energy Corporate Services, Inc.
ER03-762-000, Alliant Energy Corporate Services, Inc.
- E-41.
EL01-51-003, Detroit Edison Company
- E-42.
Omitted
- E-43.
EL01-51-005, Detroit Edison Company
ER01-1649-005, Detroit Edison Company
- E-44.
RT01-100-000, Regional Transmission Organizations
RT01-75-005, Entergy Services, Inc.
RT-100-001, Regional Transmission Organizations
RT01-34-004, Southwest Power Pool, Inc.
RT01-74-005, GridSouth Transco, LLC, Carolina Power and Light Company, Duke Energy Corporation and South Carolina Electric and Gas Company
RT01-75-001, Entergy Services, Inc.
RT01-77-002, Southern Company Services, Inc.
- E-45.
EC05-4-000, USGen New England, Inc.
- E-46.
Omitted
- E-47.
Omitted
- E-48.
Omitted
- E-49.
EL05-15-000, Arkansas Electric Cooperative Corporation v. Entergy Arkansas, Inc.
EL04-134-000, East Texas Electric Cooperative, Inc. v. Entergy Arkansas, Inc.
- E-50.
Omitted
- E-51.
EL05-19-000, Golden Spread Electric Cooperative, Inc., Lyntegar Electric Cooperative, Inc., Farmers' Electric Cooperative, Inc., Lea County Electric Cooperative, Inc., Central Valley Electric Cooperative, Inc., and Roosevelt County Electric Cooperative, Inc., v. Southwestern Public Service Company
- E-52.
EL05-16-000, Aquila Merchant Services, Inc., v. Southwest Power Pool, Inc.
- E-53.
EL92-33-009, Barton Village Inc., Village of Enosburg Falls Water and Light Department, Village of Orleans, and Village of Swanton Village, Vermont v. Citizens Utilities Company
- E-54.
Omitted
- E-55.
OA04-2-000, Morenci Water and Electric Company
- E-56.
PL04-10-001, Federal Power Act Section 305(b) Obligations
- E-57.
AC04-105-000, Access Energy Cooperative
AC04-91-000, Bridger Valley Electric Association, Inc.
AC04-102-000, Dixie Escalante Rural Electric Association, Inc.
AC04-72-000, Fall River Rural Electric Cooperative, Inc.
AC04-107-000, Flowell Electric Association, Inc.
AC04-85-000, Kandiyohi Power Cooperative
AC04-81-000, Lyon Rural Electric Cooperative
AC04-63-000, Midwest Energy, Inc.
AC04-104-000, Moon Lake Electric Association, Inc.
AC04-103-000, Mt. Wheeler Power, Inc.
AC04-88-000, NewCorp Resources Electric Cooperative, Inc.
AC04-93-000, North Central Missouri Electric Cooperative, Inc.
AC04-67-000, Oregon Trail Electric Consumers Cooperative, Inc.
AC04-79-000, Platte-Clay Electric Cooperative, Inc.
AC04-73-000, Salmon River Electric Cooperative, Inc.
AC04-83-000, Sussex Rural Electric Cooperative
AC04-71-000, Wells Rural Electric Company
AC04-75-000, White River Electric Association, Inc.
- E-58.
ER03-811-000, Entergy Services, Inc.
- E-59.
Omitted
- E-60.
ER02-2560-002, Louisville Gas and Electric Company and Kentucky Utilities Company v. East Kentucky Power Cooperative, Inc.
- E-61.
ER01-1639-004, Pacific Gas and Electric Company
- E-62.
ER00-2019-012, California Independent System Operator Corporation;
ER00-2019-013, California Independent System Operator Corporation;
ER00-2019-006, Corporation Independent System Operator Corporation;
ER01-819-002, California Independent System Operator Corporation;
ER01-819-006, California Independent System Operator Corporation;
ER03-608-000, California Independent System Operator Corporation;
ER03-608-004, California Independent System Operator Corporation
- E-63.
ER04-779-000, Midwest Independent Transmission System Operator, Inc.;
ER04-779-001, Midwest Independent Transmission System Operator, Inc.
- E-64.
ER03-1335-001, Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.;-E R03-1335-000, Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.;
ER94-367-000, PJM Interconnection, L.L.C., and Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.;
ER94-367-001, PJM Interconnection, L.L.C., and Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.;
ER94-367-003, PJM Interconnection, L.L.C., and Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
- E-65.
ER02-929-000, Ameren Services Company;
ER02-929-001, Ameren Services Company
- E-66.
ER04-377-004, Pacific Gas and Electric Company;
ER04-743-002, Pacific Gas and Electric Company
- E-67.
ER04-667-000, Southern California Edison Company
- E-68.

- ER04-738-003, Midwest Independent Transmission System Operator, Inc.
E-69. Omitted
E-70. Omitted
E-71. Omitted
E-72. Omitted
E-73. EL00-95-106, San Diego Gas and Electric Company v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange Corporation;
EL00-98-092, Investigation of Practices of the California Independent System Operator Corporation and the California Power Exchange
E-74. ER03-1101-002, PJM Interconnection L.L.C.;
ER03-1101-001, PJM Interconnection L.L.C.;
ER03-1101-003, PJM Interconnection L.L.C.;
ER03-1101-004, PJM Interconnection L.L.C.;
ER03-1101-005, PJM Interconnection L.L.C.;
ER03-1101-006, PJM Interconnection L.L.C.
E-75. ER02-851-017, Southern Company Services, Inc.
E-76. ER04-1072-001, PJM Interconnection, L.L.C. and American Electric Power Service Corporation;
EL04-138-001, PJM Interconnection, L.L.C. and American Electric Power Service Corporation;
ER04-718-006, PJM Interconnection L.L.C. and Commonwealth Edison Company
E-77. Omitted
E-78. ER03-171-003, Entergy Mississippi, Inc.;- ER03-171-002, Entergy Mississippi, Inc.;
ER03-171-004, Entergy Mississippi, Inc.
E-79. Omitted.
E-80. EL04-31-001, Quest Energy, L.L.C. v. Detroit Edison Company;
EL04-31-002, Quest Energy, L.L.C. v. Detroit Edison Company;
EL04-031-003, Quest Energy, L.L.C. v. Detroit Edison Company
E-81. Omitted
E-82. ER05-85-000, PJM Interconnection, L.L.C. and Duquesne Light Company;
ER05-85-001, PJM Interconnection, L.L.C. and Duquesne Light Company;
ER05-106-000, PJM Interconnection L.L.C.
E-83. Docket # PA04-11-000, Arizona Public Service Company
E-84. PA04-13-000, Tucson Electric Power Company
E-85. ER05-34-000, Dominion Energy New England, Inc.
ER05-35-000, Dominion Energy Salem Harbor, LLC
ER05-36-000, Dominion Energy Brayton Point, LLC
ER05-37-000, Dominion Energy Manchester Street, Inc.
E-86. Omitted
E-87. Pocket #ER04-1106-000, NorthWestern Corporation dba NorthWestern Energy
ER04-1106-001, NorthWestern Corporation dba NorthWestern Energy
EL05-36-000, NorthWestern Corporation dba NorthWestern Energy
E-88. EL03-180-000, Enron Power Marketing, Inc.
EL03-154-000, Enron Power Marketing, Inc.
EL02-115-008, Avista Corporation
E-89. ER05-75-000, Midwest Independent Transmission System Operator, Inc.
E-90. ER03-1091-005, Pacific Gas and Electric Company
E-91. ER05-87-000, PJM Interconnection, L.L.C. and Virginia Electric and Power Company
E-92. EC05-6-000, Boston Edison Company, TransCanada Energy Ltd., Ocean State Power and Ocean State Power II
E-93. ER02-2330-029, New England Power Pool and ISO New England, Inc.
E-94. ER05-127-000, Entergy Services, Inc.
- Miscellaneous**
M-1. RM01-10-003, Standards of Conduct for Transmission Providers
M-2. RM03-9-000, Supplemental Standards of Ethical Conduct
- Markets, Tariffs, and Rates—Gas**
G-1. Omitted
G-2. RP05-76-000, Gulf South Pipeline Company, LP
G-3. Omitted
G-4. RP04-251-000, El Paso Natural Gas Company
RP04-248-000, El Paso Natural Gas Company
G-5. PR04-9-000, Bay Gas Storage Company, Ltd.
PR04-9-001, Bay Gas Storage Company, Ltd.
G-6. RP00-476-006, Southern Natural Gas Company
G-7. PR00-9-003, GulfTerra Texas Pipeline, L.P.
G-8. RP00-336-024, El Paso Natural Gas Company
RP00-336-027 El Paso Natural Gas Company
RP04-61-002, El Paso Natural Gas Company
G-9. RP04-6-002, Enbridge Pipelines (KPC)
G-10. Omitted
G-11. RP04-435-002, ANR Pipeline Company
RP04-435-001, ANR Pipeline Company
G-12. PR04-13-001, GulfTerra Alabama Intrastate, LLC
G-13. PR02-10-004, Enogex Inc.
G-14. RM96-1-026, Standards for Business Practices of Interstate Natural Gas Pipelines
G-15. RP04-254-000, City of Hamilton, Ohio v. Texas Eastern Transmission, L.P.
G-16. RP03-564-002, Dominion Cove Point LNG, LP
G-17. RP04-386-000, Northwest Pipeline Corporation
G-18. RP04-12-000, Florida Gas Transmission Company
RP04-12-004, Florida Gas Transmission Company
RP04-12-005, Florida Gas Transmission Company
RP00-387-004, Florida Gas

Transmission Company

- G-19. Omitted
- G-20. Omitted
- G-21. RP04-110-002, El Paso Natural Gas Company
RP04-110-001, El Paso Natural Gas Company
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- G-22. RP04-249-002, AES Ocean Express LLC v. Florida Gas Transmission Company
- G-23. RP98-52-055, Southern Star Central Gas Pipeline Inc.
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- H-1. P-2543-063, Clark Fork and Blackfoot, LLC
- H-2. P-309-042, Reliant Energy Mid-Atlantic Power Holdings, LLC
- H-3. P-2835-012, New York State Electric and Gas Corporation
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- C-1. CP04-343-000, Paiute Pipeline Company
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- C-2. CP04-47-000, Sabine Pass LNG, L.P.
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CP04-38-001, Cheniere Sabine Pass Pipeline Company
CP04-39-000, Cheniere Sabine Pass Pipeline Company
CP04-40-000, Cheniere Sabine Pass Pipeline Company
- C-3. CP04-345-001, Cheyenne Plains Gas Pipeline Company, L.L.C.
CP03-302-000, Cheyenne Plains Gas Pipeline Company, L.L.C.
CP03-302-001, Cheyenne Plains Gas Pipeline Company, L.L.C.

Magalie R. Salas,
Secretary.

The Capitol Connection offers the opportunity for remote listening and viewing of the meeting. It is available for a fee, live over the Internet, via C-Band Satellite. Persons interested in receiving the broadcast, or who need information on making arrangements should contact David Reiningger or Julia Morelli at the Capitol Connection (703-993-3100) as soon as possible or visit the Capitol Connection Web site at <http://www.capitolconnection.gmu.edu> and click on "FERC".

[FR Doc. 04-27399 Filed 12-09-04; 5:07 pm]
BILLING CODE 6717-01-M

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Notice of Meeting, Notice of Vote, Explanation of Action Closing Meeting and List of Persons To Attend

December 8, 2004.

The following notice of meeting is published pursuant to section 3(a) of the Government in the Sunshine Act (Pub. L. No. 94-409), 5 U.S.C. 552b:

AGENCY HOLDING MEETING: Federal Energy Regulatory Commission.

DATE AND TIME: December 15, 2004 (Within a relatively short time after the Commission's open meeting on December 15, 2004).

PLACE: Room 3M 4A/B, 888 First Street, NE., Washington, DC 20426.

STATUS: Closed.

MATTERS TO BE CONSIDERED: Non-Public Investigations and Inquiries, Enforcement Related Matters, and Security of Regulated Facilities.

CONTACT PERSON FOR MORE INFORMATION: Magalie R. Salas, Secretary, Telephone (202) 502-8400.

Chairman Wood and Commissioners Brownell, Kelliher, and Kelly voted to hold a closed meeting on December 15, 2004. The certification of the General Counsel explaining the action closing the meeting is available for public inspection in the Commission's Public Reference Room at 888 First Street, NW., Washington, DC 20426.

The Chairman and the Commissioners, their assistants, the Commission's Secretary and her assistant, the General Counsel and members of her staff, and a stenographer are expected to attend the meeting. Other staff members from the Commission's program offices who will advise the Commissioners in the matters discussed will also be present.

Magalie R. Salas,
Secretary.

[FR Doc. 04-27400 Filed 12-9-04; 5:07 pm]
BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7846-4]

Water Pollution Control; State Program Requirements; Program Modification Application by Ohio To Administer the Sewage Sludge Management Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of application and public comment period.

SUMMARY: Pursuant to 40 CFR 123.62 and 40 CFR part 501, the State of Ohio has submitted a program modification application to EPA, Region 5 to administer and enforce a sewage sludge management program. Specifically, the State is seeking approval of a sewage sludge management program which addresses the land application of sewage sludge, surface disposal of sewage sludge, and the landfilling of sewage sludge. Ohio is not seeking approval of the land application of domestic septage. Also, Ohio is not seeking approval for the incineration of sewage sludge at this time, but will in the future. Ohio will seek approval for the incineration of sewage sludge when their current draft administrative rules for incineration of sewage sludge are adopted. The State's sewage sludge management program will not extend to

"Indian Country" as defined in 18 U.S.C. 1151, and will not include lands within the exterior boundaries of Indian reservations within or abutting the State of Ohio. According to the State's application, this program would be administered by the Ohio Environmental Protection Agency (Ohio EPA).

The application from Ohio is complete and is available for inspection and copying. Public comments are requested and encouraged.

DATES: The public comment period on the State's request for approval to administer the proposed Ohio NPDES sewage sludge management program will be from the date of publication until January 28, 2005. Comments postmarked after this date may not be considered.

ADDRESSES: *Viewing/Obtaining Copies of Documents.* You can view Ohio's application for modification from 8:00 a.m. until 4 p.m. (Eastern time zone) Monday through Friday, excluding holidays, at the Ohio EPA, Lazarus Government Center, Division of Surface Water, 122 S. Front St., Columbus, Ohio 43215, contact Suzanne Matz (614) 644-2034; Ohio EPA Southeast District Office, 2195 Front Street, Logan, Ohio 43138, contact Jeanne Chapman (740) 380-5425; Ohio EPA Southwest District Office, 401 E. Fifth St., Dayton, Ohio 45402-2911, contact Sally Brown (937) 285-6025; Ohio EPA Northwest District Office, 347 N. Dunbridge Rd., Bowling Green, Ohio 43402, contact Megan Carr (419) 373-3003; and, Ohio EPA Northeast District Office, 2110 E. Aurora Rd., Twinsburg, Ohio 44087, contact Lily Aaron (330) 963-1200 extension 129. A copy of Ohio's application for modification is also available for viewing from 9 am to 4 pm, Monday through Friday, excluding legal holidays, at EPA Region 5, 16th floor, NPDES Programs Branch, 77 West Jackson Blvd., Chicago, IL 60604. Part or all of the State's application may be copied, for a minimal cost per page, at Ohio EPA's offices or EPA's office in Chicago. Ohio EPA's submission documents are also available on the Internet at: <http://www.epa.state.oh.us/dsw/sludge/biosolid.html>.

Comments. Electronic comments are encouraged and should be submitted to colletti.john@epa.gov. Please send a copy to suzanne.matz@epa.state.oh.us. Written comments may be sent to John Colletti (WN-16J), EPA, Region 5, 77 West Jackson Blvd., Chicago, IL 60604. Please send an additional copy to Ohio EPA, Attn: Suzanne Matz, Permits and Compliance Section, P.O. Box 1049, Columbus, OH 43216-1049. Public

comments may be sent in either electronic or paper format. EPA requests that electronic comments include the commenter's postal mailing address. No Confidential Business Information (CBI) should be submitted through e-mail. Comments and data will also be accepted on disks in WordPerfect 9.0 format or Microsoft Word format. If submitting comments in paper format, please submit the original and three copies of your comments and enclosures. Commentors who want EPA to acknowledge receipt of their comments should enclose a self-addressed stamped envelope.

FOR FURTHER INFORMATION CONTACT: John Colletti at (312) 886-6106, or by e-mail at colletti.john@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document "we," "us," or "our" means EPA.

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I. Background

Under section 402 of the Clean Water Act (CWA), 33 U.S.C. 1342, EPA may issue permits allowing discharges of pollutants from point sources into waters of the United States, subject to various requirements of the CWA. These permits are known as National Pollutant Discharge Elimination System (NPDES) permits. Section 402(b) of the CWA, 33 U.S.C. 1342(b), allows states to apply to EPA for authorization to administer their own NPDES permit programs.

Section 405 of the Clean Water Act (CWA), 33 U.S.C. 1345, created the Federal sewage sludge management program, requiring EPA to set standards for the use and disposal of sewage sludge and requiring EPA to include sewage sludge conditions in some of the NPDES permits which it issues. The rules developed under section 405(d) are also self-implementing, and the standards are enforceable whether or not a permit has been issued. Section 405(c) of the CWA provides that a state may submit an application to EPA for administering its own sewage sludge program within its jurisdiction. EPA is required to approve each such submitted state program unless EPA determines that the program does not meet the requirements of sections 304(i)

and/or 402(b) and 405 of the CWA or the EPA regulations implementing those sections. To obtain such approval, the state must show, among other things, that it has authority to issue permits which comply with the Act, authority to impose civil and criminal penalties for permit violations, and authority to ensure that the public is given notice and opportunity for a hearing on each proposed permit. The requirements for state sewage sludge management program approval are listed in 40 CFR part 501.

The Ohio NPDES program was approved by EPA on March 11, 1974. EPA received the sewage sludge management program application from Ohio on May 28, 2004. Ohio's application for the sewage sludge management program approval contains a letter from the Governor requesting program approval, an Attorney General's Statement, copies of pertinent State statutes and regulations, a Program Description, and a Memorandum of Agreement (MOA) to be executed by the Regional Administrator of EPA, Region 5 and the Director of Ohio EPA. The State, based on comments from EPA, submitted a revision of its Program Description and MOA, which EPA received on September 28, 2004.

The Governor's letter of May 12, 2004, requested that EPA approve the State's sewage sludge management program as a modification to their NPDES program.

The Attorney General's Statement includes citations to specific statutes, administrative rules, and judicial decisions which demonstrate adequate authority to carry out the State's sewage sludge management program. State statutes and regulations cited in the Attorney General's Statement are also included in the application.

The Program Description includes a description of the scope and organizational structure of the sewage sludge management program, including a description of the general duties and the total number of state staff carrying out the program, a description of applicable State procedures, including permitting procedures, and administrative and judicial review procedures, and a description of the State's compliance tracking and enforcement program. It also includes an inventory of the facilities that are subject to regulations promulgated pursuant to 40 CFR part 503 and subject to the State's sewage sludge management program.

The proposed amendments to the Ohio EPA/EPA MOA include provisions for permit administration, enforcement and compliance monitoring, and annual reporting. The MOA has been signed by

the Director of Ohio EPA and will become effective upon the signature of the Regional Administrator of EPA, Region 5. The MOA does not limit the authority of EPA to take actions pursuant to its powers under the CWA, nor does it limit EPA's oversight responsibilities with respect to sewage sludge management program administration.

II. Sewage Sludge and the State Sewage Sludge Management Program

Sewage sludge, are the solids separated from liquids during treatment at a municipal wastewater treatment plant and treated to stabilize and reduce pathogens. EPA in 1993 adopted standards for management of sewage sludge generated during the process of treating municipal wastewater. 40 CFR part 503. The part 503 rules establish standards under which sewage sludge may be land applied as a soil amendment, disposed in a surface disposal site, or incinerated, and requirements for compliance with 40 CFR part 258 if placed in a municipal landfill. The standards, designed to protect public health and the environment, include pollutant limits, pathogen reduction requirements, vector attraction reduction requirements, and management practices specific to the use or disposal option selected.

The Ohio sewage sludge management program imposes requirements on wastewater treatment plants, sewage sludge appliers, and surface disposal site operators. It also provides for the issuance of permits under certain conditions, enforcing the standards as necessary, and providing guidance and technical assistance to members of the regulated community. The program also includes a state-specific feature requiring a land applier to obtain site authorization from Ohio EPA before class B treated sewage sludge is applied to the site.

III. Indian Country

Ohio is not authorized to carry out its sewage sludge management program in "Indian Country," as defined in 18 U.S.C. 1151. Indian Country includes:

1. All lands within the exterior boundaries of Indian reservations within or abutting the State of Ohio;
2. Any land held in trust by the U.S. for an Indian tribe; and
3. Any other land, whether on or off an Indian reservation that qualifies as Indian Country.

Therefore, this action has no effect on Indian Country. EPA retains the authority to implement and administer the sewage sludge management program in Indian Country. However, at this

time, there is no Indian Country within the State of Ohio.

IV. Public Notice and Comment Procedures

Copies of all submitted statements and documents shall become a part of the record submitted to EPA. All comments or objections presented in writing to EPA, Region 5 and postmarked within 45 days of this document will be considered by EPA before it takes final action on Ohio's request for program modification approval. All written comments and questions regarding the sewage sludge management program should be addressed to John Colletti at the above address. The public is also encouraged to notify anyone who may be interested in this matter.

V. Public Hearing Procedures

At the time of this notice, a decision has not been made as to whether a public hearing will be held on Ohio's request for program modification. During the comment period, any interested person may request a public hearing by filing a written request which must state the issues to be raised to EPA, Region 5. The last day for filing a request for a public hearing is 45 days from the date of this notice; the request should be submitted to John Colletti at the above address. In appropriate cases, including those where there is significant public interest, EPA may hold a public hearing. Public notice of such a hearing will occur in the **Federal Register** and in enough of the largest newspapers in Ohio to provide statewide coverage and will be mailed to interested persons at least 30 days prior to the hearing.

VI. EPA's Decision

EPA has determined that Ohio has submitted a complete application. EPA sent a letter to the Director of the Ohio EPA on November 9, 2004, stating that the State's application to modify the Ohio NPDES program to include a sewage sludge management program was complete. EPA has 90 days from the date of that letter to approve or disapprove Ohio's sewage sludge management program unless a public hearing is held. After the close of the public comment period, EPA will consider and respond to all significant comments received before taking final action on Ohio's request for sewage sludge management program approval. The decision will be based on the requirements of sections 405, 402 and 304(i) of the CWA and EPA regulations promulgated thereunder. If the Ohio sewage sludge management program is

approved, EPA will so notify the State. Notice will be published in the **Federal Register** and, as of the date of program approval, EPA will no longer serve as the primary program and enforcement authority for sewage sludge use and disposal within Ohio. EPA will remain the authority for sewage sludge use and disposal in Indian Country within Ohio should a Tribe become recognized, for the incineration of sewage sludge, and for the land application of domestic septage. The State's program will operate in lieu of the EPA-administered program. However, EPA will retain the right, among other things, to object to NPDES permits proposed by Ohio and to take enforcement actions for violations, as allowed by the CWA. If EPA disapproves Ohio's sewage sludge management program, EPA will notify Ohio of the reasons for disapproval and of any revisions or modifications to the State program that are necessary to obtain approval.

VII. Other Federal Statutes

A. National Historic Preservation Act

Section 106 of the National Historic Preservation Act, 16 U.S.C. 470(f), requires federal agencies to take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on such undertakings. Under the ACHP's regulations (36 CFR part 800), agencies consult with the appropriate State Historic Preservation Officer (SHPO) on federal undertakings that have the potential to affect historic properties listed or eligible for listing in the National Register of Historic Places. EPA, Region 5 is currently in discussions with the Ohio SHPO regarding its determination that approval of the state sewage sludge management program would have no effect on historic properties within the State of Ohio.

B. Endangered Species Act

Section 7(a)(2) of the Endangered Species Act (ESA) requires that all federal agencies, in consultation with the U.S. Fish and Wildlife Service, insure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any Federally-listed threatened or endangered species or result in the destruction or adverse modification of their designated critical habitat. Regulations for consultation under ESA section 7 are codified at 50 CFR part 402. EPA, Region 5 has initiated informal ESA section 7 consultation with the U.S. Fish and Wildlife Service

regarding Ohio's request for approval of its sewage sludge management program.

C. Regulatory Flexibility Act

Based on General Counsel Opinion 78-7 (April 18, 1978), EPA has long considered a determination to approve or deny a State Clean Water Act (CWA) program submission to constitute an adjudication because an "approval," within the meaning of the Administrative Procedure Act (APA), constitutes a "licence," which, in turn, is the project of an "adjudication." For this reason, the statutes and Executive Orders that apply to rulemaking action are not applicable here. Among these are provisions of the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 *et seq.* Under the RFA, whenever a Federal agency proposes or promulgates a rule under section 553 of the APA, after being required by that section or any other law to publish a general notice of proposed rulemaking, the Agency must prepare a regulatory flexibility analysis for the rule, unless the Agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. If the Agency does not certify the rule, the regulatory flexibility analysis must describe and assess the impact of a rule on small entities affected by the rule. Even if the CWA program approval were a rule subject to the RFA, the Agency would certify that approval of the State proposed CWA program would not have a significant economic impact on a substantial number of small entities. EPA's action to approve a CWA program merely recognizes that the necessary elements of the program have already been enacted as a matter of State law; it would, therefore, impose no additional obligation upon those subject to the State's program. Accordingly, the Regional Administrator would certify that this Ohio sewage sludge management program, even if a rule, would not have significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit

analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements. Today's decision includes no Federal mandates for State, local or tribal governments or the private sector. The Act excludes from the definition of a "Federal mandate" duties that arise from participation in a voluntary Federal program, except in certain cases where a "Federal intergovernmental mandate" affects an annual Federal entitlement program of \$500 million or more which are not applicable here. Ohio's request for approval of its sewage sludge management program is voluntary and imposes no Federal mandate within the meaning of the Act. Rather, by having its sewage sludge management program approved, the State will gain the authority to implement the program within its jurisdiction, in lieu of EPA, thereby eliminating duplicative State and Federal requirements. If a State chooses not to seek authorization for administration of a sewage sludge management program, regulation is left to EPA. EPA's approval of State

programs generally may reduce compliance costs for the private sector, since the State, by virtue of the approval, may now administer the program in lieu of EPA and exercise primary enforcement. Hence, owners and operators of sewage sludge management facilities or businesses generally no longer face dual Federal and State compliance requirements, thereby reducing overall compliance costs. Thus, today's decision is not subject to the requirements of sections 202 and 205 of the UMRA. The Agency recognizes that small governments may own and/or operate sewage sludge management facilities that will become subject to the requirements of an approved State sewage sludge management program. However, small governments that own and/or operate sewage sludge management facilities are already subject to the requirements in 40 CFR parts 123 and 503 and are not subject to any additional significant or unique requirements by virtue of this program approval. Once EPA authorizes a State to administer its own sewage sludge management program and any revisions to that program, these same small governments will be able to own and operate their sewage sludge management facilities or businesses under the approved State program, in lieu of the federal program. Therefore, EPA has determined that this document contains no regulatory requirements that might significantly or uniquely affect small governments.

Authority for parts 123 and 501: Clean Water Act, 33 U.S.C. 1251 *et seq.*

Dated: November 23, 2004.

Norman Niedergang,

Acting Regional Administrator, Region 5.

[FR Doc. 04-27365 Filed 12-13-04; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL COMMUNICATIONS COMMISSION

Sunshine Act Meeting; Open Commission Meeting Wednesday, December 15, 2004

December 8, 2004.

The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Wednesday, December 15, 2004, which is scheduled to commence at 9:30 a.m. in Room TW-C305, at 445 12th Street, SW., Washington, DC.

Item No.	Bureau	Subject
1	Office of Engineering and Technology	<i>Title:</i> Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems (ET Docket No. 98-153). <i>Summary:</i> The Commission will consider a Second Report and Order and Second Memorandum Opinion and Order concerning unlicensed operation. This item responds to proposals made in the previous Notice of Proposed Rulemaking and addresses the petitions for reconsideration filed in response to the previous Memorandum Opinion and Order in this proceeding.
2	International	<i>Title:</i> Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands (IB Docket No. 02-10). <i>Summary:</i> The Commission will consider a Report and Order establishing licensing and service rules for Earth Stations on Vessels operating in the 5925-6425 MHz/3700-4200 MHz (C-Band) and 14.0-14.5/11.7-12.2 GHz (Ku-band) frequencies.
3	Wireless Tele-Communications	<i>Title:</i> Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services (WT Docket No. 03-103); Biennial Regulatory Review-Amendment of Parts 1, 22, and 90 of the Commission's Rules; Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service Mutually Exclusive Applications; and Application of Verizon Airfone Inc. for Renewal of 800 MHz Air-Ground Radiotelephone License, Call Sign KNKG804. <i>Summary:</i> The Commission will consider a Report and Order and Further Notice of Proposed Rulemaking regarding commercial air-ground telecommunications service, Part 22 non-cellular Public Mobile Service rules, and general aviation air-ground radiotelephone service mutually exclusive applications. The Commission also will consider the Application of Verizon Airfone for renewal of 800 MHz Air-Ground Radiotelephone license call sign KNKG804.
4	Wireless Tele-Communications	<i>Title:</i> Amendment of the Commission's Rules to Facilitate the Use of Cellular Telephones and other Wireless Devices Aboard Airborne Aircraft. <i>Summary:</i> The Commission will consider a Notice of Proposed Rulemaking regarding changes to the rule prohibiting the airborne use of cellular telephones.
5	Wireline Competition	<i>Title:</i> Rural Health Care Support Mechanism (WC Docket No. 02-60). <i>Summary:</i> The Commission will consider a Second Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking concerning modifications to the Commission's rules to improve the effectiveness of the rural health care universal service support mechanism.
6	Wireline Competition	<i>Title:</i> Unbundled Access to Network Elements (WC Docket No. 04-313) and Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers (CC Docket No. 01-338). <i>Summary:</i> The Commission will consider an Order on Remand concerning incumbent local exchange carriers' obligations to make elements of their networks available on an unbundled basis.

Additional information concerning this meeting may be obtained from Audrey Spivack or David Fiske, Office of Media Relations, (202) 418-0500; TTY 1-888-835-5322. Audio/Video coverage of the meeting will be broadcast live over the Internet from the FCC's Audio/Video Events web page at <http://www.fcc.gov/realaudio>.

For a fee this meeting can be viewed live over George Mason University's Capitol Connection. The Capitol Connection also will carry the meeting live via the Internet. To purchase these services call (703) 993-3100 or go to <http://www.capitolconnection.gmu.edu>.

Copies of materials adopted at this meeting can be purchased from the FCC's duplicating contractor, Best Copy and Printing, Inc. (202) 488-5300; Fax (202) 488-5563; TTY (202) 488-5562. These copies are available in paper format and alternative media, including large print/type; digital disk; and audio and video tape. Best Copy and Printing,

Inc. may be reached by e-mail at FCC@BCPIWEB.com.

Federal Communications Commission.
Marlene H. Dortch,
Secretary.
[FR Doc. 04-27435 Filed 12-10-04; 12:32 pm]
BILLING CODE 6712-01-P

FEDERAL HOUSING FINANCE BOARD

Sunshine Act Meeting Notice; Announcing a Closed Meeting of the Board of Directors

TIME AND DATE: The meeting of the Board of Directors is scheduled to begin at 10 a.m. on Wednesday, December 15, 2004.

PLACE: Board Room, Second Floor, Federal Housing Finance Board, 1777 F Street, NW., Washington, DC 20006.

STATUS: The entire meeting will be closed to the public.

MATTER TO BE CONSIDERED AT THE MEETING: Periodic Update of Examination Program Development and Supervisory Findings.

CONTACT PERSON FOR MORE INFORMATION: Shelia S. Willis, Paralegal Specialist, Office of General Counsel, by telephone at (202) 408-2876 or by electronic mail at williss@fhfb.gov.

Dated: December 9, 2004.

By the Federal Housing Finance Board.

Mark J. Tenhundfeld,
General Counsel.

[FR Doc. 04-27403 Filed 12-9-04; 5:11 pm]
BILLING CODE 6725-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES**Administration for Children and Families****Submission for OMB Review; Comment Request**

Title: Voluntary Surveys of Program Partners to Implement Executive Order 12862.

OMB No.: 0980-0266.

Description: Under the provisions of the Federal Paperwork Reduction Act of

1995 (Pub. L. 104-13), the Administration for Children and Families (ACF) is requesting clearance for instruments to implement Executive Order 12862 within ACF. The purpose of this data collection is to obtain customer satisfaction information from those entities that are funded to be ACF's partners in the delivery of services to the American public. ACF partners are those entities that receive funding to deliver services or assistance from ACF programs. Examples of partners are state and local

governments, territories, service providers, Indian Tribes and Tribal organizations, grantees, researchers or other intermediaries serving target populations identified by and funded directly or indirectly by ACF. The surveys will obtain information about how well ACF is meeting the needs of its partners in operating the programs.

Respondents: State, Local, Tribal Governments or Not-For-Profit Organizations.

Annual Burden Estimates:

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
State Governments, Territories and District of Columbia	54	10	1	540
Head Start Grantees & Delegates	200	1	.5	100
Other Discretionary Grant Programs	200	10	.5	1000
Indian Tribes & Tribal Governments	25	10	.5	125

Estimated Total Annual Burden Hours: 1,765.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Administration, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. All requests should be identified by the title of the information collection. E-mail address: grjohnson@acf.hhs.gov.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, Attn: Desk Officer for ACF, E-mail address: Katherine_T_Astrich@omb.eop.gov.

Dated: November 22, 2004.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 04-27336 Filed 12-13-04; 8:45 am]

BILLING CODE 4184-01-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES**Food and Drug Administration**

[Docket No. 2000N-1399]

Agency Information Collection Activities; Announcement of Office of Management and Budget Approval; Presubmission Conference.

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a collection of information entitled "Presubmission Conference" has been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995.

FOR FURTHER INFORMATION CONTACT: Denver Presley, Office of Management Programs (HFA-250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-827-1472.

SUPPLEMENTARY INFORMATION: In the **Federal Register** of August 18, 2004 (69 FR 51162), the agency announced that the proposed information collection had been submitted to OMB for review and clearance under 44 U.S.C. 3507. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB has now approved the information collection and has assigned OMB control number 0910-0555. The approval expires on November 30, 2007.

Dated: December 6, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04-27292 Filed 12-13-04; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF HEALTH AND HUMAN SERVICES**Food and Drug Administration**

[Docket No. 2004N-0525]

Agency Information Collection Activities; Proposed Collection; Comment Request; Reports of Corrections and Removals

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act of 1995 (the PRA), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information including each proposed extension of an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on information collection requirements for reports of corrections and removals.

DATES: Submit written or electronic comments on the collection of information by February 14, 2005.

ADDRESSES: Submit electronic comments on the collection of information to: <http://www.fda.gov/>

dockets/ecommments. Submit written comments on the collection of information to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT:

Peggy Robbins, Office of Management Programs (HFA-250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-827-1223.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501-3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. "Collection of information" is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information including each proposed extension of an existing collection of information, before submitting the collection to OMB

for approval. To comply with this requirement, FDA is publishing notice of the proposed collection of information set forth in this document.

With respect to the following collection of information, FDA invites comments on these topics: (1) Whether the proposed collection of information is necessary for the proper performance of FDA's functions, including whether the information will have practical utility; (2) the accuracy of FDA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

Reports of Corrections and Removals—21 CFR Part 806 (OMB Control Number 0910-0359)—Extension

The collection of information required under the reports of corrections and removals, part 806, (21 CFR part 806) implements section 519(f) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 360i(f)), as amended by the Food and Drug Modernization Act of

1997 (FDAMA) (21 U.S.C. 301) (Public Law 105-115).

Each device manufacturer or importer under § 806.10 shall submit a written report to FDA of any action initiated to correct or remove a device to reduce a risk to health posed by the device, or to remedy a violation of the act caused by the device which may present a risk to health, within 10 working days of initiating such correction or removal.

Each device manufacturer or importer of a device who initiates a correction or removal of a device that is not required to be reported to FDA under § 806.20 shall keep a record of such correction or removal.

The information collected in the reports of corrections and removals will be used by FDA to identify marketed devices that have serious problems and to ensure that defective devices are removed from the market. This will assure that FDA has current and complete information regarding these corrections and removals and to determine whether recall action is adequate.

Respondents to this collection of information are manufacturers and importers of medical devices.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN¹

21 CFR Section	No. of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
806.10	482	1	482	10	4,820
Total					4,820

¹ There are no capital costs or operating and maintenance costs associated with this collection of information.

TABLE 2.—ESTIMATED ANNUAL RECORDKEEPING BURDEN¹

21 CFR Section	No. of Recordkeepers	Annual Frequency per Recordkeeping	Total Annual Records	Hours per Record	Total Hours
806.20	143	1	143	10	1,430
Total					1,430

¹ There are no capital costs or operating and maintenance costs associated with this collection of information.

In 2001, when preparing the earlier package for approval of the information collection requirements in part 806, FDA reviewed the reports of corrections and removals submitted in the previous 3 years under part 7 (21 CFR part 7) (the agency's recall provisions). FDA has determined that estimates of the reporting burden in §§ 806.10 and 806.20 should be revised to reflect a reduction of 29 percent for reports and

records submitted under part 7 due to a decrease in recall actions. The time needed to collect information has been reduced by 4 hours per record due to the implementation of a computerized program for information collection requirements in part 806.

Dated: December 6, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04-27293 Filed 12-13-04; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF HEALTH AND HUMAN SERVICES**Food and Drug Administration**

[Docket No. 2004N-0515]

Agency Information Collection Activities; Proposed Collection; Comment Request; Medical Device Labeling Regulations**AGENCY:** Food and Drug Administration, HHS.**ACTION:** Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act of 1995 (the PRA), Federal agencies are required to publish notice in the *Federal Register* concerning each proposed collection of information, including each proposed extension of an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on medical device labeling regulations.

DATES: Submit written or electronic comments on the collection of information by February 14, 2005.

ADDRESSES: Submit electronic comments on the collection of information to: <http://www.fda.gov/dockets/ecomments>. Submit written comments on the collection of information to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Peggy Robbins, Office of Management Programs (HFA-250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-827-1223.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501-3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. "Collection of information" is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires Federal agencies to provide a 60-day notice in the *Federal Register* concerning each proposed collection of information, including each proposed extension of an

existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, FDA is publishing notice of the proposed collection of information set forth in this document.

With respect to the following collection of information, FDA invites comments on these topics: (1) Whether the proposed collection of information is necessary for the proper performance of FDA's functions, including whether the information will have practical utility; (2) the accuracy of FDA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

Medical Device Labeling Regulations—21 CFR Parts 800, 801, and 809 (OMB Control No. 0910-0485)—Extension

Section 502 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 352), among other things, establishes requirements for the label or labeling of a medical device so that it is not misbranded and subject to regulatory action. Certain provisions of section 502 of the act require that manufacturers, importers, and distributors of medical devices disclose information about themselves or their devices on the labels or labeling of the devices. Section 502(b) of the act requires that, if the device is in a package, the label must contain the name and place of business of the manufacturer, packer, or distributor and an accurate statement of the quantity of the contents. Section 502(f) of the act provides that the labeling of a device must contain adequate directions for use. FDA may grant an exemption from the adequate directions for use requirement, if FDA determines that adequate directions for use are not necessary for the protection of the public health.

FDA regulations in parts 800, 801, and 809 (21 CFR parts 800, 801, and 809) require manufacturers, importers, and distributors of medical devices to disclose to health professionals and consumers specific information about themselves or their devices on the label or labeling of their devices. FDA issued these regulations under the authority of sections 201, 301, 502, and 701 of the act (21 U.S.C. 321, 331, 352, and 371). Most of the regulations in parts 800, 801, and 809 derive from the

requirements of section 502 of the act, which provides, in part, that a device shall be misbranded if, among other things, its label or labeling fails to bear certain required information concerning the device, is false or misleading in any particular way, or fails to contain adequate directions for use.

Section 800.12 requires that packages of contact lens cleaning solutions include a tamper-resistant feature to prevent malicious adulteration. Sections 800.10(a)(3) and 800.12(c) require that the label of contact lens cleaning solutions contain a prominent statement alerting consumers to the tamper-resistant feature.

Section 800.10(b)(2) requires that the labeling of liquid ophthalmic preparations packed in multiple-dose containers include information as to duration of use and necessary warnings, to afford adequate protection from contamination during use.

Section 801.1 requires that the label of a device in package form contain the name and place of business of the manufacturer, packer, or distributor.

Section 801.5 requires that the labeling of devices include directions under which the layman can use a device safely and for the purposes for which it is intended. Section 801.4 defines "intended use". Where necessary, the labeling should include: (1) Statements of all conditions, purposes, or uses for which the device is intended, unless the device is a prescription device subject to the requirements of § 801.109; (2) quantity of dose; (3) frequency of administration or application; (4) duration of administration or application; (5) time of administration, e.g. in relation to meals, onset of symptoms, etc.; (6) route of method or application; and (7) preparation for use.

Section 801.61 requires that the principal display panel of an over-the-counter (OTC) device in package form must include a statement of the identity of the device. The statement of the identity of the device must include the common name of the device followed by an accurate statement of the principal intended actions of the device.

Section 801.62 requires that the label of an OTC device in package form must include a declaration of the net quantity of contents. The label must express the net quantity in terms of weight, measure, numerical count, or a combination of numerical count and weight, measure, or size.

Section 801.109 establishes labeling requirements for prescription devices. A prescription device is defined as a device which, because of its potential for harmful effect, the method of its use,

or the collateral measures necessary to its use, is not safe except under the supervision of a practitioner licensed by law to use the device and, therefore, for which adequate directions for use by a layperson cannot be developed.

The label of the device must include: (1) The statement "Caution: Federal law restricts this device to sale by or on the order of a '_____'". The blank is to be filled in by a term such as "physician," "dentist," or other appropriate term; and (2) the method of its application or use.

Labeling must include information for use, including indications, effects, routes, methods, frequency and duration of administration, and any relevant hazards, contraindications, side effects, and precautions under which practitioners licensed by law to administer the device can use the device safely and for the purpose for which it is intended, including all purposes for which it is advertised or represented. Information may be omitted from the dispensing package if, but only if, the article is a device for which directions, hazards, warnings, and other information are commonly known to practitioners licensed by law to use the device.

Section 801.110 establishes a labeling requirement for a prescription device delivered to the ultimate purchaser or user upon the prescription of a licensed practitioner. The device must be accompanied by labeling bearing the name and address of the licensed practitioner and the directions for use and cautionary statements, if any, contained in the order.

Section 801.405 establishes labeling requirements for articles intended for lay use in repairing and refitting dentures. The labeling must: (1) Limit directions for use for denture repair kits to emergency repair pending unavoidable delay in obtaining professional reconstruction of the denture; (2) limit directions for use for denture reliners, pads, and cushions to temporary refitting pending unavoidable delay in obtaining professional reconstruction of the denture; and (3) contain the word "emergency" preceding and modifying each indication-for-use statement for denture repair kits and the word "temporary" preceding and modifying each indication-for-use statement for reliners, pads, and cushions.

Section 801.410(f) requires that results of impact tests and description of the test method and apparatus be kept for a period of 3 years.

Section 801.410(f) is designed to protect the eyeglass wearer from potential eye injury resulting from

shattering of ordinary eyeglass lenses and requires that eyeglasses and sunglasses be fitted with impact-resistant lenses. Examination of data available on the frequency of eye injuries resulting from the shattering of ordinary crown glass lenses indicates that the use of such lenses constitutes an avoidable hazard to the eye of the wearer. According to the Vision Council of America, 60 percent of the population, or 161 million Americans, wear prescription eyewear; 81 percent have eyeglasses, 3 percent have contact lenses only and 16 percent have both eyeglasses and contact lenses.

Section 801.420(c) requires that the manufacturers or distributors of hearing aids develop a User Instructional Brochure, which accompanies the device and is provided to the prospective user by the dispenser of the hearing aid. The brochure must contain detailed information on the use and maintenance of the hearing aid.

Section 801.421(b) requires the hearing aid dispenser to provide the prospective user a copy of the User Instructional Brochure and an opportunity to review the comments with him/her orally or in the predominant method of communication used during the sale.

Section 801.421(c) requires the hearing aid dispenser to provide, upon request, to the prospective purchaser of any hearing aid (s)he dispenses, a copy of the User Instructional Brochure or the name and address of the manufacturer or distributor from whom the brochure may be obtained.

Section 801.421(d) requires the hearing aid dispenser to retain copies of all physician statements or any waivers of medical evaluation for 3 years from the time of dispensing.

Section 801.435 requires condom manufacturers to include an expiration date in the labeling of the condom. The manufacturer must support the expiration date by data from quality control tests demonstrating physical and mechanical integrity of three random lots of the same product which were stored under accelerated and real time conditions.

Section 809.10(a) provides that a label for an in vitro diagnostic product must contain the following information:

1. The proprietary and established name;
2. The intended use or uses of the product;
3. For a reagent, a declaration of the established name, if any, and the quantity, proportion, and concentration of each reactive ingredient;
4. A statement of warnings and precautions for users;

5. For a reagent, appropriate storage instructions;

6. For a reagent, a means by which the user may be assured that the product meets the appropriate standards of identity, strength, quality, and purity;

7. For a reagent, a declaration of the net quantity of contents;

8. Name and place of business of the manufacturer, packer, and distributor; and

9. A lot or control number.

Section 809.10(b) provides that the labeling (package insert) accompanying the device must contain the following:

1. Proprietary name and established name, if any;
2. The intended use or uses;
3. A summary and explanation of the test;
4. The chemical, physical, physiological, or biological principles of the procedure;
5. Information about the reagents;
6. Information about the instruments;
7. Information about the specimen collection and preparation for analysis;
8. Information about the procedure;
9. Information about the results;
10. Information about the limitations of the procedure;
11. Expected values;
12. Specific performance characteristics;
13. A bibliography of pertinent references; and
14. Date of issuance of the last revision of the labeling.

Section 809.10(d) provides that the labeling for general purpose laboratory reagents may be exempt from the labeling requirements in § 809.10(a) and (b), if the labeling contains the following:

1. The proprietary name and established name of the reagent;
 2. The established name and the quantity, proportion, and concentration of the reagent ingredient;
 3. A statement of the purity and quality of the reagent;
 4. A statement of warnings and precautions for users;
 5. Appropriate storage instructions;
 6. A declaration of the net quantity of contents;
 7. Name and place of business of the manufacturer, packer, or distributor; and
 8. A lot or control number.
- Section 809.10(e) requires manufacturers of analyte specific reagents to include the following in the labeling:
1. The proprietary name and established name, if any, of the reagent;
 2. A declaration of established name, if any, and quantity, proportion or concentration of the reagent ingredient;

3. A statement of the purity and quality of the reagent;
 4. A statement of warnings or precautions for users;
 5. Appropriate storage instructions;
 6. A declaration of the net quantity of contents;
 7. Name and place of business of the manufacturer, packer, or distributor;
 8. A lot or control number; and
 9. The statement, "For analyte specific reagent use only. Analytical and performance characteristics are not established."

Section 809.10(f) requires that the labeling for OTC test sample collection systems for drugs of abuse testing bear the following information in a language appropriate for the intended users:

1. Adequate instructions for specimen collection and handling;
 2. An identification system to ensure that specimens are not mixed up or otherwise misidentified at the laboratory;

3. The intended use or uses of the product;
 4. A statement that confirmatory testing will be conducted on all samples that initially test positive;
 5. A statement of warnings or precautions for users;
 6. Adequate instructions on how to obtain test results from a person who can explain their meaning, including the probability of false positive and false negative results, as well as how to contact a trained health professional if additional information on interpretation of test results or followup counseling is desired; and

7. Name and place of business of the manufacturer, packer, or distributor.

Section 809.30(d) requires that manufacturers of analyte specific reagents (ASRs) assure that advertising and promotional materials for ASRs:

1. Include the identity and purity of the ASR and the identity of the analyte; and

2. Do not include any statement regarding analytical or clinical performance.

These estimates are based on FDA's registration and listing database for medical device establishments, agency communications with industry, and FDA's knowledge of and experience with device labeling. We have not estimated a burden for those requirements where the information to be disclosed is information that has been supplied by FDA. Also, we have not estimated a burden for that information that is disclosed to third parties as a usual and customary part of a medical device manufacturer, distributor, or importer's normal business activities. We do not include any burden for time that is spent designing labels to improve the format or presentation.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN¹

21 CFR Section	No. of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
800.10(a)(3) and 800.12(c)	4	10	40	1	40
800.10(b)(2)	4	10	40	40	1,600
801.1	20,000	3.5	70,000	0.1	7,000
801.5	2,000	3.5	7,000	22.35	156,450
801.61	1,000	3.5	3,500	1	3,500
801.62	200	5	1,000	1	1,000
801.109	18,000	3.5	63,000	17.77	1,119,510
801.110	10,000	50	500,000	0.25	125,000
801.405(b)	40	1	40	4	160
801.420(c)	40	5	200	40	8,000
801.421(b)	10,000	160	1,600,000	0.30	480,000
801.421(c)	10,000	5	50,000	0.17	8,500
801.435	45	1	45	96	4,320
809.10(a) and (b)	1,700	6	10,200	80	816,000
809.10(d)	300	2	600	40	24,000
809.10(e)	300	25	7,500	1	7,500
809.10(f)	20	1	20	100	2,000
809.30(d)	300	25	7,500	1	7,500
Total Burden Hours					2,772,080

¹ There are no capital costs or operating and maintenance costs associated with this collection of information.

TABLE 2.—ESTIMATED ANNUAL RECORDKEEPING BURDEN¹

21 CFR Section	No. of Recordkeepers	Annual Frequency per Recordkeeping	Total Annual Records	Hours per Record	Total Hours
801.410(f)	30	769,000	23,070,000	641	19,225
801.421(d)	9,900	162	1,600,000	0.25	400,000
Total Hours					419,225

¹ There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: December 6, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04-27333 Filed 12-13-04; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF HOMELAND SECURITY

Bureau of Customs and Border Protection

Agency Information Collection Activities: User Fees

AGENCY: Bureau of Customs and Border Protection, Department of Homeland Security.

ACTION: Proposed collection; comments requested.

SUMMARY: The Bureau of Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995: User Fees. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with a change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the *Federal Register* (69 FR 56448) on September 21, 2004, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

DATES: Written comments should be received on or before January 13, 2005.

ADDRESSES: Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time should be directed to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Department of

Treasury Desk Officer, Washington, DC 20503. Additionally comments may be submitted to OMB via facsimile to (202) 395-6974.

SUPPLEMENTARY INFORMATION: The Bureau of Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act of 1995 (Pub. L. 104-13). Your comments should address one of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies/components estimate of the burden of The proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collections of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Title: User Fees.

OMB Number: 1651-0052.

Form Number: Form CBP-339.

Abstract: The information collected on the User Fee Form CBP-339 is necessary in order for CBP to account for, and track user fees from private and commercial vessels, private aircraft, operators of commercial trucks, and passenger and freight railroad cars entering the United States and recipients of certain dutiable mail entries for certain official services.

Current Actions: This submission is being submitted to extend the expiration date with a change in the burden hours.

Type of Review: Extension (with change).

Affected Public: Businesses or other for-profit.

Estimated Number of Respondents: 45,000.

Estimated Time Per Respondent: 5-10 minutes.

Estimated Total Annual Burden Hours: 4,166.

Estimated Total Annualized Cost on the Public: \$62,490.

If additional information is required contact: Tracey Denning, Bureau of Customs and Border Protection, 1300 Pennsylvania Avenue NW., Room 3.2.C, Washington, DC 20229, at 202-344-1429.

Dated: December 7, 2004.

Tracey Denning,

Agency Clearance Officer, Information Services Branch.

[FR Doc. 04-27326 Filed 12-13-04; 8:45 am]

BILLING CODE 4820-02-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[ES-020-04-1320-EL]

Notice of the Solicitation of Public Comments on Fair Market Value and Maximum Economic Recovery; Coal Lease by Application KYES-51002

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The United States Department of Agriculture Forest Service, Daniel Boone National Forest, has prepared an Environmental Impact Statement (EIS) to address coal lease application KYES-51002. The EIS has been prepared in cooperation with the Bureau of Land Management's (BLM) Eastern States, Jackson Field Office, the Office of Surface Mining and the Kentucky Department of Surface Mining Reclamation and Enforcement. A public hearing, requesting input to the EIS, was held on November 24, 2003, at the Leslie County Extension Services office in Hyden, Kentucky.

Public comments are requested on the fair market value (FMV) and maximum

economic recovery (MER) of the tracts included in the lease application to be offered for competitive lease sale. The coal in the tracts would be mined by conventional underground methods. The tracts, designated 3094Az, 3094Bb, and 3094Be in the National Forest System, are located in southern Leslie County on the Daniel Boone National Forest, Kentucky and encompass 1,210.4 acres. Estimated recoverable federal reserves of bituminous coal from the Hazard No. 4 and Hazard No. 4A seams are 2.832 million tons. The proximate analysis of the coal on a received basis averages 12,757 BTU/lb. with 6.3% moisture, 1.1% sulfur, 9.4% ash, 50.6% fixed carbon, and 32.6% volatile matter.

The public is invited to comment on the FMV and MER of the tracts proposed to be offered for lease and on factors that may affect FMV and MER.

DATES: Written comments must be post-marked by January 13, 2005, and provided to the below address.

ADDRESSES: Written comments must be provided to the Bureau of Land Management, Jackson Field Office, 411 Briarwood, Suite 404; Jackson, MS 39206.

FOR FURTHER INFORMATION CONTACT:

Stuart Grange, Bureau of Land Management, Jackson, Mississippi at (601) 977-5400.

SUPPLEMENTARY INFORMATION:

Procedures for leasing Federal coal are provided by 43 CFR parts 1600 and 3400. The revised notice of intent for coal leasing beneath the Daniel Boone National Forest in Leslie County, Kentucky was published in the *Federal Register* on September 18, 2003 (Volume 68, Number 181; pages 54706-54707). This notice to solicit public comments on FMV and MER are required by 43 CFR 3422.1 and 43 CFR 3425.3.

As provided by 43 CFR 3422.1(a), proprietary data marked as confidential may be provided in response to this solicitation of public comments. Data so marked shall be treated in accordance with the laws and regulations governing the confidentiality of such information. A copy of the comments submitted by the public on FMV and MER, except those portions identified as proprietary and meeting exemptions stated in the Freedom of Information Act (FOIA), will be available for public inspection at the Bureau of Land Management office noted above.

Comments on FMV and MER should address, but are not limited to the following factors:

1. The method of mining to be employed in order to obtain MER;

2. The method of determining FMV for the coal to be offered;

3. The quality and quantity of the coal resource;

4. If this resource is likely to be mined as part of an existing mine; and

5. Restrictions to mining which may affect coal recovery; The values given above may or may not change as a result of comments received from the public and changes in market conditions between now and when final economic evaluations are completed.

If you wish to withhold your name or address from public review or from disclosure under the FOIA, you must state this prominently at the beginning of your written comments. Such requests will be honored to the extent allowed by the FOIA. All submissions from organizations, businesses and individuals identifying themselves as representatives or officials of organizations or businesses will be available for public inspection in its entirety.

Bruce Dawson,

Field Manager, Jackson Field Office.

[FR Doc. 04-27298 Filed 12-13-04; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[CO 800-04-1610-DO-241A]

Notice of Intent to Prepare a Joint Environmental Impact Statement (EIS) and Associated Resource Management Plan (RMP) Land and Resource Management Plan (LRMP) for the San Juan Public Lands Center

AGENCY: Bureau of Land Management, Interior and Forest Service, USDA.

ACTION: Notice of intent.

SUMMARY: This document provides notice that the Bureau of Land Management (BLM) and the USDA Forest Service (USFS) intend to prepare a joint EIS with associated RMP and LRMP for the federal lands under the jurisdiction of the San Juan Public Lands Center. This notice initiates the public scoping process for BLM, the USFS will issue a NOI at a later date. The plan will fulfill the needs and obligations set forth by the Federal Land Policy and Management Act (FLPMA), National Forest Management Act (NFMA), National Environmental Policy Act (NEPA), and BLM/USFS management policies. The BLM/USFS will work collaboratively with interested parties to identify the management decisions that are best

suited to local, regional, and national needs and concerns. This public process will identify planning issues and develop planning criteria, including an evaluation of the existing management plans in the context of the needs and interests of the public.

DATES: The formal scoping comment period will commence with the publication of this notice and end when the Forest Service scoping ends, but not less than 30 days from the publication of this notice. Comments on issues, alternatives and preliminary planning criteria should be received on or before the end of the scoping period and can be submitted through the planning Web site or in writing to the address listed below. During this scoping period, open houses will be held in Cortez, Durango and Pagosa Springs, Colorado, where BLM and FS personnel will be available to respond to questions and provide other information pertaining to the preparation of the documents. There will be subsequent public review periods and open houses where additional public comment will be requested, including a formal comment period on the Draft management plan/EIS. Formal public meetings, if needed, will be announced through the local news media, newsletters, and the BLM/USFS Web site <http://www.fs.fed.us/r2/sanjuan> at least 15 days prior to the event. The minutes and list of attendees for each meeting will be available to the public and open for 30 days to any participant who wishes to clarify the views they expressed.

ADDRESSES: Written comments should be sent to the Plan Revision Team, San Juan Public Lands Center, 15 Burnett Ct., Durango, CO 81301; (970) 247-1847 Fax (970) 375-2331. Documents pertinent to this proposal may be examined at the San Juan Public Lands Center. Comments, including names and street addresses of respondents, will be available for public review at the San Juan Public Lands Center during regular business hours 8 a.m. to 4:30 p.m. Monday through Friday, except holidays, and may be published as part of the EIS. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comments. We will not however, consider anonymous comments. Such requests will be honored to the extent allowed by law. All comments submitted from organizations and businesses, and from individuals identifying themselves as representatives or officials of

organizations or businesses, will be available for public inspection in their entirety.

FOR FURTHER INFORMATION CONTACT: For further information contact David Baker, telephone (970) 385-1240; e-mail djbaker@fs.fed.us. or to have your name added to our mailing list, contact Laura Stansky, telephone (970) 385-1216; e-mail lstransky@fs.fed.us.

SUPPLEMENTARY INFORMATION: The San Juan Field Office and San Juan National Forest are pioneering a concept known as Service First. Service First is a partnership strategy to provide better customer service and be more cost effective in the delivery of those services to users of the public lands in southwest Colorado. Local units have the opportunity to streamline multiple processes and regulations, combine management of adjacent BLM and National Forest public lands, and offer one-stop shopping and a single point of contact for all customer—commercial users, partners and visitors. The project has merged the San Juan National Forest, the BLM San Juan Field Office, the Anasazi Heritage Center, and the newly created Canyons of the Ancients National Monument under the management of the San Juan Public Lands Center in Durango with Field Office/Ranger Districts in Pagosa Springs, Durango, Bayfield and Dolores Colorado.

Land and resource management plans for this area are currently in need of revision to address changing situations. The proposal is to jointly revise these management plans while still recognizing the need for separate decision documents covering Bureau of Land Management and National Forest System Lands. A separate, stand alone Resource Management Plan is currently being developed for the Canyons of the Ancients National Monument and that area will not be considered in this joint planning effort. Trust management of mineral resources for the Southern Ute and Ute Mountain Tribes will also be excluded.

Management of this area is currently guided by plans located in the San Juan Public Land Center. This Planning effort will revise the existing Resource Management Plan Land and Resource Management Plan. One EIS will be prepared but separate Records of Decision will be done because the two agencies have different approving officials and appeal processes.

- The BLM plan is called the San Juan/San Miguel Resource Management Plan (RMP) and was completed in 1985 and has been amended four times. This Plan will only revise the San Juan

portion of the RMP at this time. The Uncompahgre Field Office will revise the San Miguel portion of the RMP later. Several activity level management plans have been written under this plan.

- The USFS plan is called the Land and Resource Management Plan for the San Juan National Forest and was completed in 1983 and has been amended twenty times.

Planning criteria are the standards, rules, and other factors used in formulating judgment about data collection, analysis and decision making associated with preparation of the San Juan Plan Revision. These criteria establish parameters and help focus preparation of the effort. Public comments are also welcome on the following preliminary planning criteria, which will be utilized in preparation of the San Juan Plan Revision.

A. The San Juan Plan Revision will be completed in compliance with the Federal Land Policy and Management Act, Multiple Use and Sustained Yield Act of 1960, the Forest and Rangeland Renewable Resources Planning Act of 1974 as amended by the National Forest Management Act of 1976 and all other applicable laws.

B. The project team will work cooperatively with the State of Colorado, tribal governments, county and municipal governments, other Federal agencies, and individuals. Public participation will be encouraged throughout the process.

C. Completion of the San Juan Plan Revision will include preparation of an EIS that will comply with the national Environmental Policy Act.

D. The lifestyles and concerns of area residents, including the activities of grazing, protection of traditional uses, recreational use, off-highway vehicle use, and wilderness characteristics will be addressed in the San Juan Plan Revision.

E. Decisions in the San Juan Plan Revision will strive to be compatible with existing plans and policies of adjacent local, State and Federal agencies.

Preliminary issues and management concerns have been identified by BLM and Forest Service personnel, other agencies, and in meetings with individuals and user groups. They represent the agencies knowledge to date on the existing issues and concerns with current management. Preliminary issues identified by the BLM and FS for the plan effort include: Management and protection of public land resources; fuel reduction and fire management; implementation of the National Energy Policy; designation of Areas of Critical Environmental Concern; recreation/

visitor use and safety; access and transportation on the public lands; integrating management with community, tribal, and other agency needs; and balancing multiple uses. Public involvement gained through the initial scoping period will be utilized to refine these topics and identify additional issues to be evaluated.

The planning area is located in Archuleta, Conejos, Dolores, Hinsdale, La Plata, Mineral, Montezuma, Ouray, Rio Grande, San Juan, and San Miguel Counties; Colorado. This planning activity encompasses approximately 500,000 acres of public land under the jurisdiction of the Secretary of Interior and 1,870,000 acres under the jurisdiction of the Secretary of Agriculture.

Community based study groups will be formed to gather information on specific resource issues; these study groups will be open to the public, as will the meeting notes. Public meetings will be held throughout the plan scoping and preparation period. In order to ensure local community participation and input, public meeting locations will be rotated among the towns of Bayfield, Cortez, Dolores, Durango Pagosa Springs, Silverton, and Telluride. Early participation is encouraged and will help determine the future management of the San Juan Public Lands. In addition to the ongoing public participation process, formal opportunities for public participation will be provided through comment on the alternatives and upon publication of the draft RMP/EIS.

An interdisciplinary approach will be used to develop the plan in order to consider the variety of resource issues and concerns identified. Disciplines involved in the planning process will include specialists with expertise in: rangeland management, minerals and geology, forestry, outdoor recreation, engineering, ecology, archaeology, paleontology, wildlife and fisheries, lands and realty, hydrology, soils, sociology, economics, fuels and fire.

Mark W. Stiles,

Forest Supervisor/Center Manager, San Juan Public Land Center.

[FR Doc. 04-27299 Filed 12-13-04; 8:45 am]

BILLING CODE 4310-32-M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[OR-027-1020-PI-020H; G-05-0029]

Notice of Public Meetings, Steens Mountain Advisory Council

AGENCY: Department of the Interior, Bureau of Land Management (BLM), Burns District Office.

ACTION: Notice of public meetings for the Steens Mountain Advisory Council.

SUMMARY: In accordance with the Steens Mountain Cooperative Management and Protection Act (Steens Act) of 2000, Public Law 106-399, the Federal Land Policy and Management Act, and the Federal Advisory Committee Act of 1972, the U.S. Department of the Interior, BLM, Steens Mountain Advisory Council (SMAC) will meet as indicated below:

DATES: The SMAC will meet at the BLM, Burns District Office, 28910 Hwy 20 West, Hines, Oregon, 97738 on February 7 and 8, 2005 and April 18 and 19, 2005. Both meeting sessions will begin at 8 a.m., local time, and will end at approximately 4:30 p.m., local time.

SUPPLEMENTARY INFORMATION: The SMAC was appointed by the Secretary of the Interior on August 14, 2001, pursuant to the Steens Act and rechartered in August 2003. The SMAC's purpose is to provide representative counsel and advice to the BLM regarding (1) new and unique approaches to management of the land within the bounds of the Steens Mountain Cooperative Management and Protection Area (CMPA), (2) cooperative programs and incentives for landscape management that meet human needs, maintain and improve the ecological and economic integrity of the area, and (3) preparation and implementation of a management plan for the CMPA.

Topics to be discussed by the SMAC at these meetings include categories such as transportation, recreation/public use, wildlife, special designated areas, partnerships/programs, cultural resources, watersheds, projects, education, volunteer-based information, adaptive management, Steens Mountain CMPA Resource Management Plan implementation process, science committee/consultants, socioeconomics, and other matters that may reasonably come before the SMAC.

All meetings are open to the public in their entirety. Information to be distributed to the SMAC is requested at least 10 days prior to the start of each SMAC meeting. Public comment is generally scheduled for 11 a.m. to 11:30

a.m., local time, both days of each meeting session. The amount of time scheduled for public presentations and meeting times may be extended when the authorized representative considers it necessary to accommodate all who seek to be heard regarding matters on the agenda.

FOR FURTHER INFORMATION CONTACT: Additional information concerning the SMAC may be obtained from Rhonda Karges, Management Support Specialist, Burns District Office, 28910 Hwy 20 West, Hines, Oregon, 97738, call (541) 573-4400 or Rhonda_Karges@or.blm.gov or from the following Web site: <http://www.or.blm.gov/Steens>.

Dated: December 8, 2004.

Dana R. Shuford,

Burns District Manager.

[FR Doc. 04-27324 Filed 12-13-04; 8:45 am]

BILLING CODE 4310-33-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NM-220-1430-ES; NMMN-109919]

Notice of Realty Action; Recreation and Public Purposes (R&PP) Act Classification; New Mexico

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The following public lands in Santa Fe County, New Mexico have been examined and found suitable for classification for lease or conveyance to the Town of Edgewood, under the provisions of the Recreation and Public Purposes Act, as amended (43 U.S.C. 869 *et seq.*).

FOR FURTHER INFORMATION CONTACT: Lora Yonemoto, Realty Specialist, (505) 751-4709.

SUPPLEMENTARY INFORMATION: The following described public land in Santa Fe County, New Mexico, has been examined and found suitable for conveyance for recreational or public purposes under the provisions of the Recreation and Public Purposes Act, as amended (43 U.S.C. 869 *et seq.*). The Town of Edgewood proposes to use the lands for a recreation area, to include developed picnic areas, hiking, mountain bike and equestrian trails, a horse use area, and a Town public works facility.

New Mexico Principal Meridian

T. 10 N., R. 7 E.,

Sec. 34, lots 1 through 4 and N1/2SE1/4;

Containing approximately 248.720 acres.

The lands are not needed for Federal Purposes. Lease or conveyance is consistent with current BLM land use planning and would be in the public interest.

The lease/conveyance, when issued, will be subject to the following terms, conditions and reservations:

1. Provisions of the Recreation and Public Purposes Act and to all applicable regulations of the Secretary of the Interior.

2. A right-of-way for ditches and canals constructed by the authority of the United States.

3. All minerals shall be reserved to the United States, together with the right to prospect for, mine, and remove the minerals.

Detailed information concerning this action is available for review at the office of the Bureau of Land Management, Taos Field Office, 226 Cruz Alta Rd., Taos, NM 87571.

On December 14, 2004, the lands will be segregated from all other forms of appropriation under the public land laws, including the general mining laws, except for lease or conveyance under the Recreation and Public Purposes Act and leasing under the mineral leasing laws. Interested persons may submit comments regarding the proposed lease/conveyance or classification of the lands to the Field Office Manager, BLM Taos Office, 226 Cruz Alta Road, Taos, New Mexico 87571 until January 28, 2005.

Classification Comments: Interested parties may submit comments involving the suitability of the land for a recreation area and public works facility to the Town of Edgewood. Comments on the classification are restricted to whether the land is physically suited for the proposal, whether the use will maximize the future use or uses of the land, whether the use is consistent with local planning and zoning, or if the use is consistent with State and Federal programs.

Application Comments: Interested parties may submit comments regarding the specific use proposed in the application and plan of development, whether the BLM followed proper administrative procedures in reaching the decision, or any other factor not directly related to the suitability of the land for the proposed use.

Any adverse comments will be reviewed by the State Director. In the absence of any adverse comments, the classification will become effective on February 14, 2005.

Sam DesGeorges,

Field Office Manager.

[FR Doc. 04-27296 Filed 12-13-04; 8:45 am]

BILLING CODE 4310-FB-P

DEPARTMENT OF THE INTERIOR**National Park Service****National Register of Historic Places;
Notification of Pending Nominations**

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before November 20, 2004. Pursuant to § 60.13 of 36 CFR Part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded by United States Postal Service, to the National Register of Historic Places, National Park Service, 1849 C Street, NW., 2280, Washington, DC 20240; by all other carriers, National Register of Historic Places, National Park Service, 1201 Eye Street, NW., 8th floor, Washington DC 20005; or by fax, (202) 371-6447. Written or faxed comments should be submitted by December 29, 2004.

Carol D. Shull,

Keeper of the National Register of Historic Places.

IOWA**Black Hawk County**

Emerson School, (Waterloo MPS), 314 Randolph St., Waterloo, 04001403
Roosevelt Elementary School, 200 E. Arlington St., Waterloo, 04001402
Whittier School, (Waterloo MPS), 1500 Third St. W, Waterloo, 04001400

Pottawattamie County

Norton, Charles Henry and Charlotte, House, 401 N. Chestnut St., Avoca, 04001401

MARYLAND**Baltimore Independent City**

Hampden Historic District, Roughly bounded by Jones Falls, W. 40th St. and Wyman Park, Baltimore (Independent City), 04001405

Frederick County

Airview Historic District, 701-720 East Main St. extended, Middletown, 04001404

MISSISSIPPI**Adams County**

Ratcliffe Mound Site, Address Restricted, Washington, 04001406

NEBRASKA**Boyd County**

Tower, The, Address Restricted, Lynch, 04001413

Cass County

Manley School, School Buildings in Nebraska MPS), 115 Cherry St., Manley, 04001414

Young Cemetery Cabin, Young Ln. E400, Plattsmouth, 04001408

Douglas County

Country Club Historic District, Roughly 50th to 56th Sts., Corby to Seward Sts., Omaha, 04001410

Omaha Ford Motor Company Assembly Plant, 1514-1524 Cuming St., Omaha, 04001412

Selby Apartments, 830 S. 37th St., 3710 Marcy St., 825 S. 37th Ave., Omaha, 04001411

West Lawn Mausoleum, 5701 Center St., Omaha, 04001409

Nemaha County

Legion Memorial Park, Generally bounded by 10th St., 11th St., H St., and J St., Auburn, 04001407

TEXAS**Gillespie County**

Cave Creek School, 470 Cave Creek Rd., Fredericksburg, 04001415

Travis County

Cranfill, Thomas, House, 1901 Cliff St., Austin, 04001416

UTAH**Salt Lake County**

Benworth—Chapman Apartments and Chapman Cottages (Salt Lake City MPS), 227 S 400 East, Salt Lake City, 04001417

Bigelow Apartments, (Salt Lake City MPS), 225 S 400 East, Salt Lake City, 04001418

Brady—Brady House,

(Sandy City MPS), 8395 South 1000 East, Sandy, 04001419

Vincent—Anderberg House, (Sandy City MPS), 28 E. Pioneer Ave., Sandy, 04001420

Wilson, William W. and Christene, House, (Sandy City MPS), 113 East 8680 South, Sandy, 04001421

Uintah County

Martin, Manfred and Ethel, House, (Vernal—Maeser, Utah MPS), 163 N. Vernal Ave., Vernal, 04001422

Washington School—Vernal LDS Relief Society Hall (Vernal—Maeser, Utah MPS), 270 North 500 West, Vernal, 04001423

A request for REMOVAL has been made for the following:

GUAM**Guam County**

Guam Legislative Building Site 163 Chalan Santo Papa Juan Pablo Dos, Hagatna, 02001722

Ungacta House (Agana Houses TR), 334 Hernan Cortez, Agana, 85000409

[FR Doc. 04-27306 Filed 12-13-04; 8:45 am]

BILLING CODE 4312-51-P

DEPARTMENT OF JUSTICE**Drug Enforcement Administration****Agency Information Collection
Activities: Proposed Collection;
Comments Requested**

ACTION: 60-Day notice of information collection under review: Application for registration under Domestic Chemical Diversion Control Act of 1993 and renewal application for registration under Domestic Chemical Diversion Control Act of 1993.

The Department of Justice (DOJ), Drug Enforcement Administration (DEA), has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted for "sixty days" until February 14, 2005. This process is conducted in accordance with 5 CFR 1320.10.

If you have comments, especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact Patricia M. Good, chief, Liaison and Policy Section, Office of Diversion Control, Drug Enforcement Administration, Washington, DC 20537.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of this information collection:

(1) *Type of Information Collection:* Extension of a Currently Approved Collection.

(2) *Title of the Form/Collection:* Application for Registration Under Domestic Chemical Diversion Control Act of 1993 and Renewal Application for Registration under Domestic Chemical Diversion Control Act of 1993.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Form Number: DEA Form 510 and DEA Form 510a Office of Diversion Control, Drug Enforcement Administration, Department of Justice.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: Business or other for-profit. Other: Not-for-profit, government agencies. The Domestic Chemical Diversion Control Act requires that manufacturers, distributors, importers, and exporters of List I chemicals that may be diverted in the United States, for the production of illicit drugs must register with DEA. Registration provides a system to aid in the tracking of the distribution of List I chemicals.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* DEA estimates that 3,054 persons respond to this collection annually. DEA estimates that it takes 30 minutes for an average respondent to respond when completing the application on paper, and 15 minutes for an average respondent to respond when completing an application electronically. This application is submitted annually.

(6) *An estimate of the total public burden (in hours) associated with the collection:* There are 1,503 total estimated annual hours associated with this information collection.

If additional information is required contact: Brenda E. Dyer, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Patrick Henry Building, Suite 1600, 601 D Street NW., Washington, DC 20530.

Dated: December 8, 2004.

Brenda E. Dyer,

Department Clearance Officer, Department of Justice.

[FR Doc. 04-27317 Filed 12-13-04; 8:45 am]

BILLING CODE 4410-09-M

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 60-day notice of information collection under review: Application for registration under Domestic Chemical Diversion Control Act of 1993 and renewal application for registration under Domestic Chemical Diversion Control Act of 1993.

The Department of Justice (DOJ), Drug Enforcement Administration (DEA), has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted for "sixty days" until February 14, 2005. This process is conducted in accordance with 5 CFR 1320.10.

If you have comments, especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact Patricia M. Good, chief, Liaison and Policy Section, Office of Diversion Control, Drug Enforcement Administration, Washington, DC 20537.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection:

(1) *Type of Information Collection:* Extension of a Currently Approved Collection.

(2) *Title of the Form/Collection:* Application for Registration Under Domestic Chemical Diversion Control Act of 1993 and Renewal Application for Registration under Domestic Chemical Diversion Control Act of 1993.

(3) *Agency Form Number, if Any, and the Applicable Component of the Department of Justice Sponsoring the Collection:* Form Number: DEA Form 510 and DEA Form 510a Office of Diversion Control, Drug Enforcement Administration, Department of Justice.

(4) *Affected Public Who Will Be Asked or Required To Respond, as Well as a Brief Abstract:* Primary: Business or other for-profit. Other: Not-for-profit, government agencies. The Domestic Chemical Diversion Control Act requires that manufacturers, distributors, importers, and exporters of List I chemicals that may be diverted in the United States, for the production of illicit drugs must register with DEA. Registration provides a system to aid in the tracking of the distribution of List I chemicals.

(5) *An Estimate of the Total Number of Respondents and the Amount of Time Estimated for an Average Respondent To Respond:* DEA estimates that 3,054 persons respond to this collection annually. DEA estimates that it takes 30 minutes for an average respondent to respond when completing the application on paper, and 15 minutes for an average respondent to respond when completing an application electronically. This application is submitted annually.

(6) *An Estimate of the Total Public Burden (in Hours) Associated With the Collection:* There are 1,503 total estimated annual hours associated with this information collection.

If additional information is required contact: Brenda E. Dyer, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Patrick Henry Building, Suite 1600, 601 D Street NW., Washington, DC 20530.

Dated: December 9, 2004.

Brenda E. Dyer,

Department Clearance Officer, Department of Justice.

[FR Doc. 04-27337 Filed 12-13-04; 8:45 am]

BILLING CODE 4410-09-P

DEPARTMENT OF LABOR**Office of the Secretary****Submission for OMB Review;
Comment Request**

December 8, 2004.

The Department of Labor (DOL) has submitted the following public information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (Pub. L. 104-13, 44 U.S.C. Chapter 35). A copy of each ICR, with applicable supporting documentation, may be obtained by contacting the Department of Labor (DOL). To obtain documentation, contact Ira Mills on 202-693-4122 (this is not a toll-free number) or E-Mail: mills.ira@dol.gov.

Comments should be sent to Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for DOL, Office of Management and Budget, Room 10235, Washington, DC 20503 202-395-7316 (this is not a toll-free number), within 30 days from the date of this publication in the **Federal Register**.

The OMB is particularly interested in comments which:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and

• Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Agency: Employment and Training Administration.

Type of Review: Revision of a currently approved collection.

Title: Re-employment Services Plan Narrative and Progress Report.

OMB Number: 1205-0424.

Frequency: Annually; and quarterly.

Affected Public: State, Local, or Tribal Government; Federal Government.

Number of Respondents: 54.

Number of Annual Responses: 378.

Form	Number of respondents	Responses per year	Total responses	Hours per response	Total burden hours
Annual Plan	54	1	54	40	2,160
Progress Report	54	1	54	16	864
SF 424	54	1	54	.75	40
SF 269	54	4	216	.30	108
Totals	54	7	378	57	3,172

Total Burden Hours: 3,172.

Total annualized capital/startup costs: \$0.

Total annual costs (operating/maintaining systems or purchasing services): \$0.

Description: The information collected by the annual plan narrative and progress report will be used by DOL to determine if federal funds were productive, met the objectives for providing funds and customer needs. In addition, the narrative and reports will also be used to monitor and report to Congress about the proper and effective utilization of the authorized funds.

Ira L. Mills,

Departmental Clearance Officer.

[FR Doc. 04-27290 Filed 12-13-04; 8:45 am]

BILLING CODE 4510-30-U

DEPARTMENT OF LABOR**Employment Standards Administration****Office of Federal Contract Compliance Programs****Interpreting Nondiscrimination Requirements of Executive Order 11246 With Respect to Systemic Compensation Discrimination; Extension of Comment Period**

AGENCY: Office of Federal Contract Compliance Programs, Employment Standards Administration, Department of Labor.

ACTION: Notice of proposed standards for systemic compensation discrimination under Executive Order 11246; extension of comment period.

SUMMARY: This document extends the period for comments on the Notice published on November 16, 2004 (69 FR 67246), regarding proposed standards for systemic compensation discrimination under Executive Order 11246. The comment period, which was to expire on December 16, 2004, is extended to January 19, 2005.

DATES: Comments on the Notice published on November 16, 2004 (69 FR 67246) must be submitted by the

following dates: Hard copy: your comments must be postmarked by January 19, 2005; facsimile: your comments must be sent by January 19, 2005; electronic mail: your comments must be sent by January 19, 2005.

ADDRESSES: Comments should be submitted to Joseph DuBray, Jr., Director, Division of Policy, Planning and Program Development, OFCCP. Electronic mail is the preferred method for submittal of comments. Comments by electronic mail must be clearly identified as pertaining to the notice interpreting nondiscrimination requirements of Executive Order 11246 with respect to systemic compensation discrimination, and sent to ofccp-public@dol.gov. As a convenience to commenters, public comments transmitted by facsimile (FAX) machine will be accepted. The telephone number of the FAX receiver is (202) 693-1304. To assure access to the FAX equipment, only public comments of six or fewer pages will be accepted via FAX transmittal. Where necessary, hard copies of comments, clearly identified as pertaining to the notice interpreting nondiscrimination requirements of Executive Order 11246 with respect to systemic compensation discrimination, may also be delivered to Joseph DuBray,

Jr., Director, Division of Policy, Planning and Program Development, OFCCP, Room C-3325, 200 Constitution Avenue, NW., Washington, DC 20210. Receipt of submissions will not be acknowledged, except that the sender may request confirmation of receipt by calling OFCCP at (202) 693-0102 (voice), or (202) 693-1308 (TTY).

FOR FURTHER INFORMATION CONTACT:

Joseph DuBray, Jr., Director, Division of Policy, Planning and Program Development, OFCCP, Room C-3325, 200 Constitution Avenue, NW., Washington, DC 20210. Telephone (202) 693-0102 (voice), or (202) 693-1308 (TTY). Copies of this notice in alternative formats may be obtained by calling (202) 693-0102 (voice), or (202) 693-1308 (TTY). The alternative formats available are large print, electronic file on computer disk, and audiotape. The Notice is available on the Internet at <http://www.dol.gov/esa>.

SUPPLEMENTARY INFORMATION: In the *Federal Register* of November 16, 2004 (69 FR 67246), the Department published a Notice entitled, "Interpreting Nondiscrimination Requirements of Executive Order 11246 With Respect to Systemic Compensation Discrimination." Interested persons were invited to submit comments on or before December 16, 2004. Because several interested parties requested additional time to develop comments, and in light of the intervening Thanksgiving holiday, the Department has decided to extend the comment period until January 19, 2005.

Signed at Washington, DC this 8th day of December, 2004.

Victoria A. Lipnic,

Assistant Secretary for the Employment Standards Administration.

Charles E. James, Sr.,

Deputy Assistant Secretary for Federal Contract Compliance.

[FR Doc. 04-27288 Filed 12-13-04; 8:45 am]

BILLING CODE 4510-CM-P

DEPARTMENT OF LABOR

Employment Standards Administration

Office of Federal Contract Compliance Programs

Guidelines for Self-Evaluation of Compensation Practices for Compliance With Nondiscrimination Requirements of Executive Order 11246 With Respect to Systemic Compensation Discrimination; Extension of Comment Period

AGENCY: Office of Federal Contract Compliance Programs, Employment

Standards Administration, Department of Labor.

ACTION: Notice of proposed guidelines for self-evaluation of compensation practices for compliance with Executive Order 11246 with respect to systemic compensation discrimination; extension of comment period.

SUMMARY: This document extends the period for comments on the Notice published on November 16, 2004 (69 FR 67252), regarding proposed guidelines for self-evaluation of compensation practices for compliance with Executive Order 11246 with respect to systemic compensation discrimination. The comment period, which was to expire on December 16, 2004, is extended to January 19, 2005.

DATES: Comments on the Notice published on November 16, 2004 (69 FR 67252) must be submitted by the following dates: Hard copy: your comments must be postmarked by January 19, 2005; facsimile: your comments must be sent by January 19, 2005; electronic mail: your comments must be sent by January 19, 2005.

ADDRESSES: Comments should be submitted to Joseph DuBray, Jr., Director, Division of Policy, Planning and Program Development, OFCCP. Electronic mail is the preferred method for submittal of comments. Comments by electronic mail must be clearly identified as pertaining to the notice of guidelines for self-evaluation of compensation practices for compliance with nondiscrimination requirements of Executive Order 11246 with respect to systemic compensation discrimination, and sent to ofccp-public@dol.gov. As a convenience to commenters, public comments transmitted by facsimile (FAX) machine will be accepted. The telephone number of the FAX receiver is (202) 693-1304. To assure access to the FAX equipment, only public comments of six or fewer pages will be accepted via FAX transmittal. Where necessary, hard copies of comments, clearly identified as pertaining to the notice of guidelines for self-evaluation of compensation practices for compliance with nondiscrimination requirements of Executive Order 11246 with respect to systemic compensation discrimination, may also be delivered to Joseph DuBray, Jr., Director, Division of Policy, Planning and Program Development, OFCCP, Room C-3325, 200 Constitution Avenue, NW., Washington, DC 20210. Receipt of submissions will not be acknowledged, except that the sender may request confirmation of receipt by calling

OFCCP at (202) 693-0102 (voice), or (202) 693-1308 (TTY).

FOR FURTHER INFORMATION CONTACT:

Joseph DuBray, Jr., Director, Division of Policy, Planning and Program Development, OFCCP, Room C-3325, 200 Constitution Avenue, NW., Washington, DC 20210. Telephone (202) 693-0102 (voice), or (202) 693-1308 (TTY). Copies of this notice in alternative formats may be obtained by calling (202) 693-0102 (voice), or (202) 693-1308 (TTY). The alternative formats available are large print, electronic file on computer disk, and audiotape. The Notice is available on the Internet at <http://www.dol.gov/esa>.

SUPPLEMENTARY INFORMATION: In the *Federal Register* of November 16, 2004 (69 FR 67252), the Department published a Notice entitled, "Guidelines for Self-Evaluation of Compensation Practices for Compliance With Nondiscrimination Requirements of Executive Order 11246 With Respect to Systemic Compensation Discrimination." Interested persons were invited to submit comments on or before December 16, 2004. Because several interested parties requested additional time to develop comments, and in light of the intervening Thanksgiving holiday, the Department has decided to extend the comment period until January 19, 2005.

Signed at Washington, DC this 8th day of December, 2004.

Victoria A. Lipnic,

Assistant Secretary for the Employment Standards Administration.

Charles E. James, Sr.,

Deputy Assistant Secretary for Federal Contract Compliance.

[FR Doc. 04-27289 Filed 12-13-04; 8:45 am]

BILLING CODE 4510-CM-P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

[Docket No. ICR-1218-0067/(2005)]

Underground Construction Standard; Extension of the Office of Management and Budget's (OMB) Approval of Information Collection (Paperwork) Requirements

AGENCY: Occupational Safety and Health Administration (OSHA), Labor.

ACTION: Request for comment.

SUMMARY: OSHA solicits comments concerning its proposal to extend OMB approval of the Information Collection Requirements contained in the Underground Construction Standard (29

CFR part 1926.800). This standard contains information collection requirements for posting warning signs and notices, certifying inspection records for hoists, and developing and maintaining records for air-quality tests.

DATES: Comments must be submitted by the following dates:

Hard copy: Your comments must be submitted (postmarked or received) by February 14, 2005.

Facsimile and electronic transmissions: Your comments must be received by February 14, 2005.

ADDRESSES: You may submit comments, identified by OSHA Docket No. ICR-1218+0067(2005), by any of the following methods:

Regular mail, express delivery, hand delivery and messenger service: Submit your comments and attachments to the OSHA Docket Office, Room N-2625, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone 9202) 693-2350 (OSHA's TTY number is (877) 889-5627). OSHA Docket Office and Department of Labor hours at 8:15 a.m. to 4:45 p.m., ET.

Facsimile: If your comments are 10 pages or fewer in length, including attachments, you may fax them to the OSHA Docket Office at (202) 693-1648.

Electronic: You may submit comments through the Internet at <http://ecommments.osha.gov>. Follow instructions on the OSHA Web page for submitting comments.

Docket: For access to the docket to read or download comments or background materials, such as the complete Information Collection Request (ICR) (containing the Supporting Statement, OMB 83-I Form, and attachments), go to OSHA's Web page at <http://www.OSHA.gov>. Comments, submissions, and the ICR are available for inspection and copying at the OSHA Docket Office at the address above. You may also contact Todd Owen at the address below to obtain a copy of the ICR.

(For additional information on submitting comments, please see the "Public Participation" heading in the **SUPPLEMENTARY INFORMATION** section of the document.)

FOR FURTHER INFORMATION CONTACT: Todd Owen, Directorate of Standards and Guidance, OSHA, Room N-3609, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone (202) 693-2222.

SUPPLEMENTARY INFORMATION:

1. Public Participation—Submission of Comments on This Notice and Internet Access to Comments and Submissions

You may submit comments and supporting materials in response to this notice by (1) hard copy, (2) fax transmission (facsimile), or (3) electronically through the OSHA Web page. Because of security-related problems there may be a significant delay in the receipt of comments by regular mail. Please contact the OSHA Docket Office at (202) 693-2350 (TTY (877) 889-5627) for information about security procedures concerning the delivery of materials by express delivery, hand delivery and messenger service.

All comments, submissions and background documents are available for inspection and copying at the OSHA Docket Office at the above address. Comments and submissions posted on OSHA's Web page are available at <http://www.OSHA.gov>. Contact the OSHA Docket Office for information about materials not available through the OSHA Web page and for assistance using the Web page to locate docket submissions.

Electronic copies of this **Federal Register** notice as well as other relevant documents are available on OSHA's Web page.

II. Background

The Department of Labor, as part of its continuing effort to reduce paperwork and respondent (*i.e.*, employer) burden conducts a preclearance consultation program to provide the public with an opportunity to comment on proposed and continuing information collection requirements in accordance with the Paperwork Reduction Act of 1995 (PRA-95) (44 U.S.C. 3506(c)(2)(A)).

This program ensures that information is in the desired format, reporting burden (time and costs) is minimal, collection instruments are clearly understood, and OSHA's estimate of the information collection burden is accurate. The Occupational Safety and Health Act of 1970 (the Act) (29 U.S.C. 651 *et seq.*) authorizes information collection by employers as necessary or appropriate for enforcement of the Act or for developing information regarding the causes and prevention of occupational injuries, illnesses, and accidents (29 U.S.C. 657).

Posting warning signs or notices. Seven paragraphs in the Underground Construction Standard ("the Standard") require employers to post warning signs or notices during underground construction; these paragraphs are (b)(3), (i)(3), (j)(1)(vi)(A), (m)(2)(ii),

(o)(2), (q)(11), and (t)(1)(iv)(B). The warning signs and notices required by these paragraphs enable employers to effectively alert employees to the presence of hazards or potential hazards at the job site, thereby preventing employee exposure to hazards or potential hazards associated with underground construction that could cause death or serious harm.

Certification inspection records for hoist. Paragraph (t)(i)(xxi) of the Standard requires employers to inspect and load test hoists when they install them, and at least annually thereafter; they must also inspect and load test a hoist after making any repairs or alterations to it that affect its structural integrity, and after tripping a safety device on the hoist. Employers must also prepare a certification record of each inspection and load test that includes specified information, and maintain the most recent certification record until they complete the construction project.

Establishing and maintaining a written record of the most recent inspection and load test alerts equipment mechanics to problems identified during the inspection. Prior to returning the equipment to service, employers can review the records to ensure that the mechanics performed the necessary repairs and maintenance. Accordingly, by using only equipment that is in safe working order, employers will prevent severe injury and death to the equipment operators and other employees who work near the equipment. In addition, these records provide the most efficient means for OSHA compliance officers to determine that an employer performed the required inspections and load tests, thereby assuring that the equipment is safe to operate.

Developing and maintaining records for air-quality tests. Paragraph (j)(3) of the Standard mandates that employers develop records for air-quality tests performed under paragraph (j), including air-quality tests required by paragraphs (j)(1)(ii)(A) through (j)(1)(iii)(A), (j)(1)(iii)(B), (j)(1)(iii)(C), (j)(1)(iii)(D), (j)(1)(iv), (j)(1)(v)(A), (j)(1)(v)(B), and (j)(2)(i) through (j)(2)(v). Paragraph (j) also requires that air-quality records include specified information, and that employers maintain the records until the underground-construction project is complete; they must also make the records available to OSHA compliance officers on request.

Maintaining records of air-quality tests allow employers to document atmospheric hazards, and to ascertain the effectiveness of controls (especially

ventilation) and implement additional controls if necessary. Accordingly, these requirements prevent serious injury and death to employees who work on underground-construction projects. In addition, these records provide an efficient means for employees to evaluate the accuracy and effectiveness of an employer's exposure-reduction program, and for OSHA compliance officers to determine that employers performed the required tests and implemented appropriate controls.

III. Special Issues for Comment

OSHA has a particular interest in comments on the following issues:

- Whether the proposed information collection requirements are necessary for the proper performance of the Agency's functions, including whether the information is useful;
- The accuracy of OSHA's estimate of the burden (time and cost) of the information collection requirements, including the validity of the methodology and assumptions used;
- The quality, utility, and clarity of the information collected; and
- Ways to minimize the burden of employers who must comply; for example, by using automated or other technological information-collection and transmission techniques.

IV. Proposed Actions

OSHA is proposing to extend the information collection requirements in the Underground Construction Standard (29 CFR part 1926.800). The Agency will summarize the comments submitted in response to this notice and will include this summary in its request to OMB to extend the approval of these information collection requirements contained in the Standard.

Type of Review: Extension of currently approved information collection requirements.

Title: Underground Construction (29 CFR part 1926.800).

OMB Number: 1218-0067.

Affected Public: Business or other for-profit; not-for-profit institutions; Federal government; State, local, or tribal governments.

Number of Respondents: 323.

Frequency of Response: Varies from recording air-quality tests twice per shift to posting a warning sign or notice once every two years.

Average Time per Response: Varies from 30 seconds to read and record air-quality test results to one hour to inspect, load test, and complete and maintain a certification record for a hoist.

Estimated Total Burden Hours: 57,464.

Estimated Cost (Operation and Maintenance): \$0.

V. Authority and Signature

John L. Henshaw, Assistant Secretary of Labor for Occupational Safety and Health, directed the preparation of this notice. The authority for this notice is the Paperwork Reduction Act of 1995 (44 U.S.C. 3506 *et seq.*) and Secretary of Labor's Order No. 5-2002 (67 FR 65008).

Dated: Signed at Washington, DC on December 7, 2004.

John L. Henshaw,

Assistant Secretary of Labor.

[FR Doc. 04-27352 Filed 12-13-04; 8:45 am]

BILLING CODE 4510-26-M

NATIONAL LABOR RELATIONS BOARD

[53 FR 10305]

Merger of Regional Offices

AGENCY: National Labor Relations Board.

ACTION: Final notice.

Notice of change in status of the Milwaukee Regional Office to Subregional Office (Subregion 30) of the Minneapolis Regional Office and transfer of supervision over the Des Moines Resident Office from the Minneapolis Regional Office to the Kansas City Regional Office.

SUMMARY: The National Labor Relations Board is reorganizing the structure of its office in Milwaukee, Wisconsin to restructure it from a Regional Office to a subregion of the Minneapolis Regional Office. As part of this reorganization, the supervision of the Des Moines Resident Office will be transferred from the Minneapolis Regional Office to the Kansas City Regional Office. The National Labor Relations Board is revising its Statement of Organization and Functions accordingly.

SUPPLEMENTARY INFORMATION: The National Labor Relations Board has decided to restructure the status of the Agency's Milwaukee office from a Regional Office to a Subregion of the Minneapolis Regional Office and to transfer supervision of the Des Moines Resident Office from the Minneapolis Regional Office to the Kansas City Regional Office. These change are prompted by a decline in unfair labor practice and representation case filings in the Minneapolis and Milwaukee offices and a desire to equalize caseload and case management responsibilities in the three contiguous NLRB regions.

Twenty-four comments were received in response to the notice of proposed merger published in the **Federal Register** on June 2, 2004. Those comments exclusively addressed the merger of Region 18 (Minneapolis) and Region 30 (Milwaukee). Each of the comments opposed the action proposed. The reasons advanced by the comments can be summarized as follows:

1. Access by Wisconsin practitioners to the Regional Director deciding their cases will be impeded and representatives will lose their ability to advocate directly to the Regional Director.
2. The addition of Milwaukee's caseload to Region 18 will create overload and slow down case decisions.
3. Combining the offices to save the cost of a Regional Director salary is not sufficient to justify the change and will be offset by such costs as travel between the offices and transportation of files.
4. Insofar as the proposal is based upon a decline in case intake in Region 30, that decline is transient and case intake will increase in the future.
5. Having a smaller office absorb a larger office seems justified only because the Milwaukee Regional Director position is currently vacant, not a logical rationale for a decision to reorganize.
6. There are other small offices (Regions 11 (Winston-Salem), 15 (New Orleans) and 34 (Hartford)) that are not being consolidated.
7. The merger will have a deleterious effect on promotional opportunities and the morale and retention of Milwaukee employees.

The comments received were carefully considered. The Board (Chairman Robert J. Battista and Members Peter C. Schaumber and Ronald Meisburg; Members Liebman and Walsh dissenting) has approved the merger and restructuring set forth in the proposed notice of merger. The Board majority has confidence that the concerns raised by the comments will be addressed productively and successfully by the staffs of the Minneapolis and Milwaukee offices with the cooperation of the management-labor bar and the labor-relations communities in the State of Wisconsin. The Board majority also noted that similar concerns have been successfully addressed in other prior restructuring efforts; advances in technology have made communication far easier and will allow the Regional Director in Minneapolis to establish and maintain close relations with the Milwaukee Office and stakeholders of the Agency in Wisconsin; that the increased size of the case intake of the

restructured Region will not negatively impact on the quality or efficiency of case processing; that the merged region will be a mid-level region in terms of intake and staffing level; and that while not dramatic, the cost savings to be realized by the merger are not insubstantial.

The Milwaukee Subregional Office will be headed by an Officer-in-Charge who will report to the Regional Director in Minneapolis. This change will vest the Regional Director in the Minneapolis Regional Office with casehandling authority for the geographic area covered by the Milwaukee Subregional Office. The geographic area covered by the Milwaukee Subregion will be the same as that covered by the Milwaukee Regional Office. The Statement of Organization and Functions published at 53 FR 10305-10308 on March 30, 1998, is revised to reflect the addition of Subregion 30, the elimination of Region 30 and the transfer of the territory in the State of Iowa served by the Des Moines Resident Office from Region 18, Minneapolis, to Region 17, Kansas City.

EFFECTIVE DATE: The changes announced above shall be effective on January 13, 2005.

Dated: Washington, DC December 9, 2004.
By direction of the Board.

Lester A. Heltzer,

Executive Secretary.

[FR Doc. 04-27344 Filed 12-13-04; 8:45 am]

BILLING CODE 7545-01-P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-315 and 50-316]

Indiana Michigan Power Company; Notice of Withdrawal of Application for Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (the Commission) has granted the request of the Indiana Michigan Power Company (the licensee) to withdraw its February 14, 2004, application for proposed amendment to Facility Operating License Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Units 1 and 2, located in Berrien County, Michigan.

The proposed amendment would have revised the Technical Specifications (TSs) governing containment penetrations and the Containment Purge and Exhaust Isolation System, which are applicable during core alterations and movement of irradiated fuel, such that those TSs

would only be applicable during the movement of recently irradiated fuel.

The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on May 11, 2004 (69 FR 26191). However, by letter dated November 4, 2004, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated February 14, 2004, and the licensee's letter dated November 4, 2004, which withdrew the application for license amendment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams/html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR reference staff by telephone at 1-800-397-4209, or 301-415-4737 or by e-mail to pdr@nrc.gov. Note: Public access to ADAMS has been temporarily suspended so that security reviews of publicly available documents may be performed and potentially sensitive information removed. Please check the NRC Web site for updates on the resumption of ADAMS access.

Dated at Rockville, Maryland, this 15th day of November 2004.

For the Nuclear Regulatory Commission.

Carl F. Lyon,

Project Manager, Section 1, Project Directorate III, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 04-27325 Filed 12-14-04; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Sunshine Act Notice

Date: Weeks of December 13, 20, 27, 2004, January 3, 10, 17, 2005.

Place: Commissioner's Conference Room, 11555 Rockville Pike, Rockville, Maryland.

Status: Public and closed.

Matters to be Considered:

Week of December 13, 2004

Tuesday, December 14, 2004:

12:55 p.m. Affirmation Session (Public Meeting) (Tentative).

a. HYDRO RESOURCES, INC. Petition for Review of LBP-04-23 (Final Environmental Impact Statement Supplementation) (Tentative).

1 p.m. Briefing on Emergency Preparedness Program Initiatives (Public Meeting) (Contact: Nader Mamish, 301-415-1086).

This meeting will be webcast live at the Web address—<http://www.nrc.gov>

Week of December 20, 2004—Tentative

There are no meetings scheduled for the week of December 20, 2004.

Week of December 27, 2004—Tentative

There are no meetings scheduled for the week of December 27, 2004.

Week of January 3, 2005—Tentative

There are no meetings scheduled for the week of January 3, 2005.

Week of January 10, 2005—Tentative

There are no meetings scheduled for the week of January 10, 2005.

Week of January 17, 2005—Tentative

Wednesday, January 19, 2005:

9:30 a.m. Briefing on Human Capital Initiatives (Closed—Ex. 2).

The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings call (recording)—(301) 415-1292. Contact person for more information: Dave Gamberoni, (301) 415-1651.

* * * * *

The NRC Commission Meeting Schedule can be found on the Internet at: <http://www.nrc.gov/what-we-do/policy-making/schedule.html>.

* * * * *

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in these public meetings, or need this meeting notice or the transcript or other information from the public meetings in another format (e.g. braille, large print), please notify the NRC's Disability program Coordinator, August Spector, at 301-415-7080, TDD: 301-415-2100, or by e-mail at aks@nrc.gov. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

* * * * *

This notice is distributed by mail to several hundred subscribers; if you no longer wish to receive it, or would like to be added to the distribution, please

contact the Office of the Secretary, Washington, DC 20555 (301-415-1969). In addition, distribution of this meeting notice over the Internet system is available. If you are interested in receiving this Commission meeting schedule electronically, please send an electronic message to dkw@nrc.gov.

Dated: December 9, 2004.

Dave Gamberoni,

Office of the Secretary.

[FR Doc. 04-27404 Filed 12-10-04; 9:22 am]

BILLING CODE 7590-01-M

SECURITIES AND EXCHANGE COMMISSION

[Release No. IC-26690; 812-13139]

AIG Annuity Life Insurance Company, et al.; Temporary Order and Notice of Application

December 8, 2004.

AGENCY: Securities and Exchange Commission ("Commission").

ACTION: Temporary order and notice of application for a permanent order under section 9(c) of the Investment Company Act of 1940 ("Act").

SUMMARY OF APPLICATION: Applicants have received a temporary order exempting them from section 9(a) of the Act, with respect to an injunction entered against American International Group, Inc. ("AIG") on or about December 7, 2004 by the United States District Court for the District of Columbia (the "Injunction"), until the Commission takes final action on an application for a permanent order. Applicants also have applied for a permanent order.

APPLICANTS: AIG Annuity Life Insurance Corporation ("AIG Annuity"), AIG Equity Sales Corp. ("AIG Equity"), AIG Global Investment Corp. ("AIGGIC"), AIG Life Insurance Company ("AIG Life"), AIG SunAmerica Asset Management Corp. ("SunAmerica Asset Management"), AIG SunAmerica Capital Services, Inc. ("SunAmerica Capital"), AIG SunAmerica Life Assurance Company ("SunAmerica Life"), American General Distributors, Inc. ("AM Distributors"), American General Equity Services Corp. ("AM Equity"), American General Life Insurance Company ("AM Life"), American International Life Assurance Company of New York ("AILAC"), Brazos Capital Management, L.P. ("Brazos"), First SunAmerica Life Insurance Company ("First SunAmerica"), The United States Life Insurance Company in the City of New York ("US Life"), and The Variable

Annuity Life Insurance Company ("VALIC").¹

FILING DATE: The application was filed on December 1, 2004.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the Commission orders a hearing. Interested persons may request a hearing by writing to the Commission's Secretary and serving Applicants with a copy of the request, personally or by mail. Hearing requests should be received by the Commission by 5:30 p.m. on January 3, 2005, and should be accompanied by proof of service on Applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the Commission's Secretary.

ADDRESSES: Secretary, Commission 450 Fifth Street, NW, Washington, DC 20549-0609. Applicants: Ernest T. Patrikis, American International Group, Inc., 70 Pine Street, New York, New York 10270.

FOR FURTHER INFORMATION CONTACT: Janis F. Kerns, Senior Counsel, or Todd F. Kuehl, Branch Chief, at 202-942-0564 (Division of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a temporary order and a summary of the application. The complete application may be obtained for a fee at the Commission's Public Reference Branch, 450 Fifth Street, NW., Washington, DC 20549-0102 (tel. (202) 942-8090).

Applicants' Representation

1. The Applicants, except Brazos, are wholly-owned subsidiaries of AIG. Brazos is a majority-owned subsidiary of AIG. AIG, through its subsidiaries, offers property and casualty and life insurance products to commercial, institutional and individual customers worldwide. AIG's global businesses also include retirement services, financial services and asset management. AIGGIC, SunAmerica Asset Management, Brazos, and VALIC are investment advisers registered under the Investment Advisers Act of 1940 and serve as investment adviser or sub-adviser to certain registered investment companies ("Funds"). AIG Annuity, AIG Equity,

¹ Applicants request that any relief granted pursuant to the application also apply to any other company of which AIG is or hereafter becomes an affiliated person (together with AIG and the Applicants, the "Covered Persons").

AIG Life, SunAmerica Capital, SunAmerica Life, AM Distributors, AM Equity, AM Life, AILAC, First SunAmerica, US Life and VALIC are broker-dealers registered under the Securities Exchange Act of 1934 ("Exchange Act") serving as a principal underwriter, or are a depositor, for open-end Funds and unit investment trusts.

2. On or about December 7, 2004, the United States District Court for the District of Columbia entered the Injunction against AIG in a matter brought by the Commission.² The Commission alleged in the complaint ("Complaint") that AIG violated section 10(b) of the Exchange Act and rule 10b-5 promulgated thereunder and section 17(a) of the Securities Act of 1933 and aided and abetted violations of sections 13(a) and 13(b)(2)(A) of the Exchange Act and rules 12b-20, and 13a-13 thereunder in connection with certain transactions between subsidiaries of The PNC Financial Services Group, Inc. ("PNC") and certain subsidiaries of AIG, and similar transaction marketed by certain subsidiaries of AIG to other publicly traded companies. Without admitting or denying any of the allegations in the Complaint, except as to jurisdiction, AIG consented to the entry of the Injunction as well as the payment of disgorgement, penalties and prejudgment interest.

Applicants' Legal Analysis

1. Section 9(a)(2) of the Act, in relevant part, prohibits a person who has been enjoined from engaging in or continuing any conduct or practice in connection with the purchase or sale of a security from acting, among other things, as an investment adviser or depositor of any registered investment company or a principal underwriter for any registered open-end investment company, registered unit investment trust, or registered face-amount certificate company. Section 9(a)(3) of the Act makes the prohibition in section 9(a)(2) applicable to a company any affiliated person of which has been disqualified under the provisions of section 9(a)(2). Section 2(a)(3) of the Act defines affiliated person to include any person directly or indirectly controlling, controlled by, or under common control, with the other person. Applicants state that AIG is an affiliated person of each of the Applicants within the meaning of section 2(a)(3) of the Act. Applicants state that, as a result of the

² *Securities and Exchange Commission v. American International Group, Inc.*, Civil Action No. 1:04CV02070 (D.D.C., filed November 30, 2004).

Injunction, they may be subject to the prohibitions of section 9(a).

2. Section 9(c) of the Act provides that the Commission shall grant an application for an exemption from the disqualification provisions of section 9(a) if it is established that these provisions, as applied to the Applicants, are unduly or disproportionately severe or that the Applicants' conduct has been such as not to make it against the public interest or the protection of investors to grant the application. Applicants have filed an application pursuant to section 9(c) of the Act seeking temporary and permanent orders exempting them from the provisions of section 9(a) of the Act.

3. Applicants believe that they meet the standards for exemption specified in section 9(c). Applicants state that the prohibitions of section 9(a) as applied to them would be unduly and disproportionately severe and that the conduct of Applicants has been such as not to make it against the public interest or the protection of investors to grant the exemption from section 9(a).

Applicants state that none of their current or former officers, directors or employees who are engaged in the provision of investment advisory or underwriting services to the Funds participated in any way in the conduct described in the Complaint. Applicants also state that although some of the Funds advised by the Applicants held PNC securities in their portfolios during the time discussed in the Complaint, as far as Applicants are aware none of the officers, portfolio managers or any other investment personnel employed by the Applicants had any knowledge of any non-public information relating to, or had any involvement in, the conduct alleged in the Complaint. Applicants state that they are entirely separate from AIG's businesses that were involved in the conduct described in the Complaint. Applicants further state that they have adopted policies and procedures designed to protect the Applicants' clients, including the Funds' shareholders, from any conflict of interest that may arise between the Applicants' portfolio managers and AIG's other businesses referenced in the Complaint. Additionally, Applicants assert that if they were barred from providing services to registered investment companies, the effect on their businesses and employees would be severe. The Applicants state that they have committed substantial resources to support their advisory, sub-advisory and underwriting activities. Applicants state that they have not previously received any orders under section 9(c) of the Act.

4. Applicants state that their inability to continue providing advisory services

to the Funds and the inability to continue to serve as depositor or principal underwriter to the Funds would result in potential hardships for the Funds and their shareholders. The Applicants also state that they will distribute written materials, including an offer to meet in person to discuss the materials, to the boards of directors ("Boards") of the Funds for which the Applicants serve as investment adviser or principal underwriter, including the directors who are not "interested persons," as defined in section 2(a)(19) of the Act, of such Funds and their independent legal counsel, regarding the Injunction, any impact on the Funds and this application. The Applicants will provide such Funds' Boards with all information concerning the Injunction and this application necessary for the Funds to fulfill their disclosure and other obligations under the federal securities laws.

Applicant's Condition

Applicants agree that the order granting the requested relief will be subject to the following condition:

Any temporary exemption granted pursuant to the application shall be without prejudice to, and shall not limit the Commission's rights in any manner with respect to, any Commission investigation of, or administrative proceedings involving or against, Covered Persons, including without limitation, the consideration by the Commission of a permanent exemption from section 9(a) of the Act requested pursuant to the application or the revocation or removal of any temporary exemptions granted under the Act in connection with the application.

Temporary Order

The Commission has considered the matter and finds that Applicants have made the necessary showing to justify granting a temporary exemption.

Accordingly, *It is hereby ordered*, pursuant to section 9(C) of the Act, that the Covered Persons are granted a temporary exemption from the provisions of section 9(a), effective forthwith, solely with respect to the Injunction, subject to the condition in the application, until the Commission takes final action on an application for a permanent order.

By the Commission.

Jill M. Peterson,
Assistant Secretary.

[FR Doc. 04-27311 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50812; File No. SR-AMEX-2004-81]

Self-Regulatory Organizations; Notice of Filing and Order Granting Accelerated Approval of a Proposed Rule Change by the American Stock Exchange LLC Relating to the Listing and Trading of Notes Linked to the Performance of the Nasdaq-100 Index

December 7, 2004.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on October 4, 2004, the American Stock Exchange LLC ("Amex" or "Exchange") filed with the Securities and Exchange Commission ("SEC" or "Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is approving the proposal on an accelerated basis.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposed to list and trade notes, the performance of which is linked to the Nasdaq-100 Index ("Nasdaq-100" or "Index").

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Amex included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item III below. The Amex has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

Under Section 107A of the Amex Company Guide ("Company Guide"), the Exchange may approve for listing and trading securities that cannot be readily categorized under the listing criteria for common and preferred

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

stocks, bonds, debentures, or warrants.³ The Amex proposes to list for trading under Section 107A of the Company Guide Notes linked to the performance of the Nasdaq-100 (the "LUNARS" or "Notes").⁴ The Nasdaq-100 is determined, calculated and maintained solely by Nasdaq.⁵ The Notes will provide for a multiplier of any positive performance of the Nasdaq-100 during such term subject to a maximum payment amount or ceiling.

The "LUNARS" or "Leveraged Upside Indexed Accelerated Return Securities" will conform to the initial listing guidelines under Section 107A⁶ and continued listing guidelines under Sections 1001-1003⁷ of the Company Guide. The Notes are senior, non-convertible debt securities of Wachovia. The Notes will have a term of not less than one or more than ten years. The original public offering price will be

\$1,000 per Note. The Notes will entitle the owner at maturity to receive an amount based upon the percentage change of the Nasdaq-100. At maturity, if the value of the Nasdaq-100 has increased over the term of the Notes, a beneficial owner will be entitled to receive a payment on the Notes equal to three (3) times the amount of that percentage increase, not to exceed a maximum payment at maturity (the "Maximum Payment") to be determined at the time of issuance of the Notes. It is expected that the Maximum Payment will be between 116-122% of the principal amount, in the other words between \$1,160 to \$1,220 per \$1,000 Note. The Notes will not have a minimum principal amount that will be repaid, and accordingly, payment on the Notes prior to or at maturity may be less than the original issue price of the Notes because the final payment per Note will

be exposed to the full decrease of the Index.⁸ The Notes are also not callable by the Issuer, or redeemable by the holder.

The payment that a holder or investor of a Note will be entitled to receive (the "Maturity Payment") depends entirely on the relation of the value of the Nasdaq-100 at the close of the fifth scheduled trading day before the maturity date (the "Index Ending Level") and the closing value of the Index on the date the Notes are priced for initial sale to the public (the "Index Starting Level"). In the event that the valuation date occurs on a non-trading day or if a market disruption event⁹ occurs on such date, the valuation date will be the next trading day on which no market disruption event occurs.

If the Index Ending Level is greater than the Index Starting Level, the Mandatory Payment per Note will equal:

$$\$1,000 \times \left[1 + \left(3.0 \times \left(\frac{\text{Index Ending Level} - \text{Index Starting Level}}{\text{Index Starting Level}} \right) \right) \right]$$

subject to the Maximum Payment.

If the Index Ending Level is less than or equal to the Index Starting Level, the Maximum Payment per Note will equal:

quarterly examination of the Nasdaq-100 is performed to gauge whether requirements are not met, then the Index is rebalanced. These requirements are as follows: (1) the current weight of the single largest market capitalization index security must be less than or equal to 24%, and (2) the collective weight of those index securities whose individual current weights are in excess of 4.5%, when added together, must be less than or equal to 48%.

⁶ Section 107A of the Amex Company Guide requires: (1) a minimum public distribution of one million units; (2) a minimum of 400 shareholders; (3) a market value of at least \$4 million; and (4) a term of at least one year. However, when the instrument will be issued in \$1,000 denominations, as here, the minimum public distribution requirement of one million units and the minimum holder requirement of 400 holders do not apply. In addition, the listing guidelines provide that the issuer has assets in excess of \$100 million, stockholder's equity of at least \$10 million, and pre-tax income of at least \$750,000 in the last fiscal year or in two of the three prior fiscal years. In the case of an issuer that is unable to satisfy the earning criteria stated in Section 101 of the Company Guide, the Exchange will require the issuer to have the following: (1) assets in excess of \$200 million and stockholders' equity of at least \$10 million; or (2) assets in excess of \$100 million and stockholders' equity of at least \$20 million.

⁷ The Exchange's continued listing guidelines are set forth in Sections 1001 through 1003 of Part 10 to the Exchange's Company Guide. Section 1002(b) of the Company Guide states that the Exchange will consider removing from listing any security where, in the opinion of the Exchange, it appears that the extent of public distribution or aggregate market value has become so reduced to make further dealings on the Exchange inadvisable. With respect to continued listing guidelines for distribution of the Notes, the Exchange will rely, in part, on the guidelines for bonds in Section 1003(b)(iv). Section 1003(b)(iv)(A) provides that the Exchange will

normally consider suspending dealings in, or removing from the list, a security if the aggregate market value or the principal amount of bonds publicly held is less than \$400,000.

⁸ A negative return of the Nasdaq-100 will reduce the redemption amount at maturity with the potential that the holder of the Note could lose his entire investment. The Notes are not "principal protected" and are fully exposed to any decline in the level of the Nasdaq-100.

⁹ A "market disruption event" is defined as the failure of the primary market or related markets to open for trading during regular trading hours or the occurrence or existence of any of the following events: (i) a trading disruption, if material, at any time during the one hour period that ends at the close of trading for the applicable exchange; (ii) an exchange disruption, if material, at any time during the one hour period that ends at the close of trading for the applicable exchange; or (iii) an early closure. A "trading disruption" generally means any suspension of, or limitation, imposed on trading by the primary exchange or related exchange or otherwise, whether by reason of movements in price exceeding limits permitted by the relevant exchange or related exchange or otherwise (i) relating to securities that comprise 20% or more of the level of the Index or (ii) in options contracts or futures contracts relating to the Index on any relevant related exchange. An "exchange disruption" means any event (other than a scheduled early closure) that disrupts or impairs the ability of market participants in general to (i) effect transactions in, or obtain market values on, any primary exchange or related exchange in securities that comprise 20 percent or more of the level of the Index or (ii) effect transactions in options contracts or futures contracts relating to the Index on any relevant related exchange. A "related exchange" is an exchange or quotation system on which futures or options contracts relating to the Index are traded.

³ See Securities Exchange Act Release No. 27753 (March 1, 1990), 55 FR 8626 (March 8, 1990) (File No. SR-Amex-89-29) ("Approving Order").

⁴ Wachovia Corporation ("Wachovia") and The Nasdaq Stock Market, Inc. ("Nasdaq") have entered into a non-exclusive license agreement providing for the use of the Nasdaq-100 by Wachovia and certain affiliates and subsidiaries in connection with certain securities including these Notes. Nasdaq is not responsible and will not participate in the issuances and creation of the Notes.

⁵ The Nasdaq-100 is a modified capitalization-weighted index of 100 of the largest and most active non-financial domestic and international issues listed on Nasdaq. The Index is determined, comprised and calculated by Nasdaq without regard to the Notes. The Index is calculated and disseminated every fifteen seconds to market information vendors. The Exchange states that the Nasdaq-100 reflects the largest growth companies across major industry groups with all index components of domestic issuers having a market capitalization of at least \$500 million and an average daily trading volume of at least 100,000 shares. For foreign issuers, the worldwide market capitalization must be at least \$10 billion with a U.S. market capitalization of at least \$4 billion and an average daily trading volume of at least 200,000 shares. In addition, no single security comprising the Nasdaq-100 is permitted to have more than a 24% weighting. The Nasdaq-100 was originally developed with a base value of 125 on February 1, 1985. Originally a capitalization-weighted index, on December 21, 1998, the Nasdaq-100 changed to a modified capitalization-weighted index. A modified capitalization-weighted index is a hybrid between equal weighting and capitalization-weighting. This type of methodology is expected to: (1) retain the economic attributes of capitalization weighting; (2) promote portfolio weight diversification; (3) reduce Nasdaq-100 performance distortion by preserving the capitalization ranking of companies; and (4) reduce market impact on the smallest Nasdaq-100 securities from necessary weight rebalancings. A

$$\$1,000 \times \left(1 + \frac{\text{Index Ending Level} - \text{Index Starting Level}}{\text{Index Starting Level}} \right)$$

The Notes are cash-settled in U.S. dollars and do not give the holder any right to receive a portfolio security, dividend payments, or any other ownership right or interest in the portfolio or index of securities comprising the Nasdaq-100. The Notes are designed for investors who want to participate or gain exposure to the Nasdaq-100, subject to a cap, and who are willing to forgo market interest payments on the Notes during such term. The Commission has previously approved the listing of options on, and securities the performance of which have been linked to or based on, the Nasdaq-100.¹⁰

As of September 24, 2004, the market capitalization of the securities included in the Nasdaq-100 ranged from a high of \$297.5 billion to a low of \$1.4 billion. The average daily trading volume for these same securities for the last six (6) months, as of the same date, ranged from a high of 14.4 million shares to a low of 1 million shares.

Because the Notes are issued in \$1,000 denominations, the Amex's existing debt floor trading rules will apply to the trading of the Notes. First, pursuant to Amex Rule 411, the Exchange will impose a duty of due diligence on its members and member firms to learn the essential facts relating to every customer prior to trading the Notes.¹¹ Second, even though the Exchange's debt trading rules apply, the Notes will be subject to the equity margin rules of the Exchange.¹² Third, the Exchange will, prior to trading the Notes, distribute a circular to the membership providing guidance with regard to member firm compliance

¹⁰ Approval of the Nasdaq-100 for underlying an option contract was originally granted to the Chicago Board Options Exchange ("CBOE") in 1994. See Securities Exchange Act Release Nos. 33428 (January 4, 1994), 59 FR 1576 (January 11, 1994) (approval to list and trade options on the Nasdaq-100); 34052 (May 12, 1994), 59 FR 25972 (May 18, 1994) (approval to list and trade Flex Options on the Nasdaq-100); 40157 (July 1, 1998), 63 FR 37426 (July 10, 1998) (approval to list and trade options on ETFs); 41119 (February 26, 1999), 64 FR 11510 (March 9, 1999) (approval to list and trade QQQ); 43000 (June 30, 2000), 65 FR 42409 (July 10, 2000) (approval of a Reduced Value Nasdaq-100); and 45966 (May 20, 2002), 67 FR 36942 (May 28, 2002) (approval to list and trade notes linked to the performance of the Nasdaq-100).

¹¹ Amex Rule 411 requires that every member, member firm or member corporation use due diligence to learn the essential facts, relative to every customer and to every order or account accepted.

¹² See Amex Rule 462 and Section 107B of the Company Guide.

responsibilities (including suitability recommendations) when handling transactions in the Notes and highlighting the special risks and characteristics of the Notes. With respect to suitability recommendations and risks, the Exchange will require members, member organizations and employees thereof recommending a transaction in the Notes: (1) To determine that such transaction is suitable for the customer, and (2) to have a reasonable basis for believing that the customer can evaluate the special characteristics of, and is able to bear the financial risks of such transaction. In addition, Wachovia will deliver a prospectus in connection with the initial sales of the Notes.

The Exchange represents that its surveillance procedures are adequate to properly monitor the trading of the Notes. Specifically, the Amex will rely on its existing surveillance procedures governing equities, which have been deemed adequate under the Act. In addition, the Exchange also has a general policy which prohibits the distribution of material, non-public information by its employees.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6 of the Act¹³ in general and furthers the objectives of Section 6(b)(5)¹⁴ in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, protect investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

The Exchange did not receive any written comments on the proposed rule change.

¹³ 15 U.S.C. 78f(b).

¹⁴ 15 U.S.C. 78f(b)(5).

III. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form <http://www.sec.gov/rules/sro.shtml>; or
- Send an e-mail to rule-comments@sec.gov. Please include SR-Amex-2004-81 on the subject line.

Paper comments:

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to SR-Amex-2004-81. This file should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site <http://www.sec.gov/rules/sro.shtml>. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street, NW., Washington, DC 20549. Copies of such filing also will be available for inspection and copying at the principal office of the Amex. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to SR-Amex-2004-81 and should be submitted on or before January 4, 2005.

IV. Commission's Findings and Order Granting Approval of Proposed Rule Change

After careful consideration, the Commission finds that the proposed

rule change is consistent with the requirements of the Act and the rules and regulations thereunder, applicable to a national securities exchange, and, in particular, with the requirements of Section 6(b)(5) of the Act.¹⁵ The Commission has approved the listing of securities with a structure similar to that of the Notes.¹⁶ Accordingly, the Commission finds that the listing and trading of the Notes based on the Index is consistent with the Act and will promote just and equitable principles of trade, foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, and, in general, protect investors and the public interest consistent with Section 6(b)(5) of the Act.¹⁷

The requirements of Section 107A of the Company Guide were designed to address the concerns attendant to the trading of hybrid securities, like the Notes. For example, Section 107A of the Company Guide provides that only issuers satisfying substantial asset and equity requirements may issue securities such as the Note. In addition, the Exchange's "Other Securities" listing standards further require that the Notes have a market value of at least \$4 million.¹⁸ The Commission also notes that the 100 component stocks that comprise the Index are reporting companies under the Act, and the Notes will be registered under Section 12 of the Act. Thus, by imposing the hybrid listing standards, suitability, disclosure, and compliance requirements noted above, the Commission believes the Annex has addressed adequately the potential problems that could arise from the hybrid nature of the Notes.

In approving the product, the Commission recognizes that the Index is a modified capitalization-weighted index¹⁹ of 100 of the largest and most active non-financial domestic and international companies listed on Nasdaq. Given the large trading volume and capitalization of the compositions of the stocks underlying the Index, the

Commission believes that the listing and trading of the Notes that are linked to the Index should not unduly impact the market for the underlying securities compromising the Index or raise manipulative concerns.²⁰ Moreover, the issuers of the underlying securities comprising the Index are subject to reporting requirements under the Act, and all of the component stocks are either listed or traded on, or traded through the facilities of U.S. securities markets.

The Commission also believes that any concerns that a broker-dealer, such as Wachovia, or a subsidiary providing a hedge for the issuer, will incur undue position exposure are minimized by the size of the Notes issuance in relation to the net worth of Wachovia.²¹

Finally, the Commission notes that the value of the Index will be widely disseminated at least once every fifteen seconds throughout the trading day. The Exchange represents that the Nasdaq-100 will be determined, calculated and maintained solely by Nasdaq.

The Commission finds good cause for approving the proposed rule change prior to the 30th day after the date of publication of the notice of filing thereof in the *Federal Register*. The Exchange has requested accelerated approval because this product is similar to several other instruments currently listed and traded on the Amex.²² The Commission believes that the Notes will provide investors with an additional

²⁰ The issuer Wachovia disclosed in the prospectus that the original issue price of the Notes includes commissions (and the secondary market prices are likely to exclude commissions) and Wachovia's costs of hedging its obligations under the Notes. These costs could increase the initial value of the Notes, thus affecting the payment investors receive at maturity. Such hedging activity must, of course, be conducted in accordance with applicable regulatory requirements.

²¹ See Securities Exchange Act Release Nos. 44913 (October 9, 2001), 66 FR 52469 (October 15, 2001) (order approving the listing and trading of notes whose return is based on the performance of the Nasdaq-100 Index) (File No. SR-NASD-2001-73); 44483 (June 27, 2001), 66 FR 35677 (July 6, 2001) (order approving the listing and trading of notes whose return is based on a portfolio of 20 securities selected from the Amex Institutional Index) (File No. SR-AMEX-2001); and 37744 (September 27, 1996), 61 FR 52480 (October 7, 1996) (order approving the listing and trading of notes whose return is based on a weighted portfolio of healthcare/biotechnology industry securities) (File No. SR-AMEX-96-27).

²² See Securities Exchange Act Release Nos. 45966 (May 20, 2002), 67 FR 26942 (May 28, 2002) (approval to list and trade notes linked to the performance of the Nasdaq-100); 47911 (May 22, 2003), 68 FR 32558 (May 30, 2003) (approving the listing and trading of notes (Wachovia TEES) linked to the S&P 500); 47983 (June 4, 2003), 68 FR 35032 (June 11, 2003) (approving the listing and trading of a CSFB Accelerated Return Notes linked to S&P 500); and 50019 (July 14, 2004), 69 FR 43635 (July 21, 2004) (approving the listing and trading of Morgan Stanley PLUS Notes).

investment choice and that accelerated approval of the proposal will allow investors to begin trading the Notes promptly. Additionally, the Notes will be listed pursuant to Amex's existing hybrid security listing standards as described above. Therefore, the Commission finds good cause, consistent with Section 19(b)(2) of the Act,²³ to approve the proposal on an accelerated basis.

Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,²⁴ that the proposed rule change (SR-Amex-2004-81) is hereby approved on an accelerated basis.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.²⁵

Jill M. Peterson,

Assistant Secretary.

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50811; File No. SR-Amex-2004-98]

Self-Regulatory Organizations; American Stock Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Temporarily Suspend the Specialist's and Registered Traders' Transaction Charges for the Trading of Nasdaq-100 Index Tracking Stock

December 7, 2004.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on December 1, 2004, the American Stock Exchange LLC ("Amex" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in items I, II, III below, which Items have been prepared by the Exchange. Amex has designated the proposed rule change as "establishing or changing a due, fee, or other charge" under section 19(b)(3)(A) of the Act,³ and Rule 19b-4(f)(2) thereunder,⁴ which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit

¹ 15 U.S.C. 78f(b)(5) and 78s(b)(2).

² 15 U.S.C. 78o3(b)(6) and 78s(b)(2).

³ 17 CFR 300.30-3(a)(12).

⁴ 15 U.S.C. 78s(b)(1).

⁵ 17 CFR 240.19b-4.

⁶ 15 U.S.C. 78s(b)(3)(A).

⁷ 17 CFR 240.19b-4.

¹⁵ *Id.*

¹⁶ See Securities Exchange Act Release Nos. 48152 (July 10, 2003), 68 FR 42435 (July 17, 2003) (approving the listing and trading of the UBS Partial Protection Note linked to the Index); 47983 (June 4, 2003), 68 FR 35032 (June 11, 2003) (approving the listing and trading of a CSFB Accelerated Return Notes linked to Index); 47911 (May 22, 2003), 68 FR 32558 (May 30, 2003) (approving the listing and trading of notes (Wachovia TEES) linked to the Index).

¹⁷ 15 U.S.C. 78f(b)(5). In approving this rule, the Commission notes that it has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

¹⁸ See Company Guide Section 107A.

¹⁹ See *supra* Note 5.

comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Amex proposes to amend the Amex Equity and Exchange Traded Funds and Trust Issued Receipts Fee Schedules to temporarily suspend the specialist's and registered traders' transaction charges for the trading of Nasdaq-100 Index Tracking Stock (Symbol: QQQQ) pursuant to the Nasdaq Unlisted Trading Privileges Plan. The text of the proposed rule change is available at the Office of the Secretary, Amex, and at the Commission.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in item IV below. The Amex has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Effective December 1, 2004, the Nasdaq-100 Index Tracking Stock® listed on the Nasdaq Stock Market, Inc. trades on Nasdaq under the symbol QQQQ. The Amex trades the QQQQ on an unlisted trading privileges basis. Currently, transaction charges for the specialist and registered traders are \$0.0037 (\$0.37 per 100 shares) and \$0.0038 (\$0.38 per 100 shares) respectively. These transaction charges are also subject to a \$300 per trade maximum. The Amex proposes to amend the Amex Equity and Exchange Traded Funds and Trust Issued Receipts Fee Schedules to suspend the transaction charges for the specialist and registered traders until December 31, 2004. The Exchange believes that this fee suspension would encourage competition among markets trading QQQQ and enhance the Amex's competitiveness in trading this security.

2. Statutory Basis

The Amex believes the proposed rule change is consistent with section 6(b) of

the Act,⁵ in general, and furthers the objectives of section 6(b)(4) of the Act,⁶ in particular, in that it is intended to provide for the equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change establishes or changes a due, fee, or other charge imposed by the Exchange, and, therefore, has become effective pursuant to section 19(b)(3)(A)(ii) of the Act⁷ and subparagraph (f)(2) of Rule 19b-4 thereunder.⁸ At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-Amex-2004-98 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

⁵ 15 U.S.C. 78f(b).

⁶ 15 U.S.C. 78f(b)(4).

⁷ 15 U.S.C. 78s(b)(3)(A)(ii).

⁸ 17 CFR 240.19b-4(f)(2).

All submissions should refer to File Number SR-Amex-2004-98. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room, 450 Fifth Street, NW., Washington, DC 20549. Copies of such filing will also be available for inspection and copying at the principal office of the Amex. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-Amex-2004-98 and should be submitted on or before January 4, 2004.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority,⁹

Jill M. Peterson,

Assistant Secretary.

[FR Doc. E4-3610 Filed 12-13-04; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50814; File No. SR-BSE-2004-52]

Self-Regulatory Organizations; Boston Stock Exchange, Inc.; Notice of Filing of Proposed Rule Change and Amendment No. 1 Thereto Relating to Market Maker Quote Obligations Under the Rules of the Boston Options Exchange Facility

December 7, 2004.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on November 24, 2004, the Boston Stock Exchange,

⁹ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

Inc. ("BSE" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in items I, II, and III below, which items have been prepared by the Exchange. On December 3, 2004, the BSE filed an Amendment No. 1 to the proposed rule change.³ The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to adopt a rule under the rules of the Boston Options Exchange Facility ("BOX") to provide BOX Market Makers protection from the unreasonable risk associated with communication failures and systemic errors. The text of the proposed rule change, as amended, is below. Proposed new language is in *italics*.

Chapter VI.

* * * * *

Sec. 12 Standard Market Maker Protection Mechanism

(a) Trade Counter

The Trading Host will maintain a "trade counter" for each Market Maker on each class to which the Market Maker is appointed. This trade counter will be incremented by one every time the Market Maker executes a trade of at least 10 contracts on any series in the appointed class. Whenever the Trading Host receives from the Market Maker a message to update or refresh any of his quotes on any of the options series in the same class, the trade counter at the Trading Host for that class will be reset to zero.

(b) Standard Market Maker Protection Mechanism

The Trading Host will implement the Standard Market Maker Protection Mechanism on an appointed class whenever the following conditions are met:

- i. The trade counter has reached "n" executions against the quotes of the Market Maker in the Market Maker's appointed class; and
- ii. The Trading Host has not received from the Market Maker a message to update or refresh any of his quotes on any of the options series in the same class before the "n" executions have occurred.

³ In Amendment No. 1, the BSE made technical, non-substantive changes to the rule text.

When the above conditions are met, the Trading Host will automatically cancel all quotes posted by the Market Maker on that class by generating a "bulk cancel" message.

(c) The bulk cancel message will have the same time priority as any other quote or order message received by BOX. Any orders or quotes that matched with the Market Maker's quote and were received by the Trading Host prior to the receipt of the bulk cancel message will be automatically executed. Orders or quotes received by the Trading Host after receipt of the bulk cancel message will not be executed against the Market Maker. At any time the Market Maker may update or refresh any of its quotes for any of the options series in the same class and reset the trade counter to zero.

(d) The Board shall determine the appropriate trade counter threshold of "n" executions required in paragraph (b) above to implement the Standard Market Maker Protection Mechanism. In no case will the threshold be lower than five.

Sec. 13 Advanced Market Maker Protection Mechanism

(a) The Advanced Market Maker Protection Mechanism is enabled (or disabled) for an options class when a Market Maker sends an Advanced Market Maker Protection enabling (or disabling) message to the Trading Host. Unless enabled, the Advanced Market Maker Protection Mechanism is disabled for all options classes.

(b) When the Advanced Market Maker Protection Mechanism is enabled for a Market Maker's appointed options class, any "bulk quote" message sent by the Market Maker on that class is automatically rejected as soon as one of the following activating events occurs:

- i. The Market Maker's Standard Market Maker Protection Mechanism is triggered for that class, pursuant to Section 12; or
- ii. The Market Maker activates the Panic Quote function for that class pursuant to Section 14.

(c) Once the Advanced Market Maker Protection Mechanism has been activated for an options class, any bulk quote messages sent by the Market Maker on that class will continue to be rejected until the Market Maker sends an Advanced Market Maker Protection enabling or disabling message to the Trading Host.

(d) For purposes of this Section 13, a "bulk quote" message is a single message from a Market Maker that simultaneously updates all of the Market Maker's quotes in multiple series in a class at the same time.

Sec. 14. Panic Quote

A Market Maker may simultaneously cancel all its quotes in an assigned class by sending a Panic Quote message to the Trading Host through the Panic Quote channel, or otherwise requesting BOX operations staff to manually generate the Panic Quote message to the Trading Host in order to cancel all of the Market Maker's quotes in that class.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it had received on the proposed rule change. The text of these statements may be examined at the places specified in item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to provide all BOX Market Makers protection from the unreasonable risk of multiple nearly simultaneous executions caused by communication failures or systemic errors. Like auto-quote systems used on other options exchanges, the primary method for Market Makers to update their quotes on BOX is to post and update quotes on multiple series of options at the same time through the use of "bulk quotes".⁴ Generally, these quotes are based on the Market Maker's proprietary pricing models that rely on various factors, including the price of the underlying security and that security's market volatility. As these variables change, a Market-Maker's pricing model and automated quote system will continuously enter bulk quote updates for most or all series in the class.

In most instances a Market Maker sends a message to BOX to update or refresh its quote on at least one series in its assigned class after each execution by the Market Maker in that options series or any movement in the

⁴ A "bulk quote" message is a single message from a Market Maker that simultaneously updates all of the Market Maker's quotes in multiple series in a class at the same time.

underlying security's price. Several executions in the class without any message or quote update from the Market Maker would indicate some type of technical breakdown in either the Market Maker's communication link with BOX or the Market Maker's automated trading and quotation system. If a Market Maker's communication link with BOX is lost or delayed and the Market Maker cannot effectively update its quotes after an execution or when the underlying security's price moves, then the Market Maker's stale quotes are vulnerable to being hit and automatically executed across all the series in the assigned class nearly simultaneously. Similarly, if the Market Maker's pricing model and automated quote update system malfunctions, the Market Maker's bulk quote update could inadvertently automatically execute across all the series in the assigned class.

These nearly simultaneous multiple executions can create huge unintended principal positions for the Market Maker and expose the Market Maker to unnecessary market risk. Firm risk management procedures dictate that Market Makers must take into account the possibility of such errors and the corresponding risk to the Market Maker and the firm. As a result, the BSE believes that Market Makers widen their quotes, quote less aggressively and limit their quote size in order to avoid such unintended executions and the attendant risks and costs, all to the detriment of customers and other market participants. The proposed rule addresses these concerns.

Standard Market Maker Protection

The Standard Market Maker Protection feature on BOX would protect all Market Makers from excessive multiple and unintended automatic executions due to the following:

- Communication problems preventing the Market Maker from making intended quote updates.
- Technical or systemic errors causing Market Maker quote update errors.
- Bulk quotes unintentionally "sweeping the book" or being "swept".

The Standard Market Maker Protection Mechanism would begin with a "trade counter" for each class where the Market Maker has a market making appointment. This trade counter would be incremented by one every time the Market Maker executes a trade of at least 10 contracts on any series of the assigned class. The trade counter would reset every time the Market Maker sends a quote update or refresh

message to BOX on any one of the series within the class. The Boston Options Exchange Regulation LLC ("BOXR") Board would define a threshold number for the trade counter to reach (currently determined to be five)⁵ to trigger the implementation of the Standard Market Maker Protection Mechanism. This would limit the number of consecutive executions a given Market Maker could have automatically executed on an assigned class without BOX receiving any message from the Market Maker.

Once the trade counter has reached the defined threshold number of five, the Trading Host would automatically cancel all quotes posted by that Market Maker on that class by generating a bulk cancel message. The bulk cancel message would have the same time priority as any other quote update or order message the Trading Host receives, so that any orders or quotes that matched with the Market Maker's quote and were received by the Trading Host prior to the receipt of the cancel message would be automatically executed pursuant to the BOX rules. Orders or quotes received by the Trading Host after receipt of the cancel message would not be executed against the Market Maker.

As soon as the Standard Market Maker Protection Mechanism is triggered, the Market Maker would receive a message to confirm the cancellation of the Market Maker's quotes on the given class. The Market Maker could respond with a quote update or refresh, or no reply, which BOX would assume means a communication or system problem with the Market Maker. At any time the Market Maker may update or refresh any of its quotes for any of the options series in the given class and reset the trade counter to zero.

Advanced Market Maker Protection

The Advanced Market Maker Protection Mechanism would provide Market Makers with an additional feature that may be enabled/disabled on demand by the Market Makers using a special message sent to the Trading Host. The Market Maker would enable the mechanism by sending BOX an Advanced Market Maker Protection enabling message. When enabled, the Advanced Market Maker Protection feature would cause BOX to automatically reject any bulk quote message sent by the Market Maker on a specific appointed class as soon as one of the following events occurs:

- The Market Maker's Standard Market Maker Protection Mechanism is triggered for the given class.

- The Panic Quote function is triggered by the Market Maker for the given class.⁶

Quoting for the Market Maker on an options class would be disabled once the Advanced Market Maker Protection Mechanism is triggered for such class.⁷ Any subsequent bulk quote update message would be rejected. Quoting for the Market Maker would only be reactivated by the Market Maker sending to BOX a new Advanced Market Maker Protection enabling message.

Standard and Advanced Market Maker Protection

These mechanisms would protect both Market Maker quotes currently posted and in the BOX book and those incoming bulk quotes that a Market Maker may erroneously generate as part of an automatic update. For example, this would mean that a new bulk quote message from a Market Maker that is immediately executable across multiple series would not generate a number of executions greater than the defined threshold number (*i.e.* would not allow the Market Maker to unintentionally sweep the book).

Without these protection mechanisms multiple unintentional trades could automatically occur. These executions would not properly reflect the true nature of the market and would subject Market Makers to unreasonable market risk and multiple execution and clearing fees, with no real economic justification behind the trades.⁸ The Exchange believes the proposed rule change would reduce these inefficiencies and risks by preventing a BOX Market Maker from erroneously trading automatically multiple times. Under normal circumstances, BOX Market Maker quotes do match and are automatically executed; however, these are usually only on a few series in a class and involve immediate quote updates after an execution. The trade counter would not reach the threshold level under most circumstances.

The Exchange believes these protection mechanisms would eliminate trades that are involuntary, the result of technological error or inaccuracy, and that impede certain liquidity providers'

⁶ See discussion of Panic Quote below.

⁷ No other options classes would be affected.

⁸ In many instances such trades qualify under the BOX obvious error rule and are busted. However, not all trades created by these circumstances technically qualify. The Market Maker Protection Mechanism would also spare BOXR from expending considerable resources to address obvious errors that arise in this manner.

⁵ In no case will the threshold be less than five.

ability to competitively quote. Also, the Exchange believes the protection mechanisms would increase the liquidity available in the BOX market and would enhance competition because Market-Makers would be better able to quote larger size aggressively with fewer concerns over technological breakdowns.

Panic Quote

A Market Maker may simultaneously cancel all its quotes in an assigned class by triggering the Panic Quote function. The Panic Quote function would be triggered by the Market Maker sending a Panic Quote message to the BOX Trading Host through the Panic Quote channel, or otherwise requesting BOX operations staff to manually generate the Panic Quote message to the Trading Host in order to cancel all of the Market Maker's quotes in that class.

Triggering the Panic Quote function would also trigger the Advanced Market Maker Protection Mechanism, and all subsequent bulk quote messages would be rejected by the BOX Trading Host until the Market Maker sends a new Advanced Market Maker Protection enabling message.

These market maker protections do not relieve a Market Maker's obligations pursuant to Chapter VI, Sections 5 and 6 of the BOX Rules; in particular, Chapter VI, Section 6(d) of the BOX Rules which addresses a Market Maker's obligation to enter continuous quotations for the options classes to which it is appointed. After a market maker protection has been utilized, Market Makers are expected to resume entering continuous quotations for the options classes to which they are appointed as soon as practicable.

2. Statutory Basis

The Exchange believes that the proposal is consistent with the requirements of section 6(b) of the Act,⁹ in general, and section 6(b)(5) of the Act,¹⁰ in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and protect investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

⁹ 15 U.S.C. 78f(b).

¹⁰ 15 U.S.C. 78f(b)(5).

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange has neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding, or (ii) as to which the Exchange consents, the Commission will:

(A) By order approve such proposed rule change; or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-BSE-2004-52 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to File Number SR-BSE-2004-52. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the

public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street, NW., Washington, DC 20549. Copies of such filing also will be available for inspection and copying at the principal office of the BSE. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make publicly available. All submissions should refer to File Number SR-BSE-2004-52 and should be submitted on or before January 4, 2004.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority,¹¹

Jill M. Peterson,

Assistant Secretary.

[FR Doc. E4-3612 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50813; File No. SR-ISE-2004-31]

Self-Regulatory Organizations; International Securities Exchange, Inc.; Notice of Filing of Proposed Rule Change and Amendment No. 1 Thereto Relating to System-Assisted Quotation Services

December 7, 2004.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on September 30, 2004, the International Securities Exchange, Inc. ("ISE" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in items I, II, and III below, which items have been prepared by the Exchange. On November 16, 2004, the ISE filed Amendment No. 1 to the proposed rule change.³ The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

¹¹ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Amendment No. 1 replaced and superseded the original filing in its entirety.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The ISE proposes to codify in its rules descriptions of certain functionality it provides to market makers to assist them in meeting their quotation obligations. The text of the proposed rule change, as amended, is below. Proposed new language is in *italics*.

* * * * *

Rule 804. Market Maker Quotations

(a)-(f) No change.

(g) *Automated Quotation*

Adjustments. A market maker may establish parameters by which the Exchange will automatically restate:

(1) *the prices of a market maker's quotations in all series of an options class, at prices specified by the market maker, if the market maker trades, in the aggregate, a specified number of contracts (established by the market maker), within an Exchange-established time frame, in that class;*

(2) *the price of a market maker's quotations in an options series if the number of contracts that the market maker is willing to buy or sell at a specified price is exhausted; and*

(3) *the size of a market maker's quotation in an options series to 10 contracts if, as a result of an execution in that series, the market maker's quotation is decremented below that size and the Exchange's best bid (offer) would be less than 10 contracts.*

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it had received on the proposed rule change. The text of these statements may be examined at the places specified in item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this rule change is to codify in the ISE's rules certain services the ISE offers market makers to help them manage their quotations. By way of background, ISE Rules 803 and 804 require market makers to maintain

continuous and firm quotations. To comply with this requirement, each ISE market maker employs its own sophisticated proprietary quotation and risk management systems to determine the prices and sizes at which its quotes. The ISE system itself also contains several voluntary tools that market makers can use to assist them in meeting their quotation obligations. ISE market makers are not required to use the ISE-provided functionality and can program their own systems to perform the same functions if they prefer. The three tools the ISE offers are:

- "Speed bump" functionality. A market maker's risk in an options class is not limited to the risk in a single series of that class. Rather, a market maker faces exposure in all series of a class, requiring that the market maker off-set or otherwise hedge its overall position in a class. The speed bump functionality helps a market maker limit this overall exposure and risk. Specifically, the functionality permits a market maker to establish parameters in the central system to move its quotations in all series of an option to an inferior price when the market maker trades a specified number of contracts in that class as a whole within a fixed time period. That time period currently is a rolling 30 seconds.⁴ Market Makers can specify a number of contracts ("the exposure limit") by class. For example, if a market maker establishes an exposure limit of 1,000 contracts in XYZ options, the system will move the market maker's quotations in all series of XYZ options to an inferior price following one or more transactions that result in the aggregate execution of 1,000 contracts in XYZ options, regardless of the series in which those trades occur. By limiting its exposure across series, a market maker is better able to quote aggressively in an option, knowing that the speed bump will automatically move all its quotations in a class when its exposure limit is hit.

- "Tick-worse" functionality. Among other things, ISE Rules 803 and 804 require: (1) Primary Market Makers to provide continuous quotations in all their assigned options; and (2) Competitive Market Makers generally to provide continuous quotations in 60 percent of their assigned options. If the size of a market maker's quotation in a series is exhausted, ISE rules effectively require the market maker to immediately establish a new quotation, either at the same or different price. ISE provides market makers with "tick-worse" functionality that allows market

makers to pre-define the prices and sizes at which the system will automatically move their quotation following an execution that exhausts the size of their existing quotation. Having this functionality in the central exchange system—rather than having market makers themselves send refreshed quotations when they receive a report of an execution exhausting their quotations—helps market makers maintain continuous quotations when their displayed quotations are exhausted.

- "Step-up" functionality. Until recently, ISE Rule 804(b) required that all of the ISE's disseminated quotations be for at least 10 contracts. To achieve compliance with that requirement, the rule prohibited market makers from initially entering a quotation of less than 10 contracts. Furthermore, if a market maker's quotation fell below 10 contracts due to executions at the quotation price, and the disseminated ISE quotation would be less than 10 contracts, ISE Rule 804(b) also required market makers to reestablish their quotation for at least 10 contracts (at the same price or a different price). In order to help market makers meet these obligations, the ISE developed the "step-up" functionality permitting a market maker to refresh its quotation to 10 contracts when an execution decrements the quotation below that size (if the best disseminated quotation on the Exchange would be less than 10 contracts). The Commission recently approved amendments to ISE Rule 804 eliminating the requirement that the ISE disseminate quotations of at least 10 contracts.⁵ Under ISE Rule 804(b), while market makers still must initially establish quotations of at least 10 contracts, they do not need to reestablish 10-contract quotes if their quotation is decremented due to executions at the quotation price. Although there is no current regulatory need for the step-up functionality, certain market makers continue to use it to maintain 10 contract quotations, and the ISE continues to offer it as a voluntary tool.

2. Statutory Basis

The Exchange believes the basis under the Act for this proposed rule change is the requirement under section 6(b)(5)⁶ that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of

⁵ See Securities Exchange Act Release No. 49602 (April 22, 2004), 69 FR 23841 (April 30, 2004) (SR-ISE-2003-26).

⁶ 15 U.S.C. 78f(b)(5).

⁴ If the ISE were to change this time period it would do so in a notice to market makers.

trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transaction in securities, to remove impediments to and perfect the mechanism for a free and open market and a national market system, and, in general, to protect investors and the public interest. In particular, the rule change will codify the ability of ISE members to use ISE-provided functionality to maintain competitive and liquid quotations.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange believes that the proposed rule change does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any unsolicited written comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding, or (ii) as to which the Exchange consents, the Commission will:

- (A) By order approve such proposed rule change; or
- (B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-ISE-2004-31 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to File Number SR-ISE-2004-31. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street, NW., Washington, DC 20549. Copies of such filing also will be available for inspection and copying at the principal office of the ISE. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make publicly available. All submissions should refer to File Number SR-ISE-2004-31 and should be submitted on or before January 4, 2005.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.⁷

Jill M. Peterson,

Assistant Secretary.

[FR Doc. E4-3611 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50820; File No. SR-MSRB-2004-06]

Self-Regulatory Organizations; Municipal Securities Rulemaking Board; Order Approving Proposed Rule Change To Create Real-Time Transaction Price Service and Propose Annual Subscription Fee

December 8, 2004.

On October 26, 2004, the Municipal Securities Rulemaking Board ("MSRB" or "Board"), filed with the Securities and Exchange Commission ("SEC" or "Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² a proposed rule change to create the Real-Time Transaction Price Service (the "Service") and propose an annual subscription fee for the Service. The proposed rule change was published for comment in the **Federal Register** on November 4, 2004.³ The Commission received one comment letter regarding the proposal.⁴ On November 30, 2004, the MSRB filed a response to the comment letter.⁵ This order approves the proposed rule change.

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to the MSRB⁶ and, in particular, the requirements of Section 15B(b)(2)(C) of the Act and the rules and regulations thereunder.⁷ Section 15B(b)(2)(C) of the Act requires, among other things, that the MSRB's rules be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in municipal securities, to remove impediments to

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Securities Exchange Act Release No. 50605 (October 29, 2004), 69 FR 64346 (November 4, 2004) ("Notice").

⁴ See e-mail letter from Al Adler, CEO, Munibond.com, to rule-comments@sec.gov, dated November 4, 2004 ("Mr. Adler's Letter").

⁵ See letter from Jill C. Finder, Assistant General Counsel, MSRB, to Martha M. Haines, Chief, Office of Municipal Securities, Division of Market Regulation, Commission, dated November 30, 2004 ("MSRB's Response Letter").

⁶ In approving this rule the Commission notes that it has considered the proposed rule's impact on efficiency, competition and capital formation. 15 U.S.C. 78c(f).

⁷ 15 U.S.C. 78o-4(b)(2)(C).

⁷ 17 CFR 200.30-3(a)(12).

and perfect the mechanism of a free and open market in municipal securities, and, in general, to protect investors and the public interest.⁹ In particular, the Commission finds that the proposed rule change will increase transparency and facilitate the fair pricing of municipal securities transactions.

Mr. Adler's Letter expressed concerns about the pricing of the Real-Time Transaction Price Service, stating that the Service will increase the abuses and inequalities in the municipal bond market and will be of immediate benefit to large bond dealers at the expense of small investors. Mr. Adler stated that the delivery fee was drastically inflated to discourage small bond investors from using the Service and that the MSRB should cut the fee for the Service as far as possible, perhaps even making it free, if the MSRB wants to help the small municipal bond investor have any degree of information parity with the larger firms.

The MSRB's Response Letter states that the MSRB's intent is to achieve the widest possible dissemination of the real-time data, with the ultimate goal of making the data available to investors for free or at a very modest cost. The MSRB stated that it strongly encourages the redistribution of data obtained through the Real-Time Transaction Reporting System, and that, toward this end, subscribers to the Service will be allowed to re-disseminate transaction data to an unlimited number of their own customers or clients at no additional charge. The MSRB further stated that by not charging for or restricting re-dissemination of the transaction data, the MSRB wishes to encourage information vendors—and various other entities that make securities data available to members of the securities industry and the public—to use the transaction data in their products and services. Finally, the MSRB stated that, through this approach, the MSRB anticipates that it will be possible for a typical individual investor to obtain the transaction data that is relevant to his or her investments for free or at a very modest cost.

After careful consideration, the Commission believes the proposed annual subscription fee for the Real-Time Transaction Price Service satisfies the statutory standards, and that the proposed rule change will increase transparency and facilitate the fair pricing of municipal securities transactions. For the reasons discussed above, the Commission finds that the proposal is consistent with the Act and the rules and regulations thereunder.

⁹ *Id.*

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,⁹ that the proposed rule change (SR-MSRB-2004-06) be, and hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.¹⁰

J. Lynn Taylor,
Assistant Secretary.

[FR Doc. E4-3635 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50822; File No. SR-NASD-2004-175]

Self Regulatory Organizations, Notice of Filing and Immediate Effectiveness of Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to Repeal of Existing NASD Short Sale Rules in Light of SEC Regulation SHO

December 8, 2004.

Pursuant to Section 19(b)(3) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on November 30, 2004, the National Association of Securities Dealers, Inc. ("NASD") filed with the Securities and Exchange Commission ("SEC" or "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by NASD. NASD has designated the proposed rule change as constituting a "non-controversial" rule change under paragraph (f)(6) of Rule 19b-4 under the Act,³ which renders the proposal effective upon receipt of this filing by the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

NASD is proposing to repeal NASD Rule 3110(b)(1), Rule 3210, Rule 3370(b) and Rule 11830 in light of the requirements of the SEC's new short sale regulation, Regulation SHO under the Act. Below is the text of the proposed rule change. Proposed deletions are in brackets.

* * * * *

⁹ 15 U.S.C. 78s(b)(2).

¹⁰ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(3).

² 17 CFR 240.19b-4.

³ 17 CFR 240.19b-4.

3110. Books and Records

(a) No change.

(b) Marking of Customer Order Tickets.

[(1) A person associated with a member shall indicate on the memorandum for the sale of any security whether the order is "long" or "short," except that this requirement shall not apply to transactions in debt securities. An order may be marked "long" if (A) the customer's account is long the security involved or (B) the customer owns the security and agrees to deliver the security as soon as possible without undue inconvenience or expense.]

[(2)] A person associated with a member shall indicate on the memorandum for each transaction in a non-Nasdaq security, as that term is defined in the Rule 6700 Series, the name of each dealer contacted and the quotations received to determine the best inter-dealer market; however, the requirements of this subparagraph shall not apply if two or more priced quotations for the security are displayed in an inter-dealer quotation system, as defined in Rule 2320(g), that permits quotation updates on a real-time basis for which NASD Regulation has access to historical quotation information.

(c) No change.

* * * * *

3210. Reserved. [Securities "Failed to Receive" and "Failed to Deliver"]

[(a) No member, or person associated with a member, shall sell a security for his own account, or buy a security as a broker for a customer (except exempt securities), if,]

[(1) in respect to domestic securities, he has a fail to deliver in that security 60 days old or older; or]

[(2) in respect to foreign securities, he has a fail to deliver in that security 90 days old or older (except American Depositary Receipt and Canadian securities, which shall be subject to the provisions of subparagraph (1)).]

[(b) Pursuant to the Rule 9600 Series, for good cause shown and in exceptional circumstances, the Association may exempt a member or a person associated with a member from the provisions of this Rule.]

* * * * *

3370. [Prompt Receipt and Delivery of Securities] Purchases

[(a) Purchases].

No member or person associated with a member may accept a customer's purchase order for any security unless it has first ascertained that the customer placing the order or its agent agrees to

receive securities against payment in an amount equal to any execution, even though such an execution may represent the purchase of only a part of a larger order.

[(b) Sales].

[(1) Long Sales].

[No member or persons associated with a member shall accept a long sale order from any customer in any security (except exempt securities other than municipals) unless:]

[(A) The member has possession of the security;]

[(B) The customer is long in his account with the member;]

[(C) The member or person associated with a member makes an affirmative determination that the customer owns the security and will deliver it in good deliverable form within three (3) business days of the execution of the order; or]

[(D) The security is on deposit in good deliverable form with a member of the Association, a member of a national securities exchange, a broker/dealer registered with the Commission, or any organization subject to state or federal banking regulations and that instructions have been forwarded to that depository to deliver the securities against payment.]

[(2) "Short Sales"].

[(A) Customer and non-member broker/dealer short sales].

[No member or person associated with a member shall accept a "short" sale order for any customer or non-member broker/dealer in any security unless the member or person associated with a member makes an affirmative determination that the member will receive delivery of the security from the customer or non-member broker/dealer or that the member can borrow the security on behalf of the customer or non-member broker/dealer for delivery by settlement date. This requirement shall not apply, however, to transactions in corporate debt securities or transactions in security futures, as defined in Section 3(a)(55) of the Act, or proprietary orders of a non-member broker/dealer that meet one of the exceptions in subparagraph (B) below, provided, however, that (i) the non-member broker/dealer is registered with the Securities and Exchange Commission, and (ii) if using the market maker exception, the non-member broker/dealer is registered or qualified as a market maker in the securities and is selling such securities in connection with bona fide market making.]

[(B) Proprietary short sales].

[No member shall effect a "short" sale for its own account in any security unless the member or person associated

with a member makes an affirmative determination that the member can borrow the securities or otherwise provide for delivery of the securities by the settlement date. This requirement will not apply to transactions in corporate debt securities, to transactions in security futures, as defined in Section 3(a)(55) of the Act, to bona fide market making transactions by a member in securities in which it is registered as a Nasdaq or ADF market maker, to bona fide market maker transactions in non-Nasdaq securities in which the market maker publishes a two-sided quotation in an independent quotation medium, or to transactions that result in fully hedged or arbitrated positions.]

[(3) Public Offering].

[In the case of a public offering of securities, paragraph (b)(1) hereof shall not apply during the period from the commencement of the public offering until seven (7) business days following the date of settlement between the underwriter and issuer of the securities; provided, however, that the member believes in good faith that the customer has purchased the securities.]

[(4) "Affirmative Determination"].

[(A) To satisfy the requirements for an "affirmative determination" contained in paragraph (b)(1)(C) above for long sales, the member or person associated with a member must make a notation on the order ticket at the time the order is taken which reflects the conversation with the customer as to the present location of the securities in question, whether they are in good deliverable form and the customer's ability to deliver them to the member within three (3) business days.]

[(B) To satisfy the requirement for an "affirmative determination" contained in paragraph (b)(2) above for customer, non-member broker/dealer, and proprietary short sales, the member or person associated with a member must keep a written record that includes:]

[(i) if a customer or non-member broker/dealer assures delivery, the present location of the securities in question, whether they are in good deliverable form and the customer's or non-member broker/dealer's ability to deliver them to the member within three (3) business days; or]

[(ii) if the member or person associated with a member locates the stock, the identity of the individual and firm contacted who offered assurance that the shares would be delivered or that were available for borrowing by settlement date and the number of shares needed to cover the short sale.]

[(C) The manner by which a member or person associated with a member annotates compliance with the

"affirmative determination" requirement contained in subsection (b)(2) above (e.g., marking the order ticket, recording inquiries in a log, etc.) is not specified by this Rule and, therefore, shall be decided by each member. Members may rely on "blanket" or standing assurances (i.e., "Easy to Borrow" lists) that securities will be available for borrowing on settlement date to satisfy their affirmative determination requirements under this Rule. For any short sales executed in Nasdaq National Market (NNM) or national securities exchange-listed (listed) securities, members also may rely on "Hard to Borrow" lists indicating NNM or listed securities that are difficult to borrow or unavailable for borrowing on settlement date to satisfy their affirmative determination requirements under this Rule, provided that: (i) Any securities restricted pursuant to UPC 11830 must be included on such a list; and (ii) the creator of the list attests in writing on the document or otherwise that any NNM or listed securities not included on the list are easy to borrow or are available for borrowing. Members are permitted to use Easy to Borrow or Hard to Borrow lists provided: (i) The information used to generate the list is less than 24-hours old; and (ii) the member delivers the security on settlement date. Should a member relying on an Easy to Borrow or Hard to Borrow list fail to deliver the security on settlement date, the Association shall deem such conduct inconsistent with the terms of this Rule, absent mitigating circumstances adequately documented by the member.]

[(5) "Bona Fide Fully Hedged" and "Bona Fide Fully Arbitrated"].

[In determining the availability of the exemption provided in paragraph (b)(2)(B) above and in Rule 11830 from short sale requirements for "bona fide fully hedged" and "bona fide fully arbitrated" transactions, the following guidelines shall apply. These guidelines are for illustrative purposes and are not intended to limit the Association's ability to determine the proper scope of the terms "bona fide fully hedged" or "bona fide fully arbitrated" pursuant to this provision, on a case-by-case basis.]

[(A) Bona Fide Fully Hedged].

[The following transactions shall be considered bona fide fully hedged:]

[(i) Short a security and long a convertible debenture, preferred or other security which has a conversion price at or in the money and is convertible within ninety days into the short security.]

[Example: Long ABCD Company 9% convertible subordinated debentures

due 2003. Each debenture is convertible into common at \$27.90 per share of common equal to 35,842 shares of common per 1M debenture.

- With the price of the ABCD at 8³/₄-9 or 8.75-9 and a short position of 100 shares of ABCD the short position would not be exempt.

- If the price of ABCD was \$28 with a short position of 100 shares, 35 shares would be exempt and the remaining 65 shares would not be exempt.]

[(ii) Short a security and long a call which has a strike price at or in the money and which is exercisable within 90 calendar days into the underlying short security.]

[Example: Long 1 call of EFGH at a price of either 44¹/₈ or \$44.10 with a strike price of 40 expiring within 90 calendar days.

- With the circumstances as above 100 shares would be exempt.

- If the strike price was 50 a short position of 100 shares would not be exempt.

- With any strike price and the call expiring in more than 90 days any short of the common would not be exempt.]

[(iii) Short a security and long a position in warrants or rights which are exercisable within 90 days into the short security. To the extent that the long warrants or rights are "out of the money," then the short position shall be exempt up to the market value of the long warrants or rights.]

[Example: Long 100 warrants of IJKL (IJKLW: 2¹/₄-2³/₄ or 2.25-2.75). Each warrant is exercisable into 1 share of common at \$2. (IJKL: 4-4¹/₂ or \$4-4.50).

- With the circumstances as above a short position of 100 shares would be exempt.

- If the price of IJKL is \$1.50 and the market value of long warrants is ¹/₄ of a point, or \$.25, a short position of 16 shares would be exempt.]

[(iv) Short a security and long a single stock future of the underlying security.]

[Example: Long 1 single stock future of MNOP.

- With the circumstances as above (and assuming a contract size of 100) 100 shares would be exempt.

- Even if the expiration date for the single stock future was more than 90 calendar days, 100 shares would be exempt.]

[(B) Bona Fide Fully Arbitrated].

[The following transactions shall be considered bona fide fully arbitrated:]

[(i) Long a security purchased in one market together with a short position from an offsetting sale of the same security in a different market at as nearly the same time as practicable for the purpose of taking advantage of a difference in price in the two markets.]

[Example: Purchase 100 shares of EFGH on the London Stock Exchange and simultaneously effecting a short sale of 100 shares of EFGH on Nasdaq.

- Under the above circumstances, the 100 shares short would be exempt.]

[(ii) Long a security which is without restriction other than the payment of money exchangeable or convertible within 90 calendar days of the purchase into a second security together with a short position from an off-setting sale of the second security at or about the same time for the purpose of taking advantage of a concurrent disparity in the prices of the securities.]

[Example: Long 100 shares of MNOP (MNOP: 51-51¹/₄ or 51.00-51.25) which is being acquired by QRST Corp. (QRST: 52¹/₈-52³/₈ or 52.10-52.30) at the rate of 1.15 shares per MNOP share.

- If the exchange is to take place within 90 days then a short of 115 shares of QRST would be exempt from the mandatory buy-in. Also, if the exchange was to take place at a date later than 90, all short positions in the above example would be subject to the mandatory buy-in.]

[(C) The transaction date of the short sale shall govern when a fully hedged or fully arbitrated position exists.]

* * * * *

11830. *Reserved.* [Mandatory Close-Out for Short Sales]

[(A) A contract involving a short sale in Nasdaq securities described in paragraph (b) hereof, for the account of a customer or for a member's own account, which has not resulted in delivery by the broker/dealer representing the seller within 10 business days after the normal settlement date, must be closed by the broker/dealer representing the seller by purchasing for cash or guaranteed delivery securities of like kind and quantity.]

[(b) This requirement shall apply to Nasdaq securities, as published by the Association, which have clearing short position of 10,000 shares or more and that are equal to at least one-half (¹/₂) of one percent of the issue's total shares outstanding.]

[(c) This mandatory close-out requirement shall not apply to bona fide market making transactions and transactions that result in fully hedged or arbitrated positions.]

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, NASD included statements concerning

the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. NASD has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

On June 23, 2004, the SEC adopted certain provisions of a new short sale regulation, designated Regulation SHO (Reg SHO). Reg SHO includes several new provisions that are duplicative of or overlap with existing NASD rules. These include: (1) SEC Rule 200(g) of Reg SHO, which requires that sell orders in all equity securities be marked "long," "short," or "short exempt"; (2) SEC Rule 203(a) of Reg SHO, which provides that, with limited exception, if a broker-dealer knows or should know that a sale of an equity security is marked long, the broker-dealer must make delivery when due and cannot use borrowed securities to do so; (3) SEC Rule 203(b)(1) of Reg SHO, which applies a uniform rule, with certain limited exceptions, requiring all broker-dealers, prior to effecting short sales in equity securities, to "locate" securities available for borrowing; and (4) SEC Rule 203(b)(3) of Reg SHO, which requires registered clearing agency participants to close out all failures to deliver 10 days after the normal settlement date for securities in which a substantial amount of failures to deliver have occurred, referred to as "threshold securities."⁴

As noted in the adopting release for Reg SHO, as well as in discussions between SEC and NASD staff, the SEC has indicated that it expects that Reg SHO provisions will supplant existing overlapping self-regulatory organization (SRO) rules. Accordingly, NASD believes that certain of its rules are duplicative of or overlap with Reg SHO requirements and therefore should be repealed. As a result, NASD is proposing to repeal NASD Rule

⁴ Reg SHO defines a "threshold security" as any equity security of an issuer that is registered under Section 12 of the Exchange Act or that is required to file reports under Section 15(d) of the Exchange Act (a reporting company) where for five consecutive settlement days there are aggregate fails to deliver at a registered clearing agency of 10,000 shares or more per security; that the level of fails is equal to a least one-half of one percent of the issue's total shares outstanding (TSO); and the security is included on a listed published by a self-regulatory organization.

3110(b)(1), Rule 3210, Rule 3370(b) and Rule 11830. Specifically, Rule 3110(b)(1),⁵ overlaps or is duplicative with Rule 200(g) of Reg SHO, which governs order marking in all equity securities. In addition, Rule 3210,⁶ Rule 3370(b)⁷ and Rule 11830⁸ overlap with or are duplicative of Rule 203 of Reg SHO.

As noted below, NASD is filing the proposed rule change for immediate effectiveness, with an operative date of January 3, 2005.⁹ NASD will announce the implementation date in a *Notice to Members* to be published prior to January 3, 2005.

2. Statutory Basis

NASD believes that the proposed rule change is consistent with the provisions of Section 15A(b)(6) of the Act,¹⁰ which requires, among other things, that NASD rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest. NASD believes that the SEC's Reg SHO will address potentially abusive short selling activities in the marketplace that NASD Rule 3110(b)(1), Rule 3210, Rule 3370(b) and Rule 11830 were intended to address, and therefore repeal of these rules is consistent with the Act.

⁵ Rule 3110(b)(1) requires that an associated person indicate on the order ticket whether an order is "long" or "short."

⁶ Rule 3210 prohibits a member from selling a security for its own account or buying a security as a broker for a customer, if the member has a fail to deliver in that security that is 60 days old or older, or 90 days old or older for foreign securities.

⁷ Rule 3370(b) requires, among other things, that (1) no member accept a long sale order from a customer unless the member has possession of the security, the customer is long in his account, the member makes an affirmative determination that the customer owns the security and will deliver it on settlement date or that it is in good deliverable form on deposit with a member or other permissible entity; and (2) no member effect a "short" sale order for a customer, non-member broker-dealer or proprietary account in any security unless the member makes an affirmative determination that the member will receive delivery of the security or that the member can borrow the security for delivery by settlement date, subject to certain exemptions.

⁸ Rule 11830 generally mandates delivery of a security within 10 days of the settlement date for short sales executed in Nasdaq securities that, on the trade date of the transaction, had a clearing short position equal to at least one-half of one percent of the issue's total shares outstanding.

⁹ The Commission understands that the operative date of this proposed rule change is the same date as the compliance date of Rules 200 and 203 of Regulation SHO. See Securities Exchange Act Release No. 50103 (July 28, 2004), 69 FR 48008 (August 6, 2004).

¹⁰ 15 U.S.C. 78o-3(6).

B. Self-Regulatory Organization's Statement on Burden on Competition

NASD does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, it has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b-4(f)(6) thereunder.

In accordance with Rule 19b-4, NASD submitted written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing. NASD proposes to make the proposed rule change operative on January 3, 2005.

At any time within 60 days of the filing of such proposed rule change, the Commission may summarily abrogate such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NASD-2004-175 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to File Number SR-NASD-2004-175. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying at the principal office of NASD. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to the File Number SR-NASD-2004-175 and should be submitted on or before January 4, 2005.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.¹¹

J. Lynn Taylor,

Assistant Secretary.

[FR Doc. E4-3636 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

¹¹ 17 CFR 200.30-3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50818; File No. SR-PCX-2004-96]

Self-Regulatory Organizations; Pacific Exchange, Inc.; Notice of Filing of Proposed Rule Change and Amendment No. 1 Thereto To Amend PCX Equities, Inc. Rule 4.5 To Require All Financial/Operations Principals of PCXE ETP Firms To Successfully Complete the Series 27 Examination and All Compliance Supervisors of PCXE ETP Firms To Successfully Complete the Series 24 Examination

December 7, 2004.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on October 20, 2004, the Pacific Exchange, Inc. ("PCX" or "Exchange"), through its wholly owned subsidiary PCX Equities, Inc. ("PCXE"), filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II and III below, which Items have been prepared by the PCXE. On December 6, 2004, PCXE filed Amendment No. 1 to the proposed rule change.³ The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

PCXE is proposing to amend PCXE Rule 4.5 to require all financial/operations principals of PCXE ETP Firms to successfully complete the National Association of Securities Dealers, Inc.'s ("NASD") Financial and Operations Principal Examination ("Series 27 Examination") and to add PCXE Rule 6.18(d) to require all compliance supervisors of PCXE ETP Firms to successfully complete the NASD's General Securities Principal Examination ("Series 24 Examination"). The text of the proposed rule change is below. Proposed new language is in italics.

Rule 4.5. Unless the Corporation determines otherwise, every ETP Holder, except as otherwise provided in Rule 4.7, shall file with the Corporation the reports prescribed by this Section. *Each ETP Holder subject to Exchange Act Rule 15c3-1 shall designate a Financial/Operations Principal. The*

duties of a Financial/Operations Principal shall include taking appropriate actions to assure that the ETP Holder complies with applicable financial and operational requirements under the Rules and the Exchange Act, including but not limited to those requirements relating to the submission of financial reports and the maintenance of books and records. Each Financial/Operations Principal is required to successfully complete the Financial and Operations Principal Examination (Series 27 Exam). Each Financial/Operations Principal designated by an ETP Holder shall be registered in that capacity with the Corporation in a form and manner prescribed by the Corporation. A Financial/Operations Principal of an ETP Holder may be a full-time employee of the ETP Holder or, with the prior written approval of the Corporation, may be a part-time employee or independent contractor of the ETP Holder. All ETP Holders shall be in compliance with this Rule by March 31, 2005.

Rule 4.5(a)-(e)—No Change.

* * * * *

Rule 6.18(a)-(c)—No Change.

(d) Each individual not associated with an ETP Holder and in the case of an ETP Holder, the person (or persons) designated to direct day-to-day compliance activity (such as the Compliance Officer, Partner or Director) and each other person at the ETP Holder directly supervising ten or more persons engaged in compliance activity should have overall knowledge of the securities laws and Exchange rules and must pass the General Securities Principal Examination (Series 24) and, if the ETP Holder does business with the public, the General Securities Sales Supervisor Qualification Examination (Series 9/10). Where good cause is shown, the Corporation, at its discretion, may waive all or a portion of the examination requirements. The Corporation may give consideration to the scope of the ETP Holder's activity, to previous related employment, and to examination requirements of other self-regulatory organizations. In such cases, the Corporation must be satisfied that the person is qualified for the position. All ETP Holders shall be in compliance with this Rule by March 31, 2005.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, PCXE included statements concerning

the purpose of and basis for its proposed rule change and discussed any comments it received on the proposal. The text of these statements may be examined at the places specified in Item IV below. PCXE has prepared summaries, set forth in sections A, B and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

PCXE is proposing to amend PCXE Rule 4.5 to require all financial/operations principals of PCXE ETP Firms to successfully complete the Series 27 Examination. PCXE believes that requiring these individuals to successfully complete the Series 27 Examination will ensure that those individuals who prepare the financial statements for PCXE ETP Firms will be sufficiently qualified to prepare such statements. In addition, PCXE is proposing to add PCXE Rule 6.18(d) to require all compliance supervisors of PCXE ETP Firms to successfully complete the Series 24 Examination. PCXE believes that requiring these individuals to successfully complete the Series 24 Examination will ensure that those who are supervising equities trading are sufficiently qualified. As part of proposed Rule 6.18(d), PCXE may waive all or a portion of the Series 24 Examination requirements. In evaluating whether to grant a full or partial waiver from the examination requirements, PCXE will review a number of factors including but not limited to the individual's industry experience, education, previous registration history with the Exchange and other examinations taken by the individual that may be acceptable substitutes in conjunction with securities industry experience.

These changes will bring the PCXE qualifications to perform such functions up to date with the requirements of other self-regulatory organizations.⁴

2. Statutory Basis

PCXE believes that the proposed rule change is consistent with Section 6(b) of the Act⁵ in general, and furthers the objectives of Section 6(b)(5) of the Act⁶ in particular, because it is designed to prevent fraudulent and manipulative acts and practices, to promote just and

⁴ The proposed rule change is based on the Chicago Board Options Exchange's Rule 3.6A(a) and the New York Stock Exchange's Rule 342.

⁵ 15 U.S.C. 78f(b).

⁶ 15 U.S.C. 78f(b)(5).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Amendment No. 1 replaced and superseded the original filing in its entirety.

equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, and to remove impediments to and perfect the mechanism of a free and open market and a national market system.

B. Self-Regulatory Organization's Statement on Burden on Competition

PCXE does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments on the proposed rule change were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

A. By order approve such rule change, or

B. Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-PCX-2004-96 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to File Number SR-PCX-2004-96. This file

number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing also will be available for inspection and copying at the principal office of the PCX. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-PCX-2004-96 and should be submitted on or before January 4, 2005.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.⁷

Jill M. Peterson,
Assistant Secretary.

[FR Doc. E4-3633 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-50817; File No. SR-PCX-2004-105]

Self-Regulatory Organizations; Pacific Exchange, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change and Amendment No. 1 Thereto To Make Clarifying Changes to the PCX Schedule of Fees and Charges With Respect to the Options Orientation Fee To Include the Cost of the Series 44 or 45 Examination and To Adopt a New Fee Associated With the Series 46 Examination

December 7, 2004

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on October

28, 2004, the Pacific Exchange, Inc. ("PCX" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II and III below, which Items have been prepared by the Exchange. On December 3, 2004, PCX filed Amendment No. 1 to the proposed rule change.³ PCX filed this proposal pursuant to Section 19(b)(3)(A)⁴ of the Act and Rule 19b-4(f)(6)⁵ thereunder, which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

PCX is proposing to make a clarifying change to the PCX Schedule of Fees and Charges ("Schedule") with respect to the Options Orientation Fee. The text of the proposed rule change is available at PCX and at the Commission.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, PCX included statements concerning the purpose of and basis for its proposal and discussed any comments it received regarding the proposal. The text of these statements may be examined at the places specified in Item IV below. PCX has prepared summaries, set forth in Sections A, B and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Schedule to make a clarifying change to the Options Orientation Fee. In October of 2003, the Exchange amended the Options Orientation Fee in connection with the launch of PCX Plus.⁶ At the time, the Exchange reconfigured a development and delivery process for the Exchange's Orientation and

³ Amendment No. 1 replaced and superseded the original filing in its entirety. For purpose of calculating the 60-day period within which the Commission may summarily abrogate the proposed rule change under Section 19(b)(3)(C) of the Act, the Commission considers that period to commence on December 3, 2004, the date that the PCX filed Amendment No. 1.

⁴ 15 U.S.C. 78s(b)(3)(A).

⁵ 17 CFR 240.19b-4(f)(6).

⁶ See Securities Exchange Act Release No. 48597 (October 7, 2003), 69 FR 59439 (October 15, 2003) (SR-PCX-2003-57).

⁷ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

Examination program. Pursuant to the revised structure, the Exchange developed an orientation and examination content to be administered by the National Association of Securities Dealers, Inc. ("NASD"). The revised Options Orientation Fee of \$1,000 was intended to include the cost of the Series 44 or Series 45 examination, the investigation fee and the fingerprinting fee,⁷ but not the Series 46 examination.⁸ Thus, since October 2003, the Exchange has charged \$1,000 for the Options Orientation Fee (including the cost of the Series 44 or 45 examination) and no charge has applied for the Series 46 examination. The Exchange proposes to amend the Options Orientation Fee by adding a parenthetical in the Schedule to clarify that the Options Orientation Fee only includes the cost of the Series 44 or Series 45 examination.

The Exchange also proposes to adopt a new fee of \$200 to help recover the costs associated with the Series 46 examination. Pursuant to a contractual agreement between PCX and NASD, PCX incurs fixed expenses in connection with the administration of each Series 46 examination. Further, the Exchange expends staff resources for ongoing development and maintenance of examination content. As such, the proposed fee will recover expenses relating to administration, development and ongoing support of the Series 46 examination.

The Exchange believes that these proposed changes are necessary to alleviate confusion among the OTP Holders and OTP Firms with respect to the Options Orientation Fee.

2. Statutory Basis

The Exchange believes that the proposal is consistent with Section 6(b) of the Act⁹ in general, and Section 6(b)(4) of the Act¹⁰ in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among its OTP Holders, OTP Firms, issuers and persons using the facilities.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not

necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

Written comments on the proposed rule change were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not:

- (i) Significantly affect the protection of investors or the public interest;
- (ii) Impose any significant burden on competition; and

(iii) Become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act¹¹ and Rule 19b-4(f)(6) thereunder.¹² At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-PCX-2004-105 on the subject line.

Paper Comments

- Send paper comments in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-0609.

All submissions should refer to File Number SR-PCX-2004-105. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use

only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing also will be available for inspection and copying at the principal office of the PCX. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-PCX-2004-105 and should be submitted on or before January 4, 2005.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.¹³

Jill M. Peterson,

Assistant Secretary.

[FR Doc. E4-3634 Filed 12-13-04; 8:45 am]

BILLING CODE 8010-01-P

DEPARTMENT OF STATE

[Public Notice 4922]

Bureau of Political-Military Affairs; Arms Export Embargo on Côte d'Ivoire (Ivory Coast)

SUMMARY: Notice is hereby given that all licenses and other approvals to export or otherwise transfer defense articles and defense services to Côte d'Ivoire (Ivory Coast) are suspended until further notice pursuant to Sections 38 and 42 of the Arms Export Control Act (AECA).

EFFECTIVE DATE: December 14, 2004.

FOR FURTHER INFORMATION CONTACT: Stephen J. Tomchik, Directorate of Defense Trade Controls, Bureau of Political-Military Affairs, Department of State (202) 663-2799.

SUPPLEMENTARY INFORMATION:

Effective immediately, it is the policy of the U.S. Government to deny all applications for licenses and other approvals to export or otherwise transfer defense articles and defense services to

⁷ If the applicant is not required to take the examination (i.e., qualifies for a waiver), such applicant is only required to pay a separate investigation and fingerprinting fee.

⁸ Series 46 is an optional examination taken subsequent to the Series 44 examination.

⁹ 15 U.S.C. 78ff(b).

¹⁰ 15 U.S.C. 78ff(b)(4).

¹¹ 15 U.S.C. 78s(b)(3)(A).

¹² 17 CFR 240.19b-4(f)(6).

¹³ 17 CFR 200.30-3(a)(12).

Côte d'Ivoire (formerly known as Ivory Coast). In addition, U.S. manufacturers and exporters and any other affected parties are hereby notified that the Department of State has suspended all previously issued licenses and approvals to export or otherwise transfer defense articles and defense services to Côte d'Ivoire. These actions have been taken in accordance with U.N. Security Council Resolution 1572, unanimously passed on November 15, 2004, which imposes an embargo on the export of arms and related material, as well as defense services, to the West African nation of Côte d'Ivoire. The embargo will remain in effect for a period of 13 months unless otherwise amended.

The resolution establishing the embargo enjoins all states to "take the necessary measures to prevent the direct or indirect supply, sale or transfer to Côte d'Ivoire, from their territories or by their nationals, or using their flag vessels or aircraft, of arms or any related materiel, in particular military aircraft and equipment, whether or not originating in their territories, as well as the provision of any assistance, advice or training related to military activities".

The resolution establishes several exceptions under which the embargo will not apply, namely:

(a) Supplies and technical assistance intended solely for the support of or use by UNOCI (United Nations Operations in Côte d'Ivoire) and the French forces who support them;

(b) Supplies of non-lethal military equipment intended solely for humanitarian or protective use, and related technical assistance and training, as approved in advance by a representative committee consisting of all the members of the Security Council;

(c) Supplies of protective clothing, including flak jackets and military helmets, temporarily exported to Côte d'Ivoire by United Nations personnel, representatives of the media and humanitarian and development workers and associated personnel, for their personal use only;

(d) Supplies temporarily exported to Côte d'Ivoire to the forces of a State which is taking action, in accordance with international law, solely and directly to facilitate the evacuation of its nationals and those for whom it has consular responsibility in Côte d'Ivoire, as notified in advance to the representative committee consisting of all the members of the Security Council; and

(e) Supplies of arms and related materiel and technical training and assistance intended solely for support of or use in the process of restructuring defense and security forces as approved

in advance by the representative committee consisting of all the members of the Security Council.

U.S. exporters are advised that, effective November 16, 2004, no application for the export to Ivory Coast of defense articles or services covered by the International Traffic in Arms Regulations (ITAR) will be approved. Exceptions to this policy will be made, in accordance with the ITAR, on a case-by-case basis for proposed exports that conform to the conditions specified in (a) through (e) above. Any existing license or authorization for the export to Ivory Coast of ITAR-controlled defense articles or services is hereby suspended. Holders of existing licenses and authorizations for exports to Ivory Coast must submit documentation for review by the Directorate of Defense Trade Controls (DDTC) supporting the meeting of one of the exceptions cited above prior to DDTC lifting the suspension.

This action has been taken pursuant to Sections 38 and 42 of the AECA (22 U.S.C. 2778, 2791) and Section 126.7 of the ITAR in furtherance of the foreign policy of the United States.

Dated: December 6, 2004.

Rose M. Likins,

Acting Assistant Secretary, Political-Military Affairs, Department of State.

[FR Doc. 04-27353 Filed 12-13-04; 8:45 am]

BILLING CODE 4710-25-P

OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

Identification of Countries Under Section 182 of the Trade Act of 1974: Request for Public Comment on Out- of-Cycle Review of the People's Republic of China

AGENCY: Office of the United States Trade Representative.

ACTION: Request for written submissions from the public.

SUMMARY: Section 182 of the Trade Act of 1974 (Trade Act) (19 U.S.C. 2242), requires the United States Trade Representative (USTR) to identify countries that deny adequate and effective protection of intellectual property rights (IPRs) or deny fair and equitable market access to U.S. persons who rely on intellectual property protection. In addition, USTR is required to determine which of those countries should be identified as Priority Foreign Countries. Section 182 is commonly referred to as the "Special 301" provision of the Trade Act.

The People's Republic of China (China) was designated a Priority Foreign Country in 1994, and has

subsequently remained subject to monitoring under Section 306 of the Trade Act (19 U.S.C. 2416). On May 3, 2004, USTR announced the results of the 2004 Special 301 review and stated that an Out-of-Cycle Review (OCR) would be conducted in early 2005 to assess China's actions to implement effectively the commitments it undertook under the Joint Commission on Commerce and Trade (JCCT), its WTO commitments, and a 1995 bilateral intellectual property agreement with the United States (including additional commitments made in 1996). USTR will examine whether China's actions are producing substantial progress toward a significant reduction in IPR infringement levels in China. USTR requests written comments from the public concerning the acts, policies, and practices relevant for this review under Section 182 of the Trade Act.

DATES: Submissions must be received on or before 5 p.m. on Monday, January 31, 2005.

ADDRESSES: Comments should be addressed to Sybia Harrison, Special Assistant to the Section 301 Committee, and sent (i) electronically, to FR0446@ustr.eop.gov, with "Special 301 Out-of-Cycle Review" in the subject line, or (ii) by fax, to (202) 395-9458, with a confirmation copy sent electronically to the e-mail address above.

FOR FURTHER INFORMATION CONTACT: Victoria Espinel, Deputy Assistant U.S. Trade Representative for Intellectual Property, at (202) 395-6864, Angela Davis, Director of China Affairs, at (202) 395-3900, or Stanford McCoy, Assistant General Counsel, at (202) 395-3581, Office of the United States Trade Representative.

SUPPLEMENTARY INFORMATION: Pursuant to Section 182 of the Trade Act, USTR must identify those countries that deny adequate and effective protection for intellectual property rights or deny fair and equitable market access to U.S. persons who rely on intellectual property protection. Those countries that have the most onerous or egregious acts, policies, or practices and whose acts, policies, or practices have the greatest adverse impact (actual or potential) on relevant U.S. products may be identified as Priority Foreign Countries. Acts, policies, or practices that are the basis of a country's designation as a Priority Foreign Country are normally the subject of an investigation under the Section 301 provisions of the Trade Act. China was designated a Priority Foreign Country in 1994, and has subsequently remained

subject to monitoring under Section 306 of the Trade Act.

Improving protection for intellectual property in China is a top priority for this Administration. To that end, during the April 2004 meeting of the Joint Commission on Commerce and Trade (JCCT), China agreed to take certain specific steps toward China's goal of significantly reducing IPR infringement.¹

On May 3, 2004, USTR announced the results of the 2004 Special 301 review and stated that an OCR would be conducted in early 2005 to assess China's actions to implement effectively the commitments it undertook under the JCCT, its WTO commitments, and the 1995 bilateral intellectual property agreement with the United States (including additional commitments made in 1996). USTR will examine whether China's actions are producing substantial progress toward a significant reduction in IPR infringement levels in China. The direct input of U.S. IPR leaders and participants in China's market is critical to USTR's ability to thoroughly evaluate China's progress.

Earlier this year, Ambassador Josette Sheeran Shiner, Deputy U.S. Trade Representative, sent an open letter to industry requesting data on the prevalence of IPR infringement in China and examples of specific individual cases where IPRs in China have or have not been respected. USTR reiterates this request as part of the formal OCR. Given the scale and nature of the information needed and the importance of this issue, receipt of data regarding both successes and failures from January 2002 and onward is crucial to identifying short- and long-term progress in China, and any additional shortcomings in China's IPR regime. Submission of responses is entirely voluntary, and it is up to each respondent to decide how to respond. For example, industry groups may wish to provide data on prevalence of IPR infringement, while individual companies may wish to focus on specific individual cases of IPR infringement.

The following information will be particularly useful for the OCR evaluation process:

- Detailed retail and consumer market surveys (for example, calculating on a monthly basis the rates of pirated or counterfeit product available through various retail channels in major cities across China);
- Detailed reports on major centers around China dealing in or producing infringing product and the success or

- failure of Chinese authorities in eliminating those centers;
- Detailed reports on particular geographic areas or sectors where China's enforcement of IPRs is notable for either its weakness or its strength;
- industry data on exports of infringing products from China to the United States and other international markets;
- information on sources and supporters of the production of infringing products (e.g., whether infringing production is individual, corporate, state-supported, supported by organized crime or official corruption, etc., and whether such support is local, provincial, regional or national in scope);
- trade estimates showing any effect on trade of IPR infringing goods;
- statistical data, if appropriate, aggregated from the experiences of members of right holder organizations, on the actions undertaken and results produced by China's authorities responsible for enforcement of specific IPRs of concern to industry, including data based on right holder experience with

- type and amount of penalties (e.g., fines, license suspensions, imprisonments) and seizures of infringing goods and implements used to make them;

- frequency and type of all relevant forms of enforcement action, such as initiation of administrative action, raids, referrals for criminal prosecution, imposition of penalties, and other relevant enforcement actions; and

- data on deterrence or lack thereof, e.g., recidivism; and

- dossiers prepared by individual right holders on significant enforcement cases, preferably in the format specified by the template available on the USTR Web site (referenced below), together with other information that right holders consider to be relevant.

In addition to this factual information, USTR encourages respondents to provide a detailed evaluation of specific strengths and weaknesses of China's legal regimes for enforcement of IPRs in light of relevant international standards and U.S.-China bilateral commitments. In particular, we seek comments on implementation of China's JCCT commitment to issue new judicial interpretations by the end of 2004 that will (a) lower the value thresholds that trigger criminal investigation and the application of criminal penalties for IPR violations; and (b) facilitate the application of criminal sanctions to on-line piracy and to the import, export,

distribution, storage and sale of counterfeit and pirated goods by clarifying the standards for such application.

Any submitted information that respondents wish to remain confidential should be certified and marked as indicated in this notice.

Requirements for Comments: Comments should include a description of the problems experienced and the effect of the acts, policies, and practices on U.S. industry. Comments should be as detailed as possible and should provide all necessary information for assessing the effect of the acts, policies, and practices. Any comments that include quantitative loss claims should be accompanied by the methodology used in calculating such estimated losses. A template available on the USTR Web site provides optional guidance for submission of information on specific cases.² Respondents using the template may depart from the template as necessary and are encouraged to provide supplementary information.

Comments must be in English. No submissions will be accepted via postal service mail. Documents should be submitted as either WordPerfect, MS Word, or text (.TXT) files. Supporting documentation submitted as spreadsheets is acceptable as Quattro Pro or Excel files. A submitter requesting that information contained in a comment be treated as confidential business information must certify that such information is business confidential and would not customarily be released to the public by the submitter. A non-confidential version of the comment must also be provided. For any document containing business confidential information, the file name of the business confidential version should begin with the characters "BC-", and the file name of the public version should begin with the character "P-". The "P-" or "BC-" should be followed by the name of the submitter. Submissions should not include separate cover letters; information that might appear in a cover letter should be included in the submission itself. To the extent possible, any attachments to the submission should be included in the same file as the submission itself, and not as separate files.

All comments should be addressed to Sybia Harrison, Special Assistant to the Section 301 Committee, and sent (i) electronically, to FR0446@ustr.eop.gov,

² http://www.ustr.gov/assets/Trade_Sectors/Intellectual_Property/2005_China_Out_of_Cycle_Review/asset_upload_file942_6340.doc.

¹ http://www.ustr.gov/assets/Document_Library/Fact_Sheets/2004/asset_upload_file225_5834.pdf.

with "Special 301 Out-of-Cycle Review" in the subject line, or (ii) by fax, to (202) 395-9458, with a confirmation copy sent electronically to the e-mail address above.

Public Inspection of Submissions: Within one business day of receipt, non-confidential submissions will be placed in a public file open for inspection at the USTR reading room, Office of the United States Trade Representative, Annex Building, 1724 F Street, NW., Room 1, Washington, DC. An appointment to review the file must be scheduled at least 48 hours in advance and may be made by calling Jacqueline Caldwell at (202) 395-6186. The USTR reading room is open to the public from 10 a.m. to noon and from 1 p.m. to 4 p.m., Monday through Friday.

James Mendenhall,

Assistant U.S. Trade Representative for Services, Investment, and Intellectual Property.

[FR Doc. 04-27373 Filed 12-13-04; 8:45 am]

BILLING CODE 3190-W5-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Proposed Advisory Circulars 25.856-1X, Thermal/Acoustic Insulation Flame Propagation Test Method Details; and 25.856-2X, Installation of Thermal/Acoustic Insulation for Burnthrough Protection

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed advisory circulars and request for comments.

SUMMARY: The Federal Aviation Administration invites public comment on two draft advisory circulars concerning thermal/acoustic insulation installed on transport category airplanes. The draft advisory material provides for demonstrating compliance with amendment 25-111, which was adopted on July 31, 2003.

DATE: Comments must be received on or before January 28, 2005.

ADDRESSES: You should send your comments to the Federal Aviation Administration, Transport Airplane Directorate, Attention: Jeff Gardlin, Airframe/Cabin Safety Branch, ANM-115, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98055-4056. You may also fax your comments to (425) 227-1149, or you may send them electronically to: jeff.gardlin@faa.gov. You may review all comments received at the above address

between 7:30 a.m. and 4 p.m. weekdays, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Jeff Gardlin at the above address, telephone, (425) 227-2136.

SUPPLEMENTARY INFORMATION:

How Do I Obtain a Copy of the Proposed Advisory Circular?

An electronic copy of the draft advisory circulars is available at the following Internet address: <http://www.airweb.faa.gov/rgl>. If you do not have access to the Internet, you may request a copy by contacting Jeff Gardlin at the address or phone number listed above.

How Do I Submit Comments on the Proposed Advisory Circular

You are invited to comment on the draft ACs by submitting written comments, data, or views. Please identify the ACs by title and number. You should submit your comments to the address specified above. We will consider all comments that we receive on or before the closing date for comments before issuing the final AC.

Discussion

On July 31, 2003, we published amendment 25-111 to 14 CFR part 25 (68 FR 45046). That amendment added new fire protection requirements applicable to thermal/acoustic insulation materials. It introduced a new test method and requirement that improves the fire penetration resistance of those materials, and added new test requirements related to flame propagation and burnthrough penetration resistance.

We have developed two draft advisory circulars to assist in demonstrating compliance with amendment 25-111. These ACs are:

- AC 25.756-1X, "Thermal/Acoustic Insulation Flame Propagation Test Method Details." This AC describes the test method to determine the flammability and flame propagation characteristics of thermal/acoustic insulation materials. It addresses issues such as test sample construction, test conduct considerations, and the applicability of amendment 25-111 to certain materials and installations.
- AC 25.856-2X, "Installation of Thermal/Acoustic Insulation for Burnthrough Protection." This AC provides guidance concerning the test method to determine the burnthrough resistance of thermal/acoustic insulation materials installed in transport category airplanes. Also included is guidance on the installation details and techniques, as well as test condition details.

Issued in Renton, Washington, on December 3, 2004.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27359 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

RTCA Special Committee 202: Portable Electronic Devices

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of RTCA Special Committee 202 meeting.

SUMMARY: The FAA is issuing this notice to advise the public of a meeting of RTCA Special Committee 202: Portable Electronic Devices.

DATES: The meeting will be held on January 11-15, 2005 from 9 a.m. to 4:30 p.m.

ADDRESSES: The meeting will be held at Prime Hotel & Suites, 5975 Lusk Blvd., San Diego, CA 92121.

FOR FURTHER INFORMATION CONTACT: RTCA Secretariat, 1828 L Street, NW., Suite 805, Washington, DC 20036-5133; telephone (202) 833-9339; fax (202) 833-9434; web site <http://www.rtca.org>.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a) of the Federal Advisory Committee Act (P.L. 92-463, 5 U.S.C., Appendix 2), notice is hereby given for a Special Committee 202 meeting. The agenda will include:

- January 11 & 14:
- Working Groups 1 through 4 meet all day
- January 12:
- Opening Plenary Session (Welcome and Introductory Remarks, Review Agenda, Review/Approve previous Common Plenary Summary, Review Open Action Items)
- Update from EUROCAE Working Group WG-58
- Report from Consumer Electronic Association (CEA) Discovery Group
- Update from Regulatory Agencies (FAA, UK-CAA, Canadian TSB, or other members present)
- Report on PMC approval of Phase 1 document: DO-294
- RF-ID Tags for Phase 2 work by J. Dimtroff of FAA Seattle, ACO
- Testing and development by the EC Wireless Cabin consortium by DLR, Germany
- Airbus and On-Air testing/development on mobile phone solutions to the aircraft cabin, by R. Keibel of Airbus

- Testing Wireless LAN Systems in Aircraft, by K Yamanoto of ENRI, Japan
- Topics will include:
 - Electromagnetic propagation in aircraft fuselage using WLAN frequencies
 - The shielding effect of aircraft body in WLAN frequencies
 - Equipment to detect high intensity radio waves in aircraft
 - Report on flight investigations with GSM Mobile phones on board, by S. Knefelkamp of Airbus
 - Topics will include:
 - Receivable measured field strengths from ground base stations and related issues
 - January 13:
 - Chairman's Day 2 Opening Remarks and Process Check
 - Working Groups report out/each working group will cover the following recommendations:
 - Phase 2 work statement
 - Revisions to Terms of Reference (TOR)
 - Revisions to committee structure
 - Work plan for Phase 2
 - Schedule for Work Plan
 - Working Group 1 (PEDs characterization, test, and evaluation)
 - Working Group 2 (Aircraft test and analysis)
 - Working Group 3 (Aircraft systems susceptibility)
 - Working Group 4 (Risk assessment, practical application, and final documentation)
 - Human Factors sub-group
 - Committee consensus on Phase 2 work statement, committee structure, work plan, and schedule
 - Closing Session (Other Business, Date and Place of Next Meeting, Closing Remarks, Adjourn)
 - Working Group breakout sessions as required and time permits
 - January 14:
 - Working sessions for SC-202

Working Groups to complete action items, if required

Attendance is open to the interested public but limited to space availability. With the approval of the chairmen, members of the public may present oral statements at the meeting. Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on November 23, 2004.

Natalie Ogletree,
FAA General Engineer, RTCA Advisory Committee.

[FR Doc. 04-27360 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

AGENCY: Federal Highway Administration, Department of Transportation.

ACTION: Correction to notice of intent.

SUMMARY: The Federal Highway Administration (FHWA), in cooperation with the Riverside County Transportation Commission (RCTC) and the California Department of Transportation (Caltrans), is correcting an address for the Notice of Intent (NOI) informing the public that an Environmental Impact Statement (EIS) will be prepared for the proposed Mid County Parkway (MCP) project. The original NOI was published on November 22, 2004, (Volume 69, Number 224, Pages 68002-68003). The EIS will study alternatives to implement the proposed Mid County Parkway project in western Riverside County between Interstate 15 (I-15) to the west and State Route 79 (SR 79) to the east. The original NOI contained an outdated address. The correct address is identified below under contacts.

FOR FURTHER INFORMATION CONTACT: Tay Dam, Senior Transportation Engineer, Federal Highway Administration—Los Angeles Metro Office, 888 S. Figueroa Street, Suite 1850, Los Angeles, California 90017. Telephone: (213) 202-3954. Fax: (213) 202-3961 or Cathy Bechtel, Riverside County Transportation Commission, 4080 Lemon Street, 3rd Floor, PO Box 12008, Riverside, CA 92502-2208. Telephone: (951) 787-7141. Fax: (951) 787-7920.

Issued on December 8, 2004.

Maiser Khaled,
Director, Project Development & Environmental, California Division, Federal Highway Administration.

[FR Doc. 04-27318 Filed 12-3-04; 8:45 am]

BILLING CODE 4910-22-M

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[U.S. DOT Docket Number NHTSA-2004-19844]

Reports, Forms, and Recordkeeping Requirements

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Request for public comment on proposed collection of information.

SUMMARY: Before a Federal agency can collect certain information from the public, it must receive approval from the Office of Management and Budget (OMB). Under procedures established by the Paperwork Reduction Act of 1995, before seeking OMB approval, Federal agencies must solicit public comment on proposed collections of information, including extensions and reinstatement of previously approved collections.

This document describes one collection of information for which NHTSA intends to seek OMB approval.

DATES: Comments must be received on or before February 14, 2005.

ADDRESSES: Comments must refer to the docket notice numbers cited at the beginning of this notice and be submitted to Docket Management, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590. Please identify the proposed collection of information for which a comment is provided, by referencing its OMB clearance Number. It is requested, but not required, that 2 copies of the comment be provided. The Docket Section is open on weekdays from 10 a.m. to 5 p.m.

FOR FURTHER INFORMATION CONTACT: Walter Culbreath, NHTSA 400 Seventh Street, SW., Rm. 2404, NPO-400, Washington, DC 20590. Mr. Culbreath's telephone number is (202) 366-1566. Please identify the relevant collection of information by referring to its OMB Control Number.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995, before an agency submits a proposed collection of information to OMB for approval, it must first publish a document in the **Federal Register** providing a 60-day comment period and otherwise consult with members of the public and affected agencies concerning each proposed collection of information. The OMB has promulgated regulations describing what must be included in such a document. Under OMB's regulation (at 5 CFR 1320.8(d), an agency must ask for public comment on the following:

- (i) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- (ii) The accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- (iii) How to enhance the quality, utility, and clarity of the information to be collected;

(iv) How to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses.

In compliance with these requirements, NHTSA asks for public comments on the following proposed collections of information:

(1) *Title:* 49 CFR Part 566, Manufacturers' Identification.

OMB Number: 2127-0043.

Type of Request: Extension of a currently approved collection.

Affected Public: Business or other for profit organizations.

Abstract: The National Highway Traffic Safety Administration's statute at 49 U.S.C. 30118: Notification of defect and noncompliance requires manufacturers to determine if the motor vehicle or item or replacement equipment contains a defect related to motor vehicle safety or fails to comply with an applicable Federal Motor Vehicle Safety Standard. Following such a determination, the manufacturer is required to notify the Secretary of Transportation, owners, purchasers, and dealers of motor vehicles or replacement equipment, of the defect or noncompliance and to remedy the defect or noncompliance without charge to the owner. With this determination, NHTSA issued 49 CFR Part 566, manufacturer identification. Part 566 requires every manufacturer of motor vehicles and/or replacement equipment to file with the agency on a one time basis, the required information specified in Part 566.

Estimated Total Annual Burden: 33.

Estimated Number of Respondents: 200.

(2) *Title:* 49 CFR 571.125, Warning Devices.

OMB Number: 2127-0506.

Type of Request: Extension of a currently approved collection.

Affected Public: Business or other for profit organizations.

Abstract: 49 U.S.C. 30111, 30112, and 30117 (Appendix 1) of the National Traffic and Motor Vehicle Safety Act of 1996, authorizes the issuance of Federal Motor Vehicle Safety Standards (FMVSS). The Secretary is authorized to issue, amend, and revoke such rules and regulations as she/he deems necessary.

Using this authority, the agency issued FMVSS no. 125, "Warning Devices" (Appendix 2), which applies to devices, without self contained energy sources, that are designed to be carried mandatory in buses and trucks

that have a gross vehicle weight rating (GVWR) greater than 10,000 pounds and voluntarily in other vehicles. These devices are used to warn approaching traffic of the presence of a stopped vehicle, except for devices designed to be permanently affixed to the vehicles.

Estimated Total Annual Burden: 1.

Estimated Number of Respondents: 3.

(3) *Title:* 49 CFR 571.218, Motorcycle Helmets (Labeling).

OMB Number: 2127-0518.

Type of Request: Extension of a currently approved collection.

Affected Public: Federal, Local, State, and Tribal Government, Business, or other for-profit organizations.

Abstract: The National Traffic Vehicle Safety statute at 49 U.S.C. subchapter II standards and compliance, sections 30111 and 30117 authorizes the issuance of Federal motor vehicle safety standards (FMVSS). The Secretary is authorized to issue, amend, and revoke such rules and regulations as he/she deems necessary. The Secretary is also authorized to require manufacturers to provide information to first purchasers or motor vehicles or motor vehicle equipment when the vehicle equipment is purchased, in a printed matter placed in the vehicle or attached to our accompanying the equipment. Using this authority, the agency issued the initial FMVSS No. 218, Motorcycle Helmets, in 1974. Motorcycle helmets are the devices used for protecting motorcyclists and other motor vehicle users in motor vehicle accidents. Federal Motor Vehicle Safety Standard No. 218 requires that each helmet shall be labeled permanently and legibly (S5.6), in a manner such that the label(s) can be read easily without removing padding or any other permanent part.

Estimated Total Annual Burden: 5,333.

Estimated Number of Respondents: 32.

(4) *Title:* Replaceable Light Source Dimensional Information Collection, 49 CFR Part 564.

OMB Number: 2127-0563.

Type of Request: Extension of a currently approved collection.

Affected Public: Business or other for profit organizations.

Abstract: The information to be collected is in response to 49 CFR Part 564, "Replaceable Light Source Dimensional Information." Persons desiring to use newly designed replaceable headlamp light sources are required to submit interchangeability and performance specifications to the agency. After a short agency review to assure completeness, the information is placed in a public docket for use by any

person who would desire to manufacture headlamp light sources for highway motor vehicles. In Federal Motor Vehicle Safety Standard No. 108, Lamps, reflective devices and associated equipment," Part 564 submission are referenced as being the source of information regarding the performance and interchangeability information for legal headlamp light sources, whether original equipment or replacement equipment. Thus, the submitted information about headlamp light sources becomes the basis for certification of compliance with safety standards.

Estimated Total Annual Burden: 28.

Estimated Number of Respondents: 7.

(5) *Title:* Compliance Labeling of Retroreflective Materials heavy Trailer Conspicuity.

OMB Number: 2127-0569.

Type of Request: Extension of a currently approved collection.

Affected Public: Business or other for profit organizations.

Abstract: Federal Motor Vehicle Safety Standard No. 108, "Lamps Reflective Devices, and Associated Equipment," specifies requirements for vehicle lighting for the purposes of reducing traffic accidents and their tragic results by providing adequate roadway illumination, improved vehicle conspicuity, appropriate information transmission through signal lamps, in both day, night, and other conditions of reduced visibility. For certifications and identification purposes, the Standard requires the permanent marking of the letters "DOT-C2," "DOT-C3", or DOT "C4" at least 3 mm high at regular intervals on retroreflective sheeting material having adequate performance to provide effective trailer conspicuity.

The manufacturers of new tractors and trailers are required to certify that their products are equipped with retroreflective material complying with the requirements of the standard. The Federal Highway Administration (FHWA) Office of Motor Carrier Safety enforces this and other standards through roadside inspections of trucks. There is no practical field test for the performance requirements, and labeling is the only objective way of distinguishing trailer conspicuity grade material from lower performance material. Without labeling, FHWA will not be able to enforce the performance requirements of the standard and the compliance testing of new tractors and trailers will be complicated. Labeling is also important to small trailer manufactures because it may help them to certify compliance. Because wider stripes or material of lower brightness

also can provide the minimum safety performance, the marking system serves the additional role of identifying the minimum stripe width required for retroreflective brightness of the particular material. Since the differences between the brightness grades of suitable retroreflective conspicuity material is not obvious from inspection, the marking system is necessary for tractor and trailer manufacturers and repair shops to assure compliance and for FHWA to inspect tractors and trailers in use.

Permanent labeling is used to identify retroreflective material having the minimum properties required for effective conspicuity of trailers at night. The information enables the FHWA to make compliance inspections, and it aids tractor and trailer owners and repairs shops in choosing the correct repair materials for damaged tractors and trailers. It also aids smaller trailer manufacturers in certifying compliance of their products.

The FHWA will not be able to determine whether trailers are properly equipped during roadside inspections without labeling. The use of cheaper and more common reflective materials, which are ineffective for the application, would be expected in repairs without the labeling requirement.

Estimated Total Annual Burden: 1.

Estimated Number of Respondents: 3.

Comments are invited on: whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued on: December 3, 2004.

Susan White,

Chief Information Officer.

[FR Doc. 04-27305 Filed 12-13-04; 8:45 am]

BILLING CODE 4910-59-P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Finance Docket No. 34622]

The Burlington Northern and Santa Fe Railway Company—Trackage Rights Exemption—Union Pacific Railroad Company

Union Pacific Railroad Company (UP), pursuant to a written trackage rights agreement entered into between UP and The Burlington Northern and Santa Fe Railway Company (BNSF), has agreed to grant overhead reciprocal trackage rights to BNSF over UP's rail line between UP's milepost 609.6 at a station known as Tower 60 (North Fort Worth) and UP's milepost 612.4 at a station known as Dalwor Junction, including a station known as Purina Junction (milepost 611.9), and continuing on to a station known as North Tower 55 (milepost 612.9) on UP's Duncan Subdivision and between BNSF's milepost 2.52 and BNSF's milepost 0.86 adjacent to and connecting to BNSF owned Tail Track on BNSF's Fort Worth Subdivision and between UP's milepost F250.9 at a station known as Tower 55 and UP's milepost F250.8 at a station known as Tower 55 (connecting with BNSF's Cleburne Subdivision) on UP's Fort Worth Subdivision, a total distance of approximately 5.0 miles. BNSF will operate its own trains with its own crews over the UP line under the trackage rights.

BNSF indicates that it expected to consummate the transaction on December 1, 2004.

The purpose of the overhead trackage rights is to facilitate directional running in the Fort Worth, TX area and to enhance the efficiency of UP and BNSF operations through Fort Worth.

As a condition to this exemption, any employees affected by the trackage rights will be protected by the conditions imposed in *Norfolk and Western Ry. Co.—Trackage Rights—BN*, 354 I.C.C. 605 (1978), as modified in *Mendocino Coast Ry., Inc.—Lease and Operate*, 360 I.C.C. 653 (1980).

This notice is filed under 49 CFR 1180.2(d)(7). If the notice contains false or misleading information, the exemption is void *ab initio*. Petitions to revoke the exemption under 49 U.S.C. 10502(d) may be filed at any time. The filing of a petition to revoke will not automatically stay the transaction.

An original and 10 copies of all pleadings, referring to STB Finance Docket No. 34622, must be filed with the Surface Transportation Board, 1925 K Street, NW., Washington, DC 20423-

0001. In addition, a copy of each pleading must be served on Sarah W. Bailiff, The Burlington Northern and Santa Fe Railway Company, P.O. Box 961039, Fort Worth, TX 76161-0039.

Board decisions and notices are available on our Web site at <http://www.stb.dot.gov>.

Decided: December 7, 2004.

By the Board, David M. Konschnik,
Director, Office of Proceedings.

Vernon A. Williams,

Secretary.

[FR Doc. 04-27340 Filed 12-13-04; 8:45 am]

BILLING CODE 4915-01-P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Docket No. AB-319 (Sub-No. 4X)]

Florida Central Railroad Company, Inc.—Abandonment Exemption—in Seminole and Orange Counties, FL

Florida Central Railroad Company, Inc. (FCEN) has filed a notice of exemption under 49 CFR 1152 subpart F—*Exempt Abandonments* to abandon a 3.4-mile line of railroad known as the Forest City Spur, between milepost F-4.5 at Toronto, and the end of the track at milepost F-1.1 in Forest City, in Seminole and Orange Counties, FL. The line traverses United States Postal Service Zip Codes 32714 and 32703.

FCEN has certified that: (1) No local traffic has moved over the line for at least 2 years; (2) any overhead traffic formerly handled on the line can be rerouted over other lines; (3) no formal complaint filed by a user of rail service on the line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Surface Transportation Board (Board) or with any U.S. District Court or has been decided in favor of complainant within the 2-year period; and (4) the requirements at 49 CFR 1105.7 (environmental report), 49 CFR 1105.8 (historic report), 49 CFR 1105.11 (transmittal letter), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment and discontinuance shall be protected under *Oregon Short Line R. Co.—Abandonment—Goshen*, 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed. Provided no formal

expression of intent to file an offer of financial assistance (OFA) has been received, this exemption will be effective on January 13, 2005, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,¹ formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2),² and trail use/rail banking requests under 49 CFR 1152.29 must be filed by December 27, 2004. Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by January 3, 2005, with: Surface Transportation Board, 1925 K Street, NW., Washington, DC 20423-0001.

A copy of any petition filed with the Board should be sent to FCEN's representative: Thomas J. Litwiler, Fletcher & Sippel LLC, 29 North Wacker Drive, Suite 920, Chicago, IL 60606-2832.

If the verified notice contains false or misleading information, the exemption is void *ab initio*.

FCEN has filed an environmental and historic report which addresses the effects, if any, of the abandonment on the environment and historic resources. SEA will issue an environmental assessment (EA) by December 17, 2004. Interested persons may obtain a copy of the EA by writing to SEA (Room 500, Surface Transportation Board, Washington, DC 20423) or by calling SEA, at (202) 565-1539. Comments on environmental and historic preservation matters must be filed within 15 days after the EA becomes available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), FCEN shall file a notice of consummation with the Board to signify that it has exercised the authority granted and fully abandoned its line. If consummation has not been effected by FCEN's filing of a notice of consummation by December 14, 2005, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

¹ The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Section of Environmental Analysis (SEA) in its independent investigation) cannot be made before the exemption's effective date. See *Exemption of Out-of-Service Rail Lines*, 5 I.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemption's effective date.

² Each offer of financial assistance must be accompanied by the filing fee, which currently is set at \$1,200. See 49 CFR 1002.2(f)(25).

Board decisions and notices are available on our Web site at <http://www.stb.dot.gov>.

Decided: December 6, 2004.

By the Board, David M. Konschnik, Director, Office of Proceedings.

Vernon A. Williams,

Secretary.

[FR Doc. 04-27338 Filed 12-13-04; 8:45 am]

BILLING CODE 4915-01-P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Docket No. AB-281 (Sub-No. 1X)]

Texas North Western Railway Company—Abandonment Exemption—in Moore, Hutchinson and Hansford Counties, TX

Texas North Western Railway Company (TXNW)¹ has filed a notice of exemption under 49 CFR 1152 subpart F—*Exempt Abandonments* to abandon approximately 21.9 miles of its line of railroad known as the Capps Spur located in Moore, Hutchinson, and Hansford Counties, TX. The line extends from milepost 20.0 at Capps, TX, through milepost 29.9 at Morse Junction, TX, to the end of the track at milepost 34.0 in Morse, TX (14.0 miles), and from milepost 29.9 at Morse Junction to the end of the track at milepost 37.8 in Pringle, TX (7.9 miles). The line traverses United States Postal Service Zip Codes 79086, 79083, and 79062.²

TXNW has certified that: (1) No local traffic has moved over the line for at least 2 years; (2) any overhead traffic formerly handled on the line can be rerouted over other lines; (3) no formal

¹ TXNW is a wholly owned subsidiary of TNW Corporation. See *TNW Corporation—Continuance in Control Exemption—Texas Rock Crusher Railway Company*, STB Finance Docket No. 33564 (STB served Mar. 20, 1998).

² TXNW states that the Capps Spur forms the eastern end of TXNW's current rail line, the active portion of which extends west from Capps to a connection with The Burlington Northern and Santa Fe Railway Company at Etter Junction, TX. Additional TXNW lines extending north from the Capps Spur at Morse and south from the Capps Spur at Pringle were abandoned in 1987. See *Texas North Western Railway Company—Abandonment and Discontinuance of Service Exemption—Hansford and Hutchinson Counties, TX; Texas County, OK; and Seward County, KS*, Docket No. AB-281X (ICC served Aug. 19, 1987).

³ TXNW notes that, at one time, The Atchison, Topeka and Santa Fe Railway Company held overhead trackage rights on TXNW's Etter Junction-Morse line, but those rights were discontinued in 1990. See *The Atchison, Topeka and Santa Fe Railway Company—Discontinuance of Trackage Rights Exemption—In Moore, Hutchinson and Hansford Counties, TX*, Docket No. AB-52 (Sub-No. 63X) (ICC served July 16, 1990).

complaint filed by a user of rail service on the line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Board or with any U.S. District Court or has been decided in favor of complainant within the 2-year period; and (4) the requirements at 49 CFR 1105.7 (environmental reports), 49 CFR 1105.8 (historic reports), 49 CFR 1105.11 (transmittal letter), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment shall be protected under *Oregon Short Line R. Co.—Abandonment—Goshen*, 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received, this exemption will be effective on January 13, 2005, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,⁴ formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2),⁵ and trail use/rail banking requests under 49 CFR 1152.29 must be filed by December 23, 2004. Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by January 3, 2005, with: Surface Transportation Board, 1925 K Street, NW., Washington, DC 20423-0001.

A copy of any petition filed with the Board should be sent to the TXNW's representative: Thomas J. Litwiler, Fletcher & Sippel LLC, 29 North Wacker Drive, Suite 920, Chicago, IL 60606-2832.

If the verified notice contains false or misleading information, the exemption is void *ab initio*.

TXNW has filed an environmental report which addresses the abandonment's effects, if any, on the environment and historic resources.

⁴ The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Section of Environmental Analysis (SEA) in its independent investigation) cannot be made before the exemption's effective date. See *Exemption of Out-of-Service Rail Lines*, 5 I.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemption's effective date.

⁵ Effective October 31, 2004, the filing fee for an OFA increased to \$1,200. See *Regulations Governing Fees for Services Performed in Connection with Licensing and Related Services—2004 Update*, STB Ex Parte No. 542 (Sub-No. 11) (STB served Oct. 1, 2004).

SEA will issue an environmental assessment (EA) by December 17, 2004. Interested persons may obtain a copy of the EA by writing to SEA (Room 500, Surface Transportation Board, Washington, DC 20423-0001) or by calling SEA, at (202) 565-1539. [Assistance for the hearing impaired is available through the Federal Information Relay Service (FIRS) at 1-800-877-8339.] Comments on environmental and historic preservation matters must be filed within 15 days after the EA becomes available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), TXNW shall file a notice of consummation with the Board to signify that it has exercised the authority granted and fully abandoned the line. If consummation has not been effected by TXNW's filing of a notice of consummation by December 14, 2005, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available on our Web site at <http://www.stb.dot.gov>.

Decided: December 8, 2004.

By the Board, David M. Konschnik,
Director, Office of Proceedings.

Vernon A. Williams,
Secretary.

[FR Doc. 04-27339 Filed 12-13-04; 8:45 am]
BILLING CODE 4915-01-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Open Meeting of the Area 5 Taxpayer Advocacy Panel (Including the States of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas)

AGENCY: Internal Revenue Service (IRS) - Treasury.

ACTION: Notice.

SUMMARY: An open meeting of the Area 5 Taxpayer Advocacy Panel will be conducted (via teleconference). The Taxpayer Advocacy Panel is soliciting public comment, ideas, and suggestions on improving customer service at the Internal Revenue Service.

DATES: The meeting will be held Monday, January 10, 2005, at 2 p.m., Central Time.

FOR FURTHER INFORMATION CONTACT: Mary Ann Delzer at 1-888-912-1227, or (414) 297-1604.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to Section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. (1988) that a meeting of the Area 5 Taxpayer Advocacy Panel will be held Monday, January 10, 2005, at 2 p.m., Central time via a telephone conference call. You can submit written comments to the panel by faxing to (414) 297-1623, or by mail to Taxpayer Advocacy Panel, Stop1006MIL, 310 West Wisconsin Avenue, Milwaukee, WI 53203-2221 or you can contact us at www.improveirs.org. This meeting is not required to be open to the public, but because we are always interested in community input, we will accept public comments. Please contact Mary Ann Delzer at 1-888-912-1227 or (414) 297-1604 for dial-in information.

The agenda will include the following: Various IRS issues.

Dated: December 9, 2004.

Bernard Coston,

Director, Taxpayer Advocacy Panel.

[FR Doc. 04-27368 Filed 12-13-04; 8:45 am]
BILLING CODE 4830-01-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Open Meeting of the Small Business/Self Employed—Taxpayer Burden Reduction Committee of the Taxpayer Advocacy Panel

AGENCY: Internal Revenue Service (IRS) - Treasury.

ACTION: Notice.

SUMMARY: An open meeting of the Small Business/Self Employed—Taxpayer Burden Reduction Committee of the Taxpayer Advocacy Panel will be conducted (via teleconference). The TAP will be discussing issues pertaining to increasing compliance and lessening the burden for Small Business/Self Employed individuals.

DATES: The meeting will be held Thursday, January 6, 2005.

FOR FURTHER INFORMATION CONTACT: Marisa Knispel at 1-888-912-1227 or 718-488-3557.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to Section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. (1988) that an open meeting of the Small Business/Self Employed—Taxpayer Burden Reduction Committee of the Taxpayer Advocacy Panel will be held Thursday, January 6, 2005 from 3 p.m. e.t. to 4:30 p.m. e.t. via a telephone conference call. If you would like to

have the TAP consider a written statement, please call 1-888-912-1227 or 718-488-3557, or write to Marisa Knispel, TAP Office, 10 Metro Tech Center, 625 Fulton Street, Brooklyn, NY 11201. Due to limited conference lines, notification of intent to participate in the telephone conference call meeting must be made with Marisa Knispel. Ms. Knispel can be reached at 1-888-912-1227 or 718-488-3557, or post comments to the Web site: <http://www.improveirs.org>.

The agenda will include the following: Various IRS issues.

Dated: December 8, 2004.

Tersheia Carter,

Acting Director, Taxpayer Advocacy Panel.

[FR Doc. 04-27369 Filed 12-13-04; 8:45 am]
BILLING CODE 4830-01-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Open Meeting of the Taxpayer Advocacy Panel Multilingual Initiative (MLI) Issue Committee Will Be Conducted (Via Teleconference)

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice.

SUMMARY: An open meeting of the Taxpayer Advocacy Panel Multilingual Initiative (MLI) Issue Committee will be conducted (via teleconference). The Taxpayer Advocacy Panel is soliciting public comments, ideas, and suggestions on improving customer service at the Internal Revenue Service.

DATES: The meeting will be held Tuesday, January 11, 2005 from 3 p.m. to 4 p.m. e.t.

FOR FURTHER INFORMATION CONTACT: Inez E. De Jesus at 1-888-912-1227, or 954-423-7977.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. (1988) that an open meeting of the Taxpayer Advocacy Panel Multilingual Initiative Issue Committee will be held Tuesday, January 11, 2005 from 3 p.m. to 4 p.m. e.t. via a telephone conference call. If you would like to have the TAP consider a written statement, please call 1-888-912-1227 or 954-423-7977, or write Inez E. De Jesus, TAP Office, 1000 South Pine Island Rd., Suite 340, Plantation, FL 33324. Due to limited conference lines, notification of intent to participate in the telephone conference call meeting must be made with Inez E. De Jesus. Ms. De Jesus can

be reached at 1-888-912-1227 or 954-423-7977, or post comments to the Web site: <http://www.improveirs.org>.

The agenda will include the following: Various IRS issues.

Dated: December 9, 2004.

Bernard Coston,

Director, Taxpayer Advocacy Panel.

[FR Doc. 04-27370 Filed 12-13-04; 8:45 am]

BILLING CODE 4830-01-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Open Meeting of the Area 1 Taxpayer Advocacy Panel (Including the States of New York, Connecticut, Massachusetts, Rhode Island, New Hampshire, Vermont and Maine)

AGENCY: Internal Revenue Service (IRS) Treasury.

ACTION: Notice.

SUMMARY: An open meeting of the Area 1 Taxpayer Advocacy Panel will be conducted (via teleconference). The Taxpayer Advocacy Panel is soliciting public comments, ideas and suggestions on improving customer service at the Internal Revenue Service.

DATES: The meeting will be held Wednesday, January 5, 2005.

FOR FURTHER INFORMATION CONTACT: Marisa Knispel at 1-888-912-1227 (toll-free), or 718-488-3557 (non toll-free).

SUPPLEMENTARY INFORMATION: An open meeting of the Area 1 Taxpayer Advocacy Panel will be held Wednesday, January 5, 2005 from 11:30 a.m. e.t. to 12:30 p.m. e.t. via a telephone conference call. Individual comments will be limited to 5 minutes. If you would like to have the TAP consider a written statement, please call

1-888-912-1227 or 718-488-3557, or write Marisa Knispel, TAP Office, 10 MetroTech Center, 625 Fulton Street, Brooklyn, NY 11201. Due to limited conference lines, notification of intent to participate in the telephone conference call meeting must be made with Marisa Knispel. Ms. Knispel can be reached at 1-888-912-1227 or 718-488-3557, or post comments to the Web site: <http://www.improveirs.org>.

The agenda will include various IRS issues.

Dated: December 8, 2004.

Tersheia Carter,

Acting Director, Taxpayer Advocacy Panel.

[FR Doc. 04-27371 Filed 12-13-04; 8:45 am]

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Federal Register

Tuesday,
December 14, 2004

Part II

Department of Commerce

National Oceanic and Atmospheric
Administration

50 CFR Part 226

Endangered and Threatened Species;
Designation of Critical Habitat for 13
Evolutionarily Significant Units of Pacific
Salmon (*Oncorhynchus* spp.) and Steelhead
(*O. mykiss*) in Washington, Oregon, and
Idaho; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 030716175-4327-03; I.D. No. 070303A]

RIN No. 0648-AQ77

Endangered and Threatened Species; Designation of Critical Habitat for 13 Evolutionarily Significant Units of Pacific Salmon (*Oncorhynchus* spp.) and Steelhead (*O. mykiss*) in Washington, Oregon, and Idaho

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

ACTION: Proposed rule; request for comments.

SUMMARY: We, the National Marine Fisheries Service (NMFS), propose to designate critical habitat for 13 Evolutionarily Significant Units (ESUs) of Pacific salmon (chum, *Oncorhynchus keta*; coho, *O. kisutch*, sockeye, *O. nerka*; chinook, *O. tshawytscha*) and *O. mykiss* (inclusive of anadromous steelhead and resident rainbow trout) listed under the Endangered Species Act of 1973, as amended (ESA). The specific areas proposed for designation in the rule text set out below include approximately 27,553 mi (44,342 km) of lake, riverine, and estuarine habitat in Washington, Oregon, and Idaho, as well as approximately 2,121 mi (3,413 km) of marine nearshore habitat in Puget Sound, Washington. Some of the proposed areas are occupied by two or more ESUs. However, as explained below, we are also considering excluding many of these areas from the final designation based on existing land management plans and policies, voluntary conservation efforts and other factors that could substantially reduce the scope of the final designations. The net economic impacts of ESA section 7 associated with designating the areas described in the proposed rule are estimated to be approximately \$223,950,127, but we believe the additional exclusions under review could reduce this impact by up to 90 percent or more. We solicit information and comments from the public on all aspects of the proposal, including information on the economic, national security, and other relevant impacts of the proposed designation. We may revise this proposal and solicit additional comments prior to final designation to address new information received during the comment period.

DATES: Comments on this proposed rule must be received by 5 p.m. P.S.T. on February 14, 2005. Requests for public hearings must be made in writing by January 28, 2005. We have already scheduled public hearings on this proposed rule as follows:

Tuesday, January 11, 2005, from 6:30-9:30 p.m. at the Doubletree Hotel Columbia River, 1401 North Hayden Island Drive in Portland, OR;

Thursday, January 13, 2005, from 6:30-9:30 p.m. at the Red Lion Hotel Columbia Center, 1101 North Columbia Center Blvd. in Kennewick, WA;

Tuesday, January 18, 2005, from 6:30-9:30 p.m. at the Radisson Hotel Seattle Airport, 17001 Pacific Highway South in Seattle, WA; and

Tuesday, January 25, 2005, from 6:30-9:30 p.m. at the Red Lion Hotel Boise Downtown, 1800 Fairview Avenue in Boise, ID.

Details regarding the hearing format and related information will be posted by December 24, 2004, on our Web site at <http://www.nwr.noaa.gov/1salmon/salmesa/crithab/CHsite.htm>.

ADDRESSES: You may submit comments, identified by docket number [030716175-4327-03] and RIN number [0648-AQ77], by any of the following methods:

- E-mail:

critical.habitat.nwr@noaa.gov. Include docket number [030716175-4327-03] and RIN number [0648-AQ77] in the subject line of the message.

- Federal e-Rulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Agency Web site: <http://ocio.nmfs.noaa.gov/ibrm-ssi/index.shtml>. Follow the instructions for submitting comments at <http://ocio.nmfs.noaa.gov/ibrm-ssi/process.shtml>.

- Mail: Submit written comments and information to Chief, NMFS, Protected Resources Division, 525 NE Oregon Street, Suite 500, Portland, OR, 97232-2737. You may hand-deliver written comments to our office during normal business hours at the address given above.

- Fax: 503-230-5435.

FOR FURTHER INFORMATION CONTACT: Steve Stone at the above address, at (503) 231-2317, or by facsimile at (503) 230-5435; or Marta Nammack at (301) 713-1401. The proposed rule, maps, and other materials relating to this proposal can be found on our Web site at <http://www.nwr.noaa.gov/1salmon/salmesa/crithab/CHsite.htm>.

SUPPLEMENTARY INFORMATION:**Background**

We are responsible for determining whether species, subspecies, or distinct population segments of Pacific salmon and *O. mykiss* (inclusive of anadromous steelhead and some populations of resident rainbow trout) are threatened or endangered, and for designating critical habitat for them under the ESA (16 U.S.C. 1531 *et seq.*). To be considered for ESA listing, a group of organisms must constitute a "species." Section 3 of the ESA defines a species as "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." Since 1991 NMFS has identified distinct population segments of Pacific salmon or *O. mykiss* by dividing the U.S. populations of each species into evolutionarily significant units (ESUs) which it determines are substantially reproductively isolated and represent an important component in the evolutionary legacy of the biological species. (56 FR 58612; November 20, 1991.) (In some cases, an ESU may contain a single population of fish.) Under this approach, every Pacific salmon and *O. mykiss* population in the U.S. is part of a distinct population segment that is eligible for listing as threatened or endangered under the ESA. In ESA listing determinations for Pacific salmon and *O. mykiss* since 1991, we have identified 52 ESUs in Washington, Oregon, Idaho and California. Presently 25 of the ESUs are listed as threatened or endangered. One additional ESU (Oregon Coast coho) was listed as threatened from 1998 to 2004 when it was removed from the list of threatened or endangered species as a result of a court order.

In a Federal Register document published on June 14, 2004 (69 FR 33101), we proposed to list 27 ESUs as threatened or endangered. The ESUs proposed for listing include 25 currently-listed species, but in most cases the ESUs are being redefined in either or both of two significant ways: by including hatchery fish that are no more than moderately divergent genetically from naturally spawning fish within the ESU, and in the case of *O. mykiss* species, by including some resident trout. We have also proposed to list the previously-listed Oregon Coast coho (redefined to include some such fish reared in hatcheries) and we proposed to list one new ESU (Lower Columbia River *O. mykiss*) previously believed to be extinct in the wild. In this document, "*O. mykiss*" ESUs refer to ESUs including populations of both anadromous steelhead and resident

rainbow trout. Also, references to "salmon" in this notice generally include all members of the genus *Oncorhynchus*, including *O. mykiss*.

This Federal Register document describes proposed critical habitat designations for the following 13 ESUs of salmon and *O. mykiss*: (1) Puget Sound chinook salmon; (2) Lower Columbia River chinook salmon; (3) Upper Willamette River chinook salmon; (4) Upper Columbia River spring-run chinook salmon; (5) Oregon Coast coho salmon; (6) Hood Canal summer-run chum salmon; (7) Columbia River chum salmon; (8) Ozette Lake sockeye salmon; (9) Upper Columbia River *O. mykiss*; (10) Snake River Basin *O. mykiss*; (11) Middle Columbia River *O. mykiss*; (12) Lower Columbia River *O. mykiss*; and (13) Upper Willamette River *O. mykiss*.

Section 3 of the ESA defines critical habitat as "the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management

considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed that are determined by the Secretary to be essential for the conservation of the species."

Section 3 of the ESA (16 U.S.C. 1532(3)) also defines the terms "conserve," "conserving," and "conservation" to mean "to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary."

Section 4 of the ESA requires that before designating critical habitat we must consider the economic impacts, impacts on national security and other relevant impacts of specifying any particular area as critical habitat, and the Secretary may exclude any area from critical habitat if the benefits of exclusion outweigh the benefits of inclusion, unless excluding an area from critical habitat will result in the extinction of the species concerned. Once critical habitat for a salmon or *O. mykiss* ESU is designated, Section

7(a)(2) of the ESA requires that each Federal agency shall, in consultation with and with the assistance of NMFS, ensure that any action authorized, funded or carried out by such agency is not likely to result in the destruction or adverse modification of critical habitat.

Previous Federal Action and Related Litigation

Many Pacific salmon and *O. mykiss* populations in California and the Pacific Northwest have suffered broad declines over the past hundred years. We have conducted several ESA status reviews and status review updates for Pacific salmon and *O. mykiss* in California, Oregon, Washington, and Idaho. The most recent ESA status review and proposed listing determinations were published on June 14, 2004 (69 FR 33101). Six of the currently listed ESUs have final critical habitat designations. Table 1 summarizes the NMFS scientific reviews of West Coast salmon and *O. mykiss* and the ESA listing determinations and critical habitat designations made to date.

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND *O. MYKISS*

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
Snake River sockeye ESU	Endangered	1991	<p><i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 56 FR 58619; 11/20/1991 (Final rule). 56 FR 14055; 04/05/1991 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i> 58 FR 68543; 12/28/1993 (Final rule). 57 FR 57051; 12/02/1992 (Proposed rule).</p> <p><i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14528; 03/25/1999 (Final rule). 63 FR 11750; 03/10/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 63 FR 11750; 03/10/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 59 FR 440; 01/01/1994 (Final rule). 57 FR 27416; 06/19/1992 (Proposed rule). 55 FR 49623; 11/30/1990 (Final rule). 55 FR 12831, 04/06/1990 (Emergency rule). 55 FR 102260; 03/20/1990 (Proposed rule). 54 FR 10260; 08/04/1989 (Emergency rule). 52 FR 6041; 02/27/1987 (Final rule).</p>	NMFS 1991a.
Ozette Lake sockeye ESU	Threatened	1999	<p><i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 59 FR 440; 01/01/1994 (Final rule). 57 FR 27416; 06/19/1992 (Proposed rule). 55 FR 49623; 11/30/1990 (Final rule). 55 FR 12831, 04/06/1990 (Emergency rule). 55 FR 102260; 03/20/1990 (Proposed rule). 54 FR 10260; 08/04/1989 (Emergency rule). 52 FR 6041; 02/27/1987 (Final rule).</p>	NMFS 1998d. NMFS 1997f.

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND O. MYKISS—Continued

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
Sacramento River winter-run chinook ESU.	Endangered	1994	<p><i>Critical Habitat Designations.</i></p> <p>65 FR 7764; 02/16/2000 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 50394; 09/16/1999 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p> <p>68 FR 55900; 09/29/2003 (removal). 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule)</p>	
Central Valley spring-run chinook ESU	Threatened	1999	<p>63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 50394; 09/16/1999 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p> <p>68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule)</p>	<p>NMFS 1998b. NMFS 1999d.</p>
California Coastal chinook ESU	Threatened	1999	<p>63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14308; 03/24/99 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p> <p>68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule)</p>	<p>NMFS 1998b. NMFS 1999d.</p>
Upper Willamette River chinook ESU ..	Threatened	1999	<p>63 FR 11482; 03/09/1998 (Proposed rule).</p>	<p>NMFS 1998b. NMFS 1998e. NMFS 1999c.</p>
Lower Columbia River chinook ESU	Threatened	1999	<p><i>Listing Determinations</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14308; 03/24/99 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p> <p>68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14308; 03/24/99 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p> <p>68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule)</p>	<p>NMFS 1998b. NMFS 1998e. NMFS 1999c.</p>
Upper Columbia River spring-run chinook ESU.	Endangered	1999	<p>63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Listing Determinations.</i></p> <p>69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14308; 03/24/99 (Final rule). 63 FR 11482; 03/09/1998 (Proposed rule).</p> <p><i>Critical Habitat Designations.</i></p>	<p>NMFS 1998b. NMFS 1998e. NMFS 1999c.</p>

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND O. MYKISS—Continued

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
Puget Sound chinook ESU	Threatened	1999	68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 63 FR 11482; 03/09/1998 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 63 FR 1807; 0/12/1998 (Proposal withdrawn). 59 FR 66784; 12/28/1994 (Proposed rule). 59 FR 42529; 08/18/1994 (Emergency rule). 57 FR 23458; 06/03/1992 (Correction). 57 FR 14653; 04/22/1992 (Final rule). 56 FR 29547; 06/27/1991 (Proposed rule).	NMFS 1998b. NMFS 1998e. NMFS 1999c.
Snake River fall-run chinook ESU	Threatened	1992	<i>Critical Habitat Designations</i> 58 FR 68543; 12/28/1993 (Final rule). 57 FR 57051; 12/02/1992 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 63 FR 1807; 0/12/1998 (Proposal withdrawn). 59 FR 66784; 12/28/1994 (Proposed rule). 59 FR 42529; 08/18/1994 (Emergency rule). 57 FR 23458; 06/03/1992 (Correction). 57 FR 34639; 04/22/92 (Final rule). 56 FR 29542; 06/27/1991 (Proposed rule).	NMFS 1991c. NMFS 1999d.
Snake River spring/summer-run chinook ESU.	Threatened	1992	<i>Critical Habitat Designations.</i> 58 FR 68543; 12/28/1993 (Final rule) .. 57 FR 57051; 12/02/1992 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 61 FR 56138; 10/31/1996 (Final rule). 60 FR 38011; 07/25/1995 (Proposed rule). <i>Critical Habitat Designations.</i>	NMFS 1991b. NMFS 1998b.
Central California Coast coho ESU	Threatened	1996	64 FR 24049; 05/05/1999 (Final rule) .. 62 FR 62791; 11/25/1997 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 24588; 05/06/1997 (Final rule). 60 FR 38011; 07/25/1995 (Proposed rule). <i>Critical Habitat Designations</i> 64 FR 24049; 05/05/1999 (Final rule) .. 62 FR 62791; 11/25/1997 (Proposed rule).	Bryant 1994 NMFS 1995a. NMFS 1997a.
Southern Oregon/Northern California Coast coho ESU.	Threatened	1997	64 FR 24049; 05/05/1999 (Final rule) .. 62 FR 62791; 11/25/1997 (Proposed rule).	NMFS 1996c. NMFS 1996e. NMFS 1995a.
Oregon Coast coho ESU	Proposed Threatened*	1998	<i>Listing Determinations</i> 69 FR 33102; 06/14/04 (Proposed rule). 69 FR 19975; 04/15/2004 (Candidate list). 63 FR 42587; 08/10/1998 (Final rule). 62 FR 24588; 05/06/1997 (Proposal withdrawn).	NMFS 1997a. NMFS 1996b. NMFS 1996d.

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND *O. MYKISS*—Continued

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
			61 FR 56138; 10/31/1996 (6 mo. extension). 60 FR 38011; 07/25/1995 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule). 64 FR 24998; 05/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 69 FR 19975; 04/15/2004 (Candidate list). 60 FR 38011; 07/25/1995 (Not warranted). <i>Critical Habitat Designations</i>	NMFS 1995a. NMFS 1996e.
Lower Columbia River coho ESU	Proposed Threatened	1995	n/a <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14508; 03/25/1999 (Final rule). 63 FR 11774; 03/10/1998 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 63 FR 11774; 03/10/1998 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14508; 03/25/1999 (Final rule). 63 FR 11774; 03/10/1998 (Proposed rule). <i>Critical Habitat Designations</i>	NMFS 1995a. NMFS 1991a. NMFS 1997e. NMFS 1999b. NMFS 1999c.
Columbia River chum ESU	Threatened	1999	68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 63 FR 11774; 03/10/1998 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14508; 03/25/1999 (Final rule). 63 FR 11774; 03/10/1998 (Proposed rule). <i>Critical Habitat Designations</i>	NMFS 1996d. NMFS 1997e. NMFS 1999b. NMFS 1999c.
Hood Canal summer-run chum ESU	Threatened	1999	68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 63 FR 11774; 03/10/1998 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 67 FR 21568; 05/01/2002 (Redefinition of ESU). 62 FR 43937; 08/18/1997 (Final rule). 61 FR 41541; 08/09/1996 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 43937; 08/18/1997 (Final rule). 61 FR 41541; 08/09/1996 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 43937; 08/18/1997 (Final rule).	NMFS 1996d. NMFS 1997e. NMFS 1999b. NMFS 1999c. NMFS 1996b. NMFS 1997b.
Southern California <i>O. mykiss</i> ⁺ ESU	Endangered	1997	68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 43937; 08/18/1997 (Final rule). 61 FR 41541; 08/09/1996 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 43937; 08/18/1997 (Final rule).	NMFS 1996b. NMFS 1997b.
South-Central California Coast <i>O. mykiss</i> ESU.	Threatened	1997	68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 62 FR 43937; 08/18/1997 (Final rule).	NMFS 1996b. NMFS 1997b.

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND *O. MYKISS*—Continued

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
Central California Coast <i>O. mykiss</i> ESU.	Threatened	1997	61 FR 41541; 08/09/1996 (Proposed rule). <i>Critical Habitat Designations.</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 63 FR 13347; 03/19/1998 (Final rule) .. 62 FR 43974; 08/18/1997 (6 mo. extension). 61 FR 41541; 08/09/1996 (Proposed rule).	NMFS 1996b. NMFS 1997b.
California Central Valley <i>O. mykiss</i> ESU.	Threatened	1998	<i>Critical Habitat Designations</i> 68 FR 55900; 09/29/2003 (removal). 65 FR 7764; 02/16/2000 (Final rule). 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 65 FR 36074; 06/07/2000 (Final rule). 65 FR 6960; 02/11/2000 (Proposed rule). 63 FR 13347; 03/19/1998 (Not Warranted). 62 FR 43974; 08/18/1997 (6 mo. extension). 61 FR 41541; 08/09/1996 (Proposed rule).	NMFS 1998a.
Northern California <i>O. mykiss</i> ESU	Threatened	2000	<i>Critical Habitat Designations</i> n/a <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14517; 03/25/1999 (Final rule). 63 FR 11798; 03/10/1998 (Proposed rule). 62 FR 43974; 08/18/1997 (6 mo. extension). 61 FR 41541; 08/09/1996 (Proposed rule).	NMFS 1998a. NMFS 2000.
Upper Willamette River <i>O. mykiss</i> ESU	Threatened	1999	<i>Critical Habitat Designations</i> 68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 63 FR 13347; 03/19/1998 (Final rule). 62 FR 43974; 08/18/1997 (6 mo. extension). 61 FR 41541; 08/09/1996 (Proposed rule).	NMFS 1996b. NMFS 1997d. NMFS 1999a. NMFS 1999c.
Lower Columbia River <i>O. mykiss</i> ESU	Threatened	1998	<i>Critical Habitat Designations</i> 68 FR 55900; 09/29/2003 (removal) 65 FR 7764; 02/16/2000 (Final rule) 64 FR 5740; 03/10/1999 (Proposed rule). <i>Listing Determinations.</i> 69 FR 33102; 06/14/04 (Proposed rule). 64 FR 14517; 03/25/1999 (Final rule). 63 FR 11798; 03/10/1998 (Proposed rule).	NMFS 1996b. NMFS 1997c. NMFS 1997d. NMFS 1998a.

TABLE 1.—SUMMARY OF PREVIOUS ESA LISTING ACTIONS AND CRITICAL HABITAT DESIGNATIONS FOR WEST COAST SALMON AND *O. MYKISS*—Continued

Evolutionarily Significant Unit (ESU)	Current Endangered Species Act (ESA) status	Year listed	Previous ESA listing determinations and critical habitat designations—Federal Register citations	Previous scientific viability reviews and updates
Middle Columbia River <i>O. mykiss</i> ESU	1999	62 FR 43974; 08/18/1997 (6 mo. extension).	NMFS 1996b. NMFS 1997d. NMFS 1999a. NMFS 1999c.
		61 FR 41541; 08/09/1996 (Proposed rule).	
		<i>Critical Habitat Designations</i>	
		68 FR 55900; 09/29/2003 (removal)	
		65 FR 7764; 02/16/2000 (Final rule)	
		64 FR 5740; 03/10/1999 (Proposed rule).	
		<i>Listing Determinations</i> .	
Upper Columbia River <i>O. mykiss</i> ESU	1997	69 FR 33102; 06/14/04 (Proposed rule).	NMFS 1996b. NMFS 1997b.
		62 FR 43937; 08/18/1997 (Final rule).	
		61 FR 41541; 08/09/1996 (Proposed rule).	
		<i>Critical Habitat Designations</i> .	
		68 FR 55900; 09/29/2003 (removal).	
		65 FR 7764; 02/16/2000 (Final rule)	
		64 FR 5740; 03/10/1999 (Proposed rule).	
Snake River Basin <i>O. mykiss</i> ESU	1997	69 FR 33102; 06/14/04 (Proposed rule).	NMFS 1996b. NMFS 1997b.
		62 FR 43937; 08/18/1997 (Final rule).	
		61 FR 41541; 08/09/1996 (Proposed rule).	
		<i>Critical Habitat Designations</i> .	
		68 FR 55900; 09/29/2003 (removal).	
		65 FR 7764; 02/16/2000 (Final rule)	
		64 FR 5740; 03/10/1999 (Proposed rule).	

* Previously listed as a "threatened" species (63 FR 42587, August 10, 1998). Threatened listing set aside in *Alesea Valley Alliance v. Evans* (Alesea Valley Alliance v. Evans, 161 F.Supp.2d 1154 (D.Or. 2001), appeals dismissed, 358 F.3d 1181 (9th Cir. 2004).

+ *O. mykiss* ESUs include both anadromous "steelhead" and resident "rainbow trout" in certain areas (see 69 FR 33101; July 14, 2004).

On February 16, 2000, we published final critical habitat designations for 19 ESUs, thereby completing designations for all 25 ESUs listed at the time (65 FR 7764). The 19 designations included more than 150 river subbasins in Washington, Oregon, Idaho, and California. Within each occupied subbasin, we designated as critical habitat those lakes and river reaches accessible to listed fish along with the associated riparian zone, except for reaches on Indian land. Areas considered inaccessible included areas above long-standing natural impassable barriers and areas above impassable dams, but not areas above ephemeral barriers such as failed culverts.

In considering the economic impact of the February 16, 2000, action, we determined that the critical habitat designations would impose very little or no additional requirements on Federal agencies beyond those already associated with the listing of the species themselves. NMFS reasoned that since it was designating only occupied habitat, there would be few or no actions that destroy or adversely modify critical

habitat that did not also jeopardize the continued existence of the species. Therefore, the agency reasoned that there would be no economic impact as a result of the designations (65 FR 7764, 7765; February 16, 2000).

The National Association of Homebuilders (NAHB) challenged the designations in District Court in Washington, DC on the ground that the agency did not adequately consider the economic impacts of the critical habitat designations (*National Association of Homebuilders v. Evans*, 2002 WL 1205743 No. 00-CV-2799 (D.D.C.)). NAHB also challenged NMFS' designation of Essential Fish Habitat (EFH) (Pacific Coast Salmon Fishery Management Plan, 2000). While the NAHB litigation was pending, the Court of Appeals for the 10th Circuit issued its decision in *New Mexico Cattlegrowers' Association v. U.S. Fish and Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001) (NMCA). In that case, the Court rejected the U.S. Fish and Wildlife Service (FWS) approach to economic analysis, which was similar to the approach taken by NMFS in the final rule designating

critical habitat for 19 ESUs of West Coast salmon and *O. mykiss*. The Court ruled that "Congress intended that the FWS conduct a full analysis of all of the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes." Subsequent to the 10th Circuit decision, we entered into and sought judicial approval of a consent decree resolving the NAHB litigation. That decree provided for the withdrawal of critical habitat designations for the 19 salmon and *O. mykiss* ESUs and dismissed NAHB's challenge to the EFH designations. The District Court approved the consent decree and vacated the critical habitat designations by Court order on April 30, 2002 (*National Ass'n of Homebuilders v. Evans*, 2002 WL 1205743 (D.D.C. 2002)).

Subsequently, in response to a complaint filed in the District of Columbia by the Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, the Center for Biological Diversity, the Oregon Natural Resources Council, the Pacific Rivers Council, and the

Environmental Protection Information Center (PCFFA *et al.*) alleging that NMFS had failed to timely designate critical habitat for the 19 ESUs for which critical habitat had been vacated (as well as the northern California *O. mykiss* ESU), PCFFA and NMFS filed—and the court approved—an agreement resolving that litigation and establishing a schedule for designation of critical habitat. On July 13, 2004, the D.C. District Court approved a First Amendment to the Consent Decree and Stipulated Order of Dismissal providing for a revised schedule for the submission of proposed and final rules designating critical habitat for the 20 ESUs to the **Federal Register**. For those ESUs that are included on the list of threatened and endangered species as of September 30, 2004, and which fall under the responsibility of the Northwest Regional office of NMFS, proposed rules must be submitted to the **Federal Register** for publication no later than September 30, 2004. For those ESUs that are included on the list of threatened and endangered species as of November 30, 2004, and which fall under the responsibility of NMFS' Southwest Regional office, proposed rules must be submitted to the **Federal Register** for publication no later than November 30, 2004. For those of the 20 ESUs addressed in the proposed rules and included on the lists of threatened and endangered species as of June 15, 2005, final rules must be submitted to the **Federal Register** for publication no later than June 15, 2005. On September 17, 2004, NMFS filed a motion with the court seeking an additional 60 day extension of the deadline for submitting to the **Federal Register** a proposed rule for the 13 ESUs subject to the September 30, 2004, deadline. On October 7, 2004, the court granted the motion.

Past critical habitat designations have generated considerable public interest. Therefore, in an effort to engage the public early in this rulemaking process, we published an advance notice of proposed rulemaking (ANPR) on September 29, 2003 (68 FR 55926). The ANPR identified issues for consideration and evaluation, and solicited comments regarding these issues and information regarding the areas and species under consideration. We received numerous comments in response to the ANPR and considered them during development of this proposed rulemaking. Where applicable we have referenced these comments in this **Federal Register** notice as well as in other documents supporting this proposed rule. We encourage those who submitted comments on the ANPR to

review and comment on this proposed rule as well. We will address all comments in the final rule.

Methods and Criteria Used To Identify Proposed Critical Habitat

Salmon Life History

Pacific salmon are anadromous fish, meaning adults migrate from the ocean to spawn in freshwater lakes and streams where their offspring hatch and rear prior to migrating back to the ocean to forage until maturity. The migration and spawning times vary considerably across and within species and populations (Groot and Margolis, 1991). At spawning, adults pair to lay and fertilize thousands of eggs in freshwater gravel nests or "redds" excavated by females. Depending on lake/stream temperatures, eggs incubate for several weeks to months before hatching as "alevins" (a larval life stage dependent on food stored in a yolk sac). Following yolk sac absorption, alevins emerge from the gravel as young juveniles called "fry" and begin actively feeding. Depending on the species and location, juveniles may spend from a few hours to several years in freshwater areas before migrating to the ocean. The physiological and behavioral changes required for the transition to salt water result in a distinct "smolt" stage in most species. On their journey juveniles must migrate downstream through every riverine and estuarine corridor between their natal lake or stream and the ocean. For example, smolts from Idaho will travel as far as 900 miles from the inland spawning grounds. En route to the ocean the juveniles may spend from a few days to several weeks in the estuary, depending on the species. The highly productive estuarine environment is an important feeding and acclimation area for juveniles preparing to enter marine waters.

Juveniles and subadults typically spend from 1 to 5 years foraging over thousands of miles in the North Pacific Ocean before returning to spawn. Some species, such as coho and chinook salmon, have precocious life history types (primarily male fish known as "jacks") that mature and spawn after only several months in the ocean. Spawning migrations known as "runs" occur throughout the year, varying by species and location. Most adult fish return or "home" with great fidelity to spawn in their natal stream, although some do stray to non-natal streams. Salmon species die after spawning, except anadromous *O. mykiss* which may return to the ocean and make one or more repeat spawning migrations. This complex life cycle gives rise to

complex habitat needs, particularly during the freshwater phase (see review by Spence *et al.*, 1996). Spawning gravels must be of a certain size and free of sediment to allow successful incubation of the eggs. Eggs also require cool, clean, and well-oxygenated waters for proper development. Juveniles need abundant food sources, including insects, crustaceans, and other small fish. They need places to hide from predators (mostly birds and bigger fish), such as under logs, root wads and boulders in the stream, and beneath overhanging vegetation. They also need places to seek refuge from periodic high flows (side channels and off channel areas) and from warm summer water temperatures (coldwater springs and deep pools). Returning adults generally do not feed in fresh water but instead rely on limited energy stores to migrate, mature, and spawn. Like juveniles, they also require cool water and places to rest and hide from predators. During all life stages salmon require cool water that is free of contaminants. They also require rearing and migration corridors with adequate passage conditions (water quality and quantity available at specific times) to allow access to the various habitats required to complete their life cycle.

The homing fidelity of salmon has created a metapopulation structure with distinct populations distributed among watersheds (McElhany *et al.*, 2000). Low levels of straying result in regular genetic exchange among populations, creating genetic similarities among populations in adjacent watersheds. Maintenance of the meta-population structure requires a distribution of populations among watersheds where environmental risks (*e.g.*, from landslides or floods) are likely to vary. It also requires migratory connections among the watersheds to allow for periodic genetic exchange and alternate spawning sites in the case that natal streams are inaccessible due to natural events such as a drought or landslide. More detailed information describing habitat and life history characteristics of the ESUs addressed in this proposed rulemaking is described later in this document.

Identifying the Geographical Area Occupied by the Species and Specific Areas within the Geographical Area

In past critical habitat designations, we had concluded that the limited availability of species distribution data prevented mapping salmonid critical habitat at a scale finer than occupied river basins. (65 FR 7764; February 16, 2000). Therefore, the 2000 designations defined the "geographical area occupied

by the species, at the time of listing" as all accessible river reaches within the current range of the listed species. Comments received on the ANPR expressed a range of opinions about the appropriate scale for defining occupied areas; many expressed concern that the 2000 designations were overly broad and inclusive and encouraged us to use a finer scale in designating critical habitat for salmon.

In the 2000 designations, we relied on the U.S. Geological Survey's (USGS) identification of subbasins, which was the finest scale mapped by USGS at that time, to define the "specific areas" within the geographical area occupied by the species. The subbasin boundaries are based on an area's topography and hydrography, and USGS has developed a uniform framework for mapping and cataloging drainage basins using a unique hydrologic unit code (HUC) identifier (Seaber *et al.* 1986). The code contains separate two-digit identifier fields wherein the first two digits refer to a region comprising a relatively large drainage area (e.g., Region 17 for the entire Pacific Northwest), while subsequent fields identify smaller nested drainages. Under this convention, fourth field hydrologic units contain eight digits and are commonly referred to as "HUC4s" or "subbasins." In the 2000 designations, then, we identified as critical habitat all areas accessible to listed salmon within an occupied HUC4 subbasin. Since the previous designations in 2000, additional scientific information has significantly improved our ability to identify freshwater and estuarine areas occupied by salmonids and to group the occupied stream reaches into finer scale "specific areas."

We can now be somewhat more precise about the "geographical area occupied by the species" because Federal, state, and tribal fishery biologists have made progress mapping actual species distribution at the level of stream reaches. The current mapping identifies occupied stream reaches where the species has been observed. It also identifies stream reaches where the species is presumed to occur based on the professional judgment of biologists familiar with the watershed. However, such presumptions may not be sufficiently rigorous or consistent to support a critical habitat designation, and we therefore solicit information as to which stream reaches are actually occupied by the various species addressed in this rule.

Much of the available data can now be accessed and analyzed using geographic information systems (GIS) to produce consistent and fine-scale maps. As a

result, nearly all salmonid freshwater and estuarine habitats in Washington, Oregon, and Idaho are now mapped and available in GIS at a scale of 1:24,000 (NMFS, 2004a). Previous distribution data were often compiled at a much coarser scale of 1:100,000 or greater. We made use of these finer-scale data for the current critical habitat designations, and we now believe that they enable a more accurate delineation of the "geographical area occupied by the species" referred to in the ESA definition of critical habitat. The final critical habitat designations will be based on the final listing decisions for these ESUs due by June 2005 and thus will reflect occupancy "at the time of listing" as the ESA requires.

We are now also able to identify "specific areas" (section 3(5)(a)) and "particular areas" (section 4(b)(2)) at a finer scale than in 2000. Since 2000, various Federal agencies have identified fifth field hydrologic units (referred to as "HUC5s" or hereafter "watersheds") throughout the Pacific Northwest using the USGS mapping conventions referred to above. This information is now generally available from these agencies and via the internet (California Spatial Information Library, 2004; Interior Columbia Basin Ecosystem Management Project, 2003; Regional Ecosystem Office, 2004). We used this information to organize critical habitat information systematically and at a scale that is relevant to the spatial distribution of salmon. Organizing information at this scale is especially relevant to salmonids, since their innate homing ability allows them to return to the watersheds where they were born. Such site fidelity results in spatial aggregations of salmonid populations that generally correspond to the area encompassed by subbasins or HUC5 watersheds (Washington Department of Fisheries *et al.*, 1992; Kostow, 1995; McElhany *et al.*, 2000). However, it must be recognized that even the fifth field watershed is a very broad geographic unit. We therefore solicit information on ways to further improve the geographical precision of our habitat analysis.

The USGS maps watershed units as polygons, bounding a drainage area from ridge-top to ridge-top, encompassing streams, riparian areas and uplands. Within the boundaries of any watershed, there are stream reaches not occupied by the species. Land areas within the HUC boundaries are also generally not "occupied" by the species (though certain areas such as flood plains or side channels may be occupied at some times of some years). We used the watershed boundaries as a basis for aggregating occupied stream reaches, for

purposes of delineating "specific" areas. This document refers to the occupied stream reaches within the watershed boundary as the "habitat area" to distinguish it from the entire area encompassed by the watershed boundary.

At the same time, the ESA requires that an area cannot be designated as critical habitat unless at the time of listing it in fact contained physical or biological features essential to the conservation of the species. The ESA does not permit an area lacking such features to be designated as critical habitat in the hope that it may over time acquire such features and therefore aid in the conservation of the species.

The watershed-scale aggregation of stream reaches also allowed us to analyze the impacts of designating a "particular area," as required by ESA section 4(b)(2). As a result of watershed processes, many activities occurring in riparian or upland areas and in non-fish-bearing streams may affect the physical or biological features essential to conservation in the occupied stream reaches. The watershed boundary thus describes an area in which Federal activities have the potential to affect critical habitat (Spence *et al.* 1996). Using watershed boundaries for the economic analysis ensured that all potential economic impacts were considered. Section 3(5) defines critical habitat in terms of "specific areas," and section 4(b)(2) requires the agency to consider certain factors before designating "particular areas." In the case of Pacific salmonids, the biology of the species, the characteristics of its habitat, the nature of the impacts and the limited information currently available at finer geographic scales made it appropriate to consider "specific areas" and "particular areas" as the same unit.

In addition, watersheds are often being used in recovery efforts for West Coast salmon. In its review of the long-term sustainability of Pacific Northwest salmonids, the National Research Council's Committee on Protection and Management of Pacific Northwest Anadromous Salmonids concluded that "habitat protection must be coordinated at landscape scales appropriate to salmon life histories" and that social structures and institutions "must be able to operate at the scale of watersheds" (National Research Council, 1996). Watershed-level analyses are now common throughout the West Coast (Forest Ecosystem Management Assessment Team, 1993; Montgomery *et al.*, 1995; Spence *et al.*, 1996). There are presently more than 400 watershed councils or groups in

Washington, Oregon, and California alone (For the Sake of the Salmon, 2004). Many of these groups operate at a geographic scale of one to several watersheds and are integral parts of larger-scale salmon recovery strategies (Northwest Power Planning Council, 1999; Oregon Plan for Salmon and Watersheds, 2001; Puget Sound Shared Strategy, 2002; CALFED Bay-Delta Program, 2003). Aggregating stream reaches into watersheds allowed us to consider "specific areas," within or outside the geographical area occupied by the species, at a scale that often corresponds well to salmonid population structure and ecological processes.

Occupied estuarine and marine areas were also considered. In previous designations of salmonid critical habitat we did not designate marine areas outside of estuaries and Puget Sound. In the Pacific Ocean, we concluded that there may be essential habitat features, but they did not require special management considerations or protection (see *Physical or Biological Features Essential to the Conservation of the Species and Special Management Considerations or Protection* sections below). Several commenters on that previous rule questioned the finding, and we stated that we would revisit the issue (65 FR 7764; February 16, 2000). Since that time we have carefully considered the best available scientific information, and related agency actions, such as the designation of Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation and Management Act.

We now conclude that it is possible to delineate specific estuarine areas in Puget Sound, the Columbia River, and along the Oregon Coast as well as specific nearshore marine areas of Puget Sound that are occupied, contain physical or biological features essential to the conservation of the species, that may require special management considerations or protection (NMFS, 2004a). Estuarine areas are crucial for juvenile salmonids, given their multiple functions as areas for rearing/feeding, freshwater-saltwater acclimation, and migration (Simenstad *et al.*, 1982; Marriott *et al.* 2002). In many areas, especially the Columbia River estuary, these habitats are occupied by multiple ESUs. We are proposing to designate occupied estuarine areas in similar terms to our past designations, as being defined by a line connecting the furthest land points at the estuary mouth.

Nearshore marine areas also provide important habitat for rearing/feeding and migrating salmonids. Puget Sound supports multiple populations of Puget

Sound chinook and Hood Canal summer-run chum salmon (Beamish *et al.*, 1998; Washington Department of Fish and Wildlife (WDFW) and Point No Point Treaty Tribes (PNPTT), 2000). As noted in previous rulemaking (65 FR 7764; February 16, 2000), the unique ecological setting of Puget Sound allowed us to focus on defining specific occupied marine areas. As with the freshwater areas described above, in Puget Sound we identified 19 nearshore marine zones (*i.e.*, areas beyond estuary mouths) eligible for designation based on water resource inventory areas defined by the State of Washington (NMFS, 2004a; Washington Department of Ecology, 2004). However, we are considering excluding these areas under Section 4(b)(2) of the ESA based on the conclusion that the benefits of exclusion outweigh the benefits of designating these areas and invite public comment on this issue. We did not identify offshore marine areas of Puget Sound and the Pacific Ocean for reasons described below under *Physical or Biological Features Essential to the Conservation of the Species and Special Management Considerations or Protection*. The proposed designation of marine nearshore areas in Puget Sound is restricted to areas contiguous with the shoreline out to a depth no greater than 30 m relative to the mean lower low water. This nearshore area generally coincides with the maximum depth of the photic zone in Puget Sound and contains physical or biological features essential to the conservation of salmonids (Mazer and Shepard, 1962; Bakkala, 1970; Mathews and Senn, 1975; Fraser *et al.*, 1978; Peterman, 1978; Sakuramoto and Yamada, 1980; Martin *et al.*, 1986; Healey, 1982; Bax, 1983; Salo, 1991, as cited in Johnson *et al.*, 1997; WDFW and PNPTT, 2000; Puget Sound Nearshore Ecosystem Restoration Program, 2003; Williams *et al.*, 2003).

For salmonids in marine areas farther offshore, it becomes more difficult to identify specific areas where essential habitat can be found. Links between human activity, habitat conditions and impacts to listed salmonids are less direct in offshore marine areas. Perhaps the closest linkage exists for salmon prey species that are harvested commercially (*e.g.*, Pacific herring) and, therefore, may require special management considerations or protection. However, because salmonids are opportunistic feeders we could not identify "specific areas" beyond the nearshore marine zone where these or other essential features are found within this vast geographic area occupied by

Pacific salmon. Moreover, prey species move or drift great distances throughout the ocean and would be difficult to link to any "specific" areas.

Unoccupied Areas

ESA section 3(5)(A)(ii) defines critical habitat to include "specific areas outside the geographical area occupied" if the areas are determined by the Secretary to be "essential for the conservation of the species." NMFS regulations at 50 CFR 424.12(e) emphasize that we "shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species." With one exception, we are not proposing to designate these stream reaches at this time but are instead soliciting further information. For the Hood Canal summer run chum salmon ESU, we are proposing approximately 8 miles (12.9 km) of unoccupied (but historically utilized) stream reaches determined to be essential for the conservation of this ESU.

Primary Constituent Elements and Physical or Biological Features Essential to the Conservation of the Species

In determining what areas are critical habitat, agency regulations at 50 CFR 424.12(b) require that we must "consider those physical or biological features that are essential to the conservation of a given species * * *, including space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitats that are protected from disturbance or are representative of the historical geographical and ecological distribution of a species." The regulations further direct us to "focus on the principal biological or physical constituent elements * * * that are essential to the conservation of the species," and specify that the "known primary constituent elements shall be listed with the critical habitat description." The regulations identify primary constituent elements (PCE) as including, but not limited to: "roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types." An occupied area must contain one or more of the PCEs at the time the species is listed to be eligible for

designation as critical habitat; an area lacking a PCE may not be designated in the hope it will acquire one or more PCEs in the future.

NMFS biologists developed a list of PCEs specific to salmon for the ANPR (68 FR 55926; September 29, 2003), based on a decision matrix (NMFS, 1996) that describes general parameters and characteristics of most of the essential features under consideration in this critical habitat designation. We received very few comments specifically addressing PCEs. As a result of biological assessments supporting this proposed rule (see Critical Habitat Analytical Review Teams section), we are now proposing slightly revised PCEs.

The ESUs addressed in this proposed rulemaking share many of the same rivers and estuaries and have similar life history characteristics and, therefore, many of the same PCEs. These PCEs include sites essential to support one or more life stages of the ESU (sites for spawning, rearing, migration and foraging). These sites in turn contain physical or biological features essential to the conservation of the ESU (for example, spawning gravels, water quality and quantity, side channels, forage species). Specific types of sites and the features associated with them include:

1. Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation and larval development;
2. Freshwater rearing sites with water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; water quality and forage supporting juvenile development; and natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks;
3. Freshwater migration corridors free of obstruction with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival;
4. Estuarine areas free of obstruction with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic

invertebrates and fishes, supporting growth and maturation.

5. Nearshore marine areas free of obstruction with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.

6. Offshore marine areas with water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.

The habitat areas designated in this proposal currently contain PCEs within the acceptable range of values required to support the biological processes for which the species use the habitat. It is important to note that the contribution of the PCEs to the habitat varies by site and biological function, illustrating the interdependence of the habitat elements such that the quality of the elements may vary within a range of acceptable conditions. An area in which a PCE no longer exists because it has been degraded to the point where it no longer functions as a PCE cannot be designated in the hope that its function may be restored in the future.

Special Management Considerations or Protection

An occupied area cannot be designated as critical habitat unless it contains physical and biological features that "may require special management considerations or protection." Agency regulations at 424.02(j) define "special management considerations or protection" to mean "any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species." Many forms of human activity have the potential to affect the habitat of listed salmon species: (1) Forestry; (2) grazing; (3) agriculture; (4) road building/maintenance; (5) channel modifications/diking; (6) urbanization; (7) sand and gravel mining; (8) mineral mining; (9) dams; (10) irrigation impoundments and withdrawals; (11) river, estuary, and ocean traffic; (12) wetland loss/removal; (13) beaver removal; (14) exotic/invasive species introductions. In addition to these, the harvest of salmonid prey species (e.g., herring, anchovy, and sardines) may present another potential habitat-related management activity (Pacific Fishery Management Council, 1999). In recent years the Federal government and many non-federal landowners have adopted many changes in land and water management practices that are contributing significantly to

protecting and restoring the habitat of listed species. Thus, many of the available special management considerations or protections for these areas are already in place, and the need for designating such areas as critical habitat is diminished correspondingly. We request comment on the extent to which particular areas may require special management considerations or protection in light of existing management constraints. The contributions of these management measures are also relevant to the exclusion analysis under section 4(b)(2) of the ESA, and will be considered further in a later section of this notice.

Military Lands

The Sikes Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an Integrated Natural Resource Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found there. Each INRMP includes: An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan. Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management, fish and wildlife habitat enhancement or modification, wetland protection, enhancement, and restoration where necessary to support fish and wildlife and enforcement of applicable natural resource laws.

The recent National Defense Authorization Act for Fiscal Year 2004 (Public Law No. 108-136) amended the ESA to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

To address this new provision we contacted the Department of Defense and requested information on all INRMPs that might benefit Pacific salmon. (In response to the ANPR (68 FR 55926, September 29, 2003) we had already received a letter from the U.S. Marine Corps regarding this and other issues associated with a possible critical habitat designation on its facilities in the range of the Southern California *O. mykiss* ESU, which is not addressed in this notice). The military services identified 16 installations in Washington, Oregon, and Idaho with INRMPs in place or under development. We determined that the following 11 facilities with INRMPs overlap with habitat areas under consideration for critical habitat designation: (1) Naval Submarine Base, Bangor; (2) Naval Undersea Warfare Center, Keyport; (3) Naval Ordnance Center, Port Hadlock (Indian Island); (4) Naval Radio Station, Jim Creek; (5) Naval Fuel Depot, Manchester; (6) Naval Air Station, Whidbey Island; (7) Naval Air Station, Everett; (8) Bremerton Naval Hospital; (9) Fort Lewis (Army); (10) Pier 23 (Army); and (11) Yakima Training Center (Army). The first ten facilities are located within the range of the Puget Sound chinook salmon ESU, and two of these sites—Bangor and Port Hadlock (Indian Island)—are also within the range of the Hood Canal summer-run chum salmon ESU. The Army's Yakima Training Center is located within the range of the Upper Columbia River *O. mykiss* ESU. All of these INRMPs are final except for Pier 23 and Bremerton Naval Hospital, which should be finalized in the near term.

We identified habitat of value to listed salmonids in each INRMP and reviewed these plans, as well as other information available regarding the management of these military lands. Our preliminary review indicates that each of these INRMPs addresses habitat for salmonids, and all contain measures that provide benefits to ESA-listed salmon and steelhead (NMFS, 2004b). Examples of the types of benefits include actions that control erosion, protect riparian zones, minimize stormwater and construction impacts, reduce contaminants, and monitor listed species and their habitats. Also, we have received information from the DOD identifying national security impacts at all of their affected sites if designated as critical habitat (see Impacts on National Security section). Our consideration of such impacts is separate from our assessment of INRMPs, but the result is that we are not proposing to designate critical habitat in areas subject to the

final INRMPs or the draft INRMPs for Pier 23 and for the Bremerton Naval Hospital.

Critical Habitat Analytical Review Teams

To assist in the designation of critical habitat, we convened several Critical Habitat Analytical Review Teams (Teams) organized by major geographic domains that roughly correspond to salmon recovery planning domains. The Teams consisted of Federal salmonid biologists (from NMFS and other federal natural resource agencies) with demonstrated expertise regarding salmonid habitat within the domain and habitat specialists. The Teams were tasked with assessing biological information pertaining to areas under consideration for designation as critical habitat.

The Teams examined each habitat area within the watershed to determine whether the stream reaches or lakes occupied by the species contain the physical or biological features essential to conservation. The Teams also relied on their experience conducting section 7 consultations to determine whether there are management activities in the area that threaten the currently-existing primary constituent elements identified for the species. Where such activities occur, the Teams concluded that there were "any methods or procedures useful in protecting physical and biological features" for the area (50 CFR 424.02(j)) and therefore that the features "may require special management considerations or protection."

However, the Teams were not asked to evaluate the effects of existing management protections on the species, or analyze the usefulness of protective methods or procedures in addressing risks to PCEs. Thus, the Teams' evaluations do not reflect the extent to which an area will contribute to conservation of the species in the absence of a critical habitat designation.

In addition to occupied areas, the definition of critical habitat also includes unoccupied areas if we determine the area is essential for conservation. Accordingly, the Teams were next asked whether there were any unoccupied areas within the historical range of the ESUs that may be essential for conservation. Where information was currently available to make this determination, the Teams identified those currently unoccupied areas essential for conservation (*i.e.* in Hood Canal summer chum ESU). In most cases, the Teams did not have information available that would allow them to draw that conclusion. The Teams nevertheless identified areas they

believe may be determined essential through future recovery planning efforts. These are identified under the Species Descriptions and Area Assessments section, and we are specifically requesting information regarding such areas under Public Comments Solicited.

The Teams were next asked to determine the relative conservation value of each area for each ESU. The Teams scored each habitat area based on several factors related to the quantity and quality of the physical and biological features. They next considered each area in relation to other areas and with respect to the population occupying that area. Based on a consideration of the raw scores for each area, and a consideration of that area's contribution in relation to other areas and in relation to the overall population structure of the ESU, the Teams rated each habitat area as having a "high," "medium" or "low" conservation value.

The rating of habitat areas as having a high, medium or low conservation value provided information useful for the discretionary balancing consideration in ESA section 4(b)(2). The higher the conservation value for an area, the greater may be the likely benefit of the ESA section 7 protections. The correlation is not perfect because the Teams did not take the additional step of separately considering two factors: how likely are section 7 consultations in an area (that is, how strong is the "Federal nexus"), and how much protection would exist in the absence of a section 7 consultation (that is, how protective are existing management measures and would they likely continue in the absence of section 7 requirements). We considered the Teams' ratings one useful measure of the "benefit of designating a particular area as critical habitat" as contemplated in section 4(b)(2). We are soliciting public comment on approaches that would better refine this assessment.

As discussed earlier, the scale chosen for the "specific area" referred to in section 3(5)(a) was a watershed, as delineated by the USGS. There were some complications with this delineation that required us to adapt the approach for some areas. In particular, a large stream or river might serve as a rearing and migration corridor to and from many watersheds, yet be embedded itself in a watershed. In any given watershed through which it passes, the stream may have a few or several tributaries. For rearing/migration corridors embedded in a watershed, the Teams were asked to rate the conservation value of the watershed based on the tributary habitat. We

assigned the rearing/migration corridor the rating of the highest-rated watershed for which it served as a rearing/migration corridor. The reason for this treatment of migration corridors is the role they play in the salmon's life cycle. Salmon are anadromous—born in fresh water, migrating to salt water to feed and grow, and returning to fresh water to spawn. Without a rearing/migration corridor to and from the sea, salmon cannot complete their life cycle. It would be illogical to consider a spawning and rearing area as having a particular conservation value and not consider the associated rearing/migration corridor as having a similar conservation value.

Most of the preliminary Team findings were sent to state and tribal comanagers for review and comment; findings for the Oregon Coast coho salmon ESU were not submitted for comanager review due to time constraints (see Previous Federal Rulemaking section). These comanager reviews resulted in several changes to the Teams' preliminary assessments (e.g., revised fish distribution as well as conservation value ratings) and helped to ensure that the Teams' revised findings (NMFS, 2004a) incorporated the best available scientific data. These revised preliminary assessments, along with this proposed rulemaking, will once again be made available to these comanagers, as well as the general public and peer reviewers, during the public comment period leading up to the final rule. The Teams will be reconvened to review the comments and any new information that might bear on their assessments before we publish final critical habitat designations.

Lateral Extent of Critical Habitat

In past designations we have described the lateral extent of critical habitat in various ways ranging from fixed distances to "functional" zones defined by important riparian functions (65 FR 7764, February 16, 2000). Both approaches presented difficulties, and this was highlighted in several comments (most of which requested that we focus on aquatic areas only) received in response to the ANPR (68 FR 55926; September 29, 2003). Designating a set riparian zone width will (in some places) accurately reflect the distance from the stream on which PCEs might be found, but in other cases may over- or understate the distance. Designating a functional buffer avoids that problem, but makes it difficult for Federal agencies to know in advance what areas are critical habitat. To address these issues we are proposing to define the lateral extent of designated critical

habitat as the width of the stream channel defined by the ordinary high-water line as defined by the U.S. Army Corps of Engineers (Corps) in 33 CFR 329.11. In areas for which ordinary high-water has not been defined pursuant to 33 CFR 329.11, the width of the stream channel shall be defined by its bankfull elevation. Bankfull elevation is the level at which water begins to leave the channel and move into the floodplain (Rosgen, 1996) and is reached at a discharge which generally has a recurrence interval of 1 to 2 years on the annual flood series (Leopold *et al.*, 1992). Such an interval is commensurate with nearly all of the juvenile freshwater life phases of most salmon and *O. mykiss* ESUs. Therefore, it is reasonable to assert that for an occupied stream reach this lateral extent is regularly "occupied". Moreover, the bankfull elevation can be readily discerned for a variety of stream reaches and stream types using recognizable water lines (e.g., marks on rocks) or vegetation boundaries (Rosgen, 1996).

As underscored in previous critical habitat designations, the quality of aquatic habitat within stream channels is intrinsically related to the adjacent riparian zones and floodplain, to surrounding wetlands and uplands, and to non-fish-bearing streams above occupied stream reaches. Human activities that occur outside the stream can modify or destroy physical and biological features of the stream. In addition, human activities that occur within and adjacent to reaches upstream (e.g., road failures) or downstream (e.g., dams) of designated stream reaches can also have demonstrable effects on physical and biological features of designated reaches.

In the relatively few cases where we are proposing to designate lake habitats (e.g., Lake Ozette), we believe that the lateral extent may best be defined as the perimeter of the water body as displayed on standard 1:24,000 scale topographic maps or the elevation of ordinary high water, whichever is greater. In estuarine and nearshore marine areas we believe that extreme high water is the best descriptor of lateral extent. For nearshore marine areas we focused particular attention on the geographical area occupied by the Puget Sound ESUs (chinook and Hood Canal summer-run chum salmon) because of the unique ecological setting and well-documented importance of the area's nearshore habitats to these species (see the *Geographical Area Occupied by the Species and Specific Areas within the Geographical Area* section). We are proposing the area inundated by extreme high tide because

it encompasses habitat areas typically inundated and regularly occupied during the spring and summer when juvenile salmon are migrating in the nearshore zone and relying heavily on forage, cover, and refuge qualities provided by these occupied habitats. However, it may be more appropriate to use the ordinary high water level in estuarine and nearshore marine areas and we request comment on this issue. As noted above for stream habitat areas, human activities that occur outside the area inundated by extreme or ordinary high water can modify or destroy physical and biological features of the nearshore habitat areas, and Federal agencies must be aware of these important habitat linkages as well.

Species Descriptions and Area Assessments

This section provides descriptions of the 13 subject Pacific salmon and *O. mykiss* ESUs noting specific life-history traits and associated habitat requirements, and summarizes the Teams' assessment of habitat areas for each ESU. The Teams' assessments addressed PCEs in the habitat areas within watersheds (as well as rearing/migration corridors and nearshore zones for some ESUs). For ease of reporting and reference these watersheds have been organized into "units" based on their associated subbasin. Similarly, we assigned units to (1) distinct corridors outside the spawning range of several Columbia River Basin ESUs and (2) nearshore zones assessed for two Puget Sound ESUs.

Puget Sound Chinook Salmon ESU

The Puget Sound chinook ESU includes all naturally spawned populations of chinook salmon from rivers and streams flowing into Puget Sound including the Strait of Juan De Fuca from the Elwha River, westward, including rivers and streams flowing into Hood Canal, South Sound, North Sound and the Strait of Georgia in Washington (64 FR 14208; March 24, 1999). We have proposed that 22 artificial propagation (*i.e.*, hatchery) programs also be considered to be part of the ESU (69 FR 33101; June 14, 2004): the Kendal Creek Hatchery, Marblemount Hatchery (fall, spring yearlings, spring subyearlings, and summer run), Harvey Creek Hatchery, Whitehorse Springs Pond, Wallace River Hatchery (yearlings and subyearlings), Tulalip Bay, Soos Creek Hatchery, Icy Creek Hatchery, Keta Creek Hatchery, White River Hatchery, White Acclimation Pond, Hupp Springs Hatchery, Voights Creek Hatchery, Diru Creek, Clear Creek, Kalama Creek,

Dungeness/Hurd Creek Hatchery, and Elwha Channel Hatchery Chinook hatchery programs.

The Puget Sound chinook ESU includes genetically similar spring-, summer-, and fall-run chinook populations that overlap substantially in their migration and spawn timing (Myers *et al.*, 1998). A Technical Recovery Team (TRT) has been formed to assist recovery planning efforts in the Puget Sound domain. The Puget Sound TRT has released several recent technical reports describing independent populations of chinook salmon in Puget Sound (Ruckelshaus *et al.*, 2001, 2002, 2004). To date the Puget Sound TRT has identified 22 independent chinook populations: the North Fork Nooksack River, South Fork Nooksack River, Lower Skagit River, Upper Skagit River, Lower Sauk River, Suittale River, Upper Sauk River, Cascade River, North Fork Stillaguamish River, South Fork Stillaguamish River, Skykomish River, Snoqualmie River, North Lake Washington, Cedar River, Green/Duwamish River, Puyallup River, White River, Nisqually River, Skokomish River, Mid-Hood Canal, Dungeness River, and Elwha River. Some naturally spawning aggregations of chinook were not recognized as part of these populations (e.g., the Deschutes River in South Puget Sound). The TRT has concluded that chinook salmon using smaller streams in south and central Puget Sound probably did not occur there in large numbers historically and were not independent populations. It is not clear whether these smaller streams are occupied due to recent hatchery releases or whether historically they supported small satellite "sink" populations that were dependent on larger independent "source" populations (Ruckelshaus *et al.*, 2002; B. Graeber, NMFS, personal communication). The Puget Sound TRT has identified five "geographic regions of diversity and correlated risk" in Puget Sound that are intended to assist in evaluating the need for a geographical distribution of viable populations across the range of such regions in an ESU (Ruckelshaus *et al.*, 2002). The regions are based on similarities in hydrographic, biogeographic, geologic, and catastrophic risk characteristics and where groups of populations have evolved in common (Ruckelshaus *et al.*, 2002). The Puget Sound chinook salmon ESU occupies all of these regions.

Adult spring-run chinook salmon in the Puget Sound typically return to freshwater in April and May and spawn in August and September (Orrell, 1976; WDFW *et al.*, 1993). Adults migrate to the upper portions of their respective

river systems and hold in pools until they mature. In contrast, summer-run fish begin their freshwater migration in June and July and spawn in September, while summer/fall-run chinook salmon begin to return in August and spawn from late September through January (WDF *et al.*, 1993). In rivers with an overlap in spawning time, temporal runs on the same river system maintain a certain amount of reproductive isolation through geographic separation.

The majority of Puget Sound fish emigrate to the ocean as subyearlings. Many of the rivers have well-developed estuaries that are important rearing areas for emigrating ocean-type smolts. In contrast, the Suittale and South Fork Nooksack Rivers have been characterized as producing a majority of yearling smolts (Marshall *et al.*, 1995). Glacially influenced conditions on the Suittale River may be responsible for limiting juvenile growth, delaying smolting, and producing a higher proportion of 4- and 5-year-old spawners compared to other Puget Sound chinook stocks which mature predominantly as 3- and 4-year-olds. Based on Coded Wire Tag (CWT) recoveries in ocean fisheries, Puget Sound chinook stocks exhibit similar marine distributions in Canadian coastal and Puget Sound waters.

Myers *et al.* (1998) also noted that anthropogenic activities have limited the access to historical spawning grounds and altered downstream flow and thermal conditions. Water diversion and hydroelectric dams have prevented access to portions of several rivers. Watershed development and activities throughout the Puget Sound, Hood Canal, and Strait of Juan de Fuca regions have resulted in increased sedimentation, higher water temperatures, decreased large woody debris recruitment, decreased gravel recruitment, a reduction in river pools and spawning areas, and a loss of estuarine rearing areas (Bishop and Morgan, 1996). These impacts on the spawning and rearing environment may also have altered the expression of many life-history traits, and masked or exaggerated the phenotypic distinctiveness of many stocks. Nevertheless, PCEs exist under current conditions in these areas today and therefore, as explained earlier, NMFS is proposing to designate these areas as critical habitat.

Juvenile chinook salmon in freshwater feed on a variety of terrestrial and aquatic insects and crustaceans, while subadults feed on similar items as well as larger prey including fishes, shrimp, and squid (Scott and Crossman, 1973). One study noted that adults in

marine waters forage on a large array of fish species, especially herring and sand lance (Pritchard and Tester, 1944, as cited in Scott and Crossman, 1973).

The Puget Sound Team's assessment for this ESU addressed habitat areas within 61 occupied watersheds in 18 associated subbasins (identified below as "units" with unique HUC4 numbers) as well as the nearshore marine area. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the five geographical regions of correlated risk identified by the Puget Sound TRT. The Puget Sound Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Puget Sound chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described under Methods and Criteria Used to Identify Proposed Critical Habitat.

Unit 1. Strait of Georgia Subbasin (HUC4# 17110002)

This subbasin contains three occupied watersheds encompassing approximately 428 sq mi (1,109 sq km). Fish distribution and habitat use data from WDFW identify approximately 71 mi (114.3 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). However, Ruckelshaus *et al.* (2001, 2004) did not identify any historically independent populations in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, irrigation impoundments and withdrawals, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Nooksack Subbasin (HUC4# 17110004)

This subbasin contains five occupied watersheds encompassing approximately 795 sq mi (2,059 sq km). Fish distribution and habitat use data from WDFW identify approximately 256 mi (412 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: North Fork Nooksack River

and South Fork Nooksack River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, irrigation impoundments and withdrawals, and roadbuilding. Of the five watersheds reviewed by the Team, habitat areas in four were rated as having high and in one were rated as having medium conservation value to the ESU (NMFS, 2004). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Upper Skagit Subbasin (HUC4# 17110005)

This subbasin contains eight watersheds, five of which are occupied and encompass approximately 999 sq mi (2,587 sq km). Fish distribution and habitat use data from WDFW identify approximately 105 mi (169 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified six historically independent populations in this subbasin: Lower Skagit River, Upper Skagit River, Cascade River, Lower Sauk River, Suiattle River, and Upper Sauk River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including dams, forestry, and roadbuilding. The Team also concluded that habitat areas in four of the occupied watersheds in this subbasin warrant a high rating and those in one warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Sauk Subbasin (HUC4# 17110006)

This subbasin contains four occupied watersheds encompassing approximately 741 sq mi (1,919.2 sq km). Fish distribution and habitat use data from WDFW identify approximately 118 mi (189.9 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified three historically independent populations in this subbasin: Lower Sauk River, Suiattle River, and Upper Sauk River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect

the PCEs, including forestry and roadbuilding. Of the four watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Lower Skagit Subbasin (HUC4# 17110007)

This subbasin contains two occupied watersheds encompassing approximately 447 sq mi (1,157.7 sq km). Fish distribution and habitat use data from WDFW identify approximately 149 mi (239.8 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified six historically independent populations in this subbasin: Lower Skagit River, Upper Skagit River, Cascade River, Lower Sauk River, Suiattle River, and Upper Sauk River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, wetland loss/removal, and urbanization. Of the two watersheds reviewed by the Team, habitat areas in both were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Stillaguamish Subbasin (HUC4# 17110008)

This subbasin contains three occupied watersheds encompassing approximately 704 sq mi (1,823.3 sq km). Fish distribution and habitat use data from WDFW identify approximately 132 mi (212.4 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: North Fork Stillaguamish River and South Fork Stillaguamish River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including forestry, roadbuilding, urbanization, and wetland loss/removal. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004). The Team did not identify any unoccupied areas in this subbasin that

may be essential for the conservation of the ESU.

Unit 7. Skykomish Subbasin (HUC4# 17110009)

This subbasin contains five occupied watersheds encompassing approximately 853 sq mi (2,209.3 sq km). Fish distribution and habitat use data from WDFW identify approximately 153 mi (246.2 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified one historically independent population (Skykomish River) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, irrigation impoundments and withdrawals, and roadbuilding. Of the five watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Snoqualmie Subbasin (HUC4# 17110010)

This subbasin contains four watersheds, two of which are occupied and encompass approximately 504 sq mi (1,305.3 sq km). Fish distribution and habitat use data from WDFW identify approximately 90 mi (144.8 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified one historically independent population (Snoqualmie River) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture and forestry. Of the two watersheds reviewed by the Team, habitat areas in both were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Snohomish Subbasin (HUC4# 17110011)

This subbasin contains two occupied watersheds encompassing approximately 278 sq mi (720 sq km). Fish distribution and habitat use data from WDFW identify approximately 101 mi (162.5 km) of occupied riverine/estuarine habitat in the watersheds

(WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: Skykomish River and Snoqualmie River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, dams, forestry, and urbanization. Of the two watersheds reviewed by the Team, habitat areas in one were rated as having high and those in the other were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Lake Washington Subbasin (HUC4# 17110012)

This subbasin contains four occupied watersheds encompassing approximately 619 sq mi (1,603.2 sq km). Fish distribution and habitat use data from WDFW identify approximately 190 mi (307.4 km) of occupied riverine/estuarine habitat in these watersheds. Lake Washington contains approximately 40 sq mi (103.6 sq km) of lake habitat in these watersheds and the Team identified three additional small tributaries to the southern portion of the lake that are important rearing habitat for this ESU (Tabor *et al.*, 2002). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: North Lake Washington and Cedar River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, dams, forestry, irrigation impoundments and withdrawals, and urbanization. Of the four watersheds reviewed by the Team, habitat areas in one were rated as having high and those in three were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Duwamish Subbasin (HUC4# 17110013)

This subbasin contains three occupied watersheds encompassing approximately 487 sq mi (1,261.3 sq km). Fish distribution and habitat use data from WDFW identify approximately 171 mi (275.2 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003).

Ruckelshaus *et al.* (2001, 2004) identified one historically independent population (Green/Duwamish River) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, dams, forestry, irrigation impoundments and withdrawals, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in two were rated as having high and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 12. Puyallup Subbasin (HUC4# 17110014)

This subbasin contains five watersheds occupied by this ESU, and these watersheds encompass approximately 996 sq mi (256.4 sq km). Fish distribution and habitat use data from WDFW identify approximately 243 mi (391.1 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: Puyallup River and White River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, dams, forestry, irrigation impoundments and withdrawals, urbanization. Of the five watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 13. Nisqually Subbasin (HUC4# 17110015)

This subbasin contains three watersheds, two of which are occupied by this ESU and encompass approximately 472 sq mi (1,222.5 sq km). Fish distribution and habitat use data from WDFW identify approximately 82 mi (132.0 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). Ruckelshaus *et al.* (2001, 2004) identified one historically independent population (Nisqually River) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU

and identified several management activities that may affect the PCEs, including agriculture, dams, and urbanization. Of the two watersheds reviewed by the Team, habitat areas in both were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 14. Deschutes Subbasin (HUC4# 17110016)

This subbasin contains two occupied watersheds occupied encompassing approximately 168 sq mi (435.1 sq km). Fish distribution and habitat use data from WDFW identify approximately 53 mi (85.3 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). However, Ruckelshaus *et al.* (2001, 2004) did not identify any historically independent populations in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, and grazing. Of the two watersheds reviewed by the Team, habitat areas in both were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 15. Skokomish Subbasin (HUC4# 17110017)

This subbasin contains a single watershed encompassing approximately 248 sq mi (642.3 sq km). The Skokomish River population is the only historically independent population documented in this subbasin/watershed by Ruckelshaus *et al.* (2001, 2004). Fish distribution and habitat use data from WDFW identify approximately 72 mi (115.9 km) of occupied riverine/estuarine habitat in the watershed (WDFW, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, dams, forestry, and urbanization. The Team also concluded that habitat areas in this watershed warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 16. Hood Canal Subbasin (HUC4# 17110018)

This subbasin contains six occupied watersheds encompassing approximately 605 sq mi (1,567 sq km). Fish distribution and habitat use data from WDFW identify approximately 59 mi (95.0 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). The Mid-Hood Canal population is the only historically independent population documented in this subbasin by Ruckelshaus *et al.* (2004). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, roadbuilding, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in two were rated as having high, those in one were rated as having medium, and those in three were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 17. Kitsap Subbasin (HUC4# 17110019)

This subbasin contains four occupied watersheds encompassing approximately 721 sq mi (1,867 sq km). Fish distribution and habitat use data from WDFW identify approximately 56 mi (90.1 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). However, Ruckelshaus *et al.* (2001, 2004) did not identify any historically independent populations in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, grazing, and urbanization. Of the four watersheds reviewed by the Team, habitat areas in all were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 18. Dungeness/Elwha Subbasin (HUC4# 17110020)

This subbasin contains five watersheds, three of which are occupied, and encompass approximately 695 sq mi (1,800 sq km). Ruckelshaus *et al.* (2001, 2004) identified two historically independent populations in this subbasin: Dungeness River and Elwha River. Chinook salmon

in the Port Angeles Harbor watershed are not currently assigned to a historically independent population for this ESU. Fish distribution and habitat use data from WDFW identify approximately 47 mi (75.6 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, forestry, irrigation impoundments and withdrawals, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in two were rated as having high and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 19. Nearshore Marine Areas

The nearshore marine area considered by the Team includes that zone from extreme high water out to a depth of 30 meters and adjacent to watersheds occupied by the ESU (described above). The Team assessment focused on this area because it generally encompasses photic zone habitats supporting plant cover (e.g., eelgrass and kelp) important for rearing, migrating, and maturing chinook salmon and their prey. Also, PCEs that may require special management considerations or protection are more readily identified in this zone (e.g., destruction of vegetative cover due to docks and bulkheads). Deeper waters are occupied by subadult and maturing fish, but it is unclear if these areas contain PCEs that require special management considerations or protection. The Team concluded that habitat areas in all nearshore zones of Puget Sound (including areas adjacent to islands), Hood Canal, and the Strait of Juan de Fuca (to the mouth of the Elwha River) warrant a high rating for conservation value to the ESU (NMFS, 2004a). These habitat areas are found along approximately 2,376 miles (3,824 km) of shoreline within the range of this ESU.

Lower Columbia River Chinook Salmon ESU

The Lower Columbia River chinook ESU includes all naturally spawned populations of chinook salmon from the Columbia River and its tributaries from its mouth at the Pacific Ocean upstream to a transitional point between Washington and Oregon east of the Hood River and the White Salmon River, and includes the Willamette

River to Willamette Falls, Oregon, exclusive of spring-run chinook salmon in the Clackamas River (64 FR 14208; March 24, 1999). We have proposed that 17 artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the Sea Resources Tule Chinook Program, Big Creek Tule Chinook Program, Astoria High School (STEP) Tule Chinook Program, Warrenton High School (STEP) Tule Chinook Program, Elochoman River Tule Chinook Program, Cowlitz Tule Chinook Program, North Fork Toutle Tule Chinook Program, Kalama Tule Chinook Program, Washougal River Tule Chinook Program, Spring Creek NFH Tule Chinook Program, Cowlitz Spring Chinook Program in the Upper Cowlitz River and the Cispus River, Friends of the Cowlitz Spring Chinook Program, Kalama River Spring Chinook Program, Lewis River Spring Chinook Program, Fish First Spring Chinook Program, and the Sandy River Hatchery (Oregon Department of Fish and Wildlife (ODFW) stock #11) Chinook hatchery programs.

Myers *et al.* (2003) identified 31 historical demographically independent chinook salmon populations in this ESU consisting of three life history types (spring-, fall-, and late fall-run). It is estimated that 8 to 10 historical populations in the ESU have been extirpated or nearly so. The Willamette/Lower Columbia TRT has placed groups of populations in this recovery planning domain into "strata" (McElhany *et al.*, 2002). The strata are based on major life-history characteristics (e.g., species run-types) and ecological zones. The Lower Columbia River chinook ESU inhabits three ecological zones (Coast Range, Cascade, and Columbia Gorge) and contains three life-history types (spring-, fall-, and late-fall run chinook salmon), resulting in six strata for this ESU: Coast range fall-run populations; Cascade spring-, fall-, and late fall-run populations; and Columbia Gorge spring- and fall-run populations (McElhany *et al.*, 2002). Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such strata in the ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Of the Pacific salmon, chinook salmon exhibit the most diverse and complex life history strategies. Chinook salmon follow one of two general freshwater cycles: stream or ocean type. After emerging from the gravel, stream-type chinook salmon reside in fresh water for a year or more before migrating to the ocean. Ocean-type chinook salmon migrate to the ocean within their first year. These two types

of chinook salmon have different life history traits, geographic distribution, and genetic characteristics. Chinook in the lower Columbia River generally follow an ocean-type life history cycle.

Runs are designated on the basis of when adults enter freshwater; however, distinct runs may also differ in the degree of maturation at river entry and time of spawning. Early, spring-run (stream-maturing) chinook salmon tend to enter freshwater as immature or bright fish, migrate upriver (holding in suitable thermal refuges for several months), and finally spawn in late summer and early autumn. Late, fall-run (ocean maturing) chinook salmon enter freshwater at an advanced stage of maturity, move rapidly to their spawning areas on the main stem or lower tributaries of the rivers, and spawn within a few days or weeks of freshwater entry. Fall chinook dominate chinook salmon runs in the Lower Columbia River chinook ESU. The once abundant natural runs of fall and spring chinook have been largely replaced by hatchery production. Large chinook runs continue to return to many of their natal streams, but there are few sustained, native, naturally reproducing populations.

Adult spring chinook return to the Lower Columbia River at 4 to 5 years of age. They enter the Columbia River in March and April and generally enter natal basins from March through June, well in advance of spawning in August and September. Spring chinook typically spawn in headwater areas where higher gradient habitat exists. Successful spawning depends on sufficient clean gravel of the right size, in addition to the constant need of adequate flows and water quality. Fall chinook return to the Columbia River at 3 to 4 years of age, although 5-year olds are common in some populations. They enter fresh water from August to September and spawning generally occurs from late September to November, with peak spawning activity in mid-October. Bright fall Chinook adults enter the Columbia River August to October; dominant age class varies by population and brood year, but is typically age 4. Spawning occurs in November to January, with peak spawning in mid November.

Chinook salmon eggs incubate throughout the autumn and winter months. As with other salmonids, water temperature controls incubation time and affects survival. During incubation, clean, well-oxygenated water flow is critical. Floods and scouring, dewatering, and sedimentation can result in high egg mortality. In the Lower Columbia River, spring chinook

fry emerge from the gravel from November through March; peak emergence time is likely December and January. Fall chinook fry generally emerge from the gravel in April, depending on the time of egg deposition and incubation water temperature. The emerging fry migrate quickly to protected waters and off-stream areas where they can find food and refuge from predators and high flows.

After emerging from the gravel in the spring, most fall chinook fry rear in the freshwater habitat for 1 to 4 months before emigrating to the ocean as subyearlings. A few fall chinook remain in fresh water until their second spring and emigrate as yearlings. Conversely, spring chinook emerge from the gravel earlier than fall chinook, generally in the late winter/early spring. Normally, spring chinook spend one full year in fresh water and emigrate to sea in their second spring. After emergence fry generally search for suitable rearing habitat within side sloughs, side channels, spring-fed seep areas, and along the outer edges of the stream. These side margin, off-channel, and slough areas are vital for early juvenile habitat. The presence of woody debris and overhead cover aid in food and nutrient inputs, and provide refuge from predators during early freshwater residence.

Juvenile chinook salmon in freshwater feed on a variety of terrestrial and aquatic insects and crustaceans, while subadults in the ocean feed on similar items as well as larger prey including fishes, shrimp, and squid (Scott and Crossman, 1973). One study noted that adults in marine waters forage on a large array of fish species, especially herring and sand lance (Pritchard and Tester, 1944, as cited in Scott and Crossman, 1973).

The Lower Columbia River Team's assessment for this ESU addressed habitat areas within 47 occupied watersheds in 10 subbasins (identified below as "units" with unique HUC4 numbers), as well as the lower Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the six life-history type and ecological strata identified by the Willamette/Lower Columbia TRT. The Lower Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Lower Columbia River chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the

Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Middle Columbia/Hood Subbasin (HUC4# 17070105)

This subbasin contains 13 watersheds, 8 of which are occupied by this ESU and encompass approximately 1,370 sq mi (3,548.3 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 145 mi (233.4 km) of occupied riverine habitat in the watersheds, including a 23-mi (37-km) segment of the Columbia River (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Columbia Gorge) containing four fall-run (Lower Gorge tributaries, Upper Gorge tributaries, Big White Salmon River, and Hood River) and two spring-run (Big White Salmon River and Hood River) historical demographically independent populations in this subbasin. The Upper Gorge tributaries fall-run and Big White Salmon fall- and spring-run populations have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.*, 2003)). Native spring-run chinook salmon are believed to be extirpated in this subbasin, although efforts are underway to reestablish these fish. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in six of the watersheds in this subbasin warrant a high rating and those in two warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team noted that two watersheds contain a high value rearing and migration corridor in the Columbia River connecting high value habitat areas upstream with downstream reaches and the ocean. The Team also considered whether blocked historical habitats above Condit Dam (on the White Salmon River) may be essential for conservation of the ESU. The Team determined that accessing this habitat would likely provide a benefit to the ESU, especially for spring-run chinook salmon of which there are only two historical populations in the Gorge region. However, the Team concluded that it was unclear whether the areas above Condit Dam are essential for conservation of the entire ESU, especially in comparison to other, more extensive, historical habitats that may be of greater potential benefit to the ESU (*e.g.*, areas in the Upper Lewis River).

We seek comment on whether these areas should be proposed as critical habitat.

Unit 2. Lower Columbia/Sandy Subbasin (HUC4# 17080001)

This subbasin contains nine occupied watersheds encompassing approximately 1,076 sq mi (2,787 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 217 mi (349.2 km) of occupied riverine habitat in the watersheds, including a 26-mi (41.8-km) segment of the Columbia River (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified two ecological zones (Cascade and Columbia Gorge) containing five fall-run (Lower Gorge tributaries, Sandy River early fall, Sandy River late fall, Washougal River, and Salmon Creek/Lewis River) and one spring-run (Sandy River) historical demographically independent populations in this subbasin. The Sandy River late fall- and spring-run chinook salmon have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.* 2003). Also, the TRT classified the Sandy River spring- and late fall-runs and the Salmon Creek/Lewis River fall-run as genetic legacy populations (*i.e.*, some of "the most intact representatives of the genetic character of the ESU" (McElhany *et al.* 2003)). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications, dams, forestry, roadbuilding, and urbanization. Of the nine watersheds reviewed by the Team, habitat areas in seven were rated as having high, those in one were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also noted that one watershed contains a high value rearing and migration corridor in the Columbia River connecting high value habitat areas upstream with downstream reaches and the ocean. The Team also concluded that inaccessible reaches above the Bull Run Dam complex in the Bull Run River watershed may be essential to the conservation of the ESU. The Team concluded that these unoccupied areas may be essential for conservation because (1) they once supported TRT core and genetic legacy populations (Sandy River spring- and late fall-runs) and (2) they contain non-inundated habitats that are likely in good to excellent condition (*i.e.*, the watershed provides domestic drinking water for

the City of Portland and may have been some of the better spawning areas) (Sieglitz, 2002; McElhany *et al.*, 2003). The Team noted that NMFS' status review of this ESU stated that habitat loss due to "extensive hydropower development projects" posed a serious threat to this ESU (NMFS, 2003). This report also expressed serious concerns associated with dramatic declines in the spring-run life history type (which inhabits this watershed). Therefore, the Team concluded that the ESU would likely benefit if the extant population of spring-run fish had access to spawning/rearing habitat upstream. We seek comment on whether these areas should be proposed as critical habitat.

Unit 3. Lewis Subbasin (HUC4# 17080002)

This subbasin contains six watersheds; two of which are currently occupied by this ESU and the remaining four of which are now blocked by Merwin Dam and others upstream. Occupied watersheds encompass approximately 456 sq mi (1,181 sq km). Fish distribution and habitat use data from WDFW identify approximately 68 mi (109.4 km) of occupied riverine habitat in the watersheds (WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing one spring-run (Lewis River), one fall-run (Salmon Creek/Lewis River) and one late fall-run (Lewis River) historical demographically independent populations in this subbasin. The TRT has classified the Lewis River spring- and late fall-run populations as "core" populations (historically abundant and "may offer the most likely path to recovery") and the Lewis River late fall-run and Salmon Creek/Lewis River fall-run populations as genetic legacy populations (some of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.* 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in both of the occupied watersheds in this subbasin warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team also concluded that inaccessible reaches above Merwin, Yale and Swift dams may be essential to the conservation of the ESU. The Team believed that these unoccupied areas may be essential because: (1) They once supported TRT core and genetic legacy populations; and (2) they contain non-inundated habitats that are likely in

good condition relative to other more urbanized watersheds in the Cascade region (Lower Columbia River Fish Recovery Board, 2003; McElhany *et al.*, 2003). The Team noted that NMFS' status review of this ESU stated that habitat loss due to "extensive hydropower development projects" posed a serious threat to this ESU (NMFS, 2003). This report also expressed serious concerns associated with dramatic declines in the spring-run life history type (which inhabits this watershed). Therefore, the Team concluded that the ESU would likely benefit if the extant population of spring-run fish had access to spawning/rearing habitat upstream. We seek comment on whether these areas should be proposed as critical habitat.

Unit 4. Lower Columbia/Clatskanie Subbasin (HUC4# 17080003)

This subbasin contains six occupied watersheds encompassing approximately 841 sq mi (2,178 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 170 mi (273.6 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified two ecological zones (Coast Range and Cascade) containing five fall-run (Elochoman River, Mill Creek, Kalama River, Clatskanie River, and Scappoose River) and one spring-run (Kalama River) historical demographically independent populations in this subbasin. The Elochoman River fall-run population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in two were rated as having high, those in three were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Upper Cowlitz Subbasin (HUC4# 17080004)

This subbasin contains five occupied watersheds encompassing approximately 1,030 sq mi (2,667.7 sq km). Fish distribution and habitat use data from WDFW identify

approximately 104 mi (167.4 km) of occupied riverine habitat in the watersheds (WDFW, 2003). All of this habitat is located upstream of impassable dams (Mayfield and Mossyrock) and only accessible to anadromous fish via trap and haul operations. Myers *et al.* (2003) identified one ecological zone (Cascade) containing one fall-run (Upper Cowlitz River) and two spring-run (Upper Cowlitz River and Cispus River) historical demographically independent populations in this subbasin. Both spring-run populations have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.* 2003)). In addition, the TRT classified the Upper Cowlitz River spring-run population as a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU.") However, there are significant uncertainties about the remaining stock structure in this subbasin (Myers *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the five watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Lower Cowlitz Subbasin (HUC4# 17080005)

This subbasin contains eight occupied watersheds encompassing approximately 1,460 sq mi (3,781.4 sq km). Fish distribution and habitat use data from WDFW identify approximately 350 mi (563.3 km) of occupied riverine habitat in the (WDFW, 2003). Habitat in two watersheds—Tilton River and Riffe Reservoir—is located upstream of impassable dams (Mayfield and Mossyrock) and only accessible to anadromous fish via trap and haul operations. Data from WDFW identified very little chinook salmon distribution in the Riffe Reservoir watershed (and did not identify the Riffe and Mayfield lakes as occupied habitat). However, the Team determined that these lakes are occupied and contain PCEs for rearing/migrating juveniles based on information regarding migrants described in Wade (2000) as well as their own knowledge of trap and haul

operations in this subbasin. Myers *et al.* (2003) identified one ecological zone (Cascade) containing four fall-run (Coweeman River, Toutle River, Lower Cowlitz River, and Upper Cowlitz River) and four spring-run (Toutle River, Tilton River, Upper Cowlitz River, and Cispus River) historical demographically independent populations in this subbasin. The latter two spring-run populations as well as the Toutle River and Lower Cowlitz River fall-run populations have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.* 2003)). In addition, the TRT classified the Upper Cowlitz River spring-run and Coweeman River fall-run as genetic legacy populations (*i.e.*, some of "the most intact representatives of the genetic character of the ESU.") The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the eight watersheds reviewed by the Team, habitat areas in four were rated as having high and those in four were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that four watersheds (Riffe Reservoir, Jackson Prairie, East Willapa, and Coweeman River) contained habitat areas with high value rearing and migration corridors connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Lower Columbia Subbasin (HUC4# 17080006)

This subbasin contains three occupied watersheds encompassing approximately 515 sq mi (1,334 sq km). Fish distribution and habitat use data from the ODFW and WDFW identify approximately 120 mi (193.1 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Coast Range) containing three fall-run historical demographically independent populations in this subbasin (Grays River, Youngs Bay, and Big Creek). The Big Creek fall-run population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.* 2003)). The Team concluded that all occupied areas

contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in two were rated as having high and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Middle Willamette Subbasin (HUC4# 17090007)

The occupied portion of this subbasin is downstream of Willamette Falls and includes a single watershed (Abernethy Creek) encompassing approximately 134 sq mi (347.0 sq km) as well as a short segment (approximately 1 mile (1.6 km)) of the Willamette River downstream of Willamette Falls. Fish distribution and habitat use data from ODFW identify approximately 3 mi (4.8 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The occupied portions of the subbasin are in the Cascade ecological zone identified by Myers *et al.* (2003), but the TRT did not associate fish in this area with a historical demographically independent population (McElhany *et al.*, 2003). However, the mouth of Abernethy Creek enters the Willamette upstream and in close proximity (less than 0.6 mi (1 km)) to the mouth of the Clackamas River which does contain a fall-run population identified by the TRT. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, dams, roadbuilding, and urbanization. The Team also concluded that habitat areas in the Abernethy Creek watershed are of low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Clackamas Subbasin (HUC4# 17090011)

This subbasin contains six watersheds, two of which are occupied by this ESU (Lower Clackamas and Eagle Creek) and encompass approximately 270 sq mi (699.3 sq km). Fish distribution and habitat use data from the ODFW identify approximately 54 mi (86.9 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified a single ecological zone (Cascade)

containing a single historical demographically independent population in this subbasin (Clackamas River fall-run). This fall-run population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.* 2003)). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the two watersheds reviewed by the Team, habitat areas in one (Lower Clackamas River) were rated as having high and those in the other (Eagle Creek) were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Lower Willamette Subbasin (HUC# 17090012)

This subbasin contains three occupied watersheds encompassing approximately 407 sq mi (1,054.1 sq km). Fish distribution and habitat use data from ODFW identify approximately 89 mi (143.2 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing two fall-run historical demographically independent populations in this subbasin (Clackamas River and Scappoose River). The Clackamas River fall-run population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery" (McElhany *et al.* 2003)). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, roadbuilding, urbanization, and wetland loss and removal. Of the three watersheds reviewed by the Team, habitat areas in one were rated as having high and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Lower Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define this corridor as that segment of the Columbia River from the confluences of the Sandy River (Oregon)

and Washougal River (Washington) to the Pacific Ocean. Fish distribution and habitat use data from ODFW identify approximately 118 mi (189.9 km) of occupied riverine and estuarine habitat in this corridor (ODFW, 2003a,b). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Upper Willamette River Chinook Salmon ESU

The Upper Willamette River chinook ESU includes all naturally spawned populations of spring-run chinook salmon in the Clackamas River and in the Willamette River, and its tributaries, above Willamette Falls, Oregon (64 FR 14208; March 24, 1999). We have proposed that seven artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the McKenzie River Hatchery (ODFW stock # 24), Marion Forks/North Fork Santiam River (ODFW stock # 21), South Santiam Hatchery (ODFW stock # 23) in the South Fork Santiam River, South Santiam Hatchery in the Calapooia River, South Santiam Hatchery in the Mollala River, Willamette Hatchery (ODFW stock # 22), and Clackamas hatchery (ODFW stock # 19) spring-run chinook hatchery programs.

Historically, the Willamette River Basin provided sufficient spawning and rearing habitat for large numbers of spring-run chinook salmon. The predominant tributaries to the Willamette River that historically supported spring-run chinook salmon all drain the Cascade Range. The Willamette/Lower Columbia TRT has identified each of these seven drainages as an historically demographically independent population: Clackamas, Molalla, North Santiam, South Santiam, Calapooia, McKenzie, and Middle Fork Willamette rivers. The TRT also noted that reports of "Chinook salmon in

westside tributaries have continued to the present; however it is unlikely the abundance of spawners in any of these tributaries constitutes a [demographically independent population]." Approximately 30 to 40 percent of total historical habitat is now inaccessible behind dams. These inaccessible areas, however, represent a majority of the historical spawning habitat. This restriction of natural production to just a few areas increases the ESU's vulnerability to environmental variability and catastrophic events. The Willamette/Lower Columbia TRT has identified groups of populations in this recovery planning domain into "strata" intended to assist in evaluating ESU-wide recovery scenarios (McElhany *et al.*, 2002). The strata are based on major life-history characteristics (*e.g.*, species run-types) and ecological zones. The upper Willamette River chinook ESU consists of a single stratum as it consists of a single run-type (spring-run fish) that spawns within a single ecological zone (the Willamette River). Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such strata/regions in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Spring-run chinook salmon populations in the upper Willamette River basin and Clackamas River have been strongly influenced by extensive transfers of hatchery fish throughout the ESU for nearly 100 years, as well as the introduction of non-native fall-run chinook salmon. Prior to the laddering of Willamette Falls, passage by returning adult salmonids (just upstream of the confluence of the Clackamas and Willamette rivers) was only possible during winter and spring high-flow periods. Low flows during the summer and autumn months prevented fall-run salmon from accessing the upper Willamette River Basin. This isolation has provided the potential for significant local adaptation of Upper Willamette River spring-run chinook relative to other Columbia River populations. The early run-timing of adult Willamette River spring-run chinook salmon relative to other lower Columbia River spring-run populations is viewed as an adaptation to flow conditions at Willamette Falls. In some years fish returning to the upper Willamette River Basin historically may have strayed into the Clackamas River when conditions at Willamette Falls prevented upstream passage. Therefore, similarities between Clackamas River and upper Willamette River spring-run fish may reflect an historical and

evolutionary association between the two groups.

Upper Willamette River chinook salmon begin appearing in the Lower Willamette River in February, but the majority of the run ascends Willamette Falls in April and May, with a peak in mid-May. Currently, the migration of adult spring-run chinook salmon over Willamette Falls extends into July and August. Historically, passage over the falls may have been marginal in June, due to diminishing flows, with only larger fish being able to ascend.

Adults spawn in both mainstem and tributary habitats of eastside drainages to the Willamette River typically from late July to October. The juvenile life-history characteristics of Upper Willamette River spring-run salmon appear to be highly variable. Fry emerge from February to March, although sometimes as late as June. Juveniles appear to emigrate continuously out of the tributaries and into the mainstem Willamette River as fry (late winter to early spring), fingerlings (fall to early winter), and yearlings (late winter to spring). Most juveniles enter the ocean as yearlings after overwintering and rearing in the mainstem Willamette and Columbia rivers. In general, the majority of spring chinook salmon returning to the upper Willamette River basin currently mature at 4 and 5 years old.

The Upper Willamette River Team's assessment for this ESU addressed habitat areas within 56 occupied watersheds in 10 associated subbasins (identified below as "units" with unique HUC4 numbers) as well as the lower Willamette/Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the single life-history type and ecological stratum identified by the Willamette/Lower Columbia TRT. The Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Upper Willamette River chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Middle Fork Willamette Subbasin (HUC4# 17090001)

This subbasin contains 10 occupied watersheds encompassing approximately 1,367 sq mi (3,541 sq km). Fish distribution and habitat use data from ODFW identify approximately 273 mi (439.4 km) of occupied riverine

habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (Middle Fork Willamette River) in this subbasin. The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in four of the watersheds in this subbasin warrant a high rating and those in six warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team noted that the habitat areas with medium overall ratings contained a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Coast Fork Willamette Subbasin (HUC4# 17090002)

This subbasin contains four occupied watersheds encompassing approximately 664 sq mi (1,719.8 sq km). Fish distribution and habitat use data from ODFW identify approximately 44 mi (70.8 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) did not identify a demographically independent population in this subbasin, and Kostow (1995) characterized them as extinct. Myers *et al.* (2003) noted that reports of "Chinook salmon in westside tributaries have continued to the present; however it is unlikely the abundance of spawners in any of these tributaries constitutes a [demographically independent population]." However, recent data from ODFW (ODFW, 2004a,b) indicate that several watersheds in this subbasin likely contain important rearing and migration PCEs. Therefore, the Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, roadbuilding, and urbanization. The Team also concluded that habitat areas in all four watersheds in this subbasin warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Upper Willamette Subbasin (HUC4# 17090003)

This subbasin contains six occupied watersheds encompassing approximately 1,872 sq mi (4,848 sq km). Fish distribution and habitat use data from ODFW identify approximately 225 mi (362.1 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified possibly four demographically independent populations in this subbasin. Myers *et al.* (2003) also noted that reports of "Chinook salmon in westside tributaries have continued to the present; however it is unlikely the abundance of spawners in any of these tributaries constitutes a [demographically independent population]." However, recent data from ODFW (ODFW, 2004a,b) indicate that some watersheds (e.g., Marys and Luckiamute rivers) in this subbasin likely contain important rearing and migration PCEs. Therefore, the Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in three of the watersheds in this subbasin warrant a medium rating and those in three warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team also concluded that all reaches of the Willamette River within this subbasin constitute a high value rearing and migration corridor connecting upstream populations (e.g., those in the McKenzie, Middle Fork Willamette, and Calapooia Rivers) and high value habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. McKenzie River Subbasin (HUC4# 17090004)

This subbasin contains seven occupied watersheds encompassing approximately 1,339 sq mi (3,468 sq km). Fish distribution and habitat use data from ODFW identify approximately 268 mi (431.3 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (McKenzie River) in this subbasin. This is probably the only self-sustaining population above Willamette Falls, and possibly in the entire ESU (Myers *et al.*, 2003; NMFS, 2003). The Team concluded that all of the occupied areas contain spawning, rearing, or

migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in five of the watersheds in this subbasin warrant a high rating and those in two warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. North Santiam River Subbasin (HUC4# 17090005)

This subbasin contains six watersheds, three of which are occupied and encompass approximately 315 sq mi (815.8 sq km). Fish distribution and habitat use data from ODFW identify approximately 125 mi (201.2 km) of occupied riverine habitat in these watersheds (ODFW, 2003A,B). Myers *et al.* (2003) identified one demographically independent population (North Santiam River) in this subbasin. Historically accessible areas in the three uppermost watersheds of this subbasin are now blocked by Big Cliff and Detroit dams. These dams block access to approximately 70 percent of the historic spawning area in this subbasin (Myers *et al.*, 2003). The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in two of the watersheds in this subbasin warrant a high rating and those in one warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team also concluded that the three inaccessible watersheds (Upper North Santiam, North Fork Breitenbush River, and Detroit Reservoir/Blowout Divide Creek) may be essential to the conservation of the ESU. All three watersheds are presently occupied by hatchery chinook salmon which are trapped downstream and released into these watersheds. The Team determined that the Detroit Reservoir/Blowout Divide Creek watershed would have a lower overall conservation value due to the large areas inundated by Detroit Reservoir. The Team concluded that these unoccupied areas may be essential because: (1) They once supported a TRT core population; (2) they contain non-inundated habitats that are still relatively abundant and in fair to good condition and improving; (3) there is evidence that the areas can support significant natural production; and (3) the naturally-reproducing

population below Big Cliff Dam has limited spawning PCEs and appears to suffer from high mortality rates (Willamette National Forest [WNF], 1994; WNF, 1995; WNF, 1996; WNF, 1997; Ziller *et al.*, 2002; McElhany *et al.*, 2003). The Team noted that NMFS' status review of this ESU stated "the declines in spring chinook salmon in the Upper Willamette River ESU can be attributed in large part to the extensive habitat blockages caused by dam construction." In addition, the Team also noted that providing passage at dams and diversions has been identified as a key potential conservation measure for Willamette River salmon (Martin *et al.*, 1998; Bastasch *et al.*, 2002). Therefore, the Team determined that access to these areas would likely promote the conservation of the ESU. We seek comment on whether these areas should be proposed as critical habitat.

Unit 6. South Santiam River Subbasin (HUC4# 17090006)

This subbasin contains eight watersheds, six of which are occupied by this ESU and encompass approximately 766 sq mi (1,983.9 sq km). Fish distribution and habitat use data from ODFW identify approximately 169 mi (272 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). Two watersheds in the upper Middle Santiam River (Quartzville Creek and Middle Santiam River) are blocked by Green Peter Dam. Myers *et al.* (2003) identified one historically independent population (South Santiam River) in this subbasin. The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, and roadbuilding. The Team also concluded that habitat areas in three of the watersheds in this subbasin warrant a high rating and those in three warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Middle Willamette River Subbasin (HUC4# 17090007)

This subbasin consists of four occupied watersheds encompassing approximately 712 sq mi (1,844 sq km). Fish distribution and habitat use data from ODFW identify approximately 158 mi (254.3 km) of occupied riverine habitat (all rearing/migration) in these watersheds (ODFW, 2003a,b). Myers *et*

al. (2003) identified only a small portion of the spawning range of one demographically independent population (North Santiam River) in this subbasin, although six populations use this subbasin for rearing/migration. The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, roadbuilding, and urbanization. The Team also concluded that all of the habitat areas in this subbasin's watersheds warrant a low rating for conservation value to the ESU (NMFS, 2004a). However, that assessment pertained solely to the tributary habitat areas in these watersheds (e.g. Ash, Rickreall, and Harvey creeks), not the mainstem Willamette River. The Team concluded that all reaches of the Willamette River within this subbasin constitute a high value rearing and migration corridor. These high value reaches connect nearly all populations and watersheds in this ESU (except those in the Clackamas River) with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Yamhill River Subbasin (HUC4# 17090008)

This subbasin contains seven watersheds, four of which are occupied by this ESU and encompass approximately 495 sq mi (1,282 sq km). Fish distribution and habitat use data from ODFW identify approximately 71 mi (114.3 km) of occupied riverine habitat (all used for rearing or migration) in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) did not identify a demographically independent population in this subbasin. Myers *et al.* (2003) noted that reports of "Chinook salmon in westside tributaries have continued to the present; however it is unlikely the abundance of spawners in any of these tributaries constitutes a [demographically independent population]." However, recent data (ODFW, 2004a,b) indicate that several watersheds in this subbasin likely contain important rearing and migration PCEs. Therefore, the Team concluded that all of these occupied areas contain rearing and migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, roadbuilding, and urbanization. The Team also concluded that habitat areas in all four occupied watersheds in this subbasin warrant a

low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Molalla/Pudding River Subbasin (HUC4# 17090009)

This subbasin contains six occupied watersheds encompassing approximately 875 sq mi (2,266 sq km). Fish distribution and habitat use data from ODFW identify approximately 181 mi (291.3 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in two of the watersheds in this subbasin warrant a medium rating and those in four warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Clackamas River Subbasin (HUC4# 17090011)

This subbasin contains six occupied watersheds encompassing approximately 942 sq mi (2,440 sq km). This is the only subbasin with spawning habitat for this ESU below Willamette Falls. Fish distribution and habitat use data from ODFW identify approximately 137 mi (220.5 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (Clackamas River) in this subbasin. The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in five of the watersheds in this subbasin warrant a high rating and those in one warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Lower Willamette/Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define the lower Willamette/Columbia River corridor as that segment

from the confluence of the Willamette and Clackamas rivers to the Pacific Ocean. This corridor also includes the Multnomah Channel portion of the Lower Willamette River. Watersheds downstream of the Clackamas River subbasin (Johnson Creek and Columbia Slough/Willamette River watersheds) are outside the spawning range of this ESU and likely used in a limited way as juvenile rearing habitat for this ESU. Fish distribution and habitat use data from ODFW identify approximately 137 mi (220.5 km) of occupied riverine and estuarine habitat in this corridor (ODFW, 2003a,b). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Willamette/Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Upper Columbia River Spring-run Chinook Salmon ESU

The Upper Columbia River spring-run chinook ESU includes all naturally spawned populations of chinook salmon in all river reaches accessible to chinook salmon in Columbia River tributaries upstream of the Rock Island Dam and downstream of Chief Joseph Dam in Washington, excluding the Okanogan River (64 FR 14208; March 24, 1999). We have proposed that six artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the Twisp River, Chewuch River, Methow Composite, Winthrop NFH, Chiwawa River, and White River spring-run chinook hatchery programs.

Spring-run chinook salmon in this ESU have a stream-type life history, which means that they enter freshwater before they are fully mature and finish maturing during their upriver spawning run. Three demographically independent populations of naturally spawning spring-run chinook salmon are identified for this ESU: the Wenatchee, Entiat, and Methow River Basin populations. Principally due to

the small number of independent populations, the Interior Columbia Basin TRT (ICBTRT, 2003) has not identified separate major groupings or strata for the Upper Columbia River spring-run chinook ESU. Nonetheless, recovery planning will likely emphasize the need for a viable geographical distribution of the three populations comprising this ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Adults returning to the Wenatchee River enter fresh water from late March through early May, and those returning to the Entiat and Methow Rivers enter fresh water from late March through June. The run timing of Upper Columbia River spring-run chinook tends to be relatively earlier in low flow years, and later in high flow years. Adults migrating upriver hold in deeper pools or under cover until the onset of spawning. Adults may spawn in the areas where they hold, or move further into smaller tributaries. Peak spawning for all three populations occurs from August to September, though the timing is highly dependent upon water temperature. The egg incubation/alevin stage occurs from August into December, and emergence occurs into March. The juveniles typically spend 1 year in freshwater before migrating downstream, primarily in May and June. Most adults return after spending 2 years in the ocean, although 20 to 40 percent return after 3 years at sea.

The Middle and Upper Columbia River Team's assessment for this ESU addressed habitat areas within 15 occupied watersheds in four associated subbasins (identified below as "units" with unique HUC4 numbers), as well as the Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats in the context of each of the three populations in the ESU. The Middle and Upper Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Upper Columbia River spring-run chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Chief Joseph Subbasin (HUC4# 17020005)

This subbasin contains five watersheds, three of which are occupied by the ESU and encompass approximately 817 sq mi (2,116 sq km). Fish distribution and habitat use data

from WDFW identify approximately 42 mi (67.6 km) of occupied riverine habitat in the watershed (WDFW, 2003). However, the Team determined that occupied reaches in two watersheds (Jordan/Tumwater and Foster Creek) did not contain PCEs for this ESU because these reaches are located upstream of the uppermost population in the ESU (Methow River) and in areas that were likely to be of very minimal conservation value to the ESU (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Methow River) occupying this subbasin. The Team concluded that all occupied areas in the Upper Columbia/Swamp watershed contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, fire activity and disturbance, forestry, grazing, and roadbuilding. The Team also concluded that habitat areas in this watershed warrant an overall medium rating for conservation value to the ESU and that the rearing and migration corridor in Columbia River reaches downstream of the confluence of the Methow River were of high conservation value (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Methow Subbasin (HUC# 17020008)

This subbasin contains seven occupied watersheds encompassing approximately 1,823 sq mi (4,722 sq km). Fish distribution and habitat use data from WDFW identify approximately 202 mi (325.1 km) of occupied riverine habitat in the watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Methow River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the seven watersheds reviewed by the Team, habitat areas in five were rated as having high and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the watersheds with habitat areas having medium overall ratings (Middle Methow River and Lower Methow River) contain a high value rearing and migration corridor connecting high value habitat

areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Upper Columbia/Entiat Subbasin (HUC# 17020010)

This subbasin contains four occupied watersheds (but two of these consist of a rearing/migration corridor downstream of Rock Island Dam—see Unit 5 below). The two watersheds in this subbasin with tributary habitat (*i.e.*, tributaries to the Columbia River mainstem) encompass approximately 907 sq mi (2,349.1 sq km). Fish distribution and habitat use data from WDFW identify approximately 103 mi (165.8 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified three demographically independent populations (Methow River, Entiat River, and Wenatchee River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the two watersheds reviewed by the Team, habitat areas in one were rated as having high and those in the other were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also concluded that both watersheds contain high value rearing and migration corridors connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Wenatchee Subbasin (HUC# 17020011)

This subbasin contains five occupied watersheds encompassing approximately 1,328 sq mi (3,440 sq km). Fish distribution and habitat use data from WDFW identify approximately 182 mi (292.9 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Wenatchee River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and

withdrawals, and roadbuilding. Of the five watersheds reviewed by the Team, habitat areas in three were rated as having high and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define the Columbia River corridor as that segment from Rock Island Dam downstream to the Pacific Ocean. Rock Island Dam is located near the downstream border of the Entiat River watershed, which was the furthest downstream watershed with spawning or tributary PCEs identified in the range of this ESU. Fish distribution and habitat use data from WDFW identify approximately 448 mi (721 km) of occupied riverine and estuarine habitat in this corridor (WDFW, 2003). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, dams, irrigation impoundments and withdrawals, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Oregon Coast Coho Salmon ESU

The Oregon Coast coho ESU includes all naturally spawned populations of coho salmon in Oregon coastal streams south of the Columbia River and north of Cape Blanco (63 FR 42587; August 10, 1998). We have proposed that five artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the North Umpqua River (ODFW stock # 18), Cow Creek (ODFW stock # 37), Coos Basin (ODFW stock # 37), Coquille River (ODFW stock # 44), and North Fork Nehalem River (ODFW stock # 32) coho hatchery programs.

Geographical isolation is an important factor in the evolution of these separate populations within or between basins.

The Oregon Coast coho ESU is, in general, composed of relatively small basins (the Umpqua basin, an exception to this general rule, is a relatively large basin characterized by diverse vegetation and geology). The distance between saltwater entry points of each basin may significantly affect the level of migration or connectivity among populations. Some populations may be significantly affected by migrants from larger or more productive systems. The Oregon-Northern California Coast TRT has putatively identified 19 "functionally" and "potentially" independent populations and 48 additional dependent populations (Lawson *et al.*, 2004). The functionally and potentially independent populations include: the Necanicum River, Nehalem River, Tillamook Bay, Nestucca River, Salmon River, Siletz River, Yaquina River, Beaver Creek, Alsea River, Siuslaw River, Siltcoos River (lake), Tahkenitch Creek (lake), Lower Umpqua River, Upper Umpqua River, Tenmile Creek (lake), Coos Bay, Coquille River, Floras Creek, and Sixes River populations. Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of the ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003). Ecological strata or regions have not been identified for the Oregon Coast coho ESU. The TRT noted that, given the dominant influence of the ocean on the Oregon Coast climate, ecological conditions are relatively uniform throughout the ESU. The Umpqua River Basin is an exception, with inland areas being drier and experiencing more extreme temperatures than the coastal areas. Ecological differences within the ESU relate to the effects of local topography on rainfall, and of local geology on vegetation composition and slope stability.

Adult coho salmon begin migrating into coastal streams and rivers with the first freshets in the fall. Spawning begins in November, peaking in December or January, and may continue into March. Eggs hatch in the spring and fry grow rapidly to the parr stage by early summer or early fall. Parr then seek out areas protected from high flows and spend a second winter in freshwater before migrating to the ocean as smolts from March through June. Smolt outmigration timing and smolt size appear to respond to small-scale habitat variability and have been shown to be affected by anthropogenic activities including: habitat degradation (Moring and Lantz, 1975) and habitat restoration (Johnson *et al.*, 1993; Rodgers *et al.*,

1993). About 20 percent of males mature at age 2 and return to freshwater as "jacks" in the same year they entered the ocean as adults. Although the production of jacks is a heritable trait in coho salmon (Iwamoto *et al.*, 1984), the proportion of jacks in a given coho salmon population is strongly influenced by environmental factors (Silverstein and Hershberger, 1992). The remainder of juveniles rear in the ocean for 18 months and return as 3-year-old adults in the following fall.

Habitat capacity for coho salmon on the Oregon Coast has significantly decreased from historical levels (NMFS, 2003). During periods of poor ocean survival, high quality habitat is necessary to sustain coho populations (Nickelson and Lawson, 1998). The following habitat features have been identified as important to the recovery of Oregon Coast coho salmon (IMST, 2002): structure and function of lowland areas, wetland, floodplains, and riparian forests; the presence of large wood on beaches and stream banks, and in streams, channels, estuaries, and floodplains; water quality, including temperature; hydrologic function and flow regimes; connectivity of rivers with floodplain and off-channel habitats; and the presence of diverse native plant communities subject to natural disturbance regimes.

The Oregon Coast Team's assessment for this ESU addressed habitat areas within 80 occupied watersheds in 13 associated subbasins (identified below as "units" with unique HUC4 numbers). As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the populations identified by the Oregon-Northern California Coast TRT. The Oregon Coast Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Oregon Coast coho salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Necanicum River Subbasin (HUC4# 17100201)

This subbasin contains a single watershed which is occupied by the ESU and encompasses approximately 137 sq mi (355 sq km). Fish distribution and habitat use data from ODFW identify approximately 87 mi (140 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) putatively identified one "potentially"

independent population (the Necanicum River population) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: forestry, grazing, and urbanization. The Oregon Coast Team concluded that habitat areas in the one occupied watershed comprising this subbasin are of medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Nehalem River Subbasin (HUC4# 17100202)

This subbasin contains six watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 855 sq mi (2,214.4 sq km). Fish distribution and habitat use data from ODFW identify approximately 675 mi (1,086.3 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Nehalem River population) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in all but one watershed were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Wilson-Trask-Nestucca Rivers Subbasin (HUC4# 17100203)

This subbasin contains nine watersheds, each of which are occupied by the ESU. These watersheds encompass approximately 889 sq mi (2,302 sq km). Fish distribution and habitat use data from ODFW identify approximately 632 mi (1,017.1 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified two "functionally" independent populations (the Tillamook Bay and Nestucca River populations) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture,

forestry, urbanization, and river, estuary and ocean traffic. Of the nine watersheds reviewed by the Team, habitat areas in seven were rated as having high, and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Siletz-Yaquina Rivers Subbasin (HUC4# 17100204)

This subbasin contains nine watersheds, eight of which are occupied by the ESU and encompass approximately 642 sq mi (1,663 sq km). Fish distribution and habitat use data from ODFW identify approximately 612 mi (984.9 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified three "functionally" or "potentially" independent populations (the Salmon, Siletz, and Yaquina River populations) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, sand and gravel mining, urbanization, and river, estuary, and ocean traffic. Of the eight watersheds reviewed by the Team, habitat areas in three were rated as having high, and those in five were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Alsea River Subbasin (HUC4# 17100205)

This subbasin contains eight watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 690 sq mi (1,787.1 sq km). Fish distribution and habitat use data from ODFW identify approximately 559 mi (899.6 km) of occupied riverine habitat in the subbasin (ODFW, 2003A,B). The Oregon-Northern California Coast TRT (2003) identified two "functionally" or "potentially" independent populations (the Beaver Creek and Alsea River populations) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, sand and gravel mining, and urbanization. Of the eight

watersheds reviewed by the Team, habitat areas in four were rated as having high, those in three were rated as having medium, and those in one (the Big Creek/Vingie Creek watershed) were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Siuslaw River Subbasin (HUC4# 17100206)

This subbasin contains eight watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 776 sq mi (2,010 sq km). Fish distribution and habitat use data from ODFW identify approximately 774 mi (1,245.6 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Siuslaw River population) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, and urbanization. Of the eight watersheds reviewed by the Team, habitat areas in six were rated as having high, and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Siltcoos River Subbasin (HUC4# 17100207)

This subbasin contains one watershed which is occupied by the ESU and encompasses approximately 131 sq mi (339.3 sq km). Fish distribution and habitat use data from ODFW identify approximately 137 mi (220.5 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified two "potentially" independent populations (the Siltcoos River (lake) and Tahkenitch Creek (lake) populations) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: forestry, grazing, and urbanization. The Oregon Coast Team concluded that habitat areas in the one occupied watershed comprising this subbasin is of high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be

essential for the conservation of the ESU.

Unit 8. North Fork Umpqua River Subbasin (HUC4# 17100301)

This subbasin contains 12 watersheds; however, due to habitat blockage from the Soda Springs Dam, only the lower seven watersheds are accessible to Oregon Coast coho salmon. These seven occupied watersheds encompass approximately 924 sq mi (2,393.2 sq km). Fish distribution and habitat use data from ODFW identify approximately 175 mi (281.6 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Upper Umpqua River population) that is contained within this subbasin and the South Fork Umpqua River subbasin (HUC4# 17100302, below). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, and urbanization. Of the seven watersheds reviewed by the Team, habitat areas in one watershed were rated as having high, those in three watersheds were rated as having medium, and those in three watersheds were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. South Fork Umpqua River Subbasin (HUC4# 17100302)

This subbasin contains 13 watersheds, of which 12 are occupied by the ESU encompassing approximately 1,727 sq mi (4,473 sq km). Fish distribution and habitat use data from ODFW identify approximately 693 mi (1,115.3 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Upper Umpqua River population) that is contained within this subbasin and the North Fork Umpqua River subbasin (HUC4# 17100301, above). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, sand and gravel mining, and urbanization. Of the 12 watersheds reviewed by the Team,

habitat areas in one watershed were rated as having high, those in eight watersheds were rated as having medium, and those in three watersheds were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Umpqua River Subbasin (HUC# 17100303)

This subbasin contains eight watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 1,514 sq mi (3,921 sq km). Fish distribution and habitat use data from ODFW identify approximately 1,083 mi (1,742.9 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Lower Umpqua River population) that is contained within this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, urbanization, and river, estuary, and ocean traffic. Of the eight watersheds reviewed by the Team, habitat areas in five watersheds were rated as having high, those in two watersheds were rated as having medium, and those in one watershed were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Coos River Subbasin (HUC# 17100304)

This subbasin contains four watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 737 sq mi (1,909 sq km). Fish distribution and habitat use data from ODFW identify approximately 541 mi (870.6 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "potentially" independent population (the Coos Bay population) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, and urbanization. Of

the four watersheds reviewed by the Team, habitat areas in all four were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 12. Coquille River Subbasin (HUC# 17100305)

This subbasin contains six watersheds, each of which is occupied by the ESU. These watersheds encompass approximately 1,057 sq mi (2,738 sq km). Fish distribution and habitat use data from ODFW identify approximately 546 mi (878.7 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified one "functionally" independent population (the Coquille River population) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in four were rated as having high, those in one were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 13. Sixes River Subbasin (HUC# 17100306)

This subbasin contains four watersheds, two of which are occupied by the ESU and encompass approximately 290 sq mi (751.1 sq km). Fish distribution and habitat use data from ODFW identify approximately 149 mi (239.8 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Oregon-Northern California Coast TRT (2003) identified two "potentially" independent populations (the Sixes River and Floras Creek populations) in this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including: agriculture, forestry, grazing, irrigation impoundments and withdrawals, and sand and gravel mining. Of the two watersheds reviewed by the Team, habitat areas in one were rated as having high, and those in the other were rated as having medium conservation value to

the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Hood Canal Summer-run Chum Salmon ESU

The Hood Canal summer-run chum salmon ESU includes all naturally spawned populations of summer-run chum salmon in Hood Canal and its tributaries as well as populations in Olympic Peninsula rivers between Hood Canal and Dungeness Bay, Washington (64 FR 14508; March 25, 1999). We have proposed that eight artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the Quilcene NFH, Hama Hama Fish Hatchery, Lilliwaup Creek Fish Hatchery, Union River/Tahuya, Big Beef Creek Fish Hatchery, Salmon Creek Fish Hatchery, Chimacum Creek Fish Hatchery, and the Jimmycomelately Creek Fish Hatchery summer-run chum hatchery programs.

Sixteen historical demographically independent populations of Hood Canal summer-run chum have been identified for this ESU: eight extant populations (the Union River, Lilliwaup Creek, Hama Hama River, Duckabush River, Dosewallips River, Big/Little Quilcene River, Snow and Salmon creeks, Jimmycomelately Creek populations), and eight extirpated or possibly extirpated populations (the Dungeness River, Big Beef Creek, Anderson Creek, Dewatto Creek, Tahuya River, Skokomish River, Finch Creek, and Chimacum Creek populations) (WDFW and PNPTT, 2000). The Puget Sound TRT has identified 5 "geographic regions of diversity and correlated risk" in Puget Sound (Ruckelshaus *et al.*, 2002). The regions are based on similarities in hydrographic, biogeographic, geologic, and catastrophic risk characteristics and where groups of populations have evolved in common (Ruckelshaus *et al.*, 2002). The Hood Canal summer-run chum salmon ESU occupies two of these regions—the Strait of Juan de Fuca and Hood Canal. Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such regions in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Hood Canal summer-run chum are the southernmost occurrence of the summer-run life history for the species. The ESU appears to be uniquely adapted to the local habitat conditions, with this life-history persisting in what otherwise would be deemed an inhospitable environment. The summer chum streams are characterized by low

summer/fall flows and likely experience elevated stream temperatures during the summer chum spawning periods. Given the return timing of summer-run chum and the associated low flow conditions of spawning streams, chum are confined to the lower reaches of the streams (Crawford, 1997; Turner, 1995). Degradation of spawning habitat, reduced river flows, increased urbanization of the Kitsap Peninsula, and increased pinniped populations in Hood Canal have been cited as habitat limiting factors for the Hood Canal summer-run chum ESU (Johnson *et al.*, 1997).

The Summer Chum Salmon Conservation Initiative (WDFW and PNPTT, 2000) provides a comprehensive overview of this ESU and describes the following life history and habitat requirements. Migration to spawning grounds occurs from late August through late October. Adults generally spawn in low gradient, lower mainstem reaches of natal streams, typically in center channel areas due to the low flows encountered in the late summer and early fall. Eggs incubate in redds for 5 to 6 months, and fry emerge between January and May. After hatching, fry move rapidly downstream to subestuarine habitats. WDFW and PNPTT (2000) noted that successful incubation and rearing depends on a variety of conditions including: (1) The presence of adequate large woody debris to reduce scour of incubating eggs and moderate peak winter flow velocities, (2) the absence of excessive fines within spawning gravel, (3) stable channel configuration, and (4) access to floodplain and off-channel areas. Subestuary deltas support a diverse array of habitats (tidal channels, mudflats, marshes, and eelgrass meadows) that provide essential rearing and transition environments for this ESU. Juveniles rear in these habitats for days to weeks before entering the ocean, and returning adults stage in subestuaries before ascending natal streams to spawn. Juveniles feed primarily on plankton and epibenthic organisms, while subadults feed on similar items as well as larger prey (including fishes and squid). Most adults mature and spawn as 3- and 4-year old fish (WDFW and PNPTT, 2000).

The Puget Sound Team's assessment for this ESU addressed habitat areas within 12 occupied watersheds in four associated subbasins (identified below as "units" with unique HUC4 numbers) as well as the nearshore marine area. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and

diversity of habitats across the range of the two geographical regions of correlated risk identified by the Puget Sound TRT. The Puget Sound Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Hood Canal summer-run chum salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Skokomish Subbasin (HUC4# 17110017)

This subbasin contains a single occupied watershed encompassing approximately 245 sq mi (635 sq km). The Skokomish River population is the only historic population documented in this subbasin/watershed (WDFW and PNPTT, 2000). Fish distribution and habitat use data from WDFW identify approximately 13 mi (20.9 km) of occupied riverine/estuarine habitat in the subbasin/watershed (WDFW and PNPTT, 2000). The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, dam operations, forestry, and urbanization. The Team also concluded that habitat areas in this watershed warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Hood Canal Subbasin (HUC4# 17110018)

This subbasin contains seven occupied watersheds encompassing approximately 715 sq mi (1,852 sq km). WDFW and PNPTT (2000) identified the following historic populations in this subbasin: Union River, Lilliwaup Creek, Hama Hama River, Duckabush River, Dosewallips River, Big/Little Quilcene River, Big Beef Creek, Anderson Creek, Dewatto Creek, Tahuya River, and Finch Creek. Several of these have undergone recent extirpations but are now occupied through natural recolonization or re-introduction (WDFW and PNPTT, 2000; NMFS, 2004a). Fish distribution and habitat use data from WDFW identify approximately 50 mi (80.5 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003; NMFS, 2004a; WDFW, 2004). The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and

identified several management activities that may affect the PCEs, including channel modifications/diking, forestry, and urbanization. The Team also concluded that habitat areas in six of the watersheds in this subbasin warrant a high rating, and those in one warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team identified two streams (Finch Creek and Anderson Creek) that are currently unoccupied but essential for the conservation of the ESU. These streams historically supported independent populations of summer-run chum salmon (WDFW and PNPTT, 2000) and, due to the limited number of areas occupied by this ESU, are likely to be important areas for ESU expansion during recovery (NMFS, 2004a). Moreover, the Summer Chum Salmon Conservation Initiative (WDFW and PNPTT, 2000) is being implemented and recommends both streams for reintroduction of summer-run chum.

Unit 3. Kitsap Subbasin (HUC4# 17110019)

This subbasin contains a single occupied watershed encompassing approximately 82 sq mi (212.4 sq km). The Chimacum Creek population is the only historic population documented in this subbasin/watershed (WDFW and PNPTT, 2000). Fish distribution and habitat use data from WDFW identify approximately 1 mile (1.6 km) of occupied riverine/estuarine habitat in the watershed (WDFW, 2003; WDFW, 2004). The Team concluded that this occupied area contains spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, and urbanization. The Team also concluded that habitat areas in this watershed warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team identified an additional 5-mile (8-km) stream segment in Chimacum Creek that is currently unoccupied but essential for the conservation of the ESU. This stream segment historically supported the Chimacum Creek population of summer-run chum salmon (WDFW and PNPTT, 2000) and, due to the limited number of areas occupied by this ESU, is likely to be an important area for ESU expansion during recovery (NMFS, 2004a).

Unit 4. Dungeness-Elwha Subbasin (HUC4# 17110020)

This subbasin contains three occupied watersheds encompassing approximately 350 sq mi (906 sq km). WDFW and PNPTT (2000) identified the following historic populations in this

subbasin: Dungeness River, Jimmycomelately Creek, and Snow/Salmon creeks. Fish distribution and habitat use data from WDFW identify approximately 19 mi (30.6 km) of occupied riverine/estuarine habitat in the watersheds (WDFW, 2003). The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, forestry, and urbanization. The Team also concluded that habitat areas in two of the watersheds in this subbasin warrant a high rating, and those in one warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Nearshore Marine Area

The nearshore marine area considered by the Team includes that zone from extreme high water out to a depth of 30 m and adjacent to watersheds occupied by the ESU (described above). The Team assessment focused on this area because it generally encompasses photic zone habitats supporting plant cover (e.g., eelgrass and kelp) important for rearing, migrating, and maturing chum salmon and their prey. Also, PCEs that may require special management considerations or protection are more readily identified in this zone (e.g., destruction of vegetative cover due to docks and bulkheads). Deeper waters are occupied by subadult and maturing fish, but it is unclear if these areas contain PCEs that require special management considerations or protection. The Team concluded that all nearshore habitat areas from the southern terminus of Hood Canal northeast to Dungeness Bay in the Strait of Juan de Fuca warrant a high conservation value to the ESU (NMFS, 2004a). These habitat areas are found along approximately 402 miles (647 km) of shoreline within the range of this ESU.

Columbia River Chum Salmon ESU

The Columbia River chum salmon ESU includes all naturally spawned populations of chum salmon in the Columbia River and its tributaries in Washington and Oregon (64 FR 14508; March 25, 1999). We have proposed that three artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the Chinook River (Sea Resources Hatchery), Grays River, and Washougal River/Duncan Creek chum hatchery programs.

The Willamette/Lower Columbia River TRT identified 16 historical demographically independent populations of chum in the Columbia River: the Youngs Bay, Grays River, Big Creek, Elochoman River, Clatskanie River, Mill Creek, Scappoose Creek, Cowlitz River fall-run and summer-run, Kalama fall-run, Salmon Creek fall-run, Lewis River fall-run, Clackamas River fall-run, Washougal River fall-run, Lower Gorge tributaries fall-run, and the Upper Gorge tributaries fall-run populations (Myers *et al.*, 2003). All but two of these historical populations appear to have been extirpated, or nearly so. Although the historical record for Columbia River chum salmon is limited, it is clear that chum salmon were present in most tributaries to the lower Columbia River and to some extent in the mainstem (Myers *et al.*, 2003). Populations in the Coast Range tributaries (e.g., Grays River) differ in peak spawning activity by approximately a month relative to the Lower Gorge tributaries population. Differences in the time of spawning may be related to differences in water sources (rainfall in the Coast Range vs. groundwater in the Lower Gorge). There is insufficient information to provide a clear understanding of the migration dynamics among chum populations in the Columbia River, and hence the specific habitat characteristics to which local chum populations may be adapted is not understood. In general, extant Columbia River chum spawning aggregations are most abundant in the lower mainstem and off-channel areas. The TRT has placed groups of populations in this recovery planning domain into "strata" intended to assist in evaluating ESU-wide recovery scenarios (McElhany *et al.*, 2002). The strata are based on major life history characteristics (e.g., species run types) and ecological zones. The Columbia River chum salmon ESU inhabits three ecological zones (Coast Range, Cascade, and Columbia Gorge) and contains a single life history type (fall run), resulting in a total of three strata for this ESU (McElhany *et al.*, 2002). Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such strata/regions in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Intensive monitoring of chum spawning escapement is conducted in three Washington tributaries in the lower Columbia Basin-Grays River, Hardy Creek, and Hamilton Creek and in the mainstem Columbia River near Ives Island. The latter three populations are located immediately downstream of

Bonneville Dam. Chum salmon populations exist in other river systems of the lower Columbia, but are not consistently monitored and are assumed to be extremely low in abundance.

Chum salmon returning to the Columbia River are considered a fall run. Adult fall run chum salmon return to the Columbia River from mid-October through November, but apparently do not reach the Grays River until late October-early December. Spawning occurs in the Grays River from early November to late December. Fish returning to Hamilton and Hardy Creeks begin to appear in the tributaries in early November, and their spawn timing is more protracted (mid-November-mid-January).

Chum seldom show persistence in surmounting river blockages and falls, which may be why they usually spawn in lower river reaches. Spawning chum salmon typically dig their redds in the mainstem or in side channels of rivers, often in areas just above tidal influence. They spawn in shallower, slower-running streams and side channels more frequently than do other salmonids. In some locations, subgravel flow (upwelled groundwater from seeps and springs) may be important in the choice of redd sites by chum salmon. Many Columbia River chum have been found to select spawning sites in areas of upwelling groundwater. New spawning grounds for chum were recently discovered along the northern Columbia River shoreline near the I-205 Glen Jackson Bridge where groundwater upwelling occurs. A significant number of chum returning to Hamilton Creek spawn in a spring-fed channel, and portions of the Grays River and Hardy Creek populations spawn in the area of springs. Hundreds of chum salmon once returned to spawn within spring-fed areas along Duncan Creek; efforts have been completed to restore passage to these productive areas and protect the springs that feed them.

Chum do not have a clearly defined smolt stage, but are nonetheless capable of adapting to seawater soon after emerging from gravel. Downstream migration may take only a few hours or days in rivers where spawning sites are close to the mouth of the river. Historical information concerning the timing of chum salmon emigration in the lower Columbia River is limited. Recent seining projects conducted in the Grays River and at Ives Island indicate outmigration occurs from March through May and peaks from mid-April to early May.

Chum salmon juveniles, like other anadromous salmonids, use estuaries to feed before beginning long-distance

oceanic migrations. However, chum and ocean-type chinook salmon usually have longer residence times in estuaries than do other anadromous salmonids. The period of estuarine residence appears to be the most critical phase in the life history of chum salmon and may play a major role in determining the size of the subsequent adult run back to fresh water. Chum salmon spend more of their life history in marine waters than other Pacific salmonids. Juveniles feed primarily on plankton and epibenthic organisms, while subadults feed on similar items as well as larger prey (including fishes and squid). Most adults mature and spawn as 3-year old fish.

The Lower Columbia River Team's assessment for this ESU addressed habitat areas within 19 occupied watersheds in 6 subbasins (identified below as "units" with unique HUC4 numbers), as well as the lower Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the six life-history types and ecological strata identified by the Willamette/Lower Columbia TRT. The Lower Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Lower Columbia River chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Middle Columbia/Hood Subbasin (HUC4# 17070105)

This subbasin contains 13 watersheds, 3 of which are occupied by this ESU (almost exclusively as rearing/migration habitat) and encompass approximately 669 sq mi (1,733 sq mi). This subbasin may be the upstream extent of the species' distribution in the entire Columbia River basin (Myers *et al.*, 2003). Fish distribution and habitat use data from WDFW identify approximately 26 mi (41.8 km) of occupied riverine habitat in the watersheds, including a 22-mi (35.4-km) segment of the Columbia River (WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Columbia Gorge) containing two historical demographically independent populations in this subbasin (Upper Gorge Tributaries and Lower Gorge Tributaries). The Lower Gorge Tributaries population has been classified by the TRT as a "core" population (*i.e.*, historically abundant

and "may offer the most likely path to recovery") as well as a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain rearing or migration (and possibly spawning) PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Lower Columbia/Sandy Subbasin (HUC4# 17080001)

This subbasin contains nine watersheds, three of which are occupied by this ESU and encompass approximately 571 sq mi (1,479 sq km). This subbasin contains some of the principal spawning habitat for the entire ESU (*e.g.*, in Hardy and Hamilton creeks and adjacent areas of the mainstem Columbia River). Fish distribution and habitat use data from the WDFW identify approximately 84 mi (135.2 km) of occupied riverine habitat in the watersheds, including a 26-mi (41.8-km) segment of the Columbia River (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified two ecological zones (Cascade and Columbia Gorge) containing three historical demographically independent populations in this subbasin: Lower Gorge Tributaries, Washougal River, and Salmon Creek. The Lower Gorge Tributaries population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") as well as a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team also noted that the Columbia Gorge Tributaries watershed, in addition to the important mainstem spawning areas, also contains a high value rearing and migration corridor in the Columbia

River connecting upstream habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Lewis Subbasin (HUC4# 17080002)

This subbasin contains six watersheds, two of which are currently occupied by this ESU with the remaining four blocked by Merwin Dam and others upstream. Occupied watersheds encompass approximately 456 sq mi (1,181 sq km). Fish distribution and habitat use data from WDFW identify approximately 71 mi (114.3 km) of occupied riverine habitat in the watersheds (WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing one historical demographically independent population in this subbasin (Lewis River). The TRT has classified this as a "core" population (historically abundant and "may offer the most likely path to recovery") and the East Fork Lewis River summer-run population as a genetic legacy population (one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, sand/gravel mining, and urbanization. The Team also concluded that habitat areas in both of the occupied watersheds warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Lower Columbia/Clatskanie Subbasin (HUC4# 17080003)

This subbasin contains six watersheds, three of which are occupied by this ESU and encompass approximately 543 sq mi (1,406 sq km). Fish distribution and habitat use data from WDFW identify approximately 51 mi (82.1 km) of occupied riverine habitat in these watersheds (WDFW, 2003). Myers *et al.* (2003) identified two ecological zones (Coast Range and Cascade) containing five historical demographically independent populations in this subbasin: Kalama River, Mill Creek, Elochoman River, Clatskanie River, and Scappoose River. The Elochoman River population has been classified by the TRT as a "core" population, *i.e.*, historically abundant

and "may offer the most likely path to recovery" (McElhany *et al.* 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Lower Cowlitz Subbasin (HUC4# 17080005)

This subbasin contains eight watersheds, six of which are occupied by this ESU and encompass approximately 1,102 sq mi (2,854 sq km). Fish distribution and habitat use data from WDFW identify approximately 243 mi (391.1 km) of occupied riverine habitat in the watersheds (WDFW, 2003). Myers *et al.* (2003) identified one ecological zone (Cascade) containing a single historical demographically independent population (Cowlitz River) of chum salmon in this subbasin. This population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") and a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in three were rated as having high and those in three were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that two watersheds (East Willapa and Coweeman River) contained high value rearing and migration corridors connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Lower Columbia Subbasin (HUC4# 17080006)

This subbasin contains three watersheds, two of which (Grays Bay and Big Creek) are occupied by this ESU and encompass approximately 304 sq

mi (787.4 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 62 mi (99.8 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b; WDFW, 2003). The Team received recent data from ODFW (Turner, NMFS, personal communication) indicating that the Big Creek watershed is occupied by this ESU, even though ODFW data identifies these reaches as "historically occupied." Myers *et al.* (2003) identified a single ecological zone (Coast Range) containing three demographically independent populations in this subbasin (Grays and Chinook Rivers, Youngs Bay, and Big Creek). The Youngs Bay, Grays and Chinook Rivers, and Big Creek populations have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). In addition, the TRT classified the Grays and Chinook Rivers population as a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU.") The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and wetland loss and removal. The Team also concluded that habitat areas in both of the occupied watersheds warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Lower Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define this corridor as that segment of the Columbia River from the confluences of the Sandy River (Oregon) and Washougal River (Washington) to the Pacific Ocean. Fish distribution and habitat use data from WDFW identify approximately 118 mi (189.9 km) of occupied riverine and estuarine habitat in this corridor (WDFW, 2003). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Columbia River corridor was of high conservation value to the ESU. Other upstream reaches of the Columbia River corridor (within Units 1 and 2 above) are also high value for rearing/migration. The Team noted that this corridor connects every watershed and population in this ESU with the ocean and is used by rearing/migrating

juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Ozette Lake Sockeye Salmon ESU

The Ozette Lake sockeye salmon ESU includes all naturally spawned populations of sockeye salmon in Ozette Lake and streams and tributaries flowing into Ozette Lake, Washington (64 FR 14528; March 25, 1999). We have proposed that two artificial propagation programs also be considered part of this ESU (69 FR 133101; June 14, 2004): the Umbrella Creek and Big River sockeye hatchery programs. The Puget Sound TRT considers the Ozette Lake sockeye ESU to be comprised of one historical population with multiple spawning aggregations.

Migration of adult sockeye salmon (typically 4-year-old fish) up the Ozette River generally occurs from April to early August (WDFW *et al.*, 1993). High water temperatures in the lake and river and low water flows in the summer may create a thermal block to migration and influence timing of the sockeye salmon migration (LaRiviere, 1991). Recorded water temperatures in late-July and August in the Ozette River near the lake outlet have exceeded the temperature range over which sockeye salmon are known to migrate (Gustafson *et al.*, 1997).

Disjunct spawning times for fish at different beach spawning sites within the lake suggest that Ozette Lake sockeye may be composed of discrete subpopulations or spawning aggregations (Dlugokenski *et al.*, 1981). The primary existing spawning aggregations occur in two beach locations, Allen's and Olsen's beaches, and in two tributaries, Umbrella Creek and Big River. Both of the tributary spawning groups were initiated through a hatchery introduction program. Spawning fish are occasionally found in other tributaries and may occur at other beach locations within the lake (Makah Fisheries, 2000). The extent to which sockeye spawned historically in tributaries to the lake is controversial (Gustafson *et al.*, 1997), but it is clear that multiple beach-spawning aggregations of sockeye occurred historically, and that genetically distinct kokanee currently spawn in large numbers in all surveyed lake tributaries

(except Umbrella Creek and Big River). During low water levels in summer, much of the available beach spawning habitat may become exposed (Bortleson and Dion, 1979).

Eggs and alevins reside beneath fine gravel/cobble generally from 1.3 to 10.2 cm in diameter (Reiser and Bjornn, 1979). Incubation is temperature dependent and generally takes as little as 50 days (or less) or more than 5 months (Hart, 1973). After hatching most juveniles spend one winter in Ozette Lake rearing before outmigrating to the ocean as 2-year-old fish during April and May (Dlugokenski *et al.*, 1981). Juvenile sockeye feed primarily on plankton and a variety of terrestrial and aquatic insects (Hart, 1973; Scott and Crossman, 1973). The fish typically spend 2 years in the northeast Pacific Ocean foraging on zooplankton, squid, and, infrequently, on small fishes (Scott and Crossman, 1973).

The Puget Sound Team's assessment for this ESU addressed habitat areas in the one occupied watershed. The Team evaluated these habitat areas on the basis of the physical and biological habitat requirements of Ozette Lake sockeye salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Ozette Lake Subbasin (HUC4# 17100101)

This subbasin includes a single watershed encompassing approximately 101 sq mi (262 sq km), with Ozette Lake being the dominant feature. Fish distribution and habitat use type data from WDFW identify approximately 40 mi (64.4 km) of occupied riverine/estuarine habitat in this watershed (WDFW, 2003). In addition, Ozette Lake covers approximately 12 sq mi (31.1 sq km) and contains important spawning beaches and rearing areas. The Team concluded that all of these occupied areas contained PCEs, including spawning beaches, lake and river rearing habitat, and river migration corridors (NMFS, 2004a). Management activities that may affect PCEs in this watershed include, but are not limited to, forestry and introduction of exotic invasive plants. This watershed supports the one and only population constituting this ESU; therefore, the Team concluded that the habitat areas in this watershed warrant a high rating for conservation value to the ESU. While the Team did not identify any unoccupied areas that may be essential for this ESU, they did note that tributary streams near lake spawning beaches may have a major influence on PCEs

(e.g., sedimentation and substrate recruitment).

Upper Columbia River *O. mykiss* ESU

The Upper Columbia River *O. mykiss* ESU includes all naturally spawned populations of anadromous *O. mykiss* in streams in the Columbia River Basin upstream from the Yakima River, Washington, to the U.S.-Canada border (62 FR 43937; August 18, 1997). We have proposed that resident populations of *O. mykiss* below impassible barriers (natural and manmade) that co-occur with anadromous populations also be included in the Upper Columbia River *O. mykiss* ESU (69 FR 33101; June 14, 2004). The ESU membership of native resident populations above recent (usually man-made) impassible barriers, but below natural barriers, has not been resolved. These resident populations are provisionally not considered to be part of the Upper Columbia River *O. mykiss* ESU until such time that significant scientific information becomes available affording a case-by-case evaluation of their ESU relationships. We have proposed that six artificial propagation programs also be considered part of the ESU (69 FR 33101; June 14, 2004): the Wenatchee River, Wells Hatchery (in the Methow and Okanogan Rivers), Winthrop NFH, Omak Creek, and the Ringold *O. mykiss* hatchery programs.

The Interior Columbia Basin TRT (2003) did not identify separate major ecological groupings strata for this ESU due to the relatively small number of populations. Four populations are identified for the Upper Columbia River *O. mykiss* ESU: the Wenatchee River, Methow River, Entiat River, and Okanogan Basin population.

Unlike Pacific salmon, *O. mykiss* are capable of spawning more than once before death. However, it is rare for anadromous *O. mykiss* to spawn more than twice before dying, and most that do so are females. Anadromous *O. mykiss* can be divided into two basic run types based on their level of sexual maturity at the time they enter fresh water and the duration of the spawning migration. The stream-maturing type, or summer run, enters fresh water in a sexually immature condition and requires several months in fresh water to mature and spawn. The ocean-maturing type, or winter run, enters fresh water with well-developed gonads and spawns relatively shortly after river entry. Anadromous fish in the Upper Columbia River *O. mykiss* ESU are made up entirely of summer *O. mykiss*.

Upper Columbia River *O. mykiss* spawn in cool, clear streams with suitable gravel size, depth, and current velocity. They sometimes also use

smaller streams for spawning. Adult *O. mykiss* enter fresh water between May and October. During summer and fall before spawning, they hold in cool, deep pools. They migrate inland toward spawning areas, overwinter in the larger rivers, resume migration to natal streams in early spring, and then spawn. In general, adults in this ESU spawn later than in most downstream populations—often remaining in fresh water for a year before spawning.

Depending on water temperature, *O. mykiss* eggs may incubate for 1.5 to 4 months before hatching. Rearing takes place primarily in the faster parts of pools, although young-of-the-year are abundant in glides and riffles. Some older juveniles move downstream to rear in larger tributaries and mainstem rivers. Productive *O. mykiss* habitat is characterized by complexity—primarily in the form of large and small wood. The dry habitat conditions in the Upper Columbia River are less conducive to *O. mykiss* survival than in many other parts of the Columbia River Basin. Although the life history of this ESU is similar to that of other inland *O. mykiss*, smolt ages are some of the oldest on the West Coast (up to 7 years old), probably due to the area's cold water temperatures. The cold stream temperatures also lead to the possibility that many fish in this ESU may be thermally-fated to a resident (rainbow trout) life history regardless of whether they are the progeny of resident or anadromous *O. mykiss* parents. Most current natural production occurs in the Wenatchee and Methow River systems, with a smaller run returning to the Entiat River. Very limited spawning also occurs in the Okanogan River Basin. Most of the anadromous fish spawning in natural production areas are of hatchery origin. The limited data available indicate that anadromous *O. mykiss* smolts in this ESU are dominated by 2-year-olds. It also appears that anadromous *O. mykiss* from the Wenatchee and Entiat rivers return to fresh water after 1 year in salt water, whereas those in the Methow River primarily return after 2 years of ocean residence.

The Middle and Upper Columbia River Team's assessment for this ESU addressed habitat areas within 31 occupied watersheds in 10 associated subbasins (identified below as "units" with unique HUC4 numbers), as well as the Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats in the context of each of the four populations in the ESU.

The Middle and Upper Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Upper Columbia River *O. mykiss*, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Chief Joseph Subbasin (HUC4# 17020005)

This subbasin contains five watersheds, three of which are occupied by the ESU and encompass approximately 817 sq mi (2,116 sq km). Fish distribution and habitat use data from WDFW identify approximately 42 mi (67.6 km) of occupied riverine habitat in the watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Methow River and Okanogan River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the three watersheds reviewed by the Team, habitat areas in one were rated as having medium and those in two were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted that the Upper Columbia/Swamp watershed contains a high value migration corridor for the Methow River and Okanogan River populations, connecting upstream habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Okanogan Subbasin (HUC4# 17020006)

This subbasin contains five occupied watersheds encompassing approximately 2,650 sq mi (6,863 sq km). Fish distribution and habitat use data from WDFW identify approximately 131 mi (210.8 km) of occupied riverine habitat in the watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Okanogan River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and

disturbance, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, and roadbuilding. Of the five watersheds reviewed by the Team, habitat areas in two were rated as having high and those in three were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the watersheds with habitat areas having medium overall ratings contain a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Similkameen Subbasin (HUC4# 17020007)

This subbasin contains four watersheds, one of which (Lower Similkameen River) is occupied by the ESU. This watershed encompasses approximately 69 sq mi (179 sq km); other historically occupied areas in this subbasin are now blocked by Enloe Dam. Fish distribution and habitat use data from WDFW identify approximately 4 mi (6.4 km) of occupied riverine habitat in the watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Okanogan River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, grazing, and roadbuilding. The Team also concluded that habitat areas in the Lower Similkameen River watershed warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team also believed that historically occupied areas upstream of Enloe Dam may be essential for the conservation of the ESU. The Team noted that a recent report describing habitat and fish conditions in this subbasin (Talayco, 2002) observed that Enloe Dam blocks access to more than 95 percent of the potential anadromous fish habitat in the Similkameen River and that there is "significant potential for increasing spawning and rearing habitat available to anadromous fish in this subbasin by addressing passage barriers such as Enloe Dam." This report also noted that "recently there has been interest in relicensing the Enloe Dam, and fish passage alternatives are being investigated." Therefore, the Team concluded that the ESU would likely benefit if the extant population had access to spawning/rearing habitat

upstream. We seek comment on whether these areas should be proposed as critical habitat.

Unit 4. Methow Subbasin (HUC4# 17020008)

This subbasin contains seven occupied watersheds encompassing approximately 1,823 sq mi (4,722 sq km). Fish distribution and habitat use data from WDFW identify approximately 216 mi (347.6 km) of occupied riverine habitat in the watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Methow River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the seven watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Lake Chelan Subbasin (HUC4# 17020009)

This subbasin contains two watersheds, one of which (Lower Chelan) is occupied by the ESU and encompasses approximately 262 sq mi (679 sq km). Most of the stream reaches in this watershed are above the Lake Chelan gorge and were likely historically inaccessible to anadromous fish. Fish distribution and habitat use data from WDFW identify approximately 1 mi (1.6 km) of occupied riverine habitat in the lowermost reach of this watershed (WDFW, 2003). The Interior Columbia Basin TRT (2003) did not associate a demographically independent population with this subbasin but Kaputa (2002) noted that a priority management goal for the Chelan River is to provide spawning and rearing habitat for *O. mykiss* in area near the confluence with the Columbia River. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, and roadbuilding. The Team also concluded that habitat areas in the Lower Chelan watershed warrant a medium rating for conservation value to the ESU (NMFS,

2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Upper Columbia/Entiat Subbasin (HUC4# 17020010)

This subbasin contains four occupied watersheds encompassing approximately 1,491 sq mi (3,862 sq km). Fish distribution and habitat use data from WDFW identify approximately 185 mi (298 km) of occupied riverine habitat in the subbasin (WDFW, 2003). All four demographically independent populations in this ESU (Okanogan River, Methow River, Entiat River, and Wenatchee River) occupy this subbasin (ICBTRT, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the four watersheds reviewed by the Team, habitat areas in three were rated as having high and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the Lake Entiat watershed contains a high value rearing and migration corridor connecting high value upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Wenatchee Subbasin (HUC4# 17020011)

This subbasin contains five occupied watersheds encompassing approximately 1,328 sq mi (3,440 sq km). Fish distribution and habitat use data from WDFW identify approximately 242 mi (390 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Wenatchee River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the five watersheds reviewed by the Team, habitat areas in four were rated as having high and those in one were rated as having medium conservation value to

the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Moses Coulee Subbasin (HUC4# 17020012)

This subbasin contains two watersheds, one of which (Rattlesnake Creek) is occupied by the ESU and encompasses approximately 218 sq mi (565 sq km). Fish distribution and habitat use data from WDFW identify approximately 1 mi (1.6 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) did not associate a demographically independent population with this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, grazing, and irrigation impoundments. The Team also concluded that habitat areas in the occupied watershed warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Lower Crab Subbasin (HUC4# 17020015)

This subbasin contains two watersheds, only one of which (Lower Crab Creek) is occupied by the ESU and encompasses approximately 400 sq mi (1,036 sq km). Fish distribution and habitat use data from WDFW identified very little occupied riverine habitat in the subbasin (WDFW, 2003). However, the Team concluded that this was inaccurate and cited distribution information in Quinn (2001) that *O. mykiss* likely spawn further upstream in Crab Creek. The Interior Columbia Basin TRT (2003) did not associate a demographically independent population with this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, fire activity and disturbance, grazing, and irrigation impoundments and withdrawals. The Team also concluded that habitat areas in the Lower Crab Creek watershed warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Upper Columbia/Priest Rapids Subbasin (HUC4# 17020016)

This subbasin contains four watersheds, three of which are occupied by the ESU and encompass approximately 929 sq mi (2,406 sq km). Fish distribution and habitat use data from WDFW identify approximately 113 mi (182 km) of occupied riverine habitat in the subbasin (WDFW, 2003). All four demographically independent populations identified by the Interior Columbia Basin TRT (2003) occupy this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, fire activity and disturbance, forestry, grazing, irrigation impoundments and withdrawals, and roadbuilding. Of the three watersheds reviewed by the Team, all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team also noted that these watersheds also contain a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define the Columbia River corridor as that segment from the confluence of the Yakima and Columbia rivers downstream to the Pacific Ocean. This confluence is located in the Columbia River/Zintel Canyon watershed which was the furthest downstream watershed with spawning or tributary PCEs identified in the range of this ESU. Fish distribution and habitat use data from WDFW identify approximately 330 mi (531 km) of occupied riverine and estuarine habitat in this corridor (WDFW, 2003). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002).

Management activities that may affect the PCEs in this corridor include channel modifications, dams, irrigation impoundments and withdrawals, roadbuilding, river/estuary traffic, urbanization, and wetland loss and removal.

Snake River Basin *O. mykiss* ESU

The Snake River Basin *O. mykiss* ESU includes all naturally spawned populations of anadromous *O. mykiss* in streams in the Snake River Basin of southeast Washington, northeast Oregon, and Idaho (62 FR 43937; August 18, 1997). We have proposed that resident populations of *O. mykiss* below impassible barriers (natural and manmade) that co-occur with anadromous populations also be included in the Snake River Basin *O. mykiss* ESU. The ESU membership of native resident populations above recent (usually man-made) impassible barriers, but below natural barriers, has not been resolved. These resident populations are provisionally not considered to be part of the Snake River Basin *O. mykiss* ESU until such time that significant scientific information becomes available affording a case-by-case evaluation of their ESU relationships. Recent genetic data suggest that native resident *O. mykiss* above Dworshak Dam on the North Fork Clearwater River are part of this ESU. We have proposed that native resident *O. mykiss* populations above Dworshak Dam on the North Fork Clearwater River be considered part of the Snake River Basin *O. mykiss* ESU. Hatchery rainbow trout that have been introduced to the Clearwater River and other areas within the ESU are not considered part of the ESU. We have proposed that six artificial propagation programs be considered part of the ESU (69 FR 33101; June 14, 2004): the Tucannon River, Dworshak NFH, Lolo Creek, North Fork Clearwater, East Fork Salmon River, and the Little Sheep Creek/Imnaha River Hatchery *O. mykiss* hatchery programs.

The Interior Columbia Basin TRT (ICBTRT, 2003) has identified 6 "major groupings" of populations in the Snake River Basin *O. mykiss* ESU. The groupings are based on similarities in genetic distances, distances between spawning aggregates, life history, and habitat or environmental considerations. Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such regions in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003; McClure, 2004 [pers comm.]).

The Snake River *O. mykiss* ESU is distributed throughout the Snake River drainage system, including tributaries in

southeast Washington, eastern Oregon and north/central Idaho. Snake River *O. mykiss* migrate a substantial distance from the ocean (up to 930 mi (1,497 km)) and use high elevation tributaries (typically 3,300–6,600 ft; 1,005.8–2,011.7 m) above sea level) for spawning and juvenile rearing. Snake River *O. mykiss* occupy habitat that is considerably warmer and drier (on an annual basis) than other *O. mykiss* ESUs.

Snake River Basin *O. mykiss* are generally classified as summer run, based on their adult run timing patterns. Summer *O. mykiss* enter the Columbia River from late June to October. After holding over the winter, summer *O. mykiss* spawn during the following spring (March to May). Managers classify up-river summer *O. mykiss* runs into two groups based primarily on ocean age and adult size upon return to the Columbia River. Those classified as A-run *O. mykiss* are predominately age-1 ocean fish, while B-run *O. mykiss* are larger, predominately age-2 ocean fish.

With one exception (the Tucannon River production area), the tributary habitat used by Snake River *O. mykiss* ESU is above Lower Granite Dam. Major groupings of populations and/or subpopulations can be found in: (1) the Lower Snake River tributaries; (2) the Imnaha River drainage; (3) the Grande Ronde River system; (4) the Hells Canyon tributaries; (5) the Clearwater River drainages; and (6) the Salmon River drainages. Resident *O. mykiss* are believed to be present in many of the drainages used by Snake River basin *O. mykiss*. Very little is known about interactions between co-occurring resident and anadromous forms within this ESU (NMFS, 2003).

The Snake River Basin Team's assessment for this ESU addressed habitat areas within 271 occupied watersheds in 25 associated subbasins (identified below as "units" with unique HUC4 numbers) as well as the lower Snake/Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats in the context of each of the six major groupings identified by the TRT for this ESU. The Team evaluated the conservation value of habitat areas, on the basis of the physical and biological habitat requirements of Snake River Basin *O. mykiss*, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Hells Canyon Subbasin (HUC4# 17060101)

This subbasin contains three watersheds occupied by this ESU and encompasses approximately 541 sq mi (1,401 sq km). Fish distribution and habitat use data from ODFW, U.S. Forest Service (USFS), Bureau of Land Management (BLM), and Idaho Department of Fish and Game (IDFG) identify approximately 152 mi (245 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) determined that although the streams in this subbasin are geographically separated from other major spawning areas, none of these tributaries appears to be large enough to support an independent population. However, the Team determined that maintaining this area may be important for ESU viability or other conservation goals. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including grazing and dams. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team also noted that the northern end of the subbasin provides rearing and migration habitat for the Imnaha River population. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Imnaha River Subbasin (HUC4# 17060102)

This subbasin contains five watersheds occupied by this ESU and encompasses approximately 851 sq mi (2,204 sq km). Fish distribution and habitat use data from ODFW identify approximately 357 mi (575 km) of occupied riverine habitat in the watersheds (ODFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Imnaha River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, roads, and urbanization. Of the five watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that

may be essential for the conservation of the ESU.

Unit 3. Lower Snake/Asotin Subbasin (HUC4# 17060103)

This subbasin contains three watersheds occupied by this ESU and encompasses approximately 704 sq mi (1,823 sq km). Fish distribution and habitat use data from ODFW, WDFW, USFS, BLM, and IDFG identify approximately 196 mi (315 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified three demographically independent populations (Asotin Creek, Lower Grande Ronde, and Little Salmon and Lower Salmon tributaries) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, grazing, irrigation impoundments and withdrawals, urbanization, and exotic/invasive species introductions. Of the three watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Upper Grande Ronde River Subbasin (HUC4# 17060104)

This subbasin contains eleven watersheds occupied by this ESU and encompasses approximately 1,637 sq mi (4,240 sq km). Fish distribution and habitat use data from ODFW identify approximately 789 mi (1,270 km) of occupied riverine habitat in the watersheds (ODFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Upper Grande Ronde River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the 11 watersheds reviewed by the Team, habitat areas in 9 were rated as having high and those in 2 were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the watersheds with habitat areas having medium overall ratings contain a high value rearing and migration corridor

connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Wallowa River Subbasin (HUC4# 17060105)

This subbasin contains six watersheds occupied by this ESU and encompasses approximately 954 sq mi (2,471 sq km). Fish distribution and habitat use data from ODFW identify approximately 265 mi (427 km) of occupied riverine habitat in the watersheds (ODFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Wallowa River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in five were rated as having high, and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team noted that the Middle Wallowa River watershed contains a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Lower Grande Ronde Subbasin (HUC4# 17060106)

This subbasin contains seven watersheds occupied by this ESU and encompasses approximately 1,518 sq mi (3,932 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 576 mi (927 km) of occupied riverine habitat in the watersheds (ODFW, 2003; WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Lower Grande Ronde River and Joseph Creek) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including forestry, grazing, irrigation impoundments and withdrawals, road building/maintenance, river traffic, and exotic/invasive species introductions. The

Team also concluded that all of the habitat areas in these seven watersheds warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Lower Snake/Tucannon Subbasin (HUC4# 17060107)

This subbasin contains eight watersheds occupied by this ESU and encompasses approximately 1,458 sq mi (3,777 sq km). Fish distribution and habitat use data from WDFW identify approximately 325 mi (523 km) of occupied riverine habitat in the watersheds (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Asotin Creek and Tucannon River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, hydroelectric dams, forestry, grazing, irrigation impoundments and withdrawals, road building/maintenance, recreational facilities and activities, river traffic, and exotic/invasive species introductions. Of the eight watersheds reviewed by the Team, habitat areas in two were rated as having high, those in two were rated as having medium, and those in four were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted that one of the watersheds with habitat areas having a medium overall rating (Snake River/Penawawa Creek) and one with low overall ratings (Snake River/Steptoe Canyon) contain a high value rearing and migration corridor connecting high value upstream habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Palouse River Subbasin (HUC4# 17060108)

This subbasin contains one watershed that is occupied by this ESU. The occupied watershed encompasses approximately 199 sq mi (515 sq km). Fish distribution and habitat use data from WDFW identify approximately 8 mi (13 km) of occupied riverine habitat in the watersheds (WDFW, 2003). The Interior Columbia Basin TRT (2003) did not identify a demographically independent population occupying this subbasin. However, the Team determined that this area may provide

spawning habitats during years of high abundance or favorable habitat conditions. Additionally, the Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture and hydroelectric dams. The Team also concluded that habitat areas in the Lower Palouse River watershed warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Upper Salmon Subbasin (HUC4# 17060201)

This subbasin contains 27 watersheds occupied by this ESU and encompasses approximately 2,119 sq mi (5,488 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 551 mi (887 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Upper Mainstem Salmon River and East Fork Salmon River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the 27 watersheds reviewed by the Team, habitat areas in 20 were rated as having high, those in six were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted that three of the watersheds with habitat areas having medium overall ratings (Salmon River/Kinnikinic Creek, Salmon River/Slate Creek, Yankee Fork/Jordan Creek) contain a migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Pahsimeroi Subbasin (HUC4# 17060202)

This subbasin contains seven watersheds, three of which are currently occupied by this ESU. The occupied watersheds encompass approximately 376 sq mi (974 sq km); other historically occupied areas in this subbasin are now blocked by irrigation

impoundments and low stream flows due to irrigation withdrawals. Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 51 mi (82 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). In addition, the Team identified 83 mi (134 km) of unoccupied riverine habitat that may be essential for conservation of the ESU (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Pahsimeroi River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, grazing, irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. Of the three occupied watersheds reviewed by the Team, habitat areas in one were rated as having high and those in two were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also believed that historically occupied areas within three watersheds (Big Creek, Pahsimeroi River/Goldberg Creek, Upper Pahsimeroi River) may be essential for the conservation of the ESU. We seek comment on whether these areas should be proposed as critical habitat.

Unit 11. Middle Salmon-Panther Subbasin (HUC4# 17060203)

This subbasin contains 23 watersheds occupied by this ESU and encompasses approximately 1,821 sq mi (4,716 sq km) and 1,987 mi (3,198 km) of streams. Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 340 mi (547 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified four demographically independent populations (Lemhi River, North Fork Salmon River, Pahsimeroi River, Panther Creek) within this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, forestry, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the 23 watersheds reviewed by the Team, habitat areas in 16 were rated as having high, those in 6 were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted

that two of the watersheds with habitat areas having medium overall ratings (Panther Creek/Trail Creek and Salmon River/Williams Creek) contain a migration corridor connecting high value habitat areas upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 12. Lemhi Subbasin (HUC4# 17060204)

This subbasin contains 14 watersheds, 10 of which are currently occupied by this ESU. The occupied watersheds in this subbasin encompass approximately 862 sq mi (2,233 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 112 mi (180 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). In addition to the occupied riverine habitat, the Team determined that there are 191 mi (307 km) of unoccupied riverine habitat that may be essential for conservation of the ESU (NMFS, 2004a). These segments of unoccupied riverine habitat are found within both occupied and unoccupied watersheds. The Interior Columbia Basin TRT (2003) identified one demographically independent population (Lemhi River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications/diking, grazing, irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. Of the 10 watersheds reviewed by the Team, habitat areas in 9 watersheds were rated as having high and those in 1 watershed were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also believed that historically occupied areas within four watersheds (Big Timber Creek, Eighteen Mile Creek, Hawley Creek, Texas Creek) may be essential for the conservation of the ESU. We seek comment on whether these areas should be proposed as critical habitat.

Unit 13. Upper Middle Fork Salmon Subbasin (HUC4# 17060205)

This subbasin contains 13 watersheds occupied by this ESU and encompasses approximately 1,506 sq mi (3,901 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 572 mi (921 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified

two demographically independent populations (Upper Middle Fork Salmon River and Lower Middle Fork Salmon River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. The Team rated all of the habitat areas in these watersheds as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 14. Lower Middle Fork Salmon Subbasin (HUC4# 17060206)

This subbasin contains 17 watersheds occupied by this ESU and encompasses approximately 1,373 sq mi (3,556 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 340 mi (547 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Lower Middle Fork Salmon River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, recreational facilities and activities, and road building/maintenance. The Team rated all of the habitat areas in these watersheds as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 15. Middle Salmon-Chamberlain Subbasin (HUC4# 17060207)

This subbasin contains 19 watersheds occupied by this ESU and encompasses approximately 1,715 sq mi (4,442 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 402 mi (647 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Chamberlain Creek and Panther Creek) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and

identified several management activities that may affect the PCEs, including forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. Of the 19 watersheds reviewed by the Team, habitat areas in 14 were rated as having high, those in 3 were rated as having medium, and those in 2 were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also noted that the watersheds with habitat areas having medium overall ratings contain a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 16. South Fork Salmon Subbasin (HUC4# 17060208)

This subbasin contains 15 watersheds occupied by this ESU and encompasses approximately 1,313 sq mi (3,401 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 410 mi (660 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (South Fork Salmon River and Secesh River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. The Team rated all of the habitat areas in these 15 watersheds as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 17. Lower Salmon Subbasin (HUC4# 17060209)

This subbasin contains 17 watersheds occupied by this ESU and encompasses approximately 1,179 sq mi (3,054 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 317 mi (510 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Chamberlain Creek and Little Salmon and Lower Salmon tributaries) occupying this subbasin. The Team concluded that all occupied

areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, mineral mining, road building/maintenance, and urbanization. Of the 17 watersheds reviewed by the Team, habitat areas in 12 were rated as having high, and those in 5 as having medium conservation value to the ESU (NMFS, 2004a). The Team noted that two of the watersheds with habitat areas having medium overall ratings (Salmon River/Hammer Creek and Salmon River/Van Creek) contain a migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 18. Little Salmon Subbasin (HUC4# 17060210)

This subbasin contains seven watersheds, five of which are occupied by this ESU. The occupied watersheds encompass approximately 406 sq mi (1,052 sq km). Fish distribution and habitat use data from BLM, IDFG, and USFS identify approximately 101 mi (163 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Little Salmon and Lower Salmon tributaries) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, forestry, fire activity and disturbance, grazing, road building/maintenance, and urbanization. Of the five watersheds reviewed by the Team, habitat areas in two were rated as having high and those in three were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team noted that one of the watersheds (Lower Little Salmon River) with habitat areas having medium overall value contains a high value rearing and migration corridor connecting high value habitat areas upstream with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 19. Upper Selway Subbasin (HUC4# 17060301)

This subbasin contains nine watersheds occupied by this ESU and

encompasses approximately 983 sq mi (2,546 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 314 mi (505 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Selway River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including fire activity and disturbance. All of the habitat areas in the watersheds reviewed by the Team were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 20: Lower Selway Subbasin (HUC4# 17060302)

This subbasin contains 14 watersheds, 13 of which are occupied by this ESU. The occupied watersheds encompass approximately 1,005 sq mi (2,603 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 242 mi (390 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Selway River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including forestry, fire activity and disturbance, grazing, and road building/maintenance. All of the habitat areas in watersheds reviewed by the Team were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 21: Lochsa Subbasin (HUC4# 17060303)

This subbasin contains 14 watersheds occupied by this ESU and encompasses approximately 1,178 sq mi (3,051 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 277 mi (446 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Lochsa River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management

activities that may affect the PCEs, including forestry, fire activity and disturbance, and road building and maintenance. All of the habitat areas in watersheds reviewed by the Team were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 22: Middle Fork Clearwater Subbasin (HUC4# 17060304)

This subbasin contains two watersheds occupied by this ESU and encompasses approximately 217 sq mi (562 sq km). Fish distribution and habitat use data from BLM, IDFG and USFS identify approximately 80 mi (129 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Lower Clearwater River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, road building/maintenance, and urbanization. The Team rated habitat areas in both of the watersheds within this subbasin as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 23: South Fork Clearwater Subbasin (HUC4# 17060305)

This subbasin contains 13 watersheds occupied by this ESU and encompasses approximately 1,176 sq mi (3,046 sq km). Fish distribution and habitat use data from BLM, IDFG and USFS identify approximately 406 mi (653 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (South Fork Clearwater River and Lower Clearwater River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, mineral mining, road building/maintenance, and urbanization. Of the 13 watersheds reviewed by the Team, habitat areas in 8 watersheds were rated as having high, those in 3 were rated as having medium, and those in 2 were rated as having low conservation value

to the ESU (NMFS, 2004a). The Team noted that two of the watersheds with habitat areas having medium value and one of the watersheds with habitat areas having low value contain a high value rearing and migration corridor connecting high value upstream habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 24: Clearwater Subbasin (HUC4# 17060306)

This subbasin contains 31 watersheds, 26 of which are occupied by this ESU. The occupied watersheds encompass approximately 2,046 sq mi (5,299 sq km). Fish distribution and habitat use data from BLM, IDFG and USFS identify approximately 425 mi (684 km) of occupied riverine habitat in the watersheds (NMFS, 2004a). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Lolo Creek and Lower Clearwater) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, forestry, fire activity and disturbance, grazing, mineral mining, road building/maintenance, and urbanization. Of the 26 watersheds reviewed by the Team, habitat areas in 14 watersheds were rated as having high, those in 9 were rated as having medium, and those in 3 were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted that five of the watersheds with habitat areas having medium value and two watersheds with habitat areas having low value contain a high value rearing and migration corridor connecting high value upstream habitat areas with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 25: Lower North Fork Clearwater Subbasin (HUC4# 17060308)

This subbasin contains 12 watersheds, one of which is occupied by the anadromous life history type of this ESU. The occupied watershed encompasses approximately 81 sq mi (210 sq km). Fish distribution and habitat use data from IDFG and USFS identify approximately 2 mi (3.2 km) of occupied riverine habitat in the lowermost watershed of the subbasin (NMFS, 2004a). The fish in the occupied habitat are part of the Lower Clearwater

River population (ICBTRT, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, forestry, fire activity and disturbance, and road building and maintenance. The Team rated the habitat areas in the Lower North Fork Clearwater River watershed as having a low conservation value for the ESU. In addition, the Team also considered whether historically occupied areas of this subbasin (and the upstream subbasin—Upper North Fork Clearwater) above Dworshak Dam are essential for ESU conservation. Although many areas are now inundated, the Team concluded that most of the blocked watersheds are still in good condition. The Team also noted that the Interior Columbia Basin TRT identified these areas as part of a historically independent population and underscored that the resident *O. mykiss* above Dworshak Dam are genetically unique relative to other *O. mykiss* in the Clearwater Basin. A recently completed status review update of this ESU (NMFS, 2003) noted that “recent genetic data suggest that native resident *O. mykiss* above Dworshak Dam on the North Fork Clearwater should be considered part of this ESU, but hatchery rainbow trout that have been introduced to that and other areas would not.” Given these considerations, the Team concluded that these blocked watersheds may be essential for ESU conservation, but it was uncertain which specific areas within them may warrant consideration as critical habitat. We seek comment on whether these areas should be proposed as critical habitat.

Unit 26. Lower Snake/Columbia River corridor

Unit 26 consists of the migration corridor that begins in Southeast Washington immediately downstream of the confluence of the Snake River with the Palouse River. The corridor includes approximately 378 mi (608 km) of the Lower Snake and Columbia rivers. Watersheds downstream of the Palouse River are outside of the spawning range of this ESU and likely used in a limited way as juvenile rearing habitat for this ESU. After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Snake/Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects every watershed and population in this ESU with the ocean

and by rearing/migrating juveniles and migrating adults. The Columbia River estuary also contains PCEs and is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriot *et al.*, 2002).

Middle Columbia River *O. mykiss* ESU

The Middle Columbia River *O. mykiss* ESU includes all naturally spawned populations of anadromous *O. mykiss* in streams from above the Wind River, Washington, and the Hood River, Oregon (exclusive), upstream to, and including, the Yakima River, Washington, excluding *O. mykiss* from the Snake River basin (64 FR 14517; March 25, 1999). We have proposed that resident populations of *O. mykiss* below impassible barriers (natural and manmade) that co-occur with anadromous populations also be included in the Middle Columbia River *O. mykiss* ESU (69 FR 33101; June 14, 2004). The ESU membership of native resident populations above recent (usually man-made) impassible barriers, but below natural barriers, has not been resolved. These resident populations are provisionally not considered to be part of the Middle Columbia River *O. mykiss* ESU until such time that significant scientific information becomes available affording a case-by-case evaluation of their ESU relationships. We have proposed that seven artificial propagation programs be considered part of the ESU (69 FR 33101; June 14, 2004): the Touchet River Endemic, Yakima River Kelt Reconditioning Program (in Satus Creek, Toppenish Creek, Naches River, and Upper Yakima River), Umatilla River, and the Deschutes River *O. mykiss* hatchery programs.

The Interior Columbia Basin TRT (ICBTRT, 2003) has identified 16 extant demographically independent populations: the Fifteenmile Creek, Deschutes River—westside, Deschutes River—eastside, John Day River lower mainstem tributaries, South Fork John Day River, John Day River upper mainstem, Middle Fork John Day River, North Fork John Day River, Umatilla River, Walla Walla River, Touchet River, Rock Creek, Klickitat River, Toppenish and Satus Creeks, Naches River, and Yakima River upper mainstem populations. The historical White Salmon River population was extirpated with the construction of Condit Dam. The TRT arranged these populations into four major groups in this recovery planning area: (1) Cascades Eastern Slope Tributaries, (2) John Day River, (3) Umatilla and Walla Walla Rivers, and

(4) Yakima River. A fifth unaffiliated group consists of at least the Rock Creek drainage (Washington) to the mid-Columbia River. These groupings are based on the proximity of major drainages, distances between spawning aggregations, topography, and genetic and ecological characteristics. Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of population groupings (also called “strata”) in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Unlike Pacific salmon, *O. mykiss* are capable of spawning more than once before death. However, it is rare for *O. mykiss* to spawn more than twice before dying, and most that do so are females. *O. mykiss* can be divided into two basic run types based on their level of sexual maturity at the time they enter fresh water and the duration of the spawning migration. The stream-maturing type, or summer *O. mykiss*, enters fresh water in a sexually immature condition and requires several months in fresh water to mature and spawn. The ocean-maturing type, or winter *O. mykiss*, enters fresh water with well-developed gonads and spawns relatively shortly after river entry. Anadromous fish in the Middle Columbia River *O. mykiss* ESU are predominantly summer-run fish, but winter-run fish are found in the Klickitat River in Washington, and Fifteenmile Creek in Oregon.

Both types of *O. mykiss* spawn in cool, clear streams with suitable gravel size, depth, and current velocity. They sometimes also use smaller streams for spawning. Summer-run fish enter fresh water between May and October. During summer and fall before spawning, they hold in cool, deep pools. They migrate inland toward spawning areas, overwinter in the larger rivers, resume migration to natal streams in early spring, and then spawn. Winter-run fish enter fresh water between November and April in the Pacific Northwest, migrate to spawning areas, and then spawn in late winter or spring. Depending on water temperature, *O. mykiss* eggs may incubate for 1.5 to 4 months before hatching. Summer rearing takes place primarily in the faster parts of pools, although young-of-the-year are abundant in glides and riffles. Winter rearing occurs more uniformly at lower densities across a wide range of fast and slow habitat types. Some older juveniles move downstream to rear in larger tributaries and mainstem rivers. Productive *O. mykiss* habitat is characterized by complexity, primarily in the form of large and small wood.

Most anadromous *O. mykiss* in this ESU smolt at 2 years and spend 1 to 2 years in salt water before re-entering fresh water, where they may remain for up to a year before spawning. Age-2-ocean fish dominate the summer run in the Klickitat River, whereas most other rivers with summer-run fish produce about equal numbers of both age-1- and 2-ocean fish. Juvenile life-history stages (i.e., eggs, alevins, fry, and parr) inhabit freshwater/riverine areas throughout the range of the ESU. Parr usually undergo a smolt transformation as 2-year-olds, at which time they migrate to the ocean. Subadults and adults forage in coastal and offshore waters of the North Pacific Ocean before returning to spawn in their natal streams. An inland form of resident *O. mykiss* (redband trout) co-occurs with the anadromous form in this ESU, and juvenile life stages of the two forms can be very difficult to differentiate. In addition, hatchery *O. mykiss* are also distributed throughout the range of this ESU (except for the John Day subbasin).

The Middle and Upper Columbia River Team's assessment of this ESU addressed habitat areas within 111 occupied watersheds in 15 associated subbasins (identified below as "units" with unique HUC4 numbers) as well as the Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats in the context of each of the five major groupings identified by the TRT for this ESU. The Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Middle Columbia River *O. mykiss*, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Upper Yakima (HUC4# 17030001)

The subbasin contains four occupied watersheds encompassing approximately 2,139 sq mi (5,540 sq km). Fish distribution and habitat use data from WDFW identify approximately 284 mi (457 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Upper Yakima River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect

the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the four watersheds reviewed by the Team, habitat areas in three were rated as having high conservation value and those in one were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team noted that the Umtanum/Wenas watershed contains a high value migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team also concluded that several historically occupied areas in this subbasin may be essential for ESU conservation, including upper reaches in Wilson and Naneum creeks (Middle Upper Yakima River watershed) and areas upstream of Cle Elum, Kacheelus, and Kachess dams (Upper Yakima River watershed). These dams block substantial amounts of historical habitat and the Team noted that areas above them were historically important nursery/rearing areas for this ESU and that habitat conditions are still in generally good condition. The Team determined that access to these areas would likely promote the conservation of the ESU. We seek comment on whether these areas should be proposed as critical habitat.

Unit 2. Naches (HUC4# 17030002)

The subbasin contains three occupied watersheds encompassing approximately 1,105 sq mi (2,862 sq km). Fish distribution and habitat use data from the WDFW identify approximately 230 mi (370 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Naches River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, and road building/maintenance. Habitat areas in all of the watersheds reviewed by the Team were rated as having a high conservation value to the ESU (NMFS, 2004a). The Team also concluded that two historically occupied areas in this subbasin may be essential for ESU conservation, including reaches blocked by Bumping Lake Dam in the Little Naches River watershed and reaches above Tieton Dam in the Naches/Tieton

River watershed. The Team noted that areas above both dams were historically important nursery/rearing areas for this ESU and that habitat conditions are in generally good condition. The Team determined that access to these areas would likely promote the conservation of the ESU. We seek comment on whether these areas should be proposed as critical habitat.

Unit 3. Lower Yakima (HUC4# 17030003)

The subbasin contains seven occupied watersheds encompassing approximately 2,903 sq mi (7,519 sq km). Fish distribution and habitat use data from WDFW identify approximately 574 mi (924 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Naches River and Satus and Toppenish Creeks) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, road building/maintenance, and urbanization. Of the seven watersheds reviewed by the Team, habitat areas in four were rated as having high and those in three were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also concluded that the watersheds with habitat areas having a medium overall rating contain a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Middle Columbia/Lake Wallula (HUC4# 17070101)

The subbasin contains 14 watersheds, 10 of which are occupied by the ESU; 5 of these consist solely of a Columbia River rearing/migration corridor. Occupied watersheds encompass approximately 2,089 sq mi (5,410 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 155 mi (249 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b; WDFW, 2003). Seven of the 16 demographically independent *O. mykiss* populations in this ESU identified by the Interior

Columbia Basin TRT (2003) occupy Columbia River reaches within this subbasin. However, only one of these (Rock Creek, an unaffiliated independent population) is known to spawn here. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, forestry, fire activity and disturbance, grazing, road building/maintenance, and urbanization. Of the 10 watersheds reviewed by the Team, habitat areas in 7 were rated as having high and those in 3 were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Walla Walla (HUC4# 17070102)

The subbasin contains 11 watersheds, 9 of which are occupied by the ESU. Occupied watersheds encompass approximately 1,525 sq mi (3,950 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 531 mi (855 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b; WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Walla Walla River and Touchet River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, hydroelectric dams, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, road building/maintenance, and urbanization. Of the nine watersheds reviewed by the Team, habitat areas in five were rated as having high, those in three as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also concluded that while the tributary habitat areas in some of the watersheds were of medium conservation value to the ESU (NMFS, 2004a), the watersheds still contain a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Umatilla (HUC4# 17070103)

The subbasin contains 13 watersheds, 10 of which are occupied by the ESU. Occupied watersheds encompass approximately 1,828 sq mi (4,734 sq km). Fish distribution and habitat use data from ODFW identify approximately 419 mi (674 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Umatilla River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, road building/maintenance, and urbanization. Of the 10 watersheds reviewed by the Team, habitat areas in 6 were rated as having high, those in 1 as having medium, and those in 3 were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also concluded that while the tributary habitat areas in one of the watersheds was of medium conservation value to the ESU (NMFS, 2004a), the watershed still contains a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Middle Columbia/Hood (HUC4# 17070105)

This subbasin contains 13 watersheds, 8 of which are occupied by this ESU. Occupied watersheds encompass approximately 1,461 sq mi (3,784 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 272 mi (438 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b; WDFW, 2003). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Klickitat River and Fifteenmile Creek) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, hydroelectric dams, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, road

building/maintenance, river traffic, and urbanization. Of the eight watersheds reviewed by the Team, habitat areas in three were rated as having high, those in four as medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also concluded that while the tributary habitat areas in two watersheds were of low and medium conservation value to the ESU (NMFS, 2004a), these watersheds still contain a high value Columbia River rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Klickitat (HUC4# 17070106)

This subbasin contains four occupied watersheds encompassing approximately 1,351 sq mi (3,499 sq km). Fish distribution and habitat use data from WDFW identify approximately 216 mi (348 km) of occupied riverine habitat in the subbasin (WDFW, 2003). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Klickitat River) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, and road building/maintenance. The Team concluded that habitat areas in all of the watersheds in this subbasin are of high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Upper John Day (HUC4# 17070201)

This subbasin contains 15 watersheds, 14 of which are occupied by this ESU. Occupied watersheds encompass approximately 1,991 sq mi (5,157 sq km). Fish distribution and habitat use data from ODFW identify approximately 799 mi (1,286 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified three demographically independent populations (South Fork John Day, Lower Mainstem John Day, Upper Mainstem John Day) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management

activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, road building/maintenance and urbanization. Of the 13 watersheds reviewed by the Team, habitat areas in 12 watersheds were rated as having high and those in 1 were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the Fields Creek watershed contains a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. North Fork John Day (HUC# 17070202)

This subbasin contains 10 occupied watersheds encompassing approximately 1,849 sq mi (4,789 sq km). Fish distribution and habitat use data from ODFW identify approximately 931 mi (1,498 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (North Fork John Day and Middle Fork John Day) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, mineral mining, and road building/maintenance. Of the 10 watersheds reviewed by the Team, habitat areas in 9 were rated as having high and those in 1 were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that the Lower North Fork John Day River watershed contains a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 11. Middle Fork John Day (HUC# 17070203)

This subbasin contains five occupied watersheds encompassing approximately 792 sq mi (2,051 sq km). Fish distribution and habitat use data from ODFW identify approximately 387 mi (623 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The

Interior Columbia Basin TRT (2003) identified one demographically independent population (Middle Fork John Day) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, mineral mining, and road building/maintenance. Of the five watersheds reviewed by the Team, habitat areas in four were rated as having high and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also noted that the Lower Middle Fork John Day River watershed contains a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 12. Lower John Day (HUC# 17070204)

This subbasin contains 14 occupied watersheds encompassing approximately 3,155 sq mi (8,171 sq km). Fish distribution and habitat use data from ODFW identify approximately 829 mi (1,334 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Lower Mainstem John Day) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, and road building/maintenance. Of the 14 watersheds reviewed by the Team, habitat areas in 7 were rated as having high, those in 4 were rated as having medium, and those in 3 were rated as having low conservation value to the ESU (NMFS, 2004a). The Team also noted that the three low value watersheds contain a high value rearing and migration corridor connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 13. Lower Deschutes (HUC# 17070306)

This subbasin contains 12 watersheds, 9 of which are occupied by this ESU. Occupied watersheds encompass approximately 1,891 sq mi (4,898 sq km). Fish distribution and habitat use data from ODFW identify approximately 357 mi (575 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified two demographically independent populations (Deschutes River Westside Tributaries and Deschutes River Eastside Tributaries) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, hydroelectric dams, forestry, fire activity and disturbance, grazing, mineral mining, road building/maintenance, and urbanization. Of the nine watersheds reviewed by the Team, habitat areas in eight were rated as having high and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 14. Trout (HUC# 17070307)

This subbasin contains five watersheds, four of which are occupied by this ESU. Occupied watersheds encompass approximately 554 sq mi (1,435 sq km). Fish distribution and habitat use data from ODFW identify approximately 116 mi (187 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). The Interior Columbia Basin TRT (2003) identified one demographically independent population (Deschutes River Eastside Tributaries) occupying this subbasin. The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications/diking, forestry, fire activity and disturbance, grazing, irrigation impoundments and withdrawals, and road building/maintenance. Of the four watersheds reviewed by the Team, habitat areas in two were rated as having high, those in one were rated as having medium and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas

in this subbasin that may be essential for the conservation of the ESU.

Unit 15. Upper Columbia/Priest Rapids (HUC4# 17020016)

This subbasin contains four watersheds, only one of which (Columbia River/Zintel Canyon) is occupied by the ESU. The occupied watershed encompasses approximately 211 sq mi (546 sq km). Fish distribution and habitat use data from WDFW identify approximately 13 mi (21 km) of occupied riverine habitat in the subbasin consisting of the Columbia River downstream of its confluence with the Yakima River (WDFW, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, hydroelectric dams, fire activity and disturbance, road building/maintenance, and urbanization. The Team also concluded that habitat areas in the Columbia River/Zintel Canyon watershed warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 16. Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define the Columbia River corridor as that segment from the confluence of the Wind and Columbia Rivers downstream to the Pacific Ocean. This confluence is located at the downstream boundary of the Middle Columbia/Grays Creek watershed, which was the furthest downstream watershed with spawning or tributary PCEs identified in the range of this ESU. Fish distribution and habitat use data from ODFW and WDFW identify approximately 151 mi (243 km) of occupied riverine and estuarine habitat in this corridor (ODFW, 2003a,b; WDFW, 2003). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects habitat areas in every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management

activities that may affect the PCEs in this corridor include channel modifications, dams, irrigation impoundments and withdrawals, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Lower Columbia River *O. mykiss* ESU

The Lower Columbia River anadromous *O. mykiss* ESU includes all naturally spawned populations of anadromous *O. mykiss* in streams and tributaries to the Columbia River between the Cowlitz and Wind Rivers, Washington (inclusive), and the Willamette and Hood Rivers, Oregon (inclusive). Excluded are *O. mykiss* in the upper Willamette River Basin above Willamette Falls and *O. mykiss* from the Little and Big White Salmon Rivers in Washington (62 FR 43937; August 18, 1997). We have proposed that resident populations of *O. mykiss* below impassible barriers (natural and manmade) that co-occur with anadromous populations be included in the Lower Columbia River *O. mykiss* ESU (69 FR 33101; June 14, 2004). The ESU membership of native resident populations above recent (usually manmade) impassible barriers, but below natural barriers, has not been resolved. These resident populations are provisionally not considered to be part of the Lower Columbia River *O. mykiss* ESU until such time that significant scientific information becomes available affording a case-by-case evaluation of their ESU relationships. We have proposed that 10 artificial propagation programs be considered part of the ESU: the Cowlitz Trout Hatchery (in the Cispus, Upper Cowlitz, Lower Cowlitz, and Tilton Rivers), Kalama River Wild (winter- and summer-run), Clackamas Hatchery, Sandy Hatchery, and Hood River (winter- and summer-run) *O. mykiss* hatchery programs (69 FR 33101; June 14, 2004).

The Willamette-Lower Columbia River TRT has identified 23 historical demographically independent populations of Lower Columbia River *O. mykiss*: 18 Western Cascade Range tributaries populations (the Cispus River winter-run, Tilton River winter-run, Upper Cowlitz River winter-run, Lower Cowlitz River winter-run, North Fork Toutle River winter-run, South Fork Toutle River winter-run, Coweeman River winter-run, Kalama River winter-run, Kalama River summer-run, North Fork Lewis River winter-run, East Fork Lewis River winter-run, North Fork Lewis River summer-run, East Fork

Lewis River summer-run, Clackamas River winter-run, Salmon Creek winter-run, Sandy River winter-run, Washougal River winter-run, Washougal River summer-run populations); and five Columbia River Gorge tributaries populations (the Lower Gorge tributaries winter-run, Upper Gorge tributaries winter-run, Wind River summer-run, Hood River winter-run, and Hood River summer-run populations) (Myers *et al.*, 2003). The TRT has arranged these populations into "strata" based on major life history characteristics (e.g., species run types) and ecological zones (McElhany *et al.*, 2002). The Lower Columbia River *O. mykiss* ESU inhabits two ecological zones (Cascade and Columbia Gorge) and contains two life-history types (summer- and winter-run fish), resulting in a total of four strata for this ESU: Cascade summer- and winter-run populations, and Columbia Gorge summer- and winter-run populations (McElhany *et al.*, 2002). Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such strata in the ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

In the Lower Columbia River Basin, migrating adult *O. mykiss* can occur in the Columbia River year-round, but peaks in migratory activity and differences in reproductive ecotype lend themselves to classifying anadromous *O. mykiss* into two races: summer-run and winter-run fish. Summer-run fish return to fresh water from May to October, and enter the Columbia in a sexually immature condition, requiring several months in fresh water to reach sexual maturity and spawn. Winter-run fish enter fresh water from November to April, and return as sexually mature individuals that spawn shortly thereafter.

Some rivers have both summer and winter runs, while others have only one race. Where both runs occur in the same stream, summer-run fish tend to spawn higher in the watershed than do winter forms, perhaps suggesting that summer-run fish tend to exist where winter runs do not fully utilize available habitat. In rivers where both winter and summer forms occur, they are often separated by a seasonal hydrologic barrier, such as a waterfall. Coastal streams are predominantly winter-run fish, whereas interior subbasins are dominated by summer-run fish. Historically, winter-run fish may have been excluded from interior Columbia River subbasins by Celilo Falls.

O. mykiss spawn in clear, cool, well-oxygenated streams with suitable gravel and water velocity. Adult fish waiting to spawn or in the process of spawning are

vulnerable to disturbance and predation in areas without suitable cover. Cover types include overhanging vegetation, undercut banks, submerged vegetation, submerged objects such as logs and rocks, deep water, and turbulence. Spawning occurs earlier in areas of lower elevation and where water temperature is warmer than in areas of higher elevation and cooler water temperature. Spawning occurs from January through May, and precise spawn timing is related to stream temperature. Adult *O. mykiss*, unlike salmon, do not necessarily die after spawning but return to the ocean. However, repeat spawning is not common among anadromous *O. mykiss* migrating several hundred miles or more upstream from the ocean.

O. mykiss eggs hatch in 35 to 50 days depending on water temperature. Following hatching, alevins remain in the gravel 2 to 3 weeks until the yolk-sac is absorbed. Anadromous *O. mykiss* are spring spawners, so they spawn at a time when temperatures are typically cold, but increasing. Their spawning time must optimize avoidance of competing risks from gravel-bed scour during high flow and increasing water temperatures that can become lethal to eggs as the warm season arrives. Fry emergence is principally determined by the time of egg deposition and the water temperature during the incubation period. In the lower Columbia, emergence timing differs slightly between anadromous *O. mykiss* races and among subbasins. The different emergence times between races may be a function of spawning location within the watershed (and hence water temperature) or a result of genetic differentiation between the races. Generally, emergence occurs from March into July, with peak emergence time generally in April and May. Following emergence, fry usually move into shallow and slow-moving margins of the stream. Fry tend to occupy shallow riffle habitats, and as they grow, they inhabit areas with deeper water, a wider range of velocities, and larger substrate.

Anadromous *O. mykiss* exhibit a great deal of variability in smolt age and ocean age. The dominant age class of outmigrating smolts in the lower Columbia River is age 2. In the lower Columbia River, smolt outmigration generally occurs from March to June, with peak migration usually in April or May.

The Lower Columbia River Team's assessment for this ESU addressed habitat areas within 41 occupied watersheds in 9 associated subbasins (identified below as "units" with

unique HUC4 numbers), as well as the lower Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the four life-history type and ecological strata identified by the Willamette/Lower Columbia TRT. The Lower Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Lower Columbia River Chinook salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Middle Columbia/Hood Subbasin (HUC4# 17070105)

This subbasin contains 13 watersheds, 6 of which are occupied by this ESU and encompass approximately 842 sq mi (2,181 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 299 mi (481 km) of occupied riverine habitat in the watersheds, including a 23-mi (37-km) segment of the Columbia River (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Columbia Gorge) containing two summer-run (Wind River and Hood River) and three winter-run (Upper Gorge Tributaries, Lower Gorge Tributaries, and Hood River) historical demographically independent populations in this subbasin. The Wind River summer-run and Hood River winter-run populations have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). Also, the TRT classified the Hood River winter-run fish as a genetic legacy population, *i.e.*, one of "the most intact representatives of the genetic character of the ESU" (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in four were rated as having high, those in one were rated as having medium, and those in one were rated as having low conservation value to the ESU (NMFS, 2004a). The Team noted that two watersheds (Middle Columbia/Eagle Creek and Middle Columbia/Grays Creek) contain a high value rearing and migration corridor in the Columbia River connecting high value habitat

areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. Lower Columbia/Sandy Subbasin (HUC4# 17080001)

This subbasin contains nine occupied watersheds encompassing approximately 1,076 sq mi (2,787 sq km). Fish distribution and habitat use data from ODFW and WDFW identify approximately 513 mi (826 km) of occupied riverine habitat in the watersheds, including a 26-mi (42-km) segment of the Columbia River (ODFW, 2003a,b; WDFW, 2003). Myers *et al.* (2003) identified two ecological zones (Cascade and Columbia Gorge) containing one summer-run (Washougal River) and four winter-run (Lower Gorge Tributaries, Washougal River, Salmon Creek, and Sandy River) historical demographically independent populations in this subbasin. The Washougal River summer-run and Sandy River winter-run fish have been classified by the TRT as "core" populations (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). Also, the TRT classified the Washougal River summer-run fish as a genetic legacy population (*i.e.*, one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications, dams, forestry, roadbuilding, and urbanization. Of the nine watersheds reviewed by the Team, habitat areas in four were rated as having high and those in five were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that one watershed (Columbia Gorge Tributaries) contains a high value rearing and migration corridor in the Columbia River connecting high value habitat areas in upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. Lewis Subbasin (HUC4# 17080002)

This subbasin contains six watersheds, two of which are currently occupied by this ESU and the remaining four now blocked by Merwin Dam and others upstream. Occupied watersheds encompass approximately 456 sq mi

(1,181 sq km). Fish distribution and habitat use data from the WDFW identify approximately 250 mi (402 km) of occupied riverine habitat in the watersheds (WDFW, 2003). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing two summer-run (North Fork Lewis River and East Fork Lewis River) and two winter-run (North Fork Lewis River and East Fork Lewis River) historical demographically independent populations in this subbasin. The TRT has classified the North Fork Lewis River winter-run fish as a "core" population (historically abundant and "may offer the most likely path to recovery") and the East Fork Lewis River summer-run population as a genetic legacy population (one of "the most intact representatives of the genetic character of the ESU") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. The Team rated habitat areas in both occupied watersheds as having high conservation value to the ESU (NMFS, 2004a). The Team also considered whether inaccessible reaches above Merwin, Yale and Swift dams may be essential to the conservation of this ESU. The Team believed that these unoccupied areas may be important because they once supported a TRT core population, and they contain non-inundated habitats that are likely in good condition relative to other more urbanized watersheds in the Cascade region (Lower Columbia Fish Recovery Board, 2003; McElhany *et al.*, 2003). The Team also noted that the TRT concluded that "given the limited amount of spawning habitat currently accessible it is unlikely that an independent self-sustaining [summer-run] population could exist" (Myers *et al.*, 2003). On the other hand, the Team noted that there is currently a substantial amount of habitat still accessible throughout the range of this ESU. Therefore, the Team concluded that the ESU would likely benefit if the extant populations had access to spawning/rearing habitat upstream. We seek comment on whether these areas should be proposed as critical habitat.

Unit 4. Lower Columbia/Clatskanie Subbasin (HUC4# 17080003)

This subbasin contains a single occupied watershed (Kalama River) encompassing approximately 237 sq mi (614 sq km). Fish distribution and habitat use data from WDFW identify approximately 133 mi (214 km) of

occupied riverine habitat in the watersheds (WDFW, 2003). Myers *et al.* (2003) identified one ecological zone (Cascade) containing two historical demographically independent populations in this subbasin: Kalama River summer- and winter-run fish. The Kalama River summer-run population has been classified by the TRT as a "core" population (i.e., historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including channel modifications, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in the Kalama River watershed warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Upper Cowlitz Subbasin (HUC4# 17080004)

This subbasin contains five occupied watersheds encompassing approximately 1,026 sq mi (2,657 sq km). Fish distribution and habitat use data from WDFW identify approximately 170 mi (274 km) of occupied riverine habitat in the watersheds (WDFW, 2003). All of this habitat is located upstream of impassable dams (Mayfield and Mossyrock) and only accessible to anadromous fish via trap and haul operations. Myers *et al.* (2003) identified one ecological zone (Cascade) containing two winter-run historical demographically independent populations in this subbasin (Upper Cowlitz River and Cispus River). Both populations have been classified by the TRT as "core" populations (i.e., historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). In addition, the TRT classified the Upper Cowlitz River winter-run population as a genetic legacy population (i.e., one of "the most intact representatives of the genetic character of the ESU.") The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in all five occupied watersheds warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not

identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Lower Cowlitz Subbasin (HUC4# 17080005)

This subbasin contains eight occupied watersheds encompassing approximately 1,465 sq mi (3,794 sq km). Fish distribution and habitat use data from WDFW identify approximately 785 mi (1,263 km) of occupied riverine habitat in the watersheds (WDFW, 2003). Habitat in two watersheds—Tilton River and Riffe Reservoir—is located upstream of impassable dams (Mayfield and Mossyrock) and only accessible to anadromous fish via trap and haul operations. Data from WDFW identified very little anadromous *O. mykiss* distribution in the Riffe Reservoir watershed (and did not identify the Riffe and Mayfield lakes as occupied habitat). However, the Team determined that these lakes are occupied and contain PCEs for rearing/migrating juveniles based on information regarding migrants described in Wade (2000) as well as their own knowledge of trap and haul operations in this subbasin. Myers *et al.* (2003) identified one ecological zone (Cascade) containing seven historical demographically independent populations of winter-run fish in this subbasin: Cispus River, Upper Cowlitz River, Lower Cowlitz River, Tilton River, North Fork Toutle River, South Fork Toutle River, and Coweeman River. Three populations (Cispus River, Upper Cowlitz River, and North Fork Toutle River) have been classified by the TRT as "core" populations, i.e., historically abundant and "may offer the most likely path to recovery" (McElhany *et al.*, 2003). In addition, the TRT classified the Upper Cowlitz River winter-run fish as a genetic legacy population, i.e., some of "the most intact representatives of the genetic character of the ESU." The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, dams, forestry, and roadbuilding. Of the eight watersheds reviewed by the Team, habitat areas in three were rated as having high and those in five were rated as having medium conservation value to the ESU (NMFS, 2004a). The Team also noted that four watersheds (Riffe Reservoir, Jackson Prairie, East Willapa, and Coweeman River) contained high value rearing and migration corridors connecting high value habitat areas in

upstream watersheds with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Middle Willamette Subbasin (HUC4# 17090007)

The occupied portion of this subbasin is downstream of Willamette Falls and includes a single watershed (Abernethy Creek) encompassing approximately 136 sq mi (352 sq km) as well as a short segment (approximately 1 mi (1.6 km)) of the Willamette River downstream of Willamette Falls. Fish distribution and habitat use data from ODFW identify approximately 26 mi (42 km) of occupied riverine habitat in the subbasin (ODFW, 2003a,b). Myers *et al.* (2003) identified one ecological zone (Cascade) containing a single historical demographically independent population in this subbasin: Clackamas River winter-run fish. This population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, dams, roadbuilding, and urbanization. The Team also concluded that the habitat areas in the Abernethy Creek watershed are of low conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Clackamas Subbasin (HUC4# 17090011)

This subbasin contains six occupied watersheds encompassing approximately 942 sq mi (2,440 km). Fish distribution and habitat use data from ODFW identify approximately 274 mi (441 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing a single historical demographically independent population in this subbasin: Clackamas River winter-run fish. This population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel

modifications, forestry, roadbuilding, and urbanization. Of the six watersheds reviewed by the Team, habitat areas in all were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 9. Lower Willamette Subbasin (HUC4# 17090012)

This subbasin contains three occupied watersheds encompassing approximately 408 sq mi (1,057 sq km). Two of the watersheds (Columbia Slough/Willamette River and Scappoose Creek) do not contain spawning PCEs for this ESU but instead are used solely for rearing and migration. Fish distribution and habitat use data from ODFW identify approximately 88 mi (142 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified a single ecological zone (Cascade) containing one historical demographically independent population of winter-run fish in this subbasin (Clackamas River). This population has been classified by the TRT as a "core" population (*i.e.*, historically abundant and "may offer the most likely path to recovery") (McElhany *et al.*, 2003). The Team concluded that all occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. Of the three watersheds reviewed by the Team, habitat areas in all three were rated as having high conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 10. Lower Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define this corridor as that segment of the Columbia River from the confluences of the Sandy River (Oregon) and Washougal River (Washington) to the Pacific Ocean. Fish distribution and habitat use data from ODFW identify approximately 118 mi (190 km) of occupied riverine and estuarine habitat in this corridor (ODFW, 2003a,b). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Columbia River corridor was of high conservation value to the ESU. Other upstream reaches of the Columbia River corridor (within Units 1 and 2 above)

are also high value for rearing/migration. The Team noted that this corridor connects habitat areas in every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Upper Willamette River O. mykiss ESU

The Upper Willamette River *O. mykiss* ESU includes all naturally spawned populations of anadromous *O. mykiss* in the Willamette River, Oregon, and its tributaries upstream from Willamette Falls to the Calapooia River (inclusive) (64 FR 14517; March 25, 1999). We have proposed that resident populations of *O. mykiss* below impassible barriers (natural and manmade) that co-occur with anadromous populations also be included in the Upper Willamette River *O. mykiss* ESU (69 FR 33101; June 14, 2004). Although there are no obvious physical barriers separating populations upstream of the Calapooia from those lower in the basin, resident *O. mykiss* in these upper basins are quite distinctive both phenotypically and genetically and are not considered part of the ESU. The ESU membership of native resident populations above recent (usually manmade) impassible barriers, but below natural barriers, has not been resolved. These resident populations are provisionally not considered to be part of the Upper Willamette River *O. mykiss* ESU, until such time that significant scientific information becomes available affording a case-by-case evaluation of their ESU relationships. This ESU does not include any artificially propagated *O. mykiss* stocks that reside within the historical geographic range of the ESU. Hatchery summer-run fish occur in the Willamette Basin but are an out-of-basin stock that is not included as part of the ESU.

The Willamette-Lower Columbia River TRT has identified four historical demographically independent populations of Upper Willamette River *O. mykiss*: the Mollala River, North Santiam River, South Santiam River, and Calapooia River populations (Myers *et al.*, 2003). The TRT also notes that spawning winter-run fish have been observed in the Westside tributaries to

the Upper Willamette River; however, the Westside tributaries are not considered to have historically constituted a demographically independent population (Myers *et al.*, 2003). The TRT has determined that the Upper Willamette River *O. mykiss* ESU populations comprise a single "stratum," based on major life history characteristics (*e.g.*, species run types) and ecological zones (McElhany *et al.*, 2002). This single stratum consists of the single run-type (winter-run fish) and the single ecological zone (Willamette River) in the ESU. Recovery planning will likely emphasize the need for a geographical distribution of viable populations across the range of such strata/regions in an ESU (Ruckelshaus *et al.*, 2002; McElhany *et al.*, 2003).

Of the three temporal runs of anadromous *O. mykiss* currently found in the Upper Willamette River ESU, only the late-run winter fish are considered to be native. The same flow conditions at Willamette Falls that only provided access for spring-run chinook salmon also provided an isolating mechanism for this unique run time of anadromous *O. mykiss*. The predominant tributaries to the Willamette River that historically supported winter-run fish all drain the Cascade Range. Anadromous *O. mykiss* populations in the upper Willamette River Basin have been strongly influenced by extensive hatchery transfers of fish throughout the ESU, and the introduction of summer-run fish (facilitated by the laddering of Willamette Falls). Summer-run fish are still stocked in the Upper Willamette River, but the stocking of winter-run fish in the Willamette River has been discontinued (although non-native winter-run fish still return).

It is generally agreed that anadromous *O. mykiss* did not historically emigrate farther upstream than the Calapooia River. The TRT reviewed evidence of anadromous *O. mykiss* using westside tributaries to the Willamette River and concluded that "with the exception of the Tualatin River, there is little evidence to suggest that sustained spawning aggregations of steelhead may have existed historically in the westside tributaries of the Willamette River Basin. Furthermore, it is unlikely that these tributaries, individually or collectively were large enough to constitute a demographically independent population."

Late-run Upper Willamette River *O. mykiss* are considered an ocean-maturing type, entering fresh water with well-developed gonads and typically spawning shortly thereafter. Maturing fish enter the Willamette River

beginning in January and February, but do not ascend to their spawning areas until late March or April. Spawning takes place from April to June, typically peaking in May, and occurs in both mainstem and tributary habitats in the major Cascade drainages identified above. Presently, native anadromous *O. mykiss* are distributed in a few, relatively small, naturally spawning aggregations.

The juvenile life-history characteristics of Upper Willamette River *O. mykiss* are summarized (where known) in ODFW (1990) and Olsen *et al.* (1992). In the subbasins reviewed, egg/alevin incubation and fry emergence occurred from April to August. Juveniles spend 2 winters rearing in freshwater before emigrating to the ocean from March to July. Upper Willamette River winter-run fish typically spawn as 4-year-olds after 2 years in the ocean.

The Upper Willamette River Team's assessment for this ESU addressed habitat areas within 34 occupied watersheds in 7 associated subbasins (identified below as "units" with unique HUC4 numbers), as well as the lower Willamette/Columbia River rearing/migration corridor. As part of its assessment, the Team considered the conservation value of each habitat area in the context of the productivity, spatial distribution, and diversity of habitats across the range of the single life-history type and ecological stratum identified by the Willamette/Lower Columbia TRT. The Lower Columbia River Team evaluated the conservation value of habitat areas on the basis of the physical and biological habitat requirements of Lower Columbia River *O. mykiss* salmon, consistent with the PCEs identified for Pacific salmon and *O. mykiss* described above in the Methods and Criteria Used to Identify Proposed Critical Habitat section.

Unit 1. Upper Willamette Subbasin (HUC4# 17090003)

This subbasin contains six watersheds, three of which are occupied by this ESU and encompass approximately 765 sq mi (1,981 km). Fish distribution and habitat use data from the ODFW identify approximately 241 mi (388 km) of occupied riverine habitat in the watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified possibly two demographically independent populations in this subbasin, but only one (Calapooia River) with spawning habitat. Myers *et al.* (2003) also noted that there is considerable debate about the origin of naturally spawning winter-run fish currently found in several westside

tributaries. These authors went on to state that (with the exception of the Tualatin River) "there is little evidence to suggest that sustained spawning aggregations of steelhead may have existed historically in the westside tributaries of the Willamette River Basin. Furthermore, it is unlikely that these tributaries, individually or collectively were large enough to constitute a demographically independent population." The Team concluded that all of these occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, forestry, roadbuilding, and urbanization. The Team also concluded that habitat areas in one of the watersheds warrant a high rating, and those in two warrant a medium rating for conservation value to the ESU (NMFS, 2004a). The Team also noted that all reaches of the Willamette River within this subbasin constitute a high value rearing and migration corridor for the Calapooia River population with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 2. North Santiam River Subbasin (HUC4# 17090005)

This subbasin contains six watersheds, three of which are occupied by this ESU and encompass approximately 315 sq mi (816 sq km). Fish distribution and habitat use data from ODFW identify approximately 137 mi (221 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (North Santiam River) in this subbasin. Historically accessible areas in the three uppermost watersheds of this subbasin are now blocked by Big Cliff and Detroit dams but may have been productive anadromous *O. mykiss* habitat (Parkhurst, 1950). The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in all three of the occupied watersheds in this subbasin warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 3. South Santiam River Subbasin (HUC4# 17090006)

This subbasin contains eight watersheds, six of which are occupied by this ESU and encompass approximately 766 sq mi (1,984 sq km). Fish distribution and habitat use data from ODFW identify approximately 230 mi (370 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). Two watersheds in the upper Middle Santiam River (Quartzville Creek and Middle Santiam River) are blocked by Green Peter Dam. Myers *et al.* (2003) identified one demographically independent population (South Santiam River) in this subbasin. The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, dams, forestry, and roadbuilding. The Team also concluded that habitat areas in all six of the occupied watersheds in this subbasin warrant a high rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 4. Middle Willamette River Subbasin (HUC4# 17090007)

This subbasin consists of four occupied watersheds encompassing approximately 712 sq mi (1,844 sq km). Fish distribution and habitat use data from ODFW identify approximately 175 mi (282 km) of occupied riverine habitat (all rearing/migration) in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (North Santiam River) that spawns in this subbasin, although three populations use this subbasin for rearing/migration. The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, roadbuilding, and urbanization. The Team also concluded that all of the tributary habitat areas in the four watersheds warrant a low rating for conservation value to the ESU (NMFS, 2004a). However, that assessment pertained solely to the tributary streams in these watersheds (e.g., Ash, Rickreall, and Harvey creeks), not the mainstem Willamette River nor the Mill Creek reaches connecting to the North Santiam River. The Team concluded that all reaches of the Willamette River within this subbasin constitute a high value rearing and

migration corridor. These high value reaches connect all populations and watersheds in this ESU with downstream reaches and the ocean. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 5. Yamhill River Subbasin (HUC4# 17090008)

This subbasin contains seven occupied watersheds encompassing approximately 772 sq mi (1,999 sq km). Fish distribution and habitat use data from ODFW identify approximately 319 mi (513 km) of occupied riverine habitat (all rearing/migration) in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) did not identify a demographically independent population in this subbasin. These authors noted that there is considerable debate about the origin of naturally spawning winter-run fish currently found in several westside tributaries and went on to state that (with the exception of the Tualatin River) "there is little evidence to suggest that sustained spawning aggregations of steelhead may have existed historically in the westside tributaries of the Willamette River basin. Furthermore, it is unlikely that these tributaries, individually or collectively were large enough to constitute a demographically independent population." While there is uncertainty regarding the population status of anadromous *O. mykiss* in westside watersheds, the Team determined that it was likely that PCEs exist in these seven watersheds and identified several management activities that may affect the PCEs, including agriculture, forestry, roadbuilding, and urbanization. The Team noted that, given the limited number of populations in this ESU, habitat in this subbasin may provide some conservation benefits to the ESU (e.g., as a buffer against a catastrophic event affecting Cascade watersheds). In that context, the Team concluded that habitat areas in the Upper South Yamhill River watershed may have the greatest conservation value in this subbasin and therefore assigned them a medium conservation value while habitat areas in the remaining six watersheds warrant a low conservation value to the ESU. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 6. Molalla/Pudding River Subbasin (HUC4# 17090009)

This subbasin contains six occupied watersheds and encompasses

approximately 875 sq mi (2,266 sq km). Fish distribution and habitat use data from ODFW identify approximately 284 mi (457 km) of occupied riverine habitat in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) identified one demographically independent population (Molalla River) that spawns in this subbasin. The Team concluded that all of the occupied areas contain spawning, rearing, or migration PCEs for this ESU and identified several management activities that may affect the PCEs, including agriculture, channel modifications, roadbuilding, and urbanization. The Team also concluded that habitat areas in one of the watersheds warrant a high rating, those in three warrant a medium rating, and those in two warrant a low rating for conservation value to the ESU (NMFS, 2004a). The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 7. Tualatin River Subbasin (HUC4# 17090010)

This subbasin contains five occupied watersheds encompassing approximately 709 sq mi (1,836 sq km). Fish distribution and habitat use data from ODFW identify approximately 298 mi (480 km) of occupied riverine habitat (all rearing/migration) in these watersheds (ODFW, 2003a,b). Myers *et al.* (2003) did not identify a demographically independent population in this subbasin. These authors noted that there is considerable debate about the origin of naturally spawning winter-run fish currently found in several westside tributaries and went on to state that (with the exception of the Tualatin River) "there is little evidence to suggest that sustained spawning aggregations of steelhead may have existed historically in the westside tributaries of the Willamette River basin. Furthermore, it is unlikely that these tributaries, individually or collectively were large enough to constitute a demographically independent population." While there is uncertainty regarding the population status of anadromous *O. mykiss* in westside watersheds, the Team determined that it was likely that PCEs exist in these five watersheds and identified several management activities that may affect the PCEs, including agriculture, channel modifications, forestry, roadbuilding, and urbanization. The Team noted that, given the limited number of populations in this ESU, habitat in this subbasin may provide some conservation benefits to the ESU (e.g., as a buffer against a catastrophic event affecting Cascade watersheds). In

that context, the Team concluded that habitat areas in the Gales Creek watershed may have the greatest conservation value in this subbasin and therefore assigned them a medium conservation value while habitat areas in the remaining four watersheds warrant a low conservation value to the ESU. The Team did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

Unit 8. Lower Willamette/Columbia River Corridor

For the purposes of describing units of critical habitat designation for this ESU, we define the lower Willamette/Columbia River corridor as that segment from the confluence of the Willamette and Clackamas rivers to the Pacific Ocean. This corridor also includes the Multnomah Channel portion of the Lower Willamette River. Watersheds downstream of the Clackamas River subbasin (Johnson Creek and Columbia Slough/Willamette River watersheds) are outside the spawning range of this ESU and likely used in a limited way as juvenile rearing habitat for this ESU. Fish distribution and habitat use data from ODFW identify approximately 138 mi (223 km) of occupied riverine and estuarine habitat in this corridor (ODFW, 2003a,b). After reviewing the best available scientific data for all of the areas within the freshwater and estuarine range of this ESU, the Team concluded that the lower Willamette/Columbia River corridor was of high conservation value to the ESU. The Team noted that this corridor connects habitat areas in every watershed and population in this ESU with the ocean and is used by rearing/migrating juveniles and migrating adults. The Columbia River estuary is a particularly important area for this ESU as both juveniles and adults make the critical physiological transition between life in freshwater and marine habitats (Marriott *et al.*, 2002). Management activities that may affect the PCEs in this corridor include channel modifications, roadbuilding, river/estuary traffic, roadbuilding, urbanization, and wetland loss and removal.

Application of ESA Section 4(b)(2)

The foregoing discussion describes those areas that are eligible for designation as critical habitat—the specific areas that fall within the ESA section 3(5)(A) definition of critical habitat, minus those lands owned or controlled by the Department of Defense, or designated for its use, that are covered by an INRMP that we have determined in writing provides a benefit

to the species. The application of section 4(b)(2) was a major concern of those commenting on the ANPR (68 FR 55926; September 29, 2003). Many commenters requested that we describe the process used—in particular the economic analysis—as part of our proposed rulemaking.

Specific areas eligible for designation are not automatically designated as critical habitat. Section 4(b)(2) of the ESA requires that the Secretary first considers the economic impact, impact on national security, and any other relevant impact. The Secretary has the discretion to exclude an area from designation if he determines the benefits of exclusion (that is, avoiding the impact that would result from designation), outweigh the benefits of designation. The Secretary may not exclude an area from designation if exclusion will result in the extinction of the species. Because the authority to exclude is discretionary, exclusion is not required for any areas.

In this proposed rule, the Secretary has applied his statutory discretion to exclude areas from critical habitat for several different reasons. To be consistent, we used the fifth field watershed as the unit for exclusion in each case. However, the agency is asking for public comment on whether considering exclusions on a stream-by-stream approach would be more appropriate.

Impacts to Tribes

We believe there is very little benefit to designating critical habitat on Indian lands. Although there is a broad array of activities on Indian lands that may trigger section 7, Indian lands comprise only a minor portion (less than 3 percent) of the total habitat under consideration for these ESUs. Depending upon the ESU, Indian lands account for zero to 13 percent of the total habitat area for these ESUs. (For nine ESUs the Indian lands total less than one percent, with only one ESU greater than five percent. These percentages are likely overestimates as they include all habitat area within reservation boundaries. In many cases, a considerable portion of the land within the reservation boundaries is no longer held in trust for the tribe or in fee status by individual tribal members). Further, in more than 15 letters to NMFS—several in response to the agency's ANPR (68 FR 55926; September 29, 2003)—the tribes have documented how they are already working to address the habitat needs of the species on these lands as well as in the larger ecosystem, and are fully aware of the conservation value of their lands.

There are several benefits to excluding Indian lands. The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Pursuant to these authorities lands have been retained by Indian Tribes or have been set aside for tribal use. These lands are managed by Indian Tribes in accordance with tribal goals and objectives within the framework of applicable treaties and laws.

In addition to the distinctive trust relationship, for Pacific salmon in the Northwest, there is a unique partnership between the Federal government and Indian tribes regarding salmon management. Northwest Indian tribes are regarded as “co-managers” of the salmon resource, along with Federal and state managers. This co-management relationship evolved as a result of numerous court decisions clarifying the tribes' treaty right to take fish in their usual and accustomed places.

The tribes have stated in letters and meetings that designation of Indian lands as critical habitat will undermine long-term working relationships and reduce the capacity of tribes to participate at current levels in the many and varied forums across four states addressing ecosystem management and conservation of fisheries resources.

The benefits of excluding Indian lands from designation include: (1) The furtherance of established national policies, our Federal trust obligations and our deference to the tribes in management of natural resources on their lands; (2) the maintenance of effective long-term working relationships to promote the conservation of salmonids on an ecosystem-wide basis across four states; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species on an ecosystem-wide basis; and (4) continued respect for tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs.

We believe that the current co-manager process addressing activities on an ecosystem-wide basis across three states is currently beneficial for the conservation of the salmonids. Because the co-manager process provides for coordinated ongoing focused action through a variety of forums, we find the benefits of this process to be greater than the benefits of applying ESA section 7 to Federal activities on Indian lands, which comprise less than three percent of the total area under consideration for these ESUs. Additionally, we have determined that the exclusion of tribal lands will not result in the extinction of the species concerned. We also believe that maintenance of our current co-manager relationship consistent with existing policies is an important benefit to continuance of our tribal trust responsibilities and relationship. Based upon our consultation with the Tribes, we believe that designation of Indian lands as critical habitat would adversely impact our working relationship and the benefits resulting from this relationship.

Based upon these considerations, we have determined to exercise agency discretion under ESA section 4(b)(2) and propose to exclude Indian lands from the eligible critical habitat designation for these ESUs of salmonids. The Indian lands specifically excluded from critical habitat are those defined in the Secretarial Order, including: (1) Lands held in trust by the United States for the benefit of any Indian tribe; (2) land held in trust by the United States for any Indian Tribe or individual subject to restrictions by the United States against alienation; (3) fee lands, either within or outside the reservation boundaries, owned by the tribal government; and (4) fee lands within the reservation boundaries owned by individual Indians.

Impacts on National Security

As noted previously (see Military Lands section), we evaluated 11 DOD sites with draft or final INRMPs and determined that each INRMP provides a benefit to the listed salmon or *O. mykiss* ESUs under consideration at the site. Therefore, we are proposing that those areas subject to final INRMPs are not eligible for designation pursuant to section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(A)(3)). At the request of the DOD (and in the case that an INRMP might not provide a benefit to the species), we also assessed the impacts on national security that may result from designating these and other DOD sites as critical habitat.

We contacted the DOD by letter and requested information about the impacts

to national security that may result from designating critical habitat at the following 24 military sites in Washington: (1) Naval Submarine Base, Bangor; (2) Naval Undersea Warfare Center, Keyport; (3) Naval Ordnance Center, Port Hadlock (Indian Island); (4) Naval Radio Station, Jim Creek; (5) Naval Fuel Depot, Manchester; (6) Naval Air Station, Whidbey Island; (7) Naval Air Station, Everett; (8) Bremerton Naval Hospital; (9) Fort Lewis (Army); (10) Pier 23 (Army); (11) Yakima Training Center (Army); (12) Puget Sound Naval Shipyard; (13) Naval Submarine Base Bangor security zone; (14) Strait of Juan de Fuca naval air-to-surface weapon range, restricted area; (15) Hood Canal and Dabob Bay naval non-explosive torpedo testing area; (16) Strait of Juan de Fuca and Whidbey Island naval restricted areas; (17) Admiralty Inlet naval restricted area; (18) Port Gardner Naval Base restricted area; (19) Hood Canal naval restricted areas; (20) Port Orchard Passage naval restricted area; (21) Sinclair Inlet naval restricted areas; (22) Carr Inlet naval restricted areas; (23) Dabob Bay/Whitney Point naval restricted area; and (24) Port Townsend/Indian Island/Walan Point naval restricted area. All of these sites overlap with habitat areas occupied by one or more of the 13 ESUs and under consideration for critical habitat. A number of other sites (primarily armories and small Army facilities) were also assessed and were determined to be outside the areas under consideration. In response to our letter, both the Army and Navy provided information clarifying site locations and describing the types of military activities that occur at these sites. They also listed the potential changes in these activities and consequent national security impacts that critical habitat designation would cause in these areas. Both military agencies concluded that critical habitat designation at any of these sites would likely impact national security by diminishing military readiness. The possible impacts include: Preventing, restricting, or delaying training or testing exercises or access to such sites; restricting or delaying activities associated with vehicle/vessel/facility maintenance and ordinance loading; delaying response times for ship deployments and overall operations; and creating uncertainties regarding ESA consultation (e.g., reinitiation requirements) or imposing compliance conditions that would divert military resources. Also, both military agencies cited their ongoing and positive consultation history with NMFS and underscored cases where

they are implementing best management practices to reduce impacts on listed salmonids.

Most of the affected DOD sites overlap habitat areas in nearshore zones occupied by Puget Sound chinook or Hood Canal summer-run chum salmon. The overlap consists of approximately 109 miles (175 km) of shoreline out of the 2,376 miles (3,824 km) of total occupied shoreline for these two ESUs. Freshwater and estuarine overlap areas include approximately 20 miles (32 km) of stream used by Puget Sound chinook salmon and 10 miles (16 km) used by Upper Columbia River *O. mykiss*, representing less than one percent of the total freshwater and estuarine habitat area for these two ESUs. The Teams assessing conservation values for these overlap areas concluded that all of them were of high conservation value to the respective ESUs. However, the overlap areas are a small percentage of the total area for the affected ESUs. Designating these DOD sites will likely reduce the readiness capability of the Army and Navy, both of which are actively engaged in training, maintaining, and deploying forces in the current war on terrorism. Therefore we conclude that the benefits of exclusion outweigh the benefits of designation and are not proposing to designate these DOD sites as critical habitats.

Other Potential Exclusions

As discussed above, in 2001, the Tenth Circuit issued a ruling in *NMCA*, which criticized the historic approach that FWS and NMFS had taken towards the economic analysis required in the critical habitat designation process. As a result of this ruling, both agencies engaged in a long-term process of reevaluating existing critical habitat designations consistent with the Tenth Circuit's ruling. NMFS's critical habitat designations for steelhead and salmon ESUs and FWS's designations for bull trout are the first to fully evaluate the economic impacts of the designations for aquatic species on a broad landscape scale. As a result, many of the critical issues faced by the two agencies are issues of first impression.

On October 6, 2004, the FWS issued a final rule designating critical habitat for the bull trout, a species in many respects coextensive with listed salmon and steelhead ESUs. Necessarily, the FWS had to make determinations on many of these novel issues. The Secretary of the Interior found that a number of conservation measures designed to protect salmon and steelhead on federal, state, tribal and private lands would also have significant beneficial impacts to

bulltrout. Therefore, the Secretary of the Interior determined that the benefits of excluding those areas exceeded the benefits of including those areas as critical habitat.

The Secretary of Commerce has reviewed the bull trout rule and has recognized the merits of the approach taken by the Secretary of the Interior to these emerging issues. As a result, the Secretary of Commerce is considering the following exclusions because the benefits of exclusion may outweigh the benefits of inclusion and expects the final rule will include some or all of these exclusions. However, given the time constraints associated with this rulemaking and the broader geographic range of the potential salmon and steelhead designations, the Secretary of Commerce has not had an opportunity to fully evaluate all of the potential exclusions, the geographical extent of such exclusions, or compare the benefits of these exclusions to the benefits of inclusion. As a result, the proposed designations included in this rule generally represent an upper bound to the area that the Secretary is considering designating as critical habitat and do not include the following additional exclusions that the Secretary is considering:

A set of exclusions based on existing land management plans adopted and currently implemented by Federal agencies within the relevant geographic area: These plans are the Northwest Forest Plan, PACFISH and INFISH, which are implemented by the USDA Forest Service and the BLM in parts of Washington, Oregon and Idaho. The Secretary is considering excluding from critical habitat all federal lands subject to these plans. We may make these exclusions on a fifth field watershed basis or a stream-by-stream basis and we invite comment on the appropriate method. Each of these plans is designed to provide very substantial conservation benefits to salmonid species including the listed species, while permitting provision of other multiple uses on those federal lands to the extent compatible with the provisions of the plan. Imposing an overlay of critical habitat in these areas could threaten the provision of the other multiple uses contemplated by these plans and potentially impede vital land restoration activities, while potentially offering a negligible conservation benefit in light of the other existing conservation measures provided by the plans. The threat to forest restoration activities (forest thinning and brush clearing to reduce catastrophic fire risks), economic activities (e.g. grazing and timber production) and recreational uses on

public lands may outweigh the benefit of a critical habitat designation in these areas.

An exclusion of areas in the mainstem Columbia River that contain or are directly affected by the operation of the federal dams on the river, including reservoir pools above dams, tail race areas below dams, and the navigation locks: The intent of this potential exclusion is that the operation of the Federal Columbia River Power System (FCRPS) would have no effect on designated critical habitat. The FCRPS is already managed through an unprecedented cooperative effort among three Federal action agencies (Bonneville Power Administration, Corps, Bureau of Reclamation (BOR)), three Federal land management agencies (Forest Service, BLM, Natural Resource Conservation Service (NRCS)) and three Federal regulatory agencies (NMFS, FWS and Environmental Protection Agency (EPA)). These agencies, operating through a Federal Caucus, closely and effectively coordinate their activities to minimize any adverse effects of operating the hydroelectric dams on the Columbia and Snake Rivers. There may be no benefit to placing a critical habitat designation as an additional layer of Federal regulation over and above the existing cooperative efforts. Conversely, if a critical habitat designation reduces hydro electric power generation from the dams, there may be great economic harm to the three-state region.

An exclusion of areas covered by conservation commitments by state and private landowners: Another set of exclusions is based on conservation commitments by state and private landowners reflected in habitat conservation plans and cooperative agreements approved by NMFS. These commitments are: (1) Land subject to Washington state forest practice rules referred to as the Forests and Fish Agreement; (2) lands covered by a Habitat Conservation Plan (HCP) approved under section 10 of the ESA (NMFS, 2004f); and (3) non-Federal timber lands covered by the Term Sheet in the Snake River Basin Adjudication (SRBA).

An exclusion for intermingled lands: If a large part of a watershed is determined to warrant exclusion for any of the reasons stated below, the Secretary is considering excluding the entire watershed. For example, if a large proportion of a watershed consists of Federal land to be excluded based on an existing management plan, the entire watershed could be excluded. There may be little policy justification for designating non-Federal lands as critical

habitat in a watershed dominated by excluded Federal lands.

Snake River O. Mykiss ESU: The Secretary is considering excluding all eligible habitat in this ESU from the critical habitat designation. More than 225 of the HUC5 watersheds contain 40 percent or more Federal land subject to protection under the PACFISH management standards; almost 200 of these watersheds are 80 percent or more of such Federal land. Another seven HUC5 watersheds are more than 98 percent tribal lands. Some of the eligible habitat is found within the mainstem of the Columbia River, which is already subject to the most comprehensive Federal salmonid management strategy of any area of salmonid habitat, with participation by at least eight Federal agencies. Most of the geographic area of the ESU lies in Idaho, where the State of Idaho has reached agreement in principle with the Federal government as part of a tribal water rights adjudication for the Snake River Basin to adopt new land management standards for state lands and for private landowners who choose to enroll in the program, potentially offering a higher level of conservation efforts on these lands in the future than may have been provided in the past. Many residents of the affected area are voluntarily undertaking other substantial actions to help improve and increase available habitat for this species. The economy in the affected region of all three states is primarily rural in nature, and is especially sensitive to additional land management burdens. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

Upper Columbia River spring-run ESU: The Secretary is considering an exclusion of all eligible habitat within the range of this ESU from the critical habitat designation. Seventeen of the 30 HUC5 watersheds contain 48 percent or more Federal land subject to protection under the PACFISH management standards. Much of the eligible habitat is found within the mainstem of the Columbia River which is already subject to the most comprehensive Federal salmonid management strategy of any area of salmonid habitat, with participation by at least eight Federal agencies. The affected economy is primarily rural in nature, and is especially sensitive to additional land management burdens. At the same time, many residents of the affected area are voluntarily undertaking substantial actions to help improve and increase available salmon habitat. For these reasons, the benefits of excluding the

eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

Middle Columbia River O. mykiss ESU: The Secretary is considering an exclusion of all eligible habitat within the range of this ESU from the critical habitat designation. Twenty-seven of the HUC5 watersheds contain 48 percent or more Federal land subject to protection under the PACFISH management standards; another 16 of these watersheds are 25 to 48 percent of such Federal land. Another 10 HUC5 watersheds are 70 to 100 percent tribal lands. Some of the eligible habitat is found within the mainstem of the Columbia River, which is already subject to the most comprehensive federal salmonid management strategy of any area of salmonid habitat, with participation by at least eight Federal agencies.

In both Washington and Oregon, there are many voluntary conservation activities underway by Federal agencies (BOR in particular), state agencies and private citizens throughout the range of the ESU. We have noted recently that the ESU may be close to meeting recovery standards, and NOAA's scientists have consistently rated the degree of risk for this ESU the lowest among the listed salmonid species. The economy in the affected region of both states is primarily rural in nature and is especially sensitive to additional land management burdens. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

Oregon Coast coho ESU: The Secretary is considering an exclusion of all eligible habitat within the range of this ESU from the critical habitat designation. One primary reason for this exclusion may lie in the voluntary conservation efforts undertaken by the State of Oregon and its citizens in this area since 1996, collectively referred to as the Oregon Plan for Salmon and Watersheds. Under the Oregon Plan, very substantial improvements have occurred, and are expected to continue to occur, to improve and increase habitat, to reduce harvest and to reform hatchery practices to aid in the conservation of this species. These efforts by the State and its citizens are a national model for cooperative conservation. Designating critical habitat in this ESU could discourage and even undercut these voluntary conservation efforts, possibly resulting in a decrease rather than an increase in conservation of the species.

In addition, 36 of the 80 watersheds contain 40 percent or more Federal land

managed under the protective provisions of the Northwest Forest Plan's Aquatic Conservation Strategy, and an additional 16 watersheds contain 25 to 40 percent of such Federal land. With these protective measures in place on Federal land to complement the non-Federal conservation efforts embodied in the Oregon Plan, there may be little biological justification to designate critical habitat within the range of this ESU. Further, the coastal economy is and has been weak for some time, with the manufacturing sector declining and tourism emerging slowly as the leading industry, and additional economic burdens may not be justified in light of the potentially limited conservation benefit of a critical habitat designation. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

Accordingly, NMFS specifically asks for public comment on the other potential exclusions discussed above. Specifically, NMFS requests comment on the benefits of excluding and including: (1) Other Federal lands subject to protective management provisions for salmonids (e.g., the Aquatic Conservation Strategy of the Northwest Forest Plan, PACFISH, or INFISH); (2) other state, tribal, or private lands subject to (or planned to receive) other forms of protective management for salmonids (e.g., private land HCPs, State of Washington Forests Practices Act lands, Idaho SRBA lands, State of California Forest Practices Act lands); and (3) other state, tribal, or private lands within watersheds containing a large proportion of Federal, state, tribal or private lands already subject to protective management measures.

Exclusions Primarily Based on Economic Impacts

In this exercise of discretion, the first issue we must address is the scope of impacts relevant to the 4(b)(2) evaluation. As discussed in the Previous Federal Action and Related Litigation section, we are re-designating critical habitat for these 13 ESUs because the previous designations were vacated. (*National Association of Homebuilders v. Evans*, 2002 WL 1205743 No. 00-CV-2799 (D.D.C.) (NAHB)). The NAHB Court had agreed with the reasoning of the Court of Appeals for the Tenth Circuit in *New Mexico Cattle Growers Association v. U.S. Fish and Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001). In that decision, the Tenth Circuit stated "[t]he statutory language is plain in requiring some kind of consideration of economic impact in the critical habitat designation phase." The Tenth Circuit

concluded that, given the FWS' failure to distinguish between "adverse modification" and "jeopardy" in its 4(b)(2) analysis, the FWS must analyze the full impacts of critical habitat designation, regardless of whether those impacts are co-extensive with other impacts (such as the impact of the jeopardy requirement).

In re-designating critical habitat for these salmon ESUs, we have followed the Tenth Circuit Court's directive regarding the statutory requirement to consider the economic impact of designation. Areas designated as critical habitat are subject to ESA section 7 requirements, which provide that Federal agencies ensure that their actions are not likely to destroy or adversely modify critical habitat. To evaluate the economic impact of critical habitat we first examined our voluminous section 7 consultation record for these as well as other ESUs of salmon. (For thoroughness, we examined the consultation record for other ESUs to see if it shed light on the issues.) That record includes consultations on habitat-modifying Federal actions both where critical habitat has been designated and where it has not. We could not discern a distinction between the impacts of applying the jeopardy provision versus the adverse modification provision in occupied critical habitat. Given our inability to detect a measurable difference between the impacts of applying these two provisions, the only reasonable alternative seemed to be to follow the recommendation of the Tenth Circuit, approved by the NAHB court—to measure the co-extensive impacts; that is, measure the entire impact of applying the adverse modification provision of section 7, regardless of whether the jeopardy provision alone would result in the identical impact.

The Tenth Circuit's opinion only addressed ESA section 4(b)(2)'s requirement that economic impacts be considered. The Court did not address how "other relevant impacts" were to be considered, nor did it address the benefits of designation. Because section 4(b)(2) requires a consideration of other relevant impacts of designation, and the benefits of designation, and because our record did not support a distinction between impacts resulting from application of the adverse modification provision versus the jeopardy provision, we are uniformly considering coextensive impacts and coextensive benefits, without attempting to distinguish the benefit of a critical habitat consultation from the benefit that would otherwise result from a jeopardy consultation that would occur

even if critical habitat were not designated. To do otherwise would distort the balancing test contemplated by section 4(b)(2).

The principal benefit of designating critical habitat is that Federal activities that may affect such habitat are subject to consultation pursuant to section 7 of the ESA. Such consultation requires every Federal agency to ensure that any action it authorizes, funds or carries out is not likely to result in the destruction or adverse modification of critical habitat. This complements the section 7 provision that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species. Another benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area and thereby focus and contribute to conservation efforts by clearly delineating areas of high conservation value for certain species. It is unknown to what extent this process actually occurs, and what the actual benefit is, as there are also concerns, noted above, that a critical habitat designation may discourage such conservation efforts.

The balancing test in section 4(b)(2) contemplates weighing benefits that are not directly comparable—the benefit to species conservation balanced against the economic benefit, benefit to national security, or other relevant benefit that results if an area is excluded from designation. Section 4(b)(2) does not specify a method for the weighing process. Agencies are frequently required to balance benefits of regulations against impacts; Executive Order 12866 established this requirement for Federal agency regulation. Ideally such a balancing would involve first translating the benefits and impacts into a common metric. Executive branch guidance from the Office of Management and Budget (OMB) suggests that benefits should first be monetized (*i.e.*, converted into dollars). Benefits that cannot be monetized should be quantified (for example, numbers of fish saved). Where benefits can neither be monetized nor quantified, agencies are to describe the expected benefits (OMB, Circular A-4, September 17, 2003 (OMB, 2003)).

It may be possible to monetize benefits of critical habitat designation for a threatened or endangered species in terms of willingness-to-pay (U.S. Office of Management and Budget, 2003). However, we are not aware of any available data that would support such an analysis for salmon. The short statutory time-frames, geographic scale of the designations under consideration, and the statute's requirement to use best

“available” information suggests such a costly and time-consuming approach is not currently available. In addition, ESA section 4(b)(2) requires analysis of impacts other than economic impacts that are equally difficult to monetize, such as benefits to national security of excluding areas from critical habitat. In the case of salmon designations, impacts to Northwest tribes are an “other relevant impact” that also may be difficult to monetize.

An alternative approach, approved by OMB, is to conduct a cost-effectiveness analysis. A cost-effectiveness analysis ideally first involves quantifying benefits, for example, percent reduction in extinction risk, percent increase in productivity, or increase in numbers of fish. Given the state of the science, it would be difficult to quantify reliably the benefits of including particular areas in the critical habitat designation. Although it is difficult to monetize or quantify benefits of critical habitat designation, it is possible to differentiate among habitat areas based on their relative contribution to conservation. For example, habitat areas can be rated as having a high, medium or low conservation value. The qualitative ordinal evaluations can then be combined with estimates of the economic costs of critical habitat designation in a framework that essentially adopts that of cost-effectiveness. Individual habitat areas can then be assessed using both their biological evaluation and economic cost, so that areas with high conservation value and lower economic cost might be considered to have a higher priority for designation, while areas with a low conservation value and higher economic cost might have a higher priority for exclusion. While this approach can provide useful information to the decision-maker, there is no rigid formula through which this information translates into exclusion decisions. Every geographical area containing habitat eligible for designation is different, with a unique set of “relevant impacts” that may be considered in the exclusion process. Regardless of the analytical approach, section 4(b)(2) makes clear that what weight the agency gives various impacts and benefits, and whether the agency excludes areas from the designation, is discretionary.

Assessment of Economic Impacts

Assessment of economic impact generated considerable interest from commenters on the ANPR (68 FR 55926; September 29, 2003). A number of commenters requested that we make the economic analysis available as part of

the proposed rulemaking, and some identified key considerations (*e.g.*, sector-specific impacts, direct and indirect costs, ecological services/benefits) that they believed must be taken into account. In a draft 2004 report, we have documented our conclusions regarding the economic impacts of designating each of the particular areas found to meet the definition of critical habitat (NMFS, 2004c). This report is available from NMFS (*see ADDRESSES*).

The first step was to identify existing legal and regulatory constraints on economic activity that are independent of critical habitat designation, such as Clean Water Act (CWA) requirements. Coextensive impacts of the ESA section 7 requirement to avoid jeopardy were not considered part of the baseline. Also, we have stated our intention to revisit the existing critical habitat designations for Snake River chinook and sockeye salmon ESUs (58 FR 68543; December 28, 1993), if appropriate, following completion of related rulemaking (67 FR 6215; February 11, 2002). Given the uncertainty that these designations will remain in place in their current configuration, we decided not to consider them.

Next, from the consultation record, we identified Federal activities that might affect habitat and that might result in a section 7 consultation. (We did not consider federal actions, such as the approval of a fishery, that might affect the species directly but not affect its habitat.) We identified nine types of activities including: hydropower dams; non-hydropower dams and other water supply structures; federal lands management, including grazing (considered separately); transportation projects; utility line projects; instream activities, including dredging (considered separately); activities permitted under EPA's National Pollution Discharge Elimination System; sand & gravel mining; and residential and commercial development. Based on our consultation record and other available information, we determined the modifications each type of activity was likely to undergo as a result of section 7 consultation (regardless of whether the modification might be required by the jeopardy or the adverse modification provision).

We developed an expected direct cost for each type of action and projected the likely occurrence of each type of project in each watershed, using existing spatial databases (*e.g.*, the Corps 404(d) permit database). Finally, we aggregated the costs from the various types of actions and estimated an annual impact, taking into account the probability of

consultation occurring and the likely rate of occurrence of that project type.

This analysis allowed us to estimate the coextensive economic impact of designating each "particular area" (that is, each habitat area, or aggregated occupied stream reaches in a watershed). Expected economic impacts ranged from zero to \$15 million per habitat area. Where a watershed included both tributaries and a migration corridor that served other watersheds, we estimated the separate impacts of designating the tributaries and the migration corridor. We did this by identifying those categories of activities most likely to affect tributaries and those most likely to affect larger migration corridors.

Because of the methods we selected and the data limitations, portions of our analysis both under- and over-estimate the co-extensive economic impact of section 7 requirements. For example, we lacked data on the likely impact on flows at non-Federal hydropower projects, which would increase economic impacts. We also did not have information currently available allowing us to estimate the likely economic impact of a judicially-imposed ban on pesticide use near salmon-bearing streams. The EPA was recently enjoined from authorizing the application of a set of pesticides within a certain distance of "salmon supporting waters." We have completed a preliminary analysis of these impacts at the ESU level (NMFS, 2004c). Because of the existing data limitations and the preliminary nature of the analysis, we determined not to use these estimates in the proposed designations. However, we believe the information presented in this preliminary consideration will aid public comment and assist in the development of a more complete examination of these impacts for the final rule. In addition, operation and maintenance of the FCRPS has changed in response to section 7 requirements. Federal agencies estimate direct costs of the FCRPS fish and wildlife program to be approximately \$283 million annually, while the power costs in 2003 were estimated to be approximately \$250 million. Many of these costs would occur without the requirements of section 7, but there is currently no estimate available of what portion of these costs are attributable to section 7. Finally, we did not have information about potential changes in irrigation flows associated with section 7 consultation. These impacts would increase the estimate of co-extensive costs. On the other hand, we estimated an impact on all activities occurring within the geographic boundaries of a

watershed, even though in some cases activities would be far removed from occupied stream reaches and so might not require modification (or even consultation). We intend to pursue information prior to issuing a final rule that will allow us to refine our estimates of economic impacts and better inform our analysis under section 4(b)(2) (NMFS, 2004d).

In addition, we had no information on the costs of critical habitat designation that occur outside the section 7 consultation process, including costs resulting from state or local regulatory burdens imposed on developers and landowners as a result of a Federal critical habitat designation. We solicit information on these subjects during the public comment period.

Exclusion Process

In determining whether the economic benefit of excluding a habitat area might outweigh the benefit of designation to the species, we took into consideration a cost-effectiveness approach giving priority to excluding habitat areas with a relatively lower benefit of designation and a relatively higher economic impact. We believe it is reasonable at this stage of the analysis to assume that all areas containing physical or biological features essential to the conservation of the species are essential to the conservation of the species.

The circumstances of most of the listed ESUs can make a cost-effectiveness approach useful. Pacific salmon are wide-ranging species and occupy numerous habitat areas with thousands of stream miles. Not all occupied areas, however, are of equal importance to conserving an ESU. Within the currently occupied range there are areas that support highly productive populations, areas that support less productive populations, and areas that support production in only some years. Some populations within an ESU may be more important to long-term conservation of the ESU than other populations. Therefore, in many cases it may be possible to construct different scenarios for achieving conservation. Scenarios might have more or less certainty of achieving conservation, and more or less economic impact. Future applications of this methodology will strive to better distinguish the relative conservation value of areas eligible for designation, which should improve the utility of this approach.

We attempted to consider the effect of excluding areas, either alone or in combination with other areas, on the opportunities for conservation of the ESU. We preferred exclusions in areas

with a lower conservation value to those with a high conservation value. We also recognize that in practice a large proportion of all watersheds received a "high" conservation rating, making it difficult to establish priorities within that subgroup. In the second step of the process, we asked the biological teams whether excluding any of the habitat areas identified in the first step would significantly impede conservation, recognizing that the breadth of available conservation measures makes such judgments necessarily subjective. The teams considered this question in the context of all of the areas eligible for exclusion as well as the information they had developed in providing the initial conservation ratings. The following section describes the results of applying this process to each ESU. The results are discussed in greater detail in a separate report that is available for public review and comment (NMFS, 2004d). While the possible effect on conservation was useful information, it was not determinative in deciding whether to propose the exclusion of an area. The only determinative limitation is the statutory bar on excluding any area that "will result in the extinction of the species concerned."

Critical Habitat Designation

Not including any of the eight other potential exclusions identified under Other Potential Exclusions, we are proposing to designate approximately 27,553 mi (44,342 km) of lake, riverine, and estuarine habitat in Washington, Oregon, and Idaho, and 2,121 mi (3,413 km) of nearshore marine habitat in Puget Sound within the geographical areas presently occupied by the 13 ESUs. Some of these proposed areas overlap with two or more ESUs (Table 2), and approximately 1,327 mi (2,136 km) overlap with Indian reservations (a portion of which are Indian lands not proposed for designation). Some of these areas also overlap with military lands (described in the *Military Lands* section), which are not proposed for designation either because they are subject to INRMPs that benefit listed species (NMFS, 2004b) or were determined to have national security impacts that outweigh the benefit of designation. The net economic impacts (coextensive with ESA section 7) associated with the areas proposed for designation for all ESUs are estimated to be approximately \$223,950,127. This estimate does not account for reductions that occur as a result of excluding Indian lands or military lands. Moreover, as discussed previously, we are soliciting comment on additional

exclusions which, if adopted, would further reduce the estimate of coextensive costs.

These proposed designated habitat areas, summarized below by ESU,

contain physical and biological features essential to the conservation of the species and that may require special management considerations or protection. Some of the areas proposed

for designation are likely to be excluded in the final rule after consideration of the additional eight potential exclusions identified above.

TABLE 2.—APPROXIMATE QUANTITY OF PROPOSED CRITICAL HABITAT* AND OWNERSHIP WITHIN WATERSHEDS CONTAINING HABITAT AREAS PROPOSED FOR DESIGNATION

ESU	Streams (mi) (km)	Lakes (sq mi) (sq km)	Near- shore Marine (mi) (km)	Ownership (percent)			
				Federal	Tribal	State	Private
Puget Sound Chinook Salmon	1,694	41	2,185	46.4	1.0	10.0	42.6
	2,726	106	3,516				
Lower Columbia River Chinook Salmon	1,250	33		37.0	0.0	7.6	55.4
	2,012	85.5					
Upper Willamette River Chinook Salmon	1,571	18		39.9	0.4	0.7	59.0
	2,528	46.6					
Upper Columbia River Spring-run Chinook Salmon	926	4		71.4	0.0	4.6	23.9
	1,490	10.4					
Oregon Coast Coho Salmon	6,527	15		31.3	0.2	9.4	59.2
	10,504	38.8					
Hood Canal Summer-run Chum Salmon	75		377	45.8	0.4	13.9	39.9
	121		607				
Columbia River Chum Salmon	656			16.6	0.0	13.6	69.8
	1,056						
Ozette Lake Sockeye Salmon	40	12		19.3	1.2	7.1	72.4
	64	31					
Upper Columbia River <i>O. mykiss</i>	1,247	7		53.7	5.5	9.1	31.7
	2,007	18.1					
Snake River Basin <i>O. mykiss</i>	7,622	4		70.0	3.8	2.1	24.1
	12,266	10					
Middle Columbia River <i>O. mykiss</i>	5,376			25.5	13.2	3.5	57.8
	8,652						
Lower Columbia River <i>O. mykiss</i>	2,428	27		43.9	0.4	5.9	49.7
	3,908	70					
Upper Willamette River <i>O. mykiss</i>	1,312	2		11.4	0.4	1.4	86.9
	2,108	5.2					

* These estimates are the total amount proposed for each ESU. They do not account for overlapping areas (e.g., the Columbia River corridor) proposed for multiple ESUs.

Puget Sound Chinook Salmon ESU

There are 61 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 18 units based on their associated subbasin). Twelve watersheds received a low rating, 9 received a medium rating, and 40 received a high rating of conservation value to the ESU (NMFS, 2004a). Nineteen nearshore marine areas also received a rating of high conservation value.

Habitat areas for this ESU include 2,148 mi (3,457 km) of stream and 2,376 mi (3,824 km) of nearshore marine areas. Of these, 12 stream miles (19 km) and 109 nearshore miles (175 km) are not proposed for designation because they are within lands controlled by the military that contain qualifying INRMPs

or they would result in national security impacts that outweigh the benefits of designation. Fifty-three miles (85 km) of stream and 147 mi (237 km) of nearshore marine areas are within the boundaries of Indian reservations, but only those reaches defined as Indian lands (see *Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, the Secretary is currently proposing to exclude from the designation, at a minimum, the habitat areas shown in

Table 3. Of the areas eligible for designation, no fewer than 389 stream miles (624 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact, with no exclusions, would be \$95,374,362. The exclusions set forth in Table 3 would reduce the total estimated economic impact is \$77,355,898. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Puget Sound chinook, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$4,200,000.

TABLE 3.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE PUGET SOUND CHINOOK SALMON ESU AND PROPOSED FOR EXCLUSION FROM CRITICAL HABITAT

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Strait of Georgia subbasin	1711000201	Bellingham Bay	Entire watershed
	1711000202	Samish River	Entire watershed
	1711000204	Birch Bay	Entire watershed
Unit 3. Upper Skagit River subbasin	1711000508	Baker River	Entire watershed
Unit 10. Lake Washington subbasin	1711001202	Lake Sammamish	Entire watershed
	1711001204	Sammamish River	Entire watershed
Unit 14. Deschutes River subbasin	1711001601	Prairie	Entire watershed
	1711001602	Prairie	Entire watershed
Unit 16. Hood Canal subbasin	1711001802	Lower West Hood Canal Frontal	Entire watershed
	1711001806	Big Quilcene River	Entire watershed
	1711001808	West Kitsap	Entire watershed
Unit 17. Kitsap subbasin	1711001900	Kennedy/Goldsborough	Entire watershed
	1711001901	Puget	Entire watershed
	1711001902	Prairie	Entire watershed
	1711001904	Puget Sound/East Passage	Entire watershed
Unit 18. Dungeness/Elwha Rivers subbasin	1711002004	Port Angeles Harbor	Entire watershed

Lower Columbia River Chinook Salmon ESU

There are 47 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 10 units based on their associated subbasin). Four watersheds received a low rating, 13 received a medium rating, and 30 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Columbia River corridor downstream of the

spawning range was also considered to have a high conservation value.

As a result of the balancing process for economic impacts described above, the Secretary is currently proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 4. Of the 1,440 miles (2,317 km) eligible for designation, no fewer than 190 mi (306 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated

economic impact is \$35,077,449. After exclusions the total estimated economic impact is \$26,114,165. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Lower Columbia River chinook, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$6,300,000.

TABLE 4.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE LOWER COLUMBIA RIVER CHINOOK SALMON ESU AND PROPOSED FOR EXCLUSION FROM CRITICAL HABITAT

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Middle Columbia/Hood subbasin	1707010510	Little White Salmon River	Entire watershed
Unit 2. Lower Columbia/Sandy Rivers subbasin	1708000106	Washougal River	Entire watershed
Unit 4. Lower Columbia/Clatskanie Rivers subbasin	1708000302	Beaver Creek/Columbia River	Entire watershed
	1708000304	Germany/Abernathy	Entire watershed
Unit 6. Lower Cowlitz subbasin	1708000504	North Fork Toutle River	Entire watershed
Unit 7. Lower Columbia River subbasin	1708000601	Youngs River	Entire watershed
Unit 8. Middle Willamette River subbasin	1709000704	Abernathy Creek	Entire watershed
Unit 9. Clackamas River subbasin	1709001105	Eagle Creek	Entire watershed

Upper Willamette River Chinook Salmon ESU

There are 56 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 10 units based on their associated subbasin). Twenty watersheds received a low rating, 17 received a medium rating, and 19 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Willamette/Columbia River corridor downstream of the spawning

range was also considered to have a high conservation value.

As a result of the balancing process for economic impacts described above, the Secretary is proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 5. Of the 1,788 mi (2,878 km) eligible for designation, no fewer than 217 mi (349 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic

impact is \$29,798,559. After exclusions the total estimated economic impact is \$24,627,805. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Upper Willamette River chinook, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$4,900,000.

TABLE 5. FIFTH-FIELD WATERSHEDS OCCUPIED BY THE UPPER WILLAMETTE RIVER CHINOOK SALMON ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION.

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Middle Fork Willamette River subbasin	1709000104	Salmon Creek	Entire watershed
Unit 2. Coast Fork Willamette River subbasin	1709000201	Row River	Entire watershed
	1709000202	Mosby Creek	Entire watershed
	1709000203	Upper Coast Fork Willamette River	Entire watershed
	1709000205	Lower Coast Fork Willamette River	Entire watershed
Unit 3. Upper Willamette River subbasin	1709000301	Long Tom River	Entire watershed
	1709000302	Muddy Creek	Tributaries only
Unit 4. McKenzie River subbasin	1709000404	Blue River	Entire watershed
Unit 7. Middle Willamette River subbasin	1709000702	Rickreall Creek	Tributaries only
	1709000703	Willamette River/Chehalem Creek	Tributaries only
	1709000704	Abernethy Creek	Tributaries only
Unit 8. Yamhill River subbasin	1709000804	Lower South Yamhill River	Entire watershed
	1709000805	Salt Creek/South Yamhill River	Entire watershed
	1709000806	North Yamhill River	Entire watershed
	1709000807	Yamhill River	Entire watershed
Unit 9. Molalla/Pudding Rivers subbasin	1709000901	Abiqua Creek/Pudding River	Entire watershed
Unit 10. Clackamas River subbasin	1709001105	Eagle Creek	Entire watershed

Upper Columbia River Spring-run Chinook Salmon ESU

There are 15 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into four units based on their associated subbasin). Six watersheds received a medium rating and nine received a high rating of conservation value to the ESU (NMFS, 2004a). The Columbia River corridor downstream of the spawning range was also considered to have a high conservation value.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 6. Of the 976 mi (1,571 km) eligible for designation, no

fewer than 50 mi (80.5 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$16,499,567. After exclusions the total estimated economic impact is \$13,511,034. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Upper Columbia River spring-run chinook, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to \$0. Seventeen of the 30 HUC5 watersheds contain a substantial amount of Federal land

subject to protection under the PACFISH management standards. Much of the eligible habitat is found within the mainstem of the Columbia River, which is already subject to a comprehensive Federal salmonid management strategy, with participation by at least eight Federal agencies. The affected economy is primarily rural in nature, and is especially sensitive to additional land management burdens. At the same time, many residents of the affected area are voluntarily undertaking substantial actions to help improve and increase available salmon habitat. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

TABLE 6.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE UPPER COLUMBIA RIVER SPRING-RUN CHINOOK SALMON ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 2. Methow River subbasin	1702000807	Lower Methow River	Tributaries only
Unit 3. Upper Columbia/Entiat Rivers subbasin	1702001002	Lake Entiat	Tributaries only
Unit 4. Wenatchee River subbasin	1702001104	Ice/Chumstick	Tributaries only
	1702001105	Lower Wenatchee River	Tributaries only

Oregon Coast Coho Salmon ESU

There are 80 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 13 units based on their associated subbasin). Ten watersheds received a low rating, 28 received a medium rating, and 42 received a high rating of conservation value to the ESU (NMFS, 2004a).

There are 6,665 mi (10,726 km) of stream in the 80 habitat areas for Oregon Coast coho. Three miles (4.8 km) of stream are within the boundaries of Indian reservations, but only those reaches defined as Indian lands (see *Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated

economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude, at a minimum, from the designation the habitat areas shown in Table 7. Of the

6,665 mi (10,726 km) eligible for designation, no fewer than 135 mi (217 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$18,446,139. After exclusions the total estimated economic impact is \$15,696,696. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. The Secretary could exclude all eligible habitat in this ESU from the critical habitat designation. One primary reason for such an exclusion lies in the voluntary conservation efforts undertaken by the State of Oregon and its citizens in this area since 1996,

collectively referred to as the Oregon Plan for Salmon and Watersheds. Under the Oregon Plan, substantial improvements have occurred, and are expected to continue to occur, to improve and increase habitat, to reduce harvest and to reform hatchery practices to aid in the conservation of this species. These efforts by the State and its citizens are a national model for cooperative conservation. Designating critical habitat in this ESU could discourage and even undercut these voluntary conservation efforts, possibly resulting in a decrease rather than an increase in conservation of the species.

In addition, 36 of the 80 watersheds contain a substantial amount of Federal land managed under the protective provisions of the Northwest Forest

Plan's Aquatic Conservation Strategy, and an additional 16 watersheds contain moderate amounts of such Federal land. With these protective measures in place on Federal land to complement the non-Federal conservation efforts embodied in the Oregon Plan, there is little biological justification to designate critical habitat in this ESU. Further, the coastal economy is and has been weak for some time, with the manufacturing sector declining and tourism emerging slowly as the leading industry. Any additional economic burdens are difficult to justify in light of the limited conservation value of a critical habitat designation. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

TABLE 7. FIFTH-FIELD WATERSHEDS OCCUPIED BY THE OREGON COAST COHO SALMON ESU AND PROPOSED FOR EXCLUSION FROM CRITICAL HABITAT

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 8. North Fork Umpqua River subbasin	1710030106	Boulder Creek	Entire watershed
	1710030108	Steamboat Creek	Entire watershed
	1710030109	Canton Creek	Entire watershed
Unit 9. South Fork Umpqua River subbasin	1710030201	Upper South Umpqua River	Entire watershed
	1710030202	Jackson Creek	Entire watershed
	1710030204	Elk Creek/South Umpqua	Entire watershed
Unit 10. Umpqua River subbasin	1710030305	Lake Creek	Entire watershed
Unit 12. Coquille River subbasin	1710030501	Coquille S Fk, Lwr	Entire watershed

Hood Canal Summer-run Chum Salmon ESU

There are 12 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into four units based on their associated subbasin). Three watersheds received a medium rating, and nine received a high rating of conservation value to the ESU (NMFS, 2004a). Five nearshore marine areas also received a rating of high conservation value.

Habitat areas for this ESU include 88 mi (142 km) of stream and 402 mi (647 km) of nearshore marine areas. Of these, 41 nearshore miles (66 km) are not proposed for designation because they are within lands controlled by the military that contain qualifying INRMPS

or they would result in national security impacts that outweigh the benefits of designation. Six miles (10 km) of stream and 9 mi (15 km) of nearshore marine areas are within the boundaries of Indian reservations, but only those reaches defined as Indian lands (see *Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat

areas shown in Table 8. Of the areas eligible for designation 13 stream miles (20.9 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$7,624,320. After exclusions the total estimated economic impact is \$6,630,479. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Hood Canal summer-run chum, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$1,800,000.

TABLE 8. FIFTH-FIELD WATERSHEDS OCCUPIED BY THE HOOD CANAL SUMMER-RUN CHUM SALMON ESU AND PROPOSED FOR EXCLUSION FROM CRITICAL HABITAT

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Skokomish River subbasin	1711001701	Skokomish River	Entire watershed

Columbia River Chum Salmon ESU

There are 19 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into six units based on their associated subbasin). Three watersheds received a medium rating, and 16 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Columbia River corridor downstream of the spawning range was

also considered to have a high conservation value.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 9. Of the 657 mi (1,057 km) eligible for designation approximately 1 mi (1.6 km) is proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is

\$14,413,049. After exclusions the total estimated economic impact is \$14,048,419. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Columbia River chum salmon, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$4,000,000.

TABLE 9. FIFTH-FIELD WATERSHEDS OCCUPIED BY THE COLUMBIA RIVER CHUM SALMON ESU AND PROPOSED FOR EXCLUSION FROM CRITICAL HABITAT

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 5. Lower Cowlitz River subbasin	1708000504	North Fork Toutle River	Entire watershed

Ozette Lake Sockeye Salmon ESU

There is one subbasin within the Ozette Lake sockeye ESU, composed of a single watershed. This watershed was rated as having a high conservation value to the ESU (NMFS, 2004a). There are 40 mi (64 km) of stream in the one habitat area for Ozette Lake sockeye and 0.5 mi (0.8 km) of stream within the boundaries of Indian reservations. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, no habitat is being proposed for exclusion. Total potential estimated economic impact is \$2,720.

Upper Columbia River *O. mykiss* ESU

There are 31 watersheds within the spawning range of this ESU (for ease of

reference these watersheds have been organized into 10 units based on their associated subbasin). Three watersheds received a low rating, 8 received a medium rating, and 20 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Columbia River corridor downstream of the spawning range was also considered to have a high conservation value.

There are 1,319 mi (2,123 km) of stream in the habitat areas for this ESU. Of these, 7 mi (11 km) are not proposed for designation because they are within lands controlled by the military that contain qualifying INRMPs. Fifty-nine mi (95 km) of stream are within the boundaries of Indian reservations, but only those reaches defined as Indian lands (see *Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small

percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation the habitat areas shown in Table 10. Of the 1,319 mi (2,123 km) eligible for designation 16 mi (26 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$24,558,737. After exclusions the total estimated economic impact is \$18,843,714. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Upper Columbia River *O. mykiss*, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$3,000,000.

TABLE 10.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE UPPER COLUMBIA RIVER *O. mykiss* ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Chief Joseph subbasin	1702000503	Foster Creek	Entire watershed.
	1702000504	Jordan/Tumwater	Entire watershed.
Unit 5. Lake Chelan subbasin	1702000903	Lower Chelan	Entire watershed.
Unit 6. Upper Columbia/Entiat Rivers subbasin	1702001002	Lake Entiat	Tributaries only.
Unit 8. Moses Coulee subbasin	1702001204	Rattlesnake Creek	Entire watershed.

Snake River Basin *O. mykiss* ESU

There are 271 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 25 units based on their

associated subbasin). Sixteen watersheds received a low rating, 42 received a medium rating, and 213 received a high rating of conservation value to the ESU (NMFS, 2004a). The

lower Snake/Columbia River corridor downstream of the spawning range was also considered to have a high conservation value.

There are 7,989 mi (12,857 km) of stream in the habitat areas (including the lower Snake/Columbia River rearing/migration corridor) of this ESU and 261 mi (420 km) of stream within the boundaries of Indian reservations, but only those reaches defined as Indian lands (*see Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 11. Of the 7,989 mi (12,857 km) eligible for designation, no fewer than 110 mi (177 km) are

proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$35,746,361. After exclusions the total estimated economic impact is \$34,867,772. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact to \$0. More than 225 of the HUC5 watersheds contain a substantial amount of Federal land subject to protection under the PACFISH management standards. Some of the eligible habitat is found within the mainstem of the Columbia River which is already subject to a comprehensive Federal salmonid management strategy, with participation by at least eight Federal agencies. Most of the geographic area of the ESU lies in Idaho, where the State of Idaho has reached agreement in

principle with the Federal government as part of a tribal water rights adjudication for the Snake River Basin to adopt new land management standards for state lands and for private landowners who choose to enroll in the program, offering a higher level of conservation efforts on these lands in the future than may have been provided in the past. Many residents of the affected area are voluntarily undertaking other substantial actions to help improve and increase available habitat for this species. The economy in the affected region of all three states is primarily rural in nature, and is especially sensitive to additional land management burdens. For these reasons, the benefits of excluding the eligible habitat in this ESU may outweigh the benefits of designation as critical habitat.

TABLE 11.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE SNAKE RIVER BASIN *O. mykiss* ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 7. Lower Snake/Tucannon Rivers subbasin	1706010705	Pataha Creek	Entire watershed.
Unit 9. Upper Salmon River subbasin	1706020107	Road Creek	Entire watershed.
Unit 10. Pahsimeroi River subbasin	1706020202	Pahsimeroi River/Falls Creek	Entire watershed.
Unit 11. Middle Salmon River-Panther Creek subbasin.	1706020319	Napias Creek	Entire watershed.
	1706020321	Big Deer Creek	Entire watershed.
Unit 15. Middle Salmon River-Chamberlain Creek subbasin.	1706020702	Wind River	Entire watershed.
	1706020707	Big Mallard Creek	Entire watershed.
Unit 17. Lower Salmon River subbasin	1706020917	Rice Creek	Entire watershed.
Unit 23. South Fork Clearwater River subbasin	1706030503	South Fork Clearwater River/Peasley Creek	Tributaries only.
	1706030512	Three Mile Creek	Entire watershed.
Unit 24. Clearwater River subbasin	1706030601	Lower Clearwater River	Tributaries only.

Middle Columbia River *O. mykiss* ESU

There are 111 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into 15 units based on their associated subbasin). Eleven watersheds received a low rating, 22 received a medium rating, and 78 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Columbia River corridor downstream of the spawning range was also considered to have a high conservation value.

There are 6,264 mi (10,081 km) of stream in the habitat areas of this ESU. Of these, 796 mi (1,281 km) of stream are within the boundaries of Indian reservations, but only those reaches defined as Indian lands (*see Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated

economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation the habitat areas shown in Table 12. Of the 6,264 mi (10,081 km) eligible for designation, 93 mi (150 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$37,510,095. After exclusions the total estimated economic impact is \$34,556,978.

However, as indicated above, the Secretary is considering a number of additional exclusions which could reduce this economic impact to \$0. Twenty-seven of the HUC5 watersheds have a substantial amount of Federal

land subject to protection under the PACFISH management standards; another 16 of these watersheds have a moderate amount of such Federal land. Some of the eligible habitat is found within the mainstem of the Columbia River which is already subject to a comprehensive Federal salmonid management strategy, with participation by at least eight Federal agencies.

In both Washington and Oregon, there are many voluntary conservation activities underway throughout the ESU by Federal agencies (BOR in particular), state agencies and private citizens. We have noted recently that the ESU may be close to meeting recovery standards, and NOAA's scientists have consistently rated the degree of risk for this ESU the lowest among the listed salmonid species. The economy in the affected region of both states is primarily rural in nature, and is especially sensitive to additional land management burdens.

For these reasons, the benefits of excluding the eligible habitat in this

ESU may outweigh the benefits of designation as critical habitat.

TABLE 12.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE MIDDLE COLUMBIA RIVER *O. mykiss* ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 5. Walla Walla River subbasin	1707010209	Pine Creek	Entire watershed.
Unit 6. Umatilla River subbasin	1707010304	Wildhorse Creek	Entire watershed.
Unit 7. Middle Columbia/Hood Rivers subbasin	1707010510	Little White Salmon River	Entire watershed.
Unit 12. Lower John Day River subbasin	1707020405	Lower John Day River/Clarno	Tributaries only.
	1707020409	Lower John Day River/Ferry Canyon	Tributaries only.
	1707020410	Lower John Day River/Scott Canyon	Tributaries only.
Unit 13. Lower Deschutes River subbasin	1707030610	White River	Entire watershed.

Lower Columbia River *O. mykiss* ESU

There are 41 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into nine units based on their associated subbasin). Two watersheds received a low rating, 11 received a medium rating, and 28 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Columbia River corridor downstream of the

spawning range was also considered to have a high conservation value.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 13. Of the 2,656 mi (4,274 km) eligible for designation, no fewer than 229 mi (369 km) are proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic

impact is \$33,906,543. After exclusions the total estimated economic impact is \$26,618,626. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Lower Columbia River *O. mykiss*, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$3,600,000.

TABLE 13.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE LOWER COLUMBIA RIVER *O. mykiss* ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 1. Middle Columbia/Hood Rivers subbasin	1707010512	Middle Columbia/Grays Creek	Tributaries only.
Unit 2. Lower Columbia/Sandy Rivers subbasin	1708000105	Bull Run River	Entire watershed.
	1708000107	Columbia Gorge Tributaries	Tributaries only.
	1708000109	Salmon Creek	Entire watershed.
Unit 7. Middle Willamette River subbasin	1709000704	Abernethy Creek	Entire watershed.

Upper Willamette River *O. Mykiss* ESU

There are 34 watersheds within the spawning range of this ESU (for ease of reference these watersheds have been organized into seven units based on their associated subbasin). Sixteen watersheds received a low rating, 7 received a medium rating, and 11 received a high rating of conservation value to the ESU (NMFS, 2004a). The lower Willamette/Columbia River corridor downstream of the spawning range was also considered to have a high conservation value.

There are 1,822 mi (2,932 km) of stream in the 34 habitat areas for Upper Willamette River *O. mykiss*. Of these, 9 mi (15 km) of stream are within the

boundaries of Indian reservations, but only those reaches defined as Indian lands (see *Government-to-Government Relationship With Tribes*) are proposed for exclusion. We have not calculated the potential reduction in estimated economic impact as a result of these Indian land exclusions, but expect it would be small given the small percentage of stream miles these exclusions represent.

As a result of the balancing process for economic impacts described above, we are proposing to exclude from the designation, at a minimum, the habitat areas shown in Table 14. Of the 1,822 mi (2,932 km) eligible for designation, no fewer than 503 mi (810 km) are

proposed for exclusion because the economic benefits of exclusion outweigh the benefits of designation. Total potential estimated economic impact is \$11,159,514. After exclusions the total estimated economic impact is \$7,647,553. However, as indicated above, the Secretary is considering a number of additional exclusions which may further reduce this economic impact by a substantial amount. For Upper Willamette River *O. mykiss*, a preliminary analysis of the economic impact of designating critical habitat after considering some of these additional exclusions indicates that it could be reduced to about \$3,000,000.

TABLE 14.—FIFTH-FIELD WATERSHEDS OCCUPIED BY THE UPPER WILLAMETTE RIVER *O. mykiss* ESU AND PROPOSED FOR FULL OR PARTIAL EXCLUSION FROM CRITICAL HABITAT. WATERSHEDS FOR WHICH TRIBUTARIES ONLY ARE EXCLUDED CONTAIN REARING/MIGRATION CORRIDORS NECESSARY FOR CONSERVATION

Subbasin/Unit	Watershed code	Watershed name	Area proposed for exclusion
Unit 4. Middle Willamette River subbasin	1709000702	Rickreall Creek	Tributaries only.
	1709000703	Willamette River/Chehalem Creek	Tributaries only.
	1709000704	Abernethy Creek	Tributaries only.
Unit 5. Yamhill River subbasin	1709000802	Willamina Creek	Entire watershed.
	1709000805	Salt Creek/South Yamhill River	Entire watershed.
	1709000806	North Yamhill River	Entire watershed.
	1709000807	Yamhill River	Tributaries only.
Unit 6. Molalla/Pudding River subbasin	1709000901	Abiqua Creek/Pudding River	Entire watershed.
Unit 7. Tualatin River subbasin	1709001001	Dairy Creek	Entire watershed.
	1709001003	Scoggins Creek	Entire watershed.
	1709001004	Rock Creek/Tualatin River	Entire watershed.
	1709001005	Lower Tualatin River	Entire watershed.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the ESA requires Federal agencies, including NMFS, to ensure that actions they fund, authorize, permit, or carry out do not destroy or adversely modify critical habitat. In agency regulations at 50 CFR 402.02, we define destruction or adverse modification as "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to: Alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." However, in a March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit (*Sierra Club v. U.S. Fish and Wildlife Service*, 243 F.3d 434 (5th Cir. 2001), and an August 9, 2004 decision of the United States Court of Appeals for the Ninth Circuit (*Gifford Pinchot Task Force v. U.S. Fish and Wildlife*, No. 03-35279, the courts have found the agencies' definition of destruction or adverse modification to be invalid. In response to this decision, we are reviewing this regulatory definition.

Section 7(a) of the ESA requires Federal agencies, including NMFS, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this provision of the ESA are codified at 50 CFR part 402. Section 7(a)(4) of the ESA requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat. Conference reports provide

conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

We may issue a formal conference report if requested by a Federal agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species were listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

If a species is listed or critical habitat is designated, ESA section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, we would review actions to determine if they would destroy or adversely modify critical habitat.

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we will also provide reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that we

believe would avoid destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities on Federal lands that may affect these ESUs or their critical habitat will require ESA section 7 consultation. Activities on private or state lands requiring a permit from a Federal agency, such as a permit from the Corps under section 404 of the CWA, a section 10(a)(1)(B) permit from NMFS, or some other Federal action, including funding (e.g., Federal Highway Administration (FHA) or Federal Emergency Management Agency (FEMA) funding), will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not Federally funded, authorized, or permitted do not require section 7 consultation.

Activities Affected by Critical Habitat Designation

Section 4(b)(8) of the ESA requires that we evaluate briefly and describe, in

any proposed or final regulation that designates critical habitat, those activities involving a Federal action that may adversely modify such habitat or that may be affected by such designation. As noted in the *Special Management Considerations or Protection* section above, we received several comments on the ANPR (68 FR 55926; September 29, 2003) regarding activities potentially affected by a critical habitat designation.

A wide variety of activities may affect critical habitat and, when carried out, funded, or authorized by a Federal agency, require that an ESA section 7 consultation be conducted. Such activities include, but are not limited to, those described in the Species Descriptions and Area Assessments section. Generally these include water and land management actions of Federal agencies (e.g., USFS, BLM, Corps, BOR), the FHA, NRCS, National Park Service (NPS), Bureau of Indian Affairs (BIA), and the Federal Energy Regulatory Commission (FERC) and related or similar actions of other Federally regulated projects and lands, including livestock grazing allotments by the USFS and BLM; hydropower sites licensed by the FERC; dams built or operated by the Corps or BOR; timber sales and other vegetation management activities conducted by the USFS, BLM, and BIA; irrigation diversions authorized by the USFS and BLM; road building and maintenance activities authorized by the FHA, USFS, BLM, NPS, and BIA; and mining and road building/maintenance activities authorized by the states of Washington, Oregon, and Idaho. Other actions of concern include dredge and fill, mining, diking, and bank stabilization activities authorized or conducted by the Corps, habitat modifications authorized by the FEMA, and approval of water quality standards and pesticide labeling and use restrictions administered by the EPA.

The Federal agencies that will most likely be affected by this critical habitat designation include the USFS, BLM, BOR, Corps, FHA, NRCS, NPS, BIA, FEMA, EPA, and the FERC. This designation will provide these agencies, private entities, and the public with clear notification of critical habitat designated for listed salmonids and the boundaries of the habitat. This designation will also assist these agencies and others in evaluating the potential effects of their activities on listed salmon and their critical habitat and in determining if section 7 consultation with NMFS is needed.

As noted above, numerous private entities also may be affected by this critical habitat designation because of

the direct and indirect linkages to an array of Federal actions, including Federal projects, permits, and funding. For example, private entities may harvest timber or graze livestock on Federal land or have special use permits to convey water or build access roads across Federal land; they may require Federal permits to armor stream banks, construct irrigation withdrawal facilities, or build or repair docks; they may obtain water from Federally funded and operated irrigation projects; or they may apply pesticides that are only available with Federal agency approval. These activities will need to be analyzed with respect to their potential to destroy or adversely modify critical habitat. In some cases, proposed activities may require modifications that may result in decreases in activities such as timber harvest and livestock and crop production. The transportation and utilities sectors may need to modify the placement of culverts, bridges and utility conveyances (e.g., water, sewer and power lines) to avoid barriers to fish migration. Developments occurring in or near salmon streams (e.g., marinas, residential, or industrial facilities) that require Federal authorization or funding may need to be altered or built in a manner that ensures that critical habitat is not destroyed or adversely modified as a result of the construction, or subsequent operation, of the facility. These are just a few examples of potential impacts, but it is clear that the effects will encompass numerous sectors of private and public activities. If you have questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat, contact NMFS (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governments and agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Maps and specific information describing the amount, distribution, and use type (e.g., spawning, rearing, or migration) of salmon habitat in each ESU; as well as any additional information on occupied and unoccupied habitat areas.

(2) The reasons why any habitat should or should not be determined to

be critical habitat as provided by sections 3(5)(A) and 4(b)(2) of the ESA;

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

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

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

(6) Current or planned activities in the areas proposed for designation and their possible impacts on proposed critical habitat;

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

(8) Whether our approach to critical habitat designation could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concern and comments; and

(9) Whether specific unoccupied areas (e.g., dewatered stream reaches, areas behind dikes or dams) not presently proposed for designation may be essential to provide additional spawning and rearing areas for an ESU. In particular we are seeking information regarding potential habitat areas in the Lemhi River and Pahsimeroi River subbasins in Idaho. Dam-related areas identified by the Teams as possibly being essential for conservation and for which we are seeking information include:

Lower Columbia River Chinook Salmon ESU: areas upstream of Bull Run, Condit, Merwin, Swift, and Yale dams;

Upper Willamette River Spring-run Chinook Salmon ESU: areas upstream of Big Cliff and Detroit dams;

Upper Columbia River O. mykiss ESU: areas upstream of Enloe Dam;

Snake River O. mykiss ESU: areas upstream of Dworshak Dam;

Middle Columbia River O. mykiss ESU: upper reaches of Wilson and Naneum creeks and areas upstream of Bumping, Cle Elum, Kacheelus, Kachess, and Tieton dams;

Lower Columbia River O. mykiss ESU: areas upstream of Bull Run, Condit, Merwin, Swift, and Yale dams.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES** section). The proposed rule, maps, fact sheets, and other materials relating to this proposal can be found on our Web site at <http://www.nwr.noaa.gov/1salmon/salmesa/crithab/CHsite.htm>. We will consider all comments and information received during the comment period on this proposed rule as we prepare our final rulemaking. Accordingly, the final decision may differ from this proposal.

Public Hearings

Joint Commerce-Interior ESA implementing regulations state that the Secretary shall promptly hold at least one public hearing if any person requests one within 45 days of publication of a proposed regulation to list a species or to designate critical habitat (see 50 CFR 424.16©(3)). Requests for public hearing must be made in writing (see **ADDRESSES**) by January 28, 2005. Due to the high likelihood of such requests we have already scheduled four public hearings on this proposed rule (see **DATES**). Details regarding the specific hearing locations, formats, and times will be posted by December 24, 2004, on our Web site at <http://www.nwr.noaa.gov/1salmon/salmesa/crithab/CHsite.htm>. These hearings will provide the opportunity for interested individuals and parties to give comments, exchange information and opinions, and engage in a constructive dialogue concerning this proposed rule. We encourage the public's involvement in such ESA matters.

Peer Review

In accordance with an ESA policy published on July 1, 1994 (59 FR 34270), we will solicit the expert opinions of at least three appropriate independent specialists regarding this proposed rule. Given the varied considerations involved in making the proposed designations, we intend to solicit reviews from specialist(s) with biological expertise as well as specialist(s) with economic expertise in the geographic range of these ESUs. The purpose of such review is to ensure that the critical habitat designation is based on scientifically sound data,

assumptions, and analyses. We will send these reviewers copies of this proposed rule immediately following publication in the *Federal Register*. We will invite them to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

In response to the ANPR (68 FR 55926; September 29, 2003) we received the names of two potential independent reviewers and will identify other candidates prior to or soon after publishing this proposed rule. We will announce the availability of comments received from these reviewers and the public and make them available via the internet as soon as practicable during or after the comment period but in advance of a final rule.

Required Determinations

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with its clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? (5) What else could we do to make this proposed rule easier to understand? You may send comments on how we could make this proposed rule easier to understand to one of the addresses identified in the **ADDRESSES** section or via e-mail to: critical.habitat.nwr@noaa.gov.

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule and has been reviewed by the Office of Management and Budget (OMB). As noted above, we have prepared several reports to support the exclusion process under section 4(b)(2) of the ESA. The economic costs of the proposed critical habitat designations are described in our draft economic report (NMFS, 2004c). The benefits of the proposed designations are described in the Critical Habitat Analytical Review Team report (NMFS, 2004a). This document uses a biologically-based ranking system for gauging the benefits

of applying section 7 of the ESA to particular watersheds. Because data are not available to express these benefits in monetary terms, we have adopted a cost-effectiveness framework, as outlined in a draft 4(b)(2) report (NMFS, 2004d). This approach is in accord with OMB's guidance on regulatory analysis (U.S. Office of Management and Budget, Circular A-4, Regulatory Analysis, September 17, 2003). By taking this approach, we seek to designate sufficient critical habitat to meet the biological goal of the ESA while imposing the least burden on society, as called for by E.O. 12866.

In assessing the overall cost of critical habitat designation for the 13 Pacific salmon and *O. mykiss* ESUs, the annual total impact figures given in the draft economic analysis (NMFS, 2004c) cannot be added together to obtain an aggregate annual impact. Because some watersheds are included in more than one ESU, a simple summation would entail duplication, resulting in an overestimate. Accounting for this duplication, the aggregate annual economic impact of the 13 proposed critical habitat designations is \$223,950,126 (in contrast to a \$264,727,857 aggregate annual economic impact from designating all areas considered in the 4(b)(2) process for these ESUs). These amounts include impacts that are co-extensive with the implementation of the jeopardy standard of section 7 (NMFS, 2004c).

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). We have prepared a draft regulatory flexibility analysis and this document is available upon request (see **ADDRESSES**). This analysis estimates that the number of regulated small entities potentially affected by this proposed rulemaking ranges from zero to 2,720 depending on the ESU. If these areas are designated critical habitat, the estimated co-extensive costs of section 7 consultation incurred by small entities is estimated to range from \$2.3 thousand to \$60.4 million depending on the ESU. As described in the analysis, we considered various alternatives for designating critical habitat for these 13

ESUs. We considered and rejected the alternative of not designating critical habitat for any of the ESUs because such an approach did not meet the legal requirements of the ESA. We also examined and rejected an alternative in which all the potential critical habitat of the 13 Pacific salmon and steelhead ESUs is proposed for designation (*i.e.*, no areas are excluded) because many of the areas considered to have a low conservation value also had relatively high economic impacts that might be mitigated by excluding those areas from designation. A third alternative we examined and rejected would exclude all habitat areas with a low or medium conservation value. While this alternative furthers the goal of reducing economic impacts, it is not sensitive to the fact that for most ESUs, eliminating all habitat areas with low and medium conservation value is likely to significantly impede conservation. Moreover, for some habitat areas the incremental economic benefit from excluding that area is relatively small. Therefore, after considering these alternatives in the context of the section 4(b)(2) process of weighing benefits of exclusion against benefits of designation, we determined that the current proposal for designating critical habitat (*i.e.*, designating some but not all areas with low or medium conservation value) provides an appropriate balance of conservation and economic mitigation and that excluding the areas identified in this proposed rulemaking would not result in extinction of the ESUs. It is estimated that small entities could save from zero to \$20.2 million in compliance costs, depending on the ESU, if the areas proposed for exclusion in this proposed rule are excluded from designation.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule may be a significant regulatory action under Executive Order 12866. At this time, however, we are unable to determine both the scope and the nature of the energy effects.

Nine of the ESUs under consideration for critical habitat designation occupy the Columbia River and most of these migrate through one or more of the hydropower dams comprising the FCRPS. In *National Wildlife Federation et al. v. National Marine Fisheries Service et al.*, the court remanded the 2000 Biological Opinion on the

operation of the FCRPS for salmon. This Biological Opinion establishes Reasonable and Prudent Alternatives for the operation of the FCRPS, many of which are likely to have significant energy effects. The court has established a November 30, 2004, deadline for the revised Biological Opinion. Until that time, we do not have sufficient information or certainty to estimate the energy effects of critical habitat designation for the 13 Pacific salmon ESUs. When such information is available and greater certainty exists about the effects of the revised 2000 Biological Opinion, we will assess the significance of the energy effects of this regulatory action and publish a notice of availability of this assessment (and request for comment) prior to a final rule.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act, we make the following findings:

(a) This proposed rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private

sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program." The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the ESA, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above to State governments.

(b) Due to current public knowledge of salmon protection and the prohibition against take of these species both within and outside of the designated areas, we do not anticipate that this proposed rule will significantly or uniquely affect small governments. As such, a Small Government Agency Plan is not required.

Takings

In accordance with Executive Order 12630, the proposed rule does not have significant takings implications. A takings implication assessment is not required. The designation of critical habitat affects only Federal agency actions. The proposed rule will not increase or decrease the current restrictions on private property concerning take of salmon. As noted above, due to widespread public knowledge of salmon protection and the prohibition against take of the species both within and outside of the designated areas, we do not anticipate that property values will be affected by the proposed critical habitat designations. While real estate market values may temporarily decline following designation, due to the perception that critical habitat designation may impose additional regulatory burdens on land use, we expect any such impacts to be short term (NMFS, 2004c). Additionally, critical habitat designation does not preclude development of HCPs and issuance of incidental take permits.

Owners of areas that are included in the designated critical habitat will continue to have the opportunity to use their property in ways consistent with the survival of listed salmon.

Federalism

In accordance with Executive Order 13132, this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of Commerce policies, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate state resource agencies in Washington, Oregon, and Idaho. The proposed designation may have some benefit to the states and local resource agencies in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what Federally sponsored activities may occur, it may assist local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Department of the Commerce has determined that this proposed rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are proposing to designate critical habitat in accordance with the provisions of the ESA. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the 13 salmon ESUs.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This proposed rule does not contain new or revised information collection for which OMB approval is required under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

We have determined that we need not prepare environmental analyses as

provided for under the National Environmental Policy Act of 1969 for critical habitat designations made pursuant to the ESA. See *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S.Ct. 698 (1996).

Government-to-Government Relationship With Tribes

The longstanding and distinctive relationship between the Federal and tribal Governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Pursuant to these authorities lands have been retained by Indian Tribes or have been set aside for tribal use. These lands are managed by Indian Tribes in accordance with tribal goals and objectives within the framework of applicable treaties and laws.

Administration policy contained in the Secretarial Order: "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997) ("Secretarial Order"); the President's Memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (50 FR 2291); Executive Order 13175; and Department of Commerce—American Indian and Alaska Native Policy (March 30, 1995) reflects and defines this unique relationship.

These policies also recognize the unique status of Indian lands. The Presidential Memorandum of April 29, 1994, provides that, to the maximum extent possible, tribes should be the governmental entities to manage their lands and tribal trust resources. The Secretarial Order provides that, "Indian lands are not Federal public lands or part of the public domain, and are not subject to Federal public lands laws."

In implementing these policies the Secretarial Order specifically seeks to harmonize this unique working relationship with the Federal Government's duties pursuant to the ESA. The order clarifies our responsibilities when carrying out authorities under the ESA and requires that we consult with and seek participation of, the affected Indian Tribes to the maximum extent practicable in the designation of critical

habitat. Accordingly, we recognize that we must carry out our responsibilities under the ESA in a manner that harmonizes these duties with the Federal trust responsibility to the tribes and tribal sovereignty while striving to ensure that Indian Tribes do not bear a disproportionate burden for the conservation of species. Any decision to designate Indian land as critical habitat must be informed by the Federal laws and policies establishing our responsibility concerning Indian lands, treaties and trust resources, and by Department of Commerce policy establishing our responsibility for dealing with tribes when we implement the ESA.

For Pacific salmon in the Northwest, our approach is also guided by the unique partnership between the Federal Government and Indian tribes regarding salmon management. Northwest Indian tribes are regarded as "co-managers" of the salmon resource, along with Federal and state managers. This co-management relationship evolved as a result of numerous court decisions establishing the tribes' treaty right to take fish in their usual and accustomed places.

The co-manager relationship is embodied in a number of long-term ongoing management processes; examples include (but are not limited to): Joint Resource Management Plans such as Salmon Fisheries and Steelhead Net Fisheries Affecting Puget Sound Chinook Salmon in 2003–2004 and Puget Sound Comprehensive Chinook Management Plan: Harvest Management Component; Tribal Resource Management Plans such as Tribal Chinook Research in Puget Sound, Washington, Tribal Resource Management Plan for Threatened Snake River Spring/Summer Chinook on the Imnaha River Subbasin in 2002–2003, and Tribal Resource Management Plan for Snake River Spring/Summer Chinook in the Grand Ronde River in Northeast Oregon; Pacific Management Council and Pacific Salmon Commission; *United States v. Oregon* and *United States v. Washington* court-supervised processes; and in-season management of Columbia River and Puget Sound/Washington Coast fisheries. Similarly there are partnership examples in the artificial propagation, habitat, hydropower, and recovery planning areas of salmonid conservation and protection efforts (NMFS, 2004e).

Pursuant to the Secretarial Order we consulted with the affected Indian Tribes when considering the designation of critical habitat in an area that may impact tribal trust resources, tribally owned fee lands or the exercise

of tribal rights. Additionally many tribes provided written comments that are a part of the administrative record for this proposed rulemaking.

We understand from the tribes that there is general agreement that Indian lands should not be designated critical habitat. The Secretarial Order defines Indian lands as "any lands title to which is either: (1) held in trust by the United States for the benefit of any Indian tribe or (2) held by an Indian Tribe or individual subject to restrictions by the United States against alienation." In clarifying this definition with the tribes, we agree that (1) fee lands within the reservation boundaries and owned by the Tribe or individual Indian, and (2) fee lands outside the reservation boundaries and owned by the Tribe would be considered Indian lands for the purposes of this proposed rule. (Fee lands outside the reservation owned by individual Indians are not included within the definition of Indian lands for the purposes of this rule.)

Several tribes provided documentation that there are no fish bearing waters on their tribal lands and as such contend that these lands do not constitute critical habitat. Having reviewed this documentation we agree and do not include these lands in the critical habitat designation (see Application of ESA section 4(b)(2)).

In evaluating the remaining Indian lands for designation as critical habitat we look to section 4(b)(2) of the ESA. Section 4(b)(2) requires us to base critical habitat designations on the best scientific and commercial data available, after taking into consideration the economic impact, the impact on national security and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude areas from a critical habitat designation when the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We find that a relevant impact for consideration is the degree to which the Federal designation of Indian lands would impact the longstanding unique

relationship between the tribes and the Federal Government and the corresponding effect on Pacific salmon protection and management (See Other Relevant Impacts and Critical Habitat Designation sections). This is consistent with recent case law addressing the designation of critical habitat on tribal lands. "It is certainly reasonable to consider a positive working relationship relevant, particularly when the relationship results in the implementation of beneficial natural resource programs, including species preservation." *Center for Biological Diversity et. al. v. Norton*, 240 F. Supp. 2d 1090, 1105; *Douglas County v. Babbitt*, 48 F3d 1495, 1507 (1995) (defining "relevant" as impacts consistent with the purposes of the ESA).

As noted above, the northwest Federal and tribal governments currently have cooperative working relationships that have enabled us to implement natural resource programs of mutual interest for the benefit of threatened and endangered salmonids. The tribes have existing natural resource programs that assist us on a regular basis in providing information relevant to salmonid protection throughout the region. Our consultation with the tribes and a series of letters and analyses they have provided indicates that they view the designation of Indian lands as an unwanted intrusion into tribal self-governance, compromising the government-to-government relationship that is essential to achieving our mutual goal of conserving threatened and endangered salmonids. Further, the tribes indicate that their participation in existing co-manager processes will be compromised by the designation of their lands as they have limited staff and resources.

At this time, for the general reasons described above, we anticipate that the ESA 4(b)(2) analysis will lead us to exclude all Indian lands in our final designation for these 13 ESUs of salmon and *O. mykiss*. Consistent with other proposed exclusions, any exclusion in

the final rule will be made only after consideration of all comments received.

References Cited

A complete list of all references cited in this rulemaking can be found on our Web site at <http://www.nwr.noaa.gov/1salmon/salmesa/crithab/CHsite.htm> and is available upon request from the NMFS office in Portland, Oregon (see ADDRESSES section).

List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: November 29, 2004.

William T. Hogarth,

Assistant Administrator for Fisheries, National Marine Fisheries Service.

For the reasons set out in the preamble, we propose to amend part 226, title 50 of the Code of Federal Regulations as set forth below:

PART 226—[AMENDED]

1. The authority citation of part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

2. Add § 226.212 to read as follows:

§ 226.212 Critical habitat for 13 Evolutionarily Significant Units (ESUs) of salmon (*Oncorhynchus* spp.) in Washington, Oregon and Idaho.

Critical habitat is designated in the following states and counties for the following ESUs as described in paragraph (a) of this section, and as further described in paragraphs (b) through (e) of this section. The textual descriptions of critical habitat for each ESU are included in paragraphs (f) through (r) of this section, and these descriptions are the definitive source for determining the critical habitat boundaries. General location maps are provided at the end of each ESU description (paragraphs (f) through (r) of this section) and are provided for general guidance purposes only, and not as a definitive source for determining critical habitat boundaries.

(a) Critical habitat is designated for the following ESUs in the following states and counties:

ESU	State—Counties
(1) Puget Sound chinook salmon	WA—Chelan, Clallam, Grays Harbor, Island, Jefferson, King, Kittitas, Mason, Pierce, Skagit, Snohomish, Thurston, Whatcom, and Yakima.
(2) Lower Columbia River chinook salmon	(i) OR—Clackamas, Clatsop, Columbia, Hood River, Multnomah, Wasco, and Washington. (ii) WA—Clark, Cowlitz, Klickitat, Lewis, Pacific, Pierce, Skamania, Wahkiakum, and Yakima.
(3) Upper Willamette River chinook salmon	(i) OR—Benton, Clackamas, Clatsop, Columbia, Deschutes, Douglas, Jefferson, Klamath, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Wasco, Washington, and Yamhill. (ii) WA—Clark, Cowlitz, Pacific, and Wahkiakum.
(4) Upper Columbia River spring-run chinook salmon.	(i) OR—Clatsop, Columbia, Gilliam, Hood River, Morrow, Multnomah, Sherman, Umatilla, and Wasco.

ESU	State—Counties
(5) Oregon Coast coho salmon	(ii) WA—Adams, Benton, Chelan, Clark, Cowlitz, Douglas, Franklin, Grant, King, Kittitas, Klickitat, Okanogan, Pacific, Skagit, Skamania, Snohomish, Wahkiakum, Walla Walla, Whatcom, and Yakima. OR—Benton, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Polk, Tillamook, Washington, and Yamhill.
(6) Hood Canal summer-run chum salmon	WA—Clallam, Jefferson, Kitsap, and Mason.
(7) Columbia River chum salmon	(i) OR—Clatsop, Columbia, Hood River, Multnomah, and Wasco.
(8) Ozette Lake sockeye salmon	(ii) WA—Clark, Cowlitz, Klickitat, Lewis, Pacific, Skamania, Wahkiakum, and Yakima. WA—Clallam.
(9) Upper Columbia River <i>O. mykiss</i>	(i) OR—Clatsop, Columbia, Gilliam, Hood River, Morrow, Multnomah, Sherman, Umatilla, and Wasco.
(10) Snake River Basin <i>O. mykiss</i>	(ii) WA—Adams, Benton, Chelan, Clark, Cowlitz, Douglas, Franklin, Grant, King, Kittitas, Klickitat, Okanogan, Pacific, Skagit, Skamania, Snohomish, Wahkiakum, Walla Walla, Whatcom, and Yakima. (i) ID—Adams, Blaine, Boise, Camas, Clearwater, Custer, Elmore, Idaho, Latah, Lemhi, Lewis, Nez Perce, and Valley. (ii) OR—Baker, Clatsop, Columbia, Gilliam, Grant, Hood River, Morrow, Multnomah, Sherman, Umatilla, Union, Wallowa, and Wasco.
(11) Middle Columbia River <i>O. mykiss</i>	(iii) WA—Adams, Asotin, Benton, Clark, Columbia, Cowlitz, Franklin, Garfield, Klickitat, Pacific, Skamania, Walla Walla, Wahkiakum, Whitman, and Yakima. (i) OR—Baker, Clackamas, Clatsop, Columbia, Crook, Gilliam, Grant, Hood River, Jefferson, Marion, Morrow, Multnomah, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler. (ii) WA—Benton, Chelan, Clark, Cowlitz, Columbia, Franklin, King, Kittitas, Klickitat, Lewis, Pacific, Pierce, Skamania, Wahkiakum, Walla Walla, and Yakima.
(12) Lower Columbia River <i>O. mykiss</i>	(i) OR—Clackamas, Clatsop, Columbia, Hood River, Jefferson, Marion, Multnomah, Wasco, and Washington.
(13) Upper Willamette River <i>O. mykiss</i>	(ii) WA—Clark, Cowlitz, Klickitat, Lewis, Pacific, Pierce, Skamania, Wahkiakum, and Yakima. (i) OR—Benton, Clackamas, Clatsop, Columbia, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Washington, and Yamhill. (ii) WA—Clark, Cowlitz, Pacific, and Wahkiakum.

(b) Critical habitat boundaries.

Critical habitat includes the stream channels within the proposed stream reaches, and includes a lateral extent as defined by the ordinary high-water line (33 CFR 319.11). In areas where ordinary high-water line has not been defined, the lateral extent will be defined by the bankfull elevation. Bankfull elevation is the level at which water begins to leave the channel and move into the floodplain and is reached at a discharge which generally has a recurrence interval of 1 to 2 years on the annual flood series. Critical habitat in lake areas is defined by the perimeter of the water body as displayed on standard 1:24,000 scale topographic maps or the elevation of ordinary high water, whichever is greater. In estuarine and nearshore marine areas critical habitat is proposed to include areas contiguous with the shoreline from the line of extreme high water out to a depth no greater than 30 meters relative to mean lower low water.

(c) Primary constituent elements.

Within these areas, the primary constituent elements essential for the conservation of these ESUs are those sites and habitat components that support one or more life stages, including:

(1) Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation and larval development;

(2) Freshwater rearing sites with:

(i) Water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility;

(ii) Water quality and forage supporting juvenile development; and

(iii) Natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.

(3) Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival;

(4) Estuarine areas free of obstruction and excessive predation with:

(i) Water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater;

(ii) Natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels; and

(iii) Juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation.

(5) Nearshore marine areas free of obstruction and excessive predation with:

(i) Water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and

(ii) Natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.

(6) Offshore marine areas with water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.

(d) *Exclusion of Indian lands.* Critical habitat does not include habitat areas on Indian lands. The Indian lands specifically excluded from critical habitat are those defined in the Secretarial Order, including:

(1) Lands held in trust by the United States for the benefit of any Indian tribe;

(2) Land held in trust by the United States for any Indian Tribe or individual subject to restrictions by the United States against alienation;

(3) Fee lands, either within or outside the reservation boundaries, owned by the tribal government; and

(4) Fee lands within the reservation boundaries owned by individual Indians.

(e) *Land owned or controlled by the Department of Defense.* Additionally, critical habitat does not include the following areas owned or controlled by

the Department of Defense, or designated for its use, in the State of Washington:

- (1) Naval Submarine Base, Bangor;
 - (2) Naval Undersea Warfare Center, Keyport;
 - (3) Naval Ordnance Center, Port Hadlock (Indian Island);
 - (4) Naval Radio Station, Jim Creek;
 - (5) Naval Fuel Depot, Manchester;
 - (6) Naval Air Station Whidbey Island;
 - (7) Naval Air Station, Everett;
 - (8) Bremerton Naval Hospital;
 - (9) Fort Lewis (Army);
 - (10) Pier 23 (Army);
 - (11) Yakima Training Center (Army);
 - (12) Puget Sound Naval Shipyard;
 - (13) Naval Submarine Base Bangor security zone;
 - (14) Strait of Juan de Fuca naval air-to-surface weapon range, restricted area;
 - (15) Hood Canal and Dabob Bay naval non-explosive torpedo testing area;
 - (16) Strait of Juan de Fuca and Whidbey Island naval restricted areas;
 - (17) Admiralty Inlet naval restricted area;
 - (18) Port Gardner Naval Base restricted area;
 - (19) Hood Canal naval restricted areas;
 - (20) Port Orchard Passage naval restricted area;
 - (21) Sinclair Inlet naval restricted areas;
 - (22) Carr Inlet naval restricted areas;
 - (23) Dabob Bay/Whitney Point naval restricted area; and
 - (24) Port Townsend/Indian Island/Walan Point naval restricted area.
- (f) *Puget Sound Chinook Salmon* (*Oncorhynchus tshawytscha*). Critical habitat is proposed to include the areas defined in the following units:
- (1) *Unit 2. Nooksack Subbasin 17110004—(i) Upper North Fork Nooksack River Watershed 1711000401.* Outlet(s) = North Fork Nooksack River (Lat 48.9055, Long -121.9886) upstream to endpoint(s) in: Boyd Creek (48.8998, -121.8640); Canyon Creek (48.9366, -121.9451); Cascade Creek (48.8996, -121.8621); Cornell Creek (48.8882, -121.9594); Deadhorse Creek (48.9024, -121.8359); Gallop Creek (48.8849, -121.9447); Glacier Creek (48.8197, -121.8931); Hedrick Creek (48.8953, -121.9705); Thompson Creek (48.8837, -121.9028); Wells Creek (48.8940, -121.7976).
 - (ii) *Middle Fork Nooksack River Watershed 1711000402.* Outlet(s) = Middle Fork Nooksack River (Lat 48.8342, Long -122.1540) upstream to endpoint(s) in: Canyon Creek (48.8374, -122.1198); Middle Fork Nooksack River (48.7714, -122.0709); Porter Creek (48.7951, -122.1098); Unnamed (48.7809, -122.1157); Unnamed (48.7860, -122.1214).

(iii) *South Fork Nooksack River Watershed 1711000403.* Outlet(s) = South Fork Nooksack River (Lat 48.8095, Long -122.2026) upstream to endpoint(s) in: Black Slough (48.7715, -122.1931); Cavanaugh Creek (48.6446, -122.1094); Deer Creek (48.6041, -122.0912); Edfro Creek (48.6607, -122.1206); Fobes Creek (48.6230, -122.1139); Hard Scabble Falls Creek (48.7601, -122.2273); Howard Creek (48.6118, -121.9639); Hutchinson Creek (48.7056, -122.1663); Jones Creek (48.7186, -122.2130); McCarty Creek (48.7275, -122.2188); Plumbago Creek (48.6088, -122.0949); Pond Creek (48.6958, -122.1651); Skookum Creek (48.6871, -122.1029); South Fork Nooksack River (48.6133, -121.9000); Standard Creek (48.7444, -122.2191); Sygitowicz Creek (48.7722, -122.2269); Unnamed (48.6048, -121.9143); Unnamed (48.6213, -122.1039); Unnamed (48.7174, -122.1815); Unnamed (48.7231, -122.1968); Unnamed (48.7843, -122.2188).

(iv) *Lower North Fork Nooksack River Watershed 1711000404.* Outlet(s) = Nooksack River (Lat 48.8711, Long -122.3227) upstream to endpoint(s) in: Anderson Creek (48.8088, -122.3410); Boulder Creek (48.9314, -122.0258); Coal Creek (48.8889, -122.1506); Kendall Creek (48.9251, -122.1455); Kenney Creek (48.8510, -122.1368); Macaulay Creek (48.8353, -122.2345); Maple Creek (48.9262, -122.0751); Mitchell Creek (48.8313, -122.2174); North Fork Nooksack River (48.9055, -121.9886); Racehorse Creek (48.8819, -122.1272); Smith Creek (48.8439, -122.2544); Unnamed (48.8103, -122.1855); Unnamed (48.9002, -122.1205); Unnamed (48.9040, -122.0875); Unnamed (48.9131, -122.0127); Unnamed (48.9158, -122.0091); Unnamed (48.9162, -122.0615); Unnamed (48.9200, -122.0463); Wildcat Creek (48.9058, -121.9995); Deer Creek (48.8439, -122.4839).

(v) *Nooksack River Watershed 1711000405.* Outlet(s) = Lummi River (Lat 48.8010, Long -122.6582); Nooksack River (48.7737, -122.5986); Silver Creek (48.7786, -122.5635); Slater Slough (48.7759, -122.6029); Unnamed (48.7776, -122.5708); Unnamed (48.7786, -122.5677); Unnamed (48.7973, -122.6717); Unnamed (48.8033, -122.6771) upstream to endpoint(s) in: Fishtrap Creek (49.0025, -122.4053); Fourmile Creek (48.8890, -122.4213); Lummi River (48.8198, -122.6049); Nooksack River (48.8711, -122.3227); Porter Creek (49.0024, -122.4724); Slater Slough (48.7778, -122.6041); Tenmile Creek (48.8457, -122.3661); Unnamed

(48.8191, -122.5705); Unnamed (48.8453, -122.6071); Unnamed (48.8548, -122.4749); Unnamed (48.9609, -122.5312); Unnamed (48.9634, -122.3928); Unnamed (49.0024, -122.4730); Unnamed (49.0025, -122.5218).

(2) *Unit 3. Upper Skagit Subbasin 17110005—(i) Skagit River/Gorge Lake Watershed 1711000504.* Outlet(s) = Skagit River (Lat 48.6725, Long -121.2633) upstream to endpoint(s) in: Goodell Creek (48.6890, -121.2718); Skagit River (48.6763, -121.2404).

(ii) *Skagit River/Diobsud Creek Watershed 1711000505.* Outlet(s) = Skagit River (Lat 48.5218, Long -121.4315) upstream to endpoint(s) in: Bacon Creek (48.6456, -121.4244); Diobsud Creek (48.5761, -121.4309); Falls Creek (48.6334, -121.4258); Skagit River (48.6725, -121.2633).

(iii) *Cascade River Watershed 1711000506.* Outlet(s) = Cascade River (Lat 48.5218, Long -121.4315) upstream to endpoint(s) in: Found Creek (48.4816, -121.2437); Kindy Creek (48.4613, -121.2094); Marble Creek (48.5398, -121.2612); North Fork Cascade River (48.4660, -121.1641); South Fork Cascade River (48.4592, -121.1494).

(iv) *Skagit River/Illabot Creek Watershed 1711000507.* Outlet(s) = Skagit River (Lat 48.5333, Long -121.7370) upstream to endpoint(s) in: Illabot Creek (48.4498, -121.4551); Jackman Creek (48.5294, -121.6957); Skagit River (48.5218, -121.4315); Unnamed (48.5013, -121.6598).

(3) *Unit 4. Sauk Subbasin 17110006—(i) Upper Sauk River Watershed 1711000601.* Outlet(s) = Sauk River (Lat 48.1731, Long -121.4714) upstream to endpoint(s) in: Camp Creek (48.1559, -121.2909); North Fork Sauk River (48.0962, -121.3710); Owl Creek (48.1623, -121.2948); South Fork Sauk River (48.0670, -121.4088); Swift Creek (48.1011, -121.3975); Unnamed (48.1653, -121.3288); White Chuck River (48.1528, -121.2645).

(ii) *Upper Suitttle River Watershed 1711000602.* Outlet(s) = Suitttle River (Lat 48.2586, Long -121.2237) upstream to endpoint(s) in: Downey Creek (48.2828, -121.2083); Milk Creek (48.2207, -121.1634); Suitttle River (48.2211, -121.1609); Sulphur Creek (48.2560, -121.1773); Unnamed (48.2338, -121.1792).

(iii) *Lower Suitttle River Watershed 1711000603.* Outlet(s) = Suitttle River (Lat 48.3384, Long -121.5482) upstream to endpoint(s) in: Big Creek (48.3435, -121.4416); Buck Creek (48.2753, -121.3268); Circle Creek (48.2555, -121.3395); Lime Creek (48.2445, -121.2933); Straight Creek

(48.2594; -121.4009); Suitttle River (48.2586, -121.2237); Tenas Creek (48.3371, -121.4304).

(iv) *Lower Sauk River Watershed 1711000604*. Outlet(s) = Sauk River (Lat 48.4821, Long -121.6060) upstream to endpoint(s) in: Dan Creek (48.2702, -121.5473); Sauk River (48.1731, -121.4714); Unnamed (48.2247, -121.5826); Unnamed (48.3187, -121.5480).

(4) Unit 5. Lower Skagit Subbasin 17110007—(i) *Middle Skagit River/Finney Creek Watershed 1711000701*. Outlet(s) = Skagit River (Lat 48.4891, Long -122.2178) upstream to endpoint(s) in: Alder Creek (48.5280, -121.9498); Day Creek (48.4689, -122.0216); Finney Creek (48.4655, -121.6858); Grandy Creek (48.5510, -121.8621); Hansen Creek (48.5600, -122.2069); Jims Slough (48.5274, -122.0227); Jones Creek (48.5418, -122.0494); Mannser Creek (48.5260, -122.0430); Muddy Creek (48.5278, -122.0007); Pressentin Creek (48.5099, -121.8449); Skagit River (48.5333, -121.7370); Sorenson Creek (48.4875, -122.1029); Unnamed (48.4887, -122.0747); Unnamed (48.5312, -122.0149); Wiseman Creek (48.5160, -122.1286).

(ii) *Lower Skagit River/Nookachamps Creek Watershed 1711000702*. Outlet(s) = Browns Slough (Lat 48.3305, Long -122.4194); Freshwater Slough (48.3109, -122.3883); Hall Slough (48.3394, -122.4426); Isohis Slough (48.2975, -122.3711); North Fork Skagit River (48.3625, -122.4689); South Fork Skagit River (48.2920, -122.3670); Unnamed (48.3085, -122.3868); Unnamed (48.3831, -122.4842) upstream to endpoint(s) in: Britt Slough (48.3935, -122.3571); Browns Slough (48.3411, -122.4127); East Fork Nookachamps Creek (48.4044, -122.1790); Hall Slough (48.3437, -122.4376); Mundt Creek (48.4249, -122.2007); Skagit River (48.4891, -122.2178); Unnamed (48.3703, -122.3081); Unnamed (48.3827, -122.1893); Unnamed (48.3924, -122.4822); Walker Creek (48.3778, -122.1899).

(5) Unit 6. Stillaguamish Subbasin 17110008—(i) *North Fork Stillaguamish River Watershed 1711000801*. Outlet(s) = North Fork Stillaguamish River (Lat 48.2037, Long -122.1256) upstream to endpoint(s) in: Ashton Creek (48.2545, -121.6708); Boulder River (48.2624, -121.8090); Deer Creek (48.2835, -121.9255); French Creek (48.2534, -121.7856); Furland Creek (48.2624, -121.6749); Grant Creek (48.2873, -122.0118); North Fork Stillaguamish River (48.3041, -121.6360); Rollins Creek (48.2908, -121.8441); Squire

Creek (48.2389, -121.6374); Unnamed (48.2393, -121.6285); Unnamed (48.2739, -121.9948).

(ii) *South Fork Stillaguamish River Watershed 1711000802*. Outlet(s) = South Fork Stillaguamish River (Lat 48.2037, Long -122.1256) upstream to endpoint(s) in: Canyon Creek (48.1107, -121.9677); Jim Creek (48.2230, -121.9483); Siberia Creek (48.1731, -122.0377); South Fork Stillaguamish River (48.1026, -121.9610); Unnamed (48.1463, -122.0162).

(iii) *Lower Stillaguamish River Watershed 1711000803*. Outlet(s) = Stillaguamish River (Lat 48.2385, Long -122.3749); Unnamed (48.1983, -122.3579) upstream to endpoint(s) in: Armstrong Creek (48.2189, -122.1347); Pilchuck Creek (48.2983, -122.1672); Stillaguamish River (48.2037, -122.1256).

(6) Unit 7. Skykomish Subbasin 17110009—(i) *Tye and Beckler River Watershed 1711000901*. Outlet(s) = South Fork Skykomish River (Lat 47.7147, Long -121.3393) upstream to endpoint(s) in: East Fork Foss River (47.6522, -121.2792); Rapid River (47.8131, -121.2470); Tye River (47.7172, -121.2254); Unnamed (47.8241, -121.2979); West Fork Foss River (47.6444, -121.2972).

(ii) *Skykomish River Forks Watershed 1711000902*. Outlet(s) = North Fork Skykomish River (Lat 47.8133, Long -121.5782) upstream to endpoint(s) in: Bridal Veil Creek (47.7987, -121.5597); Lewis Creek (47.8223, -121.5160); Miller River (47.7018, -121.3950); Money Creek (47.7208, -121.4062); North Fork Skykomish River (47.9183, -121.3073); South Fork Skykomish River (47.7147, -121.3393); Unnamed (47.7321, -121.4176); Unnamed (47.8002, -121.5548).

(iii) *Skykomish River/Wallace River Watershed 1711000903*. Outlet(s) = Skykomish River (Lat 47.8602, Long -121.8190) upstream to endpoint(s) in: Deer Creek (47.8191, -121.5805); Olney Creek (47.8796, -121.7163); Proctor Creek (47.8216, -121.6460); Skykomish River (47.8133, -121.5782); Unnamed (47.8507, -121.8010); Wagleys Creek (47.8674, -121.7972); Wallace River (47.8736, -121.6491).

(iv) *Sultan River Watershed 1711000904*. Outlet(s) = Sultan River (Lat 47.8602, Long -121.8190) upstream to endpoint(s) in: Sultan River (47.9598, -121.7951).

(v) *Skykomish River/Woods Creek Watershed 1711000905*. Outlet(s) = Skykomish River (Lat 47.8303, Long -122.0451) upstream to endpoint(s) in: Elwell Creek (47.8038, -121.8524); Skykomish River (47.8602, -121.8190); Unnamed (47.8890, -121.8637); West

Fork Woods Creek (47.9627, -121.9707); Woods Creek (47.8953, -121.8742); Youngs Creek (47.8081, -121.8332).

(7) Unit 8. Snoqualmie Subbasin 17110010—(i) *Middle Fork Snoqualmie River Watershed 1711001003*. Outlet(s) = Snoqualmie River (Lat 47.6407, Long -121.9261) upstream to endpoint(s) in: Canyon Creek (47.5837, -121.9623); Deep Creek (47.4764, -121.8905); Griffin Creek (47.6164, -121.9014); Lake Creek (47.5036, -121.9035); Patterson Creek (47.6276, -121.9855); Raging River (47.4795, -121.8691); Snoqualmie River (47.5415, -121.8362); Tokul Creek (47.5563, -121.8285).

(ii) *Lower Snoqualmie River Watershed 1711001004*. Outlet(s) = Snoqualmie River (Lat 47.8303, Long -122.0451) upstream to endpoint(s) in: Cherry Creek (47.7465, -121.8953); Margaret Creek (47.7547, -121.8933); North Fork Tolt River (47.7060, -121.7957); Snoqualmie River (47.6407, -121.9261); South Fork Tolt River (47.6926, -121.6895); Tuck Creek (47.7442, -122.0032); Unnamed (47.6806, -121.9730); Unnamed (47.6822, -121.9770); Unnamed (47.7420, -122.0084); Unnamed (47.7522, -121.9745); Unnamed (47.7581, -121.9586).

(8) Unit 9. Snohomish Subbasin 17110011—(i) *Pilchuck River Watershed 1711001101*. Outlet(s) = Pilchuck River (Lat 47.9013, Long -122.0917) upstream to endpoint(s) in: Pilchuck River (48.0052, -121.7718).

(ii) *Snohomish River Watershed 1711001102*. Outlet(s) = Quilceda Creek (Lat 48.0556, Long -122.1908); Skykomish River (48.0173, -122.1877); Steamboat Slough (48.0365, -122.1814); Union Slough (48.0299, -122.1794); Unnamed (48.0412, -122.1723) upstream to endpoint(s) in: Allen Creek (48.0767, -122.1404); Quilceda Creek (48.1124, -122.1540); Skykomish River (47.8303, -122.0451); Unnamed (47.9545, -122.1969); Unnamed (47.9777, -122.1632); Unnamed (48.0019, -122.1283); Unnamed (48.0055, -122.1303); Unnamed (48.1330, -122.1472).

(9) Unit 10. Lake Washington Subbasin 17110012—(i) *Cedar River Watershed 1711001201*. Outlet(s) = Cedar River (Lat 47.5003, Long -122.2146) upstream to endpoint(s) in: Cedar River (47.3761, -121.9603); Rock Creek (47.3673, -122.0132); Unnamed (47.4092, -122.0358); Webster Creek (47.3857, -121.9845).

(ii) *Lake Washington Watershed 1711001203*. Outlet(s) = Lake Washington (Lat 47.6654, Long -122.3960) upstream to endpoint(s) in:

Cedar River (47.5003, -122.2146);
Johns Creek (47.5048, -122.1976);
Kennydale Creek (47.5167, -122.2074);
May Creek (47.5199, -122.1721);
Taylor Creek (47.5124, -122.2457).

(10) Unit 11. Duwamish Subbasin
17110013—(i) *Upper Green River
Watershed 1711001301*. Outlet(s) =
Green River (Lat 47.2234, Long
-121.6081) upstream to endpoint(s) in:
Friday Creek (47.2204, -121.4559);
Intake Creek (47.2058, -121.4049);
McCain Creek (47.2093, -121.5292);
Sawmill Creek (47.2086, -121.4675);
Smay Creek (47.2508, -121.5872);
Snow Creek (47.2607, -121.4046);
Sunday Creek (47.2587, -121.3659);
Tacoma Creek (47.1875, -121.3630);
Unnamed (47.2129, -121.4579).

(ii) *Middle Green River Watershed
1711001302*. Outlet(s) = Green River
(Lat 47.2911, Long -121.9714)
upstream to endpoint(s) in: Bear Creek
(47.2774, -121.7990); Cougar Creek
(47.2439, -121.6442); Eagle Creek
(47.3051, -121.7219); Gale Creek
(47.2644, -121.7085); Green River
(47.2234, -121.6081); Piling Creek
(47.2820, -121.7553); Sylvester Creek
(47.2457, -121.6537); Unnamed
(47.2360, -121.6333).

(iii) *Lower Green River Watershed
1711001303*. Outlet(s) = Duwamish
River (Lat 47.5113, Long -122.2951)
upstream to endpoint(s) in: Big Soos
Creek (47.4191, -122.1599); Burns
Creek (47.2779, -122.1087); Covington
Creek (47.3341, -122.0399); Crisp
Creek (47.2897, -122.0590); Green
River (47.2911, -121.9714); Jenkins
Creek (47.3791, -122.0899); Little Soos
Creek (47.4031, -122.1235); Mill Creek
(47.3263, -122.2455); Newaukum
Creek (47.2303, -121.9518); Unnamed
(47.2765, -121.9730); Unnamed
(47.2891, -122.1557); Unnamed
(47.3007, -122.1774); Unnamed
(47.3250, -122.1961); Unnamed
(47.3464, -122.2397); Unnamed
(47.3751, -122.2648); Unnamed
(47.4046, -122.2134); Unnamed
(47.4525, -122.2354); Unnamed
(47.4618, -122.2315); Unnamed
(47.4619, -122.2554); Unnamed
(47.4876, -122.2781).

(11) Unit 12. Puyallup Subbasin
17110014—(i) *Upper White River
Watershed 1711001401*. Outlet(s) =
White River (Lat 47.1588, Long
-121.6587) upstream to endpoint(s) in:
Greenwater River (47.1204, -121.5055);
Huckleberry Creek (47.0612,
-121.6033); Pinochle Creek (47.0478,
-121.7043); Unnamed (46.9935,
-121.5295); West Fork White River
(47.0483, -121.6916); Wrong Creek
(47.0403, -121.6999).

(ii) *Lower White River Watershed
1711001402*. Outlet(s) = White River

(Lat 47.2001, Long -122.2579)
upstream to endpoint(s) in: Boise Creek
(47.1958, -121.9467); Camp Creek
(47.1430, -121.7012); Clearwater River
(47.0852, -121.7823); Unnamed
(47.1509, -121.7236); Unnamed
(47.2247, -122.1072); Unnamed
(47.2307, -122.1079); Unnamed
(47.2383, -122.2234); Unnamed
(47.2498, -122.2346); White River
(47.1588, -121.6587).

(iii) *Carbon River Watershed
1711001403*. Outlet(s) = Carbon River
(Lat 47.1308, Long -122.2315)
upstream to endpoint(s) in: Carbon
River (46.9965, -121.9198); South Fork
South Prairie Creek (47.1203,
-121.9963); Voight Creek (47.0751,
-122.1285); Wilkeson Creek (47.0972,
-122.0245).

(iv) *Upper Puyallup River Watershed
1711001404*. Outlet(s) = Puyallup River
(Lat 47.1308, Long -122.2315)
upstream to endpoint(s) in: Deer Creek
(46.8547, -121.9680); Kapowsin Creek
(46.9854, -122.2008); Kellogg Creek
(46.9164, -122.0652); Mowich River
(46.9209, -121.9739); Rushingwater
Creek (46.8971, -121.9439); Unnamed
(46.8867, -122.0194); Unnamed
(46.8899, -121.9657).

(v) *Lower Puyallup River Watershed
1711001405*. Outlet(s) = Hylebos Creek
(Lat 47.2611, Long -122.3591);
Puyallup River (47.2501, -122.4131)
upstream to endpoint(s) in: Canyonfalls
Creek (47.1421, -122.2186); Clarks
Creek (47.1757, -122.3168); Clear
Creek (47.2187, -122.3727); Fennel
Creek (47.1495, -122.1849); Puyallup
River (47.1308, -122.2315); Unnamed
(47.1779, -122.1992); Unnamed
(47.1799, -122.3066); Unnamed
(47.1928, -122.3371); Unnamed
(47.2723, -122.3216); West Hylebos
Creek (47.2736, -122.3289).

(12) Unit 13. Nisqually Subbasin
17110015—(i) *Mashel/Ohop Watershed
1711001502*. Outlet(s) = Nisqually River
(Lat 46.8646, Long -122.4776)
upstream to endpoint(s) in: Little
Mashel River (46.8504, -122.2724);
Lynch Creek (46.8760, -122.2625);
Mashel River (46.8431, -122.1205);
Nisqually River (46.8303, -122.3225);
Ohop Creek (46.9264, -122.2603);
Powell Creek (46.8528, -122.4505);
Tanwax Creek (46.8630, -122.4549);
Twentyfive Mile Creek (46.9274,
-122.2558).

(ii) *Lowland Watershed 1711001503*.
Outlet(s) = McAllister Creek (Lat
47.1120, Long -122.7215); Nisqually
River (47.1110, -122.7026); Unnamed
(47.0071, -122.6556); Yelm Creek
(46.9712, -122.6263) upstream to
endpoint(s) in: Horn Creek (46.9042,
-122.4776); McAllister Creek (47.0299,
-122.7236); Nisqually River (46.8646,

-122.4776); Unnamed (46.9108,
-122.5032); Unnamed (47.0001,
-122.6510); Unnamed (47.0055,
-122.6520); Yelm Creek (46.9629,
-122.6194). Excluded is that segment
of the Nisqually River from Lat 47.0703,
Long -122.7017, to Lat 46.9668, Long
-122.5640.

(13) Unit 15. Skokomish Subbasin
17110017—*Skokomish River Watershed
1711001701*. Outlet(s) = Skokomish
River (Lat 47.3543, Long -123.1122);
Unnamed (47.3420, -123.1092);
Unnamed (47.3471, -123.1275);
Unnamed (47.3509, -123.1101)
upstream to endpoint(s) in: Brown
Creek (47.4238, -123.3052); Fir Creek
(47.3363, -123.3016); McTaggart Creek
(47.3749, -123.2318); North Fork
Skokomish River (47.5197, -123.3329);
Purdy Canyon (47.3021, -123.1803);
Unnamed (47.3048, -123.1528);
Unnamed (47.3077, -123.2012);
Unnamed (47.3146, -123.1353);
Unnamed (47.3209, -123.2212);
Unnamed (47.3222, -123.3060);
Unnamed (47.3237, -123.1467);
Unnamed (47.3250, -123.1250); Vance
Creek (47.3300, -123.3137); Weaver
Creek (47.3097, -123.2384).

(14) Unit 16. Hood Canal Subbasin
17110018—(i) *Hamma Hamma River
Watershed 1711001803*. Outlet(s) =
Hamma Hamma River (Lat 47.5471,
Long -123.0440) upstream to
endpoint(s) in: Hamma Hamma River
(47.5590, -123.0632); North Fork John
Creek (47.5442, -123.0696).

(ii) *Duckabush River Watershed
1711001804*. Outlet(s) = Duckabush
River (Lat 47.6502, Long -122.9348)
upstream to endpoint(s) in: Duckabush
River (47.6825, -123.0675).

(iii) *Dosewallips River Watershed
1711001805*. Outlet(s) = Dosewallips
River (Lat 47.6881, Long -122.8945);
Unnamed (47.6857, -122.8967)
upstream to endpoint(s) in: Dosewallips
River (47.7289, -123.1111); Rocky
Brook (47.7212, -122.9405); Unnamed
(47.6886, -122.8977).

(15) Unit 18. Dungeness/Elwha
17110020—(i) *Dungeness River
Watershed 1711002003*. Outlet(s) =
Dungeness River (Lat 48.1506, Long
-123.1311); Unnamed (48.1537,
-123.1267) upstream to endpoint(s) in:
Dungeness River (47.9386, -123.0885);
Gray Wolf River (47.9168, -123.2409);
Matriotti Creek (48.1368, -123.1428);
Unnamed (48.1514, -123.1216).

(ii) *Elwha River Watershed
1711002007*. Outlet(s) = Elwha River
(Lat 48.1466, Long -123.5671);
Unnamed (48.1483, -123.5599)
upstream to endpoint(s) in: Elwha River
(48.0927, -123.5614).

(16) Unit 19. Nearshore Marine Areas
—This unit includes all nearshore zones

(including areas adjacent to islands) of the Strait of Georgia (south of the international border), Puget Sound, Hood Canal, and the Strait of Juan de Fuca (to the western end of the Elwha River delta) from extreme high water out to a depth of 30 meters, except for the following contiguous nearshore segments associated with Department of Defense lands and restricted marine zones: from Lat 48.3730, Long

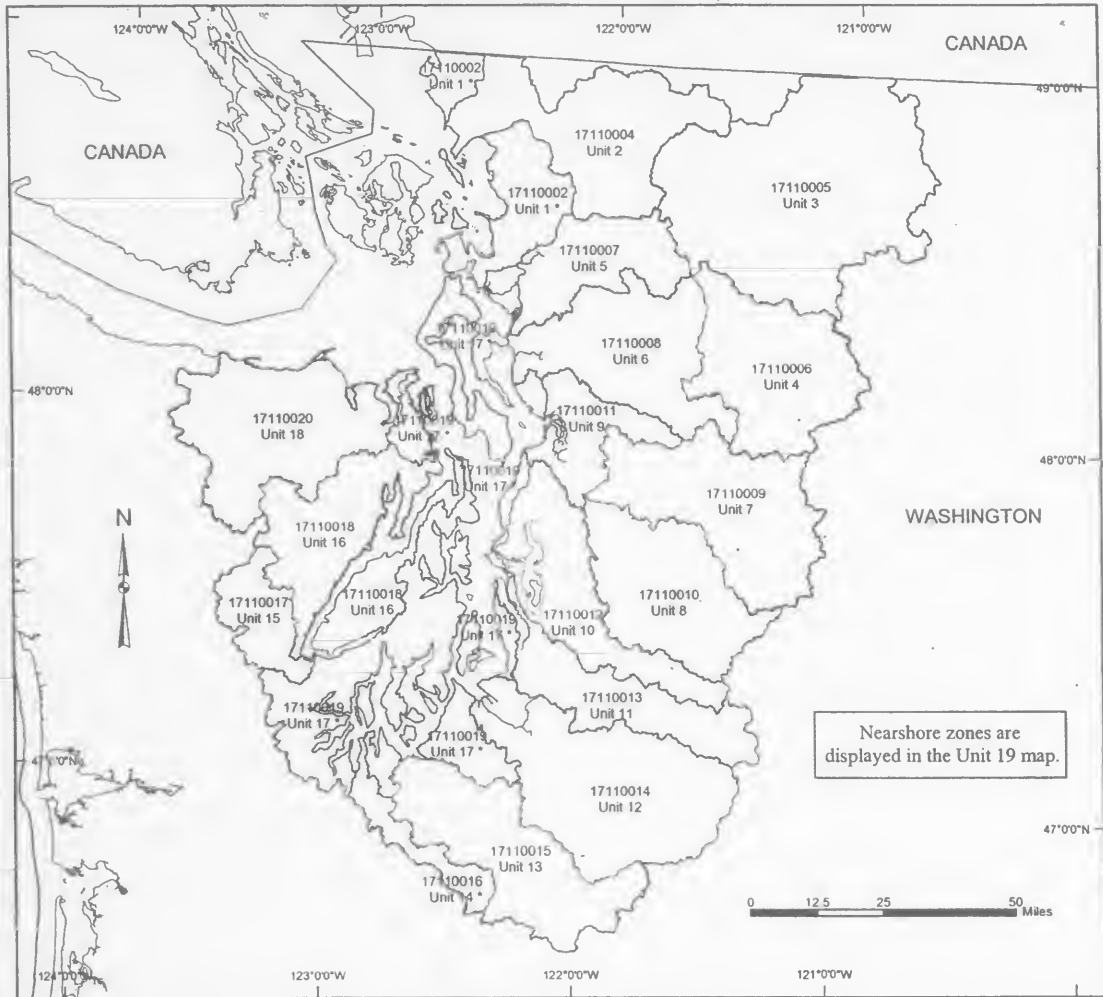
- 122.6629; from Lat 47.2223, Long - 122.7074 to Lat 47.2006, Long - 122.6419; from Lat 47.2185, Long - 122.6035 to Lat 47.2746, Long - 122.6566; from Lat 47.2247, Long - 122.7191 to Lat 47.2651, Long - 122.7353; from Lat 47.2816, Long - 122.6929 to Lat 47.2825, Long - 122.6522; from Lat 47.5626, Long - 122.5374 to Lat 47.5708, Long - 122.5504; from Lat 47.5480, Long - 122.6162 to Lat 47.5641, Long - 122.6224; from Lat 47.5928, Long - 122.6848 to Lat 47.5966, Long - 122.6899; from Lat 47.6531, Long - 122.6138 to Lat 47.7045, Long - 122.6222; from Lat 47.6999, Long - 122.6263 to Lat 47.6984, Long - 122.6270; from Lat 47.7723, Long - 122.7035 to Lat 47.7214, Long - 122.7454; from Lat 47.7365, Long - 122.8542 to Lat 47.7623, Long

- 122.8517; from Lat 47.7810, Long - 122.8517 to Lat 47.8001, Long - 122.8182; from Lat 47.8001, Long - 122.7873 to Lat 47.6928, Long - 122.8309; from Lat 48.0159, Long - 122.6971 to Lat 48.0190, Long - 122.6980; from Lat 48.1174, Long - 122.7508 to Lat 48.1180, Long - 122.7498; from Lat 48.1195, Long - 122.7501 to Lat 48.1426, Long - 122.7545; from Lat 48.1444, Long - 122.7547 to Lat 48.1407, Long - 122.7945; and waters immediately west of Smith Island and less than 30 m depth within a circular area having a radius of 2.32 km and centered at Lat 48.3169, Long - 122.9003.

(17) Maps of proposed critical habitat for the Puget Sound chinook salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Puget Sound Chinook Salmon ESU



Legend

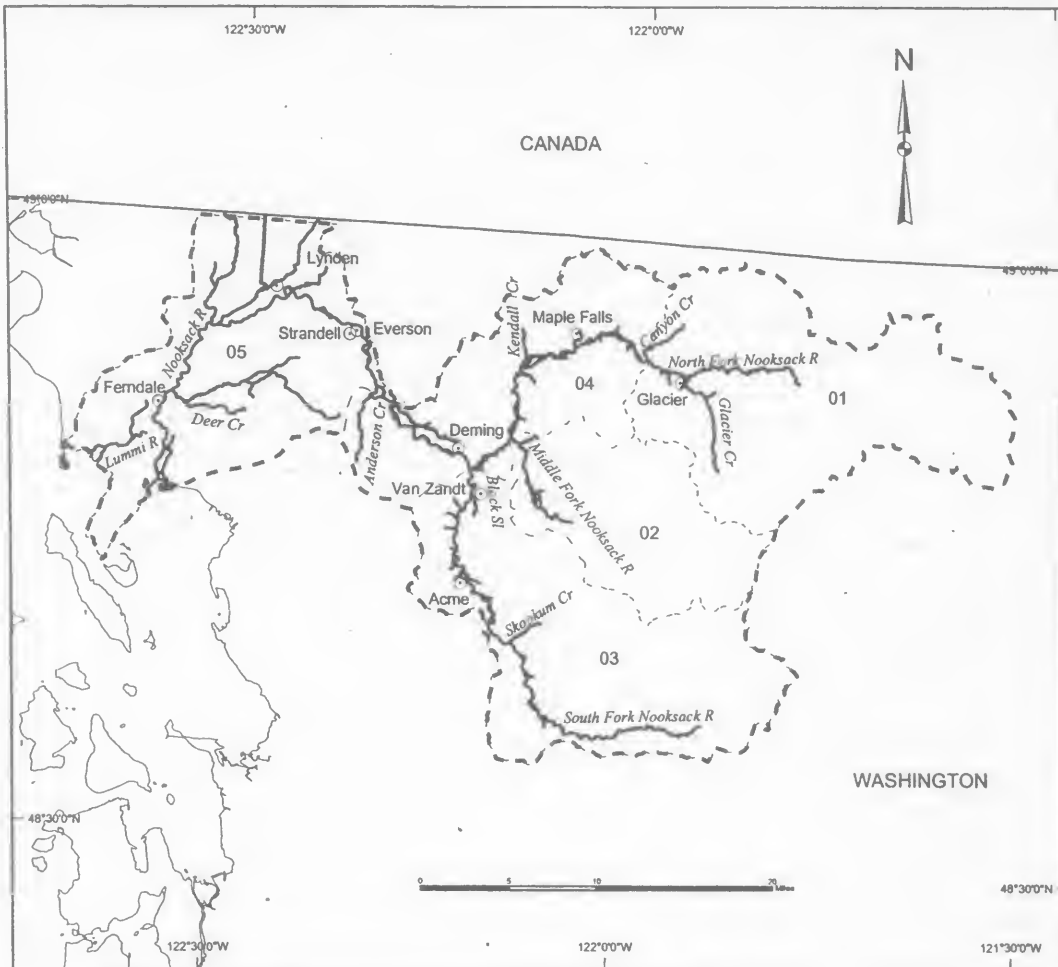
- State Boundaries
- ⬭ Subbasin Boundaries

* All habitat areas in unit are proposed for exclusion



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**NOOKSACK SUBBASIN
17110004, Unit 2**



Legend

- Cities / Towns
- State Boundary
- ~ Shoreline
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

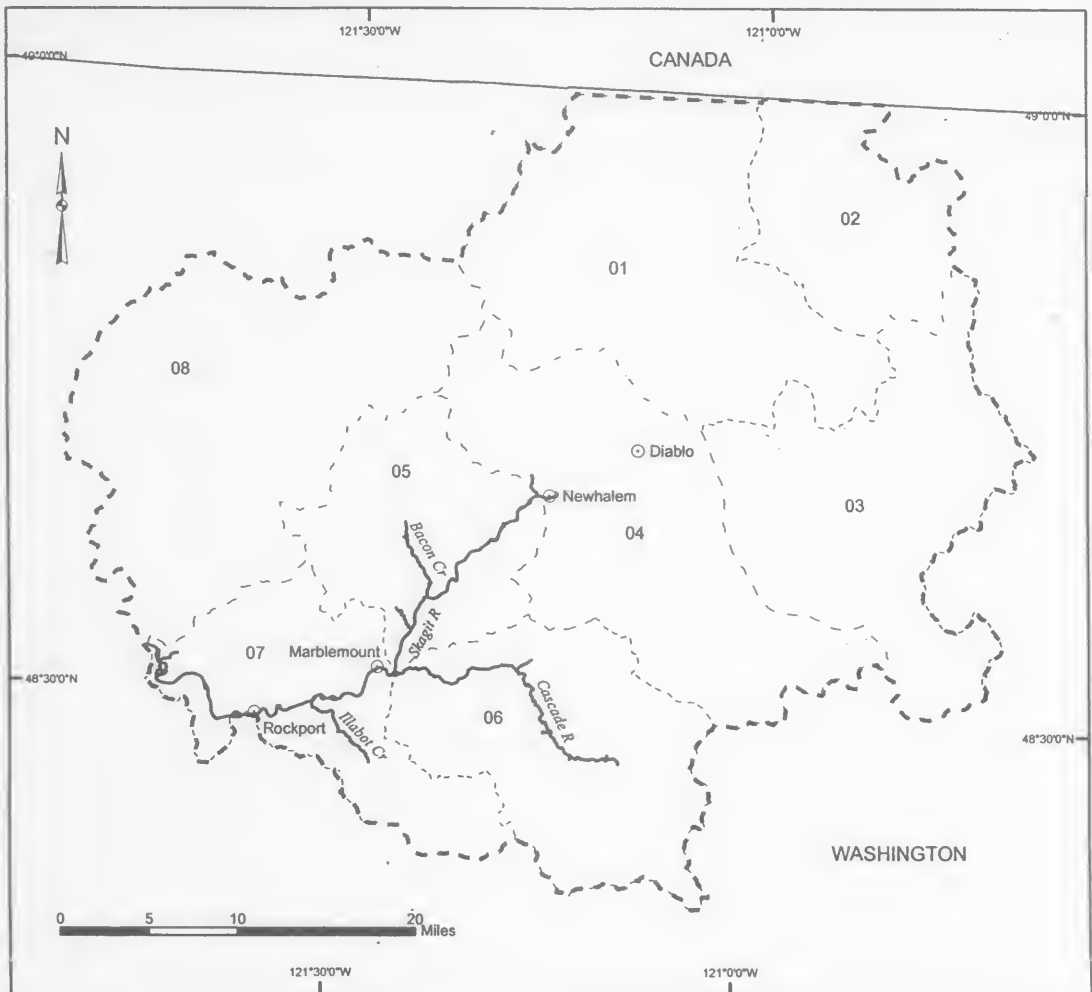
01 - 05 = Watershed code - last 2 digits of 17110004xx

Area of Detail



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**UPPER SKAGIT SUBBASIN
17110005, Unit 3**



Legend

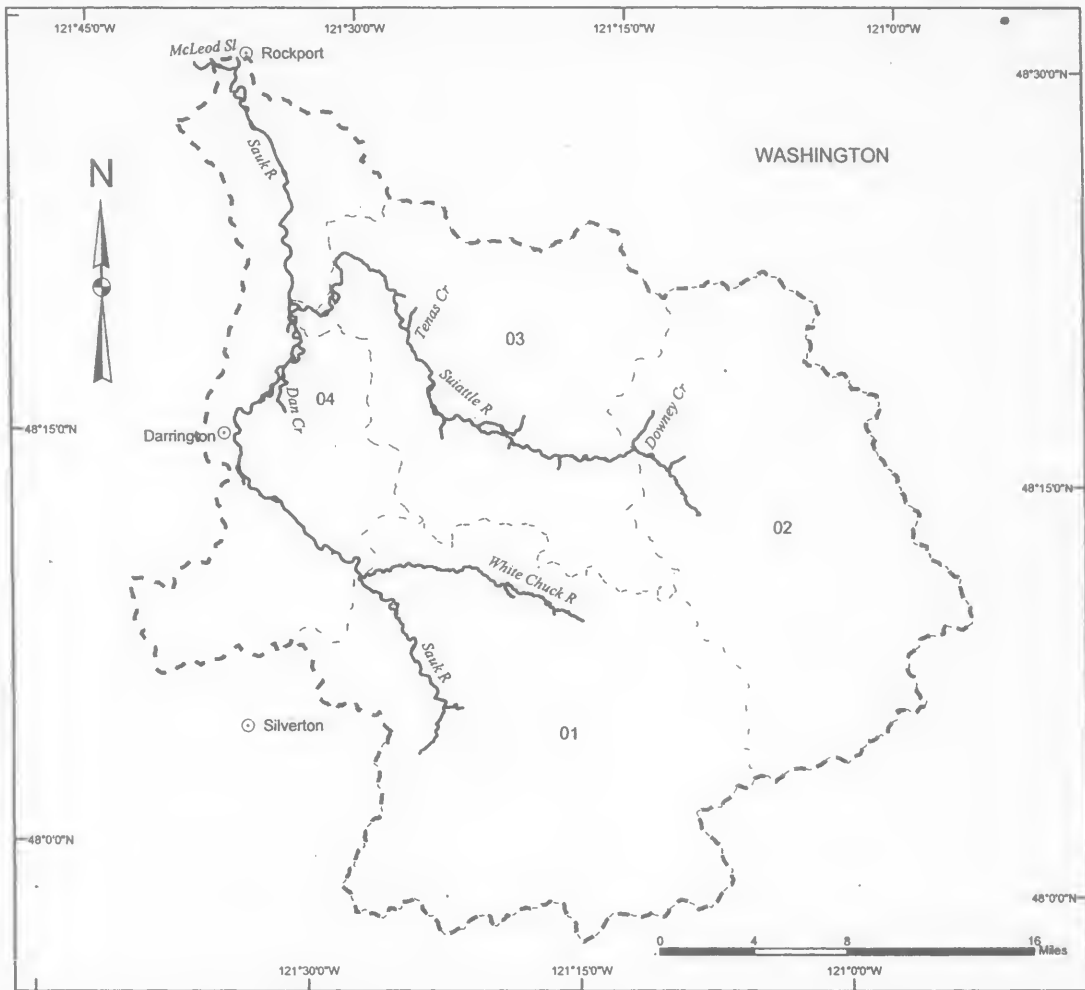
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17110005xx

Area of Detail

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**SAUK SUBBASIN
17110006, Unit 4**



Legend

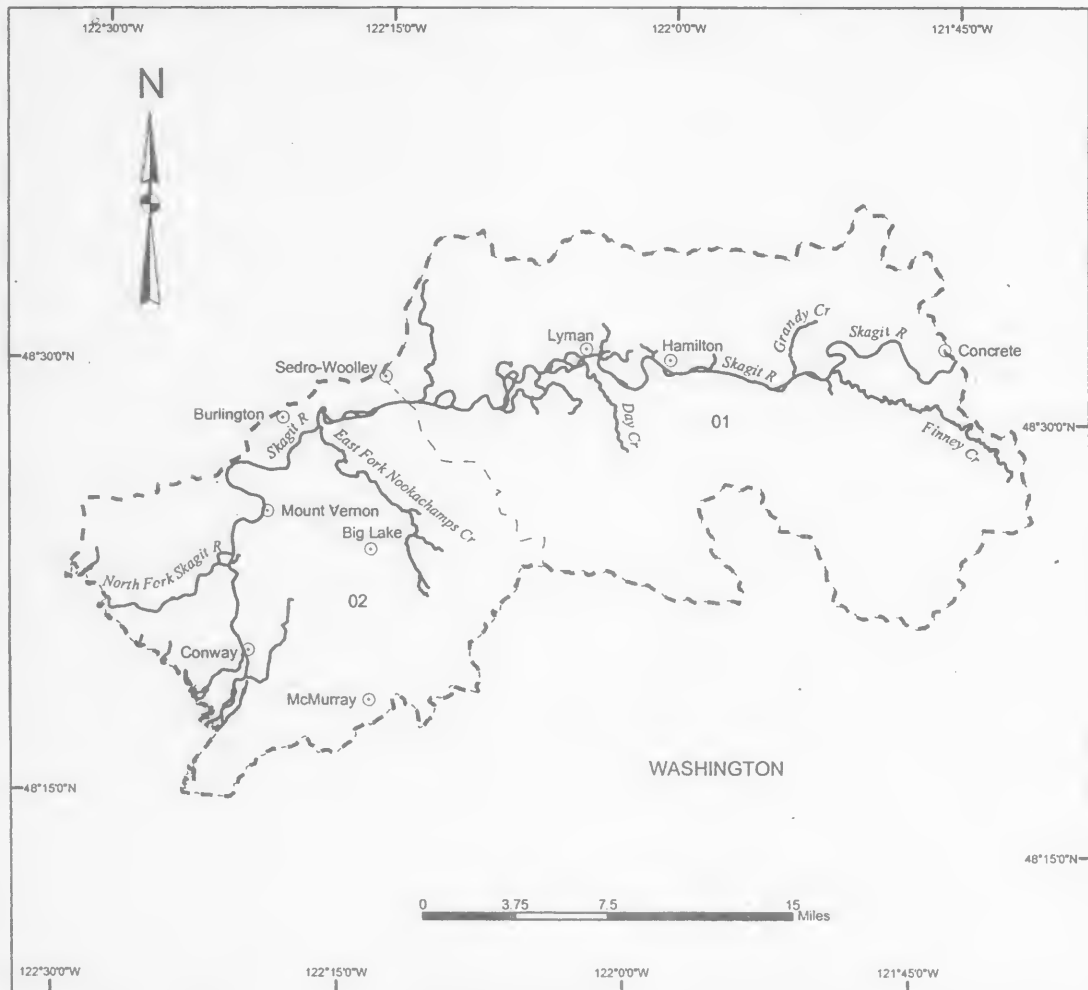
- Cities / Towns
 - ~~~~~ Proposed Critical Habitat
 - - - - Subbasin Boundary
 - Watershed Boundaries
- 01 - 04 = Watershed code - last 2 digits of 17110006xx

Area of Detail



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**LOWER SKAGIT SUBBASIN
17110007, Unit 5**



Legend

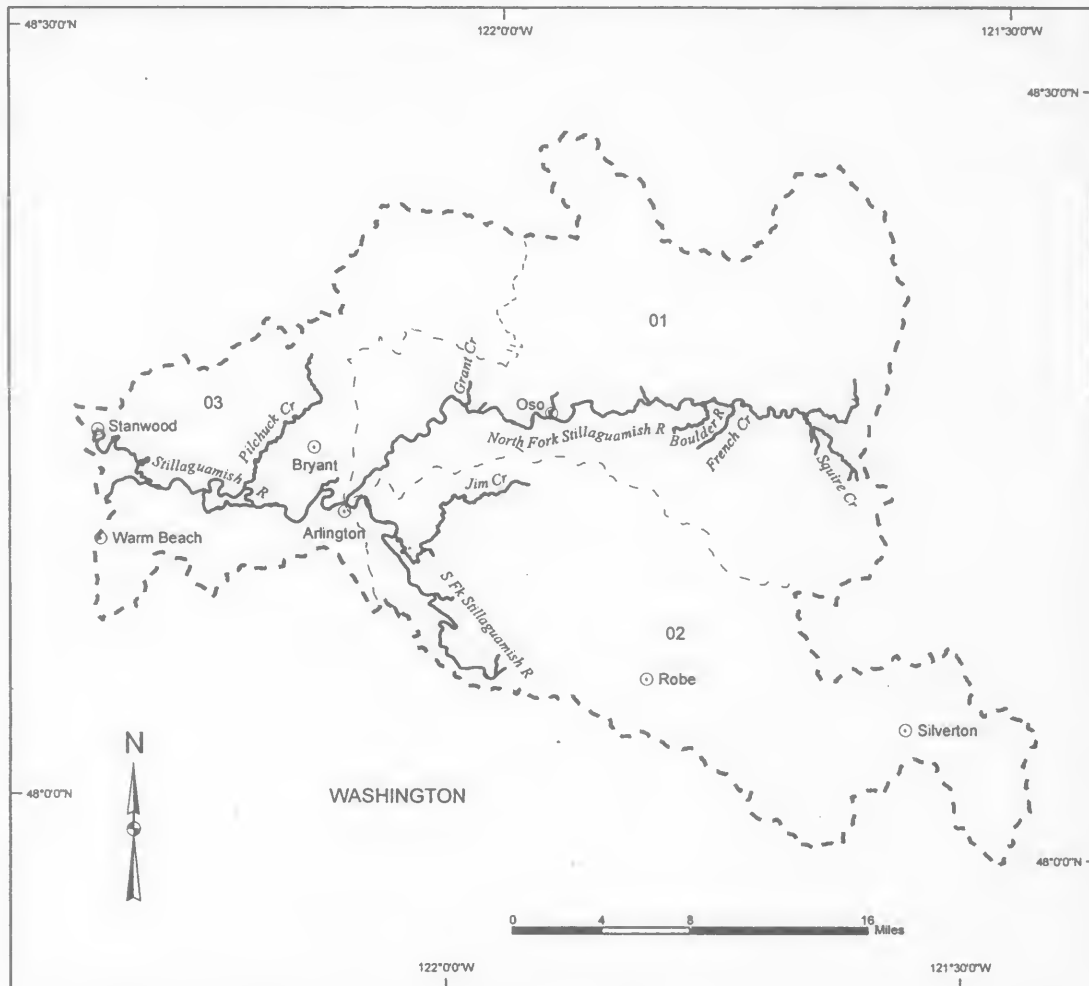
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 02 = Watershed code - last 2 digits of 17110007xx

Area of Detail

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**STILLAGUAMISH SUBBASIN
17110008, Unit 6**



Legend

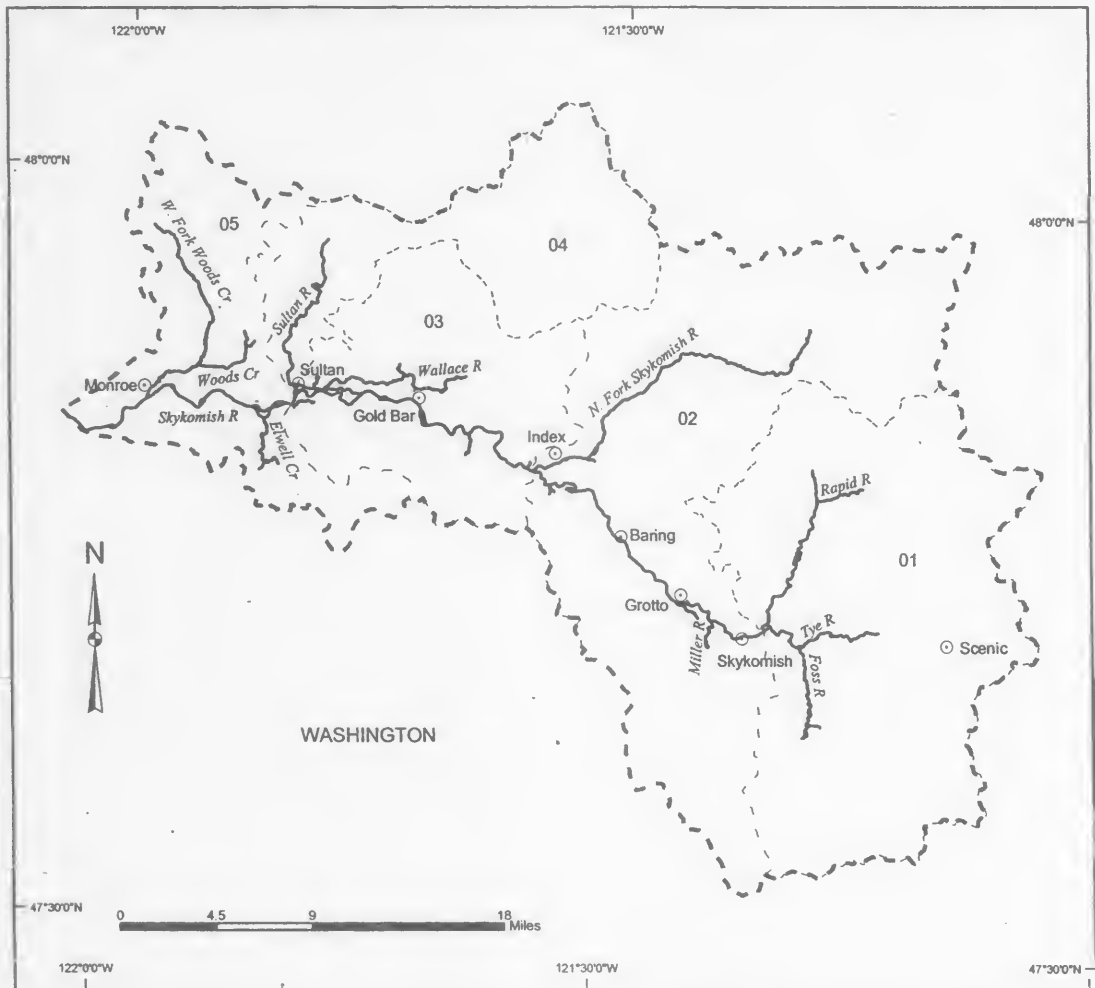
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17110008xx



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**SKYKOMISH SUBBASIN
17110009, Unit 7**



Legend

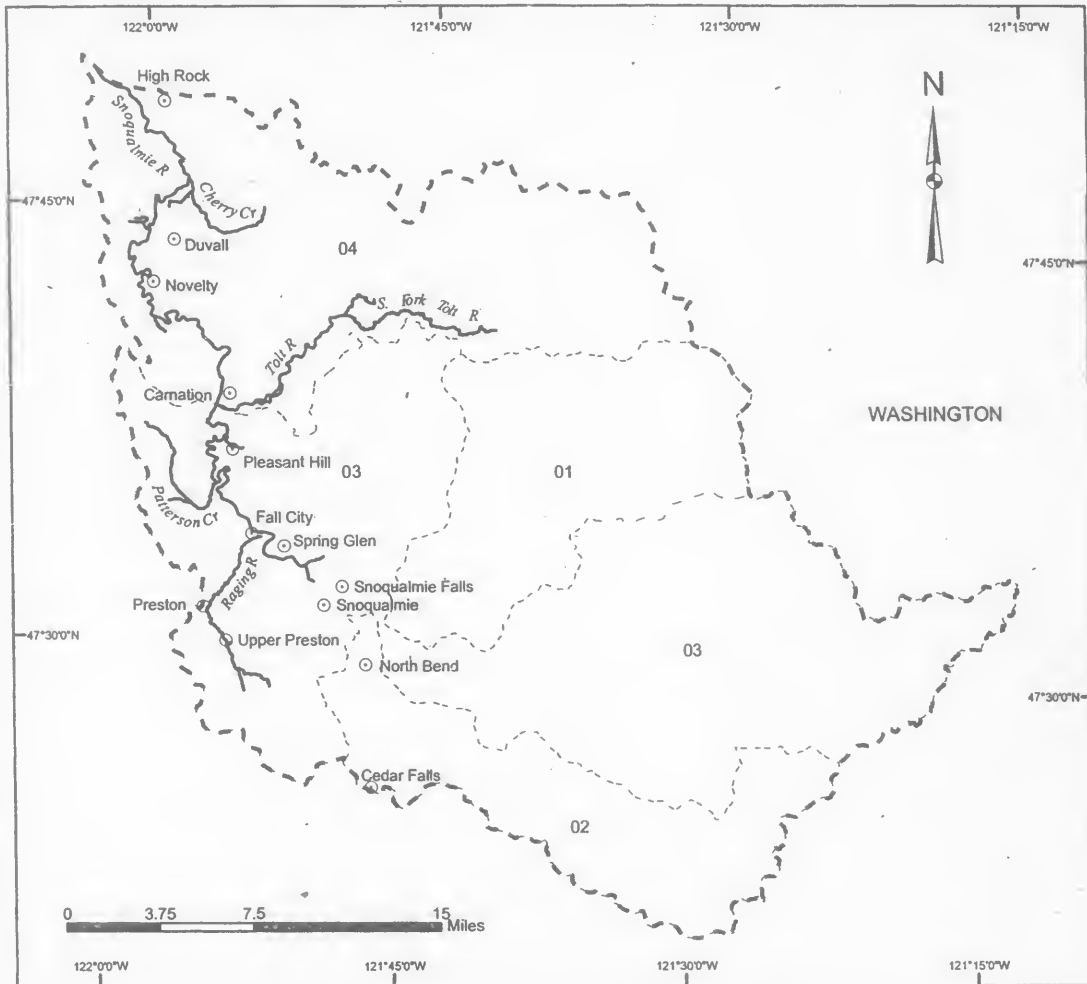
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17110009xx

Area of Detail

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**SNOQUALMIE SUBBASIN
17110010, Unit 8**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

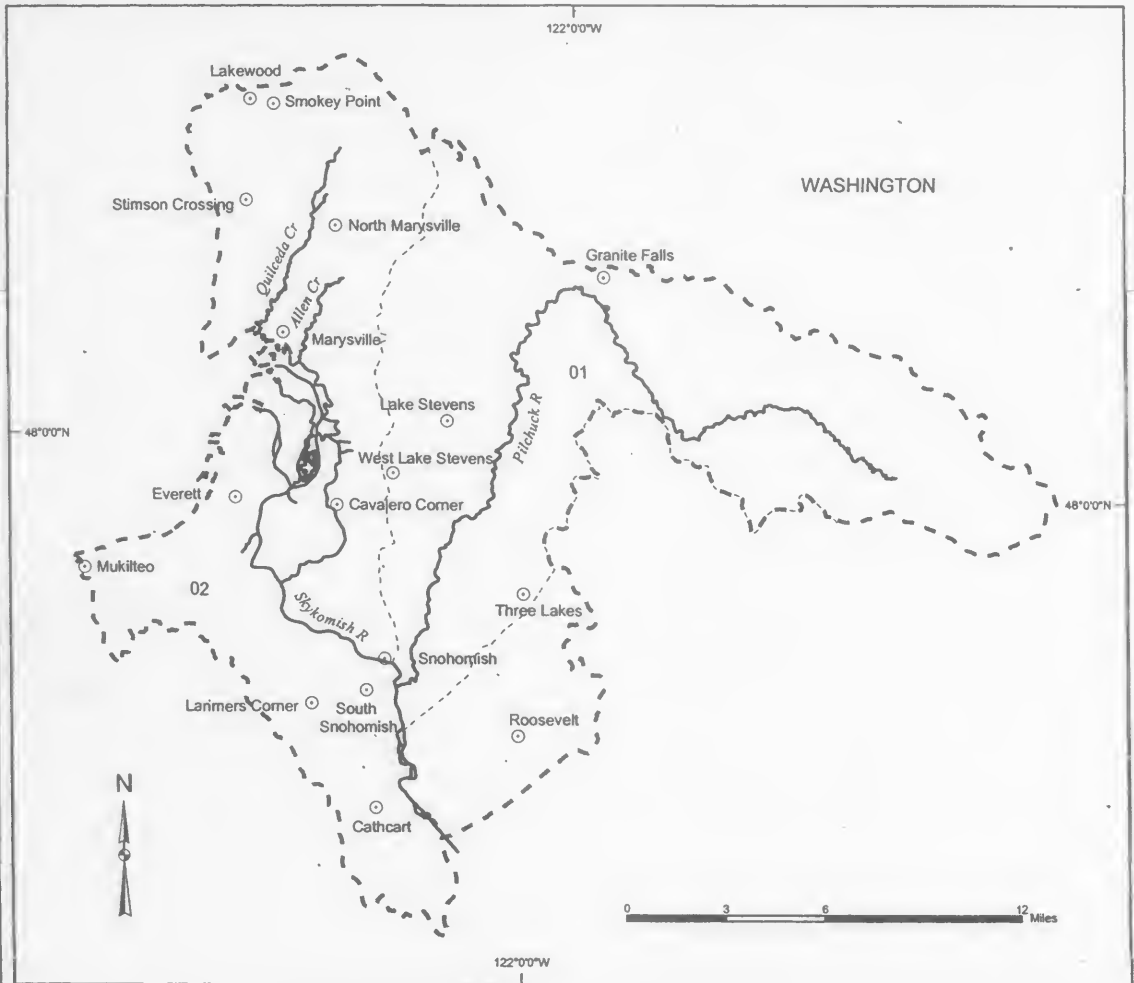
01 - 04 = Watershed code - last 2 digits of 17110010xx

Area of Detail

The inset map shows the state of Washington with a small black square indicating the location of the Snoqualmie Subbasin in the northern part of the state. The neighboring states of Oregon and Idaho are also labeled.

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

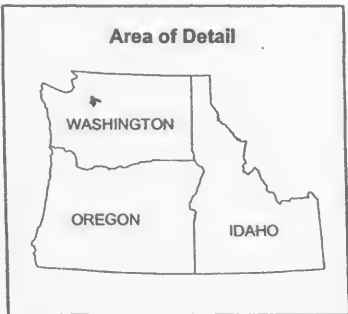
**SNOHOMISH SUBBASIN
17110011, Unit 9**



Legend

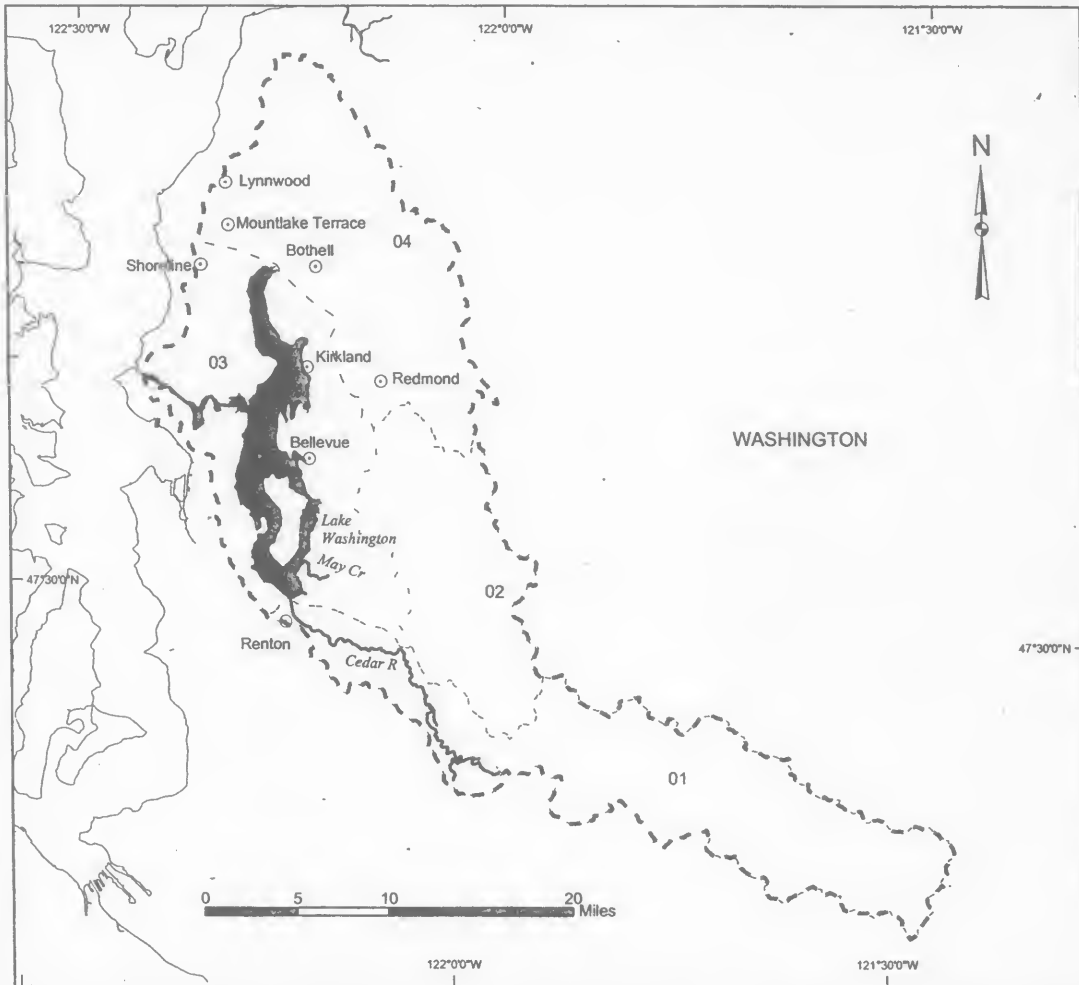
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 02 = Watershed code - last 2 digits of 17110011xx



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**LAKE WASHINGTON SUBBASIN
17110012, Unit 10**



Legend

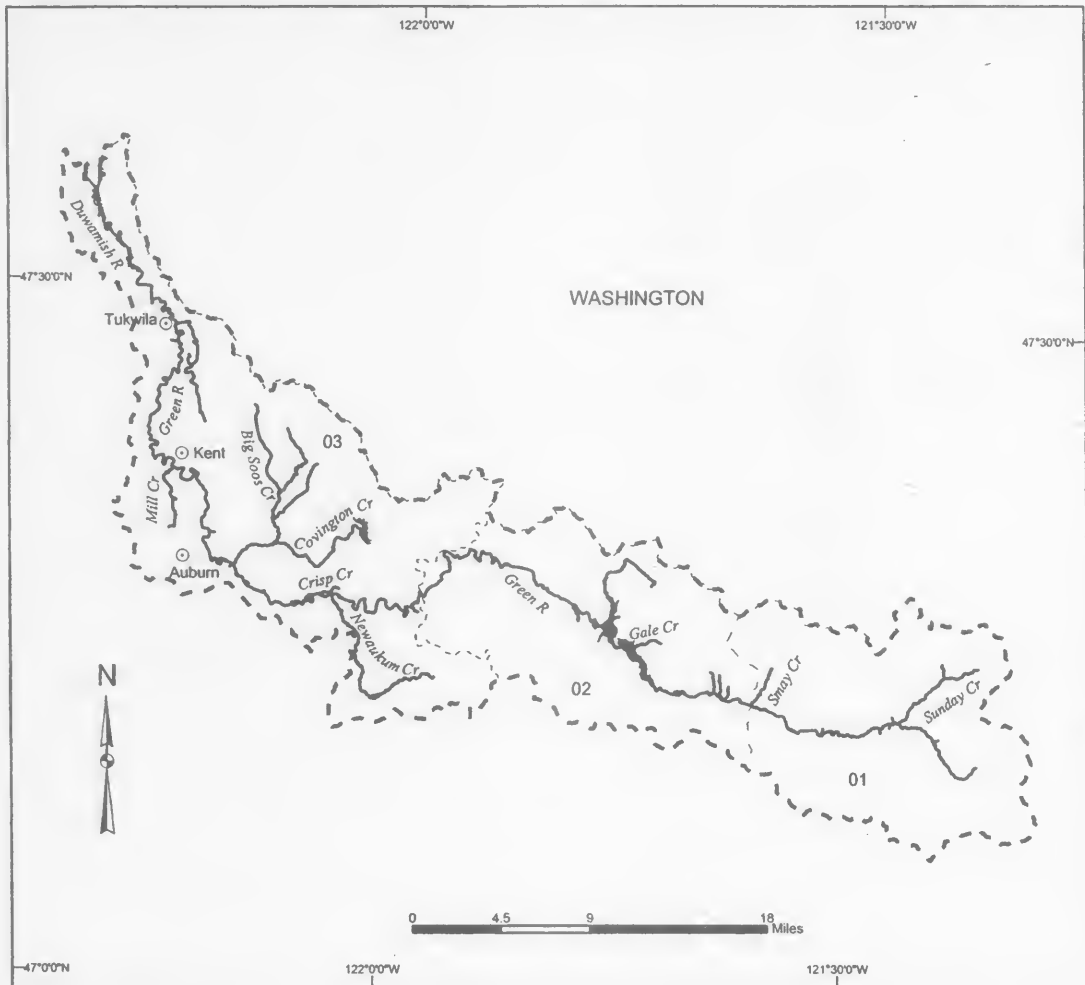
- Cities / Towns
 - ~~~~~ Shoreline
 - ~~~~~ Proposed Critical Habitat
 - Water Bodies
 - - - Subbasin Boundary
 - - - Watershed Boundaries
- 01 - 04 = Watershed code - last 2 digits of 17110012xx

Area of Detail



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**DUWAMISH SUBBASIN
17110013, Unit 11**



Legend

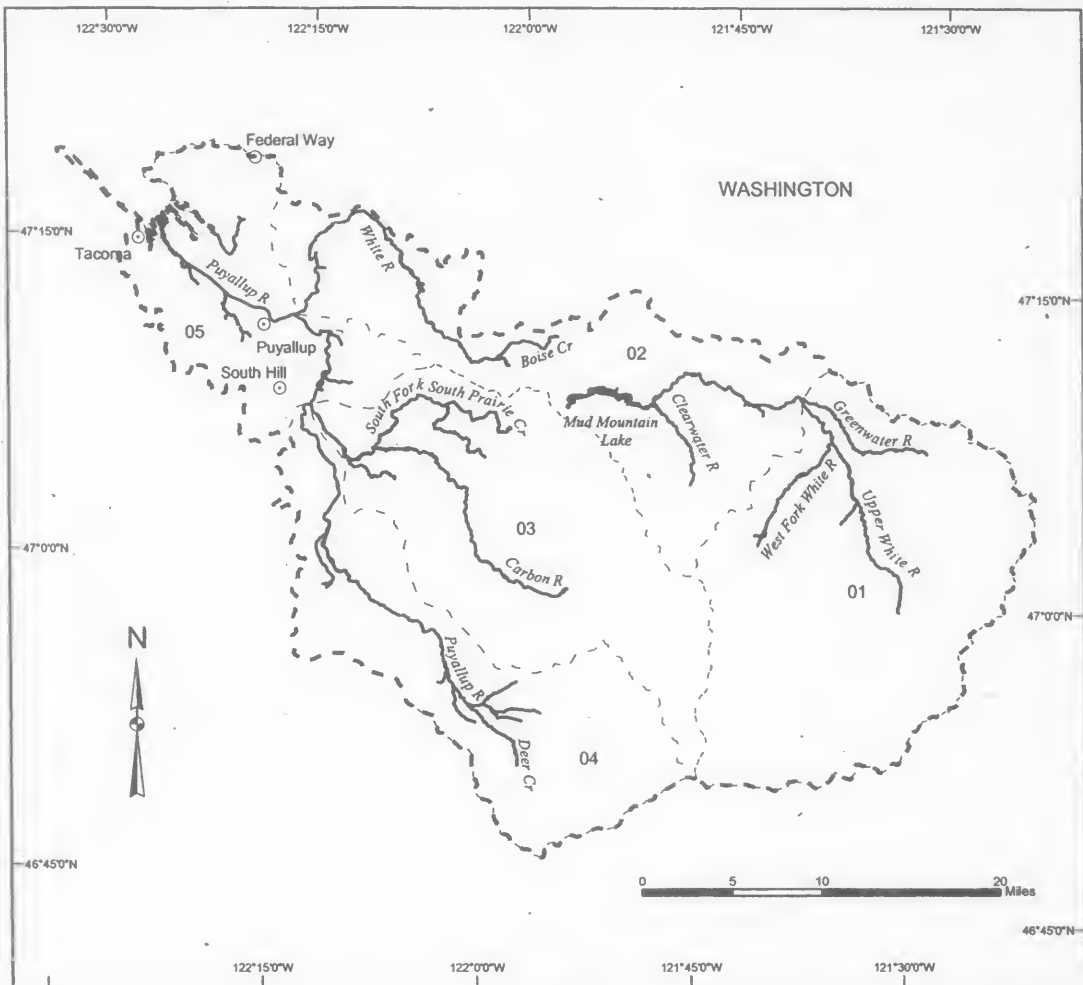
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17110013xx



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**PUYALLUP SUBBASIN
17110014, Unit 12**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

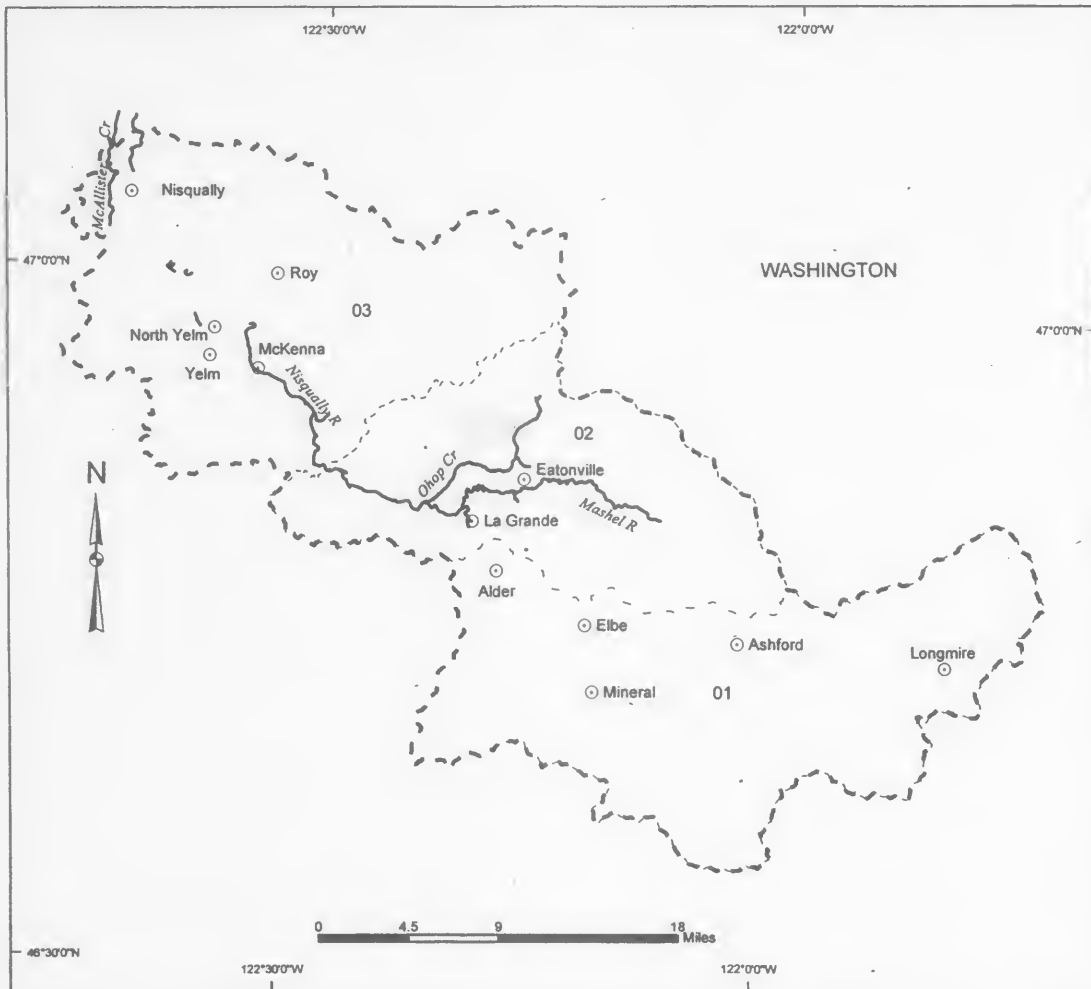
01 - 05 = Watershed code - last 2 digits of 17110014xx

Area of Detail

The inset map shows the state of Washington with a small shaded area in the western part of the state indicating the location of the Puyallup Subbasin. The neighboring states of Oregon and Idaho are also labeled.

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**NISQUALLY SUBBASIN
17110015, Unit 13**



Legend

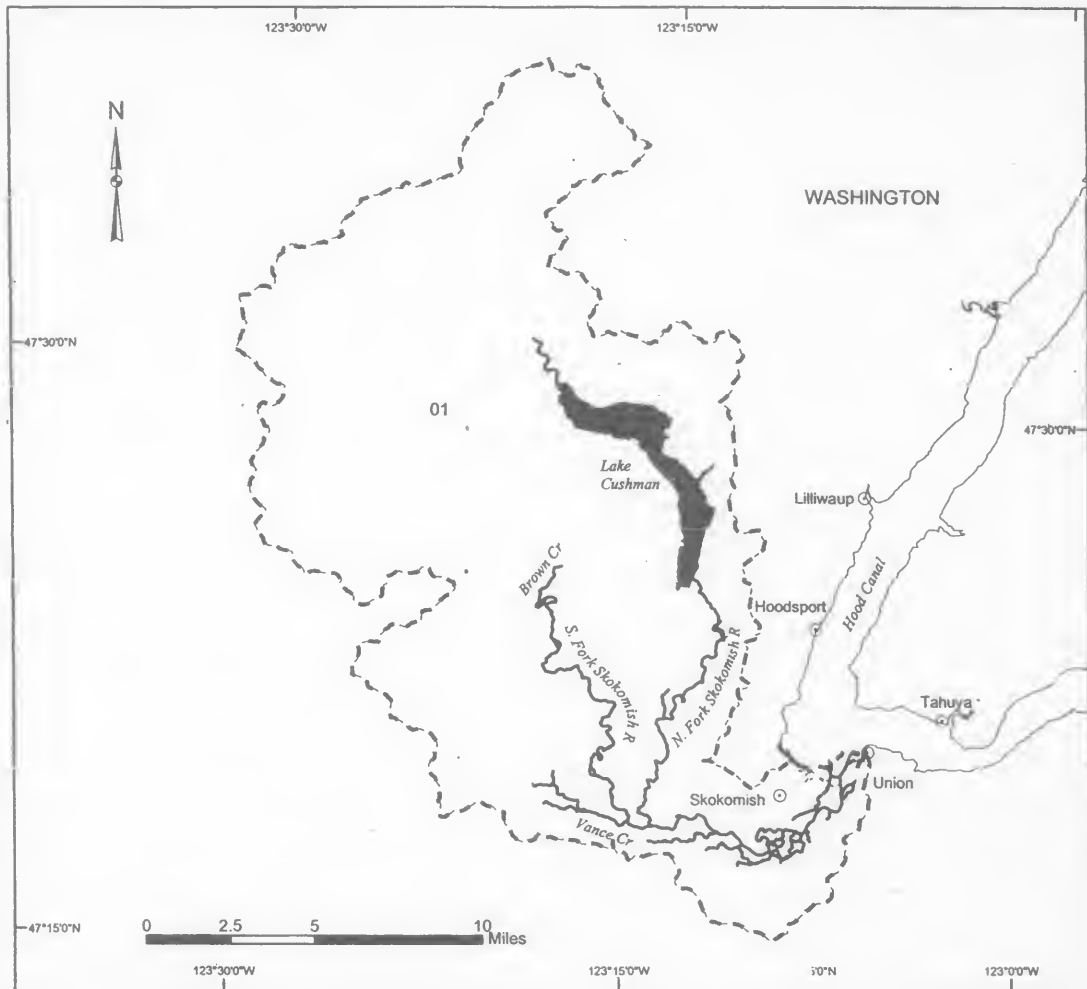
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17110015xx

Area of Detail

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**SKOKOMISH SUBBASIN
17110017, Unit 15**



Legend

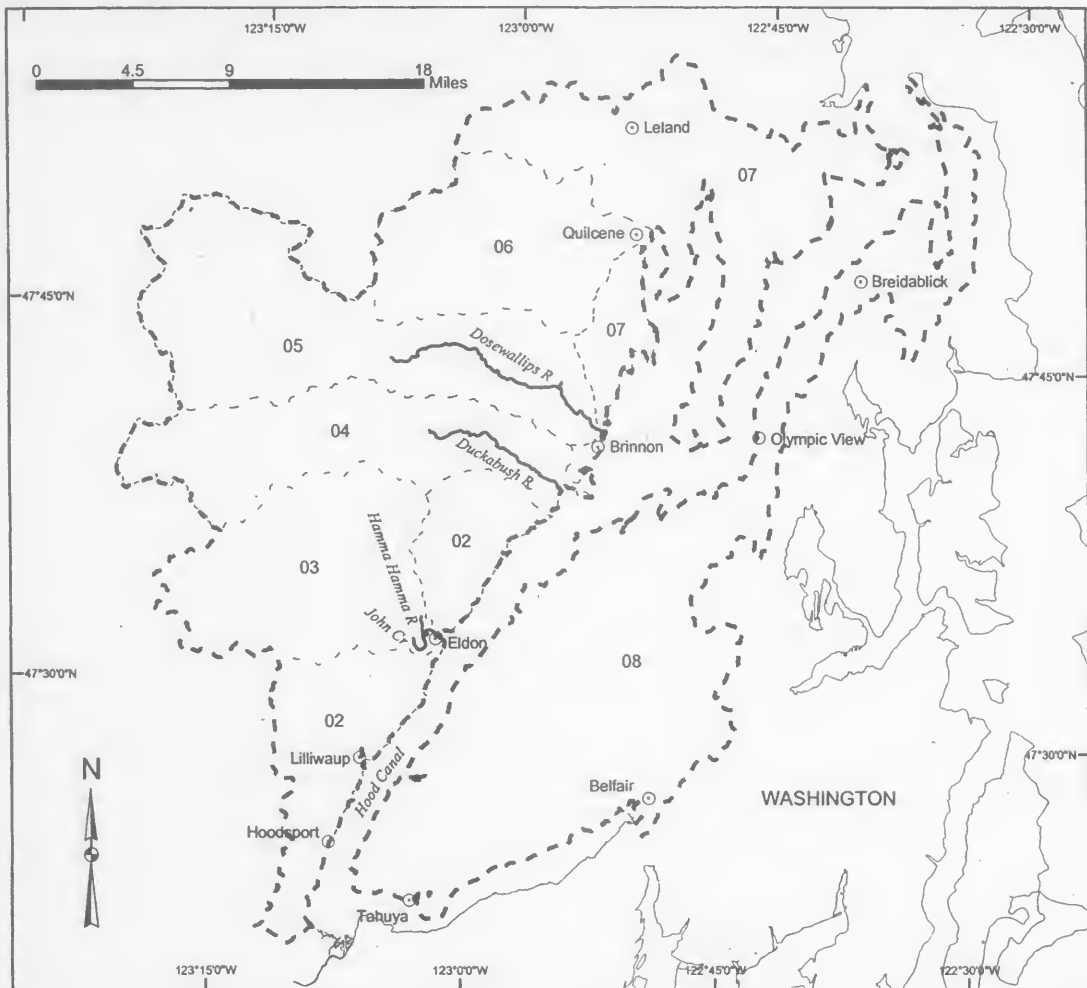
- Cities / Towns
 - ~ Shoreline
 - - - Proposed Critical Habitat
 - Water Bodies
 - · - · - Subbasin Boundary
 - · - · - Watershed Boundaries
- 01 = Watershed code - last 2 digits of 17110017xx

Area of Detail



Proposed Critical Habitat for the Puget Sound Chinook ESU

HOOD CANAL SUBBASIN 17110018, Unit 16



Legend

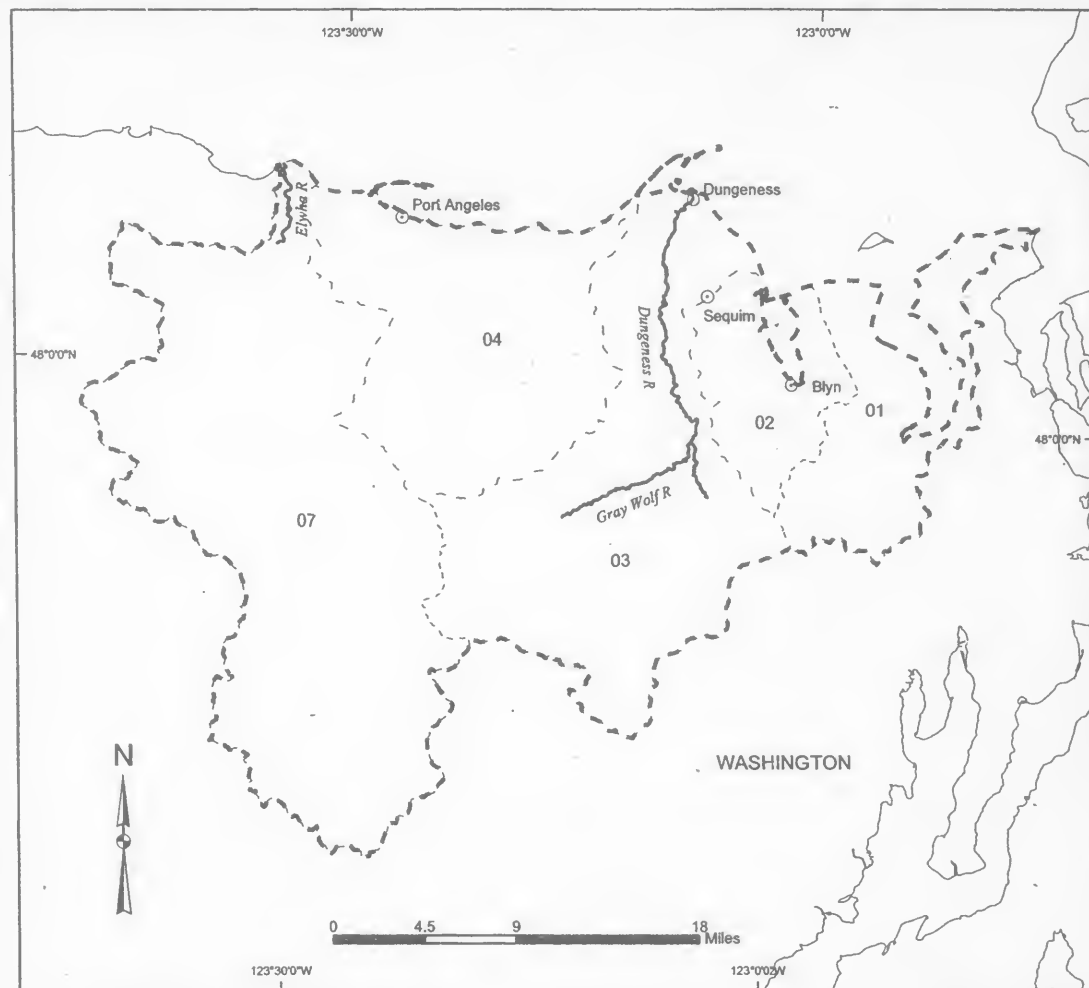
- Cities / Towns
- Shoreline
- - - Proposed Critical Habitat
- ⋯ Subbasin Boundary
- ⋯ Watershed Boundaries

02 - 08 = Watershed code - last 2 digits of 17110018xx



**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**DUNGENESS / ELWHA SUBBASIN
17110020, Unit 18**



Legend

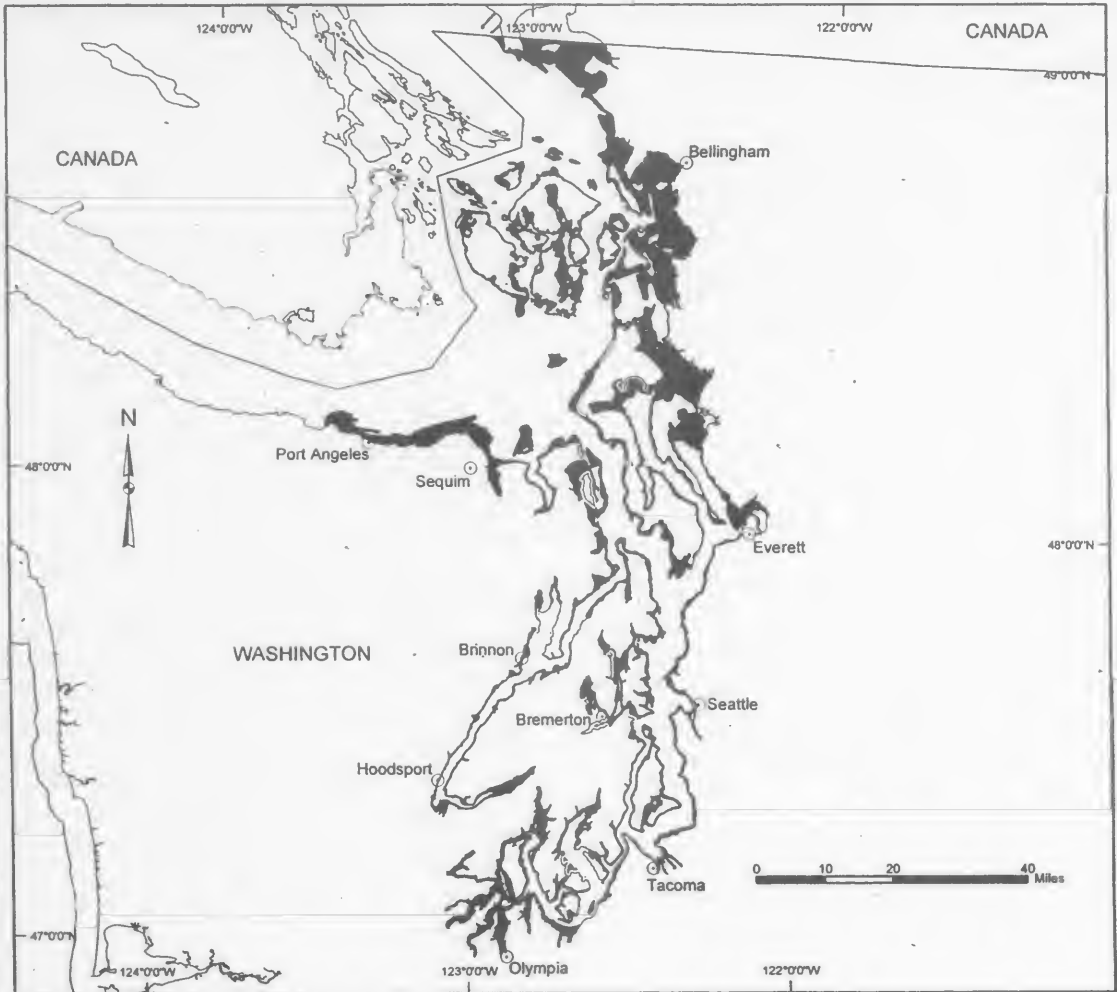
- Cities / Towns
- ~~~~ Shorelines
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- - - - Watershed Boundaries

01 - 04, 07 = Watershed code - last 2 digits of 17110020xx

Area of Detail

**Proposed Critical Habitat for the
Puget Sound Chinook ESU**

**Nearshore Marine Areas
Unit 19**



Legend

- Cities / Towns
- ~ Shoreline
- State Boundary
- Nearshore Marine Areas



BILLING CODE 3510-22-C

(g) Lower Columbia River Chinook Salmon (*Oncorhynchus tshawytscha*).

Critical habitat is proposed to include the areas defined in the following units:

(1) Unit 1. Middle Columbia/Hood Subbasin 17070105—(i) *East Fork Hood River Watershed 1707010506*. Outlet(s) = Hood River (Lat 45.6050, Long -121.6323) upstream to endpoint(s) in: Dog River (45.4655, -121.5656); East Fork Hood River (45.4665, -121.5669); Pinnacle Creek (45.4595, -121.6568); Tony Creek (45.5435, -121.6411).

(ii) *West Fork Hood River Watershed 1707010507*. Outlet(s) = West Fork Hood River (Lat 45.6050, Long -121.6323) upstream to endpoint(s) in: Divers Creek (45.5457, -121.7447); Elk Creek (45.4277, -121.7889); Indian Creek (45.5375, -121.7857); Jones Creek (45.4629, -121.7942); Lake Branch (45.5083, -121.8485); McGee Creek (45.4179, -121.7675); No Name Creek (45.5347, -121.7929); Red Hill Creek (45.4720, -121.7705); Unnamed (45.5502, -121.7014).

(iii) *Hood River Watershed 1707010508*. Outlet(s) = Hood River (Lat 45.7205, Long -121.5055) upstream to endpoint(s) in: Hood River (45.6050, -121.6323).

(iv) *White Salmon River Watershed 1707010509*. Outlet(s) = White Salmon River (Lat 45.7226, Long -121.5214) upstream to endpoint(s) in: White Salmon River (45.7677, -121.5374).

(v) *Wind River Watershed 1707010511*. Outlet(s) = Wind River (Lat 45.7037, Long -121.7946) upstream to endpoint(s) in: Bear Creek (45.7620, -121.8293); Big Hollow Creek (45.9399, -121.9996); Dry Creek (45.9296, -121.9721); Falls Creek (45.9105, -121.9222); Little Wind River (45.7392, -121.7772); Ninemile Creek (45.8929, -121.9526); Paradise Creek (45.9527, -121.9408); Trapper Creek (45.8887, -122.0065); Trout Creek (45.8021, -121.9313); Wind River (45.9732, -121.9031).

(vi) *Middle Columbia/Grays Creek Watershed 1707010512*. Outlet(s) = Columbia River (Lat 45.7044, Long -121.7980) upstream to endpoint(s) in: Columbia River (45.7205, -121.5056); Dog Creek (45.7200, -121.6804); Gorton Creek (45.6912, -121.7721); Lindsey Creek (45.6868, -121.7153); Unnamed (45.7022, -121.7435).

(vii) *Middle Columbia/Eagle Creek Watershed 1707010513*. Outlet(s) = Columbia River (Lat 45.6447, Long -121.9395) upstream to endpoint(s) in: Columbia River (45.7044, -121.7980); Eagle Creek (45.6365, -121.9171); Herman Creek (45.6749, -121.8477); Rock Creek (45.6958, -121.8915).

(2) Unit 2. Lower Columbia/Sandy Subbasin 17080001—(i) *Salmon River Watershed 1708000101*. Outlet(s) = Salmon River (Lat 45.3768, Long -122.0293) upstream to endpoint(s) in:

Cheaney Creek (45.3104, -121.9561); Copper Creek (45.2508, -121.9053); Salmon River (45.2511, -121.9025); South Fork Salmon River (45.2606, -121.9474); Unnamed (45.3434, -121.9920).

(ii) *Zigzag River Watershed 1708000102*. Outlet(s) = Zigzag River (Lat 45.3489, Long -121.9442) upstream to endpoint(s) in: Henry Creek (45.3328, -121.9110); Still Creek (45.2755, -121.8413); Unnamed (45.3019, -121.8202); Zigzag River (45.3092, -121.8642).

(iii) *Upper Sandy River Watershed 1708000103*. Outlet(s) = Sandy River (Lat 45.3489, Long -121.9442) upstream to endpoint(s) in: Clear Creek (45.3712, -121.9246); Clear Fork Sandy River (45.3994, -121.8525); Horseshoe Creek (45.3707, -121.8936); Lost Creek (45.3709, -121.8150); Sandy River (45.3899, -121.8620).

(iv) *Middle Sandy River Watershed 1708000104*. Outlet(s) = Sandy River (Lat 45.4464, Long -122.2459) upstream to endpoint(s) in: Alder Creek (45.3776, -122.0994); Bear Creek (45.3368, -121.9265); Cedar Creek (45.4087, -122.2617); North Boulder Creek (45.3822, -122.0168); Sandy River (45.3489, -121.9442).

(v) *Bull Run River Watershed 1708000105*. Outlet(s) = Bull Run River (Lat 45.4464, Long -122.2459) upstream to endpoint(s) in: Bull Run River (45.4455, -122.1561); Little Sandy Creek (45.4235, -122.1975).

(vi) *Columbia Gorge Tributaries Watershed 1708000107*. Outlet(s) = Columbia River (Lat 45.5735, Long -122.3945) upstream to endpoint(s) in: Bridal Veil Creek (45.5542, -122.1793); Columbia River (45.6447, -121.9395); Coopey Creek (45.5656, -122.1671); Government Cove (45.5948, -122.0630); Hamilton Creek (45.6414, -121.9764); Hardy Creek (45.6354, -121.9987); Horsetail Creek (45.5883, -122.0675); Latourell Creek (45.5388, -122.2173); McCord Creek (45.6115, -121.9929); Moffett Creek (45.6185, -121.9662); Multnomah Creek (45.5761, -122.1143); Oneonta Creek (45.5821, -122.0718); Tanner Creek (45.6264, -121.9522); Turnaft Creek (45.6101, -122.0284); Unnamed (45.5421, -122.2624); Unnamed (45.5488, -122.3504); Unnamed (45.6025, -122.0443); Unnamed (45.6055, -122.0392); Unnamed (45.6083, -122.0329); Unnamed (45.6118, -122.0216); Unnamed (45.6124, -122.0172); Unnamed (45.6133, -122.0055); Wahkeena Creek (45.5755, -122.1266); Young Creek (45.5480, -122.1997).

(vii) *Lower Sandy River Watershed 1708000108*. Outlet(s) = Sandy River

(Lat 45.5680, Long -122.4023) upstream to endpoint(s) in: Beaver Creek (45.5258, -122.3822); Gordon Creek (45.4915, -122.2423); Sandy River (45.4464, -122.2459); Trout Creek (45.4844, -122.2785); Unnamed (45.5542, -122.3768); Unnamed (45.5600, -122.3650).

(3) Unit 3. Lewis Subbasin 17080002—(i) *East Fork Lewis River Watershed 1708000205*. Outlet(s) = East Fork Lewis River (Lat 45.8664, Long -122.7189) upstream to endpoint(s) in: East Fork Lewis River (45.8395, -122.4463).

(ii) *Lower Lewis River Watershed 1708000206*. Outlet(s) = Lewis River (Lat 45.8519, Long -122.7806) upstream to endpoint(s) in: Cedar Creek (45.9049, -122.3684); Chelatchie Creek (45.9169, -122.4130); Johnson Creek (45.9385, -122.6261); Lewis River (45.9570, -122.5550); Pup Creek (45.9391, -122.5440); Unnamed (45.8882, -122.7412); Unnamed (45.9153, -122.4362).

(4) Unit 4. Lower Columbia/Clatskanie Subbasin 17080003—(i) *Kalama River Watershed 1708000301*. Outlet(s) = Burriss Creek (45.8926, -122.7892); Kalama River (46.0340, -122.8695) upstream to endpoint(s) in: Arnold Creek (46.0463, -122.5938); Burriss Creek (45.9391, -122.7780); Elk Creek (46.0891, -122.5117); Gobar Creek (46.0963, -122.6042); Hatchery Creek (46.0459, -122.8027); Kalama River (46.1109, -122.3579); Little Kalama River (45.9970, -122.6939); North Fork Kalama River (46.1328, -122.4118); Wild Horse Creek (46.0626, -122.6367).

(ii) *Clatskanie River Watershed 1708000303*. Outlet(s) = Clatskanie River (Lat 46.1398, Long -123.2303) upstream to endpoint(s) in: Clatskanie River (46.0435, -123.0829); Merrill Creek (46.0916, -123.1727); Perkins Creek (46.0826, -123.1678).

(iii) *Skamokawa/Elochoman Watershed 1708000305*. Outlet(s) = Elochoman River (Lat 46.2269, Long -123.4040); Skamokawa Creek (46.2677, -123.4562); Unnamed (46.2243, -123.3975) upstream to endpoint(s) in: Beaver Creek (46.2256, -123.3071); Elochoman River (46.3503, -123.2428); Falk Creek (46.2954, -123.4413); Left Fork Skamokawa Creek (46.3249, -123.4538); McDonald Creek (46.3398, -123.4116); Standard Creek (46.3292, -123.3999); West Fork Elochoman River (46.3211, -123.2605); West Fork Skamokawa Creek (46.2871, -123.4654); Wilson Creek (46.2970, -123.3434).

(iv) *Plympton Creek Watershed 1708000306*. Outlet(s) = Westport Slough (Lat 46.1434, Long -123.3816)

upstream to endpoint(s) in: Plympton Creek (46.1261, -123.3842); Westport Slough (46.1195, -123.2797).

(5) Unit 5. Upper Cowlitz Subbasin 17080004—(i) *Headwaters Cowlitz River 1708000401*. Outlet(s) = Cowlitz River (Lat 46.6580, Long -121.6032) upstream to endpoint(s) in: Clear Fork Cowlitz River (46.6858, -121.5668); Muddy Fork Cowlitz River (46.6994, -121.6169); Ohanapechosh River (46.6883, -121.5809).

(ii) *Upper Cowlitz River Watershed 1708000402*. Outlet(s) = Cowlitz River (Lat 46.5763, Long -121.7051) upstream to endpoint(s) in: Cowlitz River (46.6580, -121.6032).

(iii) *Cowlitz Valley Frontal Watershed 1708000403*. Outlet(s) = Cowlitz River (Lat 46.4765, Long -122.0952) upstream to endpoint(s) in: Cowlitz River (46.5763, -121.7051); Silver Creek (46.5576, -121.9178).

(iv) *Upper Cispus River Watershed 1708000404*. Outlet(s) = Cispus River (Lat 46.4449, Long -121.7954) upstream to endpoint(s) in: Cispus River (46.3410, -121.6709); East Canyon Creek (46.3454, -121.7031); North Fork Cispus River (46.4355, -121.654).

(v) *Lower Cispus River Watershed 1708000405*. Outlet(s) = Cispus River (Lat 46.4765, Long -122.0952) upstream to endpoint(s) in: Cispus River (46.4449, -121.7954); McCoy Creek (46.3892, -121.8190); Yellowjacket Creek (46.3871, -121.8335).

(6) Unit 6. Cowlitz Subbasin 17080005—(i) *Tilton River Watershed 1708000501*. Outlet(s) = Tilton River (Lat 46.5432, Long -122.5319) upstream to endpoint(s) in: Tilton River (46.5992, -122.2352).

(ii) *Riffe Reservoir Watershed 1708000502*. Outlet(s) = Cowlitz River (Lat 46.5033, Long -122.5870) upstream to endpoint(s) in: Cowlitz River (46.4765, -122.0952).

(iii) *Jackson Prairie Watershed 1708000503*. Outlet(s) = Cowlitz River (Lat 46.3678, Long -122.9337) upstream to endpoint(s) in: Bear Creek (46.4215, -122.9224); Blue Creek (46.4885, -122.7253); Cowlitz River (46.5033, -122.5870); Lacamas Creek (46.5118, -122.8113); Mill Creek (46.4701, -122.8557); Mill Creek (46.5176, -122.6209); Otter Creek (46.4800, -122.6996); Salmon Creek (46.4237, -122.8400); Skook Creek (46.5035, -122.7556).

(iv) *North Fork Toutle River Watershed 1708000504*. Outlet(s) = North Fork Toutle River (Lat 46.3669, Long -122.5859) upstream to endpoint(s) in: North Fork Toutle River (46.3718, -122.5847).

(v) *Green River Watershed 1708000505*. Outlet(s) = Green River

(Lat 46.3718, Long -122.5847) upstream to endpoint(s) in: Cascade Creek (46.3924, -122.3530); Devils Creek (46.3875, -122.5113); Elk Creek (46.3929, -122.3224); Green River (46.3857, -122.1815); Miners Creek (46.3871, -122.2091); Shultz Creek (46.3744, -122.2987); Unnamed (46.3796, -122.3632).

(vi) *South Fork Toutle River Watershed 1708000506*. Outlet(s) = South Fork Toutle River (Lat 46.3282, Long -122.7215) upstream to endpoint(s) in: Johnson Creek (46.3100, -122.6338); South Fork Toutle River (46.2306, -122.4439); Studebaker Creek (46.3044, -122.6777).

(vii) *East Willapa Watershed 1708000507*. Outlet(s) = Cowlitz River (Lat 46.2660, Long -122.9154) upstream to endpoint(s) in: Arkansas Creek (46.3275, -123.0123); Baxter Creek (46.3034, -122.9709); Brim Creek (46.4263, -123.0139); Campbell Creek (46.3756, -123.0401); Cowlitz River (46.3678, -122.9337); Delameter Creek (46.2495, -122.9916); Hemlock Creek (46.2585, -122.7269); Hill Creek (46.3724, -122.9211); King Creek (46.5076, -122.9885); Monahan Creek (46.2954, -123.0286); North Fork Toutle River (46.3669, -122.5859); Olequa Creek (46.5174, -122.9042); Stillwater Creek (46.3851, -123.0478); Sucker Creek (46.2628, -122.8116); Unnamed (46.5074, -122.9585); Unnamed (46.5405, -122.9090); Wyatt Creek (46.3424, -122.6302).

(viii) *Coweeman Watershed 1708000508*. Outlet(s) = Cowlitz River (Lat 46.0977, Long -122.9141); Owl Creek (46.0771, -122.8676) upstream to endpoint(s) in: Baird Creek (46.1704, -122.6119); Coweeman River (46.1505, -122.5792); Cowlitz River (46.2660, -122.9154); Leckler Creek (46.2092, -122.9206); Mulholland Creek (46.1932, -122.6992); North Fork Goble Creek (46.1209, -122.7689); Ostrander Creek (46.2095, -122.8623); Owl Creek (46.0914, -122.8692); Salmon Creek (46.2547, -122.8839); South Fork Ostrander Creek (46.1910, -122.8600); Unnamed (46.0838, -122.7264).

(7) Unit 7. Lower Columbia Subbasin 17080006—(i) *Big Creek Watershed 1708000602*. Outlet(s) = Bear Creek (Lat 46.1719, Long -123.6642); Big Creek (46.1847, -123.5943); Blind Slough (46.2011, -123.5822); John Day River (46.1820, -123.7392) upstream to endpoint(s) in: Bear Creek (46.1181, -123.6388); Big Creek (46.1475, -123.5819); Gnat Creek (46.1614, -123.4813); John Day River (46.1763, -123.7474).

(ii) *Grays Bay Watershed 1708000603*. Outlet(s) = Crooked Creek (Lat 46.2962, Long -123.6795); Deep River (46.3035,

-123.7092); Grays River (46.3035, -123.6867); Sisson Creek (46.3011, -123.7237); Unnamed (46.3042, -123.6870) upstream to endpoint(s) in: Crooked Creek (46.3033, -123.6222); East Fork Grays River (46.4425, -123.4081); Fossil Creek (46.3628, -123.5530); Grays River (46.4910, -123.4334); Hull Creek (46.3725, -123.5866); Johnson Canyon (46.3699, -123.6659); Klints Creek (46.3562, -123.5675); Malone Creek (46.3280, -123.6545); Mitchell Creek (46.4512, -123.4371) South Fork Grays River (46.3813, -123.4581); Sweigiler Creek (46.4195, -123.5375); Unnamed (46.3283, -123.7376); Unnamed (46.3651, -123.6839); Unnamed (46.4701, -123.4515); West Fork Grays River (46.4195, -123.5530).

(8) Unit 9. Clackamas Subbasin 17090011—*Lower Clackamas River Watershed 1709001106*. Outlet(s) = Clackamas River (Lat 45.3719, Long -122.6071) upstream to endpoint(s) in: Clackamas River (45.2440, -122.2798); Clear Creek (45.3568, -122.4781); Deep Creek (45.3916, -122.4028); Richardson Creek (45.3971, -122.4712); Rock Creek (45.4128, -122.5043).

(9) Unit 10. Lower Willamette Subbasin 17090012—(i) *Johnson Creek Watershed 1709001201*. Outlet(s) = Willamette River (Lat 45.4423, Long -122.6453) upstream to endpoint(s) in: Crystal Springs Creek (45.4770, -122.6403); Kellogg Creek (45.4344, -122.6314); Tryon Creek (45.4239, -122.6595); Unnamed (45.4002, -122.6423); Willamette River (45.3719, -122.6071).

(ii) *Scappoose Creek Watershed 1709001202*. Outlet(s) = Multnomah Channel (Lat 45.8577, Long -122.7919) upstream to endpoint(s) in: Cunningham Slough (45.8250, -122.8069); Multnomah Channel (45.6188, -122.7921); North Scappoose Creek (45.8014, -122.9340).

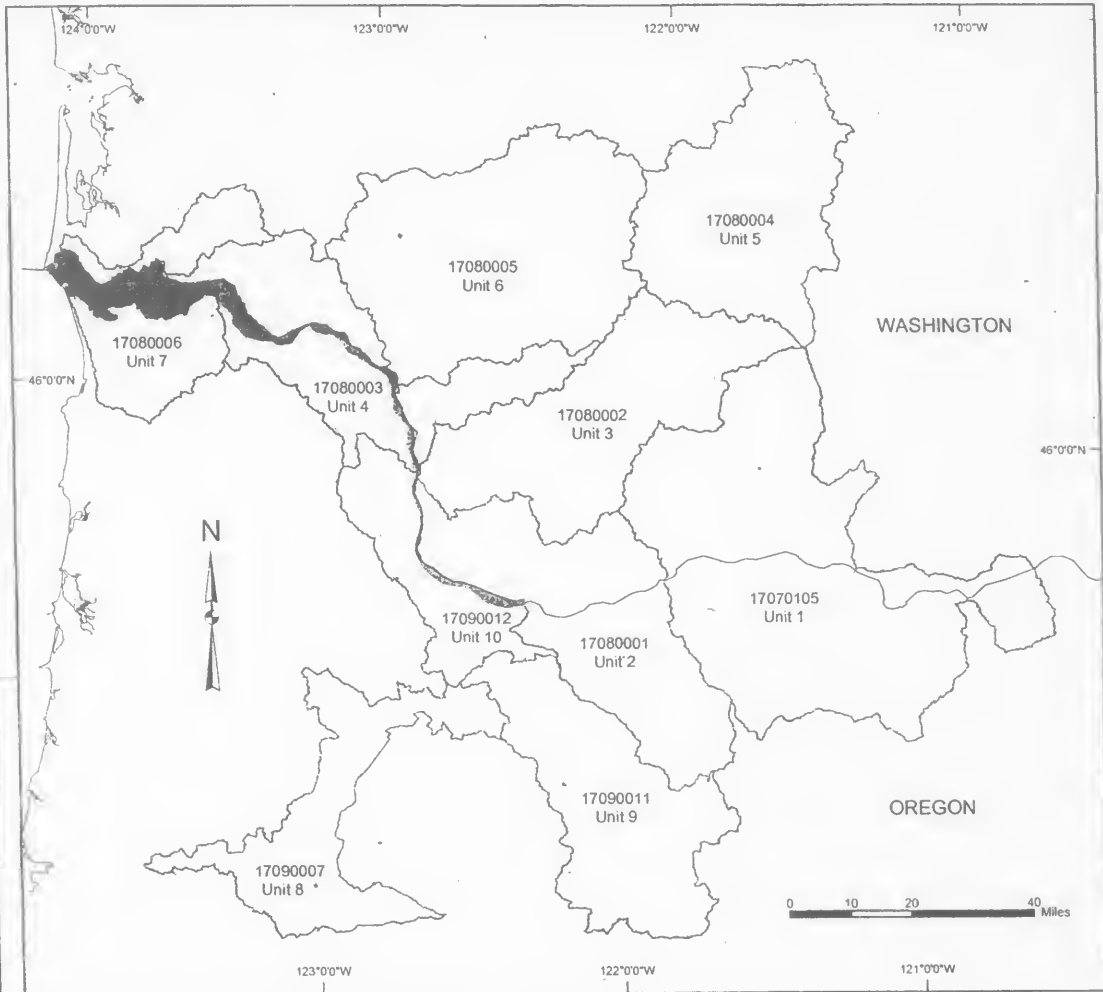
(iii) *Columbia Slough/Willamette River Watershed 1709001203*. Outlet(s) = Willamette River (Lat 45.6530, Long -122.7646) upstream to endpoint(s) in: Bybee/Smith Lakes (45.6189, -122.7333); Columbia Slough (45.5979, -122.7137); Willamette River (45.4423, -122.6453).

(10) Unit 11. Lower Columbia River Corridor—(i) *Lower Columbia River Corridor*. Outlet(s) = Columbia River (Lat 46.2485, Long -124.0782) upstream to endpoint(s) in: Columbia River (45.5709, -122.4021).



(11) Maps of proposed critical habitat for the Lower Columbia River chinook salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Lower Columbia River Chinook Salmon ESU



Legend

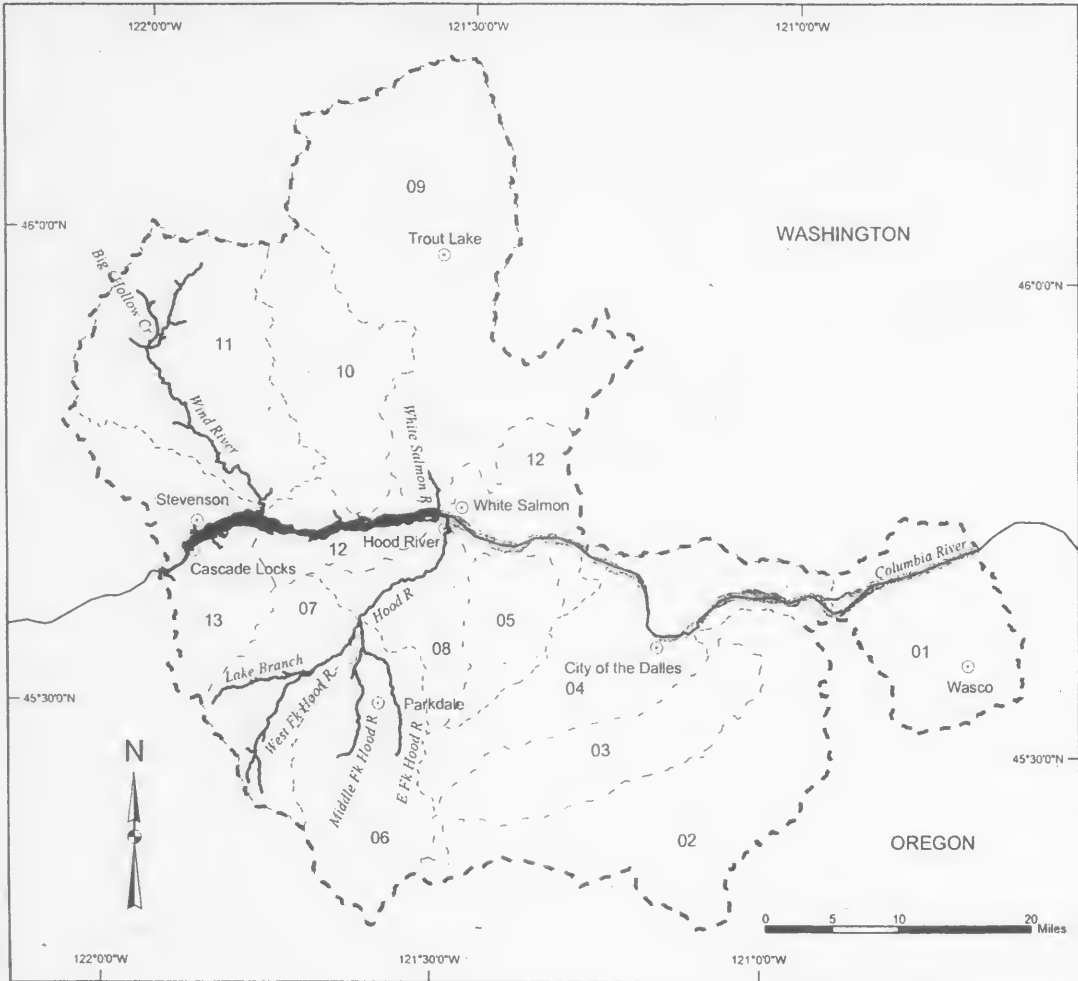
- State Boundaries
-  Water Bodies
-  Subbasin Boundaries

* All habitat areas in unit are proposed for exclusion

Area of Detail

**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**MIDDLE COLUMBIA / HOOD SUBBASIN
17070105, Unit 1**



Legend

- ⊙ Cities / Towns
- ~ Proposed Critical Habitat
- State Boundary
- Water Bodies
- - - Subbasin Boundary
- · · Watershed Boundaries

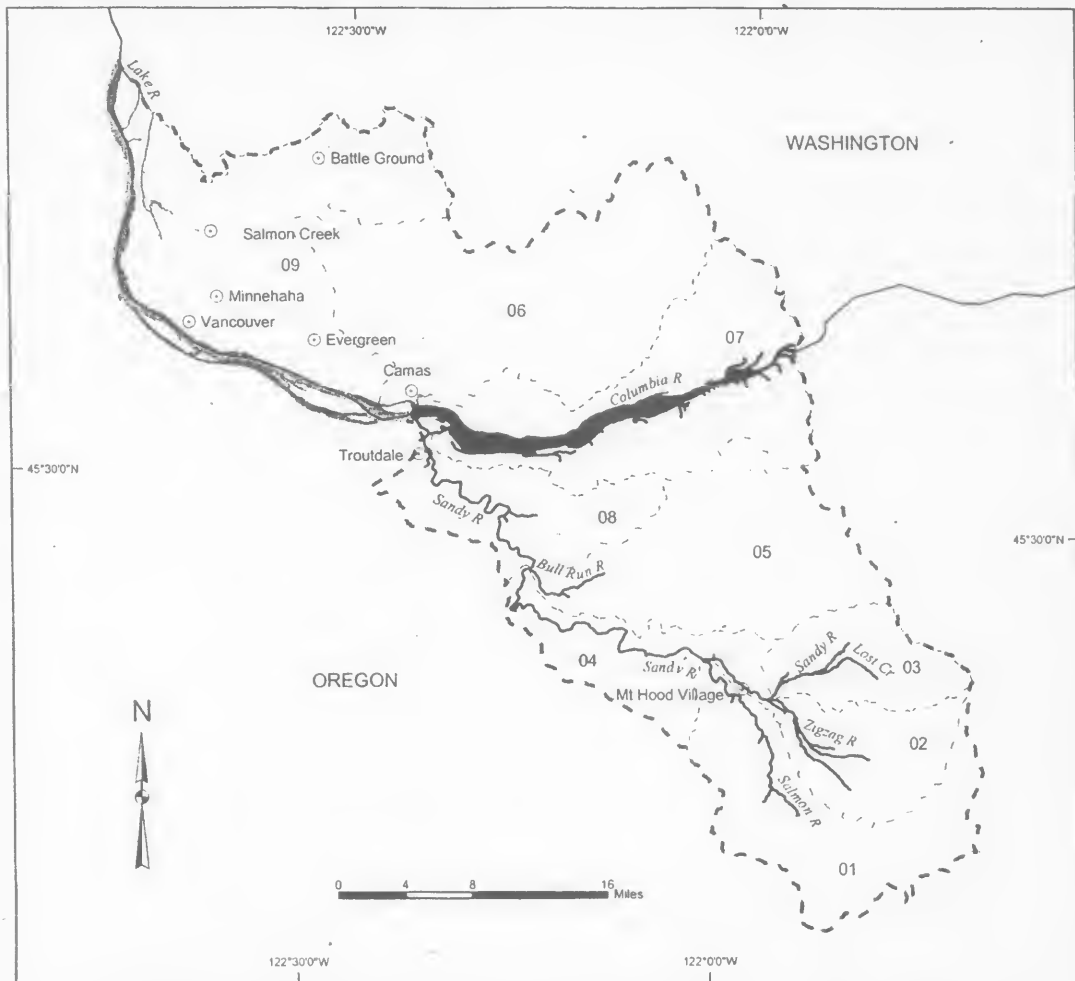
01 - 13 = Watershed code - last 2 digits of 17070105xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**LOWER COLUMBIA / SANDY SUBBASIN
17080001, Unit 2**



Legend

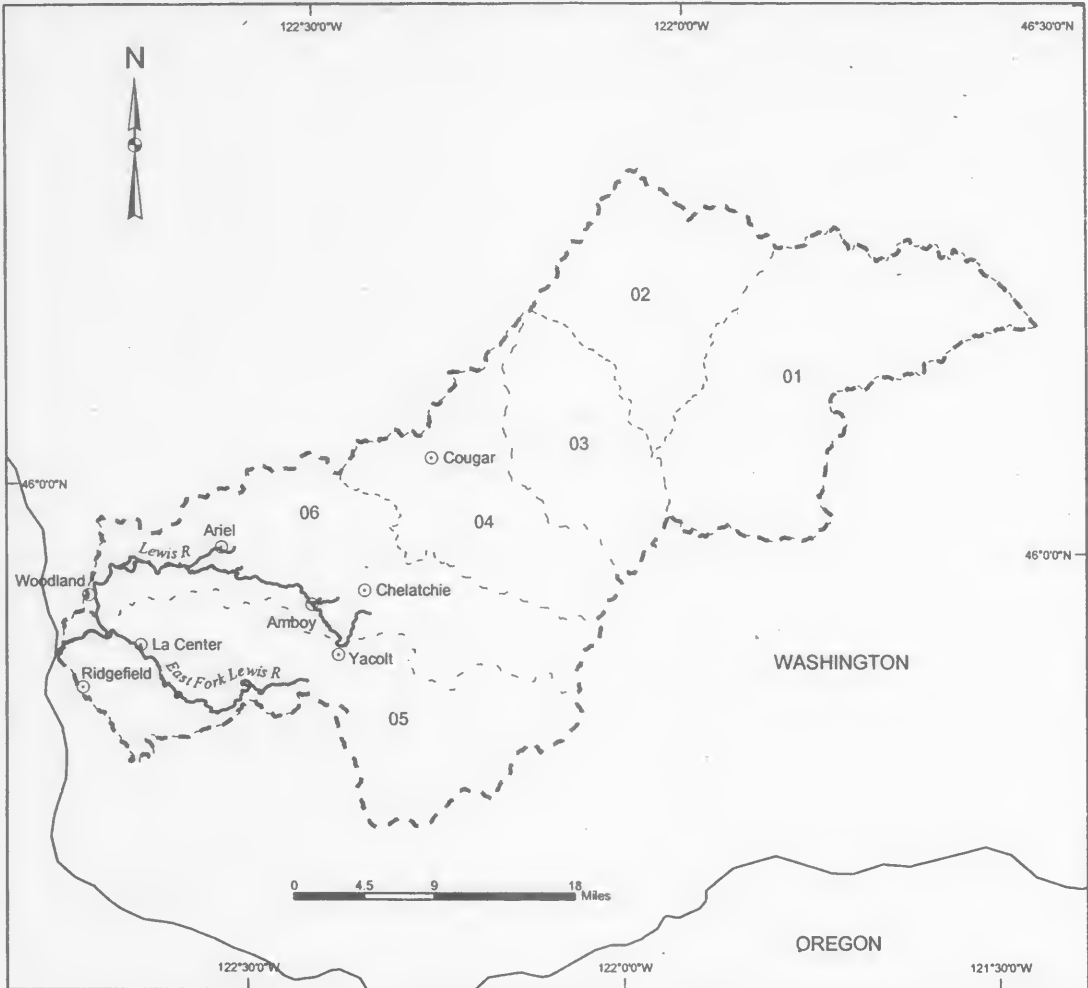
- Cities / Towns
 - ~ Proposed Critical Habitat
 - State Boundary
 - Water Bodies
 - - - Subbasin Boundary
 - Watershed Boundaries
- 01 - 09 = Watershed code - last 2 digits of 17080001xx

Area of Detail



Proposed Critical Habitat for the Lower Columbia River Chinook Salmon ESU

LEWIS SUBBASIN
17080002, Unit 3



Legend

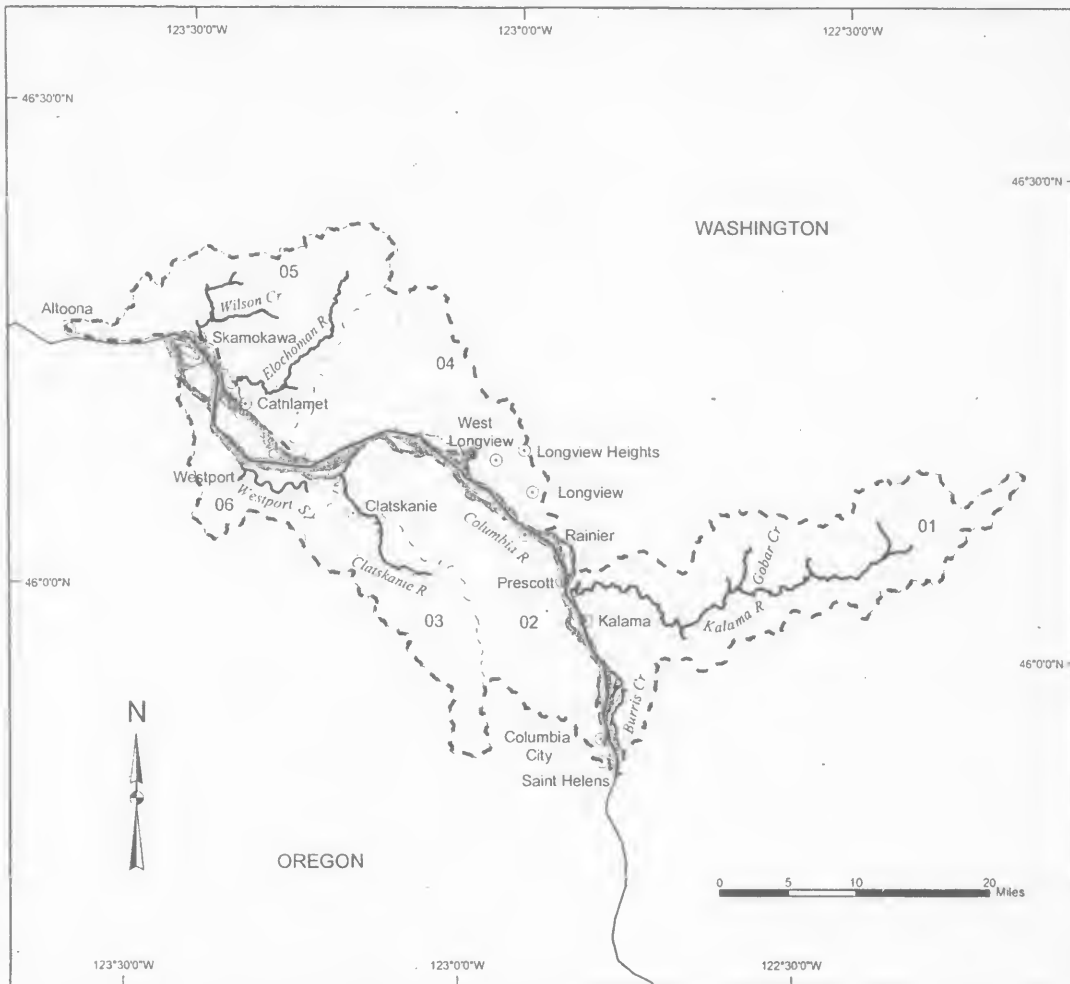
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17080002xx



**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**LOWER COLUMBIA / CLATSKANIE SUBBASIN
17080003, Unit 4**



Legend

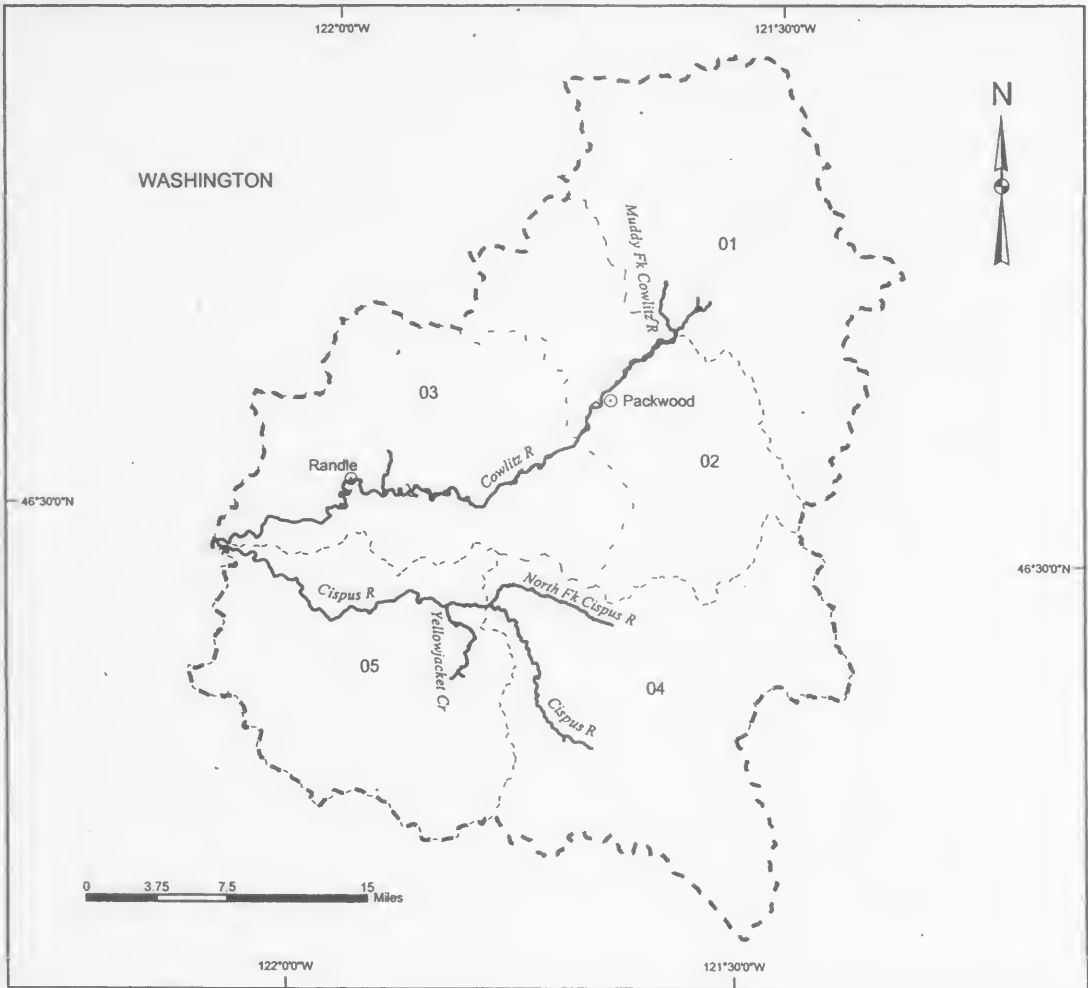
- ⊙ Cities / Towns
 - State Boundary
 - ~ Proposed Critical Habitat
 - Water Bodies
 - - - Subbasin Boundary
 - ⋯ Watershed Boundary
- 01 - 06 = Watershed code - last 2 digits of 17080003xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**UPPER COWLITZ SUBBASIN
17080004, Unit 5**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

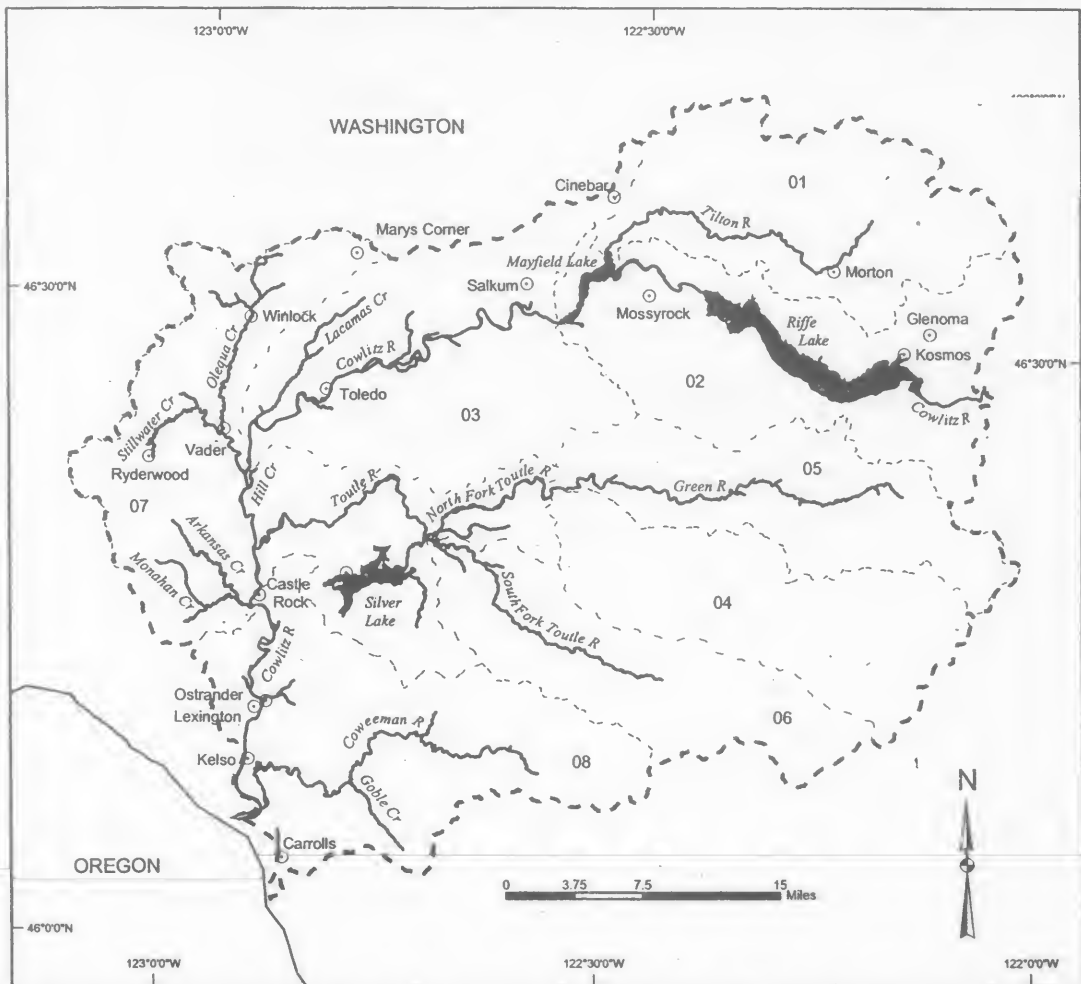
01 - 05 = Watershed code - last 2 digits of 17080004xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A small black dot is located in the northern part of Washington, indicating the location of the subbasin.

**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**COWLITZ SUBBASIN
17080005, Unit 6**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

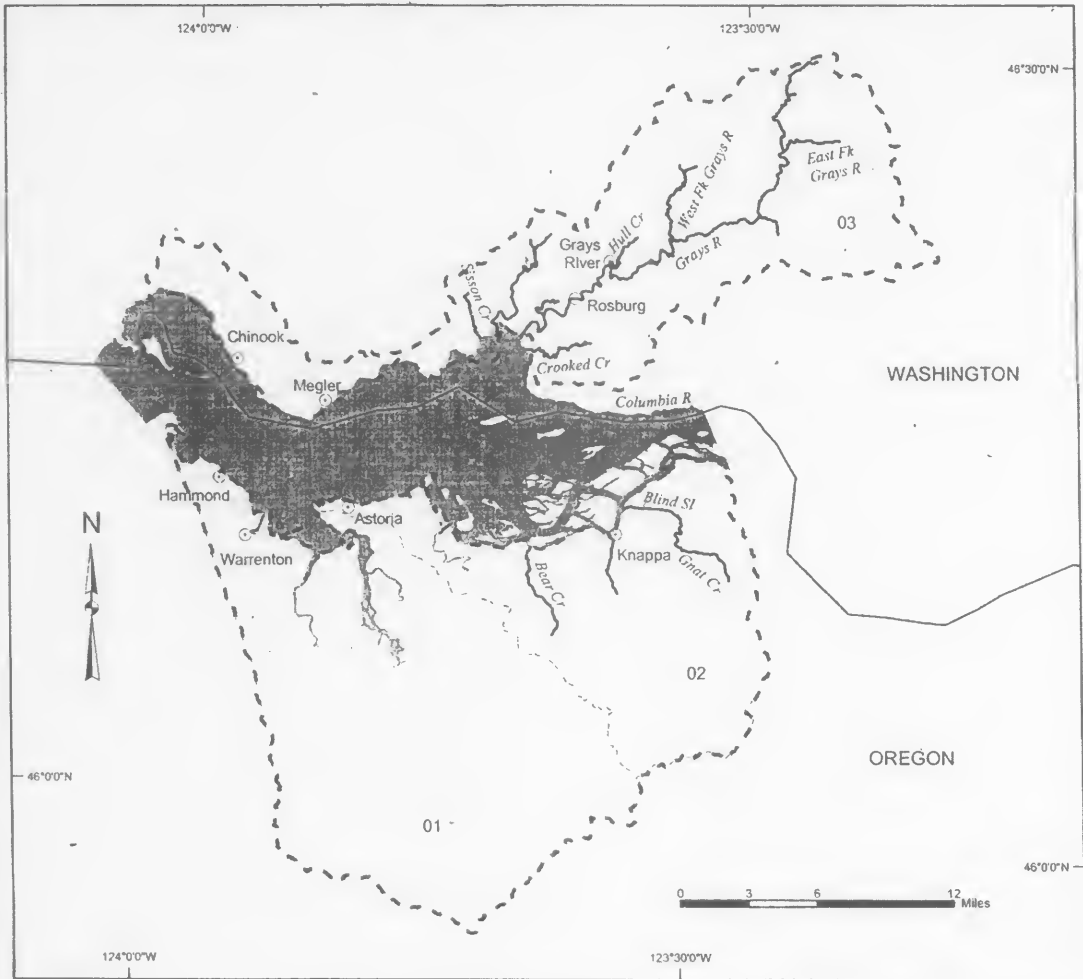
01 - 08 = Watershed code - last 2 digits of 17080005xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**LOWER COLUMBIA SUBBASIN
17080006, Unit 7**



Legend

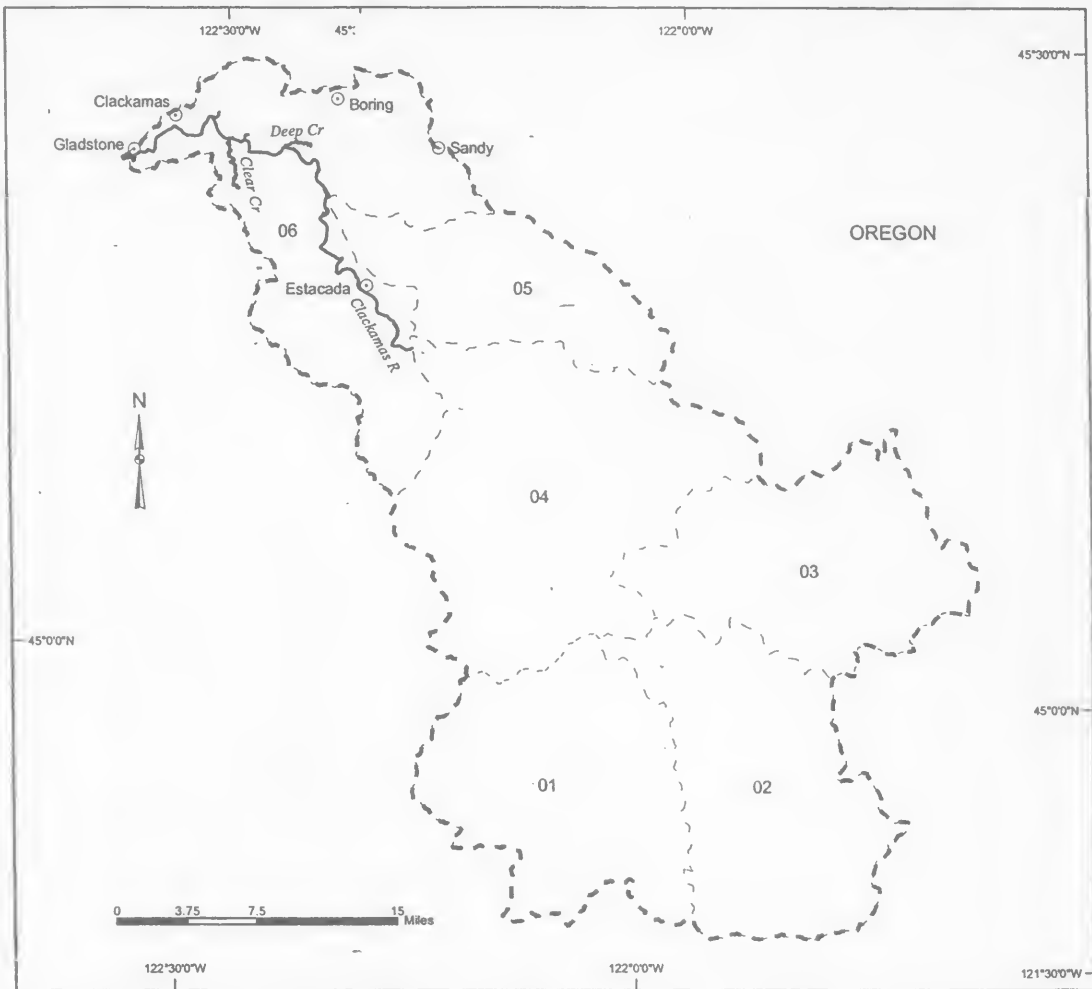
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17080006xx



**Proposed Critical Habitat for the
Lower Columbia River Chinook Salmon ESU**

**CLACKAMAS SUBBASIN
17090011, Unit 9**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

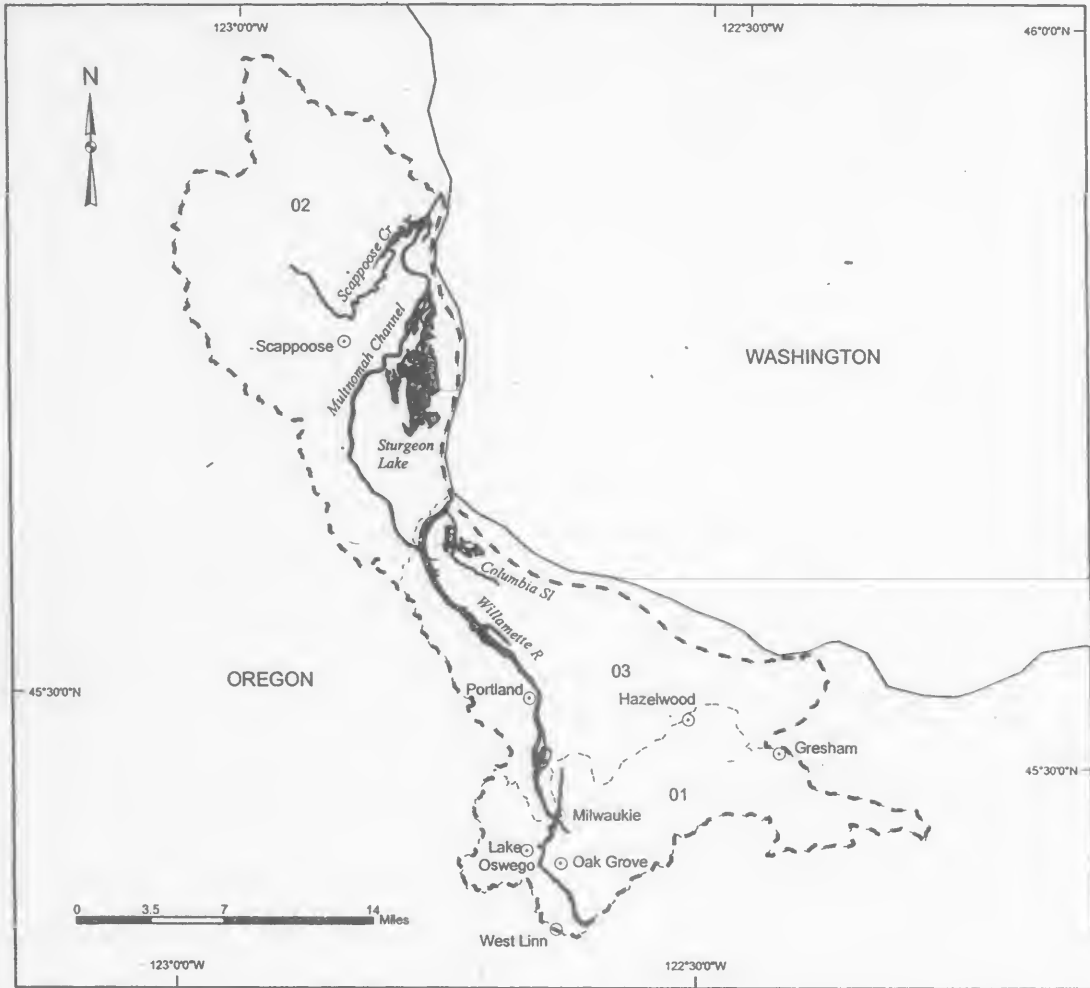
01 - 06 = Watershed code - last 2 digits of 17090011xx

Area of Detail



Proposed Critical Habitat for the Lower Columbia River Chinook Salmon ESU

**LOWER WILLAMETTE SUBBASIN
17090012, Unit 10**



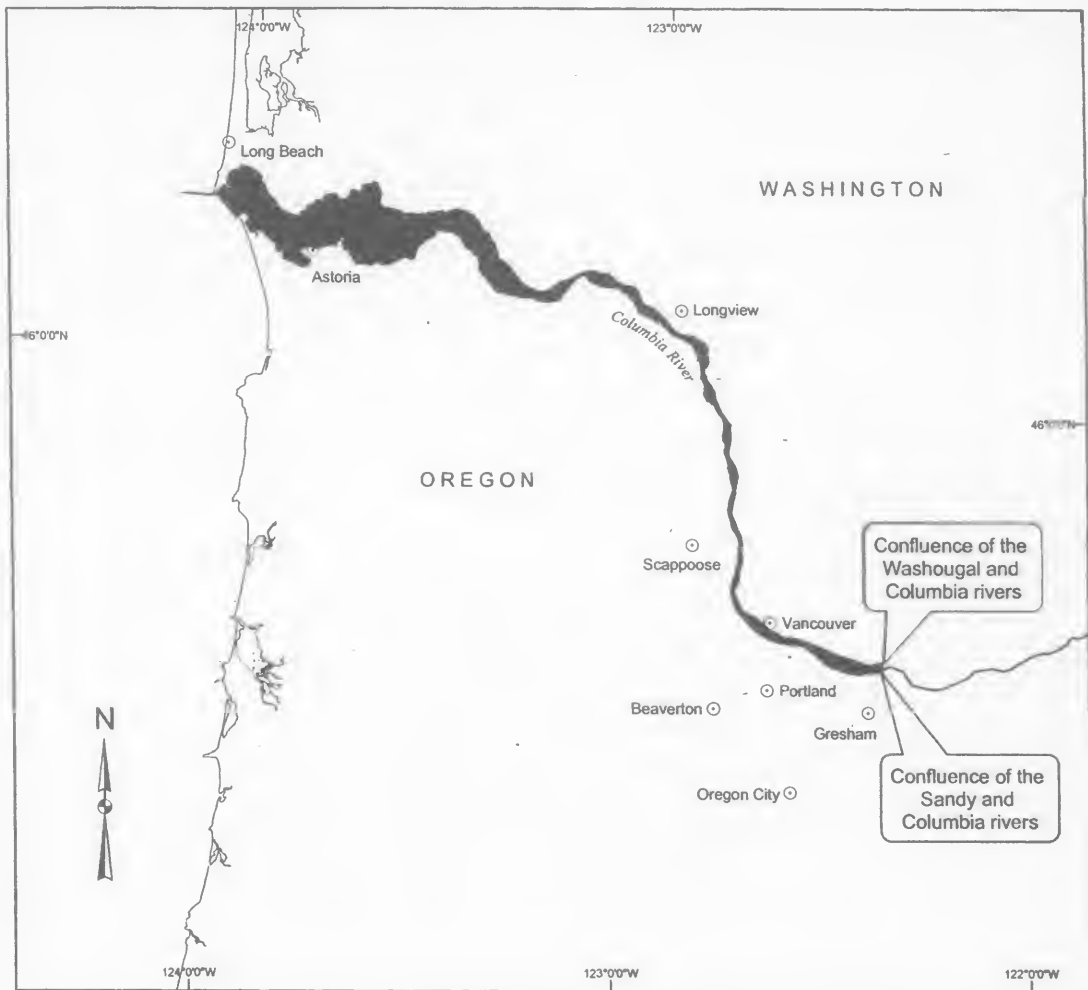
Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17090012xx



Rearing / Migration Corridor for the Lower Columbia River Chinook Salmon ESU, Unit 11



Legend

- Cities / Towns
- State Boundary
- Rearing / Migration Corridor

Lower Columbia River Chinook ESU

Unit 11. Lower Columbia River Corridor
 The lower Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to a line connecting the confluences of the Sandy River (Oregon) and Washougal River (Washington).

BILLING CODE 3510-22-C

(h) Upper Willamette River Chinook Salmon (*Oncorhynchus tshawytscha*).

Critical habitat is proposed to include the areas defined in the following units:

(1) Unit 1. Middle Fork Willamette Subbasin 17090001—(i) *Upper Middle Fork Willamette River Watershed 1709000101*. Outlet(s) = Middle Fork Willamette River (Lat 43.4961, Long -122.3989) upstream to endpoint(s) in: Echo Creek (43.4670, -122.3172); Found Creek (43.5048, -122.2831); Middle Fork Willamette River (43.4801, -122.2534); Noisy Creek (43.5083, -122.3016); Simpson Creek (43.5031, -122.3801); Skunk Creek (43.5069, -122.2866); Staley Creek (43.4527, -122.3650); Swift Creek (43.5438, -122.2431); Tumblebug Creek (43.4740, -122.2549); Unnamed (43.4967, -122.2645); Unnamed (43.4986, -122.2686); Unnamed (43.5020, -122.2764).

(ii) *Hills Creek Watershed 1709000102*. Outlet(s) = Hills Creek (Lat 43.7071, Long -122.4195) upstream to endpoint(s) in: Hills Creek (43.6718, -122.3502).

(iii) *Salt Creek/Willamette River Watershed 1709000103*. Outlet(s) = Salt Creek (Lat 43.7261, Long -122.4381) upstream to endpoint(s) in: Coyote Creek (43.6682, -122.2378); Eagle Creek (43.6795, -122.2293); Salt Creek (43.6204, -122.1413); South Fork Salt Creek (43.6518, -122.2261).

(iv) *Hills Creek Reservoir Watershed 1709000105*. Outlet(s) = Middle Fork Willamette River (Lat 43.7589, Long -122.5242) upstream to endpoint(s) in: Big Willow Creek (43.6341, -122.4139); Buck Creek (43.5945, -122.4272); Bull Creek (43.6598, -122.4014); Coal Creek (43.4882, -122.4246); Coffeepot Creek (43.6182, -122.4160); Gold Creek (43.5860, -122.4768); Indian Creek (43.5034, -122.4638); Larison Creek (43.6851, -122.4760); Middle Fork Willamette River (43.4961, -122.3989); Packard Creek (43.6516, -122.4904); Snake Creek (43.5388, -122.4554); Snow Creek (43.6061, -122.4585); Windfall Creek (43.5984, -122.4638).

(v) *North Fork of Middle Fork Willamette River Watershed 1709000106*. Outlet(s) = North Fork Middle Fork Willamette River (Lat 43.7589, Long -122.5242) upstream to endpoint(s) in: Cayuse Creek (43.8651, -122.1856); Chalk Creek (43.8750, -122.4044); Christy Creek (43.9079, -122.3796); Fisher Creek (43.8699, -122.1551); North Fork Middle Fork Willamette River (43.8671, -122.0711).

(vi) *Middle Fork Willamette/Lookout Point Watershed 1709000107*. Outlet(s) = Middle Fork Willamette River (Lat 43.9495, Long -122.8471) upstream to endpoint(s) in: Anthony Creek (43.8799, -122.8498); Bannister Creek (43.8743, -122.6538); Buckhead Creek (43.7753, -122.5253); Burnt Bridge Creek (43.7900, -122.5334); Carr Creek

(43.8558, -122.8177); Deception Creek (43.7551, -122.5541); East Fork Minnow Creek (43.8902, -122.7342); Goodman Creek (43.8309, -122.6940); Gosage Creek (43.8446, -122.8129); Guiley Creek (43.8419, -122.7962); Hazel Creek (43.8637, -122.6891); Lost Creek (43.8427, -122.7781); Middle Creek (43.8624, -122.8323); Middle Fork Willamette River (43.7589, -122.5242); Minnow Creek (43.8872, -122.7458); North Creek (43.8247, -122.6236); Rolling Riffle Creek (43.8750, -122.7052); School Creek (43.8604, -122.6099); South Creek (43.8230, -122.6216); Unnamed (43.8329, -122.6775); Unnamed (43.8427, -122.6643); Unnamed (43.8433, -122.6950).

(vii) *Little Fall Creek Watershed 1709000108*. Outlet(s) = Little Fall Creek (Lat 43.9577, Long -122.8166) upstream to endpoint(s) in: Little Fall Creek (44.0579, -122.5440); Norton Creek (44.0006, -122.7044); Sturdy Creek (44.0196, -122.6475).

(viii) *Fall Creek Watershed 1709000109*. Outlet(s) = Fall Creek (Lat 43.9707, Long -122.8677) upstream to endpoint(s) in: Alder Creek (44.0000, -122.4993); Fall Creek (43.9922, -122.3758); Gold Creek (43.9772, -122.4051); Logan Creek (43.9447, -122.4504); Nelson Creek (43.9285, -122.6850); Portland Creek (43.9331, -122.4655); Sunshine Creek (43.9943, -122.4672); Winberry Creek (43.9142, -122.6890).

(ix) *Lower Middle Fork Willamette River Watershed 1709000110*. Outlet(s) = Middle Fork Willamette River (Lat 44.0226, Long -123.0169) upstream to endpoint(s) in: Hills Creek (43.9945, -122.8651); Middle Fork Willamette River (43.9495, -122.8471); Mill Race (44.0407, -123.0004); Pudding Creek (44.0173, -122.9501); Rattlesnake Creek (43.9352, -122.8608); Wallace Creek (44.0074, -122.8984).

(2) Unit 3. Upper Willamette Subbasin 17090003—(i) *Muddy Creek Watershed 1709000302*. Outlet(s) = Willamette River (Lat 44.6400, Long -123.1096) upstream to endpoint(s) in: Willamette River (44.0226, -123.0169).

(ii) *Calapooia River Watershed 1709000303*. Outlet(s) = Calapooia River (Lat 44.5088, Long -123.1101) upstream to endpoint(s) in: Calapooia River (44.2354, -122.4128).

(iii) *Oak Creek Watershed 1709000304*. Outlet(s) = Willamette River (Lat 44.7504, Long -123.1421) upstream to endpoint(s) in: Calapooia River (44.5088, -123.1101); Cox Creek (44.6417, -123.0680); First Lake (44.6471, -123.0725); Truax Creek (44.6560, -123.0598); Unnamed

(44.6603, -123.0590); Willamette River (44.6400, -123.1096).

(iv) *Marys River Watershed 1709000305*. Outlet(s) = Marys River (Lat 44.5566, Long -123.2597) upstream to endpoint(s) in: Beaver Creek (44.4554, -123.3748); Marys River (44.5373, -123.3762); Oak Creek (44.5636, -123.2932).

(v) *Luckiamute River Watershed 1709000306*. Outlet(s) = Luckiamute River (Lat 44.7561, Long -123.1468) upstream to endpoint(s) in: Soap Creek (44.7317, -123.2151); Unnamed (44.7661, -123.2011).

(3) Unit 4. McKenzie Subbasin 17090004—(i) *Upper McKenzie River Watershed 1709000401*. Outlet(s) = McKenzie River (Lat 44.1721, Long -122.2058) upstream to endpoint(s) in: Deer Creek (44.2677, -122.0712); Frissell Creek (44.2288, -122.0699); Lost Creek (44.1729, -122.0401); McKenzie River (44.3109, -122.0199); Scott Creek (44.1981, -122.0195); Smith River (44.2824, -122.0506).

(ii) *Horse Creek Watershed 1709000402*. Outlet(s) = West Fork Horse Creek (Lat 44.1721, Long -122.2058) upstream to endpoint(s) in: Cedar Swamp Creek (44.1563, -122.1132); Horse Creek (44.0602, -122.0087); King Creek (44.1635, -122.1693); Separation Creek (44.1274, -122.0077).

(iii) *South Fork McKenzie River Watershed 1709000403*. Outlet(s) = South Fork McKenzie River (Lat 44.1595, Long -122.2946) upstream to endpoint(s) in: Augusta Creek (43.9562, -122.1632); Cougar Creek (44.1397, -122.2437); East Fork South Fork McKenzie (44.0850, -122.0997); Elk Creek (43.9455, -122.0384); French Pete Creek (44.0402, -122.1854); Hardy Creek (44.0345, -122.2047); Rebel Creek (44.0167, -122.1505); Roaring River (43.9479, -122.0811); South Fork McKenzie River (43.9533, -121.9995).

(iv) *McKenzie River/Quartz Creek Watershed 1709000405*. Outlet(s) = McKenzie River (Lat 44.1112, Long -122.4209) upstream to endpoint(s) in: Cone Creek (44.1528, -122.3649); McKenzie River (44.1721, -122.2058); Quartz Creek (44.0188, -122.3015); Wycoff Creek (44.0846, -122.3143).

(v) *Mohawk River Watershed 1709000406*. Outlet(s) = Mohawk River (Lat 44.0860, Long -122.9741) upstream to endpoint(s) in: Cartwright Creek (44.1693, -122.8421); Cash Creek (44.2127, -122.8468); Drury Creek (44.2417, -122.8212); Log Creek (44.2616, -122.7967); McGowan Creek (44.1525, -122.9502); Mill Creek (44.1901, -122.6777); Mohawk River (44.2390, -122.6867); Nebo Creek (44.1765, -122.7087); Oshkosh Creek

(44.1949, -122.7316); Parsons Creek (44.1929, -122.9060); Shotgun Creek (44.2792, -122.8778); Spores Creek (44.1192, -122.9429); Unnamed (44.1079, -122.9705); Unnamed (44.1374, -122.8875); Unnamed (44.1455, -122.8787); Unnamed (44.1551, -122.8971); Unnamed (44.2673, -122.8487); Wade Creek (44.1688, -122.9007).

(vi) *Lower McKenzie River Watershed 1709000407*. Outlet(s) = McKenzie River (Lat 44.1255, Long -123.1059) upstream to endpoint(s) in: Boulder Creek (44.0601, -122.7825); Camp Creek (44.0896, -122.8544); Deer Creek (44.0895, -122.4234); Ennis Creek (44.0804, -122.3754); Finn Creek (44.1471, -122.5972); Forest Creek (44.0861, -122.7153); Haagen Creek (44.0880, -122.7126); Hatchery Creek (44.1449, -122.6056); Holden Creek (44.1056, -122.7061); Indian Creek (44.1526, -122.5816); Lane Creek (44.0928, -122.7323); Marten Creek (44.1075, -122.5046); McKenzie River (44.1112, -122.4209); North Fork Gate Creek (44.1718, -122.5248); Osborn Creek (44.0565, -122.7880); Ritchie Creek (44.1028, -122.6567); South Fork Gate Creek (44.1667, -122.4980); Taylor Creek (44.0783, -122.7481); Toms Creek (44.1316, -122.5586); Unnamed (44.0646, -122.9399); Waltherville Canal (44.0765, -122.7537).

(4) Unit 5. North Santiam Subbasin 17090005—(i) *Middle North Santiam River Watershed 1709000504*. Outlet(s) = North Santiam River (Lat 44.7852, Long -122.6079) upstream to endpoint(s) in: Mad Creek (44.7453, -122.3898); North Santiam River (44.7510, -122.2821); Rock Creek (44.7077, -122.4171); Snake Creek (44.7477, -122.4905).

(ii) *Little North Santiam River Watershed 1709000505*. Outlet(s) = Little North Santiam River (Lat 44.7852, Long -122.6079) upstream to endpoint(s) in: Elkhorn Creek (44.8134, -122.3561); Little North Santiam River (44.8390, -122.3364); Little Sinker Creek (44.8191, -122.4111); Sinker Creek (44.8166, -122.4174).

(iii) *Lower North Santiam River Watershed 1709000506*. Outlet(s) = Santiam River (Lat 44.7504, Long -123.1421) upstream to endpoint(s) in: Bear Branch (44.7559, -122.7974); Cold Creek (44.7522, -122.8848); Morgan Creek (44.7500, -123.0376); North Santiam River (44.7852, -122.6079); Salem Ditch (44.8000, -122.8120); Smallman Creek (44.7300, -122.9098); Stout Creek (44.7930, -122.6177); Trask Creek (44.7725, -122.6152); Unnamed (44.7672, -123.0517); Valentine Creek (44.8013, -122.7176).

(5) Unit 6. South Santiam Subbasin 17090006—(i) *Hamilton Creek/South Santiam River Watershed 1709000601*. Outlet(s) = South Santiam River (Lat 44.6869, Long -123.0052) upstream to endpoint(s) in: Hamilton Creek (44.5037, -122.7667); McDowell Creek (44.4580, -122.7128); Mill Creek (44.6750, -122.9721); Noble Creek (44.4519, -122.7976); South Santiam River (44.4163, -122.6693); Spring Branch (44.6821, -122.9811); Unnamed (44.6703, -122.9870); Unnamed (44.6801, -122.9786).

(ii) *Crabtree Creek Watershed 1709000602*. Outlet(s) = Crabtree Creek (Lat 44.6756, Long -122.9557) upstream to endpoint(s) in: Bald Peter Creek (44.5682, -122.5825); Beaver Creek (44.6271, -122.8504); Crabtree Creek (44.6058, -122.5405); Roaring River (44.6251, -122.7283); South Fork Crabtree Creek (44.5741, -122.5744).

(iii) *Thomas Creek Watershed 1709000603*. Outlet(s) = Thomas Creek (Lat 44.6778, Long -122.9654) upstream to endpoint(s) in: Jordan Creek (44.7531, -122.6595); Mill Creek (44.7055, -122.7842); Neal Creek (44.7101, -122.6912); South Fork Neal Creek (44.7033, -122.7078); Thomas Creek (44.6776, -122.4650).

(iv) *South Santiam River Watershed 1709000606*. Outlet(s) = South Santiam River (Lat 44.3977, Long -122.4491) upstream to endpoint(s) in: Falls Creek (44.4007, -122.3828); South Santiam River (44.3980, -122.2610).

(v) *South Santiam River/Foster Reservoir Watershed 1709000607*. Outlet(s) = South Santiam River (Lat 44.4163, Long -122.6693) upstream to endpoint(s) in: Middle Santiam River (44.4498, -122.5479); South Santiam River (44.3977, -122.4491).

(vi) *Wiley Creek Watershed 1709000608*. Outlet(s) = Wiley Creek (Lat 44.4140, Long -122.6752) upstream to endpoint(s) in: Little Wiley Creek (44.3673, -122.5916); Wiley Creek (44.3488, -122.5900).

(6) Unit 7. Middle Willamette Subbasin 17090007—(i) *Mill Creek/Willamette River Watershed 1709000701*. Outlet(s) = Mill Creek (Lat 44.9520, Long -123.0381) upstream to endpoint(s) in: Battle Creek (44.8387, -122.9839); Beaver Creek (44.8532, -122.8662); McKinney Creek (44.8270, -122.9631); Mill Creek (44.8255, -122.8226).

(ii) *Rickreall Creek Watershed 1709000702*. Outlet(s) = Willamette River (Lat 44.9288, Long -123.1124) upstream to endpoint(s) in: Willamette River (44.7504, -123.1421).

(iii) *Willamette River/Chehalem Creek Watershed 1709000703*. Outlet(s) = Willamette River (Lat 45.2552, Long

-122.8806) upstream to endpoint(s) in: Willamette River (44.9288, -123.1124).

(iv) *Abernethy Creek Watershed 1709000704*. Outlet(s) = Willamette River (Lat 45.3719, Long -122.6071) upstream to endpoint(s) in: Willamette River (45.2552, -122.8806).

(7) Unit 9. Molalla/Pudding Subbasin 17090009—(i) *Butte Creek/Pudding River Watershed 1709000902*. Outlet(s) = Pudding River (Lat 45.1907, Long -122.7527) upstream to endpoint(s) in: Butte Creek (45.0164, -122.5943); Pudding River (45.0740, -122.8525); Zollner Creek (45.0858, -122.7868).

(ii) *Rock Creek/Pudding River Watershed 1709000903*. Outlet(s) = Rock Creek (Lat 45.1907, Long -122.7527) upstream to endpoint(s) in: Rock Creek (45.1341, -122.7032).

(iii) *Senecal Creek/Mill Creek Watershed 1709000904*. Outlet(s) = Pudding River (Lat 45.2843, Long -122.7149) upstream to endpoint(s) in: Mill Creek (45.2220, -122.7691); Pudding River (45.1907, -122.7527).

(iv) *Upper Molalla River Watershed 1709000905*. Outlet(s) = Molalla River (Lat 45.1196, Long -122.5342) upstream to endpoint(s) in: Molalla River (44.9124, -122.3228); North Fork Molalla River (45.0872, -122.3849); Table Rock Fork Molalla River (44.9876, -122.2741).

(v) *Lower Molalla River Watershed 1709000906*. Outlet(s) = Molalla River (Lat 45.2979, Long -122.7141) upstream to endpoint(s) in: Gribble Creek (45.2146, -122.6988); Milk Creek (45.2278, -122.5670); Molalla River (45.1196, -122.5342).

(8) Unit 10. Clackamas Subbasin 17090011—(i) *Collawash River Watershed 1709001101*. Outlet(s) = Collawash River (Lat 45.0321, Long -122.0600) upstream to endpoint(s) in: Blister Creek (44.9594, -122.1590); Collawash River (44.9507, -122.0350); Hot Springs Fk Collawash River (44.9385, -122.1721); Nohorn Creek (44.9442, -122.1957).

(ii) *Upper Clackamas River 1709001102*. Outlet(s) = Clackamas River (Lat 45.0321, Long -122.0600) upstream to endpoint(s) in: Cabin Creek (45.0087, -121.8958); Clackamas River (44.8966, -121.8800); Cub Creek (44.8969, -121.8876); Granite Creek (45.0184, -121.9885); Hunter Creek (44.9086, -121.8929); Last Creek (44.9715, -121.8547); Lowe Creek (44.9487, -121.8983); Pot Creek (45.0149, -121.9084); Unnamed (44.9469, -121.8691); Wall Creek (44.9555, -121.8843).

(iii) *Oak Grove Fork Clackamas River Watershed 1709001103*. Outlet(s) = Oak Grove Fork Clackamas River (Lat 45.0746, Long -122.0520) upstream to

endpoint(s) in: Oak Grove Fork Clackamas River (45.0822, -121.9859).

(iv) *Middle Clackamas River Watershed 1709001104*. Outlet(s) = Clackamas River (Lat 45.2440, Long -122.2798) upstream to endpoint(s) in: Clackamas River (45.0321, -122.0600); Fish Creek (45.0962, -122.1683); North Fork Clackamas River (45.2361, -122.2186); Roaring River (45.1773, -122.0650); South Fork Clackamas

River (45.1939, -122.2257); Tag Creek (45.0607, -122.0512); Tar Creek (45.0494, -122.0570).

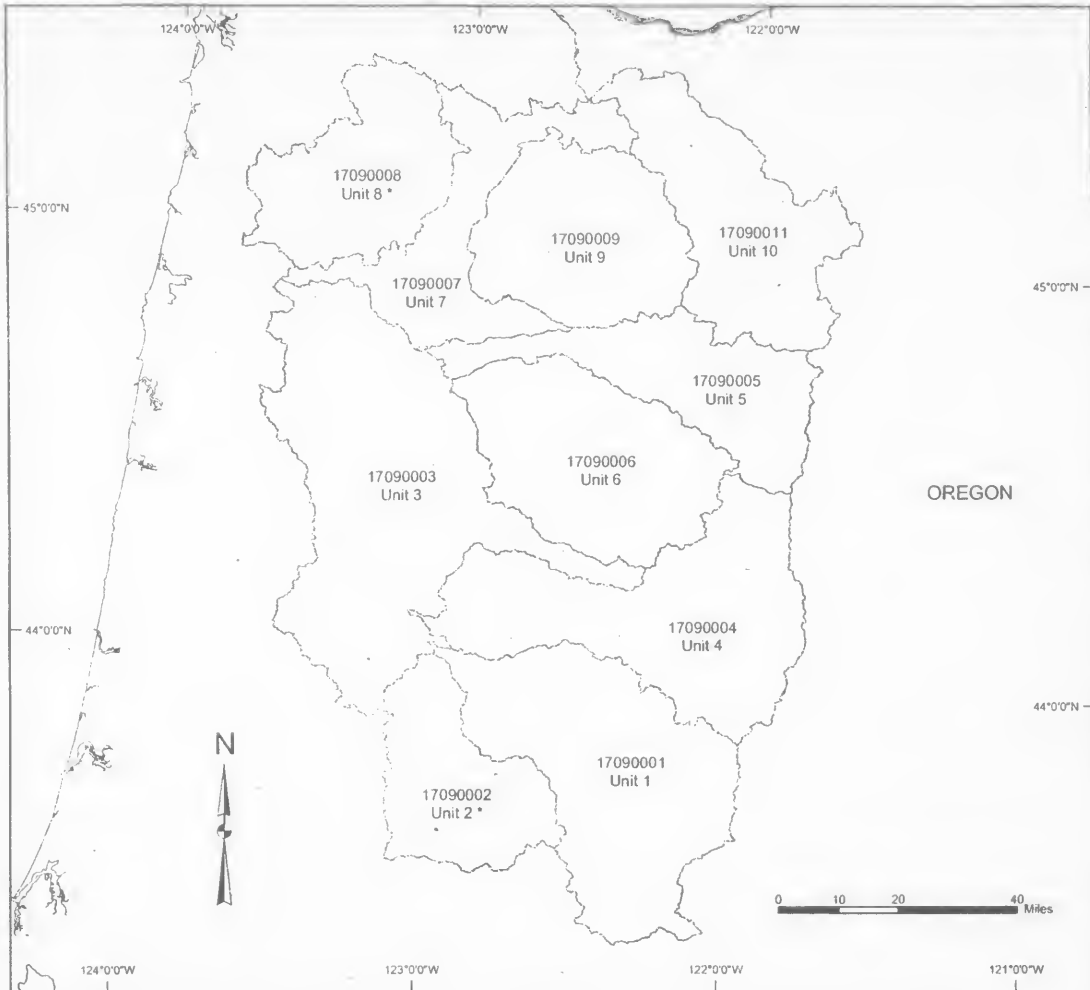
(v) *Lower Clackamas River Watershed 1709001106*. Outlet(s) = Clackamas River (Lat 45.3719, Long -122.6071) upstream to endpoint(s) in: Clackamas River (45.2440, -122.2798); Clear Creek (45.3568, -122.4781); Deep Creek (45.3937, -122.4095); Richardson Creek (45.3971, -122.4712).

(9) Unit 11. Lower Willamette/ Columbia River Corridor—*Lower Willamette/Columbia River Corridor*. Outlet(s) = Columbia River (Lat 46.2485, Long -124.0782) upstream to endpoint(s) in: Willamette River (45.3719, -122.6071).

(10) Maps of proposed critical habitat for the Upper Willamette River chinook salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Upper Willamette River Chinook Salmon ESU



Legend

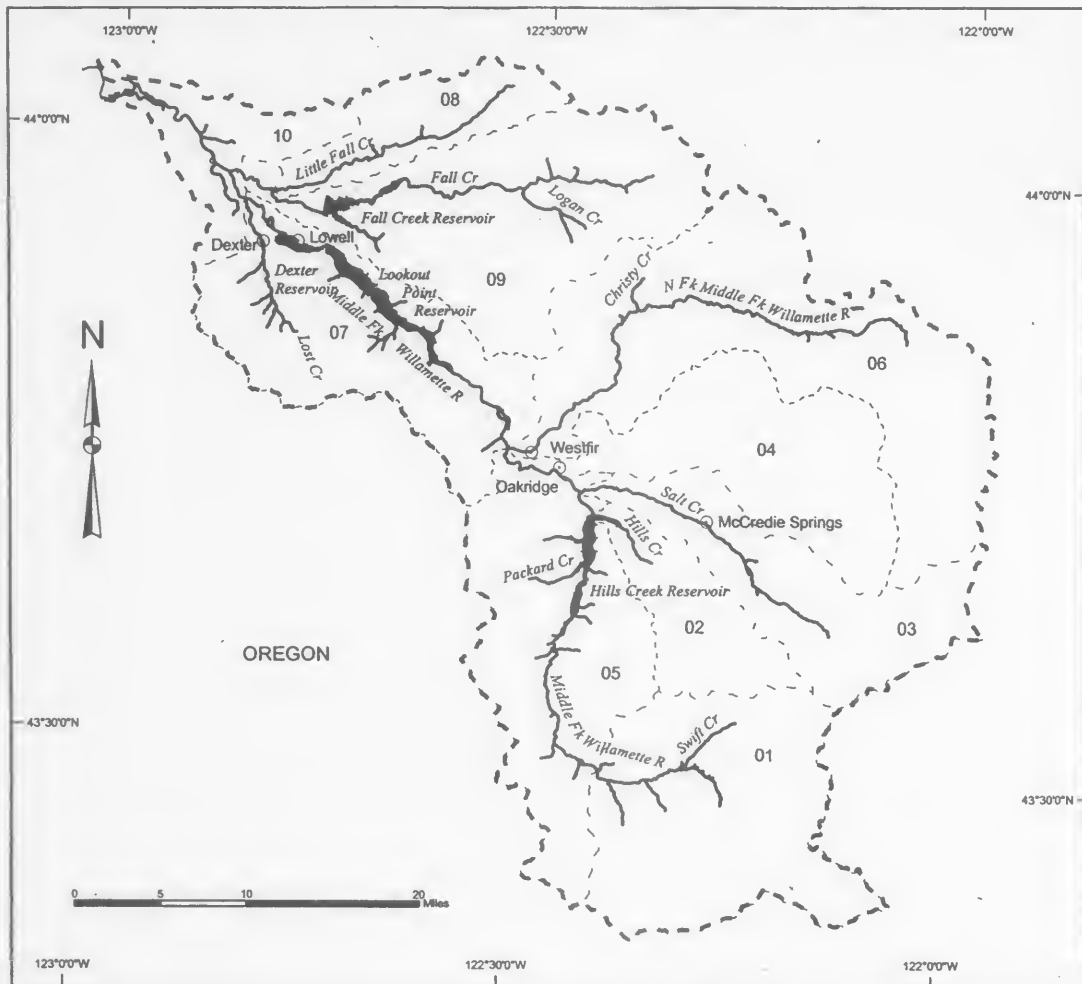
- State Boundaries
- Subbasin Boundaries
- Water Bodies

* All habitat areas in unit are proposed for exclusion

Area of Detail

**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**MIDDLE FORK WILLAMETTE SUBBASIN
17090001, Unit 1**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · - · - Watershed Boundaries

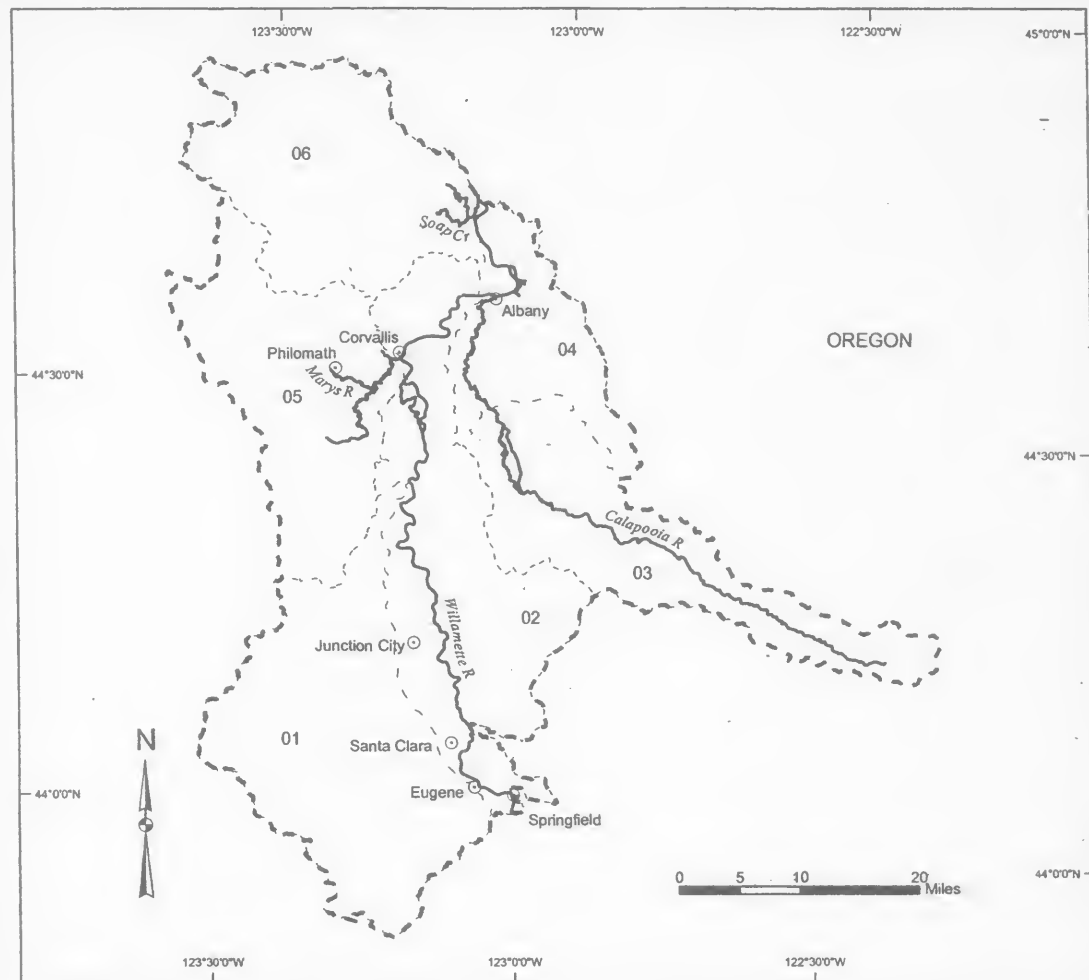
01 - 10 = Watershed code - last 2 digits of 17090001xx

Area of Detail



**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**UPPER WILLAMETTE SUBBASIN
170900003, Unit 3**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

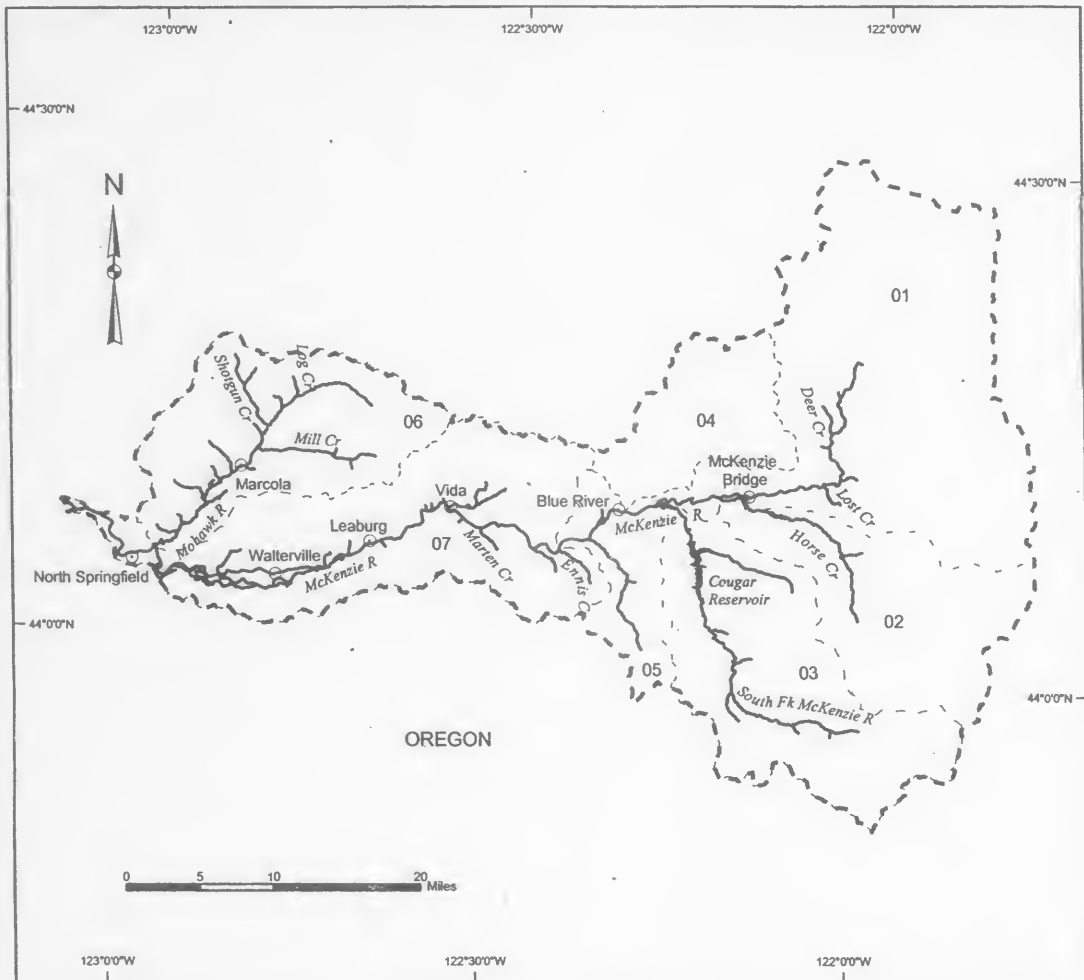
01 - 06 = Watershed code - last 2 digits of 17090003xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A shaded area in the western part of Oregon indicates the location of the Upper Willamette Subbasin.

**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**MCKENZIE SUBBASIN
17090004, Unit 4**



Legend

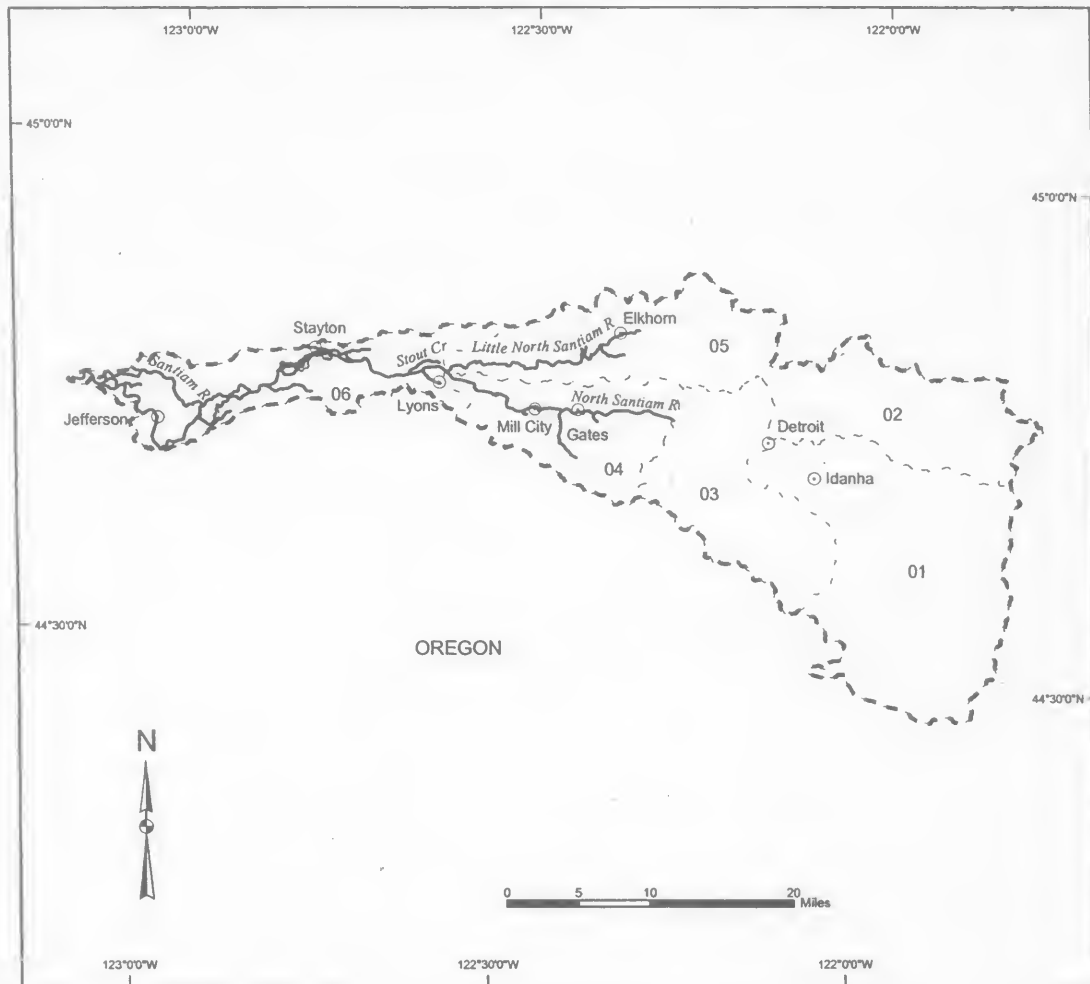
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17090004xx

Area of Detail

**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**NORTH SANTIAM SUBBASIN
17090005, Unit 5**



Legend

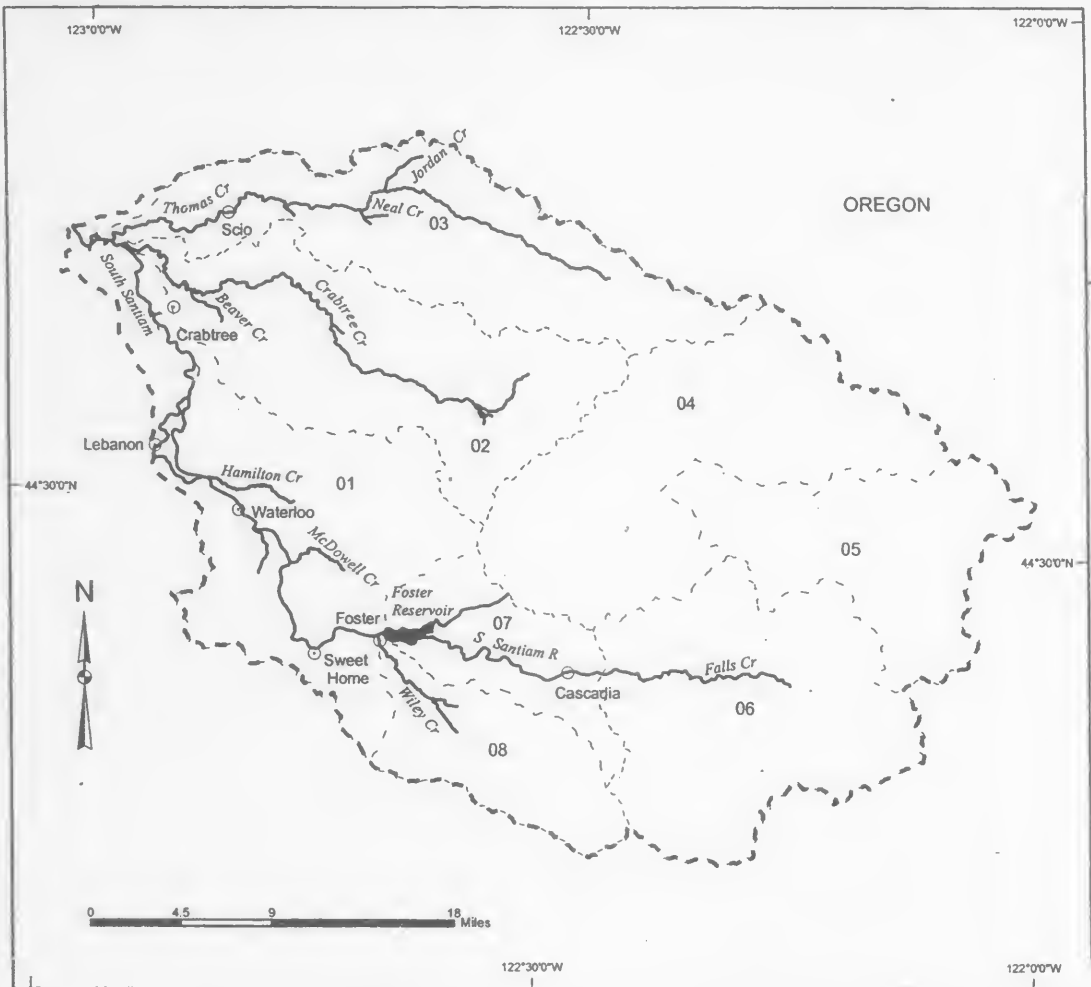
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 06 = Watershed code - last 2 digits of 17090005xx



Proposed Critical Habitat for the Upper Willamette River Chinook Salmon ESU

SOUTH SANTIAM SUBBASIN
17090006, Unit 6



Legend

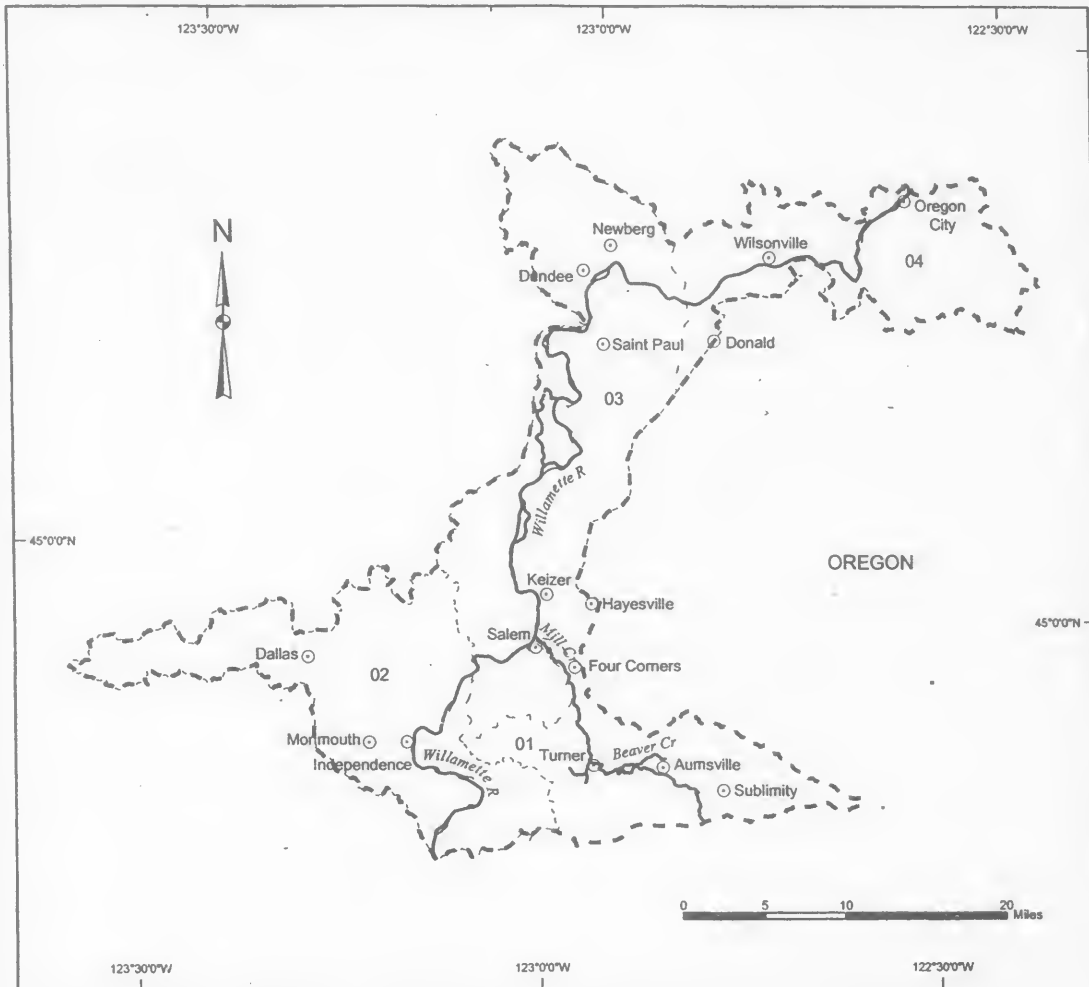
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17090006xx



**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**MIDDLE WILLAMETTE SUBBASIN
17090007, Unit 7**



Legend

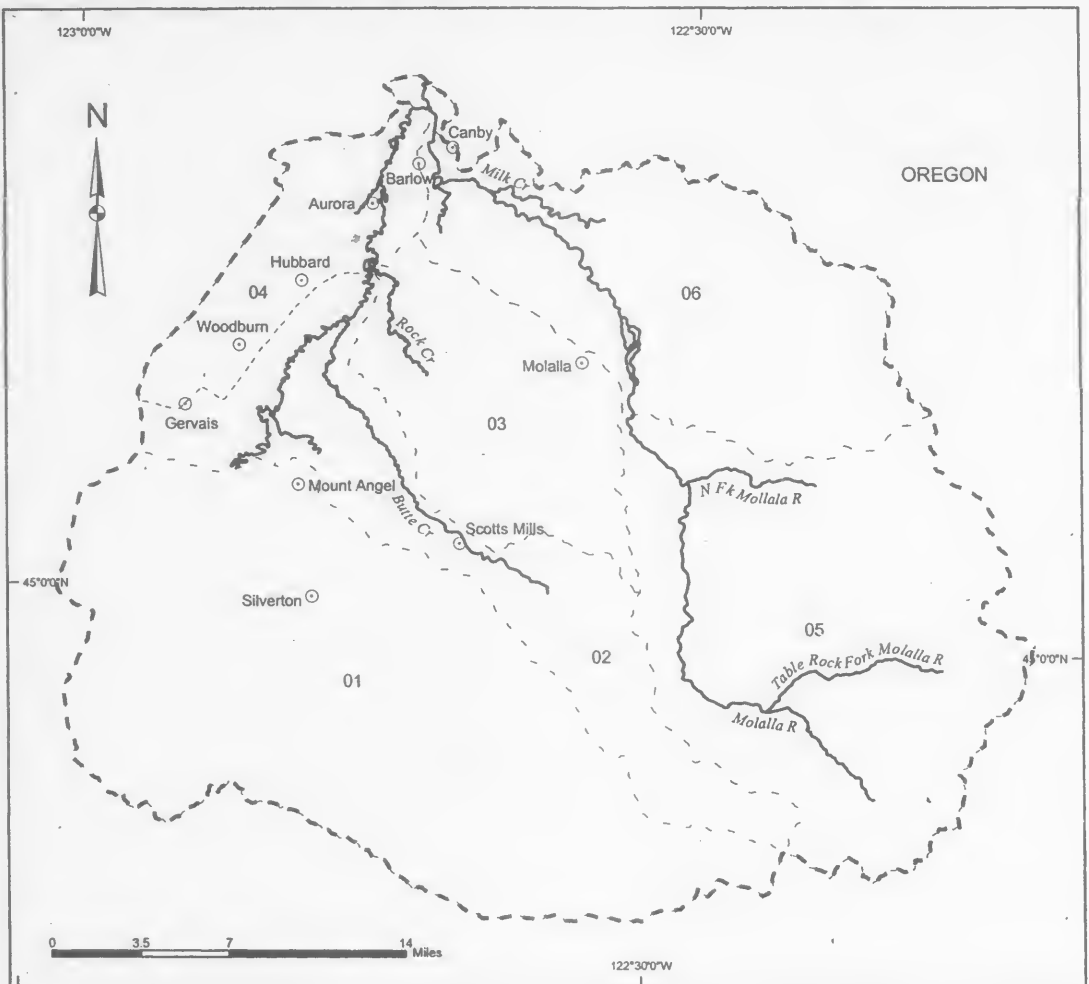
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17090007xx

Area of Detail

**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**MOLALLA / PUDDING SUBBASIN
17090009, Unit 9**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- - - - Watershed Boundaries

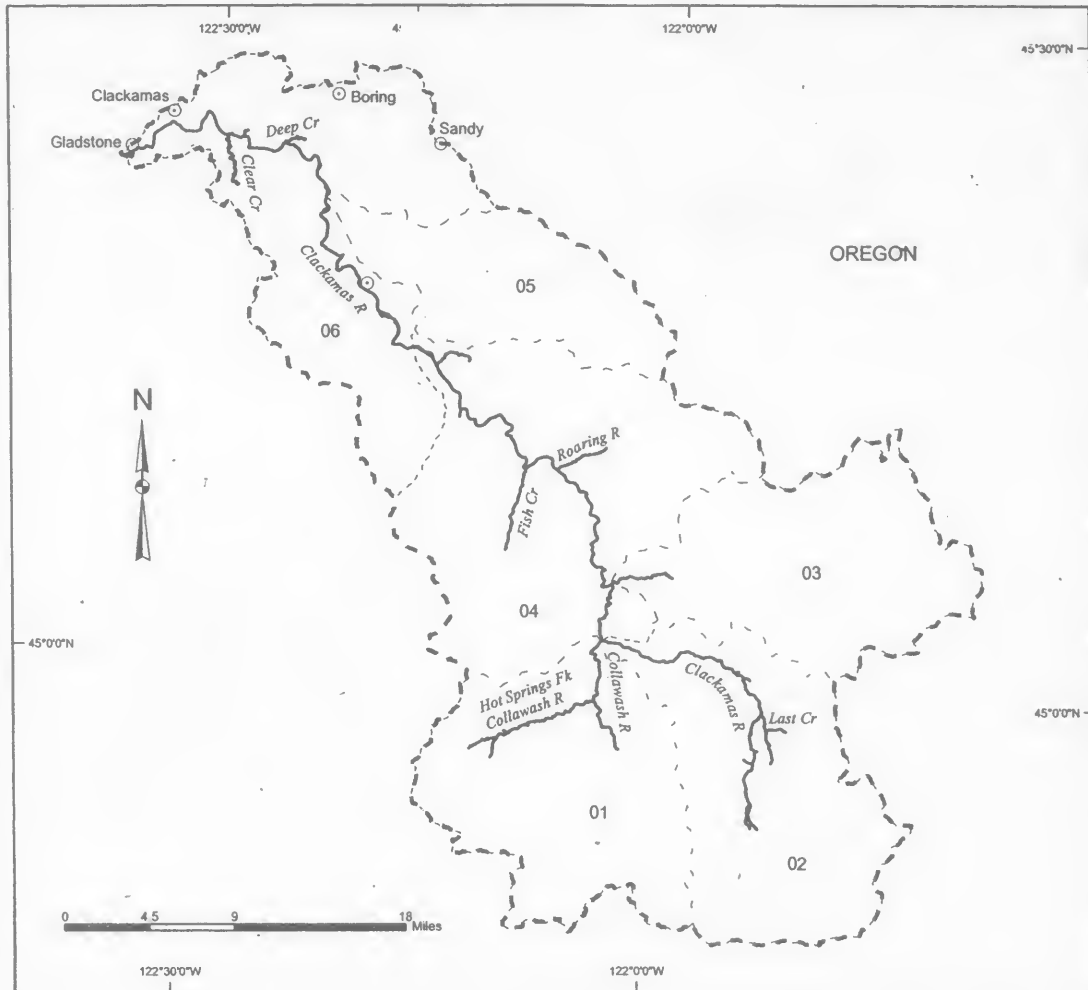
01 - 06 = Watershed code - last 2 digits of 17090009xx

Area of Detail



**Proposed Critical Habitat for the
Upper Willamette River Chinook Salmon ESU**

**CLACKAMAS SUBBASIN
17090011, Unit 10**



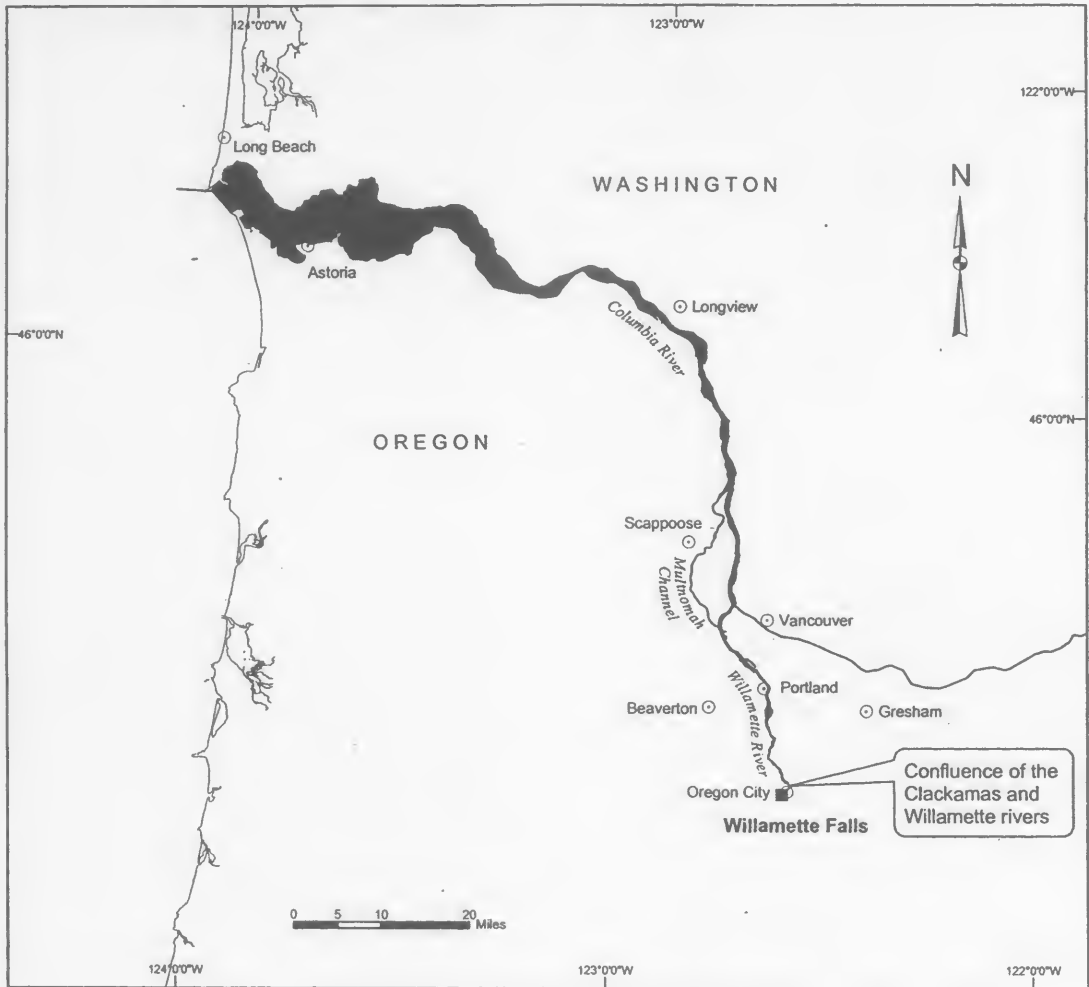
Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries


01 - 06 = Watershed code - last 2 digits of 17110011xx



Rearing / Migration Corridor for the Upper Willamette River Chinook Salmon ESU, Unit 11



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Upper Willamette River Chinook ESU

Unit 11. Lower Willamette / Columbia River Corridor
 The lower Willamette / Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to the confluence of the Clackamas and Willamette rivers, including the Multnomah Channel portion of the lower Willamette River.

(i) Upper Columbia River Spring Chinook Salmon (*Oncorhynchus*

tshawytscha). Critical habitat is

proposed to include the areas defined in the following units:

(1) Unit 1. Chief Joseph Subbasin 17020005—*Upper Columbia/Swamp Creek Watershed 1702000505*. Outlet(s) = Columbia River (Lat 47.8077, Long - 119.9754) upstream to endpoint(s) in: Columbia River (48.0502, - 119.8942).

(2) Unit 2. Methow Subbasin 17020008—(i) *Lost River Watershed 1702000801*. Outlet(s) = Lost River Gorge (Lat 48.6501, Long - 120.5103) upstream to endpoint(s) in: Eureka Creek (48.7020, - 120.4986); Lost River Gorge (48.7324, - 120.4475).

(ii) *Upper Methow River Watershed 1702000802*. Outlet(s) = Methow River (Lat 48.6015, Long - 120.4376) upstream to endpoint(s) in: Early Winters Creek (48.5999, - 120.5840); Methow River (48.6417, - 120.6150); Rattlesnake Creek (48.6523, - 120.5733); Robinson Creek (48.6680, - 120.5394); South Fork Trout Creek (48.6448, - 120.6030).

(iii) *Upper Chewuch River Watershed 1702000803*. Outlet(s) = Chewuch River (Lat 48.7501, Long - 120.1356) upstream to endpoint(s) in: Andrews Creek (48.7855, - 120.1087); Chewuch River (48.8614, - 120.0288); Dog Creek (48.8218, - 120.0151); Lake Creek (48.8258, - 120.1996); Thirtymile Creek (48.8109, - 120.0199).

(iv) *Lower Chewuch River Watershed 1702000804*. Outlet(s) = Chewuch River (Lat 48.4751, Lat - 120.1790) upstream to endpoint(s) in: Boulder Creek (48.5797, - 120.1538); Chewuch River (48.7501, - 120.1356); Cub Creek (48.5513, - 120.1899); Eightmile Creek (48.6071, - 120.1775); Lake Creek (48.4926, - 120.1629); Twentymile Creek (48.7029, - 120.1117).

(v) *Twisp River Watershed 1702000805*. Outlet(s) = Twisp River (Lat 48.3682, Long - 120.1176) upstream to endpoint(s) in: Buttermilk Creek (48.3528, - 120.3239); Eagle Creek (48.3584, - 120.3914); North Creek (48.4587, - 120.5595); Poorman Creek (48.3674, - 120.1997); South Creek (48.4330, - 120.5431); Twisp River (48.4615, - 120.5764); War Creek (48.3649, - 120.4030).

(vi) *Middle Methow River Watershed 1702000806*. Outlet(s) = Methow River (Lat 48.2495, Long - 120.1156) upstream to endpoint(s) in: Bear Creek (48.4527, - 120.1423); Goat Creek (48.5888, - 120.3705); Little Boulder Creek (48.5700, - 120.3797); Methow River (48.6015, - 120.4376); Wolf Creek (48.4776, - 120.2840) Unnamed (48.4896, - 120.2116).

(vii) *Lower Methow River Watershed 1702000807*. Outlet(s) = Methow River (Lat 48.0502, Long - 119.8942) upstream to endpoint(s) in: Methow River (48.2495, - 120.1156).

(3) Unit 3. Upper Columbia/Entiat Subbasin 17020010—(i) *Entiat River Watershed 1702001001*. Outlet(s) = Entiat River (Lat 47.6585, Long - 120.2194) upstream to endpoint(s) in: Entiat River (47.9855, - 120.5749); Hornet Creek (47.7714, - 120.4403); Mad River (47.7804, - 120.4403); Tillicum Creek (47.7295, - 120.4304).

(ii) *Lake Entiat Watershed 1702001002*. Outlet(s) = Columbia River (Lat 47.3438, Long - 120.0929) upstream to endpoint(s) in: Columbia River (47.8077, - 119.9754).

(4) Unit 4. Wenatchee Subbasin 17020011—(i) *White River Watershed 1702001101*. Outlet(s) = White River

(Lat 47.8088, Long - 120.7159) upstream to endpoint(s) in: Little Wenatchee River (47.8526, - 120.9541); Napeequa River (47.9285, - 120.8829); Panther Creek (47.9355, - 120.9482); White River (47.9535, - 120.9380).

(ii) *Chiwawa River Watershed 1702001102*. Outlet(s) = Chiwawa River (Lat 47.7880, Long - 120.6589) upstream to endpoint(s) in: Alder Creek (47.8483, - 120.6587); Chikamin Creek (47.9785, - 120.7194); Chiwawa River (48.1048, - 120.8773); Goose Creek (47.8392, - 120.6461); Minnow Creek (47.9137, - 120.7182); Phelps Creek (48.0794, - 120.8400); Unnamed (48.0366, - 120.7615).

(iii) *Nason/Tumwater Watershed 1702001103*. Outlet(s) = Wenatchee River (Lat 47.5801, Long - 120.6660) upstream to endpoint(s) in: Chiwaukum Creek (47.7039, - 120.7791); Nason Creek (47.7769, - 120.9103); Skinney Creek (47.6894, - 120.7351).

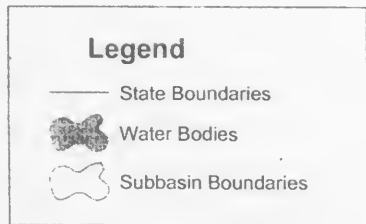
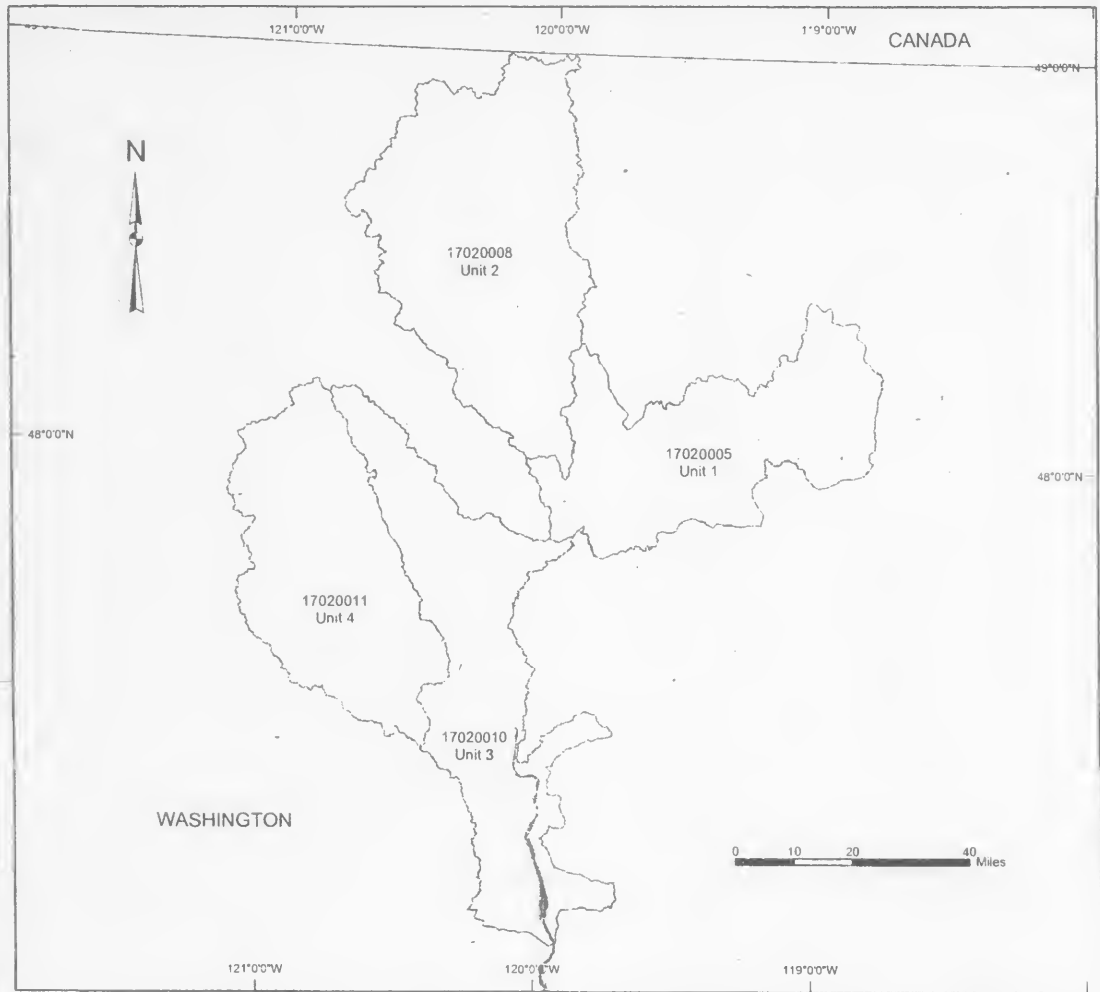
(iv) *Icicle/Chumstick Watershed 1702001104*. Outlet(s) = Wenatchee River (Lat 47.5575, Long - 120.5729) upstream to endpoint(s) in: Wenatchee River (47.5801, - 120.6660).

(v) *Lower Wenatchee River Watershed 1702001105*. Outlet(s) = Wenatchee River (Lat 47.4553, Long - 120.3185) upstream to endpoint(s) in: Wenatchee River (47.5575, - 120.5729).

(5) Unit 5. Columbia River Corridor—*Columbia River Corridor*. Outlet(s) = Columbia River (Lat 46.2485, Long - 124.0782) upstream to endpoint(s) in: Columbia River (47.3438, - 120.0929).

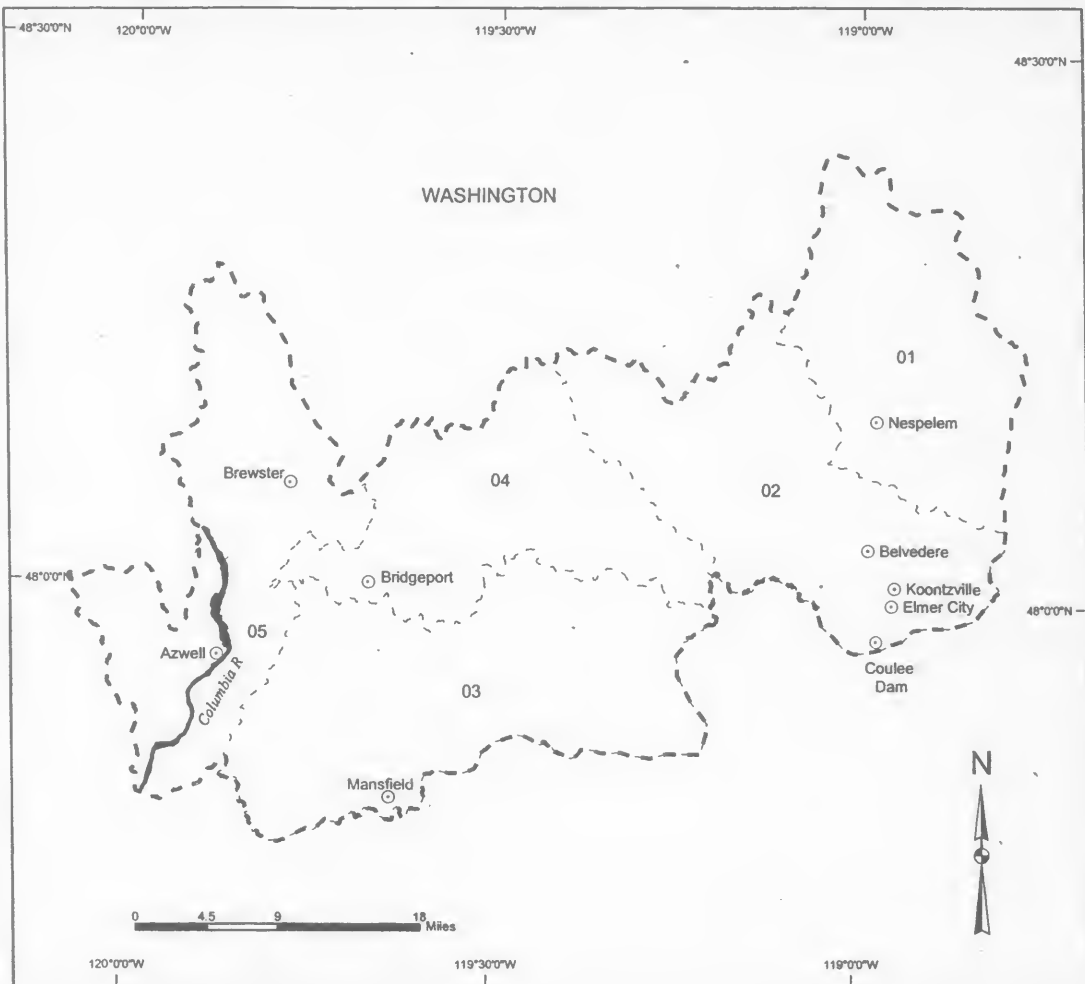
(6) Maps of proposed critical habitat for the Upper Columbia River Spring-run chinook salmon ESU follow:

Map of the Upper Columbia River Spring-run Chinook Salmon ESU



**Proposed Critical Habitat for the
Upper Columbia River Spring-run Chinook Salmon ESU**

**CHIEF JOSEPH SUBBASIN
17020005, Unit 1**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17020005xx

Area of Detail



**Proposed Critical Habitat for the
Upper Columbia River Spring-run Chinook Salmon ESU**

**METHOW SUBBASIN
17020008, Unit 2**



Legend

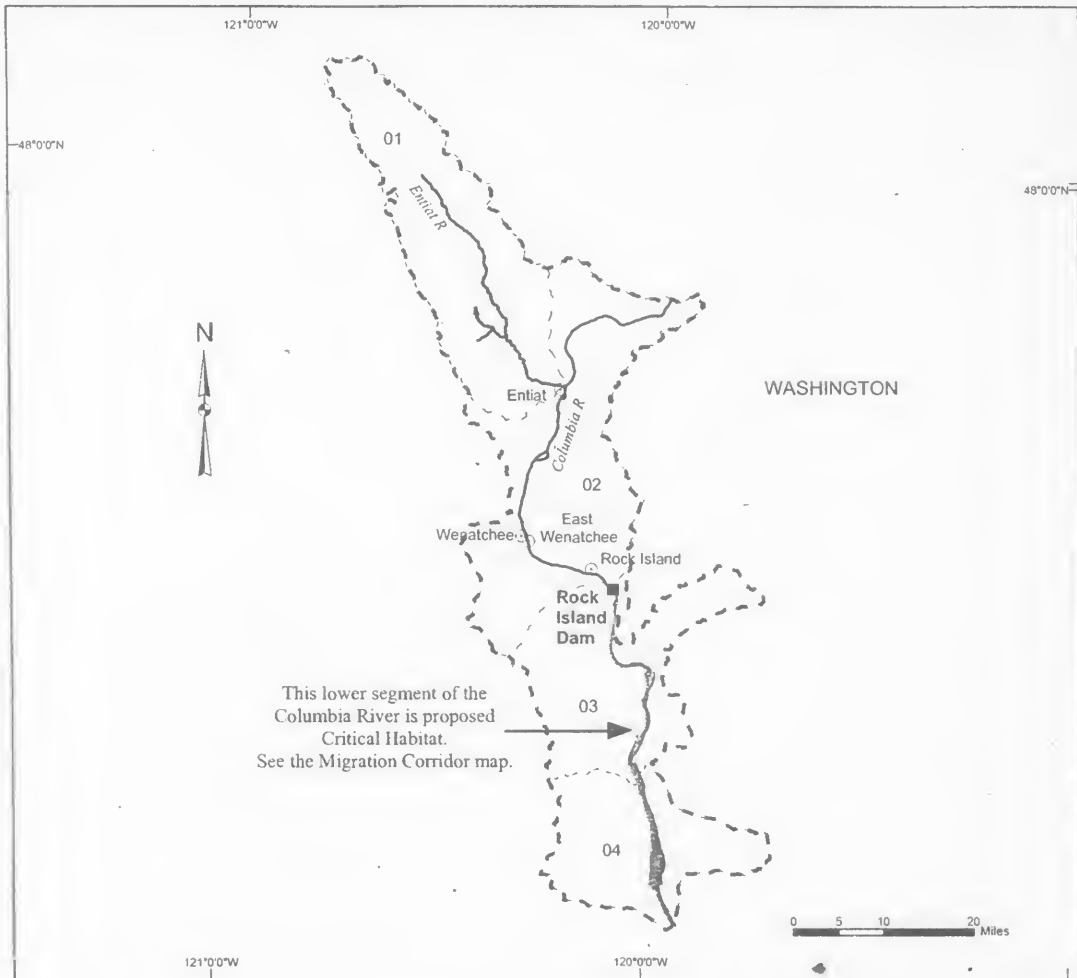
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17020008xx



**Proposed Critical Habitat for the
Upper Columbia River Spring-run Chinook Salmon ESU**

**UPPER COLUMBIA / ENTIAT SUBBASIN
17020010, Unit 3**



Legend

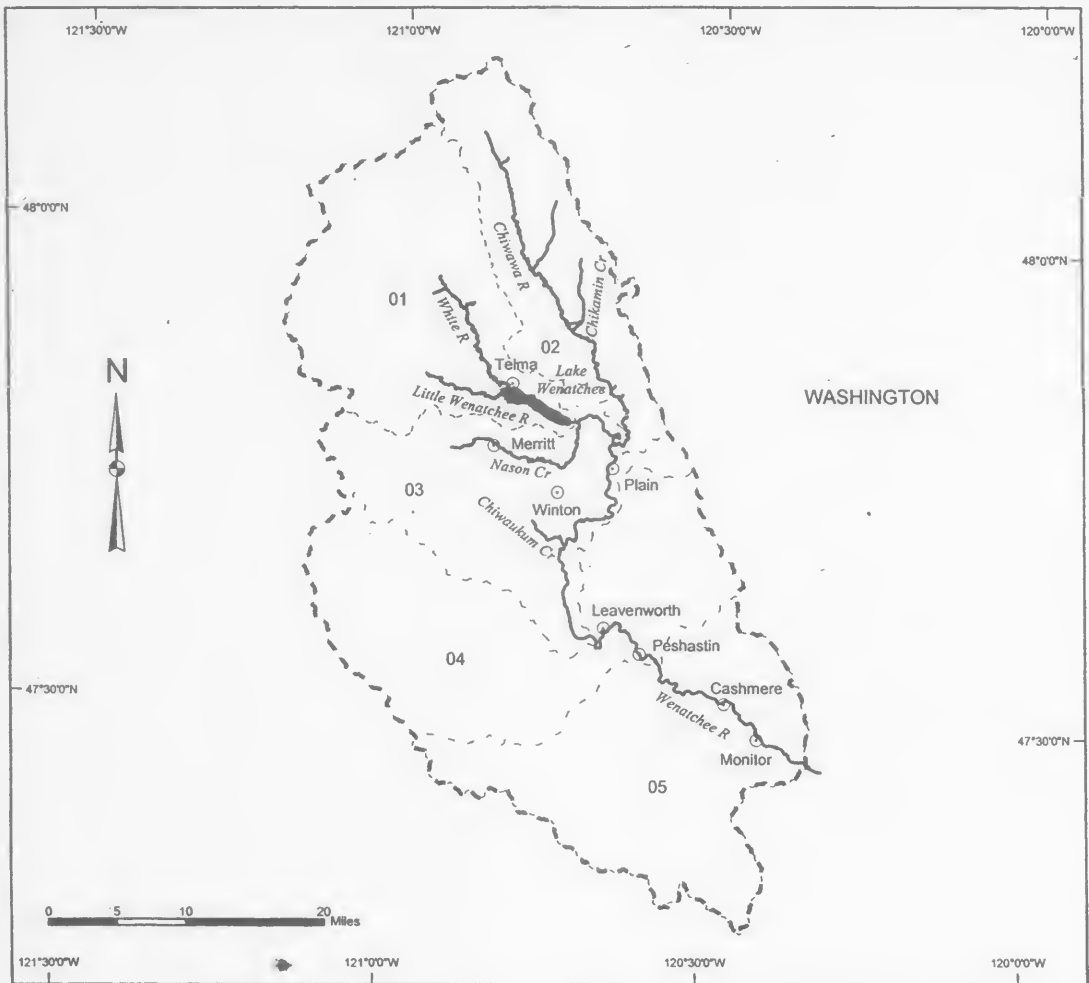
- Cities / Towns
- ~ Proposed Critical Habitat
- Water Body
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17020010xx



**Proposed Critical Habitat for the
Upper Columbia River Spring-run Chinook Salmon ESU**

**WENATCHEE SUBBASIN
17020011, Unit 4**



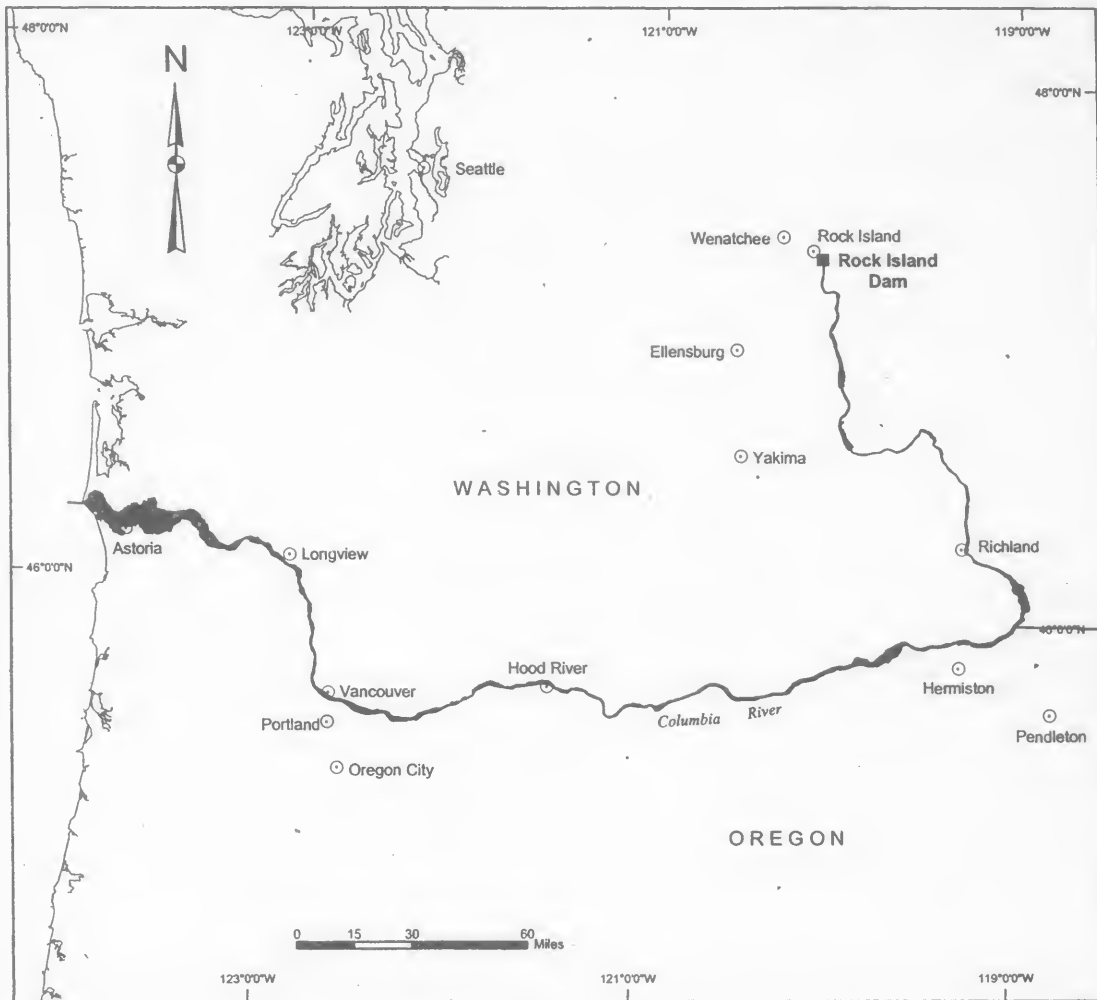
Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- - - Watershed Boundaries


01 - 05 = Watershed code - last 2 digits of 17020011xx



**Rearing / Migration Corridor for the
Upper Columbia River Spring-run Chinook Salmon ESU, Unit 5**



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Upper Columbia River Spring Chinook ESU

Unit 5. Columbia River Corridor
The Columbia River Corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to Rock Island Dam.

(1) Unit 1. Necanicum Subbasin
 17100201—Necanicum River Watershed
 1710020101. Outlet(s) = Arch Cape
 Creek (Lat 45.8035, Long - 123.9656);
 Asbury Creek (45.8150, - 123.9624);
 Ecola Creek (45.8959, - 123.9649);
 Necanicum River (46.0113, - 123.9264);
 Short Sand Creek (45.7595, - 123.9641)
 upstream to endpoint(s) in: Arch Cape
 Creek (45.8044, - 123.9404); Asbury
 Creek (45.8150, - 123.9584); Beerman
 Creek (45.9557, - 123.8749); Bergsvik
 Creek (45.8704, - 123.7650); Brandis
 Creek (45.8894, - 123.8529); Charlie
 Creek (45.9164, - 123.7606); Circle
 Creek (45.9248, - 123.9436); Circle
 Creek Trib A (45.9335, - 123.9457);
 North Fork Ecola Creek (45.8705,
 - 123.9070); West Fork Ecola Creek
 (45.8565, - 123.9424); Grindy Creek
 (45.9179, - 123.7390); Hawley Creek
 (45.9259, - 123.8864); Joe Creek
 (45.8747, - 123.7503); Johnson Creek
 (45.8885, - 123.8816); Klootchie Creek
 (45.9450, - 123.8413); Klootchie Creek
 Trib A (45.9250, - 123.8447); Lindsley
 Creek (45.9198, - 123.8339); Little
 Humbug Creek (45.9235, - 123.7653);
 Little Joe Creek (45.8781, - 123.7852);
 Little Muddy Creek (45.9551,
 - 123.9559); Mail Creek (45.8887,
 - 123.8655); Meyer Creek (45.9279,
 - 123.9135); Mill Creek (46.0245,
 - 123.8905); Mill Creek Trib 1 (46.0142,
 - 123.8967); Neacoxie Creek (46.0245,
 - 123.9157); Neawanna Creek (45.9810,
 - 123.8809); Necanicum River (45.9197,
 - 123.7106); North Fork Necanicum
 River (45.9308, - 123.7986); North Fork
 Necanicum River Trib A (45.9398,
 - 123.8109); South Fork Necanicum
 River (45.8760, - 123.8122); Shangrila
 Creek (45.9706, - 123.8778); Short Sand
 Creek (45.7763, - 123.9406); Thompson
 Creek (46.0108, - 123.8951); Tolovana
 Creek (45.8581, - 123.9370); Unnamed
 (45.8648, - 123.9371); Unnamed
 (45.8821, - 123.9318); Unnamed
 (45.8881, - 123.7436); Unnamed
 (45.8883, - 123.9366); Unnamed
 (45.8906, - 123.7460); Unnamed
 (45.8912, - 123.9433); Unnamed
 (45.8950, - 123.8715); Unnamed
 (45.9026, - 123.9540); Unnamed
 (45.9046, - 123.9578); Unnamed
 (45.9050, - 123.9585); Unnamed
 (45.9143, - 123.8656); Unnamed
 (45.9161, - 123.9000); Unnamed
 (45.9210, - 123.8668); Unnamed
 (45.9273, - 123.8499); Unnamed
 (45.9292, - 123.8900); Unnamed
 (45.9443, - 123.9038); Unnamed
 (45.9850, - 123.8999); Unnamed
 (46.0018, - 123.8998); Volmer Creek
 (45.9049, - 123.9139); Warner Creek
 (45.8887, - 123.7801); Williamson
 Creek (45.9522, - 123.9060).

(2) Unit 2. Nehalem Subbasin
 17100202—(i) Upper Nehalem River
 Watershed 1710020201. Outlet(s) =
 Nehalem River (Lat 45.9019, Long
 - 123.1442) upstream to endpoint(s) in:
 Bear Creek (45.7781, - 123.4252); Bear
 Creek (45.8556, - 123.2205); Beaver
 Creek (45.7624, - 123.2073); Beaver
 Creek Trib A (45.8071, - 123.2143);
 Beaver Creek Trib B (45.7711,
 - 123.2318); Carlson Creek (45.7173,
 - 123.3425); Castor Creek (45.7103,
 - 123.2698); Cedar Creek (45.8528,
 - 123.2928); Clear Creek, Lower North
 Fork (45.8229, - 123.3111); Clear Creek
 (45.8239, - 123.3531); Coal Creek Trib B
 (45.8149, - 123.1174); Coal Creek
 (45.7978, - 123.1293); Coon Creek
 (45.8211, - 123.1446); Dell Creek
 (45.7919, - 123.1559); Derby Creek
 (45.7225, - 123.3857); Dog Creek
 (45.8957, - 123.0741); Elk Creek
 (45.8256, - 123.1290); Fall Creek
 (45.8626, - 123.3247); Ginger Creek
 (45.8520, - 123.3511); Ivy Creek
 (45.8938, - 123.3160); Jim George Creek
 (45.8009, - 123.1041); Kenusky Creek
 (45.8859, - 123.0422); Kist Creek
 (45.7826, - 123.2507); Lousignont Creek
 (45.7424, - 123.3722); Lousignont
 Creek, North Fork (45.7463,
 - 123.3576); Martin Creek (45.8474,
 - 123.4025); Maynard Creek (45.8556,
 - 123.3038); Military Creek (45.8233,
 - 123.4812); Nehalem River (45.7269,
 - 123.4159); Nehalem River, East Fork
 (45.8324, - 123.0502); Olson Creek
 (45.8129, - 123.3853); Pebble Creek
 (45.7661, - 123.1357); Pebble Creek,
 West Fork (45.7664, - 123.1899);
 Robinson Creek (45.7363, - 123.2512);
 Rock Creek (45.8135, - 123.5201); Rock
 Creek, North Fork (45.8616,
 - 123.4560); Rock Creek, South Fork
 (45.7598, - 123.4249); Rock Creek Trib
 C (45.7957, - 123.4882); South Fork
 Rock Creek Trib A (45.7753,
 - 123.4586); South Fork Nehalem River
 (45.7073, - 123.4017); Selder Creek
 (45.8975, - 123.3806); South Fork Clear
 Creek (45.8141, - 123.3484); South
 Prong Clear Creek (45.7832,
 - 123.2975); Step Creek (45.6824,
 - 123.3348); Swamp Creek (45.8217,
 - 123.2004); Unnamed (45.7270,
 - 123.3419); Unnamed (45.8095,
 - 123.0908); Unnamed (45.7558,
 - 123.2630); Unnamed (45.7938,
 - 123.3847); Unnamed (45.7943,
 - 123.4059); Unnamed (45.8197,
 - 123.0679); Unnamed (45.8477,
 - 123.0734); Unnamed (45.8817,
 - 123.1266); Unnamed (45.8890,
 - 123.3817); Unnamed (45.9019,
 - 123.1346); Weed Creek (45.8707,
 - 123.4049); Wolf Creek, South Fork
 (45.7989, - 123.4028); Wolf Creek
 (45.7768, - 123.3556).

(ii) Middle Nehalem River Watershed
 1710020202. Outlet(s) = Nehalem River
 (Lat 45.9838, Long - 123.4214)
 upstream to endpoint(s) in: Adams
 Creek (46.0263, - 123.2869); Archibald
 Creek (45.9218, - 123.0829); Beaver
 Creek (46.0554, - 123.2985); Boxler
 Creek (46.0486, - 123.3521); Calvin
 Creek (45.9514, - 123.2976); Cedar
 Creek (45.9752, - 123.1143); Cook Creek
 (45.9212, - 123.1087); Cow Creek
 (46.0500, - 123.4326); Crooked Creek
 (45.9043, - 123.2689); Deep Creek
 (45.9461, - 123.3719); Deep Creek Trib
 A (45.9127, - 123.3794); Deep Creek
 Trib B (45.9314, - 123.3809); Deer
 Creek (45.9033, - 123.3142); Eastman
 Creek (46.0100, - 123.2262); Fall Creek
 (45.9438, - 123.2012); Fishhawk Creek
 (46.0596, - 123.3857); Fishhawk Creek,
 North Fork (46.0907, - 123.3675);
 Fishhawk Creek, Trib C (46.0808,
 - 123.3692); Ford Creek (46.0570,
 - 123.2872); Gus Creek (45.9828,
 - 123.1453); Johnson Creek (46.0021,
 - 123.2133); Lane Creek (45.9448,
 - 123.3253); Little Deer Creek (45.9378,
 - 123.2780); Lousignont Creek (46.0342,
 - 123.4186); Lundgren Creek (46.0240,
 - 123.2092); McCoon Creek (46.0665,
 - 123.3043); Messing Creek (46.0339,
 - 123.2260); Nehalem River (45.9019,
 - 123.1442); Northrup Creek (46.0672,
 - 123.4377); Oak Ranch Creek (45.9085,
 - 123.0834); Sager Creek (45.9388,
 - 123.4020); Unnamed (45.9039,
 - 123.2044); Unnamed (45.9067,
 - 123.0595); Unnamed (45.9488,
 - 123.2220); Unnamed (45.9629,
 - 123.3845); Unnamed (45.9999,
 - 123.1732); Unnamed (46.0088,
 - 123.4508); Unnamed (46.0208,
 - 123.4588); Unnamed (46.0236,
 - 123.2381); Unnamed (46.0308,
 - 123.3135); Unnamed (46.0325,
 - 123.4650); Unnamed (46.0390,
 - 123.3648); Unnamed (46.0776,
 - 123.3274); Unnamed (46.0792,
 - 123.3409); Unnamed (46.0345,
 - 123.2956); Warner Creek (46.0312,
 - 123.3817); Wrong Way Creek
 (46.0789, - 123.3142).

(iii) Lower Nehalem River Watershed
 1710020203. Outlet(s) = Nehalem River
 (Lat 45.7507, Long - 123.6530)
 upstream to endpoint(s) in: Alder Creek
 (45.9069, - 123.5907); Beaver Creek
 (45.8949, - 123.6764); Big Creek
 (45.8655, - 123.6476); Bull Heifer Creek
 (45.9908, - 123.5322); Buster Creek
 (45.9306, - 123.4165); Cedar Creek
 (45.8931, - 123.6029); Cow Creek
 (45.8587, - 123.5206); Crawford Creek
 (45.9699, - 123.4725); Cronin Creek,
 Middle Fork (45.7719, - 123.5747);
 Cronin Creek, North Fork (45.7795,
 - 123.6064); Cronin Creek, South Fork
 (45.7456, - 123.5596); Destruction

Creek (45.8750, -123.6571); East Humbug Creek (45.9454, -123.6358); Fishhawk Creek (45.9666, -123.5895); Fishhawk Creek (46.0224, -123.5374); George Creek (45.8461, -123.6226); George Creek (45.9118, -123.5766); Gilmore Creek (45.9609, -123.5372); Hamilton Creek (46.0034, -123.5881); Klimes Creek (45.8703, -123.4908); Larsen Creek (45.8757, -123.5847); Little Fishhawk Creek (45.9256, -123.5501); Little Rock Creek (45.8886, -123.4558); McClure Creek (45.8560, -123.6227); Moores Creek (45.8801, -123.5178); Nehalem River (45.9838, -123.4214); Quartz Creek (45.8414, -123.5184); Spruce Run Creek (45.8103, -123.6028); Squaw Creek (45.9814, -123.4529); Stanley Creek (45.8861, -123.4352); Strum Creek (45.9321, -123.4275); Trailover Creek (46.0129, -123.4976); Unnamed (45.8083, -123.6280); Unnamed (45.8682, -123.6168); Unnamed (45.9078, -123.6630); Unnamed (45.9207, -123.4534); Unnamed (45.9405, -123.6338); Unnamed (45.9725, -123.5544); West Humbug Creek (45.9402, -123.6726); Walker Creek (45.9266, -123.4423); Walker Creek (46.0391, -123.5142); West Brook (45.9757, -123.4638).

(iv) *Salmonberry River Watershed 1710020204*. Outlet(s) = Salmonberry River (Lat 45.7507, Long -123.6530) upstream to endpoint(s) in: Pennoyer Creek (45.7190, -123.4366); Salmonberry River (45.7248, -123.4436); Salmonberry River, North Fork (45.7181, -123.5204); Wolf Creek (45.6956, -123.4485).

(v) *North Fork of Nehalem River Watershed 1710020205*. Outlet(s) = Nehalem River, North Fork (Lat 45.7317, Long -123.8765) upstream to endpoint(s) in: Acey Creek (45.7823, -123.8292); Anderson Creek (45.7643, -123.9073); Big Rackheap Creek (45.7546, -123.8145); Boykin Creek (45.8030, -123.8595); Buchanan Creek (45.8270, -123.7901); Coal Creek (45.7897, -123.8676); Coal Creek, West Fork (45.7753, -123.8871); Cougar Creek (45.8064, -123.8090); Fall Creek (45.7842, -123.8547); Fall Creek (45.8226, -123.7054); Gods Valley Creek (45.7689, -123.7793); Grassy Lake Creek (45.7988, -123.8193); Gravel Creek (45.7361, -123.8126); Henderson Creek (45.7932, -123.8548); Jack Horner Creek (45.8531, -123.7837); Lost Creek (45.7909, -123.7195); Nehalem River, Little North Fork (45.9101, -123.6972); Nehalem River, North Fork (45.8623, -123.7463); Nehalem River, North Fork, Trib R (45.8287, -123.6625); Nehalem River, North Fork, Trib T (45.8492, -123.6796); Rackheap Creek

(45.7677, -123.8008); Sally Creek (45.8294, -123.7468); Soapstone Creek (45.8498, -123.7469); Soapstone Creek, Trib A (45.8591, -123.7616); Sweethome Creek (45.7699, -123.6616); Unnamed (45.7457, -123.8490); Unnamed (45.7716, -123.7691); Unnamed (45.7730, -123.7789); Unnamed (45.7736, -123.7607); Unnamed (45.7738, -123.7534); Unnamed (45.7780, -123.7434); Unnamed (45.7784, -123.7742); Unnamed (45.7794, -123.7315); Unnamed (45.7824, -123.7396); Unnamed (45.7833, -123.7680); Unnamed (45.7841, -123.7299); Unnamed (45.7858, -123.7660); Unnamed (45.7898, -123.7424); Unnamed (45.7946, -123.7365); Unnamed (45.7966, -123.7953); Unnamed (45.8008, -123.7349); Unnamed (45.8193, -123.7436); Unnamed (45.8322, -123.7789); Unnamed (45.8359, -123.7766); Unnamed (45.8569, -123.7235); Unnamed (45.8629, -123.7347); Unnamed (45.8662, -123.7444); Unnamed (45.8962, -123.7189).

(vi) *Lower Nehalem River/Cook Creek Watershed 1710020206*. Outlet(s) = Nehalem River (Lat 45.6577, Long -123.9355) upstream to endpoint(s) in: Alder Creek (45.7286, -123.9091); Anderson Creek (45.6711, -123.7470); Bastard Creek (45.7667, -123.6943); Bob's Creek (45.7444, -123.9038); Cook Creek (45.6939, -123.6146); Cook Creek, East Fork (45.6705, -123.6440); Daniels Creek (45.6716, -123.8606); Dry Creek (45.6449, -123.8507); Dry Creek (45.6985, -123.7422); East Foley Creek (45.6621, -123.8068); Fall Creek (45.7489, -123.7778); Foley Creek (45.6436, -123.8933); Gallagher Slough (45.7140, -123.8657); Ganson Creek (45.6611, -123.7179); Harliss Creek (45.6851, -123.7249); Helloff Creek (45.7545, -123.7603); Hoevett Creek (45.6894, -123.6276); Jetty Creek (45.6615, -123.9103); Lost Creek (45.7216, -123.7164); Nehalem River (45.7507, -123.6530); Peterson Creek (45.6975, -123.8098); Piatt Canyon (45.6844, -123.6983); Roy Creek (45.7174, -123.8038); Snark Creek (45.7559, -123.6713); Unnamed (45.6336, -123.8549); Unnamed (45.6454, -123.8663); Unnamed (45.6483, -123.8605); Unnamed (45.6814, -123.8786); Unnamed (45.7231, -123.9016).

(3) Unit 3. Wilson/Trask/Nestucca Subbasin 17100203—(i) *Little Nestucca River Watershed 1710020301*. Outlet(s) = Little Nestucca River (Lat 45.1827, Long -123.9543) upstream to endpoint(s) in: Austin Creek (45.1080, -123.8748); Austin Creek, West Fork

(45.1074, -123.8894); Baxter Creek (45.1149, -123.7705); Bear Creek (45.1310, -123.8500); Bowers Creek (45.1393, -123.9198); Cedar Creek (45.0971, -123.8094); Fall Creek (45.1474, -123.8767); Hiack Creek (45.0759, -123.8042); Kautz Creek (45.0776, -123.8317); Kellow Creek (45.1271, -123.9072); Little Nestucca River (45.0730, -123.7825); Little Nestucca River, South Fork (45.0754, -123.8393); Louie Creek (45.1277, -123.7869); McKnight Creek (45.1124, -123.8363); Small Creek (45.1151, -123.8227); Sourgrass Creek (45.0917, -123.7623); Sourgrass Creek, Trib A (45.1109, -123.7664); Squaw Creek (45.1169, -123.8938); Stillwell Creek (45.0919, -123.8141); Unnamed (45.1169, -123.7974).

(ii) *Nestucca River Watershed 1710020302*. Outlet(s) = Nestucca Bay (Lat 45.1607, Long -123.9678) upstream to endpoint(s) in: Alder Creek (45.1436, -123.7998); Alder Creek (45.2436, -123.7364); Bays Creek (45.3197, -123.7240); Bear Creek (45.3188, -123.6022); Bear Creek (45.3345, -123.7898); Beulah Creek (45.2074, -123.6747); Bible Creek (45.2331, -123.5868); Boulder Creek (45.2530, -123.7525); Buck Creek (45.1455, -123.7734); Cedar Creek (45.3288, -123.4531); Clarence Creek (45.2649, -123.6395); Clear Creek (45.1725, -123.8660); Crazy Creek (45.1636, -123.7595); Dahl Fork (45.2306, -123.7076); East Beaver Creek (45.3579, -123.6877); East Creek (45.3134, -123.6348); Elk Creek (45.3355, -123.5819); Elk Creek, Trib A (45.2926, -123.5381); Elk Creek, Trib B (45.2981, -123.5471); Fan Creek (45.2975, -123.4994); Farmer Creek (45.2593, -123.9074); Foland Creek (45.2508, -123.7890); Foland Creek, West Fork (45.2519, -123.8025); George Creek (45.2329, -123.8291); Ginger Creek (45.3283, -123.4680); Hartney Creek (45.2192, -123.8632); Horn Creek (45.2556, -123.9212); Lawrence Creek (45.1861, -123.7852); Limestone Creek (45.2472, -123.7169); Mina Creek (45.2444, -123.6197); Moon Creek (45.3293, -123.6762); North Beaver Creek (45.3497, -123.8961); Nestucca River (45.3231, -123.4447); Niagara Creek (45.1898, -123.6637); Pheasant Creek (45.2121, -123.6366); Pollard Creek (45.1951, -123.7958); Powder Creek (45.2305, -123.6974); Saling Creek (45.2691, -123.8474); Sanders Creek (45.2254, -123.8959); Slick Rock Creek (45.2683, -123.6106); Swab Creek (45.2889, -123.7656); Testament Creek (45.2513, -123.5488); Three Rivers (45.1785, -123.7557); Tiger Creek (45.3405, -123.8029); Tiger

Creek, Trib A (45.3346, -123.8547); Tony Creek (45.2575, -123.7735); Turpy Creek (45.2537, -123.7620); Unnamed (45.1924, -123.8202); Unnamed (45.2290, -123.9398); Unnamed (45.3018, -123.4636); Unnamed (45.3102, -123.6628); Unnamed (45.3148, -123.6616); Unnamed (45.3158, -123.8679); Unnamed (45.3292, -123.8872); West Beaver Creek (45.3109, -123.8840); West Creek (45.2899, -123.8514); Wildcat Creek (45.3164, -123.8187); Wolfe Creek (45.3113, -123.7658); Woods Creek (45.1691, -123.8070).

(iii) *Tillamook River Watershed 1710020303*. Outlet(s) = Tillamook River (Lat 45.4682, Long -123.8802) upstream to endpoint(s) in: Bear Creek (45.4213, -123.8885); Beaver Creek (45.4032, -123.8861); Bewley Creek (45.3637, -123.8965); Esther Creek (45.4464, -123.9017); Fawcett Creek (45.3824, -123.7210); Joe Creek (45.3754, -123.8257); Killam Creek (45.4087, -123.7276); Mills Creek (45.3461, -123.7915); Munson Creek (45.3626, -123.7681); Simmons Creek (45.3605, -123.7364); Sutton Creek (45.4049, -123.8568); Tillamook River (45.3595, -123.9115); Tomlinson Creek (45.4587, -123.8868); Unnamed (45.3660, -123.8313); Unnamed (45.3602, -123.8466); Unnamed (45.3654, -123.9017); Unnamed (45.3987, -123.7105); Unnamed (45.4083, -123.8160); Unnamed (45.4478, -123.8670); Unnamed (45.3950, -123.7348).

(iv) *Trask River Watershed 1710020304*. Outlet(s) = Trask River (Lat 45.4682, Long -123.8802) upstream to endpoint(s) in: Bales Creek (45.3712, -123.5786); Bark Shanty Creek (45.4232, -123.5550); Bear Creek (45.4192, -123.7408); Bill Creek (45.3713, -123.6386); Blue Bus Creek (45.4148, -123.5949); Boundry Creek (45.3493, -123.5470); Clear Creek #1 (45.4638, -123.5571); Clear Creek #2 (45.5025, -123.4683); Cruiser Creek (45.4201, -123.4753); Dougherty Slough (45.4684, -123.7888); East Fork of South Fork Trask River (45.3563, -123.4752); Edwards Creek (45.3832, -123.6676); Elkhorn Creek, Trib C (45.4080, -123.4440); Elkhorn Creek (45.3928, -123.4709); Gold Creek (45.4326, -123.7218); Green Creek (45.4510, -123.7361); Hatchery Creek (45.4485, -123.6623); Headquarters Camp Creek (45.3317, -123.5072); Hoquarten Slough (45.4597, -123.8480); Joyce Creek (45.3881, -123.6386); Michael Creek (45.4799, -123.5119); Mill Creek (45.4100, -123.7450); Miller Creek (45.3582, -123.5666); Pigeon Creek (45.3910, -123.5656); Rawe Creek (45.4395,

-123.6351); Rock Creek (45.3515, -123.5074); Samson Creek (45.4662, -123.6439); Scotch Creek (45.4015, -123.5873); Steampot Creek (45.3875, -123.5425); Stretch Creek (45.3483, -123.5382); Summit Creek (45.3481, -123.6054); Summit Creek, South Fork (45.3473, -123.6145); Trask River, North Fork, Middle Fork (45.4472, -123.3945); Trask River, North Fork, North Fork (45.5275, -123.4177); Trask River, South Fork (45.3538, -123.6445); Trib A (45.3766, -123.5191); Trib B (45.3776, -123.4988); Unnamed (45.3639, -123.6054); Unnamed (45.4105, -123.7741); Unnamed (45.4201, -123.6320); Unnamed (45.4220, -123.7654).

(v) *Wilson River Watershed 1710020305*. Outlet(s) = Wilson River (Lat 45.4816, Long -123.8708) upstream to endpoint(s) in: Beaver Creek (45.4894, -123.7933); Ben Smith Creek (45.5772, -123.5072); Cedar Creek (45.5869, -123.6228); Cedar Creek, North Fork (45.6066, -123.6151); Deo Creek (45.6000, -123.3716); Drift Creek (45.6466, -123.3944); Elk Creek (45.6550, -123.4620); Elk Creek, West Fork (45.6208, -123.4717); Elliott Creek (45.5997, -123.3925); Fall Creek (45.4936, -123.5616); Fox Creek (45.5102, -123.5869); Hatchery Creek (45.4835, -123.7074); Hughey Creek (45.4540, -123.7526); Idiot Creek (45.6252, -123.4296); Jones Creek (45.6028, -123.5702); Jordan Creek (45.5610, -123.4557); Jordan Creek, South Fork (45.5099, -123.5279); Kansas Creek (45.4861, -123.6434); Morris Creek (45.6457, -123.5409); Tuffy Creek (45.5787, -123.4702); Unnamed (45.4809, -123.8362); Unnamed (45.5758, -123.5226); Unnamed (45.5942, -123.4259); Unnamed (45.6002, -123.5939); Unnamed (45.6151, -123.4385); White Creek (45.5181, -123.7223); Wilson River, Devil's Lake Fork (45.6008, -123.3301); Wilson River, North Fork (45.6679, -123.5138); Wilson River, North Fork, Little (45.5283, -123.6771); Wilson River, North Fork, West Fork (45.6330, -123.5879); Wilson River, North Fork, West Fork, North Fork (45.6495, -123.5779); Wilson River, South Fork (45.5567, -123.3965); Wolf Creek (45.5683, -123.6129).

(vi) *Kilchis River Watershed 1710020306*. Outlet(s) = Kilchis River (Lat 45.4927, Long -123.8615) upstream to endpoint(s) in: Clear Creek (45.5000, -123.7647); Coal Creek (45.5004, -123.8085); Company Creek (45.5892, -123.7370); French Creek (45.6318, -123.6926); Kilchis River, Little South Fork (45.5668, -123.7178); Kilchis River, North Fork (45.6044,

-123.6504); Kilchis River, South Fork (45.5875, -123.6944); Mapes Creek (45.5229, -123.8382); Murphy Creek (45.5320, -123.8341); Myrtle Creek (45.5296, -123.8156); Sam Downs Creek (45.5533, -123.7144); Schroeder Creek (45.6469, -123.7064); Unnamed (45.5625, -123.7593).

(vii) *Miami River Watershed 1710020307*. Outlet(s) = Miami River (Lat 45.5597, Long -123.8904) upstream to endpoint(s) in: Diamond Creek (45.6158, -123.8184); Hobson Creek (45.5738, -123.8970); Illingsworth Creek (45.5547, -123.8693); Miami River (45.6362, -123.7533); Miami River, Trib S (45.6182, -123.8004); Miami River, Trib T (45.6546, -123.7463); Minich Creek (45.5869, -123.8936); Moss Creek (45.5628, -123.8319); Peterson Creek (45.6123, -123.8996); Prouty Creek (45.6304, -123.8435); Stuart Creek (45.6042, -123.8442); Unnamed (45.6317, -123.7906); Unnamed (45.6341, -123.7900); Waldron Creek (45.5856, -123.8483).

(viii) *Tillamook Bay Watershed 1710020308*. Outlet(s) = Tillamook Bay (Lat 45.5600, Long -123.9366) upstream to endpoint(s) in: Douthy Creek (45.5277, -123.8570); Electric Creek (45.5579, -123.8925); Hall Slough (45.4736, -123.8637); Jacoby Creek (45.5297, -123.8665); Kilchis River (45.4927, -123.8615); Larson Creek (45.5366, -123.8849); Miami River (45.5597, -123.8904); Patterson Creek (45.5359, -123.8732); Tillamook Bay (45.4682, -123.8802); Vaughn Creek (45.5170, -123.8516); Wilson River (45.4816, -123.8708).

(ix) *Spring Creek/Sand Lake/Neskowin Creek Frontal Watershed 1710020309*. Outlet(s) = Crescent Lake (45.6360, -123.9405); Neskowin Creek (45.1001, -123.9859); Netarts Bay (45.4339, -123.9512); Rover Creek (45.3290, -123.9670); Sand Creek (45.2748, -123.9589); Watesco Creek (45.5892, -123.9477) upstream to endpoint(s) in: Andy Creek (45.2905, -123.8744); Butte Creek (45.1159, -123.9360); Crescent Lake (45.6320, -123.9376); Davis Creek (45.3220, -123.9254); Fall Creek (45.0669, -123.9679); Hawk Creek (45.1104, -123.9436); Jackson Creek (45.3568, -123.9611); Jewel Creek (45.2865, -123.8905); Jim Creek (45.0896, -123.9224); Lewis Creek (45.0835, -123.8979); Meadow Creek (45.0823, -123.9824); Neskowin Creek (45.0574, -123.8812); Prospect Creek (45.0858, -123.9321); Reneke Creek (45.2594, -123.9434); Rover Creek (45.3284, -123.9438); Sand Creek (45.3448, -123.9156); Sloan Creek (45.0718, -123.8998); Watesco Creek (45.5909,

-123.9353); Whiskey Creek (45.3839, -123.9193).

(4) Unit 4. Siletz/Yaquina Subbasin 17100204—(i) *Upper Yaquina River Watershed 1710020401*. Outlet(s) = Yaquina River (Lat 44.6219, Long -123.8741) upstream to endpoint(s) in: Bales Creek (44.6893, -123.7503); Bales Creek, East Fork (44.6927, -123.7363); Bales Creek, East Fork, Trib A (44.6827, -123.7257); Bales Creek (44.6610, -123.8749); Bones Creek (44.6647, -123.6762); Bryant Creek (44.6746, -123.7139); Buckhorn Creek (44.6676, -123.6677); Buttermilk Creek (44.6338, -123.6827); Buttermilk Creek, Trib A (44.6518, -123.7173); Carlisle Creek (44.6451, -123.8847); Cline Creek (44.6084, -123.6844); Cook Creek (44.6909, -123.8583); Crystal Creek (44.6500, -123.8132); Davis Creek (44.6500, -123.6587); Eddy Creek (44.6388, -123.7951); Felton Creek (44.6626, -123.6502); Haxel Creek (44.6781, -123.8046); Hayes Creek (44.6749, -123.7749); Humphrey Creek (44.6697, -123.6329); Klamath Creek (44.6927, -123.8431); Little Elk Creek (44.6234, -123.6628); Little Elk Creek, Trib A (44.6196, -123.7583); Little Yaquina River (44.6822, -123.6123); Lytle Creek (44.6440, -123.5979); Miller Creek (44.6055, -123.7030); Oglesby Creek (44.6421, -123.7271); Oglesby Creek, Trib A (44.6368, -123.7100); Peterson Creek (44.6559, -123.7868); Randall Creek (44.6721, -123.6570); Salmon Creek (44.6087, -123.7379); Simpson Creek (44.6775, -123.8780); Sloop Creek (44.6654, -123.8595); Spilde Creek (44.6636, -123.5856); Stony Creek (44.6753, -123.7020); Thornton Creek (44.6923, -123.8208); Trapp Creek (44.6455, -123.8307); Twentythree Creek (44.6887, -123.8751); Unnamed (44.6074, -123.6738); Unnamed (44.6076, -123.7067); Unnamed (44.6077, -123.6633); Unnamed (44.6123, -123.6646); Unnamed (44.6188, -123.7237); Unnamed (44.6202, -123.7201); Unnamed (44.6367, -123.7444); Unnamed (44.6415, -123.6237); Unnamed (44.6472, -123.7793); Unnamed (44.6493, -123.6789); Unnamed (44.6707, -123.7908); Unnamed (44.6715, -123.6907); Unnamed (44.6881, -123.6089); Unnamed (44.6908, -123.7298); Wakefield Creek (44.6336, -123.6963); Yaquina River (44.6894, -123.5907); Young Creek (44.6372, -123.6027).

(ii) *Big Elk Creek Watershed 1710020402*. Outlet(s) = Elk Creek (Lat 44.6219, Long -123.8741) upstream to endpoint(s) in: Adams Creek (44.5206, -123.6349); Baker Creek (44.5230, -123.6346); Bear Creek (44.5966,

-123.8299); Beaver Creek (44.6040, -123.7999); Beavercreek Creek (44.5083, -123.6337); Bevens Creek (44.5635, -123.7371); Bull Creek (44.5408, -123.8162); Bull Creek (44.5431, -123.8142); Bull Creek, Trib A (44.5359, -123.8276); Cougar Creek (44.5070, -123.6482); Cougar Creek (44.5861, -123.7563); Deer Creek (44.6020, -123.7667); Devils Well Creek (44.6324, -123.8438); Dixon Creek (44.6041, -123.8659); Elk Creek (44.5075, -123.6022); Feagles Creek (44.4880, -123.7180); Feagles Creek, Trib B (44.5079, -123.6909); Feagles Creek, West Fork (44.5083, -123.7117); Grant Creek (44.5010, -123.7363); Harve Creek (44.5725, -123.8025); Jackass Creek (44.5443, -123.7790); Johnson Creek (44.5466, -123.6336); Lake Creek (44.5587, -123.6826); Leverage Creek (44.5536, -123.6343); Little Creek (44.5548, -123.6980); Little Wolf Creek (44.5590, -123.7165); Peterson Creek (44.5576, -123.6450); Rail Creek (44.5135, -123.6639); Spout Creek (44.5824, -123.6561); Sugarbowl Creek (44.5301, -123.5995); Unnamed (44.5048, -123.7566); Unnamed (44.5085, -123.6309); Unnamed (44.5108, -123.6249); Unnamed (44.5144, -123.6554); Unnamed (44.5204, -123.6148); Unnamed (44.5231, -123.6714); Unnamed (44.5256, -123.6804); Unnamed (44.5325, -123.7244); Unnamed (44.5332, -123.7211); Unnamed (44.5361, -123.7139); Unnamed (44.5370, -123.7643); Unnamed (44.5376, -123.6176); Unnamed (44.5410, -123.8213); Unnamed (44.5504, -123.8290); Unnamed (44.5530, -123.8282); Unnamed (44.5618, -123.8431); Unnamed (44.5687, -123.8563); Unnamed (44.5718, -123.7256); Unnamed (44.5734, -123.6696); Unnamed (44.5737, -123.6566); Unnamed (44.5771, -123.7027); Unnamed (44.5821, -123.8123); Unnamed (44.5840, -123.6678); Unnamed (44.5906, -123.7871); Unnamed (44.5990, -123.7808); Unnamed (44.5865, -123.8521); Wolf Creek (44.5873, -123.6939); Wolf Creek, Trib A (44.5862, -123.7188); Wolf Creek, Trib B (44.5847, -123.7062).

(iii) *Lower Yaquina River Watershed 1710020403*. Outlet(s) = Yaquina River (Lat 44.6098, Long -124.0818) upstream to endpoint(s) in: Abbey Creek (44.6330, -123.8881); Babcock Creek (44.5873, -123.9221); Beaver Creek (44.6717, -123.9799); Blue Creek (44.6141, -123.9936); Boone Slough, Trib A (44.6134, -123.9769); Depot Creek, Little (44.6935, -123.9482); Depot Creek, Trib A (44.6837,

-123.9420); Drake Creek (44.6974, -123.9690); East Fork Mill Creek (44.5691, -123.8834); Flesher Slough (44.5668, -123.9803); King Slough (44.5944, -124.0323); Little Beaver Creek (44.6531, -123.9728); McCaffery Slough (44.5659, -124.0180); Mill Creek (44.5550, -123.9064); Mill Creek, Trib A (44.5828, -123.8750); Montgomery Creek (44.5796, -123.9286); Nute Slough (44.6075, -123.9660); Olalla Creek (44.6810, -123.8972); Olalla Creek, Trib A (44.6511, -123.9034); Parker Slough (44.5589, -124.0119); Unnamed (44.5471, -123.9557); Unnamed (44.5485, -123.9308); Unnamed (44.5520, -123.9433); Unnamed (44.5528, -123.9695); Unnamed (44.5552, -123.9294); Unnamed (44.5619, -123.9348); Unnamed (44.5662, -123.8905); Unnamed (44.5827, -123.9456); Unnamed (44.5877, -123.8850); Unnamed (44.6444, -123.9059); Unnamed (44.6457, -123.9996); Unnamed (44.6530, -123.9914); Unnamed (44.6581, -123.8947); Unnamed (44.6727-123.8942); Unnamed (44.6831, -123.9940); West Olalla Creek (44.6812, -123.9299); West Olalla Creek, Trib A (44.6649, -123.9204); Wessel Creek (44.6988, -123.9863); Wright Creek (44.5506, -123.9250); Wright Creek, Trib A (44.5658, -123.9422); Yaquina River (44.6219, -123.8741).

(iv) *Middle Siletz River Watershed 1710020405*. Outlet(s) = Siletz River (Lat 44.7375, Long -123.7917) upstream to endpoint(s) in: Buck Creek, East Fork (44.8410, -123.7970); Buck Creek, South Fork (44.8233, -123.8095); Buck Creek, West Fork (44.8352, -123.8084); Cerine Creek (44.7478, -123.7198); Deer Creek (44.8245, -123.7268); Deer Creek, Trib A (44.8178, -123.7397); Elk Creek (44.8704, -123.7668); Fourth of July Creek (44.8203, -123.6810); Gunn Creek (44.7816, -123.7679); Holman River (44.8412, -123.7707); Mill Creek, North Fork (44.7769, -123.7361); Mill Creek, South Fork (44.7554, -123.7276); Palmer Creek (44.7936, -123.8344); Siletz River (44.8629, -123.7323); Sunshine Creek (44.7977, -123.6963); Unnamed (44.7691, -123.7851); Unnamed (44.7747, -123.7740); Unnamed (44.7749, -123.7662); Unnamed (44.8118, -123.6926); Unnamed (44.8188, -123.6995); Unnamed (44.8312, -123.6983); Unnamed (44.8583, -123.7573); Whiskey Creek (44.8123, -123.6937).

(v) *Rock Creek/Siletz River Watershed 1710020406*. Outlet(s) = Rock Creek (Lat 44.7375, Long -123.7917) upstream to endpoint(s) in: Beaver Creek (44.7288,

- 123.6773); Big Rock Creek (44.7636, - 123.6969); Brush Creek (44.6829, - 123.6582); Cedar Creek (44.7366, - 123.6586); Fisher Creek (44.7149, - 123.6359); Little Rock Creek (44.7164, - 123.6155); Little Steere Creek (44.7219, - 123.6368); Rock Creek, Trib A (44.7414, - 123.7508); Steere Creek (44.7336, - 123.6313); Unnamed (44.7175, - 123.6496); William Creek (44.7391, - 123.7277).

(vi) *Lower Siletz River Watershed 1710020407*. Outlet(s) = Siletz Bay (Lat 44.9269, Long - 124.0218) upstream to endpoint(s) in: Anderson Creek (44.9311, - 123.9508); Bear Creek (44.8682, - 123.8891); Bentilla Creek (44.7745, - 123.8555); Butterfield Creek (44.8587, - 123.9993); Cedar Creek (44.8653, - 123.8488); Cedar Creek, Trib D (44.8606, - 123.8696); Coon Creek (44.7959, - 123.8468); Dewey Creek (44.7255, - 123.9724); Drift Creek (44.9385, - 123.8211); Erickson Creek (44.9629, - 123.9490); Euchre Creek (44.8023, - 123.8687); Fowler Creek (44.9271, - 123.8440); Gordey Creek (44.9114, - 123.9724); Hough Creek (44.8052, - 123.8991); Jaybird Creek (44.7640, - 123.9733); Long Prairie Creek (44.6970, - 123.7499); Long Tom Creek (44.7037, - 123.8533); Mann Creek (44.6987, - 123.8025); Mill Creek (44.6949, - 123.8967); Miller Creek (44.7487, - 123.9733); North Creek (44.9279, - 123.8908); North Roy Creek (44.7916, - 123.9897); Ojalla Creek (44.7489, - 123.9427); Quarry Creek (44.8989, - 123.9360); Reed Creek (44.8020, - 123.8835); Reed Creek (44.8475, - 123.9267); Roots Creek (44.8300, - 123.9351); South Roy Creek (44.7773, - 123.9847); Sam Creek (44.7086, - 123.7312); Sampson Creek (44.9089, - 123.8173); Savage Creek (44.8021, - 123.8608); Scare Creek (44.8246, - 123.9954); Schooner Creek, North Fork (44.9661, - 123.8793); Schooner Creek, South Fork (44.9401, - 123.8689); Scott Creek (44.7414, - 123.8268); Sijota Creek (44.8883, - 124.0257); Siletz River (44.7375, - 123.7917); Skunk Creek (44.8780, - 123.9073); Smith Creek (44.9294, - 123.8056); Stemple Creek (44.8405, - 123.9492); Tanagerman Creek (44.7278, - 123.8944); Thayer Creek (44.7023, - 123.8256); Thompson Creek (44.7520, - 123.8893); Unnamed (44.7003, - 123.7669); Unnamed (44.8904, - 123.8034); Unnamed (44.8927, - 123.8400); Unnamed (44.7034, - 123.7754); Unnamed (44.7145, - 123.8423); Unnamed (44.7410, - 123.8800); Unnamed (44.7925, - 123.9212); Unnamed (44.8396, - 123.8896); Unnamed (44.9035, - 123.8635); Unnamed (44.9240,

- 123.7913); West Fork Mill Creek (44.7119, - 123.9703); Wildcat Creek (44.8915, - 123.8842).

(vii) *Salmon River/Siletz/Yaquina Bay Watershed 1710020408*. Outlet(s) = Salmon River (Lat 45.0474, Long - 124.0031) upstream to endpoint(s) in: Alder Brook (45.0318, - 123.8428); Bear Creek (44.9785, - 123.8580); Boulder Creek (45.0428, - 123.7817); Calkins Creek (45.0508, - 123.9615); Crowley Creek (45.0540, - 123.9819); Curl Creek (45.0150, - 123.9198); Deer Creek (45.0196, - 123.8091); Frazer Creek (45.0096, - 123.9576); Gardner Creek (45.0352, - 123.9024); Indian Creek (45.0495, - 123.8010); Little Salmon River (45.0546, - 123.7473); McMullen Creek (44.9829, - 123.8682); Panther Creek (45.0208, - 123.8878); Panther Creek, North Fork (45.0305, - 123.8910); Prairie Creek (45.0535, - 123.8129); Rowdy Creek (45.0182, - 123.9751); Salmon River (45.0269, - 123.7224); Slick Rock Creek (44.9903, - 123.8158); Sulphur Creek (45.0403, - 123.8216); Telephone Creek (45.0467, - 123.9348); Toketa Creek (45.0482, - 123.9088); Trout Creek (44.9693, - 123.8337); Unnamed (44.9912, - 123.8789); Unnamed (45.0370, - 123.7333); Unnamed (45.0433, - 123.7650); Widow Creek (45.0373, - 123.8530); Widow Creek, West Fork (45.0320, - 123.8643); Willis Creek (45.0059, - 123.9391).

(viii) *Devils Lake/Moolack Frontral Watershed 1710020409*. Outlet(s) = Big Creek (Lat 44.6590, Long - 124.0571); Coal Creek (44.7074, - 124.0615); D River (44.9684, - 124.0172); Fogarty Creek (44.8395, - 124.0520); Moolack Creek (44.7033, - 124.0622); North Depoe Bay Creek (44.8098, - 124.0617); Schoolhouse Creek (44.8734, - 124.0401); Spencer Creek (44.7292, - 124.0582); Wade Creek (44.7159, - 124.0600) upstream to endpoint(s) in: Big Creek (44.6558, - 124.0427); Coal Creek (44.7047, - 124.0099); Devils Lake (44.9997, - 123.9773); Fogarty Creek (44.8563, - 124.0153); Jeffries Creek (44.6425, - 124.0315); Moolack Creek (44.6931, - 124.0150); North Depoe Bay Creek (44.8157, - 124.0510); Rock Creek (44.9869, - 123.9317); South Depoe Bay Creek (44.7939, - 124.0126); Salmon Creek (44.8460, - 124.0164); Schoolhouse Creek (44.8634, - 124.0151); South Fork Spencer Creek (44.7323, - 123.9974); Spencer Creek, North Fork (44.7453, - 124.0276); Unnamed (44.8290, - 124.0318); Unnamed (44.9544, - 123.9867); Unnamed (44.9666, - 123.9731); Unnamed (44.9774, - 123.9706); Wade Creek (44.7166, - 124.0057).

(5) Unit 5. Alsea Subbasin 17100205—(i) *Upper Alsea River Watershed 1710020501*. Outlet(s) = Alsea River, South Fork (Lat 44.3767, Long - 123.6024) upstream to endpoint(s) in: Alder Creek (44.4573, - 123.5188); Alsea River, South Fork (44.3261, - 123.4891); Baker Creek (44.4329, - 123.5522); Banton Creek (44.3317, - 123.6020); Brown Creek (44.3151, - 123.6250); Bummer Creek (44.3020, - 123.5765); Cabin Creek (44.4431, - 123.5328); Crooked Creek (44.4579, - 123.5099); Dubuque Creek (44.3436, - 123.5527); Ernest Creek (44.4234, - 123.5275); Hayden Creek (44.4062, - 123.5815); Honey Grove Creek (44.3874, - 123.5078); North Fork Alsea River (44.4527, - 123.6102); Parker Creek (44.4702, - 123.5978); Peak Creek (44.3358, - 123.4933); Record Creek (44.3254, - 123.6331); Seeley Creek (44.4051, - 123.5177); Swamp Creek (44.3007, - 123.6108); Tobe Creek (44.3273, - 123.5719); Trout Creek (44.3684, - 123.5163); Unnamed (44.3108, - 123.6225); Unnamed (44.3698, - 123.5670); Unnamed (44.4574, - 123.5001); Unnamed (44.3708, - 123.5740); Unnamed (44.3713, - 123.5656); Unnamed (44.3788, - 123.5528); Unnamed (44.4270, - 123.5492); Unnamed (44.4518, - 123.6236); Yew Creek (44.4581, - 123.5373); Zahn Creek (44.4381, - 123.5425).

(ii) *Five Rivers/Lobster Creek Watershed 1710020502*. Outlet(s) = Five Rivers (Lat 44.3584, Long - 123.8279) upstream to endpoint(s) in: Alder Creek (44.2947, - 123.8105); Bear Creek (44.2824, - 123.9123); Bear Creek (44.3588, - 123.7930); Bear Creek (44.2589, - 123.6647); Briar Creek (44.3184, - 123.6602); Buck Creek (44.2428, - 123.8989); Camp Creek (44.2685, - 123.7552); Cascade Creek (44.3193, - 123.9073); Cascade Creek, North Fork (44.3299, - 123.8932); Cedar Creek (44.2732, - 123.7753); Cherry Creek (44.3061, - 123.8140); Coal Creek (44.2881, - 123.6484); Cook Creek (44.2777, - 123.6445); Cougar Creek (44.2723, - 123.8678); Crab Creek (44.2458, - 123.8750); Crazy Creek (44.2955, - 123.7927); Crooked Creek (44.3154, - 123.7986); Elk Creek (44.3432, - 123.7969); Fendall Creek (44.2764, - 123.7890); Five Rivers (44.2080, - 123.8025); Green River (44.2286, - 123.8751); Green River, East Fork (44.2255, - 123.8143); Jasper Creek (44.2777, - 123.7326); Little Lobster Creek (44.2961, - 123.6266); Lobster Creek, East Fork (44.2552, - 123.5897); Lobster Creek, South Fork (44.2326, - 123.6060); Lobster Creek (44.2237, - 123.6195); Lord Creek (44.2411,

-123.7631); Martha Creek (44.2822, -123.6781); Meadow Creek (44.2925, -123.6591); Phillips Creek (44.3398, -123.7613); Preacher Creek (44.2482, -123.7440); Prindel Creek (44.2346, -123.7849); Ryan Creek (44.2576, -123.7971); Summers Creek (44.2589, -123.7627); Swamp Creek (44.3274, -123.8407); Unnamed (44.2845, -123.7007); Unnamed (44.2129, -123.7919); Unnamed (44.2262, -123.7982); Unnamed (44.2290, -123.8559); Unnamed (44.2327, -123.8344); Unnamed (44.2356, -123.8178); Unnamed (44.2447, -123.6460); Unnamed (44.2500, -123.8074); Unnamed (44.2511, -123.9011); Unnamed (44.2551, -123.8733); Unnamed (44.2614, -123.8652); Unnamed (44.2625, -123.8635); Unnamed (44.2694, -123.8180); Unnamed (44.2695, -123.7429); Unnamed (44.2696, -123.8497); Unnamed (44.2752, -123.7616); Unnamed (44.2760, -123.7121); Unnamed (44.2775, -123.8895); Unnamed (44.2802, -123.7097); Unnamed (44.2802, -123.8608); Unnamed (44.2823, -123.7900); Unnamed (44.2853, -123.7537); Unnamed (44.2895, -123.9083); Unnamed (44.2940, -123.7358); Unnamed (44.2954, -123.7602); Unnamed (44.2995, -123.7760); Unnamed (44.3024, -123.9064); Unnamed (44.3066, -123.8838); Unnamed (44.3070, -123.8280); Unnamed (44.3129, -123.7763); Unnamed (44.3214, -123.8161); Unnamed (44.3237, -123.9020); Unnamed (44.3252, -123.7382); Unnamed (44.3289, -123.8354); Unnamed (44.3336, -123.7431); Unnamed (44.3346, -123.7721); Wilkinson Creek (44.3296, -123.7249); Wilson Creek (44.3085, -123.8990).

(iii) *Drift Creek Watershed*

1710020503. Outlet(s) = Drift Creek (Lat 44.4157, Long -124.0043) upstream to endpoint(s) in: Boulder Creek (44.4434, -123.8705); Bush Creek (44.5315, -123.8631); Cape Horn Creek (44.5153, -123.7844); Cedar Creek (44.4742, -123.9699); Cougar Creek (44.4405, -123.9144); Deer Creek (44.5514, -123.8778); Drift Creek (44.4688, -123.7859); Ellen Creek (44.4415, -123.9413); Flynn Creek (44.5498, -123.8520); Gold Creek (44.4778, -123.8802); Gopher Creek (44.5217, -123.7787); Horse Creek (44.5347, -123.9072); Lyndon Creek (44.4395, -123.9801); Needle Branch (44.5154, -123.8537); Nettle Creek (44.4940, -123.7845); Slickrock Creek (44.4757, -123.9007); Trout Creek (44.4965, -123.9113); Trout Creek, East Fork

(44.4705, -123.9290); Unnamed (44.4995, -123.8488); Unnamed (44.4386, -123.9200); Unnamed (44.4409, -123.8738); Unnamed (44.4832, -123.9570); Unnamed (44.4868, -123.9340); Unnamed (44.4872, -123.9518); Unnamed (44.4875, -123.9460); Unnamed (44.4911, -123.9227); Unnamed (44.5187, -123.7996); Unnamed (44.5260, -123.7848); Unnamed (44.5263, -123.8868); Unnamed (44.5326, -123.8453); Unnamed (44.5387, -123.8440); Unnamed (44.5488, -123.8694); Unnamed (44.4624, -123.8216).

(iv) *Lower Alsea River Watershed*

1710020504. Outlet(s) = Alsea River (Lat 44.4165, Long -124.0829) upstream to endpoint(s) in: Alsea River (44.3767, -123.6024); Arnold Creek (44.3922, -123.9503); Barclay Creek (44.4055, -123.8659); Bear Creek (44.3729, -123.9623); Bear Creek (44.3843, -123.7704); Beaty Creek (44.4044, -123.6043); Benner Creek (44.3543, -123.7447); Brush Creek (44.3826, -123.8537); Bull Run Creek (44.4745, -123.7439); Canal Creek (44.3322, -123.9460); Canal Creek, East Fork (44.3454, -123.9161); Carns Canyon (44.4027, -123.7550); Cedar Creek (44.3875, -123.7946); Cove Creek (44.4403, -123.7107); Cow Creek (44.3620, -123.7510); Darkey Creek (44.3910, -123.9927); Digger Creek (44.3906, -123.6890); Fall Creek (44.4527, -123.6864); Fall Creek (44.4661, -123.6933); George Creek (44.3556, -123.8603); Grass Creek (44.3577, -123.8798); Hatchery Creek (44.3952, -123.7269); Hatchery Creek (44.4121, -123.8734); Hoover Creek (44.3618, -123.8583); Lake Creek (44.3345, -123.8725); Lint Creek (44.3850, -124.0490); Maltby Creek (44.3833, -123.6770); Meadow Fork (44.3764, -123.8879); Mill Creek (44.4046, -123.6436); Minotti Creek (44.3750, -123.7718); Nye Creek (44.4326, -123.7648); Oxstable Creek (44.3912, -123.9603); Phillips Creek (44.3803, -123.7780); Red Creek (44.3722, -123.9162); Risley Creek (44.4097, -123.9380); Schoolhouse Creek (44.3897, -123.6545); Scott Creek, East Fork (44.4252, -123.7897); Scott Creek, West Fork (44.4212, -123.8225); Skinner Creek (44.3585, -123.9374); Skunk Creek (44.3998, -123.6912); Slide Creek (44.3986, -123.8419); Starr Creek (44.4477, -124.0130); Sudan Creek (44.3817, -123.9717); Sulmon Creek (44.3285, -123.7008); Sulmon Creek, North Fork (44.3421, -123.6374); Sulmon Creek, South Fork (44.3339, -123.6709); Swede Fork (44.3852, -124.0295);

Unnamed (44.3319, -123.9318); Unnamed (44.3356, -123.9464); Unnamed (44.3393, -123.9360); Unnamed (44.3413, -123.9294); Unnamed (44.3490, -123.9058); Unnamed (44.3548, -123.6574); Unnamed (44.3592, -123.6363); Unnamed (44.3597, -123.9042); Unnamed (44.3598, -123.6563); Unnamed (44.3598, -123.6562); Unnamed (44.3600, -123.6514); Unnamed (44.3656, -123.9085); Unnamed (44.3680, -123.9629); Unnamed (44.3794, -123.8268); Unnamed (44.3800, -123.9134); Unnamed (44.3814, -123.7650); Unnamed (44.3822, -124.0555); Unnamed (44.3823, -124.0451); Unnamed (44.3989, -123.6050); Unnamed (44.4051, -124.0527); Unnamed (44.4166, -123.8149); Unnamed (44.4537, -123.7247); Walker Creek (44.4583, -124.0271); Weist Creek (44.3967, -124.0256); West Creek (44.3588, -123.9493).

(v) *Beaver Creek/Waldport Bay Watershed 1710020505*

Outlet(s) = Beaver Creek (Lat 44.5233, Long -124.0734); Deer Creek (44.5076, -124.0807); Thiel Creek (44.5646, -124.0709) upstream to endpoint(s) in: Beaver Creek, North Fork, Trib G (44.5369, -123.9195); Beaver Creek, South Fork (44.4816, -123.9853); Beaver Creek, South Fork, Trib A (44.4644, -124.0332); Bowers Creek (44.5312, -124.0117); Bunnel Creek (44.5178, -124.0265); Deer Creek (44.5057, -124.0721); Elkhorn Creek (44.5013, -123.9572); Elkhorn Creek (44.4976, -123.9685); Lewis Creek (44.5326, -123.9532); North Fork Beaver Creek (44.5149, -123.8988); Oliver Creek (44.4660, -124.0471); Peterson Creek (44.5419, -123.9738); Pumhouse Creek (44.5278, -124.0569); Simpson Creek (44.5255, -124.0390); Thiel Creek (44.5408, -124.0254); Tracy Creek (44.5411, -124.0500); Unnamed (44.4956, -123.9751); Unnamed (44.5189, -124.0638); Unnamed (44.5225, -123.9313); Unnamed (44.5256, -123.9399); Unnamed (44.5435, -124.0221); Unnamed (44.5461, -124.0311); Unnamed (44.5472, -124.0591); Unnamed (44.5482, -124.0249); Unnamed (44.5519, -124.0279); Unnamed (44.5592, -124.0531); Worth Creek (44.5013, -124.0207).

(vi) *Yachats River Watershed*

1710020506. Outlet(s) = Yachats River (Lat 44.3081, Long -124.1070) upstream to endpoint(s) in: Axtell Creek (44.3084, -123.9915); Beamer Creek (44.3142, -124.0124); Bend Creek (44.2826, -124.0077); Carson Creek (44.3160, -124.0030); Dawson Creek

(44.2892, -124.0133); Depew Creek (44.3395, -123.9631); Earley Creek (44.3510, -123.9885); Fish Creek (44.3259, -123.9592); Glines Creek (44.3436, -123.9756); Grass Creek (44.2673, -123.9109); Helms Creek (44.2777, -123.9954); Keller Creek (44.2601, -123.9485); Little Beamer Creek (44.2993, -124.0213); Reedy Creek (44.3083, -124.0460); South Beamer Creek (44.2852, -124.0325); Stump Creek (44.2566, -123.9624); Unnamed (44.2596, -123.9279); Unnamed (44.2657, -123.9585); Unnamed (44.2660, -123.9183); Unnamed (44.2684, -123.9711); Unnamed (44.2837, -123.9268); Unnamed (44.2956, -123.9316); Unnamed (44.3005, -123.9324); Unnamed (44.3163, -123.9428); Unnamed (44.3186, -123.9568); Unnamed (44.3259, -123.9578); Unnamed (44.3431, -123.9711); West Fork Williamson Creek (44.3230, -124.0008); Williamson Creek (44.3300, -124.0026); Yachats River (44.2468, -123.9329); Yachats River, North Fork (44.3467, -123.9972); Yachats River, School Fork (44.3145, -123.9341).

(vii) *Cummins Creek/Tenmile Creek/Mercer Lake Frontal Watershed 1710020507*. Outlet(s) = Berry Creek (Lat 44.0949, Long -124.1221); Big Creek (44.1767, -124.1148); Bob Creek (44.2448, -124.1118); Cape Creek (44.1336, -124.1211); Cummins Creek (44.2660, -124.1075); Rock Creek (44.1833, -124.1149); Sutton Creek (44.0605, -124.1269); Tenmile Creek (44.2245, -124.1083) upstream to endpoint(s) in: Bailey Creek (44.1037, -124.0530); Berry Creek (44.0998, -124.0885); Big Creek (44.1866, -123.9781); Big Creek, South Fork (44.1692, -123.9688); Big Creek, Trib A (44.1601, -124.0231); Bob Creek (44.2346, -124.0235); Cape Creek (44.1351, -124.0174); Cape Creek, North Fork (44.1458, -124.0489); Cummins Creek (44.2557, -124.0104); Fryingpan Creek (44.1723, -124.0401); Leverage Creek (44.0745, -124.0588); Little Cummins Creek (44.2614, -124.0851); McKinney Creek (44.2187, -123.9985); Mercer Creek (44.0712, -124.0796); Mill Creek (44.2106, -124.0747); Quarry Creek (44.0881, -124.1124); Rath Creek (44.0747, -124.0901); Rock Creek (44.1882, -124.0310); Tenmile Creek (44.2143, -123.9351); Tenmile Creek, South Fork (44.2095, -123.9607); Unnamed (44.1771, -124.0908); Unnamed (44.0606, -124.0805); Unnamed (44.0624, -124.0552); Unnamed (44.0658, -124.0802); Unnamed (44.0690, -124.0490); Unnamed

(44.0748, -124.0478); Unnamed (44.0814, -124.0464); Unnamed (44.0958, -124.0559); Unnamed (44.1283, -124.0242); Unnamed (44.1352, -124.0941); Unnamed (44.1712, -124.0558); Unnamed (44.1715, -124.0636); Unnamed (44.2011, -123.9634); Unnamed (44.2048, -123.9971); Unnamed (44.2146, -124.0358); Unnamed (44.2185, -124.0270); Unnamed (44.2209, -123.9368); Wapiti Creek (44.1216, -124.0448); Wildcat Creek (44.2339, -123.9632).

(viii) *Big Creek / Vingie Creek Watershed 1710020508*. Outlet(s) = Big Creek (Lat 44.3742, Long -124.0896) upstream to endpoint(s) in: Big Creek (44.3564, -124.0613); Dicks Fork Big Creek (44.3627, -124.0389); Reynolds Creek (44.3768, -124.0740); South Fork Big Creek (44.3388, -124.0597); Unnamed (44.3643, -124.0355); Unnamed (44.3662, -124.0573); Unnamed (44.3686, -124.0683).

(6) Unit 6. *Siuslaw Subbasin 17100206—(i) Upper Siuslaw River Watershed 1710020601*. Outlet(s) = Siuslaw River (Lat 44.0033, Long -123.6545) upstream to endpoint(s) in: Bear Creek (43.8482, -123.5172); Bear Creek, Trib A (43.8496, -123.5059); Bierce Creek (43.8750, -123.5559); Big Canyon Creek (43.9474, -123.6582); Bottle Creek (43.8791, -123.3871); Bounds Creek (43.9733, -123.7108); Buck Creek, Trib B (43.8198, -123.3913); Buck Creek, Trib E (43.8152, -123.4248); Burntwood Creek (43.9230, -123.5342); Cabin Creek (43.8970, -123.6754); Camp Creek (43.9154, -123.4904); Canyon Creek (43.9780, -123.6096); Clay Creek (43.8766, -123.5721); Collins Creek (43.8913, -123.6047); Conger Creek (43.8968, -123.4524); Doe Creek (43.8957, -123.3558); Doe Hollow Creek (43.8487, -123.4603); Dogwood Creek (43.8958, -123.3811); Douglas Creek (43.8705, -123.2836); Edris Creek (43.9224, -123.5531); Esmond Creek (43.8618, -123.5772); Esmond Creek, Trib 1 (43.9303, -123.6518); Esmond Creek, Trib A (43.8815, -123.6646); Farman Creek (43.8761, -123.2562); Fawn Creek (43.8743, -123.2992); Fawn Creek (43.9436, -123.6088); Fryingpan Creek (43.8329, -123.4241); Fryingpan Creek (43.8422, -123.4318); Gardner Creek (43.8024, -123.2582); Haight Creek (43.8406, -123.4862); Haskins Creek (43.8785, -123.5851); Hawley Creek (43.8599, -123.1558); Hawley Creek, North Fork (43.8717, -123.1751); Holland Creek (43.8775, -123.4156); Jeans Creek (43.8616, -123.4714); Johnson Creek (43.8822, -123.5332); Kelly Creek (43.8338, -123.1739); Kline Creek

(43.9034, -123.6635); Leopold Creek (43.9199, -123.6890); Leopold Creek, Trib A (43.9283, -123.6630); Letz Creek, Trib B (43.7900, -123.3248); Lick Creek (43.8366, -123.2695); Little Siuslaw Creek (43.8048, -123.3412); Lucas Creek (43.8202, -123.2233); Luyne Creek (43.9155, -123.5068); Luyne Creek, Trib A (43.9179, -123.5208); Michaels Creek (43.8624, -123.5417); Mill Creek (43.9028, -123.6228); Norris Creek (43.8434, -123.2006); North Creek (43.9223, -123.5752); North Fork Siuslaw River (43.8513, -123.2302); Oxbow Creek (43.8384, -123.5433); Oxbow Creek, Trib C (43.8492, -123.5465); Pheasant Creek (43.9120, -123.4247); Pheasant Creek, Trib 2 (43.9115, -123.4411); Pugh Creek (43.9480, -123.5940); Russell Creek (43.8813, -123.3425); Russell Creek, Trib A (43.8619, -123.3498); Sandy Creek (43.7684, -123.2441); Sandy Creek, Trib B (43.7826, -123.2538); Shaw Creek (43.8817, -123.3289); Siuslaw River, East Trib (43.8723, -123.5378); Siuslaw River, North Fork, Upper Trib (43.8483, -123.2275); Smith Creek (43.8045, -123.3665); South Fork Siuslaw River (43.7831, -123.1569); Trail Creek (43.9142, -123.6241); Tucker Creek (43.8159, -123.1604); Unnamed (43.7796, -123.2019); Unnamed (43.7810, -123.2818); Unnamed (43.8278, -123.2610); Unnamed (43.8519, -123.2773); Unnamed (43.8559, -123.5520); Unnamed (43.8670, -123.6022); Unnamed (43.8876, -123.5194); Unnamed (43.8902, -123.5609); Unnamed (43.8963, -123.4171); Unnamed (43.8968, -123.4731); Unnamed (43.8992, -123.4033); Unnamed (43.9006, -123.4637); Unnamed (43.9030, -123.6434); Unnamed (43.9492, -123.6924); Unnamed (43.9519, -123.6886); Unnamed (43.9784, -123.6815); Unnamed (43.9656, -123.7145); Whittaker Creek (43.9490, -123.7004); Whittaker Creek, Trib B (43.9545, -123.7121).

(ii) *Wolf Creek Watershed 1710020602*. Outlet(s) = Wolf Creek (Lat 43.9548, Long -123.6205) upstream to endpoint(s) in: Bill Lewis Creek (43.9357, -123.5708); Cabin Creek (43.9226, -123.4081); Eames Creek (43.9790, -123.4352); Eames Creek, Trib C (43.9506, -123.4371); Elkhorn Creek (43.9513, -123.3934); Fish Creek (43.9238, -123.3872); Gall Creek (43.9865, -123.5187); Gall Creek, Trib 1 (43.9850, -123.5285); Grenshaw Creek (43.9676, -123.4645); Lick Creek (43.9407, -123.5796); Oat Creek, Trib A (43.9566, -123.5052); Oat Creek, Trib C (43.9618, -123.4902); Oat Creek

(43.9780, -123.4761); Panther Creek (43.9529, -123.3744); Pittenger Creek (43.9713, -123.5434); Saleratus Creek (43.9796, -123.5675); Saleratus Creek, Trib A (43.9776, -123.5797); Swamp Creek (43.9777, -123.4197); Swing Log Creek (43.9351, -123.3339); Unnamed (43.9035, -123.3358); Unnamed (43.9343, -123.3648); Unnamed (43.9617, -123.4507); Unnamed (43.9668, -123.6041); Unnamed (43.9693, -123.4846); Van Curen Creek (43.9364, -123.5520); Wolf Creek (43.9101, -123.3234).

(iii) *Wildcat Creek Watershed 1710020603*. Outlet(s) = Wildcat Creek (Lat 44.0033, Long -123.6545) upstream to endpoint(s) in: Bulmer Creek (44.0099, -123.5206); Cattle Creek (44.0099, -123.5475); Fish Creek (44.0470, -123.5383); Fowler Creek (43.9877, -123.5918); Haynes Creek (44.1000, -123.5578); Kirk Creek (44.0282, -123.6270); Knapp Creek (44.1006, -123.5801); Miller Creek (44.0767, -123.6034); Pataha Creek (43.9914, -123.5361); Potato Patch Creek (43.9936, -123.5812); Salt Creek (44.0386, -123.5021); Shady Creek (44.0647, -123.5838); Shultz Creek (44.0220, -123.6320); Unnamed (43.9890, -123.5468); Unnamed (44.0210, -123.4805); Unnamed (44.0233, -123.4996); Unnamed (44.0242, -123.4796); Unnamed (44.0253, -123.4963); Unnamed (44.0283, -123.5311); Unnamed (44.0305, -123.5275); Unnamed (44.0479, -123.6199); Unnamed (44.0604, -123.5624); Unnamed (44.0674, -123.6075); Unnamed (44.0720, -123.5590); Unnamed (44.0839, -123.5777); Unnamed (44.0858, -123.5787); Unnamed (44.0860, -123.5741); Unnamed (44.0865, -123.5935); Unnamed (44.0945, -123.5838); Unnamed (44.0959, -123.5902); Walker Creek (44.0469, -123.6312); Walker Creek, Trib C (44.0418, -123.6048); Wildcat Creek (43.9892, -123.4308); Wildcat Creek, Trib ZH (43.9924, -123.4975); Wildcat Creek, Trib ZI (44.0055, -123.4681).

(iv) *Lake Creek Watershed 1710020604*. Outlet(s) = Lake Creek (Lat 44.0556, Long -123.7968) upstream to endpoint(s) in: Chappell Creek (44.1158, -123.6921); Conrad Creek (44.1883, -123.4918); Druggs Creek (44.1996, -123.5926); Fish Creek (44.1679, -123.5149); Green Creek (44.1389, -123.7930); Greenleaf Creek (44.1766, -123.6391); Hula Creek (44.1202, -123.7087); Johnson Creek (44.1037, -123.7327); Lake Creek (44.2618, -123.5148); Lamb Creek (44.1401, -123.5991); Leaver Creek (44.0754, -123.6285); Leibo Canyon (44.2439,

-123.4648); Little Lake Creek (44.1655, -123.6004); McVey Creek (44.0889, -123.6875); Nelson Creek (44.1229, -123.5558); North Fork Fish Creek (44.1535, -123.5437); Pontius Creek (44.1911, -123.5909); Pope Creek (44.2118, -123.5319); Post Creek (44.1828, -123.5259); Stakely Canyon (44.2153, -123.4690); Steinhauer Creek (44.1276, -123.6594); Swamp Creek (44.2150, -123.5687); Swartz Creek (44.2304, -123.4461); Target Canyon (44.2318, -123.4557); Unnamed (44.1048, -123.6540); Unnamed (44.1176, -123.5846); Unnamed (44.1355, -123.5473); Unnamed (44.1355, -123.6125); Unnamed (44.1382, -123.5539); Unnamed (44.1464, -123.5843); Unnamed (44.1659, -123.5658); Unnamed (44.1725, -123.5981); Unnamed (44.1750, -123.5914); Unnamed (44.1770, -123.5697); Unnamed (44.1782, -123.5419); Unnamed (44.1798, -123.5834); Unnamed (44.1847, -123.5862); Unnamed (44.2042, -123.5700); Unnamed (44.2143, -123.5873); Unnamed (44.2258, -123.4493); Unnamed (44.2269, -123.5478); Unnamed (44.2328, -123.5285); Unnamed (44.2403, -123.5358); Unnamed (44.2431, -123.5105); Unnamed (44.2437, -123.5739); Unnamed (44.2461, -123.5180); Unnamed (44.2484, -123.5501); Unnamed (44.2500, -123.5691); Unnamed (44.2573, -123.4736); Unnamed (44.2670, -123.4840); Wheeler Creek (44.1232, -123.6778).

(v) *Deadwood Creek Watershed 1710020605*. Outlet(s) = Deadwood Creek (Lat 44.0949, Long -123.7594) upstream to endpoint(s) in: Alpha Creek (44.1679, -123.6951); Bear Creek (44.1685, -123.6627); Bear Creek, South Fork (44.1467, -123.6743); Buck Creek (44.2003, -123.6683); Deadwood Creek (44.2580, -123.6885); Deadwood Creek, West Fork (44.1946, -123.8023); Deer Creek (44.1655, -123.7229); Failor Creek (44.1597, -123.8003); Fawn Creek (44.2356, -123.7244); Karlstrom Creek (44.1776, -123.7133); Misery Creek (44.1758, -123.7950); North Fork Panther Creek (44.2346, -123.7362); Panther Creek (44.2273, -123.7558); Raleigh Creek (44.1354, -123.6926); Rock Creek (44.1812, -123.6683); Schwartz Creek (44.1306, -123.7258); Unnamed (44.2011, -123.7273); Unnamed (44.1806, -123.7693); Unnamed (44.1845, -123.6824); Unnamed (44.1918, -123.7521); Unnamed (44.1968, -123.7664); Unnamed (44.2094, -123.6674); Unnamed (44.2149, -123.7639); Unnamed (44.2451, -123.6705);

Unnamed (44.2487, -123.7137); Unnamed (44.2500, -123.6933).

(vi) *Indian Creek/Lake Creek Watershed 1710020606*. Outlet(s) = Indian Creek (Lat 44.0808, Long -123.7891) upstream to endpoint(s) in: Cremo Creek (44.1424, -123.8144); Elk Creek (44.1253, -123.8821); Gibson Creek (44.1548, -123.8132); Herman Creek (44.2089, -123.8220); Indian Creek (44.2086, -123.9171); Indian Creek, North Fork (44.2204, -123.9016); Indian Creek, West Fork (44.2014, -123.9075); Long Creek (44.1395, -123.8800); Maria Creek (44.1954, -123.9219); Pyle Creek (44.1792, -123.8623); Rogers Creek (44.1851, -123.9397); Smoot Creek (44.1562, -123.8449); Taylor Creek (44.1864, -123.8115); Unnamed (44.1643, -123.8993); Unnamed (44.1727, -123.8154); Unnamed (44.1795, -123.9180); Unnamed (44.1868, -123.9002); Unnamed (44.1905, -123.8633); Unnamed (44.1967, -123.8872); Unnamed (44.2088, -123.8381); Unnamed (44.2146, -123.8528); Unnamed (44.2176, -123.8462); Unnamed (44.2267, -123.8912); Velvet Creek (44.1295, -123.8087).

(vii) *North Fork Siuslaw River Watershed 1710020607*. Outlet(s) = North Fork Siuslaw River (Lat 43.9719, Long -124.0783) upstream to endpoint(s) in: Billie Creek (44.0971, -124.0362); Cataract Creek (44.0854, -123.9497); Cedar Creek (44.1534, -123.9045); Condon Creek (44.1138, -123.9984); Coon Creek (44.0864, -124.0318); Deer Creek (44.1297, -123.9475); Drew Creek (44.1239, -123.9801); Drew Creek (44.1113, -123.9854); Elma Creek (44.1803, -123.9434); Hanson Creek (44.0776, -123.9328); Haring Creek (44.0307, -124.0462); Lawrence Creek (44.1710, -123.9504); Lindsley Creek (44.0389, -124.0591); McLeod Creek (44.1050, -123.8805); Morris Creek (44.0711, -124.0308); Porter Creek (44.1490, -123.9641); Russell Creek (44.0680, -123.9848); Sam Creek (44.1751, -123.9527); Slover Creek (44.0213, -124.0531); South Russell Creek (44.0515, -123.9840); Taylor Creek (44.1279, -123.9052); Uncle Creek (44.1080, -124.0174); Unnamed (43.9900, -124.0784); Unnamed (43.9907, -124.0759); Unnamed (43.9953, -124.0514); Unnamed (43.9958, -124.0623); Unnamed (43.9999, -124.0694); Unnamed (44.0018, -124.0596); Unnamed (44.0050, -124.0556); Unnamed (44.0106, -124.0650); Unnamed (44.0135, -124.0609); Unnamed (44.0166, -124.0371); Unnamed (44.0194, -124.0631); Unnamed

(44.0211, -124.0663); Unnamed (44.0258, -124.0594); Unnamed (44.0304, -124.0129); Unnamed (44.0327, -124.0670); Unnamed (44.0337, -124.0070); Unnamed (44.0342, -124.0056); Unnamed (44.0370, -124.0391); Unnamed (44.0419, -124.0013); Unnamed (44.0441, -124.0321); Unnamed (44.0579, -124.0077); Unnamed (44.0886, -124.0192); Unnamed (44.0892, -123.9925); Unnamed (44.0941, -123.9131); Unnamed (44.0976, -124.0033); Unnamed (44.1046, -123.9032); Unnamed (44.1476, -123.8959); Unnamed (44.1586, -123.9150); West Branch North Fork Siuslaw River (44.1616, -123.9616); Wilhelm Creek (44.1408, -123.9774).

(viii) Lower Siuslaw River Watershed 1710020608. Outlet(s) = Siuslaw River (Lat 44.0160, Long -124.1327) upstream to endpoint(s) in: Barber Creek (44.0294, -123.7598); Beech Creek (44.0588, -123.6980); Berkshire Creek (44.0508, -123.8890); Bernhardt Creek (43.9655, -123.9532); Brush Creek (44.0432, -123.7798); Brush Creek, East Fork (44.0414, -123.7782); Cedar Creek (43.9696, -123.9304); Clevelan Creek (44.0773, -123.8343); Demming Creek (43.9643, -124.0313); Dinner Creek (44.0108, -123.8069); Divide Creek (44.0516, -123.9421); Duncan Inlet (44.0081, -123.9921); Hadsall Creek (43.9846, -123.8221); Hadsall Creek, Trib D (43.9868, -123.8500); Hadsall Creek, Trib E (43.9812, -123.8359); Hanson Creek (44.0364, -123.9628); Hoffman Creek (43.9808, -123.9412); Hollenbeck Creek (44.0321, -123.8672); Hood Creek (43.9996, -123.7995); Karnowsky Creek (43.9847, -123.9658); Knowles Creek (43.9492, -123.7315); Knowles Creek, Trib L (43.9717, -123.7830); Lawson Creek, TRIB B (43.9612, -123.9659); Meadow Creek (44.0311, -123.6490); Munsel Creek (44.0277, -124.0788); Old Man Creek (44.0543, -123.8022); Pat Creek (44.0659, -123.7245); Patterson Creek (43.9984, -124.0234); Rice Creek (44.0075, -123.8519); Rock Creek (44.0169, -123.6512); South Fork Waite Creek (43.9929, -123.7105); San Aantone Creek (44.0564, -123.6515); Shoemaker Creek (44.0669, -123.8977); Shutte Creek (43.9939, -124.0339); Siuslaw River (44.0033, -123.6545); Skunk Hollow (43.9830, -124.0626); Smith Creek (44.0393, -123.6674); Spencer Creek (44.0676, -123.8809); Sulphur Creek (43.9822, -123.8015); Sweet Creek (43.9463, -123.9016); Sweet Creek, Trib A (44.0047, -123.8907); Sweet Creek, Trib D (43.9860, -123.8811); Thompson Creek

(44.0974, -123.8615); Turner Creek (44.0096, -123.7607); Unnamed (43.9301, -124.0434); Unnamed (43.9596, -124.0337); Unnamed (43.9303, -124.0487); Unnamed (43.9340, -124.0529); Unnamed (43.9367, -124.0632); Unnamed (43.9374, -124.0442); Unnamed (43.9481, -124.0530); Unnamed (43.9501, -124.0622); Unnamed (43.9507, -124.0533); Unnamed (43.9571, -124.0658); Unnamed (43.9576, -124.0491); Unnamed (43.9587, -124.0988); Unnamed (43.9601, -124.0927); Unnamed (43.9615, -124.0527); Unnamed (43.9618, -124.0875); Unnamed (43.9624, -123.7499); Unnamed (43.9662, -123.7639); Unnamed (43.9664, -123.9252); Unnamed (43.9718, -124.0389); Unnamed (43.9720, -124.0075); Unnamed (43.9751, -124.0090); Unnamed (43.9784, -124.0191); Unnamed (43.9796, -123.9150); Unnamed (43.9852, -123.9802); Unnamed (43.9878, -123.9845); Unnamed (43.9915, -123.9732); Unnamed (43.9938, -123.9930); Unnamed (43.9942, -123.8547); Unnamed (43.9943, -123.9891); Unnamed (43.9954, -124.1185); Unnamed (43.9956, -123.7074); Unnamed (43.9995, -123.9825); Unnamed (44.0023, -123.7317); Unnamed (44.0210, -123.9784); Unnamed (44.0240, -123.8989); Unnamed (44.0366, -123.7363); Unnamed (44.0506, -123.9068); Waite Creek (43.9886, -123.7220); Walker Creek (44.0566, -123.9129); Wilson Creek (44.0716, -123.8792).

(7) Unit 7. Siltcoos Subbasin 17100207—Waochink River/Siltcoos River/Tahkenitch Lake Frontal Watershed 1710020701. Outlet(s) = Siltcoos River (Lat 43.8766, Long -124.1548); Tahkenitch Creek (43.8013, -124.1689) upstream to endpoint(s) in: Alder Creek (43.8967, -124.0114); Bear Creek (43.9198, -123.9293); Bear Creek Trib (43.9030, -123.9881); Bear Creek, South Fork (43.9017, -123.9555); Bell Creek (43.8541, -123.9718); Billy Moore Creek (43.8876, -123.9604); Carle Creek (43.9015, -124.0210); Carter Creek (43.9457, -124.0123); Dismal Swamp (43.8098, -124.0871); Elbow Lake Creek (43.7886, -124.1490); Fiddle Creek (43.9132, -123.9164); Fivemile Creek (43.8297, -123.9776); Grant Creek (43.9373, -124.0278); Harry Creek (43.8544, -124.0220); Henderson Canyon (43.8648, -123.9654); Henderson Creek (43.9427, -123.9704); John Sims Creek (43.8262, -124.0792); King Creek (43.8804, -124.0300); Lane Creek

(43.8437, -124.0765); Leitel Creek (43.8181, -124.0200); Mallard Creek (43.7775, -124.0852); Maple Creek (43.9314, -123.9316); Maple Creek, North Prong (43.9483, -123.9510); Miles Canyon (43.8643, -124.0097); Miller Creek (43.9265, -124.0663); Mills Creek (43.8966, -124.0397); Morris Creek (43.8625, -123.9541); Perkins Creek (43.8257, -124.0448); Rider Creek (43.9210, -123.9700); Roache Creek (43.9087, -124.0049); Schrum Creek (43.9194, -124.0492); Schultz Creek (43.9245, -123.9371); Stokes Creek (43.9161, -123.9984); Tenmile Creek (43.9419, -123.9447); Unnamed (43.8928, -124.0461); Unnamed (43.7726, -124.1021); Unnamed (43.7741, -124.1313); Unnamed (43.7756, -124.1363); Unnamed (43.7824, -124.1342); Unnamed (43.7829, -124.0852); Unnamed (43.7837, -124.0812); Unnamed (43.7849, -124.0734); Unnamed (43.7862, -124.0711); Unnamed (43.7865, -124.1107); Unnamed (43.7892, -124.1163); Unnamed (43.7897, -124.0608); Unnamed (43.7946, -124.0477); Unnamed (43.7964, -124.0643); Unnamed (43.8015, -124.0450); Unnamed (43.8078, -124.0340); Unnamed (43.8095, -124.1362); Unnamed (43.8112, -124.0608); Unnamed (43.8152, -124.0981); Unnamed (43.8153, -124.1314); Unnamed (43.8172, -124.0752); Unnamed (43.8231, -124.0853); Unnamed (43.8321, -124.0128); Unnamed (43.8322, -124.0069); Unnamed (43.8323, -124.1016); Unnamed (43.8330, -124.0217); Unnamed (43.8361, -124.1209); Unnamed (43.8400, -123.9802); Unnamed (43.8407, -124.1051); Unnamed (43.8489, -124.0634); Unnamed (43.8500, -123.9852); Unnamed (43.8504, -124.1248); Unnamed (43.8504, -124.0024); Unnamed (43.8507, -124.0511); Unnamed (43.8589, -124.1231); Unnamed (43.8596, -124.0438); Unnamed (43.8605, -124.1211); Unnamed (43.8669, -124.0717); Unnamed (43.8670, -124.0327); Unnamed (43.8707, -124.0689); Unnamed (43.8802, -124.0605); Unnamed (43.8862, -124.0570); Unnamed (43.8913, -123.9380); Unnamed (43.8919, -124.0771); Unnamed (43.8976, -124.0725); Unnamed (43.9032, -124.0651); Unnamed (43.9045, -124.0548); Unnamed (43.9057, -124.0606); Unnamed (43.9065, -124.0656); Unnamed (43.9105, -124.0453); Unnamed (43.9106, -124.0203); Unnamed (43.9202, -124.0786);

Unnamed (43.9209, -124.0734);
 Unnamed (43.9237, -124.0155);
 Unnamed (43.9249, -124.0074);
 Unnamed (43.9274, -124.0759);
 Unnamed (43.9275, -124.0308);
 Unnamed (43.9360, -124.0892);
 Unnamed (43.9365, -124.0297);
 Unnamed (43.9424, -124.0981);
 Unnamed (43.9438, -124.0929);
 Unnamed (43.9453, -124.0752);
 Unnamed (43.9518, -123.9953).

(8) Unit 8. North Fork Umpqua Subbasin 17100301—(i) *Middle North Umpqua Watershed 1710030107*. Outlet(s) = North Umpqua River (Lat 43.3322, Long -123.0025) upstream to endpoint(s) in: Calf Creek (43.2852, -122.6229); Copeland Creek (43.2853, -122.5325); Deception Creek (43.2766, -122.5850); Dry Creek (43.2967, -122.6016); Honey Creek (43.3181, -122.9414); Limpy Creek (43.3020, -122.6795); North Umpqua River (43.3027, -122.4938); Panther Creek (43.3019, -122.6801); Steamboat Creek (43.3491, -122.7281); Susan Creek (43.3044, -122.9058); Williams Creek (43.3431, -122.7724).

(ii) *Rock Creek/North Umpqua River Watershed 1710030110*. Outlet(s) = Rock Creek (Lat 43.3322, Long -123.0025) upstream to endpoint(s) in: Conley Creek (43.3630, -122.9673); Harrington Creek (43.4151, -122.9550); Kelly Creek (43.3592, -122.9912); McComas Creek (43.3536, -122.9923); Rock Creek (43.4247, -122.9055); Rock Creek, East Fork (43.3807, -122.8270); Rock Creek, East Fork, North Fork (43.4147, -122.8512); Shoup Creek (43.3882, -122.9674).

(iii) *Little River Watershed 1710030111*. Outlet(s) = Little River (Lat 43.2978, Long -123.1012) upstream to endpoint(s) in: Buck Peak Creek (43.1762, -123.0479); Buckhorn Creek (43.2592, -123.1072); Cavitt Creek (43.1464, -122.9758); Copperhead Creek (43.1626, -123.0595); Emile Creek (43.2544, -122.8849); Everts Creek (43.2087, -123.0133); Jim Creek (43.2257, -123.0592); Little River (43.2065, -122.8231); McKay Creek (43.2092, -123.0356); Tuttle Creek (43.1440, -122.9813); White Rock Creek (43.1540, -123.0379); Wolf Creek (43.2179, -122.9461).

(iv) *Lower North Umpqua River Watershed 1710030112*. Outlet(s) = North Umpqua River (Lat 43.2682, Long -123.4448) upstream to endpoint(s) in: Bradley Creek (43.3350, -123.1025); Clover Creek (43.2490, -123.2604); Cooper Creek (43.3420, -123.1650); Cooper Creek (43.3797, -123.2807); Dixon Creek (43.2770, -123.2911); French Creek (43.3349, -123.0801); Huntley Creek (43.3363, -123.1340); North Umpqua River (43.3322,

-123.0025); Oak Creek (43.2839, -123.2063); Short Creek (43.3204, -123.3315); Sutherlin Creek (43.3677, -123.2114); Unnamed (43.3285, -123.2016).

(9) Unit 9. South Fork Umpqua Subbasin 17100302—(i) *Middle South Umpqua River Watershed 1710030203*. Outlet(s) = South Umpqua River (Lat 42.9272, Long -122.9504) upstream to endpoint(s) in: Boulder Creek (43.1056, -122.7379); Budd Creek (43.0506, -122.8185); Deadman Creek (43.0049, -122.8967); Dompier Creek (42.9553, -122.9166); Dumont Creek (43.0719, -122.8224); Francis Creek (43.0202, -122.8231); South Umpqua River (43.0481, -122.6998); Sam Creek (43.0037, -122.8412); Slick Creek (43.0986, -122.7867).

(ii) *South Umpqua River Watershed 1710030205*. Outlet(s) = South Umpqua River (Lat 42.9476, Long -123.3368) upstream to endpoint(s) in: Alder Creek (42.9109, -123.2991); Canyon Creek (42.8798, -123.2410); Canyon Creek, West Fork (42.8757, -123.2734); Canyon Creek, West Fork, Trib A (42.8834, -123.2947); Coffee Creek (42.9416, -122.9993); Comer Brook (42.9082, -123.2908); Days Creek (43.0539, -123.0012); Days Creek, Trib 1 (43.0351, -123.0532); Doe Hollow (42.9805, -123.0812); Fate Creek (42.9943, -123.1028); Green Gulch (43.0040, -123.1276); Hatchet Creek (42.9251, -122.9757); Jordan Creek (42.9224, -123.3086); Lavadoure Creek (42.9594, -123.0930); Lick Creek (42.9213, -123.0261); May Creek (43.0153, -123.0725); Morgan Creek (42.9635, -123.2409); O'Shea Creek (42.9256, -123.2486); Perdue Creek (43.0038, -123.1192); Poole Creek (42.9321, -123.1106); Poole Creek, East Fork (42.8983, -123.0993); South Umpqua River (42.9272, -122.9504); Shively Creek (42.8888, -123.1635); Shively Creek, East Fork (42.8793, -123.1194); Small Creek (42.9631, -123.2519); St. John Creek (42.9598, -123.0514); Stinger Gulch Creek (42.9950, -123.1851); Stouts Creek, East Fork (42.9090, -123.0424); Stouts Creek, West Fork (42.8531, -123.0167); Sweat Creek (42.9293, -123.1899); Wood Creek (43.0048, -123.1486).

(iii) *Middle Cow Creek Watershed 1710030207*. Outlet(s) = Cow Creek (Lat 42.8114, Long -123.5947) upstream to endpoint(s) in: Bear Creek (42.8045, -123.3635); Booth Gulch (42.7804, -123.2282); Bull Run Creek (42.7555, -123.2366); Clear Creek (42.8218, -123.2610); Cow Creek (42.8487, -123.1780); Dads Creek (42.7650, -123.5401); East Fork Whitehorse Creek (42.7925, -123.1448); Fortune Branch (42.8051, -123.2971); Hogum

Creek (42.7574, -123.1853); Lawson Creek (42.7896, -123.3752); Little Bull Run Creek (42.7532, -123.2479); McCullough Creek (42.7951, -123.4421); Mynatt Creek (42.8034, -123.2828); Panther Creek (42.7409, -123.4990); Perkins Creek (42.7331, -123.4997); Quines Creek (42.7278, -123.2396); Rattlesnake Creek (42.7106, -123.4774); Riffle Creek (42.7575, -123.6260); Section Creek (42.7300, -123.4373); Skull Creek (42.7527, -123.5779); Starveout Creek (42.7541, -123.1953); Stevens Creek (42.7255, -123.4835); Susan Creek (42.8035, -123.5762); Swamp Creek (42.7616, -123.3518); Tennessee Gulch (42.7265, -123.2591); Totten Creek (42.7448, -123.4610); Unnamed (42.7964, -123.4200); Unnamed (42.8101, -123.3150); Whitehorse Creek (42.7772, -123.1532); Wildcat Creek (42.7738, -123.2378); Windy Creek (42.8221, -123.3296); Wood Creek (42.8141, -123.4111); Woodford Creek (42.7458, -123.3180).

(iv) *West Fork Cow Creek Watershed 1710030208*. Outlet(s) = West Fork Cow Creek (Lat 42.8118, Long -123.6006) upstream to endpoint(s) in: Bear Creek (42.7662, -123.6741); Bobby Creek (42.8199, -123.7196); Elk Valley Creek (42.8681, -123.7133); Elk Valley Creek, East Fork (42.8698, -123.6812); Goat Trail Creek (42.8002, -123.6828); Gold Mountain Creek (42.8639, -123.7787); No Sweat Creek (42.8024, -123.7081); Panther Creek (42.8596, -123.7506); Slaughter Pen Creek (42.8224, -123.6565); Sweat Creek (42.8018, -123.6995); Walker Creek (42.8228, -123.7614); Wallace Creek (42.8311, -123.7696); West Fork Cow Creek (42.8329, -123.7733).

(v) *Lower Cow Creek Watershed 1710030209*. Outlet(s) = Cow Creek (Lat 42.9476, Long -123.3368) upstream to endpoint(s) in: Ash Creek (42.9052, -123.3385); Boulder Creek (42.8607, -123.5494); Brush Creek (42.8526, -123.4369); Buck Creek (42.8093, -123.4979); Buck Creek (42.9691, -123.5289); Cattle Creek (42.8751, -123.5374); Cedar Gulch (42.8457, -123.5038); Council Creek (42.8929, -123.4366); Cow Creek (42.8114, -123.5947); Darby Creek (42.8553, -123.6123); Doe Creek (42.9333, -123.5057); Gravel Creek (42.8596, -123.4598); Iron Mountain Creek (42.9035, -123.5175); Island Creek (42.8957, -123.4749); Jerry Creek (42.9517, -123.4009); Little Dads Creek (42.8902, -123.5655); Martin Creek (42.8080, -123.4763); Middle Creek, South Fork (42.8298, -123.3870); Panther Creek (42.8417, -123.4492); Peavine Creek (42.8275, -123.4610); Russell Creek (42.9094, -123.3797);

Salt Creek (42.9462, -123.4830); Shoestrin Creek (42.9221, -123.3613); Smith Creek (42.8489, -123.4765); Smith Creek (42.9236, -123.5482); Table Creek (42.9114, -123.5695); Union Creek (42.8769, -123.5853); Unnamed (42.8891, -123.4080).

(vi) *Middle South Umpqua River Watershed 1710030210*. Outlet(s) = South Umpqua River (Lat 43.1172, Long -123.4273) upstream to endpoint(s) in:

Adams Creek (43.0724, -123.4776); Barrett Creek (43.0145, -123.4451); Clark Brook (43.0980, -123.2897); East Willis Creek (43.0151, -123.3845); Judd Creek (42.9852, -123.4060); Kent Creek (43.0490, -123.4792); Lane Creek (42.9704, -123.4001); Porter Creek (43.0444, -123.4597); Rice Creek (43.0181, -123.4779); Richardson Creek (43.0766, -123.2881); South Umpqua River (42.9476, -123.3368); Squaw Creek (43.0815, -123.4688); Van Dine Creek (43.0326, -123.3473); West Willis Creek (43.0172, -123.4355).

(vii) *Myrtle Creek Watershed 1710030211*. Outlet(s) = North Myrtle Creek (Lat 43.0231, Long -123.2951) upstream to endpoint(s) in: Ben Branch Creek (43.0544, -123.1618); Big Lick (43.0778, -123.2175); Bilger Creek (43.1118, -123.2372); Buck Fork Creek (43.1415, -123.0831); Cedar Hollow (43.0096, -123.2297); Frozen Creek (43.1089, -123.1929); Frozen-Creek, Left Fork (43.1157, -123.2306); Harrison Young Brook (43.0610, -123.2850); Lally Creek (43.0890, -123.0597); Lee Creek (43.1333, -123.1477); Letitia Creek (43.0710, -123.0907); Little Lick (43.0492, -123.2234); Long Wiley Creek (43.0584, -123.1067); Louis Creek (43.1165, -123.0783); North Myrtle Creek (43.1486, -123.1219); Riser Creek (43.1276, -123.0703); Rock Creek (43.0729, -123.2620); South Myrtle Creek (43.0850, -123.0103); School Hollow (43.0563, -123.1753); Short Wiley Creek (43.0589, -123.1158); Slide Creek (43.1110, -123.1078); Unnamed (43.1138, -123.1721); Weaver Creek (43.1102, -123.0576).

(viii) *Ollala Creek/Lookingglass Watershed 1710030212*. Outlet(s) = Lookingglass Creek (Lat 43.1172, Long -123.4273) upstream to endpoint(s) in: Archambeau Creek (43.2070, -123.5329); Bear Creek (43.1233, -123.6382); Berry Creek (43.0404, -123.5543); Bushnell Creek (43.0183, -123.5289); Byron Creek, East Fork (43.0192, -123.4939); Byron Creek, North Fork (43.0326, -123.4792); Coarse Gold Creek (43.0291, -123.5742); Flournoy Creek (43.2227, -123.5560); Little Muley Creek (43.0950, -123.6247); Lookingglass Creek (43.1597, -123.6015); McNabb

Creek (43.0545, -123.4984); Muns Creek (43.0880, -123.6333); Olalla Creek (42.9695, -123.5914); Perron Creek (43.0960, -123.4904); Porter Creek (43.1381, -123.5569); Sheilds Creek (43.0640, -123.6189); Tenmile Creek (43.1482, -123.6537); Tenmile Creek, North Fork (43.1260, -123.6069); Thompson Creek (42.9860, -123.5140); Willingham Creek (42.9600, -123.5814).

(ix) *Lower South Umpqua River Watershed 1710030213*. Outlet(s) = South Umpqua River (Lat 43.2682, Long -123.4448) upstream to endpoint(s) in: Callahan Creek (43.2291, -123.5355); Damotta Brook (43.2030, -123.2987); Deer Creek, North Fork (43.2166, -123.1437); Deer Creek, South Fork (43.1875, -123.1722); Deer Creek, South Fork, Trib 1 (43.1576, -123.2393); Deer Creek, South Fork, Middle Fork (43.1625, -123.1413); Doerner Creek (43.2370, -123.5153); Elgarose Creek (43.2747, -123.5105); Marsters Creek (43.1584, -123.4489); Melton Creek (43.1294, -123.2173); Roberts Creek (43.1124, -123.2831); South Umpqua River (43.1172, -123.4273); Stocker Creek (43.2205, -123.4392); Tucker Creek (43.1238, -123.2378); Unnamed (43.2184, -123.1709); Willow Creek (43.2543, -123.5143).

(10) Unit 10. Umpqua Subbasin 17100303—(i) *Upper Umpqua River Watershed 1710030301*. Outlet(s) = Umpqua River (Lat 43.6329, Long -123.5662) upstream to endpoint(s) in: Bear Creek (43.3202, -123.6118); Bear Creek (43.5436, -123.4481); Bottle Creek (43.4088, -123.4843); Brads Creek (43.5852, -123.4651); Camp Creek (43.2969, -123.5361); Case Knife Creek (43.4288, -123.6665); Cedar Creek (43.5360, -123.5969); Cougar Creek (43.3524, -123.6166); Doe Creek (43.5311, -123.4259); Fitzpatrick Creek (43.5819, -123.6308); Gallagher Canyon (43.4708, -123.4394); Heddin Creek (43.5909, -123.6466); Hubbard Creek (43.2526, -123.5544); Leonard Creek (43.4448, -123.5402); Little Canyon Creek (43.4554, -123.4560); Little Wolf Creek (43.4232, -123.6833); Little Wolf Creek, Trib D (43.4052, -123.6477); Lost Creek (43.4355, -123.4902); Martin Creek (43.5539, -123.4633); McGee Creek (43.5125, -123.5632); Mehl Creek (43.5491, -123.6541); Mill Creek (43.3178, -123.5095); Miner Creek (43.4518, -123.6764); Panther Canyon (43.5541, -123.3484); Porter Creek (43.4245, -123.5439); Rader Creek (43.5203, -123.6517); Rader Creek, Trib A (43.4912, -123.5726); Umpqua River (43.2682, -123.4448); Unnamed (43.5781, -123.6170); Unnamed (43.5630, -123.6080);

Unnamed (43.4011, -123.6474); Unnamed (43.4119, -123.6172); Unnamed (43.4212, -123.6398); Unnamed (43.4640, -123.6734); Unnamed (43.4940, -123.6166); Unnamed (43.5765, -123.4710); Waggoner Creek (43.5282, -123.6072); Whiskey Camp Creek (43.4587, -123.6755); Williams Creek (43.5952, -123.5222); Wolf Creek (43.4707, -123.6655).

(ii) *Calapooya Creek Watershed 1710030302*. Outlet(s) = Calapooya Creek (Lat 43.3658, Long -123.4674) upstream to endpoint(s) in: Bachelor Creek (43.5480, -123.2062); Banks Creek (43.3631, -123.1755); Beaty Creek (43.4406, -123.0392); Boyd Creek (43.4957, -123.1573); Brome Creek (43.4016, -123.2040); Burke Creek (43.3987, -123.4463); Buzzard Roost Creek (43.4584, -123.0990); Cabin Creek (43.5421, -123.3294); Calapooya Creek, North Fork (43.4867, -123.0280); Coon Creek (43.4218, -123.4349); Coon Creek (43.5245, -123.0429); Dodge Canyon Creek (43.4362, -123.4420); Driver Valley Creek (43.4327, -123.1960); Field Creek (43.4043, -123.0917); Gassy Creek (43.3862, -123.1133); Gilbreath Creek (43.4218, -123.0931); Gossett Creek (43.4970, -123.1045); Haney Creek (43.4763, -123.1086); Hinkle Creek (43.4230, -123.0382); Hog Creek (43.4767, -123.2516); Jeffers Creek (43.4522, -123.1047); Long Valley Creek (43.4474, -123.1460); Middle Fork South Fork Calapooya Creek (43.4772, -122.9952); Markam Creek (43.3751, -123.1479); Marsh Creek (43.5223, -123.3348); Mill Creek (43.4927, -123.1315); Norton Creek (43.5046, -123.3736); Pine Tree Creek (43.4179, -123.0688); Pollock Creek (43.5326, -123.2685); Salt Creek (43.5161, -123.2504); Salt Lick Creek (43.4510, -123.1168); Slide Creek (43.3926, -123.0919); Timothy Creek (43.4862, -123.0896); Unnamed (43.4469, -123.4268); Unnamed (43.4481, -123.4283); Unnamed (43.4483, -123.4134); Unnamed (43.4658, -122.9899); Unnamed (43.4707, -122.9896); Unnamed (43.4908, -123.0703); Unnamed (43.5173, -123.0564); Wheeler Canyon (43.4840, -123.3631); White Creek (43.4637, -123.0451); Williams Creek (43.4703, -123.4096).

(iii) *Elk Creek Watershed 1710030303*. Outlet(s) = Elk Creek (Lat 43.6329, Long -123.5662) upstream to endpoint(s) in: Adams Creek (43.5860, -123.2202); Allen Creek (43.6375, -123.3731); Andrews Creek (43.5837, -123.3920); Asker Creek (43.6290, -123.2668); Bear Creek (43.6195, -123.3703); Bear Creek (43.7119, -123.1757); Bennet Creek

(43.6158, -123.1558); Big Tom Folley Creek (43.7293, -123.4053); Big Tom Folley Creek, North Fork (43.7393, -123.4917); Big Tom Folley Creek, Trib A (43.7231, -123.4465); Billy Creek, East Fork (43.5880, -123.3263); Billy Creek, South Fork (43.5725, -123.3603); Blue Hole Creek (43.5610, -123.4378); Brush Creek (43.5600, -123.4205); Buck Creek (43.6981, -123.1818); Cowan Creek (43.5915, -123.2615); Cox Creek (43.6356, -123.1794); Curtis Creek (43.6839, -123.1734); Dodge Canyon (43.6225, -123.2509); Elk Creek (43.5097, -123.1620); Ellenburg Creek (43.7378, -123.3296); Fitch Creek (43.6986, -123.3152); Five Point Canyon (43.5707, -123.3526); Flagler Creek (43.5729, -123.3382); Green Creek (43.6851, -123.4688); Green Ridge Creek (43.5920, -123.3958); Halo Creek (43.5990, -123.2658); Hancock Creek (43.6314, -123.5188); Hanlon Creek (43.6190, -123.2785); Hardscrabble Creek (43.7111, -123.3517); Huntington Creek (43.5882, -123.2808); Jack Creek (43.7071, -123.3819); Johnny Creek (43.7083, -123.3972); Johnson Creek (43.6830, -123.2715); Lancaster Creek (43.6442, -123.4361); Lane Creek (43.5483, -123.1221); Lees Creek (43.6610, -123.1888); Little Sand Creek (43.7655, -123.2778); Little Tom Folley Creek (43.6959, -123.5393); McClintock Creek (43.6664, -123.2703); Parker Creek (43.6823, -123.4178); Pass Creek (43.7527, -123.1528); Pheasant Creek (43.7758, -123.2099); Rock Creek (43.7759, -123.2730); Saddle Butte Creek (43.7214, -123.5219); Salt Creek (43.6796, -123.2213); Sand Creek (43.7709, -123.2912); Shingle Mill Creek (43.5314, -123.1308); Simpson Creek (43.6629, -123.2553); Smith Creek (43.6851, -123.3179); Squaw Creek (43.6010, -123.4284); Taylor Creek (43.7642, -123.2712); Thief Creek (43.6527, -123.1459); Thistleburn Creek (43.6313, -123.4332); Unnamed (43.5851, -123.3101); Walker Creek (43.5922, -123.1707); Ward Creek (43.7486, -123.2023); Wehmeyer Creek (43.6823, -123.2404); Wilson Creek (43.5699, -123.2681); Wise Creek (43.6679, -123.2772); Yoncalla Creek (43.5563, -123.2833).

(iv) *Middle Umpqua River Watershed 1710030304*. Outlet(s) = Umpqua River (Lat 43.6556, Long -123.8752) upstream to endpoint(s) in: Burchard Creek (43.6680, -123.7520); Butler Creek (43.6325, -123.6867); Cedar Creek (43.7027, -123.6451); House Creek (43.7107, -123.6378); Little Mill Creek (43.6933, -123.8248); Little

Paradise Creek (43.6981, -123.5630); Paradise Creek (43.7301, -123.5738); Patterson Creek (43.7076, -123.6977); Purdy Creek (43.6895, -123.7712); Sawyer Creek (43.6027, -123.6717); Scott Creek (43.6885, -123.6966); Umpqua River (43.6329, -123.5662); Unnamed (43.6011, -123.7084); Unnamed (43.5998, -123.6803); Unnamed (43.6143, -123.6674); Unnamed (43.6453, -123.7619); Unnamed (43.6461, -123.8064); Unnamed (43.6923, -123.7534); Unnamed (43.7068, -123.6109); Unnamed (43.7084, -123.7156); Unnamed (43.7098, -123.6300); Unnamed (43.7274, -123.6026); Weatherly Creek (43.7205, -123.6680); Wells Creek (43.6859, -123.7946).

(v) *Upper Smith River Watershed 1710030306*. Outlet(s) = Smith River (Lat 43.7968, Long -123.7565) upstream to endpoint(s) in: Amberson Creek (43.7787, -123.4944); Argue Creek (43.7656, -123.6959); Beaver Creek (43.7865, -123.6949); Beaver Creek (43.8081, -123.4041); Big Creek (43.7372, -123.7112); Blackwell Creek (43.8145, -123.7460); Blind Creek (43.7518, -123.6551); Bum Creek (43.8044, -123.5802); Carpenter Creek (43.7947, -123.7258); Clabber Creek (43.7919, -123.5878); Clearwater Creek (43.8138, -123.7375); Cleghorn Creek (43.7508, -123.4997); Clevenger Creek (43.7826, -123.4087); Coldwater Creek (43.8316, -123.7232); Deer Creek (43.8109, -123.5362); Devils Club Creek (43.7916, -123.6148); Elk Creek (43.8004, -123.4347); Halfway Creek (43.7412, -123.5112); Hall Creek (43.7732, -123.3836); Haney Creek (43.8355, -123.5006); Hardenbrook Creek (43.7943, -123.5660); Hefty Creek (43.7881, -123.3954); Herb Creek (43.8661, -123.6782); Jeff Creek (43.8079, -123.6033); Marsh Creek (43.7831, -123.6185); Mometown Creek (43.7326, -123.6613); Mometown Creek, East Fork (43.7185, -123.6433); North Sister Creek (43.8492, -123.5771); Panther Creek (43.8295, -123.4464); Pearl Creek (43.8263, -123.5350); Peterson Creek (43.7575, -123.3947); Plank Creek (43.7635, -123.3980); Redford Creek (43.7878, -123.3520); Rock Creek (43.7733, -123.6222); Russell Creek (43.8538, -123.6971); South Sister Creek (43.8366, -123.5611); Salmonberry Creek (43.8085, -123.4482); Scare Creek (43.7631, -123.7260); Sleezer Creek (43.7535, -123.3711); Slideout Creek (43.7831, -123.5685); Smith River, Little South Fork (43.7392, -123.4583); Smith River, South Fork (43.7345, -123.3843); Smith River (43.7529, -123.3310); Spring Creek (43.7570,

-123.3276); Summit Creek (43.7985, -123.3487); Sweden Creek (43.8618, -123.6468); Tip Davis Creek (43.7739, -123.3301); Twin Sister Creek (43.8348, -123.7168); Unnamed (43.7234, -123.6308); Unnamed (43.7397, -123.6984); Unnamed (43.7433, -123.4673); Unnamed (43.7492, -123.6911); Unnamed (43.7495, -123.5832); Unnamed (43.7527, -123.5210); Unnamed (43.7533, -123.7046); Unnamed (43.7541, -123.4805); Unnamed (43.7708, -123.4819); Unnamed (43.7726, -123.5039); Unnamed (43.7748, -123.6044); Unnamed (43.7775, -123.6927); Unnamed (43.7830, -123.5900); Unnamed (43.7921, -123.6335); Unnamed (43.7955, -123.7013); Unnamed (43.7993, -123.6171); Unnamed (43.8020, -123.6739); Unnamed (43.8034, -123.6959); Unnamed (43.8133, -123.5893); Unnamed (43.8197, -123.4827); Unnamed (43.8263, -123.5810); Unnamed (43.8360, -123.6951); Unnamed (43.8519, -123.5910); Unnamed (43.8535, -123.6357); Unnamed (43.8541, -123.6155); Unnamed (43.8585, -123.6867); Upper Johnson Creek (43.7509, -123.5426); West Fork Halfway Creek (43.7421, -123.6119); Yellow Creek (43.8193, -123.5545).

(vi) *Lower Smith River Watershed 1710030307*. Outlet(s) = Smith River (Lat 43.7115, Long -124.0807) upstream to endpoint(s) in: Bear Creek (43.8087, -123.8202); Beaver Creek (43.8983, -123.7559); Black Creek (43.7544, -123.9967); Brainard Creek (43.7448, -124.0105); Buck Creek (43.7719, -123.7823); Cassady Creek (43.7578, -123.9744); Cedar Creek (43.8541, -123.8562); Chapman Creek (43.8181, -123.9380); Coon Creek (43.8495, -123.7857); Crane Creek (43.8592, -123.7739); Edmonds Creek (43.8257, -123.9000); Eslick Creek (43.8153, -123.9894); Eslick Creek, East Fork (43.8082, -123.9583); Frantz Creek (43.7542, -124.1006); Frarey Creek (43.7683, -124.0615); Georgia Creek (43.8373, -123.8911); Gold Creek (43.9002, -123.7470); Harlan Creek (43.8635, -123.9319); Holden Creek (43.7901, -124.0178); Hudson Slough (43.7725, -124.0736); Johnson Creek (43.8291, -123.9582); Johnson Creek (43.8480, -123.8209); Joyce Creek (43.7892, -124.0356); Joyce Creek, West Fork (43.7708, -124.0457); Kentucky Creek (43.9313, -123.8153); Middle Fork of North Fork Smith River (43.8780, -123.7687); Moore Creek (43.8523, -123.8931); Moore Creek (43.8661, -123.7558); Murphy Creek (43.7449, -123.9527); Noel Creek

(43.7989, -124.0109); Otter Creek (43.7216, -123.9626); Otter Creek, North Fork (43.7348, -123.9597); Paxton Creek (43.8847, -123.9004); Peach Creek (43.8963, -123.8599); Perkins Creek (43.7362, -123.9151); Railroad Creek (43.8086, -123.8998); Smith River, West Fork (43.9102, -123.7073); Smith River (43.7968, -123.7565); Spencer Creek (43.8429, -123.8321); Spencer Creek, West Fork (43.8321, -123.8685); Sulphur Creek (43.8512, -123.9422); Unnamed (43.7031, -123.7463); Unnamed (43.7106, -123.7666); Unnamed (43.7203, -123.7601); Unnamed (43.7267, -123.7396); Unnamed (43.7286, -123.7798); Unnamed (43.7322, -124.0585); Unnamed (43.7325, -123.7337); Unnamed (43.7470, -123.7416); Unnamed (43.7470, -123.7711); Unnamed (43.7569, -124.0844); Unnamed (43.7606, -124.0853); Unnamed (43.7623, -124.0753); Unnamed (43.7669, -124.0766); Unnamed (43.7734, -124.0674); Unnamed (43.7855, -124.0076); Unnamed (43.7877, -123.9936); Unnamed (43.8129, -123.9743); Unnamed (43.8212, -123.8777); Unnamed (43.8258, -123.8192); Unnamed (43.8375, -123.9631); Unnamed (43.8424, -123.7925); Unnamed (43.8437, -123.7989); Unnamed (43.8601, -123.7630); Unnamed (43.8603, -123.8155); Unnamed (43.8655, -123.8489); Unnamed (43.8661, -123.9136); Unnamed (43.8688, -123.7994); Unnamed (43.8831, -123.8534); Unnamed (43.8883, -123.7157); Unnamed (43.8906, -123.7759); Unnamed (43.8916, -123.8765); Unnamed (43.8922, -123.8144); Unnamed (43.8953, -123.8772); Unnamed (43.8980, -123.7865); Unnamed (43.8997, -123.7993); Unnamed (43.8998, -123.7197); Unnamed (43.9015, -123.8386); Unnamed (43.9015, -123.8949); Unnamed (43.9023, -123.8241); Unnamed (43.9048, -123.8316); Unnamed (43.9075, -123.7208); Unnamed (43.9079, -123.8263); Vincent Creek (43.7035, -123.7882); Wassen Creek (43.7419, -123.8905); West Branch North Fork Smith River (43.9113, -123.8958).

(vii) *Lower Umpqua River Watershed 1710030308*. Outlet(s) = Umpqua River (Lat 43.6696, Long -124.2025) upstream to endpoint(s) in: Alder Creek (43.6310, -124.0483); Bear Creek (43.7053, -123.9529); Butler Creek (43.7157, -124.0059); Charlotte Creek (43.6320, -123.9307); Dean Creek (43.6214, -123.9740); Dry Creek

(43.6369, -124.0595); Franklin Creek (43.6850, -123.8659); Hakki Creek (43.6711, -124.0161); Indian Charlie Creek (43.6611, -123.9404); Johnson Creek (43.6711, -123.9760); Koepke Slough (43.6909, -124.0294); Little Franklin Creek (43.6853, -123.8863); Luder Creek (43.6423, -123.9046); Miller Creek (43.6528, -124.0140); Oar Creek (43.6620, -124.0289); Providence Creek (43.7083, -124.1289); Scholfield Creek (43.6253, -124.0112); Umpqua River (43.6556, -123.8752); Unnamed (43.6359, -123.9572); Unnamed (43.6805, -124.1146); Unnamed (43.6904, -124.0506); Unnamed (43.6940, -124.0340); Unnamed (43.7069, -123.9824); Unnamed (43.7242, -123.9369); Winchester Creek (43.6657, -124.1247); Wind Creek, South Fork (43.6346, -124.0897).

(1) Unit 11. Coos Subbasin 17100304—(i) *South Fork Coos Watershed 1710030401*. Outlet(s) = South Fork Coos (Lat 43.3905, Long -123.9634) upstream to endpoint(s) in: Beaver Slide Creek (43.2728, -123.8472); Bottom Creek (43.3751, -123.7065); Bottom Creek, North Fork (43.3896, -123.7264); Buck Creek (43.2476, -123.8023); Burnt Creek (43.2567, -123.7834); Cedar Creek (43.3388, -123.6303); Cedar Creek, Trib E (43.3423, -123.6749); Cedar Creek, Trib F (43.3330, -123.6523); Coal Creek (43.3426, -123.8685); Eight River Creek (43.2638, -123.8568); Fall Creek (43.2535, -123.7106); Fall Creek (43.4106, -123.7512); Fivemile Creek (43.2341, -123.6307); Gods Thumb Creek (43.3440, -123.7013); Gooseberry Creek (43.2452, -123.7081); Hatcher Creek (43.3021, -123.8370); Hog Ranch Creek (43.2754, -123.8125); Lake Creek (43.2971, -123.6354); Little Cow Creek (43.1886, -123.6133); Lost Creek (43.2325, -123.5769); Lost Creek, Trib A (43.2224, -123.5961); Mink Creek (43.3068, -123.8515); Panther Creek (43.2593, -123.6401); Shotgun Creek (43.2920, -123.7623); Susan Creek (43.2720, -123.7654); Tioga Creek (43.2110, -123.7786); Unnamed (43.2209, -123.7789); Unnamed (43.2305, -123.8360); Unnamed (43.2364, -123.7818); Unnamed (43.2548, -123.8569); Unnamed (43.2713, -123.8320); Unnamed (43.2902, -123.6662); Unnamed (43.3168, -123.6491); Unnamed (43.3692, -123.8320); Unnamed (43.3698, -123.8321); Unnamed (43.3806, -123.8327); Unnamed (43.3846, -123.8058); Unnamed (43.3887, -123.7927); Unnamed (43.3651, -123.7073); Wilson Creek (43.2083, -123.6691).

(ii) *Millicoma River Watershed 1710030402*. Outlet(s) = West Fork

Millicoma River (Lat 43.4242, Long -124.0288) upstream to endpoint(s) in: Bealah Creek (43.4271, -123.8445); Buck Creek (43.5659, -123.9765); Cougar Creek (43.5983, -123.8788); Crane Creek (43.5545, -123.9287); Dagget Creek (43.4862, -124.0557); Darius Creek (43.4741, -123.9407); Deer Creek (43.6207, -123.9616); Deer Creek, Trib A (43.6100, -123.9761); Deer Creek, Trib B (43.6191, -123.9482); Devils Elbow Creek (43.4439, -124.0608); East Fork Millicoma River (43.4204, -123.8330); Elk Creek (43.5441, -123.9175); Fish Creek (43.6015, -123.8968); Fox Creek (43.4189, -123.9459); Glenn Creek (43.4799, -123.9325); Hidden Creek (43.5646, -123.9235); Hodges Creek (43.4348, -123.9889); Joes Creek (43.5838, -123.9787); Kelly Creek (43.5948, -123.9036); Knife Creek (43.6163, -123.9310); Little Matson Creek (43.4375, -123.8890); Marlow Creek (43.4779, -123.9815); Matson Creek (43.4489, -123.9191); Otter Creek (43.5935, -123.9729); Panther Creek (43.5619, -123.9038); Rainy Creek (43.4293, -124.0400); Rodine Creek (43.4434, -123.9789); Schumacher Creek (43.4842, -124.0380); Totten Creek (43.4869, -124.0457); Trout Creek (43.5398, -123.9814); Unnamed (43.4686, -124.0143); Unnamed (43.5156, -123.9366); Unnamed (43.5396, -123.9373); Unnamed (43.5450, -123.9305); West Fork Millicoma River (43.5617, -123.8788).

(iii) *Lakeside Frontal Watershed 1710030403*. Outlet(s) = Tenmile Creek (43.5618, -124.2308) upstream to endpoint(s) in: Adams Creek (43.5382, -124.1081); Alder Creek (43.6012, -124.0272); Alder Gulch (43.5892, -124.0665); Benson Creek (43.5813, -124.0086); Big Creek (43.6085, -124.0128); Blacks Creek (43.6365, -124.1188); Clear Creek (43.6040, -124.1871); Hatchery Creek (43.5275, -124.0761); Johnson Creek (43.5410, -124.0018); Murphy Creek (43.6243, -124.0534); Noble Creek (43.5897, -124.0347); Parker Creek (43.6471, -124.1246); Roberts Creek (43.5557, -124.0264); Saunders Creek (43.5417, -124.2136); Shutter Creek (43.5252, -124.1398); Swamp Creek (43.5550, -124.1948); Unnamed (43.5203, -124.0294); Unnamed (43.6302, -124.1460); Unnamed (43.6353, -124.1411); Unnamed (43.6369, -124.1515); Unnamed (43.6466, -124.1511); Unnamed (43.5081, -124.0382); Unnamed (43.6353, -124.1677); Wilkins Creek (43.6304, -124.0819); Winter Creek (43.6533, -124.1333).

(iv) *Coos Bay Watershed 1710030404*. Outlet(s) = Big Creek (Lat 43.3326, Long

- 124.3739); Coos Bay (43.3544, - 124.3384) upstream to endpoint(s) in: Bear Creek (43.5048, - 124.1059); Bessey Creek (43.3844, - 124.0253); Big Creek (43.2834, - 124.3374); Big Creek (43.3980, - 123.9396); Big Creek, Trib A (43.2999, - 124.3711); Big Creek, Trib B (43.2854, - 124.3570); Blossom Gulch (43.3598, - 124.2410); Boatman Gulch (43.3445, - 124.2483); Boone Creek (43.2864, - 124.1762); Cardwell Creek (43.2793, - 124.1277); Catching Creek (43.2513, - 124.1586); Coalbank Creek (43.3154, - 124.2503); Coos Bay (43.3566, - 124.1592); Daniels Creek (43.3038, - 124.0725); Davis Creek (43.2610, - 124.2633); Day Creek (43.3129, - 124.2888); Deton Creek (43.4249, - 124.0771); Echo Creek (43.3797, - 124.1529); Elliot Creek (43.3037, - 124.2670); Farley Creek (43.3146, - 124.3415); Ferry Creek (43.2628, - 124.1728); Goat Creek (43.2700, - 124.2109); Haywood Creek (43.3067, - 124.3419); Hendrickson Creek (43.3907, - 124.0594); Isthmus Slough (43.2622, - 124.2049); Joe Ney Slough (43.3382, - 124.2958); John B Creek (43.2607, - 124.2814); Johnson Creek (43.4043, - 124.1389); Kentuck Creek (43.4556, - 124.0894); Larson Creek (43.4930, - 124.0764); Laxstrom Gulch (43.3372, - 124.1350); Lillian Creek (43.3550, - 124.1330); Mart Davis Creek (43.3911, - 124.0927); Matson Creek (43.3011, - 124.1161); McKnight Creek (43.3841, - 123.9991); Mettman Creek (43.4574, - 124.1293); Millicoma River (43.4242, - 124.0288); Monkey Ranch Gulch (43.3392, - 124.1458); Morgan Creek (43.3460, - 124.0318); North Slough (43.5032, - 124.1408); Noble Creek (43.2387, - 124.1665); Packard Creek (43.4058, - 124.0211); Palouse Creek (43.5123, - 124.0667); Panther Creek (43.2733, - 124.1222); Pony Slough (43.4078, - 124.2307); Rogers Creek (43.3831, - 124.0370); Ross Slough (43.3027, - 124.1781); Salmon Creek (43.3618, - 123.9816); Seaman Creek (43.3634, - 124.0111); Seelander Creek (43.2872, - 124.1176); Shinglehouse Slough (43.3154, - 124.2225); Smith Creek (43.3579, - 124.1051); Snedden Creek (43.3372, - 124.2177); Southport Slough (43.2981, - 124.2194); Stock Slough (43.3277, - 124.1195); Storey Creek (43.3238, - 124.2969); Sullivan Creek (43.4718, - 124.0872); Talbott Creek (43.2839, - 124.2954); Theodore Johnson Creek (43.2756, - 124.3457); Unnamed (43.5200, - 124.1812); Unnamed (43.2274, - 124.3236); Unnamed (43.2607, - 124.2984); Unnamed (43.2772, - 124.3246); Unnamed (43.2776, - 124.3148); Unnamed (43.2832, - 124.1532); Unnamed

(43.2888, - 124.1962); Unnamed (43.2893, - 124.3406); Unnamed (43.2894, - 124.2034); Unnamed (43.2914, - 124.2917); Unnamed (43.2942, - 124.1027); Unnamed (43.2984, - 124.2847); Unnamed (43.3001, - 124.3022); Unnamed (43.3034, - 124.2001); Unnamed (43.3051, - 124.2031); Unnamed (43.3062, - 124.2030); Unnamed (43.3066, - 124.3674); Unnamed (43.3094, - 124.1947); Unnamed (43.3129, - 124.1208); Unnamed (43.3149, - 124.1347); Unnamed (43.3149, - 124.1358); Unnamed (43.3149, - 124.1358); Unnamed (43.3169, - 124.0638); Unnamed (43.3224, - 124.2390); Unnamed (43.3356, - 124.1542); Unnamed (43.3356, - 124.1526); Unnamed (43.3357, - 124.1510); Unnamed (43.3357, - 124.1534); Unnamed (43.3368, - 124.1509); Unnamed (43.3430, - 124.2352); Unnamed (43.3571, - 124.2372); Unnamed (43.3643, - 124.0474); Unnamed (43.3741, - 124.0577); Unnamed (43.4126, - 124.0599); Unnamed (43.4203, - 123.9824); Unnamed (43.4314, - 124.0998); Unnamed (43.4516, - 124.1023); Unnamed (43.4521, - 124.1110); Unnamed (43.5345, - 124.1946); Vogel Creek (43.3511, - 124.1206); Wasson Creek (43.2688, - 124.3368); Willanch Creek (43.4233, - 124.1061); Willanch Creek, Trib A (43.4032, - 124.1169); Wilson Creek (43.2652, - 124.1281); Winchester Creek (43.2145, - 124.3116); Winchester Creek, Trib E (43.2463, - 124.3067); Woodruff Creek (43.4206, - 123.9746); Wren Smith Creek (43.3131, - 124.0649).

(12) Unit 12. Coquille Subbasin 17100305—(i) *Middle Fork Coquille Watershed 1710030502*. Outlet(s) = Middle Fork Coquille River (Lat 43.0340, Long - 124.1161) upstream to endpoint(s) in: Anderson Creek (43.0087, - 123.9445); Axe Creek (43.0516, - 123.9468); Bear Creek (43.0657, - 123.9284); Belieu Creek (43.0293, - 123.9470); Big Creek (43.0991, - 123.8983); Brownson Creek (43.0879, - 123.9583); Endicott Creek (43.0401, - 124.0710); Fall Creek (43.0514, - 123.9910); Indian Creek (43.0203, - 124.0842); Little Rock Creek (42.9913, - 123.8335); McMullen Creek (43.0220, - 124.0366); Middle Fork Coquille River (42.9701, - 123.7621); Myrtle Creek (42.9642, - 124.0170); Rasler Creek (42.9518, - 123.9643); Rock Creek (42.9200, - 123.9073); Rock Creek (43.0029, - 123.8440); Salmon Creek (43.0075, - 124.0273); Sandy Creek (43.0796, - 123.8517); Sandy Creek, Trib F (43.0526, - 123.8736);

Sheilds Creek (42.9184, - 123.9219); Slater Creek (42.9358, - 123.7958); Slide Creek (42.9957, - 123.9040); Smith Creek (43.0566, - 124.0337); Swamp Creek (43.0934, - 123.9000); Unnamed (43.0016, - 123.9550); Unnamed (43.0681, - 123.9812); Unnamed (43.0810, - 123.9892).

(ii) *Middle Main Coquille Watershed 1710030503*. Outlet(s) = South Fork Coquille River (Lat 43.0805, Long - 124.1405) upstream to endpoint(s) in: Baker Creek (42.8913, - 124.1297); Beaver Creek (42.9429, - 124.0783); Catching Creek, Middle Fork (42.9913, - 124.2331); Catching Creek, South Fork (42.9587, - 124.2348); Coquille River, South Fork (42.8778, - 124.0743); Cove Creek (43.0437, - 124.2088); Dement Creek (42.9422, - 124.2086); Gettys Creek (43.0028, - 124.1988); Grants Creek (42.9730, - 124.1041); Horse Hollow (43.0382, - 124.1984); Knight Creek (43.0022, - 124.2663); Koontz Creek (43.0111, - 124.2505); Long Tom Creek (42.9342, - 124.0992); Matheny Creek (43.0495, - 124.1892); Mill Creek (42.9777, - 124.1663); Rhoda Creek (43.0007, - 124.1032); Roberts Creek (42.9748, - 124.2385); Rowland Creek (42.9045, - 124.1845); Russell Creek (42.9495, - 124.1611); Unnamed (42.9684, - 124.1033); Ward Creek (43.0429, - 124.2358); Warner Creek (43.0196, - 124.1187); Wildcat Creek (43.0277, - 124.2225); Wolf Creek (43.0136, - 124.2318); Woodward Creek (42.9023, - 124.0658).

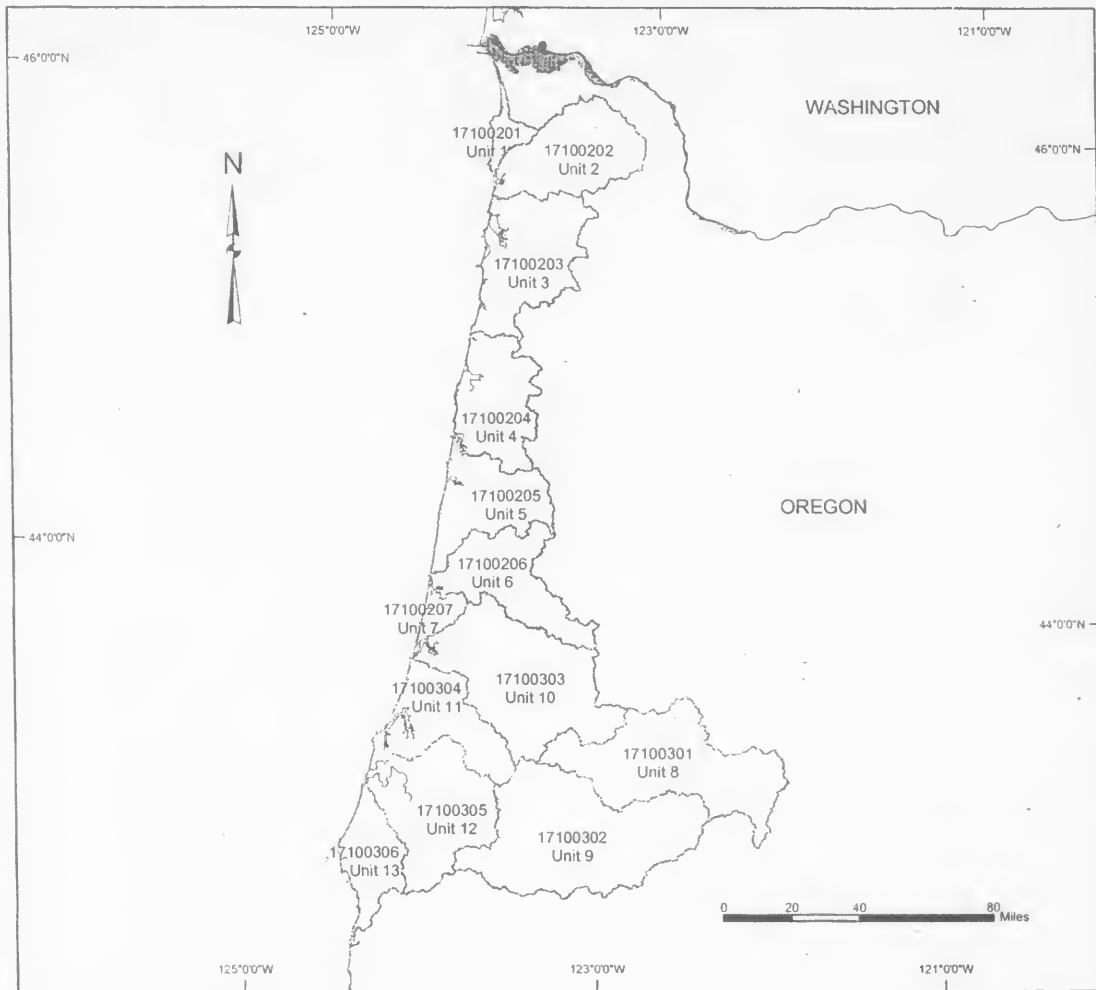
(iii) *East Fork Coquille Watershed 1710030504*. Outlet(s) = East Fork Coquille River (Lat 43.1065, Long - 124.0761) upstream to endpoint(s) in: Bills Creek (43.1709, - 123.9244); China Creek (43.1736, - 123.9086); East Fork Coquille River (43.1476, - 123.8936); Elk Creek (43.1312, - 123.9621); Hantz Creek (43.1832, - 123.9713); South Fork Elk Creek (43.1212, - 123.9200); Steel Creek (43.1810, - 123.9354); Unnamed (43.0908, - 124.0361); Unnamed (43.0925, - 124.0495); Unnamed (43.0976, - 123.9705); Unnamed (43.1006, - 124.0052); Unnamed (43.1071, - 123.9163); Unnamed (43.1655, - 123.9078); Unnamed (43.1725, - 123.9881); Weekly Creek (43.0850, - 124.0076); Yankee Run (43.1517, - 124.0483); Yankee Run, Trib C (43.1626, - 124.0162).

(iv) *North Fork Coquille Watershed 1710030505*. Outlet(s) = North Fork Coquille River (Lat 43.0805, Long - 124.1405) upstream to endpoint(s) in: Alder Creek (43.2771, - 123.9207); Blair Creek (43.1944, - 124.1121); Cherry Creek, North Fork (43.2192, - 123.9124); Cherry Creek, South Fork (43.2154, - 123.9353); Coak Creek (43.2270, - 124.0324); Coquille River,

- Little North Fork (43.2988, -123.9410); Coquille River, North Fork (43.2974, -123.8791); Coquille River, North Fork, Trib E (43.1881, -124.0764); Coquille River, North Fork, Trib I (43.2932, -123.8920); Coquille River, North Fork, Trib Y (43.3428, -123.9678); Evans Creek (43.2868, -124.0561); Fruin Creek (43.3016, -123.9198); Garage Creek (43.1508, -124.1020); Giles Creek (43.3129, -124.0337); Honcho Creek (43.2628, -123.8954); Hudson Creek (43.2755, -123.9604); Jerusalem Creek (43.1844, -124.0539); Johns Creek (43.0760, -124.0498); Little Cherry Creek (43.2007, -123.9594); Llewellyn Creek (43.1034, -124.1063); Llewellyn Creek, Trib A (43.0969, -124.0995); Lost Creek (43.1768, -124.1047); Lost Creek (43.2451, -123.9745); Mast Creek (43.2264, -124.0207); Middle Creek (43.2332, -123.8726); Moon Creek (43.2902, -123.9493); Moon Creek, Trib A (43.2976, -123.9837); Moon Creek, Trib A-1 (43.2944, -123.9753); Neely Creek (43.2960, -124.0380); Park Creek (43.2508, -123.8661); Park Creek, Trib B (43.2702, -123.8782); Schoolhouse Creek (43.1637, -124.0949); Steele Creek (43.2203, -124.1018); Steinton Creek (43.2534, -124.1076); Unnamed (43.1305, -124.0759); Unnamed (43.2047, -124.0314); Unnamed (43.2127, -124.1101); Unnamed (43.2165, -123.9144); Unnamed (43.2439, -123.9275); Unnamed (43.2444, -124.0868); Unnamed (43.2530, -124.0848); Unnamed (43.2582, -124.0794); Unnamed (43.2584, -123.8846); Unnamed (43.2625, -124.0474); Unnamed (43.2655, -123.9269); Unnamed (43.2676, -124.0367); Vaughns Creek (43.2378, -123.9106); Whitley Creek (43.2899, -124.0115); Wimer Creek (43.1303, -124.0640); Wood Creek (43.1392, -124.1274); Wood Creek, North Fork (43.1454, -124.1211).
- (v) *Lower Coquille Watershed 1710030506*. Outlet(s) = Coquille River (Lat 43.1237, Long -124.4261) upstream to endpoint(s) in: Alder Creek (43.1385, -124.2697); Bear Creek (43.0411, -124.2893); Beaver Creek (43.2249, -124.1923); Beaver Creek (43.2525, -124.2456); Beaver Slough, Trib A (43.2154, -124.2731); Bill Creek (43.0256, -124.3126); Budd Creek (43.2011, -124.1921); Calloway Creek (43.2060, -124.1684); Cawfield Creek (43.1839, -124.1372); China Creek (43.2170, -124.2076); Cold Creek (43.2038, -124.1419); Coquille River (43.0805, -124.1405); Coquille River, Trib A (43.2032, -124.2930); Cunningham Creek (43.2349, -124.1378); Dutch John Ravine (43.1744, -124.1781); Dye Creek (43.2274, -124.1569); Fahys Creek (43.1676, -124.3861); Fat Elk Creek (43.1373, -124.2560); Ferry Creek (43.1150, -124.3831); Fishtrap Creek (43.0841, -124.2544); Glen Aiken Creek (43.1482, -124.1497); Grady Creek (43.1032, -124.1381); Gray Creek (43.1222, -124.1286); Hall Creek (43.0583, -124.2516); Hall Creek, Trib A (43.0842, -124.1745); Harlin Creek (43.1326, -124.1633); Hatchet Slough, Trib A (43.1638, -124.3065); Hatchet Slough (43.1879, -124.3003); Lampa Creek (43.0531, -124.2665); Little Bear Creek (43.0407, -124.2783); Little Fishtrap Creek (43.1201, -124.2290); Lowe Creek (43.1401, -124.3232); Mack Creek (43.0604, -124.3306); Monroe Creek (43.0705, -124.2905); Offield Creek (43.1587, -124.3273); Pulaski Creek (43.1398, -124.2184); Randleman Creek (43.0818, -124.3039); Rich Creek (43.0576, -124.2067); Rink Creek (43.1764, -124.1369); Rock Robinson Creek (43.0860, -124.2306); Rollan Creek (43.1266, -124.2563); Sevenmile Creek (43.2157, -124.3350); Sevenmile Creek, Trib A (43.1853, -124.3187); Sevenmile Creek, Trib C (43.2081, -124.3340); Unnamed (43.1084, -124.2727); Unnamed (43.1731, -124.1852); Unnamed (43.1924, -124.1378); Unnamed (43.1997, -124.3346); Unnamed (43.2281, -124.2190); Unnamed (43.2424, -124.2737); Waddington Creek (43.1105, -124.2915).
- (13) Unit 13, Sixes Subbasin 17100306—(i) *Sixes River Watershed 1710030603*. Outlet(s) = Sixes River (Lat 42.8543, Long -124.5427) upstream to endpoint(s) in: Beaver Creek (42.7867, -124.4373); Carlton Creek (42.8594, -124.2382); Cold Creek (42.7824, -124.2070); Crystal Creek (42.8404, -124.4501); Dry Creek (42.7673, -124.3726); Edson Creek (42.8253, -124.3782); Hays Creek (42.8455, -124.1796); Little Dry Creek (42.8002, -124.3838); Murphy Canyon (42.8516, -124.1541); Sixes River (42.8232, -124.1704); Sixes River, Middle Fork (42.7651, -124.1782); Sixes River, North Fork (42.8878, -124.2320); South Fork Sixes River (42.8028, -124.3022); Sugar Creek (42.8217, -124.2035); Unnamed (42.8189, -124.3567); Unnamed (42.7952, -124.3918); Unnamed (42.8276, -124.4629).
- (ii) *New River Frontal Watershed 1710030604*. Outlet(s) = New River (Lat 43.0007, Long -124.4557); Twomile Creek (43.0440, -124.4415) upstream to endpoint(s) in: Bethel Creek (42.9519, -124.3954); Boulder Creek (42.8574, -124.5050); Butte Creek (42.9458, -124.4096); Conner Creek (42.9814, -124.4215); Davis Creek (42.9657, -124.3968); Floras Creek (42.9127, -124.3963); Fourmile Creek (42.9887, -124.3077); Fourmile Creek, South Fork (42.9642, -124.3734); Langlois Creek (42.9238, -124.4570); Little Creek (43.0030, -124.3562); Long Creek (42.9828, -124.3770); Lower Twomile Creek (43.0223, -124.4080); Morton Creek (42.9437, -124.4234); New River (42.8563, -124.4602); North Fourmile Creek (42.9900, -124.3176); Redibough Creek (43.0251, -124.3659); South Twomile Creek (43.0047, -124.3672); Spring Creek (43.0183, -124.4299); Twomile Creek (43.0100, -124.3291); Unnamed (43.0209, -124.3386); Unnamed (43.0350, -124.3506); Unnamed (43.0378, -124.3481); Unnamed (43.0409, -124.3544); Unnamed (42.8714, -124.4586); Unnamed (42.9029, -124.4222); Unnamed (42.9031, -124.4581); Unnamed (42.9294, -124.4421); Unnamed (42.9347, -124.4559); Unnamed (42.9737, -124.3363); Unnamed (42.9800, -124.3432); Unnamed (43.0058, -124.4066); Willow Creek (42.8880, -124.4505).
- (14) Maps of proposed critical habitat for the Oregon Coast coho salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Oregon Coast Coho Salmon ESU



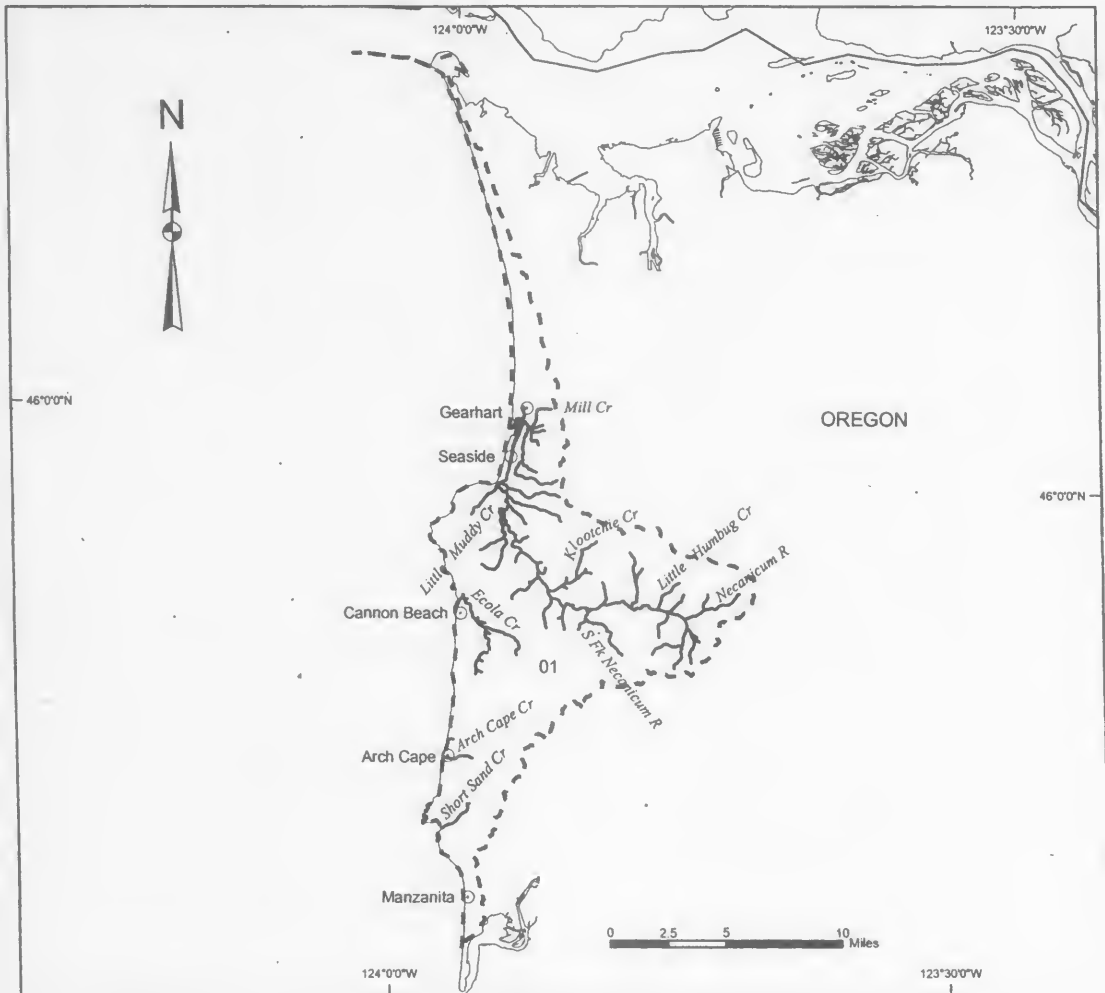
Legend

- State Boundaries
- Water Bodies
- Subbasin Boundaries



Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

NECANICUM SUBBASIN 17100201, Unit 1



Legend

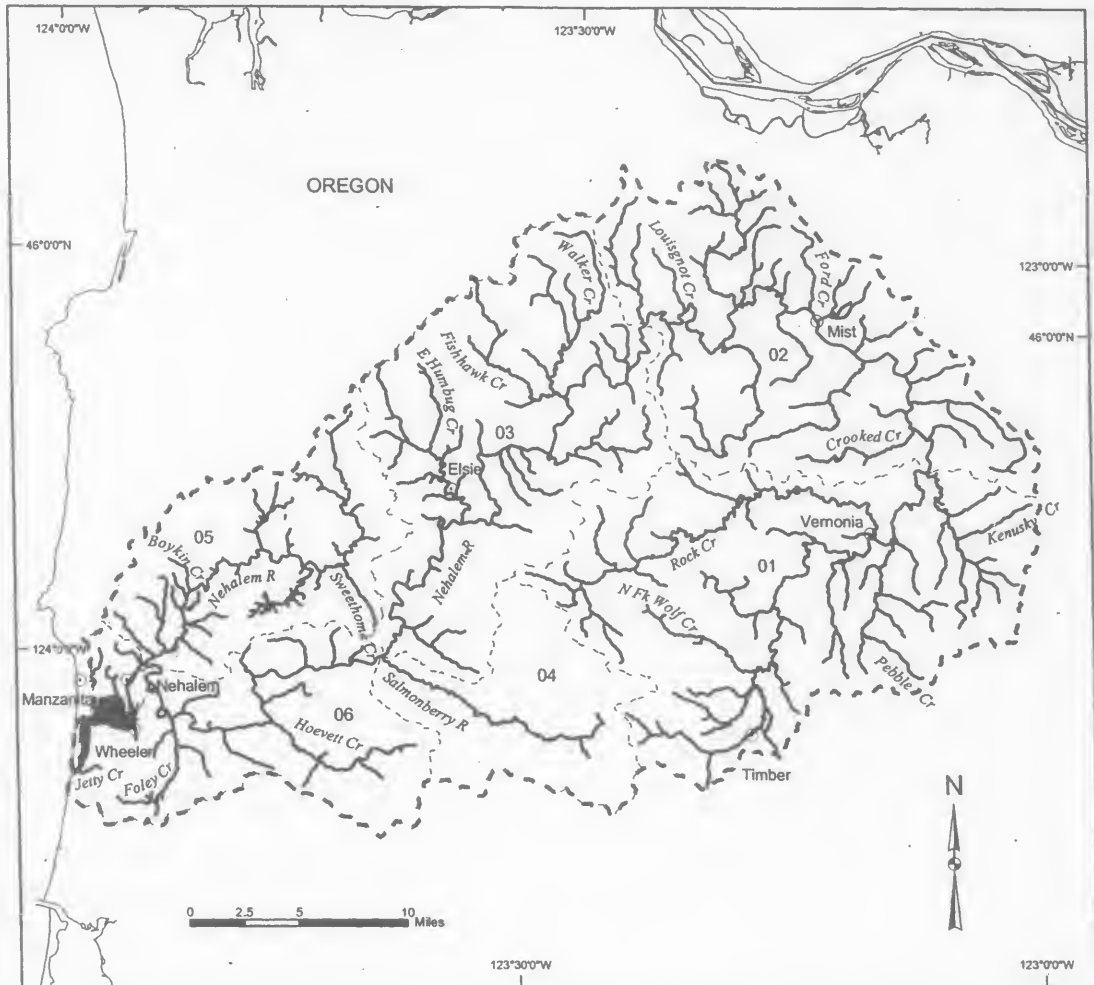
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- Watershed Boundary

01 = Watershed code - last 2 digits of 17100201xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**NEHALEM SUBBASIN
17100202, Unit 2**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

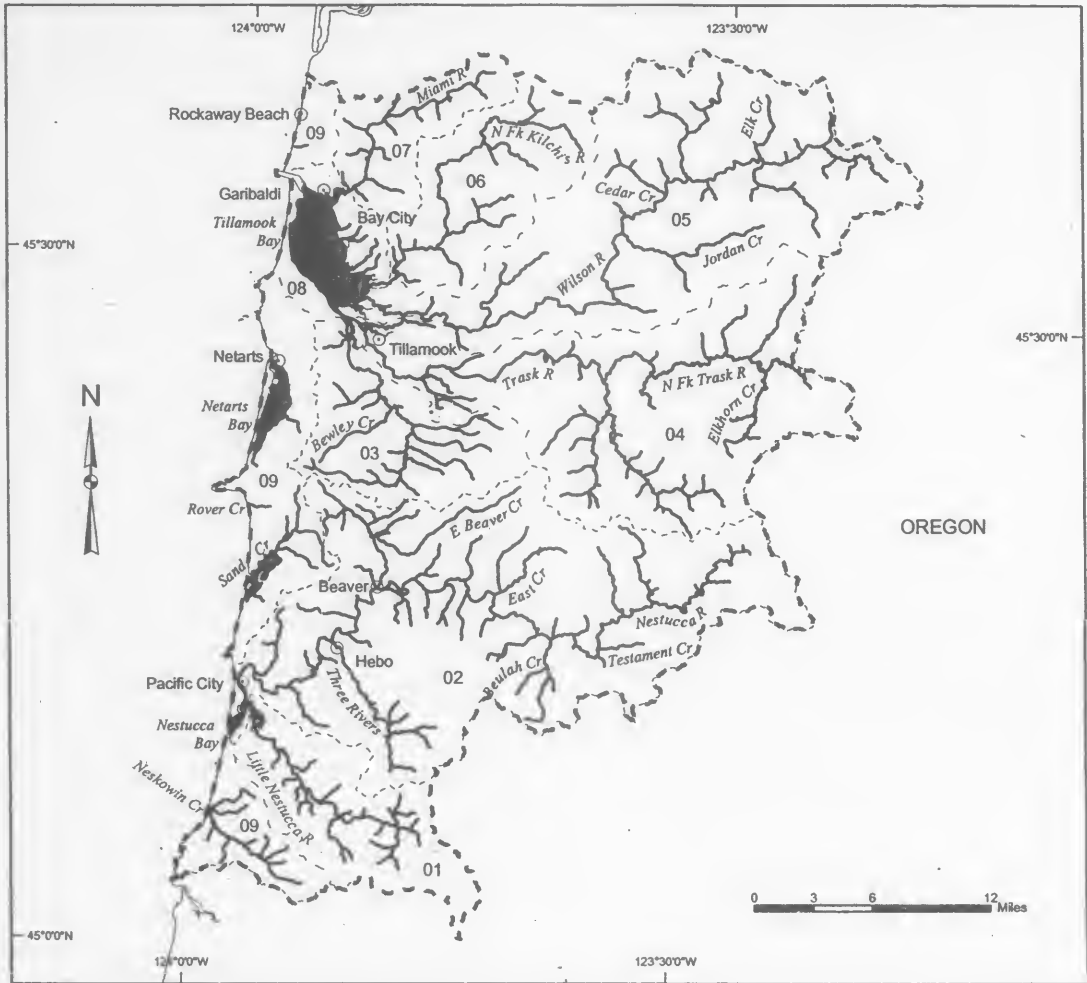
01 - 06 = Watershed code - last 2 digits of 17100202xx

Area of Detail



Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**WILSON - TRASK - NESTUCCA SUBBASIN
17100203, Unit 3**



Legend

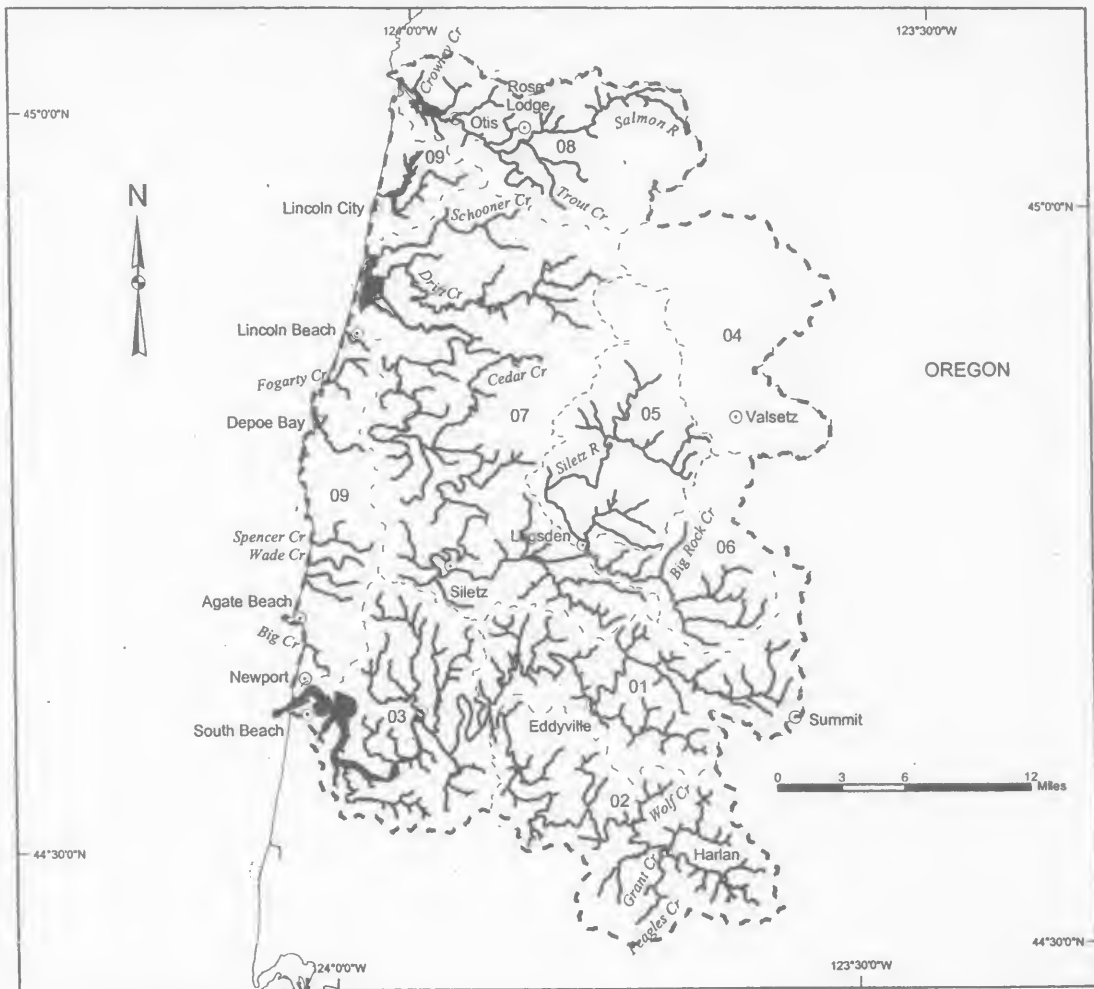
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 09 = Watershed code - last 2 digits of 17100203xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**SILETZ - YAQUINA SUBBASIN
17100204, Unit 4**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Watershed Boundaries
- - - Subbasin Boundary

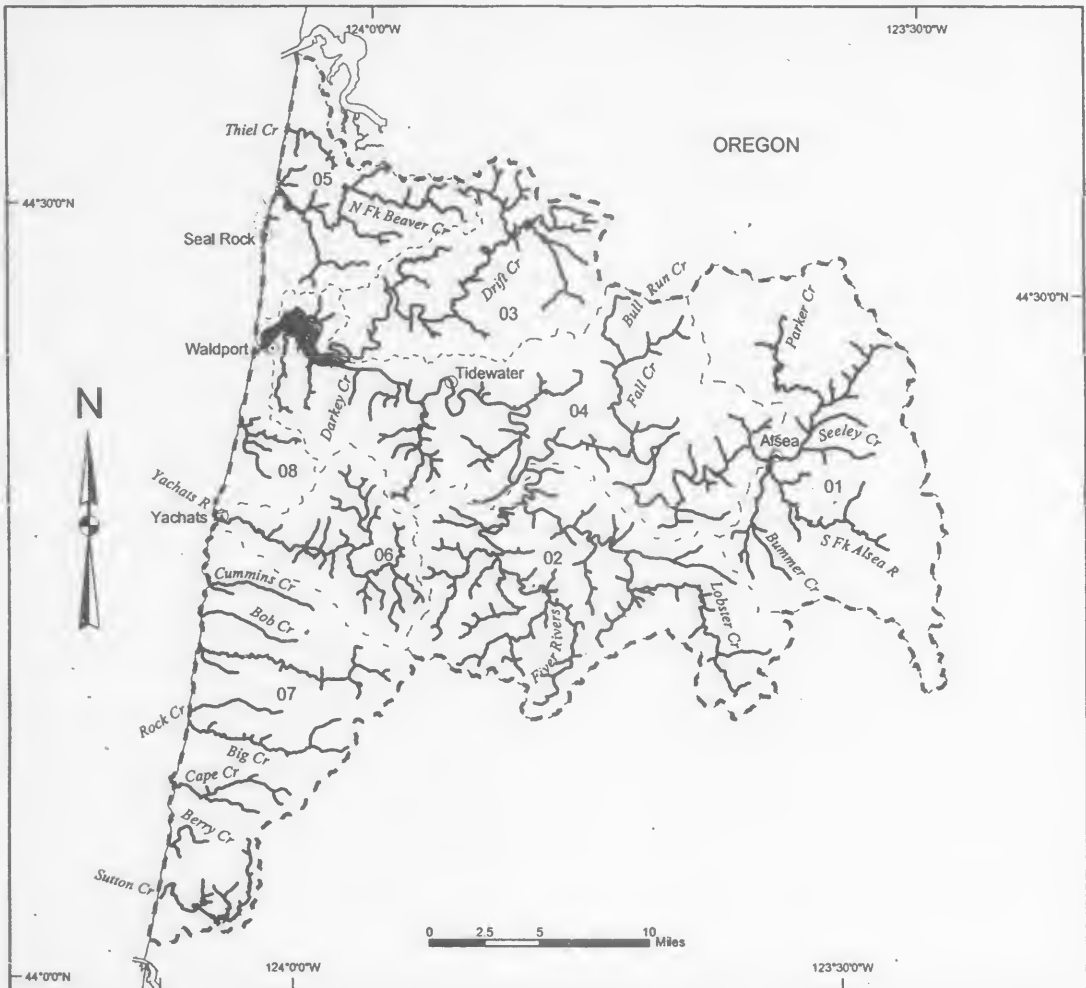
01 = Watershed code - last 2 digits of 17100201xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A small black rectangle is located on the western coast of Oregon, indicating the specific area shown in the main map.

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

ALSEA SUBBASIN
17100205, Unit 5



Legend

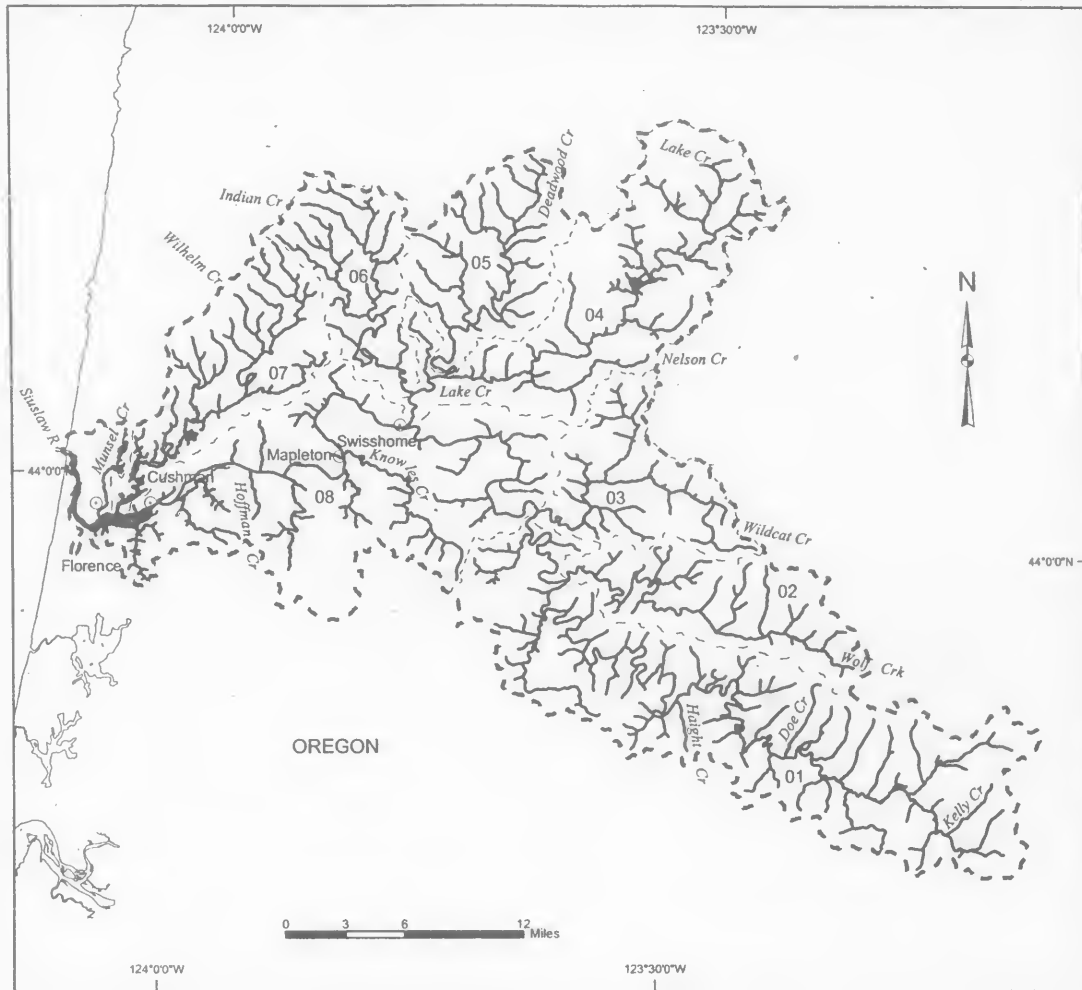
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17100205xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**SIUSLAW SUBBASIN
17100206, Unit 6**



Legend

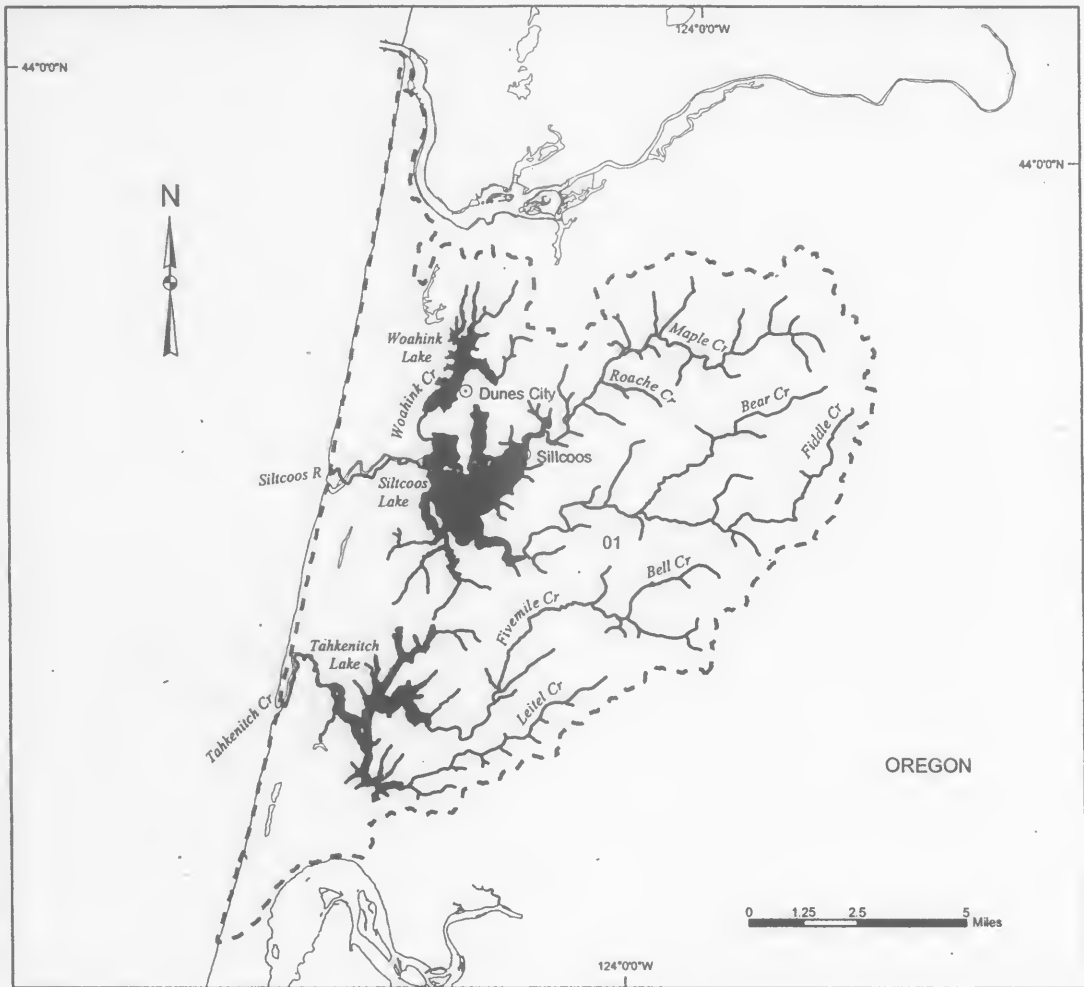
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17100206xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**SILTCOOS SUBBASIN
17100207, Unit 7**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

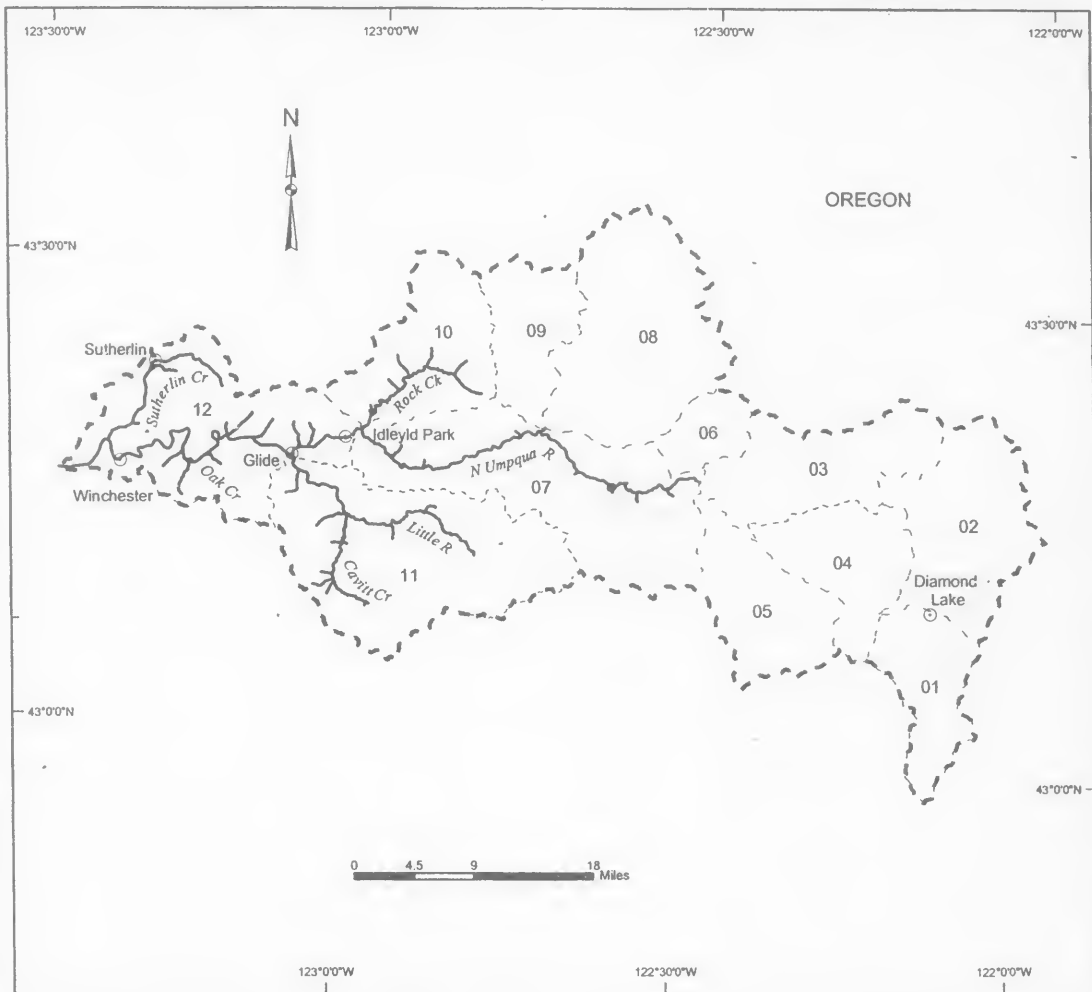
01 = Watershed code - last 2 digits of 17100207xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. The subbasin area is highlighted in the southern part of Oregon, near the border with Washington and Idaho.

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**NORTH UMPQUA SUBBASIN
17100301, Unit 8**



Legend

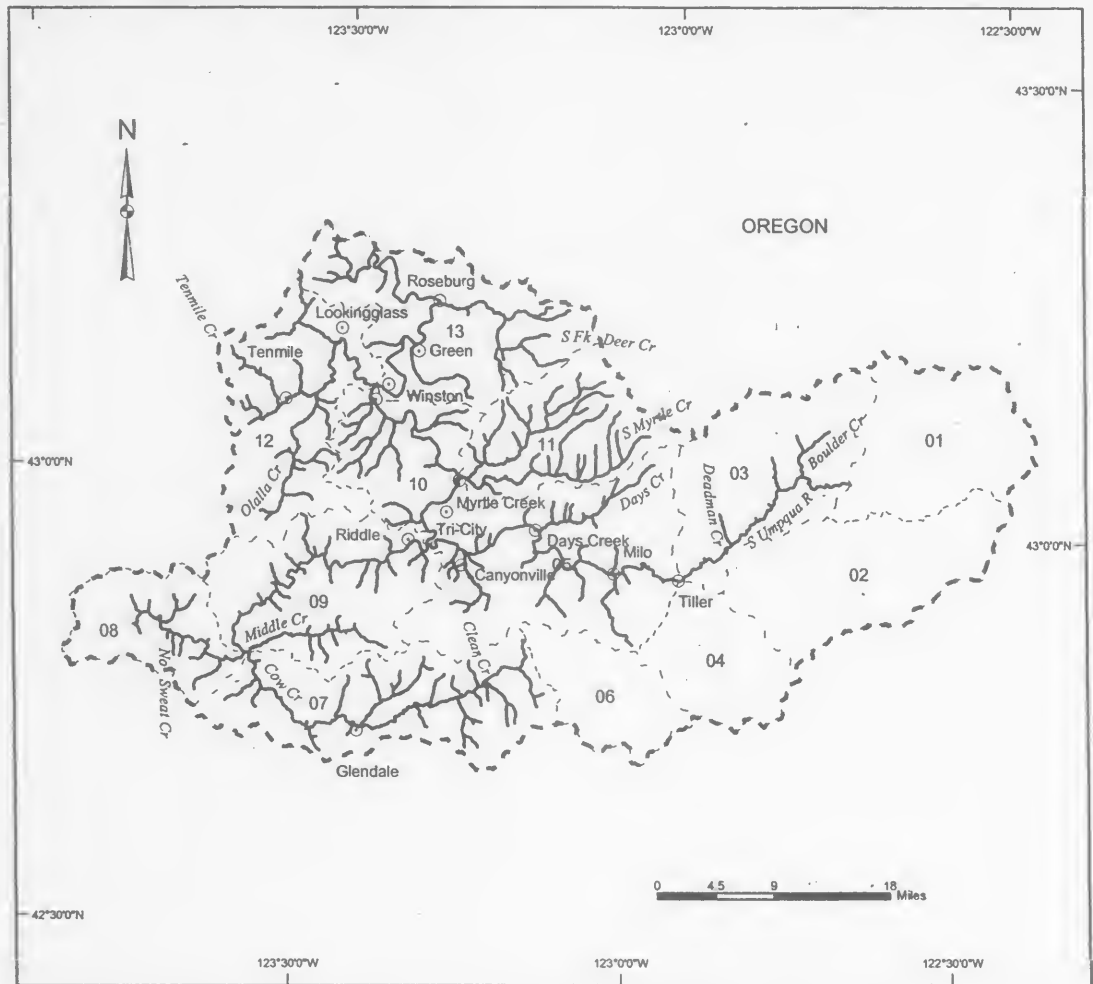
- ⊙ Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- Watershed Boundaries

01 - 12 = Watershed code - last 2 digits of 17100301xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**SOUTH UMPQUA SUBBASIN
17100302, Unit 9**



Legend

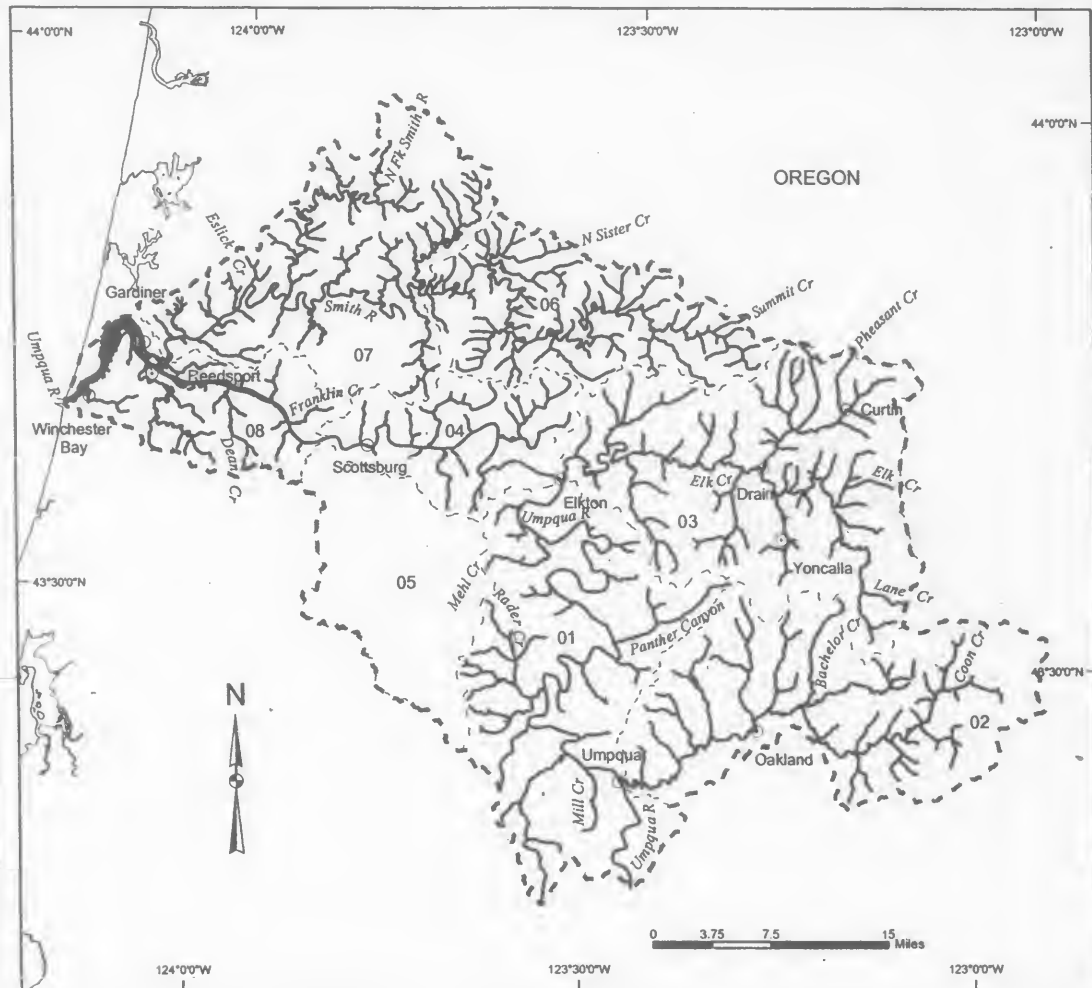
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17100302xx

Area of Detail

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**UMPQUA SUBBASIN
17100303, Unit 10**



Legend

- Cities / Towns
- Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

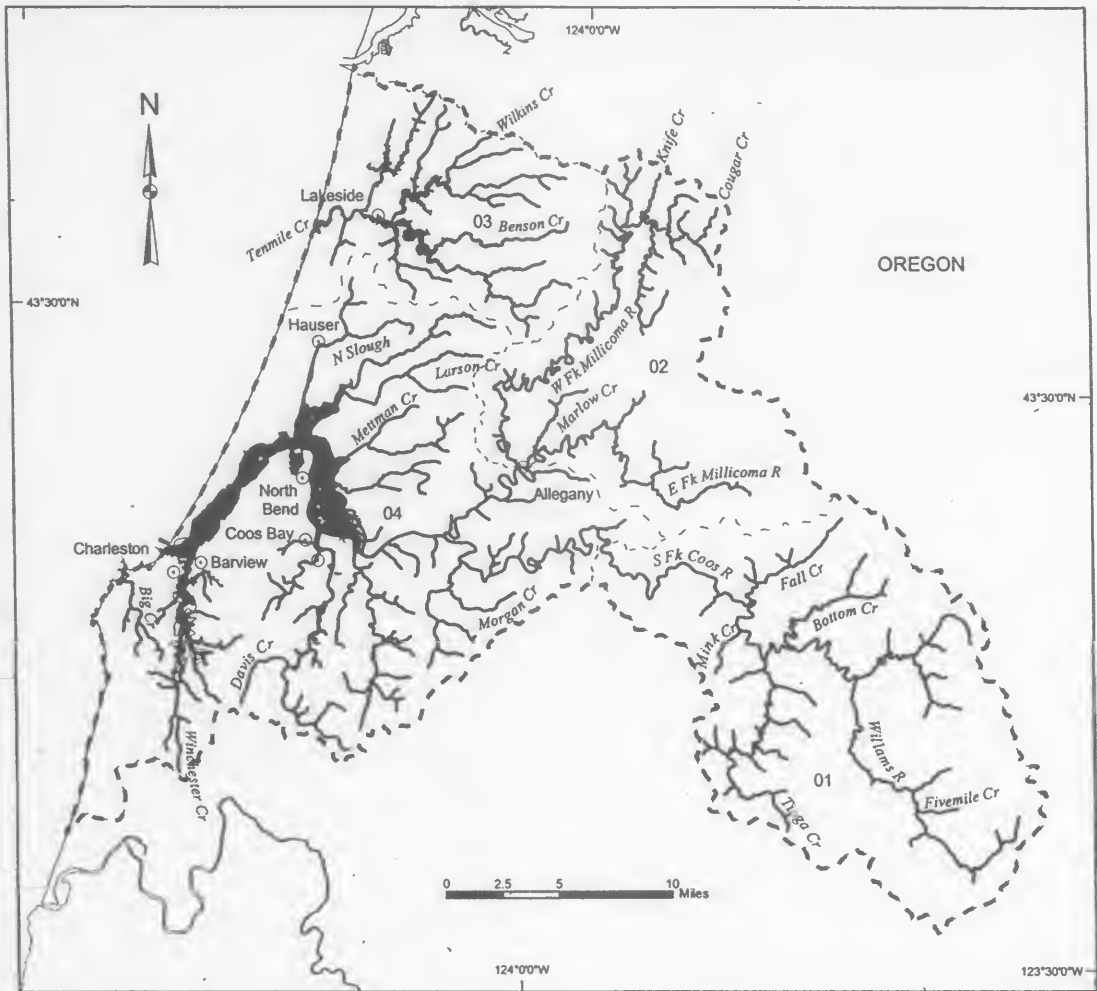
01 - 08 = Watershed code - last 2 digits of 17100303xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A small shaded area in the northwestern corner of Oregon indicates the location of the Umpqua Subbasin.

Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**COOS SUBBASIN
17100304, Unit 11**



Legend

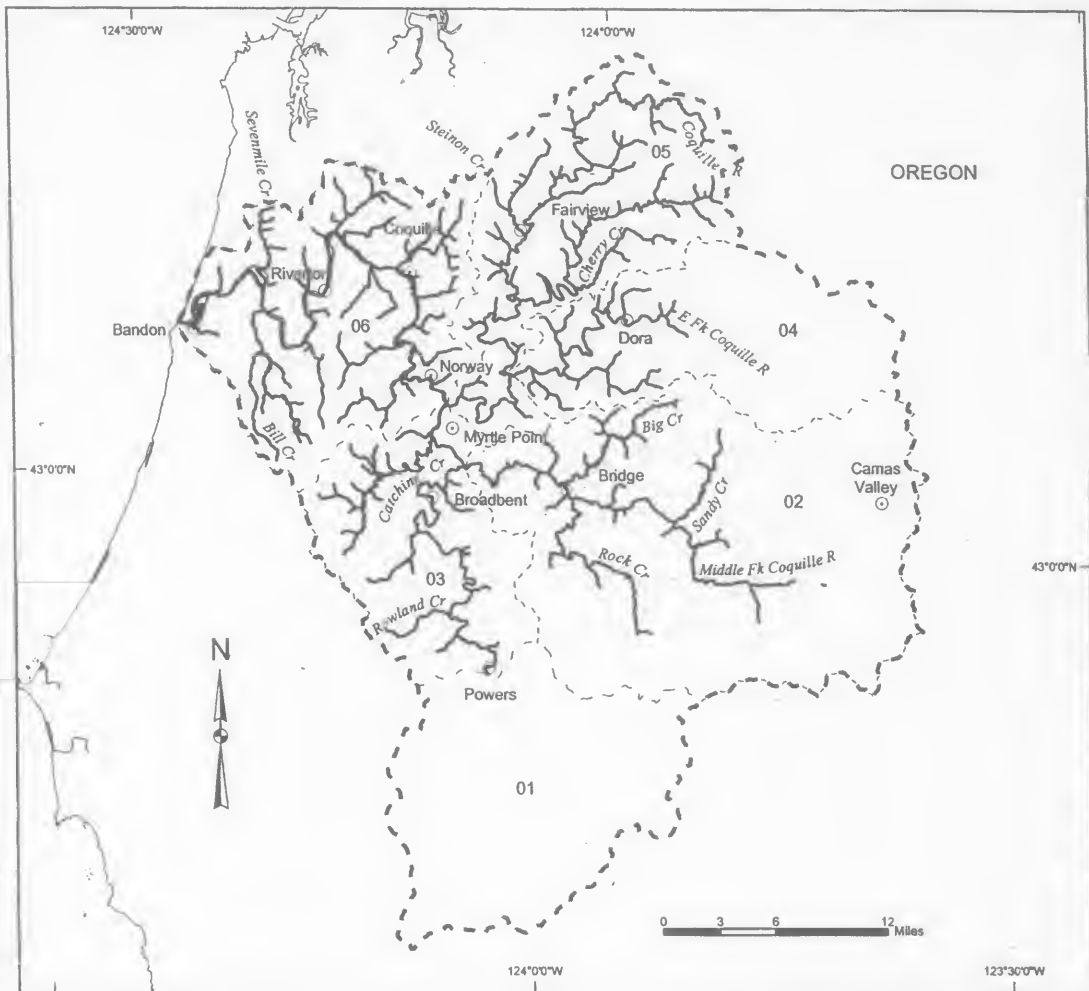
- Cities / Towns
- Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17100304xx



Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**COQUILLE SUBBASIN
17100305, Unit 12**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

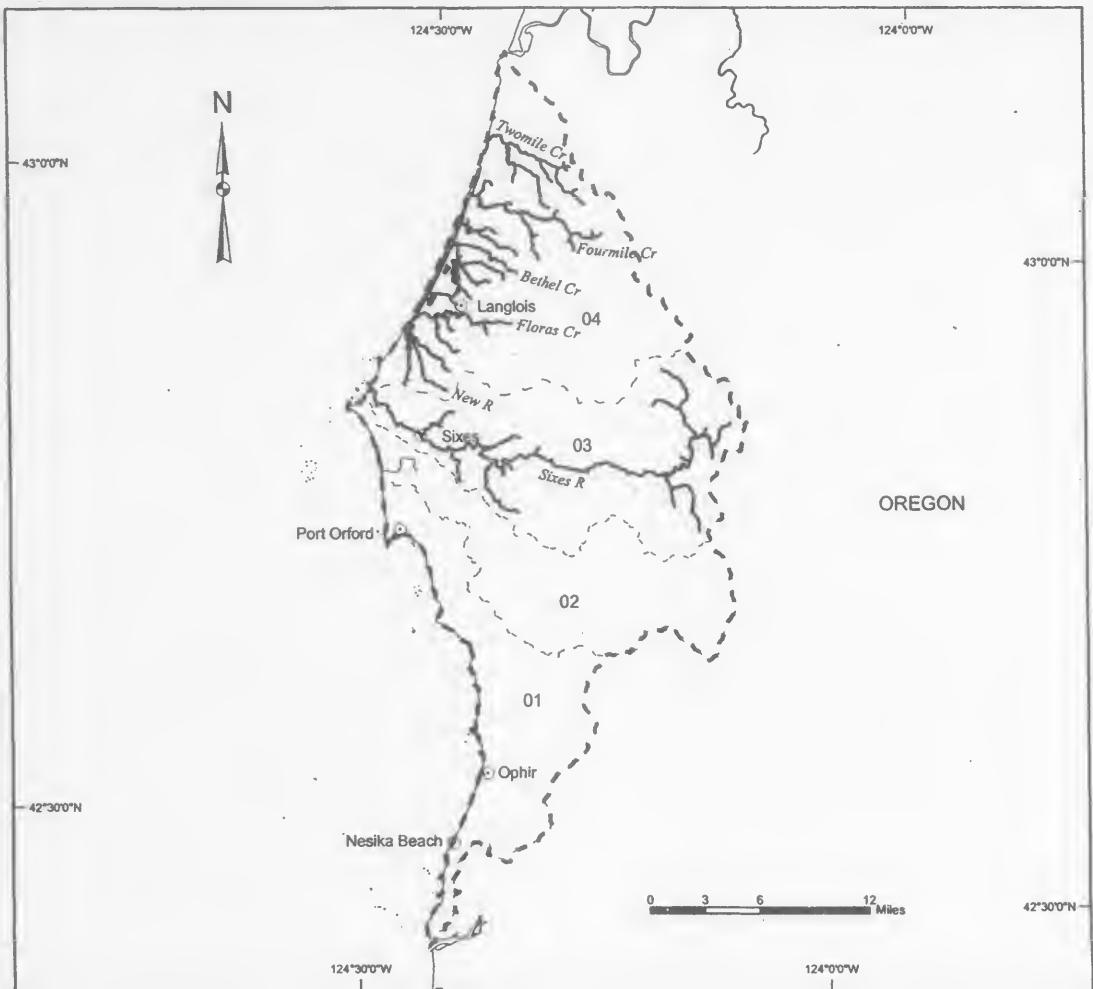
01 - 06 = Watershed code - last 2 digits of 17100305xx

Area of Detail



Proposed Critical Habitat for the Oregon Coast Coho Salmon ESU

**SIXES SUBBASIN
17100306, Unit 13**



Legend

- ⊙ Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17100306xx



(k) Hood Canal Summer-run Chum Salmon (*Oncorhynchus keta*). Critical

habitat is proposed to include the areas defined in the following units:

(1) Unit 2. Hood Canal Subbasin 17110018—(i) Lower West Hood Canal

Frontal Watershed 1711001802.

Outlet(s)= Eagle Creek (Lat 47.4849, Long - 123.0766); Finch Creek (47.4067, - 123.1377); Fulton Creek (47.6183, - 122.9736); Jorsted Creek (47.5263, - 123.0489); Lilliwaup Creek (47.4689, - 123.1136); Unnamed (47.4576, - 123.1117) upstream to endpoint(s) in: Eagle Creek (47.4905, - 123.0830); Finch Creek (47.4076, - 123.1586); Fulton Creek (47.6275, - 122.9805); Jorsted Creek (47.5246, - 123.0649); Lilliwaup Creek (47.4704, - 123.1166); Unnamed (47.4585, - 123.1186).

(ii) *Hamma Hamma River Watershed 1711001803.* Outlet(s) = Hamma Hamma River (Lat 47.5471, Long - 123.0440) upstream to endpoint(s) in: Hamma Hamma River (47.5547, - 123.0623); John Creek (47.5369, - 123.0619).

(iii) *Duckabush River Watershed 1711001804.* Outlet(s) = Duckabush River (Lat 47.6502, Long - 122.9348) upstream to endpoint(s) in: Duckabush River (47.6654, - 122.9728).

(iv) *Dosewallips River Watershed 1711001805.* Outlet(s) = Dosewallips River (Lat 47.6880, Long - 122.8949) upstream to endpoint(s) in: Dosewallips River (47.7157, - 122.9396).

(v) *Big Quilcene River Watershed 1711001806.* Outlet(s) = Big Quilcene River (Lat 47.8188, Long - 122.8605) upstream to endpoint(s) in: Big Quilcene River (47.8102, - 122.9119).

(vi) *Upper West Hood Canal Frontal Watershed 1711001807.* Outlet(s) = Little Quilcene River (Lat 47.8266; Long - 122.8608) upstream to endpoint(s) in: Little Quilcene River (47.8374, - 122.8854).

(vii) *West Kitsap Watershed 1711001808.* Outlet(s) = Anderson Creek (Lat 47.5670, Long - 122.9664); Big Beef Creek (47.6521, - 122.7823); Dewatto

River (47.4538, - 123.0474); Little Anderson Creek (47.6653, - 122.7554); Tahuya River (47.3767, - 123.0355); Union River (47.4484, - 122.8368); Unnamed (47.3767, - 123.0372); Unnamed (47.4537, - 123.0474) upstream to endpoint(s) in: Anderson Creek (47.5596, - 122.9354); Bear Creek (47.4980, - 122.8074); Big Beef Creek (47.6385, - 122.7868); Dewatto River (47.4937, - 122.9914); East Fork Union River (47.5056, - 122.7897); Hazel Creek (47.5170, - 122.7945); Little Anderson Creek (47.6606, - 122.7543); North East Fork Union River (47.4954, - 122.7819); Tahuya River (47.4510, - 122.9597); Union River (47.5273, - 122.7846); Unnamed (47.4492, - 122.9229); Unnamed (47.4527, - 122.8294); Unnamed (47.4553, - 122.8301); Unnamed (47.4594, - 122.8396); Unnamed (47.4700, - 122.8300); Unnamed (47.4852, - 122.8313); Unnamed (47.4966, - 122.8393); Unnamed (47.4971, - 122.8315); Unnamed (47.6600, - 122.7559); Unnamed (47.6642, - 122.7534).

(2) Unit 3. Puget Sound Subbasin 17110019—*Port Ludlow/Chimacum Creek Watershed 1711001908.* Outlet(s) = Chimacum Creek (Lat 48.0507, Long - 122.7832) upstream to endpoint(s) in: Chimacum Creek (47.9743, - 122.7764).

(3) Unit 4. Dungeness/Elwha Subbasin 17110020—(i) *Discovery Bay Watershed 1711002001.* Outlet(s) = Salmon Creek (Lat 47.9895, Long - 122.8879); Snow Creek (47.9900, - 122.8834) upstream to endpoint(s) in: Salmon Creek (47.9775, - 122.9191); Snow Creek (47.9638, - 122.8827).

(ii) *Sequim Bay Watershed 1711002002.* Outlet(s) =

Jimmycomelately Creek (Lat 48.0235, Long - 123.0039) upstream to endpoint(s) in: Jimmycomelately Creek (48.0125, - 123.0026).

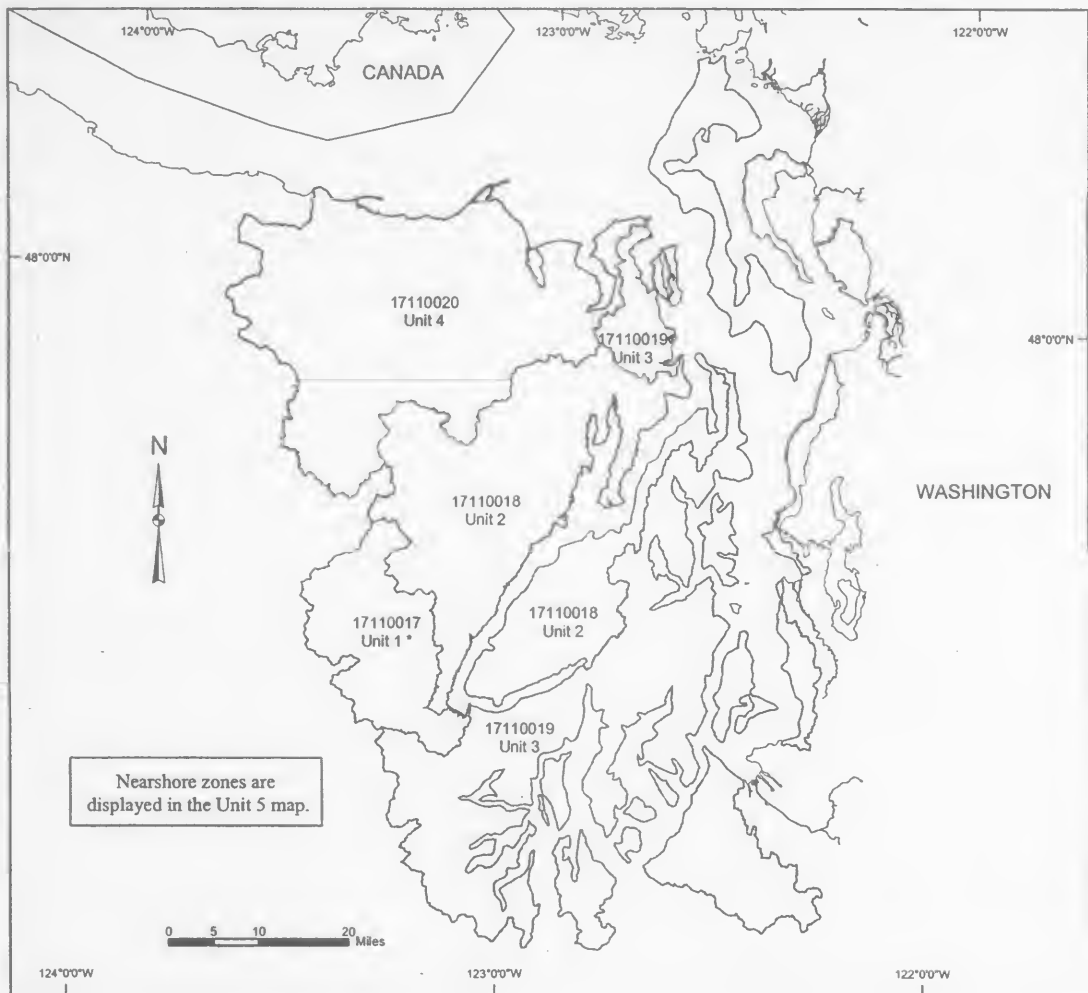
(iii) *Dungeness River Watershed 1711002003.* Outlet(s) = Dungeness River (Lat 48.1506, Long - 123.1311); Unnamed (48.1537, - 123.1267) upstream to endpoint(s) in: Dungeness River (48.0258, - 123.1358); Matriotti Creek (48.1369, - 123.1488); Unnamed (48.1167, - 123.1403); Unnamed (48.1514, - 123.1216).

(4) Unit 5. Nearshore Marine Areas— This unit includes all nearshore zones (including areas adjacent to islands) of Hood Canal and the Strait of Juan de Fuca (to Dungeness Bay) from extreme high water out to a depth of 30 meters, except for the following contiguous nearshore segments associated with Department of Defense lands and restricted marine zones: from Lat 47.7723, Long - 122.7035 to Lat 47.7214, Long - 122.7454; from Lat 47.7365, Long - 122.8542 to Lat 47.7623, Long - 122.8517; from Lat 47.7810, Long - 122.8517 to Lat 47.8001, Long - 122.8182; from Lat 47.8001, Long - 122.7873 to Lat 47.6928, Long - 122.8309; from Lat 48.0159, Long - 122.6971 to Lat 48.0190, Long - 122.6980; from Lat 48.1174, Long - 122.7508 to Lat 48.1180, Long - 122.7498; from Lat 48.1195, Long - 122.7501 to Lat 48.1426, Long - 122.7545; and from Lat 48.1444, Long - 122.7547 to Lat 48.1407, Long - 122.7945.

(5) Maps of proposed critical habitat for the Hood Canal summer-run chum salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Hood Canal Summer-run Chum Salmon ESU



Nearshore zones are displayed in the Unit 5 map.

Legend

- State Boundary
- ~ Shoreline
- ⬭ Subbasin Boundaries

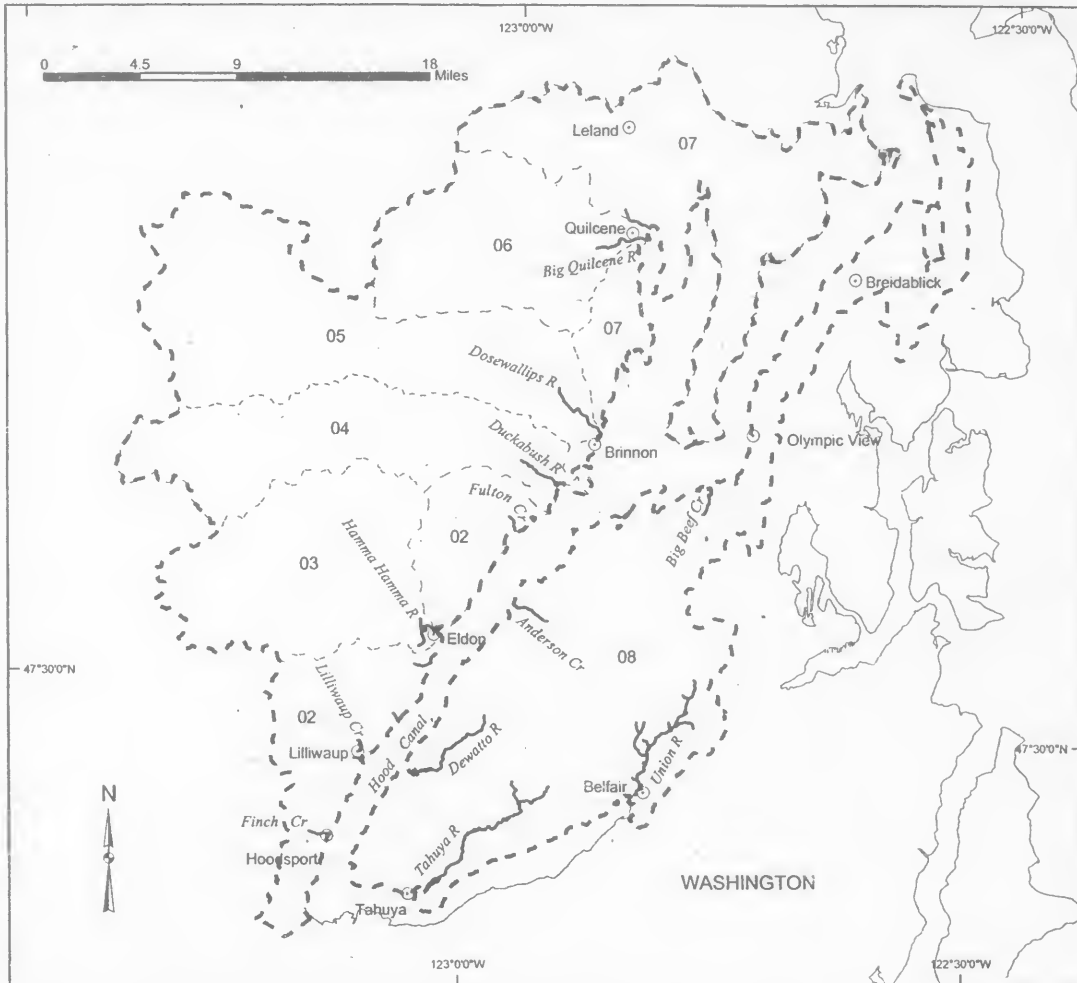
* All habitat areas in unit are proposed for exclusion

Area of Detail

The inset map shows the states of Washington (WA), Oregon, and Idaho. A shaded area in the northwest corner of Washington indicates the specific location of the Hood Canal study area.

Proposed Critical Habitat for the Hood Canal Summer-run Chum ESU

**HOOD CANAL SUBBASIN
17110018, Unit 2**



Legend

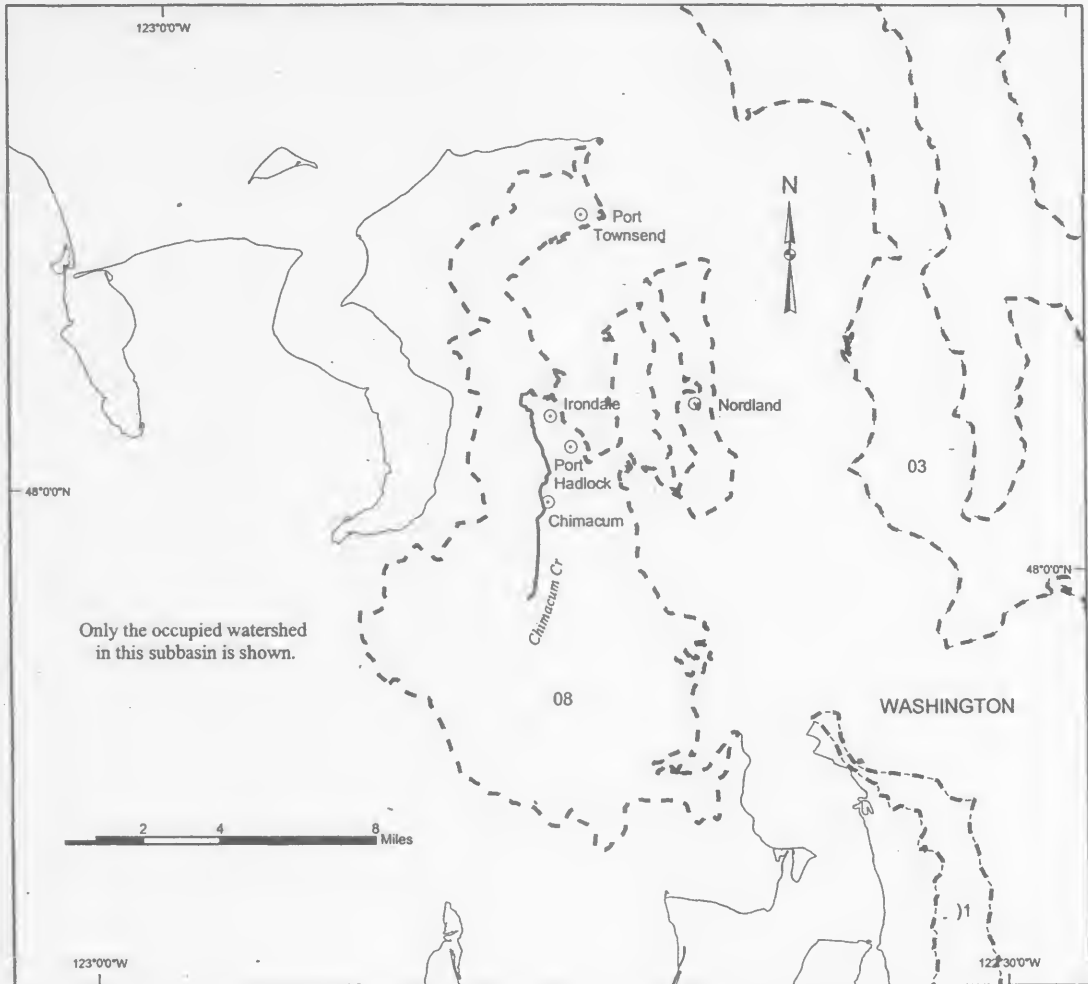
- Cities / Towns
- Shoreline
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

02 - 08 = Watershed code - last 2 digits of 17110018xx

Area of Detail

Proposed Critical Habitat for the Hood Canal Summer-run Chum ESU

**PUGET SOUND / KITSAP SUBBASIN
17110019, Unit 3**



Legend

- ⊙ Cities / Towns
- Shoreline
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

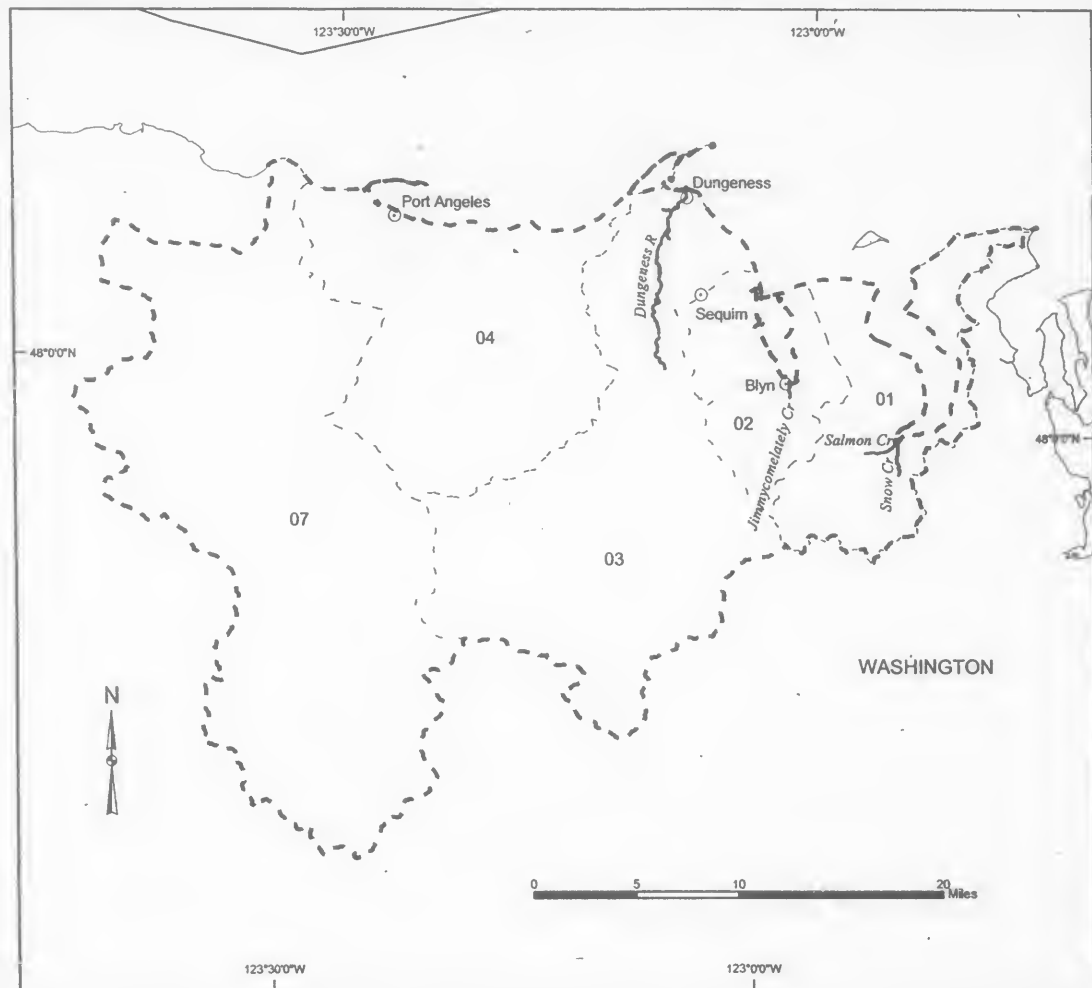
01 - 06, 08 = Watershed code - last 2 digits of 17110019xx

Area of Detail



Proposed Critical Habitat for the Hood Canal Summer-run Chum ESU

**DUNGENESS / ELWHA SUBBASIN
17110020, Unit 4**



Legend

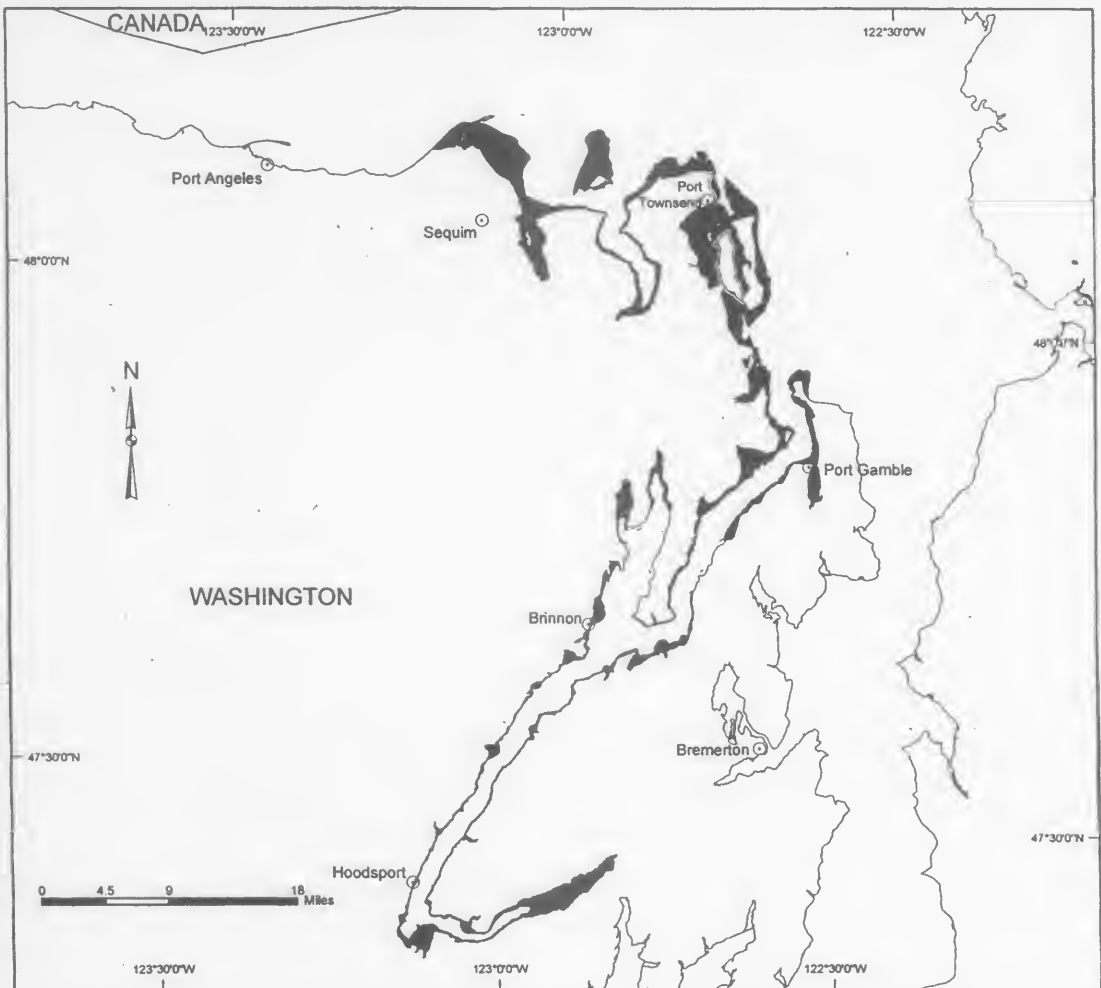
- Cities / Towns
- Shoreline
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 04, 07 = Watershed code - last 2 digits of 17110020xx



Proposed Critical Habitat for the Hood Canal Summer-run Chum ESU

Nearshore Marine Areas Unit 5



Legend

- Cities / Towns
- State Boundary
- ~ Shoreline
- Nearshore Marine Areas



BILLING CODE 3510-22-C

(1) Columbia River Chum Salmon (*Oncorhynchus keta*). Critical habitat is

proposed to include the areas defined in the following units:

(1) Unit 1. Middle Columbia/Hood Subbasin 17070105—(i) *White Salmon River Watershed 1707010509*. Outlet(s) = White Salmon River (Lat 45.7267, Long -121.5209) upstream to endpoint(s) in: White Salmon River (45.7677, -121.5374).

(ii) *Middle Columbia/Grays Creek Watershed 1707010512*. Outlet(s) = Columbia River (Lat 45.7074, Long -121.7965) upstream to endpoint(s) in: Columbia River (45.7267, -121.5209).

(iii) *Middle Columbia/Eagle Creek 1707010513*. Outlet(s) = Columbia River (Lat 45.6453, Long -121.9395) upstream to endpoint(s) in: Columbia River (45.7074, -121.7965).

(2) Unit 2. Lower Columbia/Sandy Subbasin 17080001—(i) *Washougal River Watershed 1708000106*. Outlet(s) = Unnamed (Lat 45.5812, Long -122.4077); Washougal River (45.5795, -122.4023) upstream to endpoint(s) in: Lacamas Creek (45.5972, -122.3933); Little Washougal River (45.6210, -122.3750); Unnamed (45.5861, -122.4083); Washougal River (45.6232, -122.2738).

(ii) *Columbia Gorge Tributaries Watershed 1708000107*. Outlet(s) = Columbia River (Lat 45.5709, Long -122.4020) upstream to endpoint(s) in: Columbia River (45.6453, -121.9395); Duncan Creek (45.6136, -122.0539); Gibbons Creek (45.5710, -122.3147); Greenleaf Creek (45.6548, -121.9569); Hamilton Creek (45.6535, -121.9879); Hardy Creek (45.6354, -121.9987); Indian Mary Creek (45.6066, -122.0716); Lawton Creek (45.5746, -122.2501); Unnamed (45.5673, -122.3033); Unnamed (45.6017, -122.1106); Unnamed (45.6017, -122.1087); Unnamed (45.6483, -121.9725); Unnamed (45.6509, -121.9502); Walton Creek (45.5757, -122.2618).

(iii) *Salmon Creek Watershed 1708000109*. Outlet(s) = Lake River (Lat 45.8437, Long -122.7800); Love Creek (45.5976, -122.5443); Unnamed (45.5867, -122.5015); Unnamed (45.5919, -122.5241); Unnamed (45.5952, -122.5366) upstream to endpoint(s) in: Love Creek (45.5981, -122.5444); Salmon Creek (45.7089, -122.6480); Unnamed (45.5873, -122.5015); Unnamed (45.5924, -122.5242); Unnamed (45.5955, -122.5360).

(3) Unit 3. Lewis Subbasin 17080002—(i) *East Fork Lewis River Watershed 1708000205*. Outlet(s) = East Fork Lewis River (Lat 45.8664, Long -122.7189); Gee Creek (45.8462, -122.7803) upstream to endpoint(s) in: Brezee Creek (45.8622, -122.6667); East Fork Lewis River (45.8395, -122.4463); Gee Creek (45.8264, -122.7458);

Lockwood Creek (45.8578, -122.6259); Mason Creek (45.8410, -122.5919); McCormick Creek (45.8521, -122.6907); Riley Creek (45.8663, -122.6349); Unnamed (45.8076, -122.5878); Unnamed (45.8076, -122.6286); Unnamed (45.8090, -122.6089); Unnamed (45.8111, -122.5860); Unnamed (45.8149, -122.5654); Unnamed (45.8201, -122.5991); Unnamed (45.8241, -122.6380); Unnamed (45.8280, -122.6431); Unnamed (45.8292, -122.6040); Unnamed (45.8389, -122.6456); Unnamed (45.8439, -122.6478); Unnamed (45.8439, -122.6605).

(ii) *Lower Lewis River Watershed 1708000206*. Outlet(s) = Lewis River (Lat 45.8519, Long -122.7806) upstream to endpoint(s) in: Cedar Creek (45.9383, -122.5818); Colvin Creek (45.9400, -122.6081); Houghton Creek (45.9395, -122.6478); Johnson Creek (45.9385, -122.6261); Lewis River (45.9570, -122.5550); Ross Creek (45.9340, -122.7076).

(4) Unit 4. Lower Columbia/Clatskanie Subbasin 17080003—(i) *Kalama River Watershed 1708000301*. Outlet(s) = Kalama River (Lat 46.0340, Long -122.8696) upstream to endpoint(s) in: Kalama River (46.0449, -122.8034).

(ii) *Germany/Abernathy Watershed 1708000304*. Outlet(s) = Abernathy Creek (Lat 46.1908, Long -123.1661); Germany Creek (46.1895, -123.1244); Mill Creek (46.1888, -123.1745) upstream to endpoint(s) in: Abernathy Creek (46.2263, -123.1467); Germany Creek (46.2221, -123.1353); Mill Creek (46.1932, -123.1834).

(iii) *Skamokawa/Elochoman Watershed 1708000305*. Outlet(s) = Elochoman River (Lat 46.2269, Long -123.5511); Skamokawa Creek (46.2677, -123.4562); Unnamed (46.2243, -123.3975) upstream to endpoint(s) in: Beaver Creek (46.2262, -123.3239); Brooks Slough (46.2502, -123.4094); Clear Creek (46.2611, -123.2996); Duck Creek (46.2517, -123.3159); Eggman Creek (46.3248, -123.4951); Elochoman River (46.2615, -123.2965); Indian Jack Slough (46.2371, -123.3955); Jim Crow Creek (46.2891, -123.5553); Kelly Creek (46.3109, -123.4797); Left Fork Skamokawa Creek (46.3331, -123.4610); Quarry Creek (46.3292, -123.4241); Skamokawa Creek (46.3277, -123.4236); Unnamed (46.2338, -123.3282); Unnamed (46.3293, -123.4534); West Fork Skamokawa Creek (46.3119, -123.4889); West Valley Creek

(46.2931, -123.4698); Wilson Creek (46.3096, -123.3787).

(5) Unit 5. Lower Cowlitz Subbasin 17080005—(i) *Jackson Prairie Watershed 1708000503*. Outlet(s) = Cowlitz River (Lat 46.3678, Long -122.9337) upstream to endpoint(s) in: Bear Creek (46.4544, -122.9187); Blue Creek (46.4885, -122.7253); Coon Creek (46.4272, -122.9109); Cowlitz River (46.5033, -122.5871); Lacamas Creek (46.5564, -122.6878); Mill Creek (46.5025, -122.8017); Salmon Creek (46.4130, -122.8165); Skook Creek (46.4708, -122.7594); Unnamed (46.4191, -122.8205); Unnamed (46.4205, -122.8662); Unnamed (46.4280, -122.8380); Unnamed (46.4707, -122.7713); Unnamed (46.4885, -122.8068); Unnamed (46.5076, -122.6675); Unnamed (46.5311, -122.8194); Unnamed (46.5432, -122.7466).

(ii) *North Fork Toutle River Watershed 1708000504*. Outlet(s) = North Fork Toutle River (Lat 46.3669, Long -122.5859) upstream to endpoint(s) in: North Fork Toutle River (46.3718, -122.5847).

(iii) *Green River Watershed 1708000505*. Outlet(s) = Green River (Lat 46.3718, Long -122.5847) upstream to endpoint(s) in: Green River (46.3831, -122.5540).

(iv) *South Fork Toutle River Watershed 1708000506*. Outlet(s) = South Fork Toutle River (Lat 46.3282, Long -122.7215) upstream to endpoint(s) in: Johnson Creek (46.3102, -122.6444); South Fork Toutle River (46.2817, -122.6420).

(v) *East Willapa Watershed 1708000507*. Outlet(s) = Cowlitz River (Lat 46.2660, Long -122.9154) upstream to endpoint(s) in: Arkansas Creek (46.3032, -122.9801); Cowlitz River (46.3678, -122.9337); Delameter Creek (46.2598, -122.9679); Hill Creek (46.3704, -122.9267); McMurphy Creek (46.4082, -122.9520); Monahan Creek (46.2636, -122.9727); North Fork Toutle River (46.3669, -122.5859); Olequa Creek (46.4324, -122.9688); Unnamed (46.2606, -122.9551); Unnamed (46.2642, -122.9291); Unnamed (46.2689, -122.9589); Unnamed (46.2880, -122.9051); Unnamed (46.2892, -122.9626); Unnamed (46.3294, -122.9085); Unnamed (46.3371, -122.8922); Unnamed (46.3491, -122.7052); Unnamed (46.3571, -122.7684); Unnamed (46.3587, -122.7478); Unnamed (46.3683, -122.7503); Unnamed (46.3814, -122.6091); Wyant Creek (46.3314, -122.6768).

(vi) *Coweeman Watershed 1708000508*. Outlet(s) = Cowlitz River (Lat 46.0977, Long -122.9141); Owl

Creek (46.0768, -122.8679) upstream to endpoint(s) in: Baird Creek (46.1789, -122.5822); Butler Creek (46.1491, -122.5170); Cowlitz River (46.2660, -122.9154); Goble Creek (46.1074, -122.7068); Leckler Creek (46.2164, -122.9325); Mulholland Creek (46.2004, -122.6484); Nineteen Creek (46.1593, -122.6095); North Fork Goble Creek (46.1208, -122.7691); Owl Creek (46.0914, -122.8692); Salmon Creek (46.2547, -122.8839); Sandy Bend Creek (46.2318, -122.9143); Skipper Creek (46.1625, -122.5915); Turner Creek (46.1167, -122.8150); Unnamed (46.0719, -122.8607); Unnamed (46.0767, -122.8604); Unnamed (46.0897, -122.7355); Unnamed (46.1295, -122.8993); Unnamed (46.1369, -122.8034); Unnamed (46.1441, -122.5816); Unnamed (46.1478, -122.8649); Unnamed (46.1516, -122.8749); Unnamed (46.1558, -122.7803); Unnamed (46.1727, -122.7716); Unnamed

(46.1753, -122.7657); Unnamed (46.1940, -122.7068); Unnamed (46.2021, -122.6941); Unnamed (46.2416, -122.8869).

(6) Unit 6. Lower Columbia Subbasin 17080006—(i) *Big Creek Watershed 1708000602*. Outlet(s) = Big Creek (Lat 46.1848, Long -123.5943) upstream to endpoint(s) in: Big Creek (46.1476, -123.5820); Little Creek (46.1510, -123.6007).

(ii) *Grays Bay Watershed 1708000603*. Outlet(s) = Deep River (Lat 46.3035, Long -123.7092); Grays River (46.3035, -123.6867); Unnamed (46.2419, -123.8842); Unnamed (46.3026, -123.9702) upstream to endpoint(s) in: Alder Creek (46.4279, -123.4621); Blaney Creek (46.3957, -123.4607); Campbell Creek (46.3435, -123.7087); Chinook River (46.2685, -123.9233); Deep River (46.3480, -123.6865); East Fork Grays River (46.4424, -123.4120); Fossil Creek (46.3612, -123.5217); Grays River (46.4628, -123.4602);

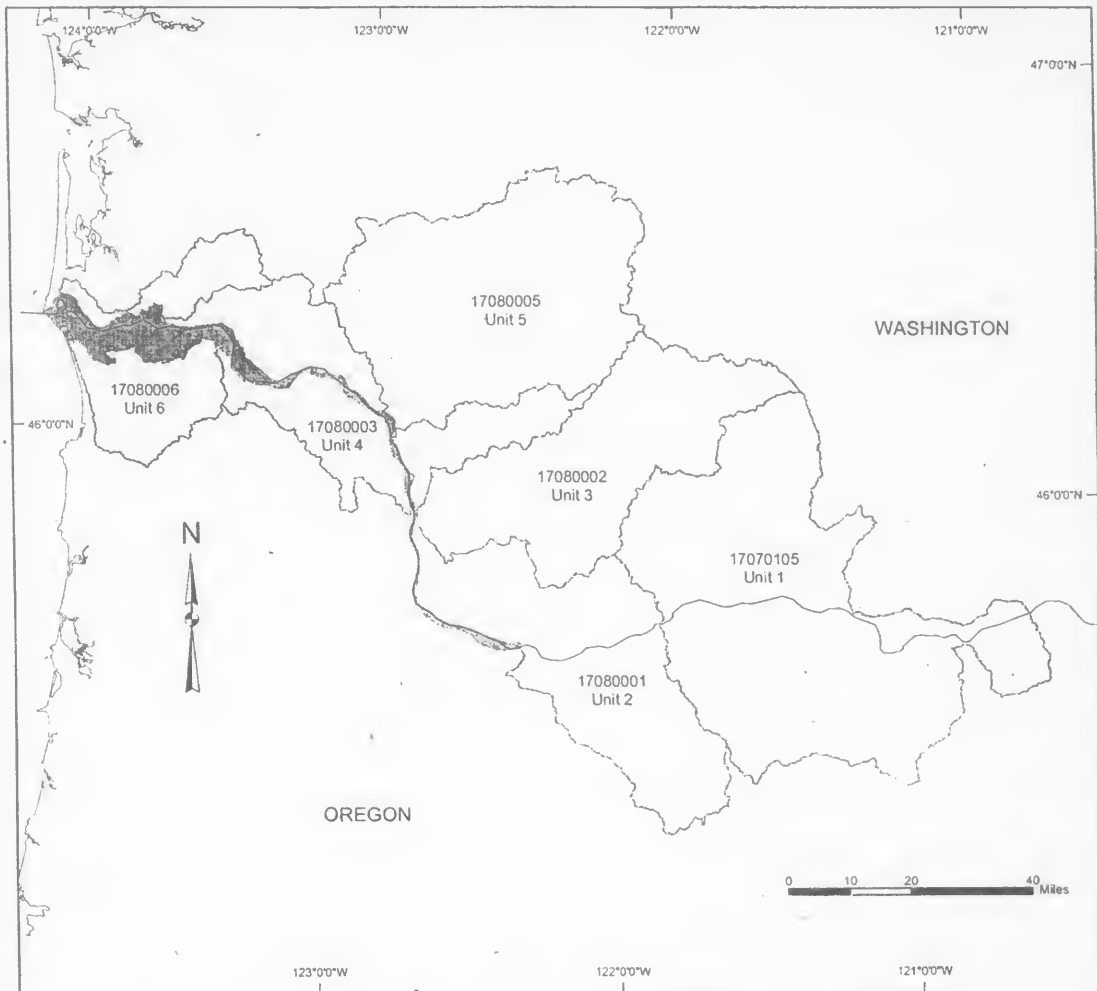
Johnson Creek (46.4544, -123.4732); Kessel Creek (46.3336, -123.5850); King Creek (46.3444, -123.5774); Lassila Creek (46.3343, -123.7108); Mitchell Creek (46.4512, -123.4269); South Fork Grays River (46.3836, -123.4592); Thadbar Creek (46.3331, -123.6092); Unnamed (46.2502, -123.8833); Unnamed (46.2847, -123.9402); Unnamed (46.2901, -123.9368); Unnamed (46.3605, -123.5228); Unnamed (46.3838, -123.5454); Unnamed (46.4328, -123.4444); West Fork Grays River (46.3942, -123.5611).

(7) Unit 7. Lower Columbia River Corridor—*Lower Columbia River Corridor* Outlet(s) = Columbia River (Lat 46.2485, Long -124.0782) upstream to endpoint(s) in: Columbia River (45.5709, -122.4020).



(8) Maps of proposed critical habitat for the Columbia River chum salmon ESU follow:

BILLING CODE 3510-22-P

Map of the Columbia River Chum Salmon ESU



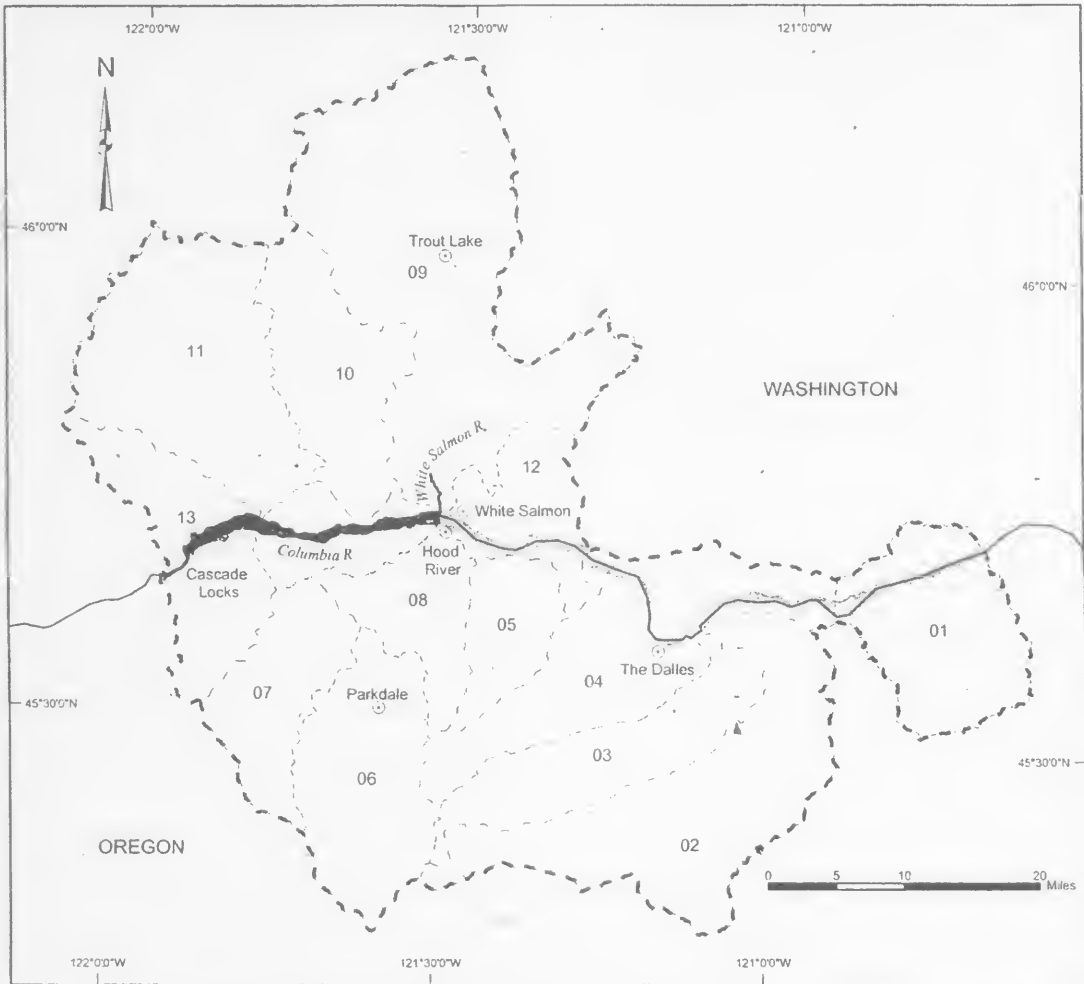
Legend

- State Boundaries
-  Water Bodies
-  Subbasin Boundaries



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**MIDDLE COLUMBIA / HOOD SUBBASIN
17070105, Unit 1**



Legend

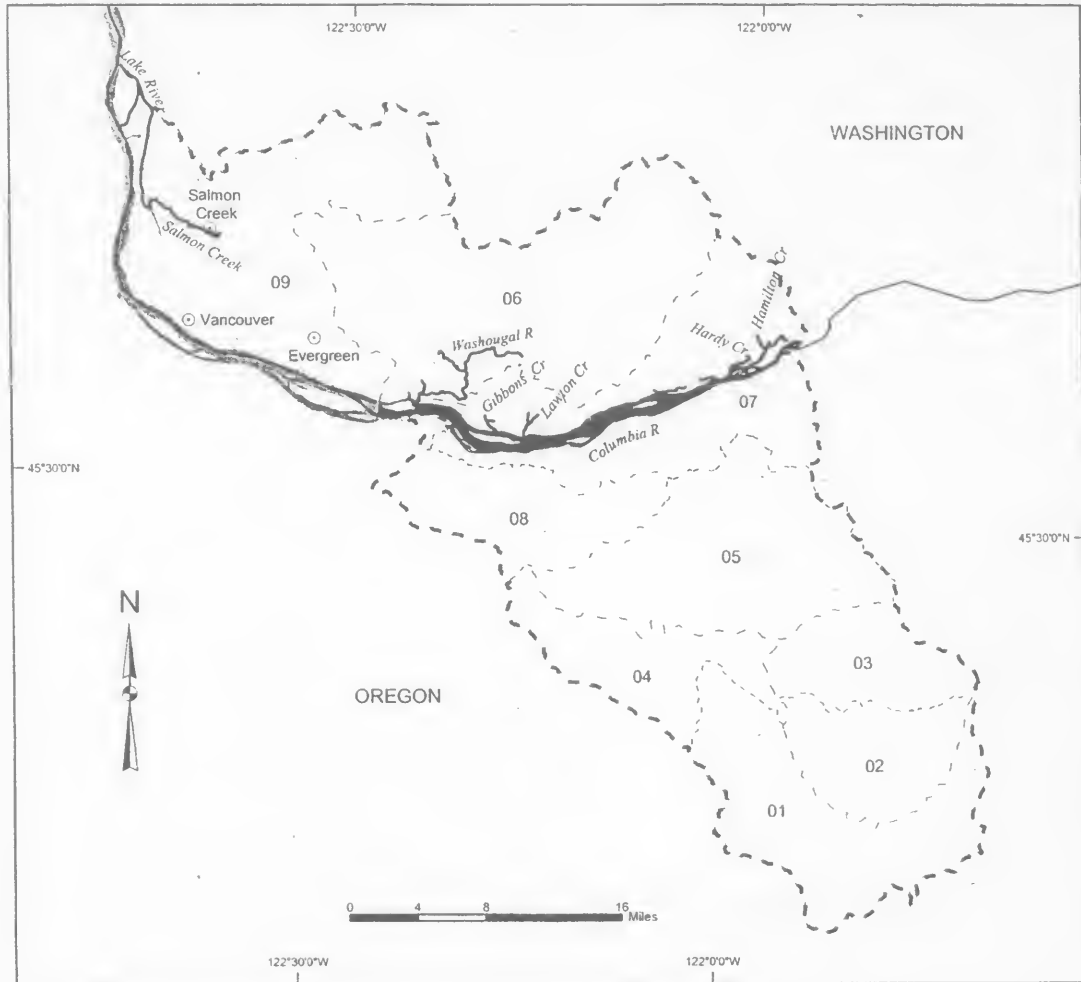
- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17070105xx



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**LOWER COLUMBIA / SANDY SUBBASIN
17080001, Unit 2**



Legend

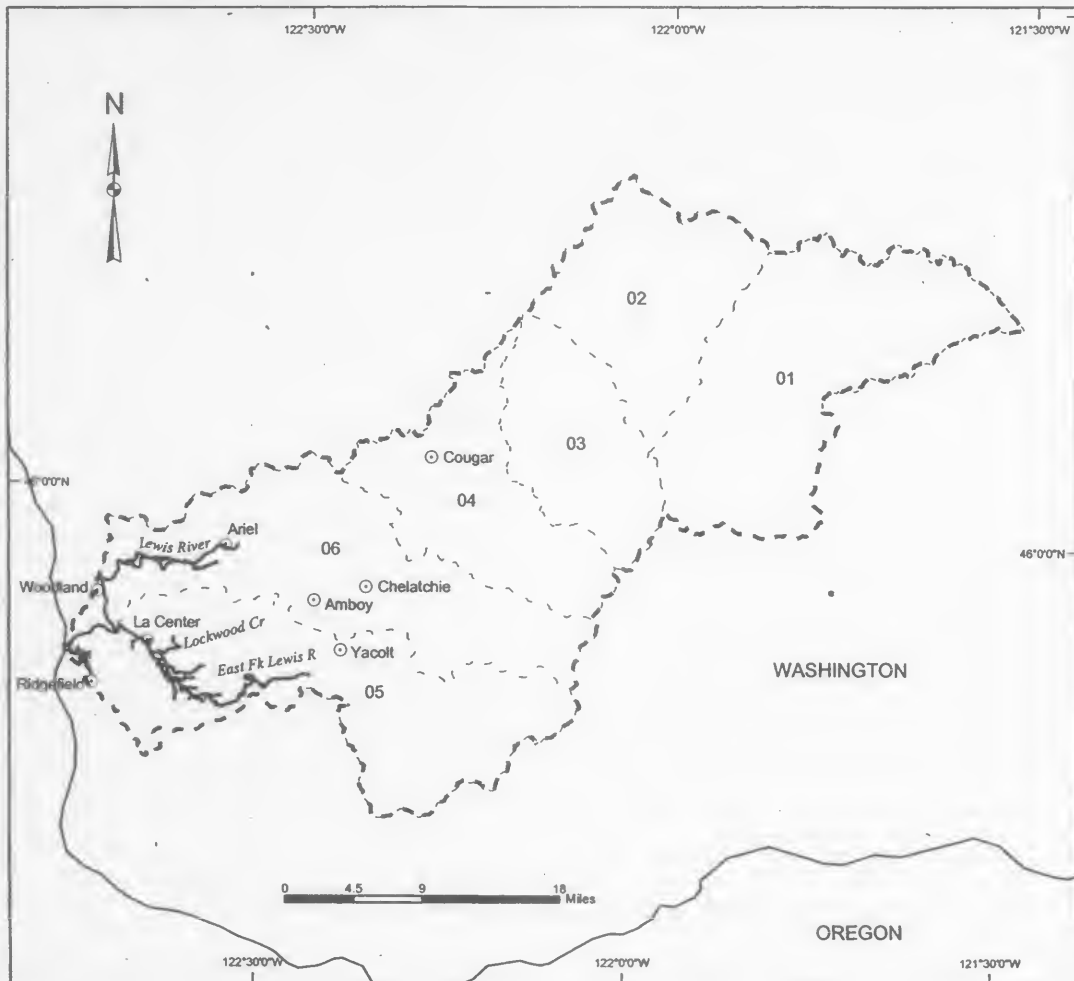
- State Boundary
- Cities / Towns
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 09 = Watershed code - last 2 digits of 17080001xx



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**LEWIS SUBBASIN
17080002, Unit 3**



Legend

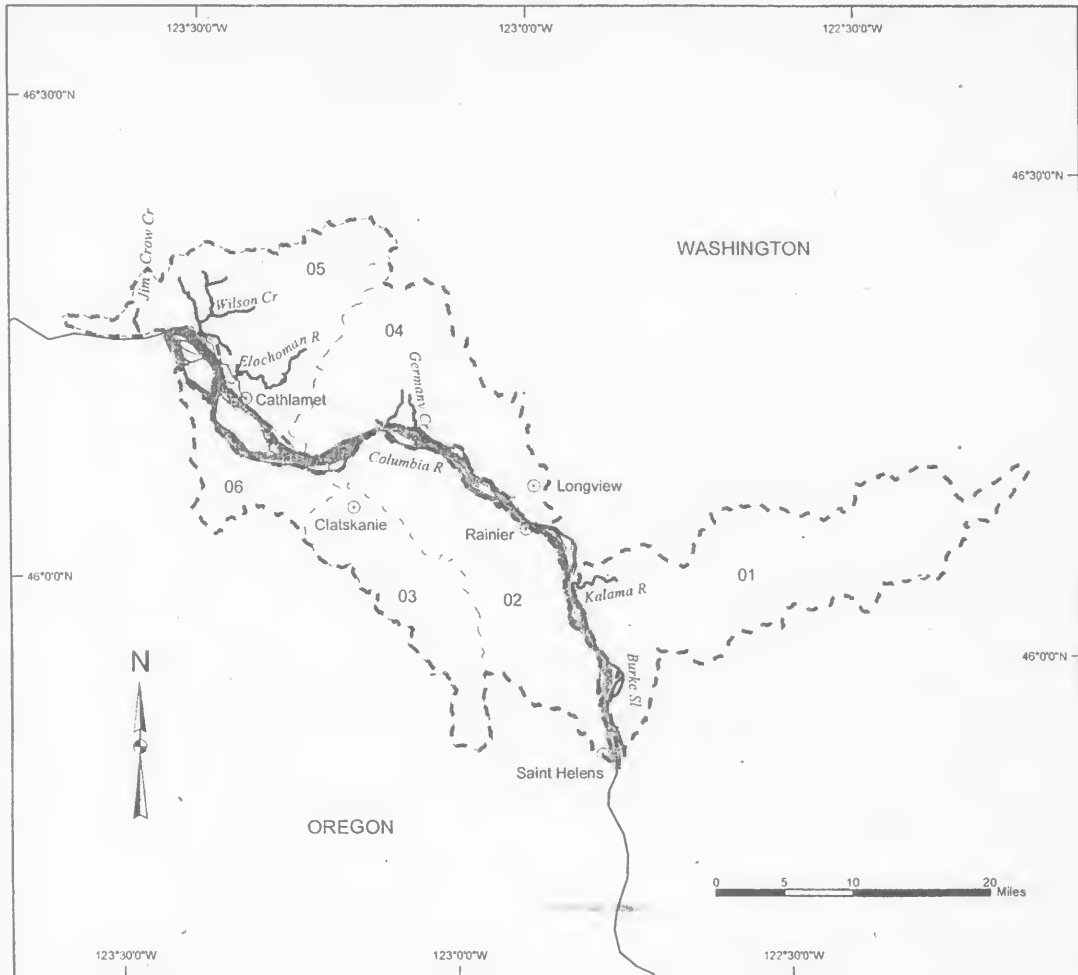
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 06 = Watershed code - last 2 digits of 17080002xx



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**LOWER COLUMBIA / CLATSKANIE SUBBASIN
17080003, Unit 4**



Legend

- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- Watershed Boundaries

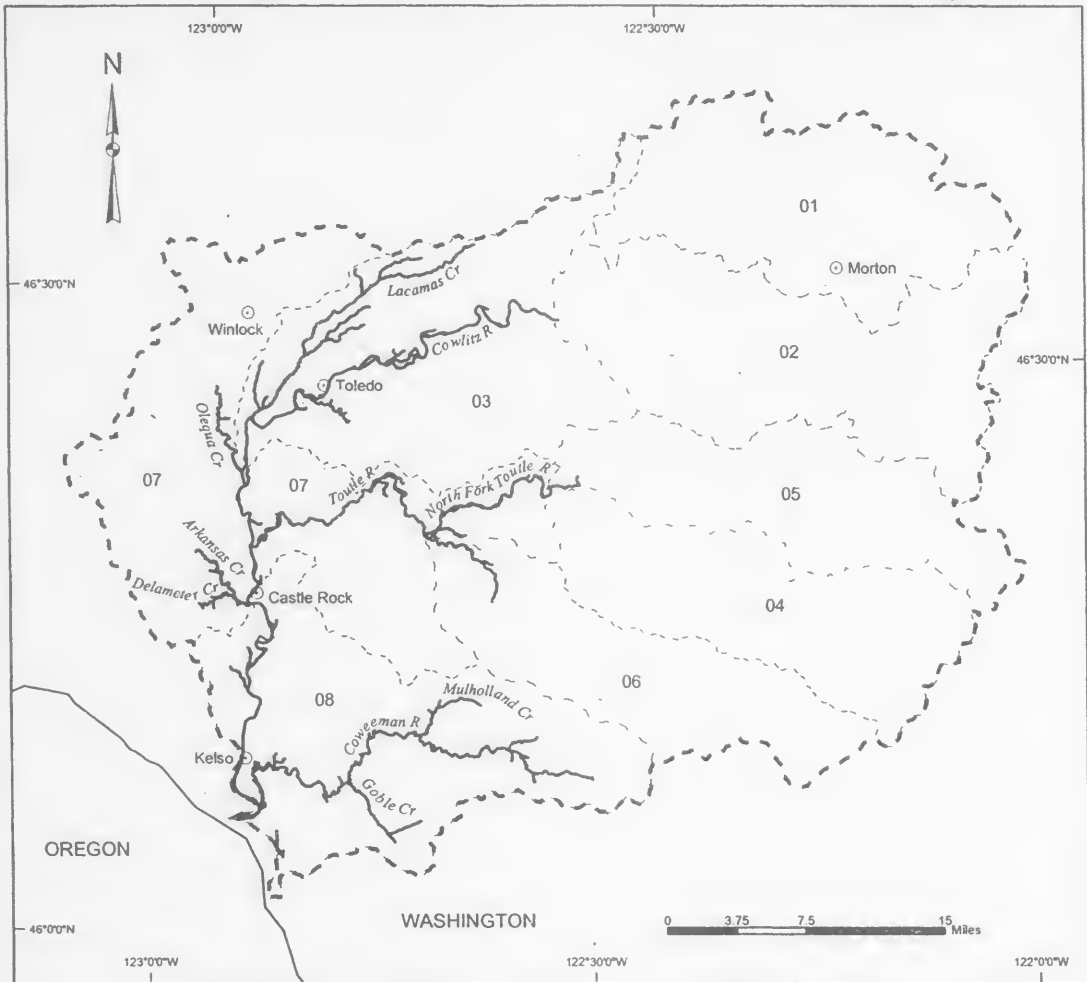
01 - 06 = Watershed code - last 2 digits of 17080003xx

Area of Detail



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**COWLITZ SUBBASIN
17080005, Unit 5**



Legend

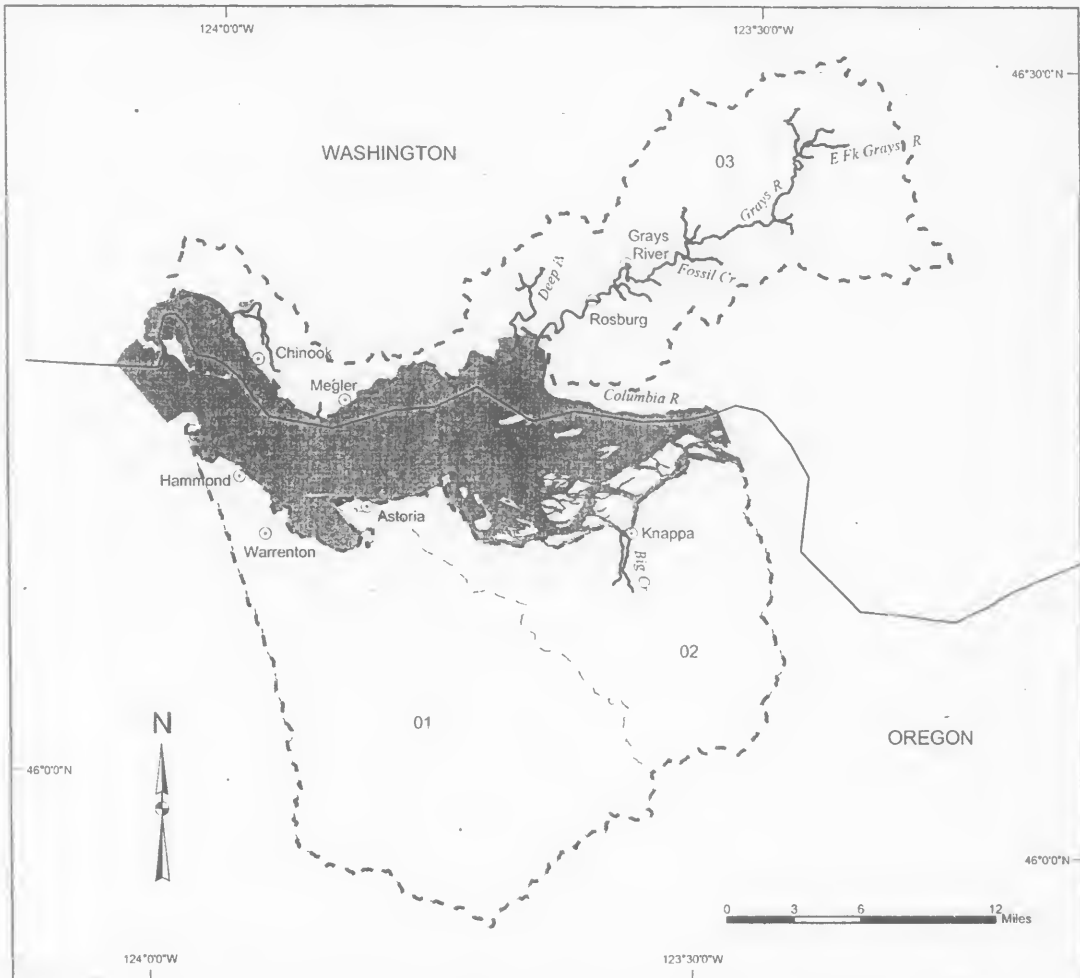
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17080005xx



**Proposed Critical Habitat for the
Columbia River Chum Salmon ESU**

**LOWER COLUMBIA SUBBASIN
17080006, Unit 6**



Legend

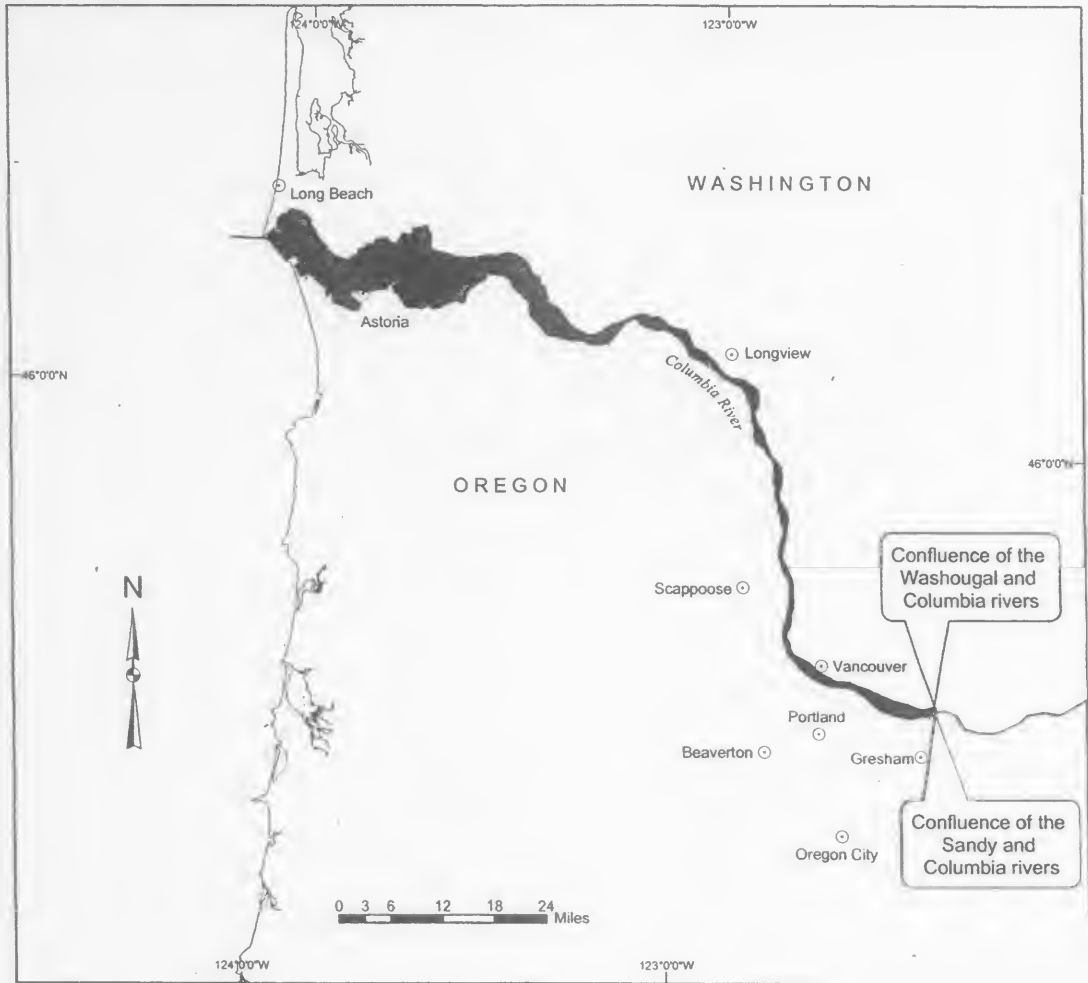
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17080006xx


Area of Detail



Rearing / Migration Corridor for the Columbia River Chum ESU, Unit 7



Legend

- ⊙ Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Columbia River Chum ESU

Unit 7. Lower Columbia River Corridor
 The lower Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to a line connecting the confluences of the Sandy River (Oregon) and Washougal River (Washington).

(m) *Ozette Lake Sockeye Salmon* (*Oncorhynchus nerka*). Critical habitat

is proposed to include the areas defined in the following unit:

(1) Unit 1. Hoh/Quillayute Subbasin 17100101—*Ozette Lake Watershed*

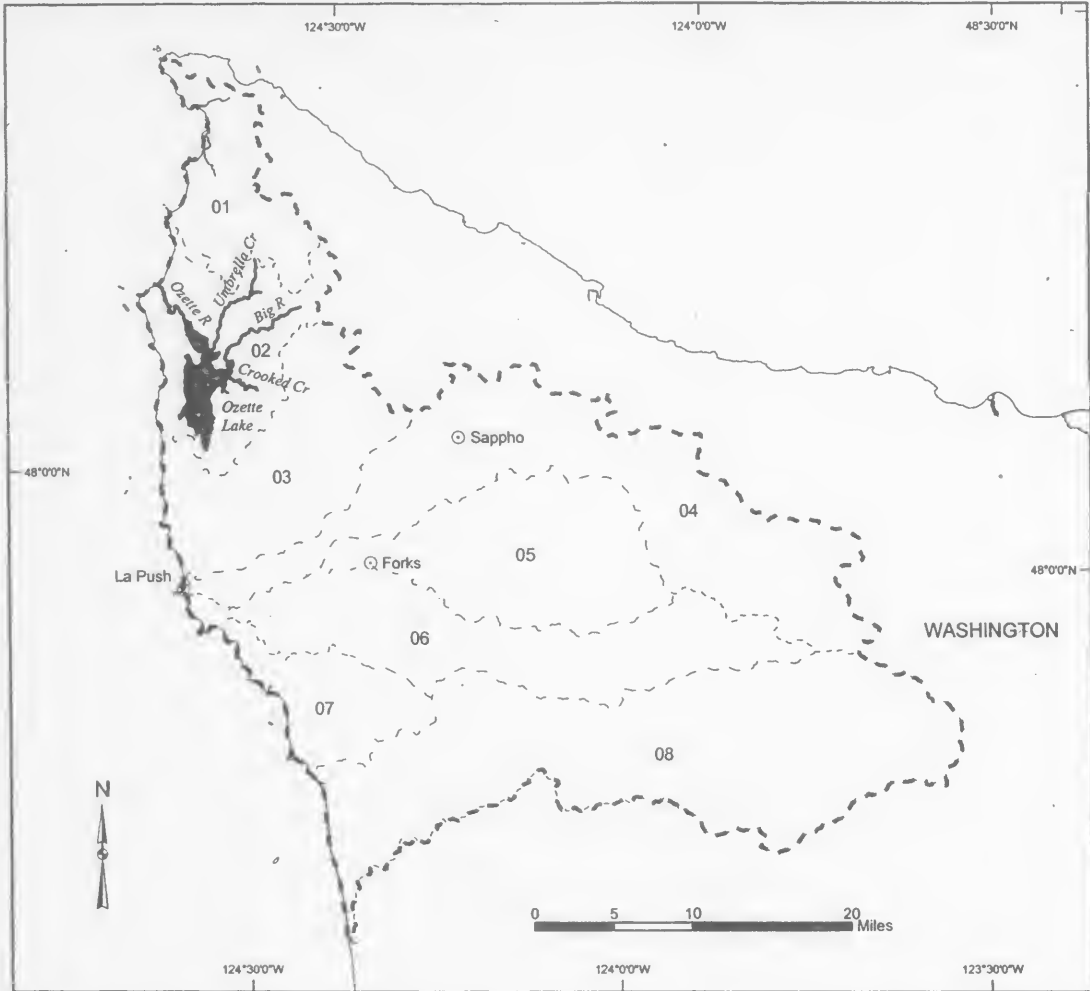
1710010102. Outlet(s) = Ozette River
(Lat 48.1818, Long -124.7076)
upstream to endpoints in: Big River
(48.1740, -124.5106); Crooked Creek

(48.0950, -124.5599); East Branch
Umbrella Creek (48.1835, -124.5659);
Ozette River (48.0370, -124.6218);
Umbrella Creek (48.2127, -124.5787).

(2) A map of proposed critical habitat
for the Ozette Lake sockeye salmon ESU
follows:

**Proposed Critical Habitat for the
Ozette Lake Sockeye Salmon ESU**

**HOH / QUILLAYUTE SUBBASIN
17100101, Unit 1**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

02 = Watershed code - last 2 digits of 17100101xx



BILLING CODE 3510-22-C

(n) Upper Columbia River
Oncorhynchus mykiss. Critical habitat is

proposed to include the areas defined in the following units:

(1) Unit 1. Chief Joseph Subbasin 17020005—*Upper Columbia/Swamp Creek Watershed 1702000505*. Outlet(s) = Columbia River (Lat 47.8077, Long -119.9754) upstream to endpoint(s) in: Columbia River (48.0828, -119.7062).

(2) Unit 2. Okanogan Subbasin 17020006—(i) *Upper Okanogan River Watershed 1702000601*. Outlet(s) = Okanogan River (Lat 48.7350, Long -119.4280) upstream to endpoint(s) in: Antoine Creek (48.7474, -119.3655); Ninemile Creek (48.9755, -119.3834); Okanogan River (49.0002, -119.4409); Similkameen River (48.9345, -119.4411); Tomasket Creek (48.9502, -119.3618); Whitestone Creek (48.7773, -119.4170).

(ii) *Okanogan River/Bonaparte Creek Watershed 1702000602*. Outlet(s) = Okanogan River (Lat 48.5612, Long -119.4863) upstream to endpoint(s) in: Aeneas Creek (48.6629, -119.4953); Bonaparte Creek (48.6824, -119.3947); Okanogan River (48.7350, -119.4280); Tunk Creek (48.5644, -119.4718).

(iii) *Salmon Creek Watershed 1702000603*. Outlet(s) = Salmon Creek (Lat 48.3593, Long -119.5805) upstream to endpoint(s) in: Salmon Creek (48.5374, -119.7465).

(iv) *Okanogan River/Omak Creek Watershed 1702000604*. Outlet(s) = Okanogan River (Lat 48.3593, Long -119.5805) upstream to endpoint(s) in: Okanogan River (48.5612, -119.4863); Omak Creek (48.3698, -119.4365); Unnamed (48.3802, -119.4915).

(v) *Lower Okanogan River Watershed 1702000605*. Outlet(s) = Okanogan River (Lat 48.0976, Long -119.7352) upstream to endpoint(s) in: Chiliwist Creek (48.2643, -119.7304); Loup Loup Creek (48.3080, -119.7128); Okanogan River (48.3593, -119.5805).

(3) Unit 3. Similkameen Subbasin 17020007—*Lower Similkameen River Watershed 1702000704*. Outlet(s) = Similkameen River (Lat 48.9345, Long -119.4411) upstream to endpoint(s) in: Similkameen River (48.9657, -119.5009).

(4) Unit 4. Methow Subbasin 17020008—(i) *Lost River Watershed 1702000801*. Outlet(s) = Lost River Gorge (Lat 48.6501, Long -120.5103) upstream to endpoint(s) in: Lost River Gorge (48.7324, -120.4475).

(ii) *Upper Methow River Watershed 1702000802*. Outlet(s) = Methow River (Lat 48.6015, Long -120.4376) upstream to endpoint(s) in: Early Winters Creek (48.5889, -120.4711); Methow River (48.6597, -120.5368).

(iii) *Upper Chewuch River Watershed 1702000803*. Outlet(s) = Chewuch River (Lat 48.7501, Long -120.1356) upstream to endpoint(s) in: Andrews Creek (48.7855, -120.1087); Chewuch

River (48.8614, -120.0288); Lake Creek (48.8258, -120.1996).

(iv) *Lower Chewuch River Watershed 1702000804*. Outlet(s) = Chewuch River (Lat 48.4751, Long -120.1790) upstream to endpoint(s) in: Boulder Creek (48.5804, -120.1521); Chewuch River (48.7501, -120.1356); Eightmile Creek (48.6167, -120.1975); Twentymile Creek (48.7025, -120.1087).

(v) *Twisp River Watershed 1702000805*. Outlet(s) = Twisp River (Lat 48.3682, Long -120.1176) upstream to endpoint(s) in: Buttermilk Creek (48.3414, -120.3034); Eagle Creek (48.3579, -120.3953); Little Bridge Creek (48.4289, -120.3552); South Creek (48.4329, -120.5434); Twisp River (48.4545, -120.5621); War Creek (48.3626, -120.4106).

(vi) *Middle Methow River Watershed 1702000806*. Outlet(s) = Methow River (Lat 48.2495, Long -120.1156) upstream to endpoint(s) in: Goat Creek (48.6101, -120.3692); Hancock Creek (48.5338, -120.3310); Little Boulder Creek (48.5569, -120.3847); Methow River (48.6015, -120.4376); North Fork Beaver Creek (48.4340, -120.0228); Wolf Creek (48.4777, -120.2844).

(vii) *Lower Methow River Watershed 1702000807*. Outlet(s) = Methow River (Lat 48.0502, Long -119.8942) upstream to endpoint(s) in: Black Canyon Creek (48.0721, -120.0168); Foggy Dew Creek (48.1869, -120.2344); Gold Creek (48.2113, -120.2021); Libby Creek (48.2548, -120.1653); Methow River (48.2495, -120.1156); South Fork Gold Creek (48.1468, -120.1650).

(5) Unit 6. Upper Columbia/Entiat Subbasin 17020010—(i) *Entiat River Watershed 1702001001*. Outlet(s) = Entiat River (Lat 47.6585, Long -120.2194) upstream to endpoint(s) in: Entiat River (47.9855, -120.5749); Mad River (47.8254, -120.5301); Potato Creek (47.7944, -120.3889); Roaring Creek (47.6795, -120.4163); Stormy Creek (47.8246, -120.4125); Tamarack Creek (47.6699, -120.4041); Tillicum Creek (47.7295, -120.4303).

(ii) *Lake Entiat Watershed 1702001002*. Outlet(s) = Columbia River (Lat 47.3539, Long -120.1105) upstream to endpoint(s) in: Columbia River (47.8077, -119.9754).

(iii) *Columbia River/Lynch Coulee Watershed 1702001003*. Outlet(s) = Columbia River (Lat 47.0494, Long -120.0241) upstream to endpoint(s) in: Brushy Creek (47.1316, -120.1493); Colockum Creek (47.2919, -120.1592); Columbia River (47.3539, -120.1105); Lynch Coulee (47.2320, -119.9943); Quilomene Creek (47.1105, -120.0379); Tarpisan Creek (47.2264, -120.0922); Tekison Creek (47.1816, -120.0206).

(iv) *Columbia River/Sand Hollow Watershed 1702001004*. Outlet(s) = Columbia River (Lat 46.8159, Long -119.9255) upstream to endpoint(s) in: Columbia River (47.0494, -120.0241); Sand Hollow (46.9296, -119.9365); Whiskey Dick Creek (47.0302, -120.0331).

(6) Unit 7. Wenatchee Subbasin 17020011—(i) *White River Watershed 1702001101*. Outlet(s) = White River (Lat 47.8088, Long -120.7159) upstream to endpoint(s) in: Little Wenatchee River (47.8526, -120.9541); Napeequa River (47.9359, -120.8712); Panther Creek (47.9375, -120.9408); White River (47.9535, -120.9380).

(ii) *Chiwawa River Watershed 1702001102*. Outlet(s) = Chiwawa River (Lat 47.7880, Long -120.6589) upstream to endpoint(s) in: Alder Creek (47.8565, -120.6564); Alpine Creek (48.0823, -120.8683); Buck Creek (48.1045, -120.8815); Chikamin Creek (47.9111, -120.7165); Chiwawa River (48.1140, -120.8775); Clear Creek (47.8016, -120.6210); James Creek (48.0748, -120.8598); Phelps Creek (48.0743, -120.8484); Unnamed (47.9727, -120.7878).

(iii) *Nason/Tumwater Watershed 1702001103*. Outlet(s) = Wenatchee River (Lat 47.5801, Long -120.6660) upstream to endpoint(s) in: Beaver Creek (47.7649, -120.6553); Chiwaukum Creek (47.7038, -120.7788); Coulter Creek (47.7594, -120.7969); Gill Creek (47.7716, -120.8237); Henry Creek (47.7545, -120.9944); Kahler Creek (47.7691, -120.7558); Mill Creek (47.7744, -121.0117); Nason Creek (47.7825, -121.0464); Roaring Creek (47.7572, -120.8203); Skinney Creek (47.7247, -120.7370).

(iv) *Icicle/Chumstick Watershed 1702001104*. Outlet(s) = Wenatchee River (Lat 47.5575, Long -120.5729) upstream to endpoint(s) in: Chumstick Creek (47.6785, -120.6385); Derby Canyon (47.6036, -120.5623); Eagle Creek (47.6342, -120.6261); Icicle Creek (47.6460, -120.9833); Wenatchee River (47.5801, -120.6660).

(v) *Lower Wenatchee River Watershed 1702001105*. Outlet(s) = Wenatchee River (Lat 47.4553, Long -120.3185) upstream to endpoint(s) in: Brender Creek (47.5214, -120.4844); Ingalls Creek (47.4612, -120.6776); King Canyon (47.3522, -120.4423); Mill Creek (47.5139, -120.6724); Mission Creek (47.3289, -120.4771); Peshastin Creek (47.4380, -120.6590); Sand Creek (47.4321, -120.5307); Wenatchee River (47.5575, -120.5729).

(7) Unit 9. Lower Crab Subbasin 17020015—*Lower Crab Creek Watershed 1702001509*. Outlet(s) =

Lower Crab Creek (Lat 46.8159, Long -119.9255) upstream to endpoint(s) in: Hayes Creek (46.8821, -119.2703); Lower Crab Creek (46.9028, -119.2785); Unnamed (46.8157, -119.4326); Unnamed (46.8243, -119.4429); Unnamed (46.8353, -119.3750); Unnamed (46.8658, -119.3757); Unnamed (46.8770, -119.5863).

(8) Unit 10. Upper Columbia/Priest Rapids Subbasin 17020016—(i) Yakima

River/Hanson Creek Watershed 1702001604. Outlet(s) = Columbia River (Lat 46.7159, Long -119.5294) upstream to endpoint(s) in: Columbia River (46.8159, -119.9255).

(ii) Middle Columbia/Priest Rapids Watershed 1702001605. Outlet(s) = Columbia River (Lat 46.5091, Long -119.2661) upstream to endpoint(s) in: Columbia River (46.7159, -119.5294).

(iii) Columbia River/Zintel Canyon Watershed 1702001606. Outlet(s) = Columbia River (Lat 46.2534, Long

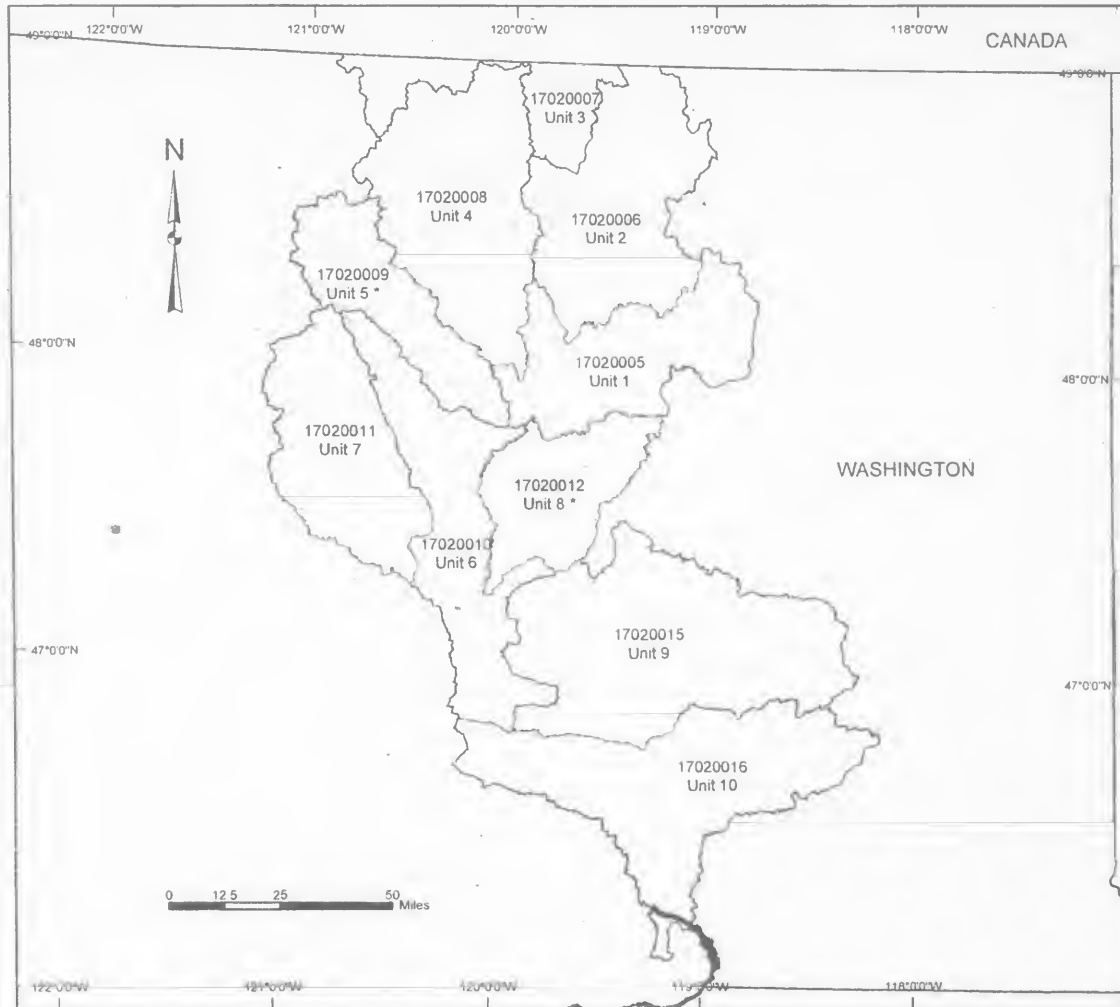
-119.2268) upstream to endpoint(s) in: Columbia River (46.5091, -119.2661).

(9) Unit 11. Columbia River Corridor—(i) Columbia River Corridor Outlet(s) = Columbia River (Lat 46.2485, Long -124.0782) upstream to endpoint(s) in: Columbia River (46.2534, -119.2268).




(10) Maps of proposed critical habitat for the Upper Columbia River *O. mykiss* ESU follow:

BILLING CODE 3510-22-P

Map of the Upper Columbia River *O. mykiss* ESU



Legend

-  State Boundary
-  Water Bodies
-  Subbasin Boundaries

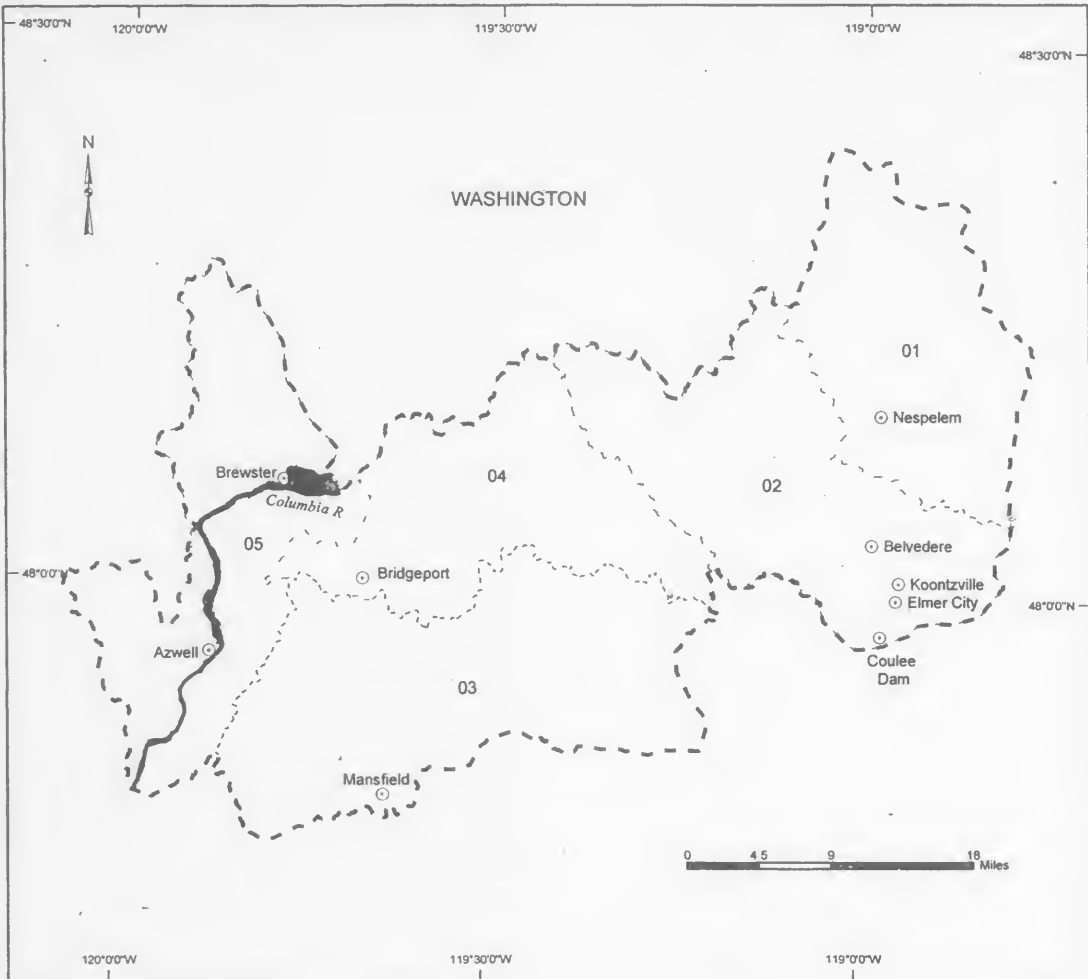
* All habitat areas in unit are proposed for exclusion

Area of Detail



**Proposed Critical Habitat for the
Upper Columbia River O. mykiss ESU**

**CHIEF JOSEPH SUBBASIN
17020005, Unit 1**



Legend

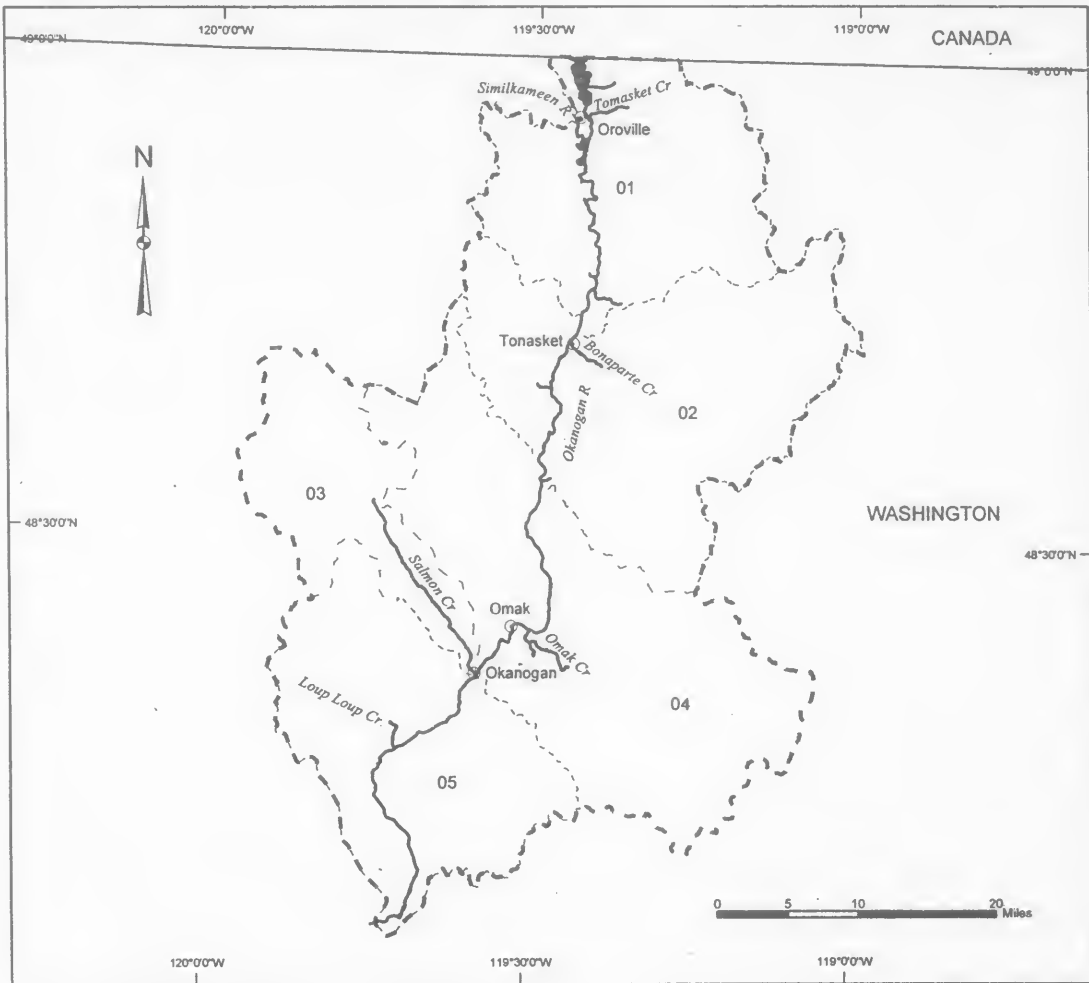
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17020005xx

Area of Detail

**Proposed Critical Habitat for the
Upper Columbia River *O. mykiss* ESU**

**OKANOGAN SUBBASIN
17020006, Unit 2**



Legend

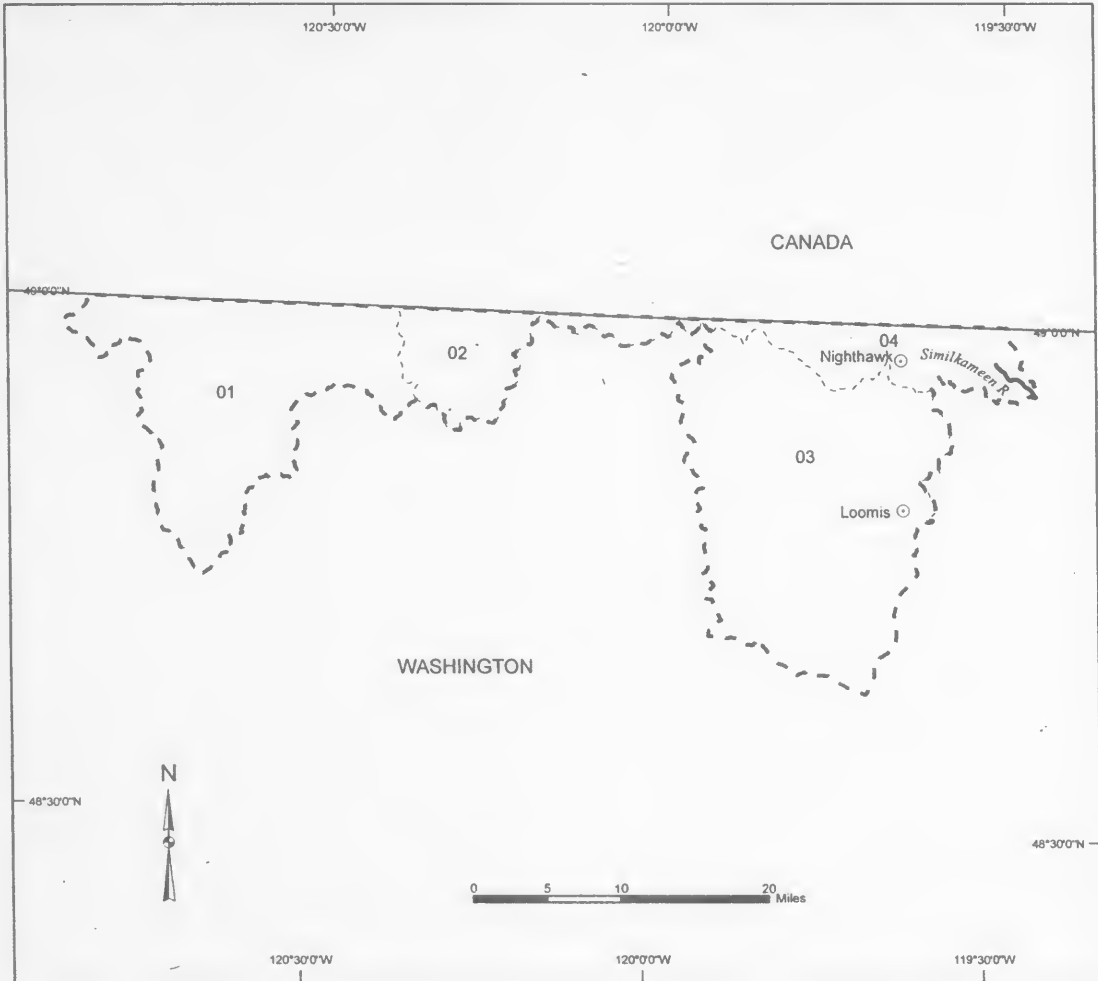
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17020006xx



**Proposed Critical Habitat for the
Upper Columbia River O. mykiss ESU**

**SIMILKAMEEN SUBBASIN
17020007, Unit 3**



Legend

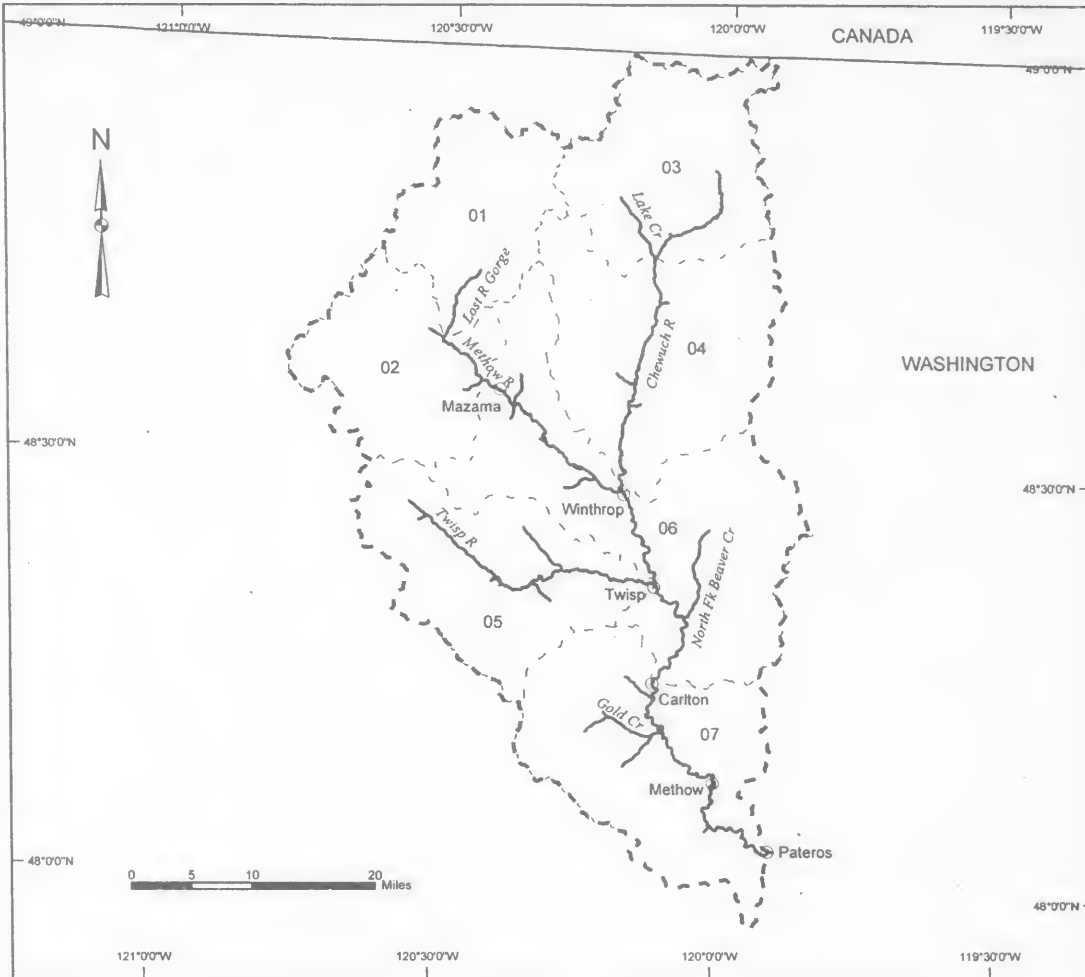
- Cities / Towns
- State Boundary
- ~~~~~ Proposed Critical Habitat
- - - Subbasin Boundary
- Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17020007xx



**Proposed Critical Habitat for the
Upper Columbia River *O. mykiss* ESU**

**METHOW SUBBASIN
17020008, Unit 4**



Legend

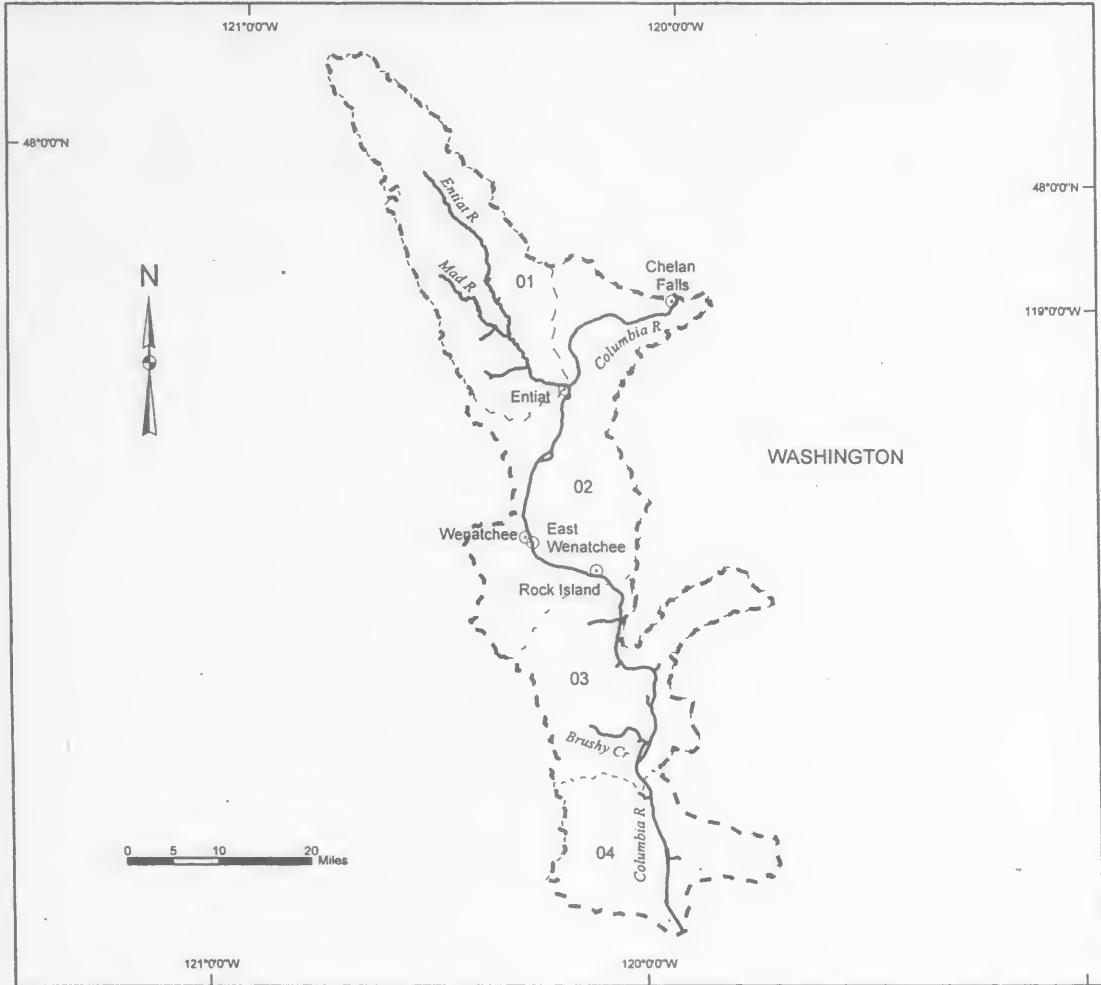
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17020008xx



**Proposed Critical Habitat for the
Upper Columbia River *O. mykiss* ESU**

**UPPER COLUMBIA / ENTIAT SUBBASIN
17020010, Unit 6**



Legend

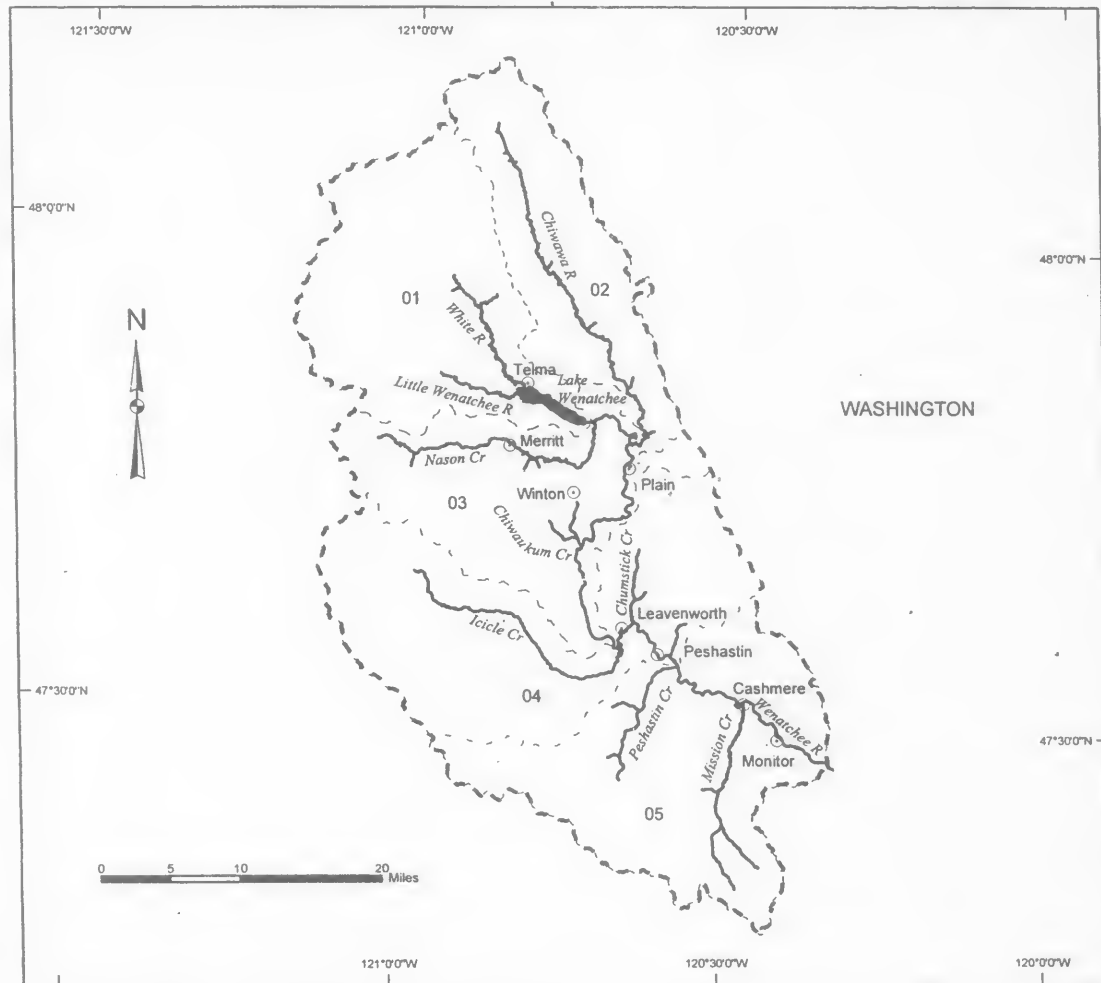
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17020010xx

Area of Detail

**Proposed Critical Habitat for the
Upper Columbia River O. mykiss ESU**

**WENATCHEE SUBBASIN
17020011, Unit 7**



Legend

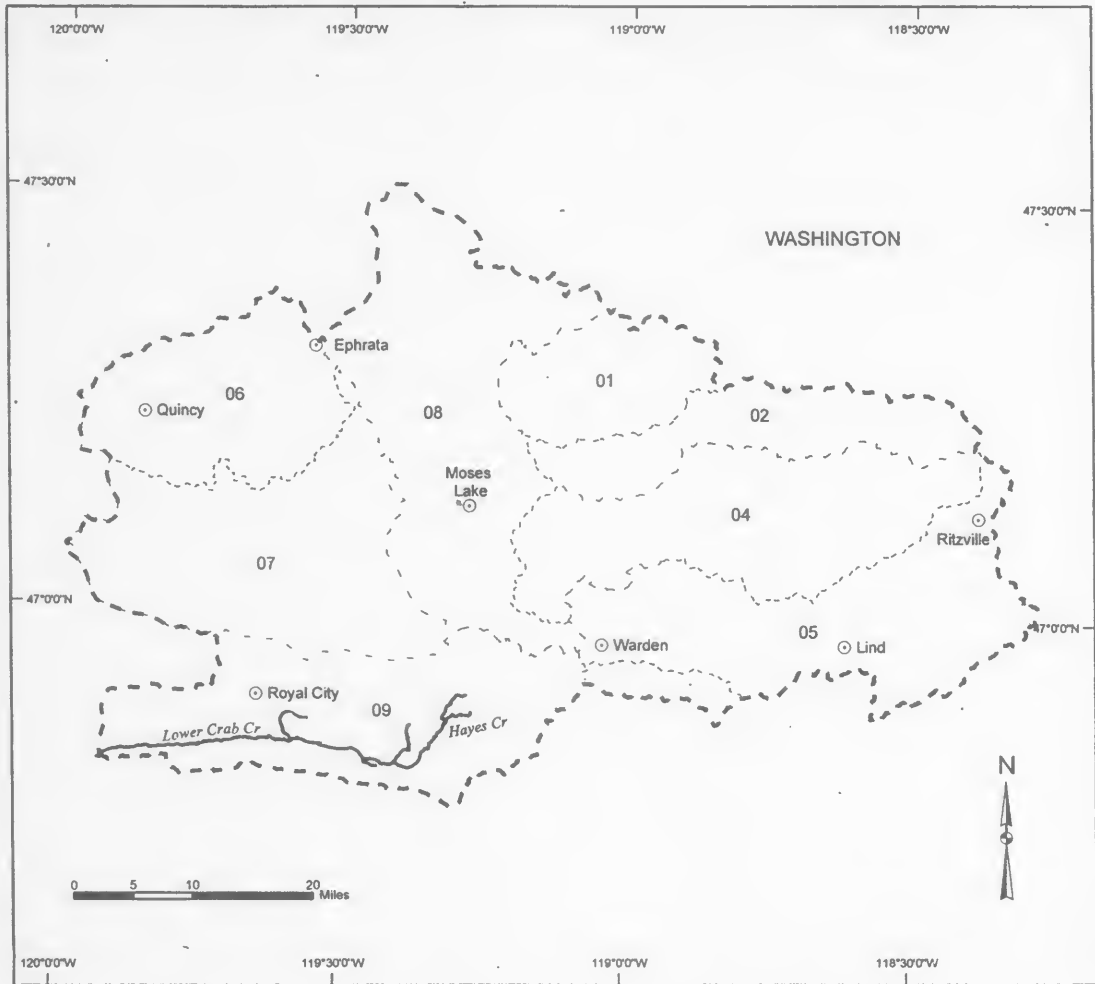
- Cities / Towns
 - ~~~~~ Proposed Critical Habitat
 - - - - Subbasin Boundary
 - Watershed Boundaries
- 01 - 05 = Watershed code - last 2 digits of 17020011xx

Area of Detail



**Proposed Critical Habitat for the
Upper Columbia River O. mykiss ESU**

**LOWER CRAB SUBBASIN
17020015, Unit 9**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- _____ Watershed Boundaries

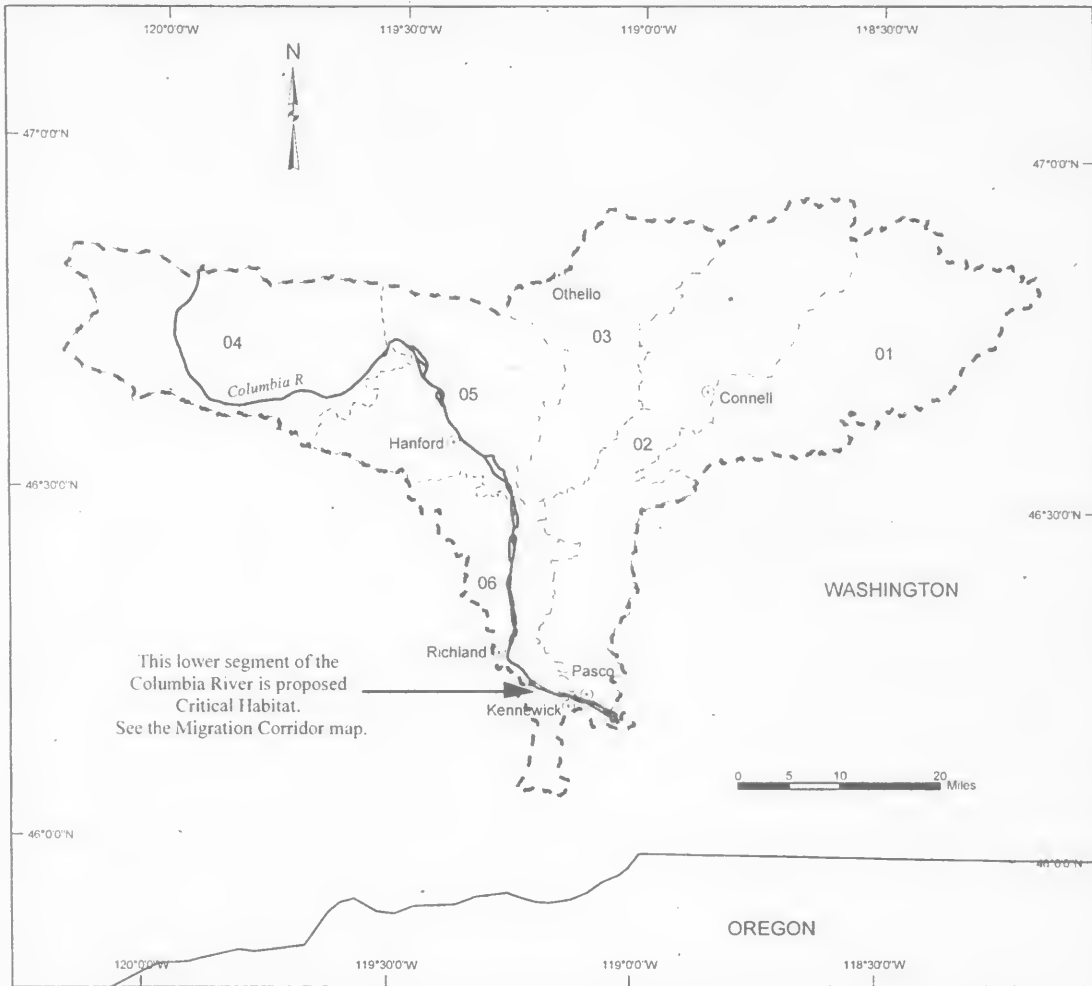
01 - 02, 04 - 09 = Watershed code - last 2 digits of 17020015xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A shaded rectangle in Washington indicates the specific area covered by the main map.

**Proposed Critical Habitat for the
Upper Columbia River O. mykiss ESU**

**UPPER COLUMBIA / PRIEST RAPIDS SUBBASIN
17020016, Unit 10**



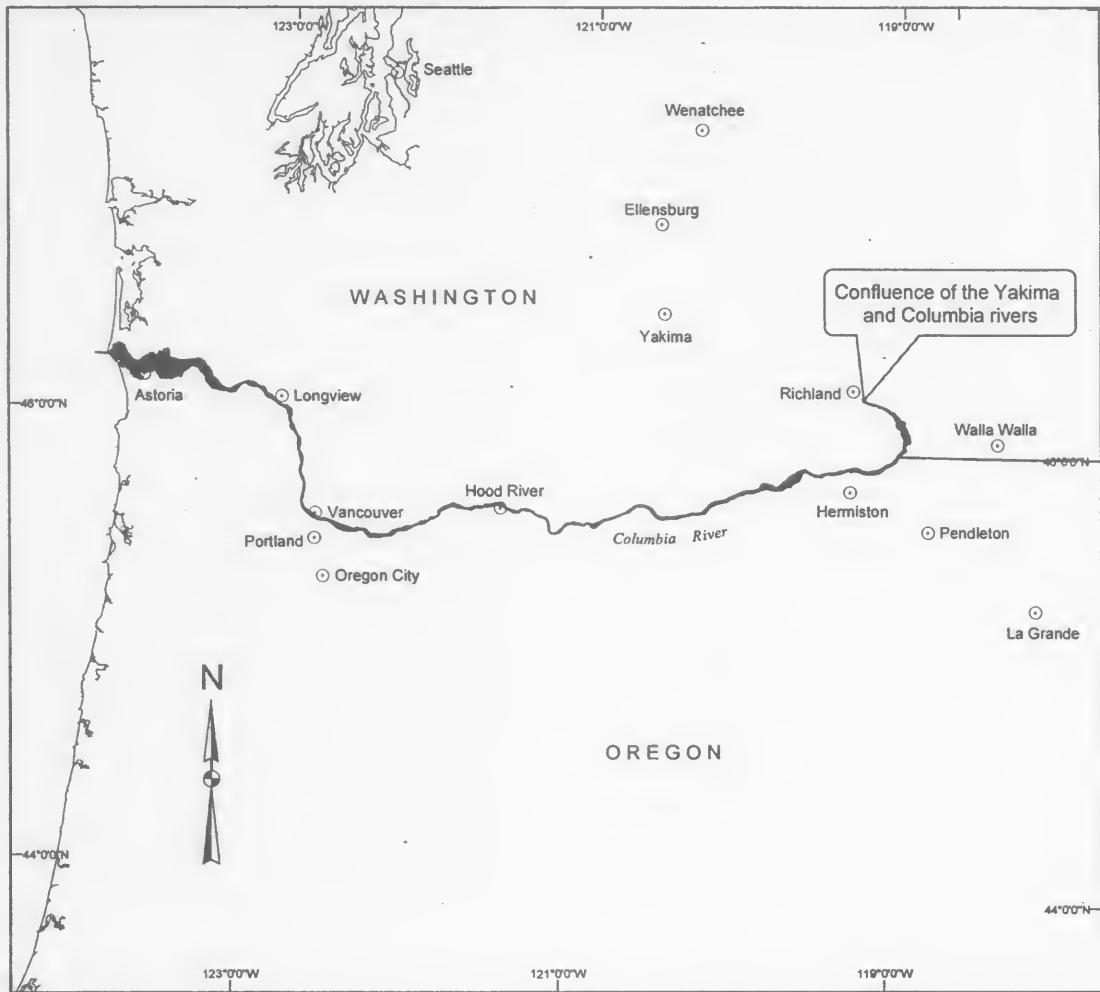
Legend

- Cities / Towns
- State Boundary
- Proposed Critical Habitat
- Water Body
- Subbasin Boundary
- Watershed Boundaries


01 - 06 = Watershed code - last 2 digits of 17020016xx



**Rearing / Migration Corridor for the
Upper Columbia River *O. mykiss* ESU, Unit 11**



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Upper Columbia River *O. mykiss* ESU

Unit 11. Columbia River Corridor
The Columbia River Corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to the confluence of the Yakima River.

(1) Unit 1. Hells Canyon Subbasin 17060101—(i) *Snake River/Granite Creek Watershed 1706010101*. Outlet(s) = Snake River (Lat 45.467, Long -116.554) upstream to endpoint(s) in: Battle Creek (45.307, -116.697); Bernard Creek (45.387, -116.569); Brush Creek (45.275, -116.657); Bull Creek (45.329, -116.673); Clarks Fork (45.476, -116.500); Deep Creek (45.237, -116.674); Devils Farm Creek (45.301, -116.611); Granite Creek (45.277, -116.630); Hells Canyon (45.254, -116.698); Lightning Creek (45.440, -116.500); Little Granite Creek (45.335, -116.636); North Fork Battle Creek (45.316, -116.687); Rattlesnake Creek (45.457, -116.610); Rough Creek (45.397, -116.638); Rush Creek (45.468, -116.596); Saddle Creek (45.375, -116.721); Sheep Creek (45.406, -116.523); Sluice Creek (45.445, -116.622); Snake River (45.243, -116.700); Stud Creek (45.267, -116.693); Three Creek (45.353, -116.610); Unnamed (45.468, -116.610); Wild Sheep Creek (45.326, -116.676).

(ii) *Snake River/Getta Creek Watershed 1706010102*. Outlet(s) = Snake River (Lat 45.747, Long -116.543) upstream to endpoint(s) in: Big Canyon Creek (45.689, -116.467); Corral Creek (45.588, -116.433); Cove Creek (45.553, -116.574); Durham Creek (45.595, -116.472); Getta Creek (45.736, -116.421); Highrange Creek (45.738, -116.518); Indian Creek (45.744, -116.449); Jones Creek (45.703, -116.526); Kirby Creek (45.575, -116.454); Kirkwood Creek (45.548, -116.457); Klopton Creek (45.627, -116.434); Kurry Creek (45.656, -116.426); Lookout Creek (45.713, -116.542); Lost Valley Creek (45.550, -116.482); Pleasant Valley Creek (45.647, -116.492); Salt Creek (45.576, -116.554); SCreek (45.491, -116.574); Snake River (45.468, -116.554); Somers Creek (45.645, -116.553); Temperance Creek (45.537, -116.571); Tryon Creek (45.694, -116.540); Two Corral Creek (45.561, -116.526); West Creek (45.664, -116.453); West Fork West Creek (45.669, -116.463).

(iii) *Snake River/Divide Creek Watershed 1706010104*. Outlet(s) = Snake River (Lat 45.857, Long -116.794) upstream to endpoint(s) in: Deep Creek (45.774, -116.654); Divide Creek (45.859, -116.741); Dry Creek (45.842, -116.598); Snake River (45.747, -116.543); Wolf Creek (45.776, -116.567).

(2) Unit 2. Imnaha River Subbasin 17060102—(i) *Upper Imnaha River Watershed 1706010201*. Outlet(s) = Imnaha River (Lat 45.232, Long

-116.844) upstream to endpoint(s) in: Crazyman Creek (45.190, -116.811); Dry Creek (45.123, -116.867); Gumboot Creek (45.147, -116.968); Mahogany Creek (45.201, -116.905); North Fork Dry Creek (45.143, -116.850); North Fork Gumboot Creek (45.184, -116.928); North Fork Imnaha River (45.118, -117.129); Skookum Creek (45.117, -116.938); South Fork Imnaha River (45.111, -117.230); Unnamed (45.188, -116.923); Unnamed (45.208, -116.890).

(ii) *Middle Imnaha River Watershed 1706010202*. Outlet(s) = Imnaha River (Lat 45.557, Long -116.834) upstream to endpoint(s) in: Freezeout Creek (45.352, -116.761); Grouse Creek (45.179, -116.976); Imnaha River (45.232, -116.844); Morgan Creek (45.261, -116.948); Rich Creek (45.243, -116.869); Road Creek (45.279, -116.932); Shadow Canyon (45.295, -116.860); Summit Creek (45.228, -116.793); Unnamed (45.203, -116.978); Unnamed (45.203, -116.943); Unnamed (45.250, -116.923).

(iii) *Big Sheep Creek Watershed 1706010203*. Outlet(s) = Big Sheep Creek (Lat 45.520, Long -116.859) upstream to endpoint(s) in: Big Sheep Creek (45.171, -117.086); Carrol Creek (45.240, -117.063); Griffith Creek (45.273, -117.061); Lick Creek (45.133, -117.056); Marr Creek (45.299, -116.949); North Fork Carrol Creek (45.295, -116.993); South Fork Squaw Creek (45.354, -116.872); Tyee Creek (45.188, -116.991); Unnamed (45.164, -117.023); Unnamed (45.239, -117.045); Unnamed (45.297, -116.940).

(iv) *Little Sheep Creek Watershed 1706010204*. Outlet(s) = Big Sheep Creek (Lat 45.557, Long -116.834) upstream to endpoint(s) in: Bear Gulch (45.379, -116.955); Big Sheep Creek (45.520, -116.859); Camp Creek (45.544, -116.959); Canal Creek (45.256, -117.103); Devils Gulch (45.428, -116.962); Downey Gulch (45.405, -116.958); Ferguson Creek (45.267, -117.106); Lightning Creek (45.475, -117.020); Little Sheep Creek (45.236, -117.083); McCully Creek (45.295, -117.107); Redmont Creek (45.250, -117.099); South Fork Lightning Creek (45.473, -117.019); Summit Creek (45.390, -116.930); Threebuck Creek (45.395, -117.012); Trail Creek (45.563, -116.898).

(v) *Lower Imnaha River Watershed 1706010205*. Outlet(s) = Imnaha River (Lat 45.817, Long -116.764) upstream to endpoint(s) in: Corral Creek (45.708, -116.815); Cottonwood Creek (45.659, -116.865); Cow Creek (45.573, -116.628); Dodson Fork (45.725,

-116.821); East Fork Fence Creek (45.652, -116.855); Fence Creek (45.655, -116.875); Horse Creek (45.421, -116.725); Imnaha River (45.557, -116.834); Lightning Creek (45.447, -116.682); Prong (45.589, -116.592); Pumpkin Creek (45.517, -116.758); Sleepy Creek (45.604, -116.666); Stubblefield Fork (45.711, -116.815); Tulley Creek (45.743, -116.766).

(3) Unit 3. Lower Snake/Asotin Subbasin 17060103—(i) *Snake River/Rogersburg Watershed 1706010301*. Outlet(s) = Snake River (Lat 46.080, Long -116.978) upstream to endpoint(s) in: Cache Creek (45.976, -116.928); Cave Gulch (46.023, -116.840); Cook Creek (45.901, -116.865); Corral Creek (46.055, -116.875); Cottonwood Creek (45.944, -116.860); Garden Creek (45.972, -116.903); Snake River (45.857, -116.794).

(ii) *Asotin River Watershed 1706010302*. Outlet(s) = Asotin Creek (Lat 46.345, Long -117.053) upstream to endpoint(s) in: Ayers Gulch (46.278, -117.094); Charley Creek (46.271, -117.460); Coombs Canyon (46.128, -117.276); George Creek (46.144, -117.303); Hefflefinger Gulch (46.151, -117.231); Huber Gulch (46.155, -117.188); Kelly Creek (46.251, -117.114); Lick Creek (46.260, -117.358); Middle Branch North Fork Asotin Creek (46.195, -117.439); Nims Gulch (46.178, -117.121); North Fork Asotin Creek (46.207, -117.478); Pintler Creek (46.194, -117.153); South Fork Asotin Creek (46.174, -117.341); South Fork North Fork Asotin Creek (46.192, -117.425).

(iii) *Snake River/Captain John Creek Watershed 1706010303*. Outlet(s) = Snake River (Lat 46.428, Long -117.038) upstream to endpoint(s) in: Captain John Creek (46.145, -116.821); Couse Creek (46.157, -117.032); Edeburn Gulch (46.142, -117.008); Mill Creek (46.157, -117.078); Redbird Creek (46.220, -116.898); Snake River (46.080, -116.978); South Fork Captain John Creek (46.123, -116.864); Tammany Creek (46.362, -117.052); Tenmile Canyon (46.284, -116.976); Tenmile Creek (46.123, -117.086); Unnamed (46.119, -117.100); Unnamed (46.124, -117.111).

(4) Unit 4. Upper Grande Ronde River Subbasin 17060104—(i) *Upper Grande Ronde River Watershed 1706010401*. Outlet(s) = Grande Ronde River (Lat 45.264, Long -118.376) upstream to endpoint(s) in: Chicken Creek (44.987, -118.378); Clear Creek (45.014, -118.329); Dry Creek (45.052, -118.380); East Fork Grande Ronde River (45.060, -118.237); East Sheep

Creek (44.987, -118.425); Fly Creek (45.125, -118.596); Grande Ronde River (44.998, -118.273); Limber Jim Creek (45.107, -118.270); Little Clear Creek (45.038, -118.300); Little Fly Creek (45.062, -118.504); Lookout Creek (45.065, -118.543); Muir Creek (45.066, -118.297); North Fork Limber Jim Creek (45.125, -118.308); Sheep Creek (45.016, -118.507); South Fork Limber Jim Creek (45.088, -118.304); Squaw Creek (45.103, -118.554); Umapine Creek (45.116, -118.571); Unnamed (45.042, -118.269); Unnamed (45.045, -118.417); West Chicken Creek (45.025, -118.404); Winter Canyon (45.215, -118.361).

(ii) *Meadow Creek Watershed*

1706010402. Outlet(s) = Meadow Creek (Lat 45.264, Long -118.376) upstream to endpoint(s) in: Battle Creek (45.216, -118.507); Bear Creek (45.210, -118.577); Burnt Corral Creek (45.159, -118.524); Dark Canyon (45.382, -118.394); East Burnt Corral Creek (45.173, -118.498); Ensign Creek (45.361, -118.554); Little Dark Canyon (45.322, -118.418); Marley Creek (45.177, -118.476); McCoy Creek (45.322, -118.628); McIntyre Creek (45.345, -118.459); Meadow Creek (45.286, -118.716); Peet Creek (45.233, -118.611); Smith Creek (45.295, -118.594); Sullivan Gulch (45.200, -118.515); Syrup Creek (45.296, -118.543); Tybow Canyon (45.214, -118.467); Unnamed (45.206, -118.552); Unnamed (45.275, -118.695); Unnamed (45.295, -118.718); Unnamed (45.330, -118.551); Waucup Creek (45.243, -118.660).

(iii) *Grande Ronde River/Beaver Creek Watershed 1706010403*. Outlet(s) = Grande Ronde River (Lat 45.347, Long -118.221) upstream to endpoint(s) in: Bear Creek (45.283, -118.270); Beaver Creek (45.146, -118.206); Dry Beaver Creek (45.168, -118.316); East Fork Rock Creek (45.166, -118.111); Grande Ronde River (45.264, -118.376); Graves Creek (45.245, -118.161); Hoodoo Creek (45.154, -118.259); Jordan Creek (45.162, -118.187); Little Beaver Creek (45.185, -118.333); Little Whiskey Creek (45.209, -118.178); Rock Creek (45.172, -118.139); Sheep Creek (45.281, -118.130); South Fork Spring Creek (45.346, -118.363); Spring Creek (45.396, -118.372); Unnamed (45.167, -118.144); Unnamed (45.227, -118.262); Unnamed (45.231, -118.279); Unnamed (45.232, -118.091); Unnamed (45.240, -118.257); Watermelon Creek (45.195, -118.277); Whiskey Creek (45.198, -118.181).

(iv) *Grande Ronde River/Five Points Creek Watershed 1706010404*. Outlet(s)

= Grande Ronde River (Lat 45.408, Long -117.930) upstream to endpoint(s) in: California Gulch (45.406, -118.335); Conley Creek (45.406, -118.084); Dobbin Ditch (45.377, -118.017); Dry Creek (45.426, -118.379); Fiddlers Hell (45.443, -118.145); Five Points Creek (45.482, -118.143); Grande Ronde River (45.347, -118.221); Little John Day Creek (45.430, -118.192); Middle Fork Five Points Creek (45.485, -118.129); Mt Emily Creek (45.465, -118.125); Pelican Creek (45.438, -118.318); Tie Creek (45.420, -118.129); Unnamed (45.385, -118.043); Unnamed (45.423, -118.243).

(v) *Catherine Creek Watershed*

1706010405. Outlet(s) = Catherine Creek (Lat 45.219, Long -117.915) upstream to endpoint(s) in: Buck Creek (45.132, -117.606); Camp Creek (45.100, -117.596); Collins Creek (45.100, -117.531); Corral Creek (45.113, -117.575); Little Catherine Creek (45.148, -117.716); Middle Fork Catherine Creek (45.155, -117.567); Milk Creek (45.092, -117.717); North Fork Catherine Creek (45.221, -117.610); Pole Creek (45.123, -117.544); Prong Creek (45.096, -117.565); SPass Creek (45.115, -117.528); Scout Creek (45.105, -117.644); South Fork Catherine Creek (45.116, -117.503); Unnamed (45.104, -117.685).

(vi) *Ladd Creek Watershed*

1706010406. Outlet(s) = Ladd Creek (Lat 45.282, Long -117.936) upstream to endpoint(s) in: Catherine Creek (45.219, -117.915); Ladd Creek (45.215, -118.024); Little Creek (45.210, -117.784); Mill Creek (45.263, -118.083); Unnamed (45.259, -118.039).

(vii) *Grande Ronde River/Mill Creek Watershed 1706010407*. Outlet(s) = Grande Ronde River (Lat 45.408, Long -117.930) upstream to endpoint(s) in: Catherine Creek (45.282, -117.936); McAlister Slough (45.315, -117.973); Mill Creek (45.278, -117.728); Unnamed (45.297, -117.806).

(viii) *Phillips Creek/Willow Creek Watershed 1706010408*. Outlet(s) = Willow Creek (Lat 45.492, Long -117.931) upstream to endpoint(s) in: Dry Creek (45.640, -118.114); Finley Creek (45.625, -118.099); Mill Creek (45.568, -118.025); Slide Creek (45.422, -118.028); Unnamed (45.525, -118.014); Willow Creek (45.488, -118.032).

(ix) *Grande Ronde River/Indian Creek Watershed 1706010409*. Outlet(s) = Grande Ronde River (Lat 45.560, Long -117.910) upstream to endpoint(s) in: Camp Creek (45.386, -117.720); Clark Creek (45.409, -117.728); East Fork

Indian Creek (45.363, -117.737); Grande Ronde River (45.408, -117.930); Indian Creek (45.332, -117.717); Little Indian Creek (45.375, -117.785); Middle Fork Clark Creek (45.462, -117.764); North Fork Clark Creek (45.502, -117.733); North Fork Indian Creek (45.419, -117.787); Unnamed (45.375, -117.739); Unnamed (45.476, -117.757).

(x) *Lookingglass Creek Watershed 1706010410*. Outlet(s) = Lookingglass Creek (Lat 45.707, Long -117.841) upstream to endpoint(s) in: Buzzard Creek (45.845, -117.939); Eagle Creek (45.723, -118.005); Jarboe Creek (45.776, -117.855); Little Lookingglass Creek (45.848, -117.901); Lookingglass Creek (45.777, -118.070); Mottet Creek (45.827, -117.958); Unnamed (45.835, -117.869); Unnamed (45.844, -117.893).

(xi) *Grande Ronde River/Cabin Creek Watershed 1706010411*. Outlet(s) = Grande Ronde River (Lat 45.726, Long -117.784) upstream to endpoint(s) in: Buck Creek (45.662, -117.919); Duncan Canyon (45.654, -117.776); East Phillips Creek (45.669, -118.066); Gordon Creek (45.665, -118.001); Grande Ronde River (45.560, -117.910); Little Phillips Creek (45.668, -118.036); North Fork Cabin Creek (45.721, -117.929); Pedro Creek (45.676, -118.051); Phillips Creek (45.666, -118.089); Rysdam Canyon (45.633, -117.812); South Fork Cabin Creek (45.698, -117.963); Unnamed (45.661, -117.930); Unnamed (45.672, -117.941); Unnamed (45.682, -117.974); Unnamed (45.695, -117.927); Unnamed (45.707, -117.916).

(5) Unit 5. Wallowa River Subbasin 17060105—(i) *Upper Wallowa River Watershed 1706010501*. Outlet(s) = Wallowa River (Lat 45.427, Long -117.310) upstream to endpoint(s) in: Hurricane Creek (45.337, -117.291); Little Hurricane Creek (45.407, -117.276); Prairie Creek (45.394, -117.189); Spring Creek (45.406, -117.287); Trout Creek (45.455, -117.281); Unnamed (45.387, -117.215); Unnamed (45.392, -117.214); Unnamed (45.411, -117.264); Unnamed (45.412, -117.156); Unnamed (45.424, -117.313); Wallowa River (45.335, -117.222).

(ii) *Lostine River Watershed 1706010502*. Outlet(s) = Lostine River (Lat 45.552, Long -117.489) upstream to endpoint(s) in: Lostine River (45.245, -117.375); Silver Creek (45.394, -117.420).

(iii) *Middle Wallowa River Watershed 1706010503*. Outlet(s) = Wallowa River (Lat 45.584, Long -117.540) upstream

to endpoint(s) in: Middle Fork Whisky Creek (45.590, -117.342); North Fork Whisky Creek (45.614, -117.331); Parsnip Creek (45.533, -117.419); South Fork Whisky Creek (45.590, -117.413); Straight Whisky Creek (45.622, -117.396); Wallowa River (45.427, -117.310); Whisky Creek (45.608, -117.397).

(iv) *Bear Creek Watershed*

1706010504. Outlet(s) = Bear Creek (Lat 45.584, Long -117.540) upstream to endpoint(s) in: Bear Creek (45.347, -117.500); Doc Creek (45.449, -117.572); Fox Creek (45.447, -117.562); Goat Creek (45.413, -117.519); Little Bear Creek (45.456, -117.500).

(v) *Minam River Watershed*

1706010505. Outlet(s) = Minam River (Lat 45.621, Long -117.720) upstream to endpoint(s) in: Cougar Creek (45.517, -117.672); Elk Creek (45.157, -117.480); Little Minam River (45.338, -117.643); Minam River (45.149, -117.392); Murphy Creek (45.414, -117.644); North Minam River (45.275, -117.520); Patrick Creek (45.426, -117.645); Squaw Creek (45.576, -117.706); Trout Creek (45.471, -117.652).

(vi) *Lower Wallowa River Watershed*

1706010506. Outlet(s) = Wallowa River (Lat 45.726, Long -117.784) upstream to endpoint(s) in: Deer Creek (45.452, -117.606); Dry Creek (45.650, -117.439); Fisher Creek (45.666, -117.750); Howard Creek (45.735, -117.695); Reagin Gulch (45.670, -117.559); Rock Creek (45.679, -117.620); Sage Creek (45.486, -117.590); Tamarack Canyon (45.656, -117.518); Unnamed (45.618, -117.629); Unnamed (45.654, -117.442); Unnamed (45.678, -117.556); Wallowa River (45.584, -117.540); Water Canyon (45.589, -117.614); Wise Creek (45.671, -117.705).

(6) Unit 6. Lower Grande Ronde Subbasin 17060106—(i) *Grande Ronde River/Rondowa Watershed 1706010601*. Outlet(s) = Grande Ronde River (Lat 45.896, Long -117.493) upstream to endpoint(s) in: Alder Creek (45.844, -117.750); Bear Creek (45.885, -117.752); Clear Creek (45.775, -117.714); Deep Creek (45.817, -117.651); East Grossman Creek (45.819, -117.625); Elbow Creek (45.927, -117.630); Grande Ronde River (45.726, -117.784); Grossman Creek (45.732, -117.614); Meadow Creek (45.825, -117.760); Sheep Creek (45.756, -117.797); Sickfoot Creek (45.842, -117.567); Unnamed (45.746, -117.656).

(ii) *Grande Ronde River/Mud Creek Watershed 1706010602*. Outlet(s) =

Grande Ronde River (Lat 45.946, Long -117.450) upstream to endpoint(s) in: Bishop Creek (45.747, -117.555); Bobcat Creek (45.853, -117.370); Buck Creek (45.758, -117.298); Burnt Creek (45.769, -117.283); Courtney Creek (45.857, -117.314); Grande Ronde River (45.896, -117.493); Little Courtney Canyon (45.903, -117.385); McAllister Creek (45.683, -117.361); McCubbin Creek (45.700, -117.294); Mud Creek (45.633, -117.291); Unnamed (45.867, -117.329); Shamrock Creek (45.828, -117.335); Simmons Draw (45.730, -117.514); Sled Creek (45.730, -117.278); Teepee Creek (45.694, -117.349); Tope Creek (45.634, -117.330); Unnamed (45.710, -117.283); Unnamed (45.856, -117.312); Wallupa Creek (45.765, -117.528); Wildcat Creek (45.732, -117.489).

(iii) *Wenaha River Watershed*

1706010603. Outlet(s) = Wenaha River (Lat 45.946, Long -117.450) upstream to endpoint(s) in: Beaver Creek (46.002, -117.815); Crooked Creek (46.046, -117.624); First Creek (46.071, -117.519); Melton Creek (46.060, -117.566); Milk Creek (45.973, -117.902); North Fork Wenaha River (46.064, -117.912); Rock Creek (45.999, -117.766); Second Creek (46.065, -117.595); Slick Ear Creek (45.983, -117.784); South Fork Wenaha River (45.872, -117.897); Third Creek (46.089, -117.627); Weller Creek (45.989, -117.648); West Fork Butte Creek (46.064, -117.759).

(iv) *Chesnimnus Creek Watershed*

1706010604. Outlet(s) = Chesnimnus Creek (Lat 45.715, Long -117.155) upstream to endpoint(s) in: Alder Creek (45.702, -116.997); Billy Creek (45.815, -117.032); Butte Creek (45.641, -117.096); Chesnimnus Creek (45.718, -116.906); Deadman Gulch (45.659, -117.049); Devils Run Creek (45.775, -116.882); Doe Creek (45.751, -117.029); Dry Salmon Creek (45.663, -117.051); East Fork Peavine Creek (45.830, -117.061); Gooseberry Creek (45.681, -117.110); McCarty Gulch (45.749, -117.064); Peavine Creek (45.795, -117.084); Pine Creek (45.673, -117.029); Poison Creek (45.791, -116.979); Salmon Creek (45.662, -117.038); South Fork Chesnimnus Creek (45.743, -116.861); Sterling Gulch (45.712, -117.000); Summit Creek (45.794, -116.947); Telephone Gulch (45.767, -117.076); TNT Gulch (45.754, -116.919); Unnamed (45.694, -117.013); Unnamed (45.709, -116.878); Unnamed (45.724, -116.867); Unnamed (45.742, -117.090); Unnamed (45.825, -117.004); Unnamed (45.838, -117.009); Unnamed (45.846,

-117.029); West Fork Peavine Creek (45.805, -117.100).

(v) *Upper Joseph Creek Watershed*

1706010605. Outlet(s) = Joseph Creek (Lat 45.823, Long -117.231) upstream to endpoint(s) in: Alford Gulch (45.729, -117.165); Cougar Creek (45.806, -117.150); Crow Creek (45.536, -117.115); Davis Creek (45.658, -117.257); Elk Creek (45.598, -117.167); Gould Gulch (45.657, -117.181); Little Elk Creek (45.694, -117.191); Sumac Creek (45.753, -117.148); Swamp Creek (45.543, -117.218); Unnamed (45.597, -117.141).

(vi) *Lower Joseph Creek Watershed*

1706010606. Outlet(s) = Joseph Creek (Lat 46.053, Long -117.005) upstream to endpoint(s) in: Basin Creek (45.910, -117.057); Broady Creek (45.882, -117.076); Cottonwood Creek (45.832, -116.950); Horse Creek (45.945, -116.962); Joseph Creek (45.823, -117.231); Peavine Creek (45.879, -117.162); Rush Creek (45.899, -117.150); Tamarack Creek (45.964, -117.127); Unnamed (45.826, -116.957); West Fork Broady Creek (45.862, -117.102).

(vii) *Lower Grande Ronde River/ Menatchee Creek Watershed*

1706010607. Outlet(s) = Grande Ronde River (Lat 46.080, Long -116.978) upstream to endpoint(s) in: Bear Creek (45.973, -117.455); Buford Creek (45.975, -117.276); Cottonwood Creek (46.071, -117.301); Cougar Creek (46.049, -117.327); Deer Creek (45.992, -117.191); East Bear Creek (45.960, -117.307); Grande Ronde River (45.946, -117.450); Grouse Creek (46.031, -117.460); Menatchee Creek (46.018, -117.371); Rattlesnake Creek (46.079, -117.204); Shumaker Creek (46.049, -117.117); West Bear Creek (45.951, -117.327); West Branch Rattlesnake Creek (46.086, -117.258).

(7) Unit 7. Lower Snake/Tucannon Subbasin 17060107—(i) *Alpowa Creek Watershed 1706010701*. Outlet(s) = Alpowa Creek (Lat 46.422, Long -117.203) upstream to endpoint(s) in: Kidwell Gulch (46.338, -117.480); Page Creek (46.402, -117.210); Pow Wah Kee Creek (46.389, -117.288).

(ii) *Snake River/Steptoe Canyon Watershed 1706010702*. Outlet(s) = Snake River (Lat 46.660, Long -117.433) upstream to endpoint(s) in: Offield Canyon (46.648, -117.420); Snake River (46.428, -117.038); Steptoe Canyon (46.455, -117.192); Truax Canyon (46.565, -117.348); Wawawai Canyon (46.636, -117.375).

(iii) *Deadman Creek Watershed 1706010703*. Outlet(s) = Deadman Creek (Lat 46.626, Long -117.799) upstream to endpoint(s) in: Deadman Gulch

(46.574, -117.565); Lynn Gulch (46.628, -117.597); North Deadman Creek (46.578, -117.457); North Meadow Creek (46.517, -117.489); South Meadow Creek (46.507, -117.508).

(iv) *Flat Creek Watershed*

1706010704. Outlet(s) = Alkali Flat Creek (Lat 46.575, Long -118.087) upstream to endpoint(s) in: Alkali Flat Creek (46.653, -118.012).

(v) *Upper Tucannon River Watershed*

1706010706. Outlet(s) = Tucannon River (Lat 46.509, Long -117.995) upstream to endpoint(s) in: Cummings Creek (46.235, -117.610); Little Tucannon River (46.221, -117.758); Meadow Creek (46.163, -117.728); Panjab Creek (46.171, -117.709); Sheep Creek (46.196, -117.623); Tucannon River (46.168, -117.559); Tumulum Creek (46.315, -117.585).

(vi) *Lower Tucannon River Watershed*

1706010707. Outlet(s) = Tucannon River (Lat 46.558, Long -118.174) upstream to endpoint(s) in: Kellogg Creek (46.430, -118.067); Smith Hollow (46.463, -118.017); Tucannon River (46.509, -117.995).

(vii) *Snake River/Penawawa Creek Watershed*

1706010708. Outlet(s) = Snake River (Lat 46.589, Long -118.215) upstream to endpoint(s) in: Almota Creek (46.706, -117.363); Little Almota Creek (46.715, -117.465); Penawawa Creek (46.728, -117.625); Snake River (46.660, -117.433); Unnamed (46.698, -117.381).

(8) Unit 8. Palouse River Subbasin

17060108—(i) *Lower Palouse River Watershed* 1706010808. Outlet(s) = Palouse River (Lat 46.589, Long -118.215) upstream to endpoint(s) in: Palouse River (46.669, -118.223).

(9) Unit 9. Upper Salmon Subbasin

17060201—(i) *Salmon River/Challis Watershed* 1706020101. Outlet(s) = Salmon River (Lat 44.692, Long -114.049) upstream to endpoint(s) in: Challis Creek (44.563, -114.246); Salmon River (44.470, -114.192).

(ii) *Salmon River/Bayhorse Creek Watershed* 1706020104. Outlet(s) =

Salmon River (Lat 44.470, Long -114.192) upstream to endpoint(s) in: Bayhorse Creek (44.395, -114.308); Salmon River (44.268, -114.326).

(iii) *East Fork Salmon River/McDonald Creek Watershed*

1706020105. Outlet(s) = East Fork Salmon River (Lat 44.268, Long -114.326) upstream to endpoint(s) in: Big Lake Creek (44.165, -114.394); East Fork Salmon River (44.147, -114.378); McDonald Creek (44.091, -114.318); Pine Creek (44.136, -114.367).

(iv) *Herd Creek Watershed*

1706020108. Outlet(s) = Herd Creek (Lat 44.154, Long -114.300) upstream to

endpoint(s) in: East Fork Herd Creek (44.037, -114.203); East Pass Creek (44.009, -114.369); Lake Creek (44.103, -114.194); Taylor Creek (44.067, -114.317); West Fork Herd Creek (44.032, -114.248).

(v) *East Fork Salmon River/Big Boulder Creek Watershed* 1706020109.

Outlet(s) = East Fork Salmon River (Lat 44.147, Long -114.378) upstream to endpoint(s) in: Big Boulder Creek (44.131, -114.518); East Fork Salmon River (44.039, -114.461); Little Boulder Creek (44.065, -114.542).

(vi) *Upper East Fork Salmon River Watershed* 1706020110. Outlet(s) =

East Fork Salmon River (Lat 44.039, Long -114.461) upstream to endpoint(s) in: Bowery Creek (44.0316, -114.4587); South Fork East Fork Salmon River (43.902, -114.562); West Fork East Fork Salmon River (43.929, -114.575); West Pass Creek (43.922, -114.446).

(vii) *Germania Creek Watershed*

1706020111. Outlet(s) = Germania Creek (Lat 44.039, Long -114.461) upstream to endpoint(s) in: Germania Creek (44.003, -114.532).

(viii) *Salmon River/Kinnikinic Creek Watershed* 1706020112. Outlet(s) =

Salmon River (Lat 44.268, Long -114.326) upstream to endpoint(s) in: Salmon River (44.249, -114.454).

(ix) *Salmon River/Slate Creek Watershed* 1706020113. Outlet(s) =

Salmon River (Lat 44.249, Long -114.454) upstream to endpoint(s) in: Holman Creek (44.250, -114.529); Salmon River (44.254, -114.675); Silver Rule Creek (44.198, -114.588); Slate Creek (44.168, -114.626); Thompson Creek (44.318, -114.588).

(x) *Warm Springs Creek Watershed*

1706020114. Outlet(s) = Warm Springs Creek (Lat 44.254, Long -114.675) upstream to endpoint(s) in: Warm Springs Creek (44.151, -114.718).

(xi) *Salmon River/Big Casino Creek Watershed* 1706020115. Outlet(s) =

Salmon River (Lat 44.254, Long -114.675) upstream to endpoint(s) in: Big Casino Creek (44.216, -114.830); Little Casino Creek (44.224, -114.861); Lower Harden Creek (44.274, -114.778); Nip Tuck Creek (44.234, -114.929); Salmon River (44.169, -114.898); Upper Harden Creek (44.272, -114.791).

(xii) *Salmon River/Fisher Creek Watershed* 1706020117. Outlet(s) =

Salmon River (Lat 44.169, Long -114.898) upstream to endpoint(s) in: Decker Creek (44.072, -114.879); Gold Creek (44.114, -114.846); Huckleberry Creek (44.061, -114.875); Salmon River (44.032, -114.836); Williams Creek (44.096, -114.852).

(xiii) *Salmon River/Fourth of July Creek Watershed* 1706020118. Outlet(s)

= Salmon River (Lat 44.032, Long -114.836) upstream to endpoint(s) in: Champion Creek (44.019, -114.825); Fourth of July Creek (44.035, -114.784); Hell Roaring Creek (44.031, -114.856); Salmon River (44.004, -114.836); Unnamed (44.017, -114.879).

(xiv) *Upper Salmon River Watershed*

1706020119. Outlet(s) = Salmon River (Lat 44.004, Long -114.836) upstream to endpoint(s) in: Beaver Creek (43.919, -114.813); Camp Creek (43.876, -114.738); Frenchman Creek (43.822, -114.792); Pole Creek (43.940, -114.686); Salmon River (43.837, -114.759); Smiley Creek (43.829, -114.823); Twin Creek (43.935, -114.723); Unnamed (43.843, -114.742); Unnamed (43.990, -114.803).

(xv) *Alturas Lake Creek Watershed*

1706020120. Outlet(s) = Alturas Lake Creek (Lat 44.004, Long -114.836) upstream to endpoint(s) in: Alpine Creek (43.905, -114.923); Alturas Lake Creek (43.895, -114.910); Cabin Creek (43.937, -114.856); Pettit Lake Creek (43.961, -114.916); Unnamed (43.952, -114.858); Vat Creek (43.967, -114.871); Yellowbelly Creek (43.995, -114.847).

(xvi) *Redfish Lake Creek Watershed*

1706020121. Outlet(s) = Redfish Lake Creek (Lat 44.169, Long -114.898) upstream to endpoint(s) in: Fishhook Creek (44.137, -114.966); Redfish Lake Creek (44.097, -114.959).

(xvii) *Valley Creek/Iron Creek Watershed* 1706020122. Outlet(s) =

Valley Creek (Lat 44.225, Long -114.927) upstream to endpoint(s) in: Crooked Creek (44.214, -115.034); Goat Creek (44.179, -115.008); Iron Creek (44.191, -115.025); Job Creek (44.242, -115.027); Meadow Creek (44.190, -114.961); Park Creek (44.281, -115.036); Stanley Creek (44.276, -114.938); Valley Creek (44.291, -115.018).

(xviii) *Upper Valley Creek Watershed*

1706020123. Outlet(s) = Valley Creek (Lat 44.291, Long -115.018); Stanley Lake Creek (44.2535, -115.0040) upstream to endpoint(s) in: East Fork Valley Creek (44.347, -114.999); Elk Creek (44.227, -115.145); Hanna Creek (44.314, -115.041); Meadow Creek (44.291, -115.119); Stanley Lake Creek (44.248, -115.045); Trap Creek (44.311, -115.121); Valley Creek (44.392, -114.980).

(xix) *Basin Creek Watershed*

1706020124. Outlet(s) = Basin Creek (Lat 44.264, Long -114.817) upstream to endpoint(s) in: Basin Creek (44.361, -114.902); East Basin Creek (44.314, -114.823).

(xx) *Yankee Fork/Jordan Creek Watershed 1706020125*. Outlet(s) = Yankee Fork (Lat 44.270, Long - 114.734) upstream to endpoint(s) in: Eightmile Creek (44.448, - 114.639); Fivemile Creek (44.355, - 114.615); Jordan Creek (44.457, - 114.752); Ramey Creek (44.355, - 114.641); Sevenmile Creek (44.423, - 114.608); Sixmile Creek (44.394, - 114.585); Yankee Fork (44.426, - 114.619).

(xxi) *West Fork Yankee Fork Watershed 1706020126*. Outlet(s) = West Fork Yankee Fork (Lat 44.351, Long - 114.727) upstream to endpoint(s) in: Cabin Creek (44.428, - 114.881); Deadwood Creek (44.356, - 114.834); Lightning Creek (44.466, - 114.787); Sawmill Creek (44.341, - 114.765); West Fork Yankee Fork (44.386, - 114.919).

(xxii) *Upper Yankee Fork Watershed 1706020127*. Outlet(s) = Yankee Fork (Lat 44.426, Long - 114.619) upstream to endpoint(s) in: Elevenmile Creek (44.436, - 114.544); McKay Creek (44.475, - 114.491); Ninemile Creek (44.439, - 114.590); Tenmile Creek (44.484, - 114.646); Twelvemile Creek (44.497, - 114.614); Yankee Fork (44.510, - 114.588).

(xxiii) *Squaw Creek Watershed 1706020128*. Outlet(s) = Squaw Creek (Lat 44.249, Long - 114.454) upstream to endpoint(s) in: Cash Creek (44.353, - 114.473); Cinnabar Creek (44.359, - 114.503); Squaw Creek (44.420, - 114.489).

(xxiv) *Garden Creek Watershed 1706020129*. Outlet(s) = Garden Creek (Lat 44.511, Long - 114.203) upstream to endpoint(s) in: Garden Creek (44.468, - 114.325).

(xxv) *Challis Creek/Mill Creek Watershed 1706020130*. Outlet(s) = Challis Creek (Lat 44.563, Long - 114.246) upstream to endpoint(s) in: Challis Creek (44.573, - 114.309); Darling Creek (44.572, - 114.252).

(xxvi) *Morgan Creek Watershed 1706020132*. Outlet(s) = Morgan Creek (Lat 44.612, Long - 114.168) upstream to endpoint(s) in: Blowfly Creek (44.714, - 114.326); Morgan Creek (44.681, - 114.243); West Fork Morgan Creek (44.710, - 114.335).

(10) Unit 10. Pahsimeroi Subbasin 17060202—(i) *Lower Pahsimeroi River Watershed 1706020201*. Outlet(s) = Pahsimeroi River (Lat 44.692, Long - 114.049) upstream to endpoint(s) in: Pahsimeroi River (44.559, - 113.900); Patterson Creek (44.561, - 113.897).

(ii) *Paterson Creek Watershed 1706020203*. Outlet(s) = Paterson Creek (Lat 44.534, Long - 113.837) upstream to endpoint(s) in: Paterson Creek (44.566, - 113.670).

(11) Unit 11. Middle Salmon-Panther Subbasin 17060203—(i) *Salmon River/Colson Creek Watershed 1706020301*.

Outlet(s) = Salmon River (Lat 45.297, Long - 114.591) upstream to endpoint(s) in: Colson Creek (45.307, - 114.531); Owl Creek (45.340, - 114.462); Salmon River (45.316, - 114.405).

(ii) *Owl Creek Watershed 1706020302*. Outlet(s) = Owl Creek (Lat 45.340, Long - 114.462) upstream to endpoint(s) in: East Fork Owl Creek (45.367, - 114.430); Owl Creek (45.382, - 114.469).

(iii) *Salmon River/Pine Creek Watershed 1706020303*. Outlet(s) = Salmon River (Lat 45.316, Long - 114.405) upstream to endpoint(s) in: Boulder Creek (45.385, - 114.297); Pine Creek (45.307, - 114.186); Salmon River (45.399, - 114.168); Spring Creek (45.421, - 114.278); Squaw Creek (45.449, - 114.215).

(iv) *Indian Creek Watershed 1706020304*. Outlet(s) = Indian Creek (Lat 45.400, Long - 114.167) upstream to endpoint(s) in: Indian Creek (45.523, - 114.151); McConn Creek (45.519, - 114.185); West Fork Indian Creek (45.481, - 114.168).

(v) *Salmon River/Moose Creek Watershed 1706020305*. Outlet(s) = Salmon River (Lat 45.399, Long - 114.168) upstream to endpoint(s) in: Dump Creek (45.369, - 114.035); Fourth of July Creek (45.417, - 113.857); Little Fourth of July Creek (45.396, - 113.912); Moose Creek (45.346, - 114.080); Salmon River (45.320, - 113.909); Wagonhammer Creek (45.395, - 113.945).

(vi) *North Fork Salmon River Watershed 1706020306*. Outlet(s) = North Fork Salmon River (Lat 45.405, Long - 113.994) upstream to endpoint(s) in: Anderson Creek (45.577, - 113.918); Dahlonga Creek (45.559, - 113.845); Ditch Creek (45.534, - 113.994); Hughes Creek (45.541, - 114.069); Hull Creek (45.471, - 114.016); Moose Creek (45.674, - 113.951); Pierce Creek (45.640, - 113.937); Sheep Creek (45.502, - 113.889); Smithy Creek (45.575, - 113.889); Threemile Creek (45.577, - 113.866); Twin Creek (45.591, - 114.081).

(vii) *Salmon River/Tower Creek Watershed 1706020307*. Outlet(s) = Salmon River (Lat 45.320, Long - 113.909) upstream to endpoint(s) in: Salmon River (45.250, - 113.899); Tower Creek (45.367, - 113.857); Wallace Creek (45.2645, - 113.9035).

(viii) *Carmen Creek Watershed 1706020308*. Outlet(s) = Carmen Creek (Lat 45.250, Long - 113.899) upstream to endpoint(s) in: Carmen Creek (45.316,

- 113.800); Freeman Creek (45.269, - 113.752).

(ix) *Salmon River/Jesse Creek Watershed 1706020309*. Outlet(s) = Salmon River (Lat 45.250, Long - 113.899) upstream to endpoint(s) in: Salmon River (45.109, - 113.901); Unnamed (45.180, - 113.930).

(x) *Salmon River/Williams Creek Watershed 1706020310*. Outlet(s) = Salmon River (Lat 45.109, Long - 113.901) upstream to endpoint(s) in: Salmon River (45.011, - 113.932); Williams Creek (45.081, - 113.935).

(xi) *Salmon River/Twelvemile Creek Watershed 1706020311*. Outlet(s) = Salmon River (Lat 45.011, Long - 113.932) upstream to endpoint(s) in: Lake Creek (45.015, - 113.959); Salmon River (44.896, - 113.963); Twelvemile Creek (45.011, - 113.927).

(xii) *Salmon River/Cow Creek Watershed 1706020312*. Outlet(s) = Salmon River (Lat 44.896, Long - 113.963) upstream to endpoint(s) in: Cow Creek (44.730, - 113.940); McKim Creek (44.810, - 114.008); Poison Creek (44.876, - 113.934); Salmon River (44.692, - 114.049); Warm Spring Creek (44.913, - 113.914).

(xiii) *Hat Creek Watershed 1706020313*. Outlet(s) = Hat Creek (Lat 44.795, Long - 114.001) upstream to endpoint(s) in: Hat Creek (44.785, - 114.040).

(xiv) *Iron Creek Watershed 1706020314*. Outlet(s) = Iron Creek (Lat 44.887, Long - 113.968) upstream to endpoint(s) in: Iron Creek (44.921, - 114.124).

(xv) *Upper Panther Creek Watershed 1706020315*. Outlet(s) = Panther Creek (Lat 45.022, Long - 114.313) upstream to endpoint(s) in: Cabin Creek (44.957, - 114.365); Opal Creek (44.901, - 114.307); Panther Creek (44.887, - 114.305); Porphyry Creek (45.034, - 114.388).

(xvi) *Moyer Creek Watershed 1706020316*. Outlet(s) = Moyer Creek (Lat 45.024, Long - 114.311) upstream to endpoint(s) in: Moyer Creek (44.949, - 114.265); South Fork Moyer Creek (44.944, - 114.305).

(xvii) *Panther Creek/Woodtick Creek Watershed 1706020317*. Outlet(s) = Panther Creek (Lat 45.079, Long - 114.251) upstream to endpoint(s) in: Copper Creek (45.060, - 114.258); Fawn Creek (45.073, - 114.247); Musgrove Creek (45.054, - 114.368); Panther Creek (45.022, - 114.313); Woodtick Creek (45.008, - 114.235).

(xviii) *Deep Creek Watershed 1706020318*. Outlet(s) = Deep Creek (Lat 45.126, Long - 114.215) upstream to endpoint(s) in: Deep Creek (45.108, - 114.179).

(xix) *Panther Creek/Spring Creek Watershed 1706020320*. Outlet(s) = Panther Creek (45.176, Long - 114.314) upstream to endpoint(s) in: Little Deer Creek (45.156, - 114.298); Panther Creek (45.079, - 114.251); Spring Creek (45.088, - 114.223).

(xx) *Panther Creek/Trail Creek Watershed 1706020322*. Outlet(s) = Panther Creek (Lat 45.316, Long - 114.405) upstream to endpoint(s) in: Beaver Creek (45.2816, - 114.2744); Garden Creek (45.2959, - 114.4293); Trail Creek (45.2318, - 114.2663); Panther Creek (45.176, - 114.314).

(xxi) *Clear Creek Watershed 1706020323*. Outlet(s) = Clear Creek (Lat 45.295, Long - 114.351) upstream to endpoint(s) in: Clear Creek (45.210, - 114.485).

(12) Unit 12. Lemhi Subbasin 17060204—(i) *Lemhi River/Bohannon Creek Watershed 1706020401*. Outlet(s) = Lemhi River (Lat 45.188, Long - 113.889) upstream to endpoint(s) in: Bohannon Creek (45.189, - 113.692); Lemhi River (45.098, - 113.720).

(ii) *Lemhi River/Whimpey Creek Watershed 1706020402*. Outlet(s) = Lemhi River (Lat 45.098, Long - 113.720) upstream to endpoint(s) in: Lemhi River (45.032, - 113.662); Wimpey Creek (45.131, - 113.678); Withington Creek (45.058, - 113.750).

(iii) *Lemhi River/Kenney Creek Watershed 1706020403*. Outlet(s) = Lemhi River (Lat 45.032, Long - 113.662) upstream to endpoint(s) in: Kenney Creek (45.087, - 113.551); Lemhi River (44.940, - 113.639).

(iv) *Agency Creek Watershed 1706020404*. Outlet(s) = Agency Creek (Lat 44.964, Long - 113.647) upstream to endpoint(s) in: Agency Creek (44.949, - 113.600).

(v) *Lemhi River/McDevitt Creek Watershed 1706020405*. Outlet(s) = Lemhi River (Lat 44.940, Long - 113.639) upstream to endpoint(s) in: Lemhi River (44.870, - 113.626).

(vi) *Lemhi River/Yearian Creek Watershed 1706020406*. Outlet(s) = Lemhi River (Lat 44.867, Long - 113.626) upstream to endpoint(s) in: Lemhi River (44.778, - 113.535).

(vii) *Peterson Creek Watershed 1706020407*. Outlet(s) = Lemhi River (Lat 44.778, Long - 113.535) upstream to endpoint(s) in: Lemhi River (44.739, - 113.459).

(viii) *Big Eight Mile Creek Watershed 1706020408*. Outlet(s) = Lemhi River (Lat 44.739, Long - 113.459) upstream to endpoint(s) in: Lemhi River (44.692, - 113.366).

(ix) *Canyon Creek Watershed 1706020409*. Outlet(s) = Lemhi River (Lat 44.692, Long - 113.366) upstream

to endpoint(s) in: Lemhi River (44.682, - 113.355).

(x) *Hayden Creek Watershed 1706020414*. Outlet(s) = Hayden Creek (Lat 44.870, Long - 113.626) upstream to endpoint(s) in: Bear Valley Creek (44.796, - 113.790); East Fork Hayden Creek (44.708, - 113.661); Hayden Creek (44.726, - 113.769); Kadletz Creek (44.761, - 113.767); West Fork Hayden Creek (44.706, - 113.768); Wright Creek (44.759, - 113.794).

(13) Unit 13. Upper Middle Fork Salmon Subbasin 17060205—(i) *Lower Loon Creek Watershed 1706020501*. Outlet(s) = Loon Creek (Lat 44.808, Long - 114.811) upstream to endpoint(s) in: Cabin Creek (44.742, - 114.708); Loon Creek (44.552, - 114.849).

(ii) *Warm Springs Watershed 1706020502*. Outlet(s) = Warm Spring Creek (Lat 44.653, Long - 114.736) upstream to endpoint(s) in: Trapper Creek (44.504, - 114.617); Warm Spring Creek (44.609, - 114.481).

(iii) *Upper Loon Creek Watershed 1706020503*. Outlet(s) = Loon Creek (Lat 44.552, Long - 114.849) upstream to endpoint(s) in: Cottonwood Creek (44.593, - 114.679); East Fork Mayfield Creek (44.494, - 114.700); Loon Creek (44.469, - 114.923); Pioneer Creek (44.466, - 114.873); South Fork Cottonwood Creek (44.563, - 114.780); Trail Creek (44.506, - 114.959); West Fork Mayfield Creek (44.473, - 114.730).

(iv) *Little Loon Creek Watershed 1706020504*. Outlet(s) = Little Loon Creek (Lat 44.731, Long - 114.940) upstream to endpoint(s) in: Little Loon Creek (44.615, - 114.963).

(v) *Rapid River Watershed 1706020505*. Outlet(s) = Rapid River (Lat 44.680, Long - 115.152) upstream to endpoint(s) in: Float Creek (44.546, - 115.148); North Fork Sheep Creek (44.656, - 114.997); Rapid River (44.551, - 115.007); South Fork Sheep Creek (44.628, - 114.988); Vanity Creek (44.500, - 115.072).

(vi) *Marsh Creek Watershed 1706020506*. Outlet(s) = Marsh Creek (Lat 44.449, Long - 115.230) upstream to endpoint(s) in: Asher Creek (44.374, - 115.126); Banner Creek (44.291, - 115.187); Bear Creek (44.490, - 115.098); Beaver Creek (44.494, - 114.964); Camp Creek (44.384, - 115.144); Cape Horn Creek (44.333, - 115.287); Knapp Creek (44.424, - 114.915); Marsh Creek (44.329, - 115.091); Swamp Creek (44.300, - 115.175); Winnemucca Creek (44.479, - 114.972).

(vii) *Middle Fork Salmon River/Soldier Creek Watershed 1706020507*. Outlet(s) = Middle Fork Salmon River (Lat 44.680, Long - 115.152) upstream

to endpoint(s) in: Boundary Creek (44.507, - 115.328); Dagger Creek (44.498, - 115.307); Elkhorn Creek (44.582, - 115.369); Greyhound Creek (44.626, - 115.158); Middle Fork Salmon River (44.449, - 115.230); Soldier Creek (44.528, - 115.201).

(viii) *Bear Valley Creek Watershed 1706020508*. Outlet(s) = Bear Valley Creek (Lat 44.449, Long - 115.230) upstream to endpoint(s) in: Ayers Creek (44.454, - 115.330); Bear Valley Creek (44.236, - 115.499); Bearskin Creek (44.331, - 115.528); Cache Creek (44.286, - 115.409); Cold Creek (44.371, - 115.317); Cook Creek (44.389, - 115.438); East Fork Elk Creek (44.481, - 115.359); Fir Creek (44.354, - 115.296); Little Beaver Creek (44.415, - 115.504); Little East Fork Elk Creek (44.479, - 115.407); Mace Creek (44.289, - 115.443); North Fork Elk Creek (44.527, - 115.458); Poker Creek (44.444, - 115.345); Pole Creek (44.361, - 115.366); Porter Creek (44.466, - 115.529); Sack Creek (44.320, - 115.351); Sheep Trail Creek (44.360, - 115.451); West Fork Elk Creek (44.485, - 115.499); Wyoming Creek (44.362, - 115.335).

(ix) *Sulphur Creek Watershed 1706020509*. Outlet(s) = Sulphur Creek (Lat 44.555, Long - 115.297) upstream to endpoint(s) in: Blue Moon Creek (44.572, - 115.364); Full Moon Creek (44.535, - 115.400); Honeymoon Creek (44.605, - 115.399); North Fork Sulphur Creek (44.583, - 115.467); Sulphur Creek (44.510, - 115.518).

(x) *Pistol Creek Watershed 1706020510*. Outlet(s) = Pistol Creek (Lat 44.724, Long - 115.149) upstream to endpoint(s) in: Little Pistol Creek (44.721, - 115.404); Luger Creek (44.636, - 115.386); Pistol Creek (44.644, - 115.442).

(xi) *Indian Creek Watershed 1706020511*. Outlet(s) = Indian Creek (Lat 44.770, Long - 115.089) upstream to endpoint(s) in: Big Chief Creek (44.817, - 115.368); Indian Creek (44.803, - 115.383); Little Indian Creek (44.879, - 115.226).

(xii) *Upper Marble Creek Watershed 1706020512*. Outlet(s) = Marble Creek (Lat 44.797, Long - 114.971) upstream to endpoint(s) in: Big Cottonwood Creek (44.879, - 115.206); Canyon Creek (44.822, - 114.943); Cornish Creek (44.933, - 115.127); Dynamite Creek (44.871, - 115.207); Marble Creek (44.983, - 115.079); Trail Creek (44.917, - 114.930).

(xiii) *Middle Fork Salmon River/Lower Marble Creek Watershed 1706020513*. Outlet(s) = Middle Fork Salmon River (Lat 44.808, Long - 114.811) upstream to endpoint(s) in: Marble Creek (44.797, - 114.971);

Middle Fork Salmon River (44.680, -115.152).

(14) Unit 14. Lower Middle Fork Salmon Subbasin 17060206—(i) *Lower Middle Fork Salmon River Watershed 1706020601*. Outlet(s) = Middle Fork Salmon River (Lat 45.297, Long -114.591) upstream to endpoint(s) in: Middle Fork Salmon River (45.095, -114.732); Roaring Creek (45.186, -114.574); Stoddard Creek (45.244, -114.702).

(ii) *Wilson Creek Watershed 1706020602*. Outlet(s) = Wilson Creek (Lat 45.033, Long -114.723) upstream to endpoint(s) in: Wilson Creek (45.032, -114.659).

(iii) *Middle Fork Salmon River/Brush Creek Watershed 1706020603*. Outlet(s) = Middle Fork Salmon River (Lat 45.095, Long -114.732) upstream to endpoint(s) in: Brush Creek (44.955, -114.733); Middle Fork Salmon River (44.958, -114.747).

(iv) *Yellow Jacket Creek Watershed 1706020604*. Outlet(s) = Yellowjacket Creek (Lat 44.892, Long -114.644) upstream to endpoint(s) in: Beagle Creek (44.993, -114.466); Hoodoo Creek (44.993, -114.568); Lake Creek (44.967, -114.603); Little Jacket Creek (44.931, -114.505); Meadow Creek (44.984, -114.481); Shovel Creek (45.006, -114.463); Trail Creek (44.939, -114.461); Yellowjacket Creek (45.050, -114.480).

(v) *Silver Creek Watershed 1706020605*. Outlet(s) = Silver Creek (Lat 44.830, Long -114.501) upstream to endpoint(s) in: Silver Creek (44.856, -114.458).

(vi) *Upper Camas Creek Watershed 1706020606*. Outlet(s) = Camas Creek (Lat 44.830, Long -114.501) upstream to endpoint(s) in: Castle Creek (44.825, -114.415); Fly Creek (44.703, -114.509); Furnace Creek (44.767, -114.421); J Fell Creek (44.669, -114.459); South Fork Camas Creek (44.731, -114.553); Spider Creek (44.688, -114.495); White Goat Creek (44.731, -114.460).

(vii) *West Fork Camas Creek Watershed 1706020607*. Outlet(s) = West Fork Camas Creek (Lat 44.831, Long -114.504) upstream to endpoint(s) in: Flume Creek (44.806, -114.526); Martindale Creek (44.822, -114.560); West Fork Camas Creek (44.795, -114.595).

(viii) *Lower Camas Creek Watershed 1706020608*. Outlet(s) = Camas Creek (Lat 44.892, Long -114.722) upstream to endpoint(s) in: Camas Creek (44.830, -114.501); Duck Creek (44.852, -114.521); Woodtick Creek (44.870, -114.636).

(ix) *Middle Fork Salmon River/Sheep Creek Watershed 1706020609*. Outlet(s)

= Middle Fork Salmon River (Lat 44.955, Long -114.733) upstream to endpoint(s) in: Middle Fork Salmon River (44.808, -114.811); Sheep Creek (44.923, -114.873).

(x) *Rush Creek Watershed 1706020610*. Outlet(s) = Rush Creek (Lat 45.105, Long -114.861) upstream to endpoint(s) in: Rush Creek (44.958, -114.992); South Fork Rush Creek (45.013, -114.972); Two Point Creek (45.027, -114.947).

(xi) *Monumental Creek Watershed 1706020611*. Outlet(s) = Monumental Creek (Lat 45.160, Long -115.129) upstream to endpoint(s) in: Monumental Creek (44.952, -115.179); Snowslide Creek (45.055, -115.266); West Fork Monumental Creek (45.011, -115.244).

(xii) *Big Creek/Little Marble Creek Watershed 1706020612*. Outlet(s) = Big Creek (Lat 45.163, Long -115.128) upstream to endpoint(s) in: Big Creek (45.153, -115.297); Little Marble Creek (45.062, -115.276).

(xiii) *Upper Big Creek Watershed 1706020613*. Outlet(s) = Big Creek (Lat 45.153, Long -115.297) upstream to endpoint(s) in: Big Creek (45.075, -115.342); Jacobs Ladder Creek (45.063, -115.322); Middle Fork Smith Creek (45.166, -115.411); Smith Creek (45.170, -115.380); Unnamed (45.129, -115.422).

(xiv) *Beaver Creek Watershed 1706020614*. Outlet(s) = Beaver Creek (Lat 45.163, Long -115.242) upstream to endpoint(s) in: Beaver Creek (45.242, -115.314); Coin Creek (45.218, -115.328); HCreek (45.266, -115.270).

(xv) *Big Ramey Creek Watershed 1706020615*. Outlet(s) = Big Ramey Creek (Lat 45.177, Long -115.159) upstream to endpoint(s) in: Big Ramey Creek (45.279, -115.243).

(xvi) *Big Creek/Crooked Creek Watershed 1706020616*. Outlet(s) = Big Creek (Lat 45.127, Long -114.935) upstream to endpoint(s) in: Big Creek (45.163, -115.128); Cave Creek (45.219, -114.916); Coxey Creek (45.181, -115.022); East Fork Crooked Creek (45.250, -114.975); Fawn Creek (45.125, -115.032); West Fork Crooked Creek (45.251, -115.117).

(xvii) *Lower Big Creek Watershed 1706020617*. Outlet(s) = Big Creek (Lat 45.095, Long -114.732) upstream to endpoint(s) in: Big Creek (45.127, -114.935); Cabin Creek (45.195, -114.837); Canyon Creek (45.087, -114.997); Cliff Creek (45.127, -114.857); Cougar Creek (45.138, -114.813); Pioneer Creek (45.066, -114.842).

(15) Unit 15. Middle Salmon - Chamberlain Subbasin 17060207—(i) *Salmon River/Fall Creek Watershed 1706020701*. Outlet(s) =

Salmon River (Lat 45.426, Long -116.025) upstream to endpoint(s) in: Carey Creek (45.4242, -115.9343); Fall Creek (45.4153, -115.9755); Salmon River (45.455, -115.941).

(ii) *Salmon River/California Creek Watershed 1706020703*. Outlet(s) = Salmon River (Lat 45.455, Long -115.941) upstream to endpoint(s) in: Bear Creek (45.435, -115.852); Bull Creek (45.482, -115.716); California Creek (45.341, -115.850); Cottontail Creek (45.388, -115.752); Maxwell Creek (45.392, -115.841); Salmon River (45.434, -115.666).

(iii) *Sheep Creek Watershed 1706020704*. Outlet(s) = Sheep Creek (Lat 45.468, Long -115.810) upstream to endpoint(s) in: East Fork Sheep Creek (45.546, -115.769); Meadow Creek (45.544, -115.792); Plummer Creek (45.531, -115.807); Porcupine Creek (45.506, -115.817); Sheep Creek (45.591, -115.705).

(iv) *Crooked Creek Watershed 1706020705*. Outlet(s) = Crooked Creek (Lat 45.434, Long -115.666) upstream to endpoint(s) in: Arlington Creek (45.491, -115.678); Crooked Creek (45.515, -115.554); Lake Creek (45.616, -115.686).

(v) *Salmon River/Rabbit Creek Watershed 1706020706*. Outlet(s) = Salmon River (Lat 45.434, Long -115.666) upstream to endpoint(s) in: Indian Creek (45.409, -115.608); Rabbit Creek (45.416, -115.667); Salmon River (45.378, -115.512).

(vi) *Salmon River/Trout Creek Watershed 1706020708*. Outlet(s) = Salmon River (Lat 45.378, Long -115.512) upstream to endpoint(s) in: Big Blowout Creek (45.468, -115.432); Big Elkhorn Creek (45.521, -115.331); Fivemile Creek (45.391, -115.452); Jersey Creek (45.494, -115.531); Little Fivemile Creek (45.416, -115.425); Little Mallard Creek (45.538, -115.317); Rhett Creek (45.483, -115.410); Richardson Creek (45.499, -115.265); Salmon River (45.567, -115.191); Trout Creek (45.396, -115.315).

(vii) *Bargamin Creek Watershed 1706020709*. Outlet(s) = Bargamin Creek (Lat 45.567, Long -115.191) upstream to endpoint(s) in: Bargamin Creek (45.706, -115.046); Cache Creek (45.691, -115.180); Porcupine Creek (45.725, -115.128); Prospector Creek (45.688, -115.153); Rainey Creek (45.617, -115.210); Salt Creek (45.643, -115.189).

(viii) *Salmon River/Rattlesnake Creek Watershed 1706020710*. Outlet(s) = Salmon River (Lat 45.567, Long -115.191) upstream to endpoint(s) in: Rattlesnake Creek (45.560, -115.143); Salmon River (45.511, -115.041).

(ix) *Sabe Creek Watershed 1706020711*. Outlet(s) = Sabe Creek (Lat 45.507, Long - 115.024) upstream to endpoint(s) in: Center Creek (45.573, - 115.040); Hamilton Creek (45.544, - 114.826).

(x) *Salmon River/Hot Springs Creek Watershed 1706020712*. Outlet(s) = Salmon River (Lat 45.511, Long - 115.041) upstream to endpoint(s) in: Big Harrington Creek (45.498, - 114.895); Hot Springs Creek (45.465, - 115.135); Salmon River (45.454, - 114.931).

(xi) *Salmon River/Disappointment Creek Watershed 1706020713*. Outlet(s) = Salmon River (Lat 45.454, Long - 114.931) upstream to endpoint(s) in: Salmon River (45.395, - 114.732).

(xii) *Horse Creek Watershed 1706020714*. Outlet(s) = Horse Creek (Lat 45.395, Long - 114.732) upstream to endpoint(s) in: East Fork Reynolds Creek (45.541, - 114.493); Horse Creek (45.498, - 114.421); Reynolds Creek (45.555, - 114.558); West Horse Creek (45.494, - 114.754).

(xiii) *Salmon River/Kitchen Creek Watershed 1706020715*. Outlet(s) = Salmon River (Lat 45.395, Long - 114.732) upstream to endpoint(s) in: Corn Creek (45.370, - 114.681); Kitchen Creek (45.295, - 114.752); Salmon River (45.297, - 114.591).

(xiv) *Cottonwood Creek Watershed 1706020716*. Outlet(s) = Cottonwood Creek (Lat 45.394, Long - 114.802) upstream to endpoint(s) in: Cottonwood Creek (45.354, - 114.823).

(xv) *Lower Chamberlain/McCalla Creek Watershed 1706020717*. Outlet(s) = Chamberlain Creek (Lat 45.454, Long - 114.931) upstream to endpoint(s) in: McCalla Creek (45.321, - 115.115); Unnamed (45.433, - 114.935); Whimstick Creek (45.241, - 115.053).

(xvi) *Upper Chamberlain Creek Watershed 1706020718*. Outlet(s) = Chamberlain Creek (Lat 45.414, Long - 114.981) upstream to endpoint(s) in: Flossie Creek (45.384, - 115.248); Lodgepole Creek (45.305, - 115.254); Moose Creek (45.283, - 115.292); South Fork Chamberlain Creek (45.288, - 115.342).

(xvii) *Warren Creek Watershed 1706020719*. Outlet(s) = Warren Creek (Lat 45.397, Long - 115.592) upstream to endpoint(s) in: Richardson Creek (45.372, - 115.625); Slaughter Creek (45.269, - 115.648); Steamboat Creek (45.259, - 115.722); Warren Creek (45.248, - 115.653).

(16) Unit 16. South Fork Salmon Subbasin 17060208—(i) *Lower South Fork Salmon River Watershed 1706020801*. Outlet(s) = South Fork Salmon River (Lat 45.378, Long - 115.512) upstream to endpoint(s) in:

Big Buck Creek (45.253, - 115.554); Pony Creek (45.209, - 115.663); Porphyry Creek (45.255, - 115.462); Smith Creek (45.265, - 115.550); South Fork Salmon River (45.156, - 115.585).

(ii) *South Fork Salmon River/Sheep Creek Watershed 1706020802*. Outlet(s) = South Fork Salmon River (Lat 45.156, Long - 115.585) upstream to endpoint(s) in: Bear Creek (45.124, - 115.643); Contux Creek (45.155, - 115.620); Deer Creek (45.162, - 115.606); Elk Creek (45.149, - 115.506); Sheep Creek (45.039, - 115.583); South Fork Salmon River (45.025, - 115.706).

(iii) *Lower East Fork South Fork Salmon River Watershed 1706020803*. Outlet(s) = East Fork South Fork Salmon River (Lat 45.015, Long - 115.713) upstream to endpoint(s) in: Caton Creek (44.900, - 115.584); East Fork South Fork Salmon River (44.963, - 115.501); Loosum Creek (44.918, - 115.529); Parks Creek (44.969, - 115.530).

(iv) *Upper East Fork South Fork Salmon River Watershed 1706020804*. Outlet(s) = East Fork South Fork Salmon River (Lat 44.963, Long - 115.501) upstream to endpoint(s) in: East Fork South Fork Salmon River (44.934, - 115.336); Profile Creek (45.035, - 115.409); Quartz Creek (45.048, - 115.496); Salt Creek (44.962, - 115.329); Sugar Creek (44.975, - 115.245); Tamarack Creek (44.995, - 115.318).

(v) *Lower Johnson Creek Watershed 1706020805*. Outlet(s) = Johnson Creek (Lat 44.963, Long - 115.501) upstream to endpoint(s) in: Johnson Creek (44.803, - 115.518); Riordan Creek (44.898, - 115.472); Trapper Creek (44.829, - 115.508).

(vi) *Burntlog Creek Watershed 1706020806*. Outlet(s) = Burntlog Creek (Lat 44.803, Long - 115.518) upstream to endpoint(s) in: Burntlog Creek (44.718, - 115.419).

(vii) *Upper Johnson Creek Watershed 1706020807*. Outlet(s) = Johnson Creek (Lat 44.803, Long - 115.518) upstream to endpoint(s) in: Boulder Creek (44.565, - 115.595); Johnson Creek (44.550, - 115.590); Landmark Creek (44.630, - 115.574); Rock Creek (44.600, - 115.592); S Creek (44.609, - 115.413); Whiskey Creek (44.563, - 115.486).

(viii) *Upper South Fork Salmon River Watershed 1706020808*. Outlet(s) = South Fork Salmon River (Lat 44.652, Long - 115.703) upstream to endpoint(s) in: Bear Creek (44.607, - 115.600); Camp Creek (44.605, - 115.633); Curtis Creek (44.593, - 115.752); Lodgepole Creek (44.576, - 115.610); Mormon Creek (44.499, - 115.654); Rice Creek (44.510, - 115.644); South Fork Salmon River

(44.480, - 115.688); Tyndall Creek (44.568, - 115.736).

(ix) *South Fork Salmon River/Cabin Creek Watershed 1706020809*. Outlet(s) = South Fork Salmon River (Lat 44.759, Long - 115.684) upstream to endpoint(s) in: Cabin Creek (44.713, - 115.638); Dollar Creek (44.759, - 115.751); North Fork Dollar Creek (44.755, - 115.745); Six-Bit Creek (44.684, - 115.724); South Fork Salmon River (44.652, - 115.703); Two-Bit Creek (44.655, - 115.747); Warm Lake Creek (44.653, - 115.662).

(x) *South Fork Salmon River/Blackmare Creek Watershed 1706020810*. Outlet(s) = South Fork Salmon River (Lat 44.898, Long - 115.715) upstream to endpoint(s) in: Blackmare Creek (44.809, - 115.795); Camp Creek (44.889, - 115.691); Cougar Creek (44.823, - 115.804); Phoebe Creek (44.910, - 115.705); South Fork Salmon River (44.759, - 115.684).

(xi) *Buckhorn Creek Watershed 1706020811*. Outlet(s) = Buckhorn Creek (Lat 44.922, Long - 115.736) upstream to endpoint(s) in: Buckhorn Creek (44.881, - 115.856); Little Buckhorn Creek (44.902, - 115.756); West Fork Buckhorn Creek (44.909, - 115.832).

(xiii) *South Fork Salmon River/Fitsum Creek Watershed 1706020812*. Outlet(s) = South Fork Salmon River (Lat 45.025, Long - 115.706) upstream to endpoint(s) in: Fitsum Creek (44.996, - 115.784); North Fork Fitsum Creek (44.992, - 115.870); South Fork Fitsum Creek (44.981, - 115.768); South Fork Salmon River (44.898, - 115.715).

(xiv) *Lower Secesh River Watershed 1706020813*. Outlet(s) = Secesh River (Lat 45.025, Long - 115.706) upstream to endpoint(s) in: Cly Creek (45.031, - 115.911); Hum Creek (45.070, - 115.903); Lick Creek (45.049, - 115.906); Secesh River (45.183, - 115.821); Split Creek (45.109, - 115.805); Zena Creek (45.057, - 115.732).

(xv) *Middle Secesh River Watershed 1706020814*. Outlet(s) = Secesh River (Lat 45.183, Long - 115.821) upstream to endpoint(s) in: Grouse Creek (45.289, - 115.835); Secesh River (45.257, - 115.895); Victor Creek (45.186, - 115.831).

(xiv) *Upper Secesh River Watershed 1706020815*. Outlet(s) = Secesh River (Lat 45.257, Long - 115.895) upstream to endpoint(s) in: Lake Creek (45.374, - 115.867); Threemile Creek (45.334, - 115.891).

(17) Unit 17. Lower Salmon Subbasin 17060209—(i) *Salmon River/China Creek Watershed 1706020901*. Outlet(s) = Salmon River (Lat 45.857, Long - 116.794) upstream to endpoint(s) in: China Creek (46.004, - 116.817); Flynn

Creek (45.911, -116.714); Salmon River (45.999, -116.695); Wapshilla Creek (45.945, -116.766).

(ii) *Eagle Creek Watershed 1706020902*. Outlet(s) = Eagle Creek (Lat 45.997, Long -116.700) upstream to endpoint(s) in: Eagle Creek (46.057, -116.814).

(iii) *Deer Creek Watershed 1706020903*. Outlet(s) = Deer Creek (Lat 45.999, Long -116.695) upstream to endpoint(s) in: Deer Creek (46.051, -116.702).

(iv) *Salmon River/Cottonwood Creek Watershed 1706020904*. Outlet(s) = Salmon River (Lat 45.999, Long -116.695) upstream to endpoint(s) in: Billy Creek (45.990, -116.643); Cottonwood Creek (45.932, -116.598); Maloney Creek (46.068, -116.625); Salmon River (46.038, -116.625); West Fork Maloney Creek (46.061, -116.632).

(v) *Salmon River/Deep Creek Watershed 1706020905*. Outlet(s) = Salmon River (Lat 46.038, Long -116.625) upstream to endpoint(s) in: Burnt Creek (45.966, -116.548); Deep Creek (46.005, -116.547); Round Spring Creek (45.972, -116.501); Salmon River (45.911, -116.410); Telcher Creek (45.978, -116.443).

(vi) *Rock Creek Watershed 1706020906*. Outlet(s) = Rock Creek (Lat 45.905, Long -116.396) upstream to endpoint(s) in: Grave Creek (45.978, -116.359); Johns Creek (45.930, -116.245); Rock Creek (45.919, -116.245).

(vii) *Salmon River/Hammer Creek Watershed 1706020907*. Outlet(s) = Salmon River (Lat 45.911, Long -116.410) upstream to endpoint(s) in: Salmon River (45.752, -116.322).

(viii) *White Bird Creek Watershed 1706020908*. White Bird Creek (Lat 45.752, Long -116.322) upstream to endpoint(s) in: Asbestos Creek (45.722, -116.050); Cabin Creek (45.842, -116.110); Chapman Creek (45.841, -116.216); Cold Springs Creek (45.716, -116.037); Fish Creek (45.865, -116.084); Jungle Creek (45.739, -116.063); Little White Bird Creek (45.740, -116.087); North Fork White Bird Creek (45.797, -116.089); Pinnacle Creek (45.779, -116.086); South Fork White Bird Creek (45.772, -116.028); Twin Cabins Creek (45.782, -116.048); Unnamed (45.809, -116.086); Unnamed (45.841, -116.114); Unnamed (45.858, -116.105).

(ix) *Salmon River/McKinzie Creek Watershed 1706020909*. Outlet(s) = Salmon River (Lat 45.752, Long -116.322) upstream to endpoint(s) in: Deer Creek (45.706, -116.332); McKinzie Creek (45.676, -116.260);

Salmon River (45.640, -116.284); Sotin Creek (45.725, -116.341).

(x) *Skookumchuck Creek Watershed 1706020910*. Outlet(s) = Skookumchuck Creek (Lat 45.700, Long -116.317) upstream to endpoint(s) in: North Fork Skookumchuck Creek (45.728, -116.114); South Fork Skookumchuck Creek (45.711, -116.197).

(xi) *Slate Creek Watershed 1706020911*. Outlet(s) = Slate Creek (Lat 45.640, Long -116.284) upstream to endpoint(s) in: Deadhorse Creek (45.603, -116.093); Little Slate Creek (45.587, -116.075); North Fork Slate Creek (45.671, -116.095); Slate Creek (45.634, -116.000); Slide Creek (45.662, -116.146); Waterspout Creek (45.631, -116.115).

(xii) *Salmon River/John Day Creek Watershed 1706020912*. Outlet(s) = Salmon River (Lat 45.640, Long -116.284) upstream to endpoint(s) in: China Creek (45.547, -116.310); Cow Creek (45.539, -116.330); East Fork John Day Creek (45.575, -116.221); Fiddle Creek (45.495, -116.269); John Day Creek (45.564, -116.220); Race Creek (45.437, -116.316); South Fork Race Creek (45.440, -116.403); West Fork Race Creek (45.464, -116.352).

(xiii) *Salmon River/Lake Creek Watershed 1706020913*. Outlet(s) = Salmon River (Lat 45.437, Long -116.316) upstream to endpoint(s) in: Allison Creek (45.507, -116.156); Berg Creek (45.426, -116.244); Lake Creek (45.294, -116.219); Salmon River (45.418, -116.162); West Fork Allison Creek (45.457, -116.184); West Fork Lake Creek (45.370, -116.241).

(xiv) *Salmon River/Van Creek Watershed 1706020914*. Outlet(s) = Salmon River (Lat 45.418, Long -116.162) upstream to endpoint(s) in: Robbins Creek (45.430, -116.026); Salmon River (45.426, -116.025); Van Creek (45.431, -116.138).

(xv) *French Creek Watershed 1706020915*. Outlet(s) = French Creek (Lat 45.425, Long -116.030) upstream to endpoint(s) in: French Creek (45.375, -116.040).

(xvi) *Partridge Creek Watershed 1706020916*. Outlet(s) = Elkhorn Creek (Lat 45.4043, Long -116.0941); Partridge Creek (45.408, -116.126) upstream to endpoint(s) in: Elkhorn Creek (45.369, -116.092); Partridge Creek (45.369, -116.146).

(18) Unit 18. Little Salmon Subbasin 17060210—(i) *Lower Little Salmon River Watershed 1706021001*. Outlet(s) = Little Salmon River (Lat 45.417, Long -116.313) upstream to endpoint(s) in: Denny Creek (45.306, -116.359); Elk Creek (45.218, -116.311); Hat Creek (45.313, -116.354); Little Salmon River (45.204, -116.310); Lockwood Creek

(45.254, -116.366); Rattlesnake Creek (45.268, -116.339); Sheep Creek (45.344, -116.336); Squaw Creek (45.418, -116.423).

(ii) *Little Salmon River/Hard Creek Watershed 1706021002*. Outlet(s) = Little Salmon River (Lat 45.204, Long -116.310) upstream to endpoint(s) in: Bascum Canyon (45.145, -116.248); Hard Creek (45.125, -116.239); Little Salmon River (45.123, -116.298); Trail Creek (45.164, -116.338).

(iii) *Hazard Creek Watershed 1706021003*. Outlet(s) = Hazard Creek (Lat 45.183, Long -116.283) upstream to endpoint(s) in: Hazard Creek (45.201, -116.248).

(iv) *Boulder Creek Watershed 1706021006*. Outlet(s) = Boulder Creek (Lat 45.204, Long -116.310) upstream to endpoint(s) in: Ant Basin Creek (45.128, -116.447); Boulder Creek (45.103, -116.479); Bull Horn Creek (45.159, -116.407); Pollock Creek (45.168, -116.395); Pony Creek (45.190, -116.374); Squirrel Creek (45.198, -116.368); Star Creek (45.152, -116.418); Unnamed (45.095, -116.461); Unnamed (45.116, -116.455); Yellow Jacket Creek (45.141, -116.426).

(v) *Rapid River Watershed 1706021007*. Outlet(s) = Rapid River (Lat 45.375, Long -116.355) upstream to endpoint(s) in: Granite Fork Lake Fork Rapid River (45.179, -116.526); Paradise Creek (45.223, -116.550); Rapid River (45.157, -116.489); Shingle Creek (45.369, -116.409); West Fork Rapid River (45.306, -116.425).

(19) Unit 19. Upper Selway Subbasin 17060301—(i) *Selway River/Pettibone Creek Watershed 1706030101*. Outlet(s) = Selway River (Lat 46.122, Long -114.935) upstream to endpoint(s) in: Ditch Creek (46.022, -114.900); Elk Creek (45.987, -114.872); Pettibone Creek (46.105, -114.745); Selway River (45.962, -114.828).

(ii) *Bear Creek Watershed 1706030102*. Outlet(s) = Bear Creek (Lat 46.019, Long -114.844) upstream to endpoint(s) in: Bear Creek (46.104, -114.588); Brushy Fork Creek (45.978, -114.602); Cub Creek (46.021, -114.662); Granite Creek (46.102, -114.619); Paradise Creek (46.036, -114.710); Wahoo Creek (46.104, -114.633).

(iii) *Selway River/Gardner Creek Watershed 1706030103*. Outlet(s) = Selway River (Lat 45.962, Long -114.828) upstream to endpoint(s) in: Bad Luck Creek (45.899, -114.752); Crooked Creek (45.865, -114.764); Gardner Creek (45.937, -114.772); Magruder Creek (45.702, -114.795); North Star Creek (45.950, -114.806); Selway River (45.707, -114.719); Sheep

Creek (45.821, -114.741); Snake Creek (45.855, -114.728).

(iv) *White Cap Creek Watershed 1706030104*. Outlet(s) = White Cap Creek (Lat 45.860, Long -114.744) upstream to endpoint(s) in: Barefoot Creek (45.886, -114.639); Canyon Creek (45.878, -114.422); Cedar Creek (45.895, -114.668); Cooper Creek (45.861, -114.557); Elk Creek (45.928, -114.574); Fox Creek (45.898, -114.597); Granite Creek (45.931, -114.506); Lookout Creek (45.959, -114.626); Paloma Creek (45.918, -114.592); Peach Creek (45.868, -114.607); South Fork Lookout Creek (45.929, -114.649); Unnamed (45.855, -114.557); White Cap Creek (45.947, -114.534).

(v) *Indian Creek Watershed 1706030105*. Outlet(s) = Indian Creek (Lat 45.792, Long -114.764) upstream to endpoint(s) in: Indian Creek (45.786, -114.581); Jack Creek (45.789, -114.681); Saddle Gulch (45.766, -114.641); Schofield Creek (45.818, -114.586).

(vi) *Upper Selway River Watershed 1706030106*. Outlet(s) = Selway River (Lat 45.707, Long -114.719) upstream to endpoint(s) in: Cayuse Creek (45.752, -114.572); Deep Creek (45.703, -114.517); French Creek (45.609, -114.561); Gabe Creek (45.714, -114.666); Hells Half Acre Creek (45.689, -114.708); Lazy Creek (45.670, -114.553); Line Creek (45.590, -114.585); Mist Creek (45.561, -114.629); Pete Creek (45.720, -114.557); Selway River (45.502, -114.702); Slow Gulch Creek (45.678, -114.520); Storm Creek (45.641, -114.596); Surprise Creek (45.533, -114.672); Sweet Creek (45.516, -114.804); Three Lakes Creek (45.620, -114.803); Unnamed (45.569, -114.642); Vance Creek (45.681, -114.594); Wilkerson Creek (45.561, -114.601).

(vii) *Little Clearwater River Watershed 1706030107*. Outlet(s) = Little Clearwater River (Lat 45.754, Long -114.775) upstream to endpoint(s) in: Burnt Knob Creek (45.697, -114.950); FCreek (45.644, -114.847); Little Clearwater River (45.740, -114.949); Lonely Creek (45.727, -114.865); Salamander Creek (45.655, -114.883); Short Creek (45.759, -114.859); Throng Creek (45.736, -114.904).

(viii) *Running Creek Watershed 1706030108*. Outlet(s) = Running Creek (Lat 45.919, Long -114.832) upstream to endpoint(s) in: Eagle Creek (45.844, -114.886); Lynx Creek (45.794, -114.993); Running Creek (45.910, -115.027); South Fork Running Creek (45.820, -115.024).

(ix) *Goat Creek Watershed 1706030109*. Outlet(s) = Goat Creek (Lat 45.962, Long -114.828) upstream to endpoint(s) in: Goat Creek (45.940, -115.038).

(20) Unit 20. Lower Selway Subbasin 17060302—(i) *Selway River/Goddard Creek Watershed 1706030201*. Outlet(s) = Selway River (Lat 46.140, Long -115.599) upstream to endpoint(s) in: Boyd Creek (46.092, -115.431); Glover Creek (46.082, -115.361); Goddard Creek (46.059, -115.610); Johnson Creek (46.139, -115.514); Rackliff Creek (46.110, -115.494); Selway River (46.046, -115.295).

(ii) *Gedney Creek Watershed 1706030202*. Outlet(s) = Gedney Creek (Lat 46.056, Long -115.313) upstream to endpoint(s) in: Gedney Creek (46.111, -115.268).

(iii) *Selway River/Three Links Creek Watershed 1706030203*. Outlet(s) = Selway River (Lat 46.046, Long -115.295) upstream to endpoint(s) in: Mink Creek (46.041, -115.087); Otter Creek (46.042, -115.216); Pinchot Creek (46.120, -115.108); Selway River (46.098, -115.071); Three Links Creek (46.143, -115.093).

(iv) *Upper Three Links Creek Watershed 1706030204*. Outlet(s) = Three Links Creek (Lat 46.143, Long -115.093) upstream to endpoint(s) in: Three Links Creek (46.155, -115.100).

(v) *Rhoda Creek Watershed 1706030205*. Outlet(s) = Rhoda Creek (Lat 46.234, Long -114.960) upstream to endpoint(s) in: Lizard Creek (46.220, -115.136); Rhoda Creek (46.252, -115.164); Wounded Doe Creek (46.299, -115.078).

(vi) *North Fork Moose Creek Watershed 1706030207*. Outlet(s) = North Fork Moose Creek (Lat 46.165, Long -114.897) upstream to endpoint(s) in: North Fork Moose Creek (46.305, -114.853); West Moose Creek (46.322, -114.970).

(vii) *East Fork Moose Creek/Trout Creek Watershed 1706030208*. Outlet(s) = Selway River (Lat 46.098, Long -115.071) upstream to endpoint(s) in: Double Creek (46.230, -114.837); East Fork Moose Creek (46.204, -114.722); Elbow Creek (46.200, -114.716); Fitting Creek (46.231, -114.861); Maple Creek (46.218, -114.785); Monument Creek (46.189, -114.728); Selway River (46.122, -114.935); Trout Creek (46.141, -114.861).

(viii) *Upper East Fork Moose Creek Watershed 1706030209*. Outlet(s) = East Fork Moose Creek (Lat 46.204, Long -114.722) upstream to endpoint(s) in: Cedar Creek (46.291, -114.708); East Fork Moose Creek (46.253, -114.700).

(ix) *Marten Creek Watershed 1706030210*. Outlet(s) = Marten Creek

(Lat 46.099, Long -115.052) upstream to endpoint(s) in: Marten Creek (45.988, -115.029).

(x) *Upper Meadow Creek Watershed 1706030211*. Outlet(s) = Meadow Creek (Lat 45.88043738, Long -115.1034371) upstream to endpoint(s) in: Butter Creek (45.804, -115.149); Meadow Creek (45.698, -115.217); Three Prong Creek (45.790, -115.062).

(xi) *Middle Meadow Creek Watershed 1706030212*. Outlet(s) = Meadow Creek (Lat 45.88157325, Long -115.2178401) upstream to endpoint(s) in: East Fork Meadow Creek (45.868, -115.067); Meadow Creek (45.880, -115.103); Sable Creek (45.853, -115.219); Schwar Creek (45.905, -115.108); Simmons Creek (45.856, -115.247).

(xii) *Lower Meadow Creek Watershed 1706030213*. Outlet(s) = Meadow Creek (Lat 46.04563958, Long -115.2953459) upstream to endpoint(s) in: Buck Lake Creek (45.992, -115.084); Butte Creek (45.878, -115.248); Fivemile Creek (45.953, -115.310); Little Boulder Creek (45.935, -115.293); Meadow Creek (45.882, -115.218).

(xiii) *O'Hara Creek Watershed 1706030214*. Outlet(s) = O'Hara Creek (Lat 46.08603027, Long -115.5170987) upstream to endpoint(s) in: East Fork O'Hara Creek (45.995, -115.521); West Fork O'Hara Creek (45.995, -115.543).

(21) Unit 21. Lochsa Subbasin 17060303—(i) *Lower Lochsa River Watershed 1706030301*. Outlet(s) = Lochsa River (Lat 46.14004554, Long -115.5986467) upstream to endpoint(s) in: Canyon Creek (46.227, -115.580); Coolwater Creek (46.215, -115.464); Deadman Creek (46.262, -115.517); East Fork Deadman Creek (46.275, -115.505); Fire Creek (46.203, -115.411); Kerr Creek (46.162, -115.579); Lochsa River (46.338, -115.314); Nut Creek (46.180, -115.601); Pete King Creek (46.182, -115.697); Placer Creek (46.196, -115.631); South Fork Canyon Creek (46.211, -115.556); Split Creek (46.207, -115.364); Walde Creek (46.193, -115.662).

(ii) *Fish Creek Watershed 1706030302*. Outlet(s) = Fish Creek (Lat 46.33337703, Long -115.3449332) upstream to endpoint(s) in: Alder Creek (46.319, -115.460); Ceanothus Creek (46.341, -115.470); Fish Creek (46.341, -115.575); Frenchman Creek (46.330, -115.544); Gass Creek (46.390, -115.511); Ham Creek (46.391, -115.365); Hungery Creek (46.377, -115.542); Myrtle Creek (46.343, -115.569); Poker Creek (46.346, -115.447); Willow Creek (46.396, -115.369).

(iii) *Lochsa River/Stanley Creek Watershed 1706030303*. Outlet(s) =

Lochsa River (Lat 46.33815653, Long -115.3141495) upstream to endpoint(s) in: Bald Mountain Creek (46.406, -115.254); Dutch Creek (46.377, -115.211); Eagle Mountain Creek (46.428, -115.130); Indian Grave Creek (46.472, -115.103); Indian Meadow Creek (46.450, -115.060); Lochsa River (46.466, -114.985); Lost Creek (46.432, -115.116); Sherman Creek (46.352, -115.320); Stanley Creek (46.387, -115.144); Unnamed (46.453, -115.028); Unnamed (46.460, -115.006); Unnamed (46.502, -115.050); Weir Creek (46.490, -115.035).

(iv) *Lochsa River/Squaw Creek Watershed 1706030304*. Outlet(s) = Lochsa River (Lat 46.4656626, Long -114.9848623) upstream to endpoint(s) in: Badger Creek (46.535, -114.833); Bear Mtn. Creek (46.471, -114.962); Cliff Creek (46.482, -114.708); Colgate Creek (46.455, -114.914); Doe Creek (46.534, -114.914); East Fork Papoose Creek (46.555, -114.743); Jay Creek (46.513, -114.739); Lochsa River (46.508, -114.681); Postoffice Creek (46.529, -114.948); Squaw Creek (46.567, -114.859); Unnamed (46.463, -114.923); Wendover Creek (46.521, -114.788); West Fork Papoose Creek (46.576, -114.758); West Fork Postoffice Creek (46.493, -114.985); West Fork Squaw Creek (46.545, -114.884).

(v) *Lower Crooked Fork Watershed 1706030305*. Outlet(s) = Crooked Fork Lochsa River (Lat 46.50828495, Long -114.680785) upstream to endpoint(s) in: Crooked Fork Lochsa River (46.578, -114.612).

(vi) *Upper Crooked Fork Watershed 1706030306*. Outlet(s) = Crooked Fork Lochsa River (Lat 46.57831788, Long -114.6115072) upstream to endpoint(s) in: Boulder Creek (46.636, -114.703); Crooked Fork Lochsa River (46.653, -114.670); Haskell Creek (46.605, -114.596); Shotgun Creek (46.601, -114.667).

(vii) *Brushy Fork Watershed 1706030307*. Outlet(s) = Brushy Fork (Lat 46.57831788, Long -114.6115072) upstream to endpoint(s) in: Brushy Fork (46.619, -114.450); Pack Creek (46.580, -114.588); Spruce Creek (46.609, -114.433).

(viii) *Lower White Sands Creek Watershed 1706030308*. Outlet(s) = White Sands Creek (Lat 46.50828495, Long -114.680785) upstream to endpoint(s) in: Beaver Creek (46.509, -114.619); Cabin Creek (46.518, -114.641); Walton Creek (46.500, -114.673); White Sands Creek (46.433, -114.540).

(ix) *Storm Creek Watershed 1706030309*. Outlet(s) = Storm Creek

(Lat 46.46307502, Long -114.5482819) upstream to endpoint(s) in: Maud Creek (46.495, -114.511); Storm Creek (46.540, -114.424).

(x) *Upper White Sands Creek Watershed 1706030310*. Outlet(s) = White Sands Creek (Lat 46.4330966, Long -114.5395027) upstream to endpoint(s) in: Big F Creek (46.401, -114.475); Big S Creek (46.407, -114.534); Colt Creek (46.403, -114.726); White Sands Creek (46.422, -114.462).

(xi) *Warm Springs Creek Watershed 1706030311*. Outlet(s) = Warm Springs Creek (Lat 46.4733796, Long -114.8872254) upstream to endpoint(s) in: Cooperation Creek (46.453, -114.866); Warm Springs Creek (46.426, -114.868).

(xii) *Fish Lake Creek Watershed 1706030312*. Outlet(s) = Fish Lake Creek (Lat 46.46336343, Long -114.9957028) upstream to endpoint(s) in: Fish Lake Creek (46.405, -115.000); Heslip Creek (46.393, -115.027); Sponge Creek (46.384, -115.048).

(xiii) *Boulder Creek Watershed 1706030313*. Outlet(s) = Boulder Creek (Lat 46.33815653, Long -115.3141495) upstream to endpoint(s) in: Boulder Creek (46.320, -115.199).

(xiv) *Old Man Creek Watershed 1706030314*. Outlet(s) = Old Man Creek (Lat 46.2524595, Long -115.3988563) upstream to endpoint(s) in: Old Man Creek (46.256, -115.343).

(22) Unit 22. Middle Fork Clearwater Subbasin 17060304—(i) *Middle Fork Clearwater River/Maggie Creek Watershed 1706030401*. Outlet(s) = Middle Fork Clearwater River (Lat 46.1459, Long -115.9797) upstream to endpoint(s) in: Maggie Creek (46.195, -115.801); Middle Fork Clearwater River (46.140, -115.599).

(ii) *Clear Creek Watershed 1706030402*. Outlet(s) = Clear Creek (Lat 46.1349, Long -115.9515) upstream to endpoint(s) in: Browns Spring Creek (46.067, -115.658); Clear Creek (46.056, -115.659); Kay Creek (46.005, -115.725); Middle Fork Clear Creek (46.030, -115.739); Pine Knob Creek (46.093, -115.702); South Fork Clear Creek (45.941, -115.769); West Fork Clear Creek (46.013, -115.821).

(23) Unit 23. South Fork Clearwater Subbasin 17060305—(i) *Lower South Fork Clearwater River Watershed 1706030501*. Outlet(s) = South Fork Clearwater River (Lat 46.1459, Long -115.9797) upstream to endpoint(s) in: Butcher Creek (45.945, -116.064); Castle Creek (45.834, -115.966); Earthquake Creek (45.853, -116.005); Green Creek (45.957, -115.937); Lightning Creek (45.936, -115.946); Mill Creek (45.934, -116.010); Rabbit

Creek (46.028, -115.877); Sally Ann Creek (46.019, -115.893); Schwartz Creek (45.914, -116.000); South Fork Clearwater River (45.830, -115.931); Wall Creek (45.998, -115.926).

(ii) *South Fork Clearwater River/Meadow Creek Watershed 1706030502*. Outlet(s) = South Fork Clearwater River (Lat 45.8299, Long -115.9312) upstream to endpoint(s) in: Covert Creek (45.890, -115.933); North Meadow Creek (45.923, -115.890); South Fork Clearwater River (45.824, -115.889); Storm Creek (45.952, -115.848); Whitman Creek (45.914, -115.919).

(iii) *South Fork Clearwater River/Peasley Creek Watershed 1706030503*. Outlet(s) = South Fork Clearwater River (Lat 45.8239, Long -115.8892) upstream to endpoint(s) in: South Fork Clearwater River (45.795, -115.763).

(iv) *South Fork Clearwater River/Leggett Creek Watershed 1706030504*. Outlet(s) = South Fork Clearwater River (Lat 45.7952, Long -115.7628) upstream to endpoint(s) in: Allison Creek (45.832, -115.588); Buckhorn Creek (45.807, -115.658); Fall Creek (45.833, -115.696); Leggett Creek (45.862, -115.685); Maurice Creek (45.856, -115.514); Moose Creek (45.835, -115.578); Rabbit Creek (45.822, -115.603); Santiam Creek (45.811, -115.624); South Fork Clearwater River (45.808, -115.474); Twentymile Creek (45.791, -115.765); Whiskey Creek (45.869, -115.544).

(v) *Newsome Creek Watershed 1706030505*. Outlet(s) = Newsome Creek (Lat 45.8284, Long -115.6147) upstream to endpoint(s) in: Baldy Creek (45.944, -115.681); Bear Creek (45.887, -115.580); Beaver Creek (45.943, -115.568); Haysfork Creek (45.953, -115.678); Mule Creek (45.985, -115.606); Newsome Creek (45.972, -115.654); Nuggett Creek (45.897, -115.600); Pilot Creek (45.939, -115.716); Sawmill Creek (45.904, -115.701); Sing Lee Creek (45.898, -115.677); West Fork Newsome Creek (45.880, -115.661).

(vi) *American River Watershed 1706030506*. Outlet(s) = American River (Lat 45.8082, Long -115.4740) upstream to endpoint(s) in: American River (45.996, -115.445); Big Elk Creek (45.902, -115.513); Box Sing Creek (45.850, -115.386); Buffalo Gulch (45.873, -115.522); East Fork American River (45.905, -115.381); Flint Creek (45.913, -115.423); Kjrks Fork American River (45.842, -115.385); Lick Creek (45.945, -115.477); Little Elk Creek (45.894, -115.476); Monroe Creek (45.871, -115.495); Unnamed (45.884, -115.510); West Fork American River (45.934, -115.510);

West Fork Big Elk Creek (45.883, -115.515).

(vii) *Red River Watershed 1706030507*. Outlet(s) = Red River (Lat 45.8082, Long -115.4740) upstream to endpoint(s) in: Bridge Creek (45.814, -115.163); Campbell Creek (45.792, -115.486); Dawson Creek (45.728, -115.393); Deadwood Creek (45.794, -115.471); Ditch Creek (45.758, -115.309); Jungle Creek (45.710, -115.286); Little Campbell Creek (45.801, -115.478); Little Moose Creek (45.710, -115.399); Moose Butte Creek (45.695, -115.365); Otterson Creek (45.803, -115.222); Red Horse Creek (45.822, -115.355); Red River (45.788, -115.174); Siegel Creek (45.800, -115.323); Soda Creek (45.741, -115.257); South Fork Red River (45.646, -115.407); Trail Creek (45.784, -115.265); Trapper Creek (45.672, -115.311); Unnamed (45.788, -115.199); West Fork Red River (45.662, -115.447).

(viii) *Crooked River Watershed 1706030508*. Outlet(s) = Crooked River (Lat 45.8241, Long -115.5291) upstream to endpoint(s) in: East Fork Crooked River (45.655, -115.562); East Fork Relief Creek (45.759, -115.477); Fivemile Creek (45.721, -115.568); Quartz Creek (45.702, -115.536); Relief Creek (45.712, -115.472); Silver Creek (45.713, -115.535); West Fork Crooked River (45.666, -115.596).

(ix) *Ten Mile Creek Watershed 1706030509*. Outlet(s) = Tenmile Creek (Lat 45.8064, Long -115.6833) upstream to endpoint(s) in: Mackey Creek (45.754, -115.683); Morgan Creek (45.731, -115.672); Sixmile Creek (45.762, -115.641); Tenmile Creek (45.694, -115.694); Williams Creek (45.703, -115.636).

(x) *John's Creek Watershed 1706030510*. Outlet(s) = Johns Creek (Lat 45.8239, Long -115.8892) upstream to endpoint(s) in: American Creek (45.750, -115.961); Frank Brown Creek (45.708, -115.785); Gospel Creek (45.637, -115.915); Johns Creek (45.665, -115.827); Trout Creek (45.750, -115.909); West Fork Gospel Creek (45.657, -115.949).

(xi) *Mill Creek Watershed 1706030511*. Outlet(s) = Mill Creek (Lat 45.8299, Long -115.9312) upstream to endpoint(s) in: Camp Creek (45.670, -116.001); Corral Creek (45.678, -115.999); Hunt Creek (45.695, -116.001); Melton Creek (45.725, -115.980); Mill Creek (45.641, -116.008).

(xii) *Cottonwood Creek Watershed 1706030513*. Outlet(s) = Cottonwood Creek (Lat 46.0810, Long -115.9764) upstream to endpoint(s) in: Cottonwood Creek (46.090, -115.999).

(24) Unit 24. Clearwater Subbasin 17060306—(i) *Lower Clearwater River Watershed 1706030601*. Outlet(s) = Clearwater River (Lat 46.4281, Long -117.0380) upstream to endpoint(s) in: Clearwater River (46.447, -116.837).

(ii) *Clearwater River/Lower Potlatch River Watershed 1706030602*. Outlet(s) = Clearwater River (Lat 46.4467, Long -116.8366) upstream to endpoint(s) in: Catholic Creek (46.489, -116.841); Clearwater River (46.474, -116.765); Potlatch River (46.523, -116.728).

(iii) *Potlatch River/Middle Potlatch Creek Watershed 1706030603*. Outlet(s) = Potlatch River (Lat 46.5231, Long -116.7284) upstream to endpoint(s) in: Middle Potlatch Creek (46.669, -116.796); Potlatch River (46.583, -116.700).

(iv) *Lower Big Bear Creek Watershed 1706030604*. Outlet(s) = Big Bear Creek (Lat 46.6180, Long -116.6439) upstream to endpoint(s) in: Big Bear Creek (46.642, -116.658).

(v) *Potlatch River/Pine Creek Watershed 1706030606*. Outlet(s) = Potlatch River (Lat 46.5830, Long -116.6998) upstream to endpoint(s) in: Boulder Creek (46.711, -116.450); Cedar Creek (46.635, -116.510); Pine Creek (46.706, -116.554); Potlatch River (46.699, -116.504).

(vi) *Upper Potlatch River Watershed 1706030607*. Outlet(s) = Potlatch River (Lat 46.6987, Long -116.5036) upstream to endpoint(s) in: Corral Creek (46.787, -116.477); East Fork Potlatch River (46.876, -116.247); Feather Creek (46.938, -116.411); Head Creek (46.942, -116.366); Little Boulder Creek (46.768, -116.414); Nat Brown Creek (46.911, -116.375); Pasture Creek (46.940, -116.371); Porcupine Creek (46.937, -116.379); Potlatch River (46.941, -116.359); Unnamed (46.922, -116.449); West Fork Potlatch River (46.931, -116.458).

(vii) *Clearwater River/Bedrock Creek Watershed 1706030608*. Outlet(s) = Clearwater River (Lat 46.4741, Long -116.7652) upstream to endpoint(s) in: Bedrock Creek (46.564, -116.540); Clearwater River (46.516, -116.590); Pine Creek (46.579, -116.615).

(viii) *Clearwater River/Jack's Creek Watershed 1706030609*. Outlet(s) = Clearwater River (Lat 46.5159, Long -116.5903) upstream to endpoint(s) in: Clearwater River (46.498, -116.433); Jacks Creek (46.435, -116.462).

(ix) *Big Canyon Creek Watershed 1706030610*. Outlet(s) = Big Canyon Creek (Lat 46.4984, Long -116.4326) upstream to endpoint(s) in: Big Canyon Creek (46.319, -116.500); Posthole Canyon (46.318, -116.450); Sixmile Canyon (46.372, -116.441).

(x) *Little Canyon Creek Watershed 1706030611*. Outlet(s) = Little Canyon Creek (Lat 46.4681, Long -116.4172) upstream to endpoint(s) in: Little Canyon Creek (46.295, -116.279).

(xi) *Clearwater River/Lower Orofino Creek Watershed 1706030612*. Outlet(s) = Clearwater River (Lat 46.4984, Long -116.4326) upstream to endpoint(s) in: Clearwater River (46.476, -116.254); Orofino Creek (46.485, -116.196); Whiskey Creek (46.5214, -116.1753).

(xii) *Upper Orofino Creek Watershed 1706030613*. Outlet(s) = Orofino Creek (Lat 46.4854, Long -116.1964) upstream to endpoint(s) in: Orofino Creek (46.472, -116.176).

(xiii) *Jim Ford Creek Watershed 1706030614*. Outlet(s) = Jim Ford Creek (Lat 46.4394, Long -116.2115) upstream to endpoint(s) in: Jim Ford Creek (46.427, -116.059).

(xiv) *Lower Lolo Creek Watershed 1706030615*. Outlet(s) = Lolo Creek (Lat 46.3718, Long -116.1697) upstream to endpoint(s) in: Big Creek (46.392, -116.118); Lolo Creek (46.284, -115.882).

(xv) *Middle Lolo Creek Watershed 1706030616*. Outlet(s) = Lolo Creek (Lat 46.2844, Long -115.8818) upstream to endpoint(s) in: Crocker Creek (46.254, -115.859); Lolo Creek (46.381, -115.708); Mud Creek (46.274, -115.759); Nevada Creek (46.322, -115.735); Pete Charlie Creek (46.289, -115.823); Yakus Creek (46.238, -115.763).

(xvi) *Musselshell Creek Watershed 1706030617*. Outlet(s) = Jim Brown Creek (Lat 46.3098, Long -115.7531) upstream to endpoint(s) in: Gold Creek (46.376, -115.735); Jim Brown Creek (46.357, -115.790); Musselshell Creek (46.394, -115.744).

(xvii) *Upper Lolo Creek Watershed 1706030618*. Outlet(s) = Lolo Creek (Lat 46.3815, Long -115.7078) upstream to endpoint(s) in: Camp Creek (46.416, -115.624); Lolo Creek (46.425, -115.648); Max Creek (46.384, -115.679); Relaskon Creek (46.394, -115.647); Siberia Creek (46.384, -115.707); Yoosa Creek (46.408, -115.589).

(xviii) *Eldorado Creek Watershed 1706030619*. Outlet(s) = Eldorado Creek (Lat 46.2947, Long -115.7500) upstream to endpoint(s) in: Cedar Creek (46.298, -115.711); Dollar Creek (46.301, -115.640); Eldorado Creek (46.300, -115.645); Four Bit Creek (46.294, -115.644).

(xix) *Clearwater River/Fivemile Creek Watershed 1706030620*. Outlet(s) = Clearwater River (Lat 46.4759, Long -116.2543) upstream to endpoint(s) in: Clearwater River (46.350, -116.154).

(xx) *Clearwater River/Sixmile Creek Watershed 1706030621*. Outlet(s) = Clearwater River (Lat 46.3500, Long -116.1541) upstream to endpoint(s) in: Clearwater River (46.257, -116.067); Sixmile Creek (46.269, -116.213).

(xxi) *Clearwater River/Tom Taha Creek Watershed 1706030622*. Outlet(s) = Clearwater River (Lat 46.2565, Long -116.067) upstream to endpoint(s) in: Clearwater River (46.146, -115.980); Tom Taha Creek (46.244, -115.993).

(xxii) *Lower Lawyer Creek Watershed 1706030623*. Outlet(s) = Lawyer Creek (Lat 46.2257, Long -116.0116) upstream to endpoint(s) in: Lawyer Creek (46.155, -116.190).

(xxiii) *Middle Lawyer Creek Watershed 1706030624*. Outlet(s) = Lawyer Creek (Lat 46.1546, Long

-116.1899) upstream to endpoint(s) in: Lawyer Creek (46.188, -116.380).

(xiv) *Cottonwood Creek Watershed 1706030627*. Outlet(s) = Cottonwood Creek (Lat 46.5023, Long -116.7127) upstream to endpoint(s) in: Cottonwood Creek (46.387, -116.622).

(xv) *Upper Sweetwater Creek Watershed 1706030630*. Outlet(s) = Webb Creek (Lat 46.3310, Long -116.8369) upstream to endpoint(s) in: Sweetwater Creek (46.2751, -116.8513); Webb Creek (46.2500, -116.7541).

(xvi) *Lower Sweetwater Creek Watershed 1706030631*. Outlet(s) = Lapwai Creek (Lat 46.4512, Long -116.8182) upstream to endpoint(s) in: Lapwai Creek (46.364, -116.750); Sweetwater Creek (46.331, -116.837).

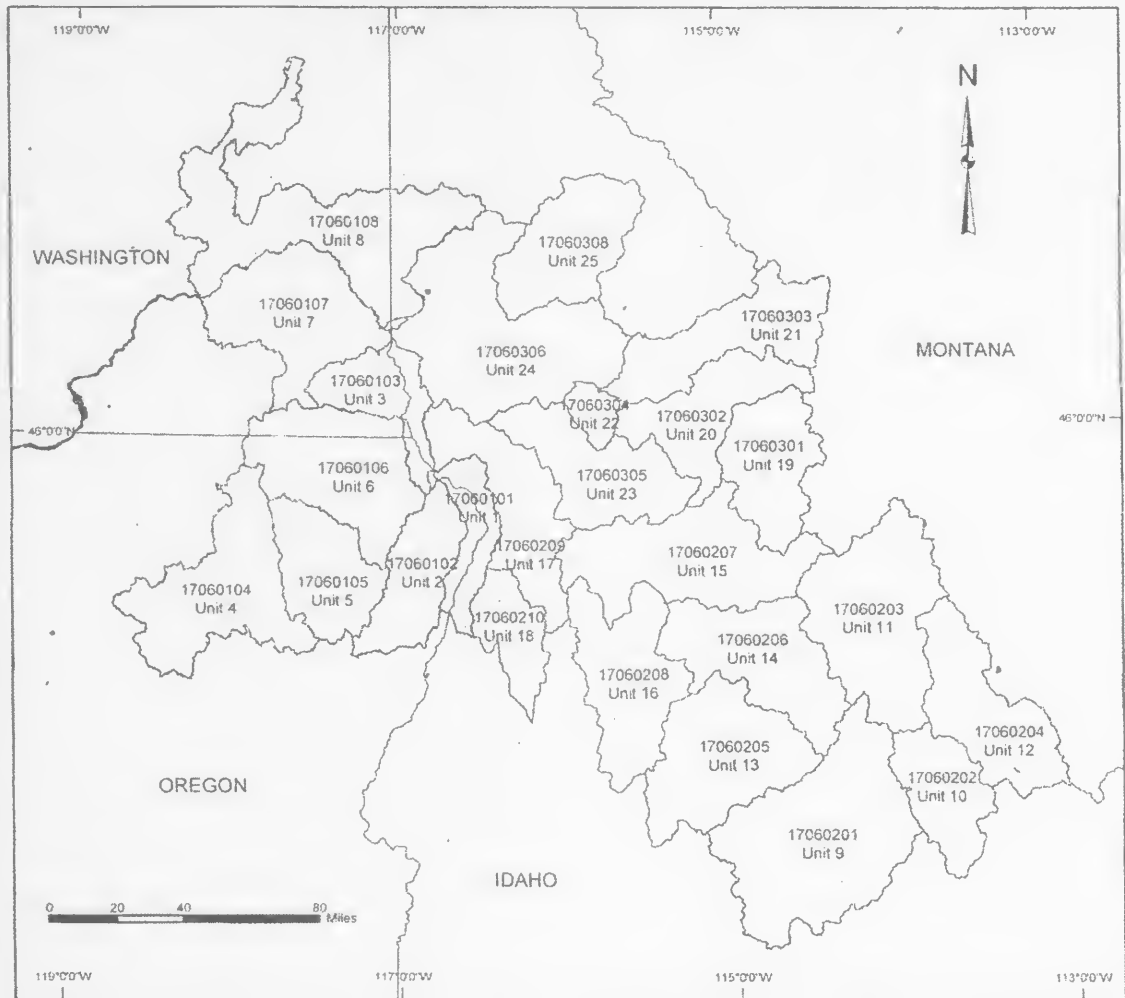
(25) Unit 25. Lower North Fork Clearwater Subbasin 17060308—(i) *Lower North Fork Clearwater River Watershed 1706030801*. Outlet(s) = North Fork Clearwater River (Lat 46.5027, Long -116.3309) upstream to endpoint(s) in: North Fork Clearwater River (46.514, -116.295).

(26) Unit 26. Lower Snake/Columbia River Corridor—(i) *Lower Snake/Columbia River Corridor*. Outlet(s) = Columbia River mouth (Lat 46.2485, Long -124.0782) upstream to endpoint at the confluence of the Palouse River (46.589, -117.215).



(27) Maps of proposed critical habitat for the Snake River Basin *O. mykiss* ESU follow:

BILLING CODE 3510-22-P

Map of the Snake River Basin *O. mykiss* ESU



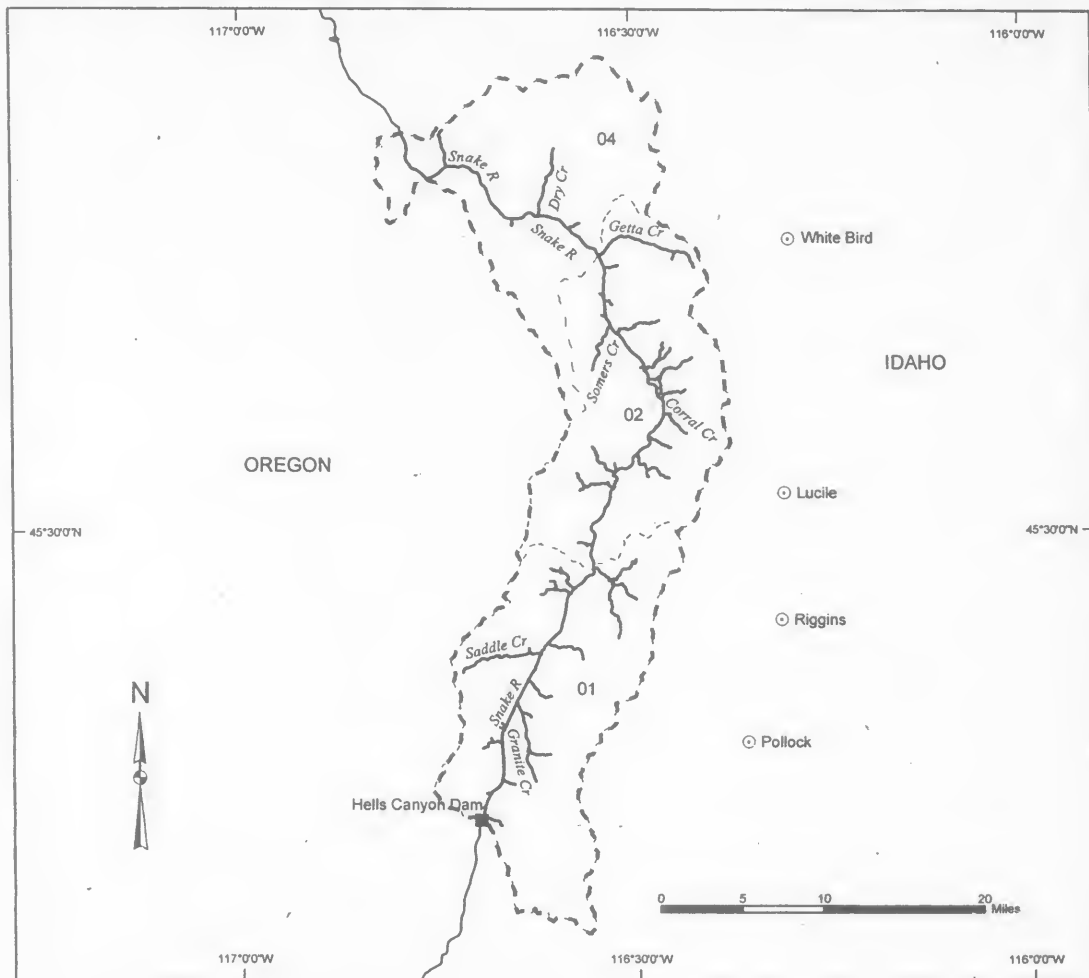
Legend

- State Boundaries
-  Water Bodies
-  Subbasin Boundaries



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

HELLS CANYON SUBBASIN 17060101, Unit 1



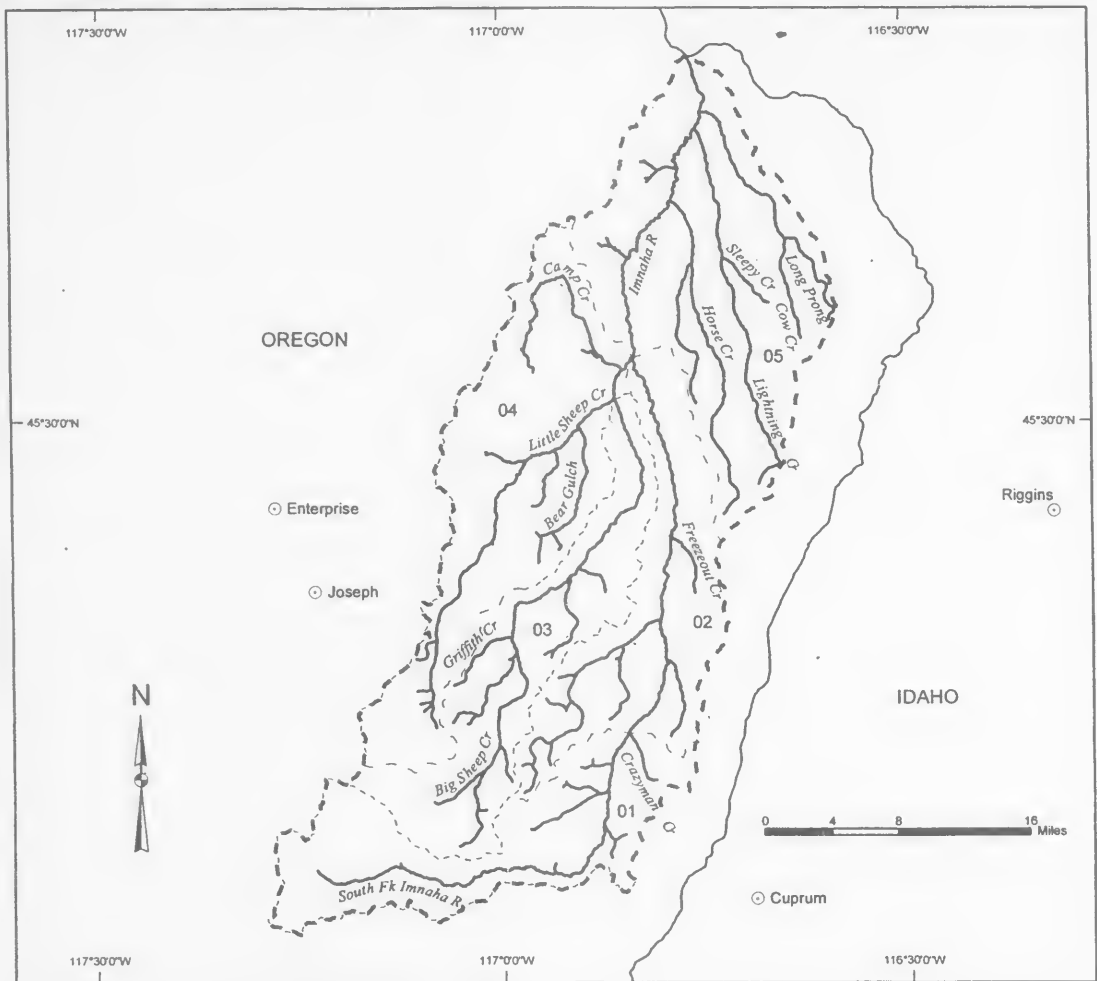
Legend

- Cities / Towns
 - State Boundary
 - ~ Proposed Critical Habitat
 - - - Subbasin Boundary
 - · · Watershed Boundaries
 - Dams
- 01 - 02, 04 = Watershed code - last 2 digits of 17060101xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**IMNAHA RIVER SUBBASIN
17060102, Unit 2**



Legend

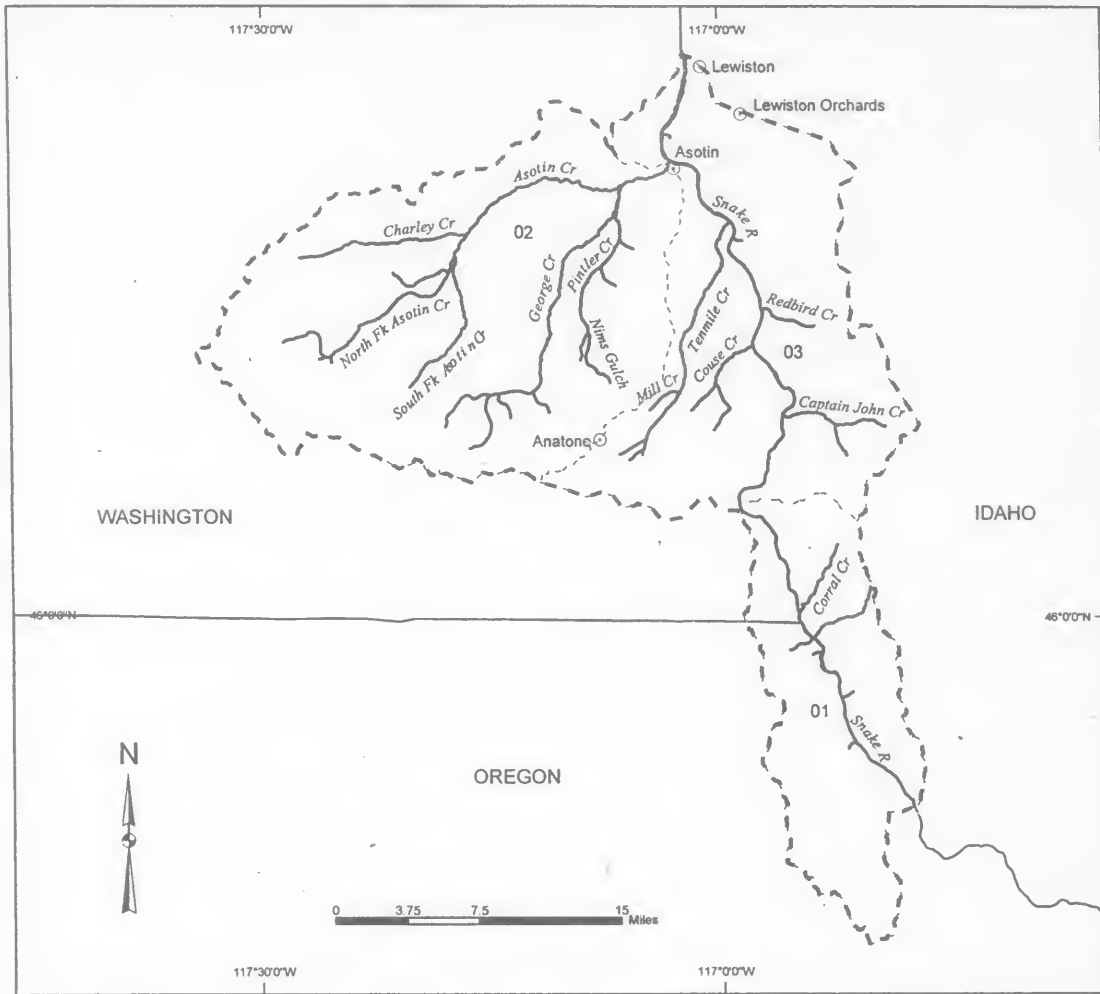
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17060102xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

LOWER SNAKE / ASOTIN SUBBASIN 17060103, Unit 3



Legend

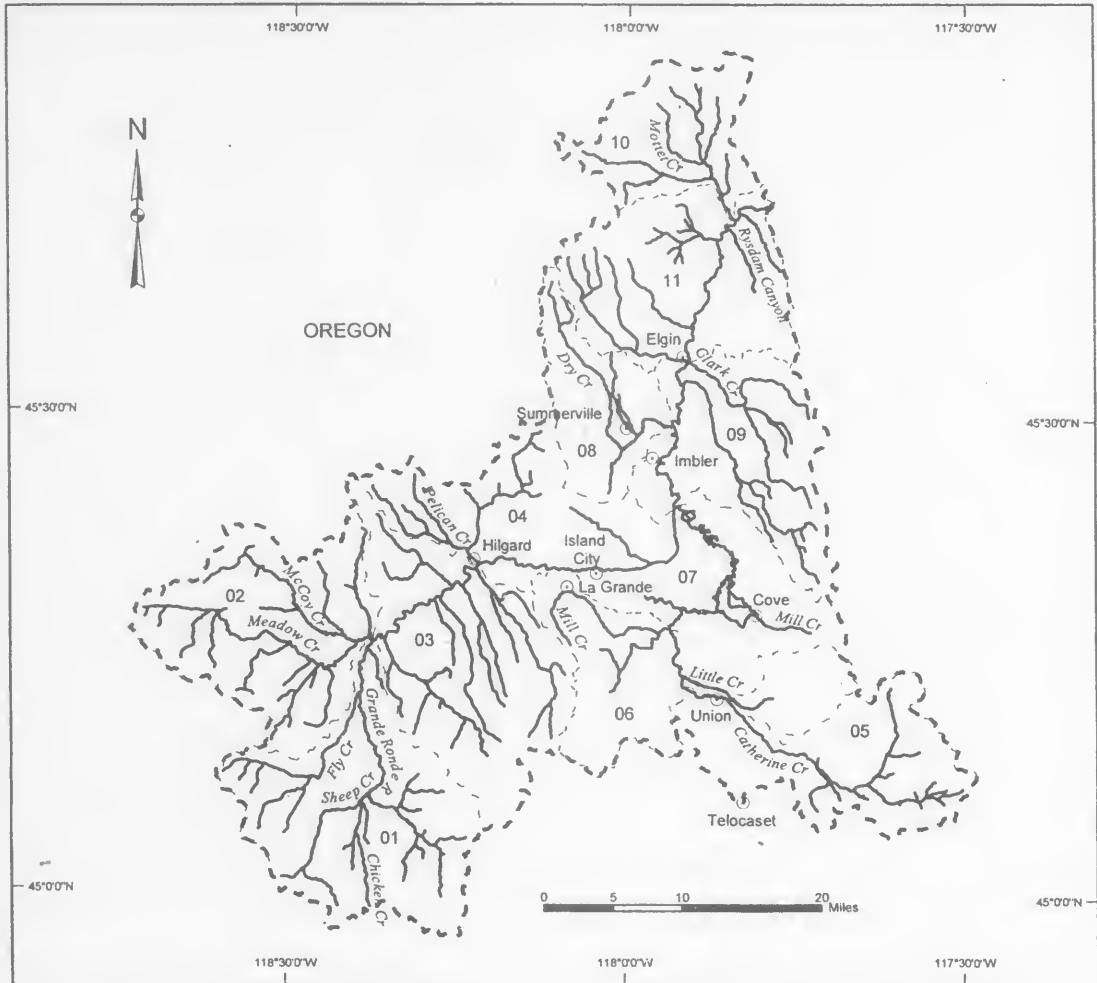
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17060103xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

UPPER GRANDE RONDE RIVER SUBBASIN 17060104, Unit 4



Legend

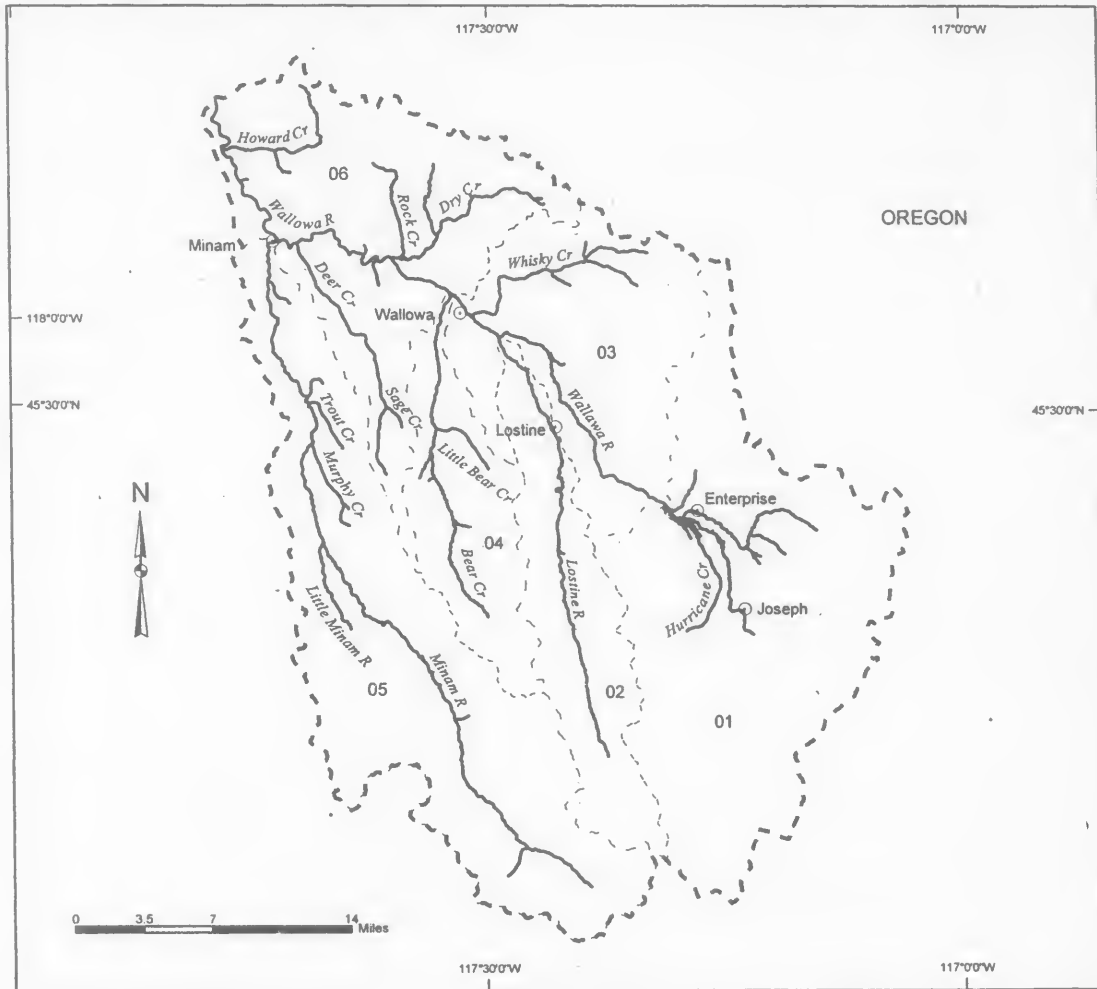
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

04, 08 - 11 = Watershed code - last 2 digits of 17060104xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**WALLOWA RIVER SUBBASIN
17060105, Unit 5**



Legend

- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundaries
- - - Watershed Boundaries

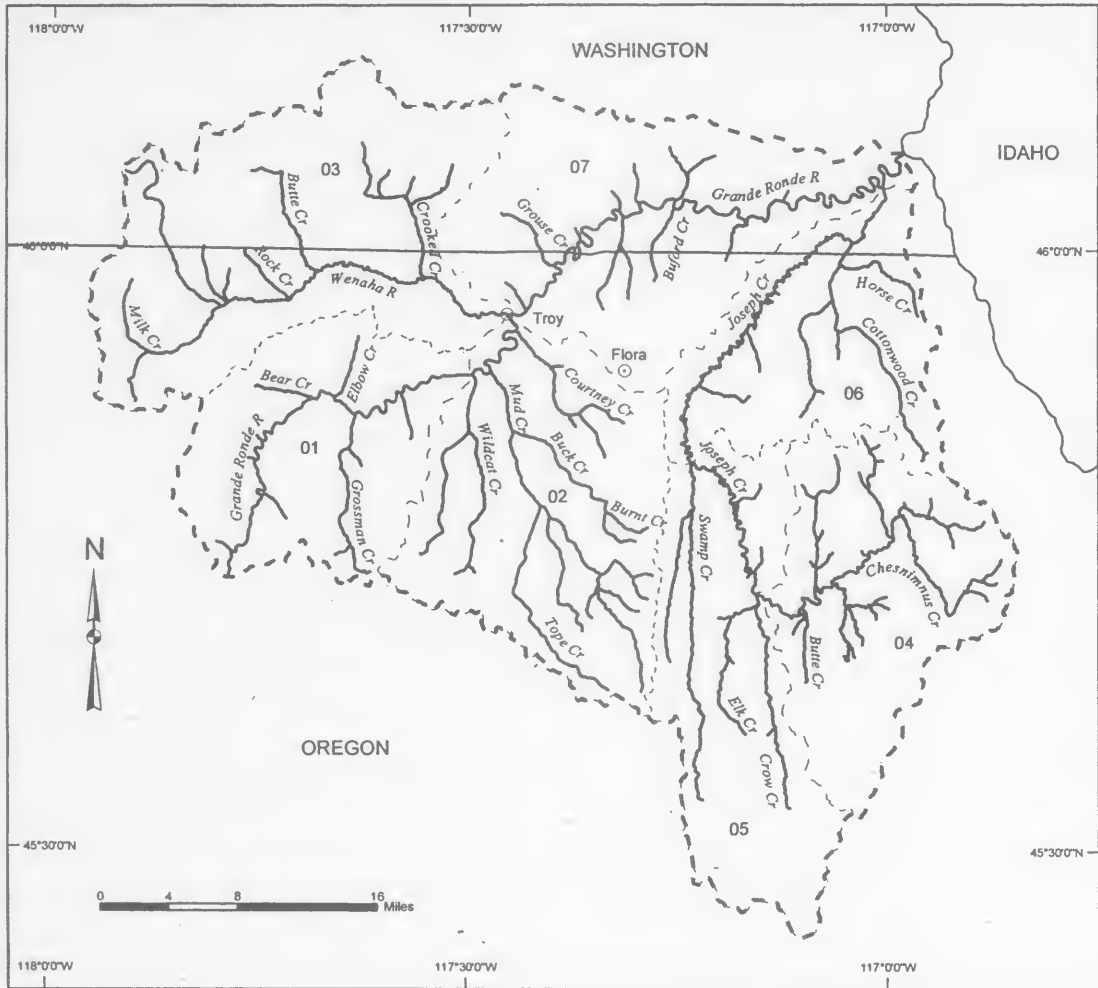
01 - 06 = Watershed code - last 2 digits of 17060105xx

Area of Detail

WASHINGTON
OREGON
IDAHO

Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

LOWER GRANDE RONDE SUBBASIN 17060106, Unit 6



Legend

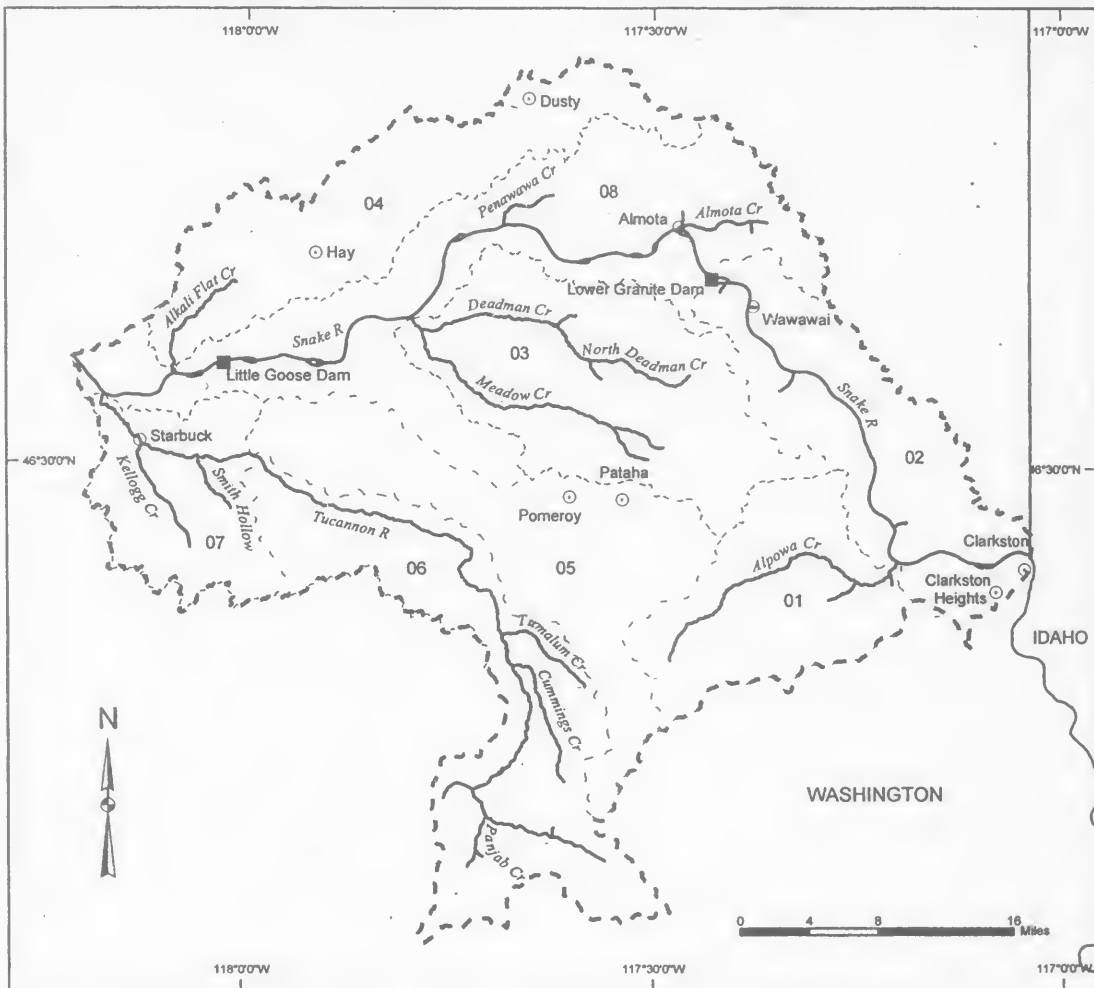
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17060106xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

LOWER SNAKE / TUCANNON SUBBASIN 17060107, Unit 7



Legend

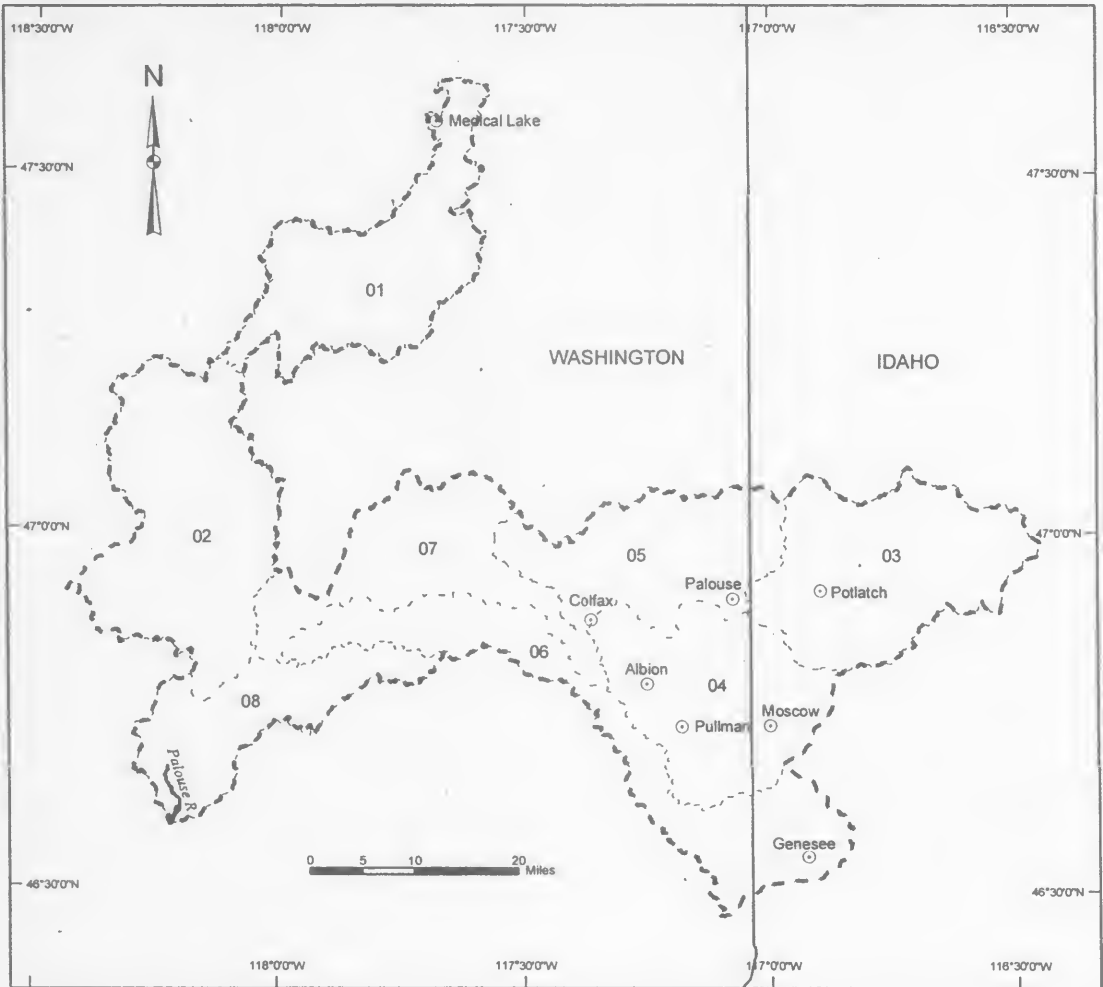
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries
- Dams

01 - 08 = Watershed code - last 2 digits of 17060107xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

PALOUSE RIVER SUBBASIN 17060108, Unit 8



Legend

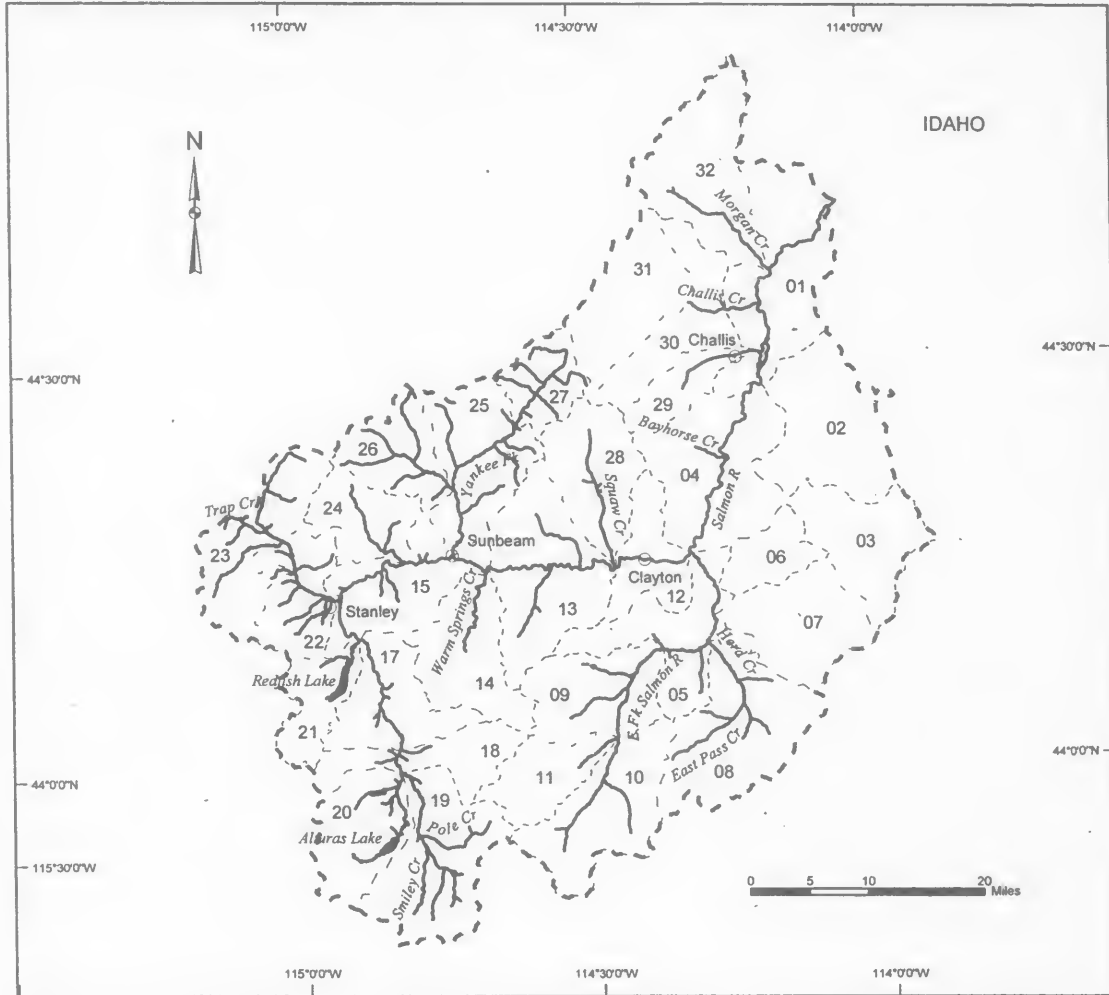
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17060108xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

**UPPER SALMON SUBBASIN
17060201, Unit 9**



Legend

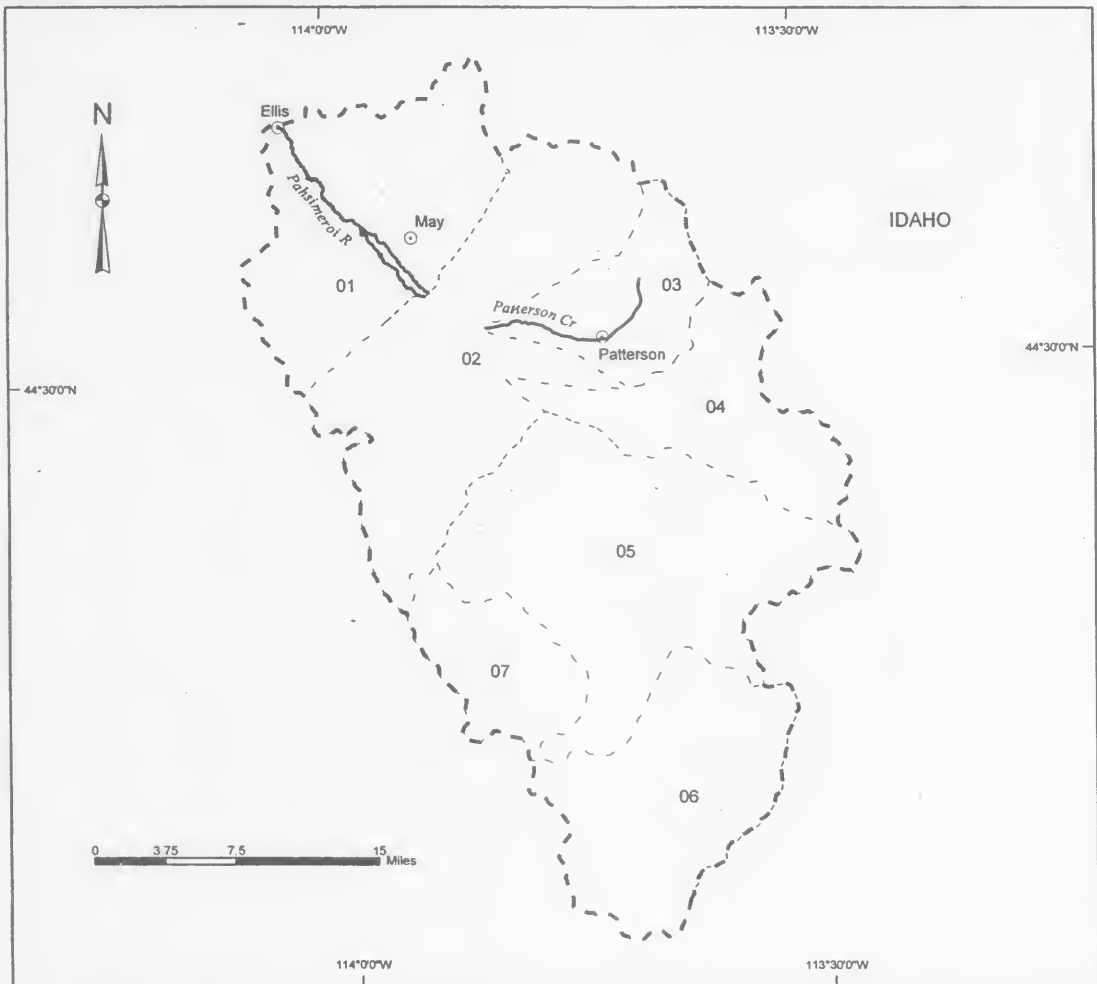
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 32 = Watershed code - last 2 digits of 17060201xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

**PAHSIMEROI SUBBASIN
17060202, Unit 10**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- - - - Watershed Boundaries

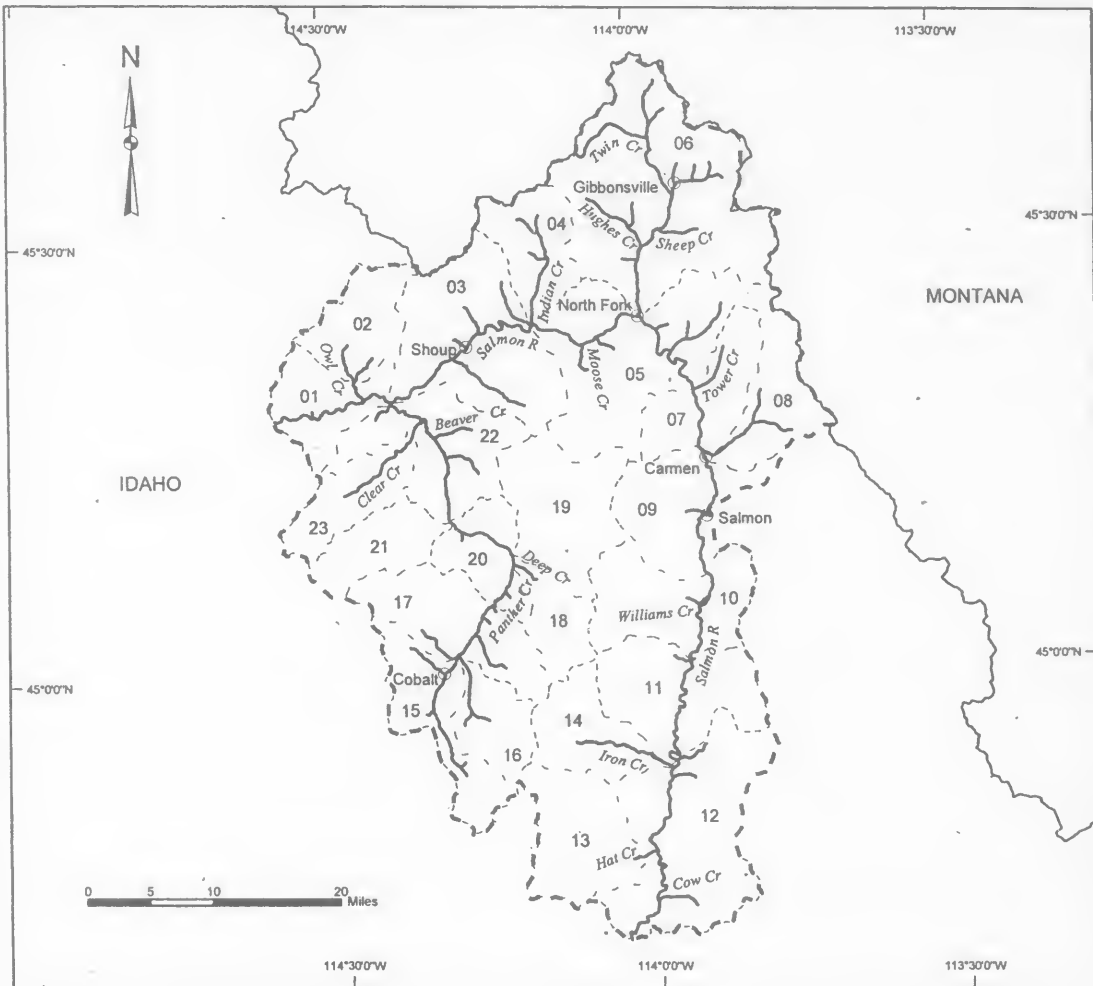
01 - 07 = Watershed code - last 2 digits of 17060202xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A small shaded area in the northeast corner of Idaho indicates the location of the study area.

Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**MIDDLE SALMON-PANTHER SUBBASIN
17060203, Unit 11**



Legend

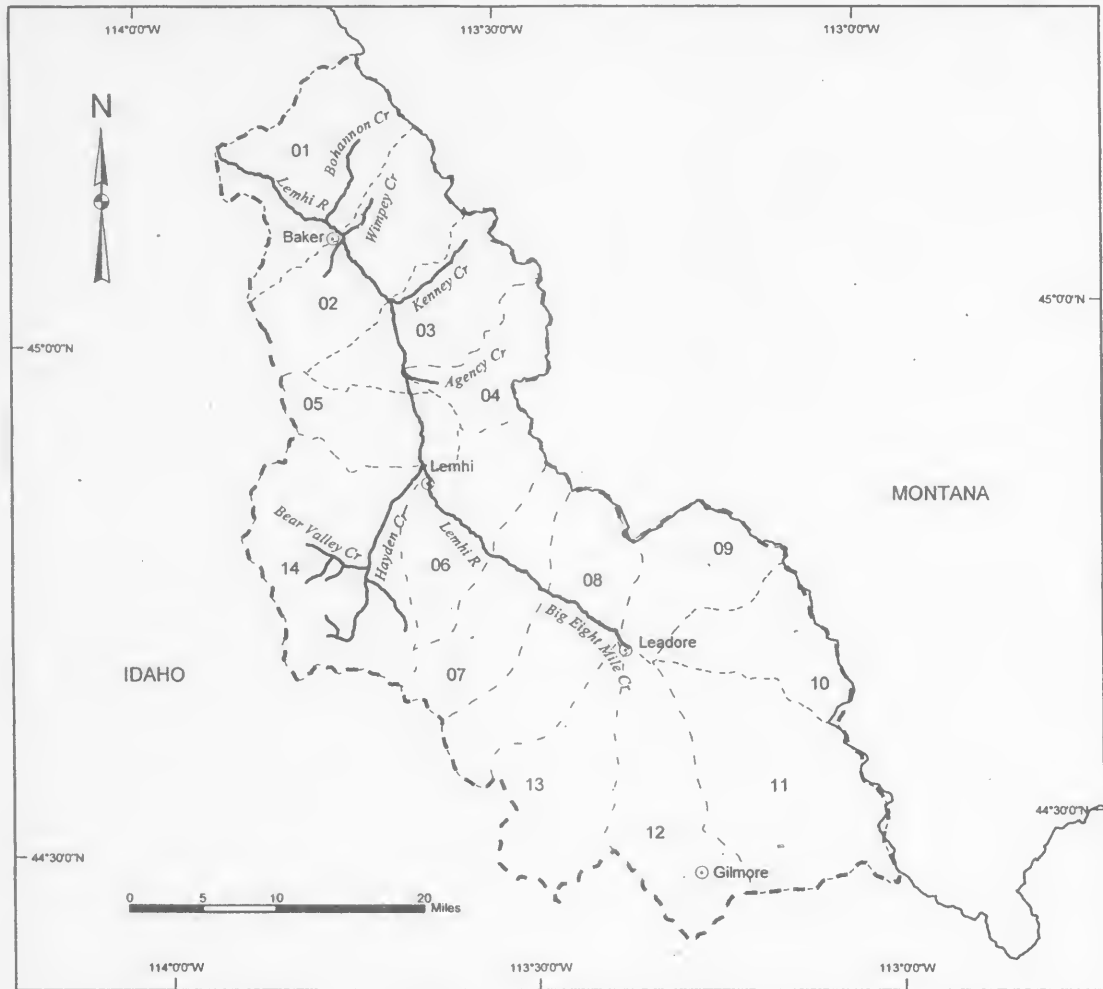
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 23 = Watershed code - last 2 digits of 17060203xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

**LEMHI SUBBASIN
17060204, Unit 12**



Legend

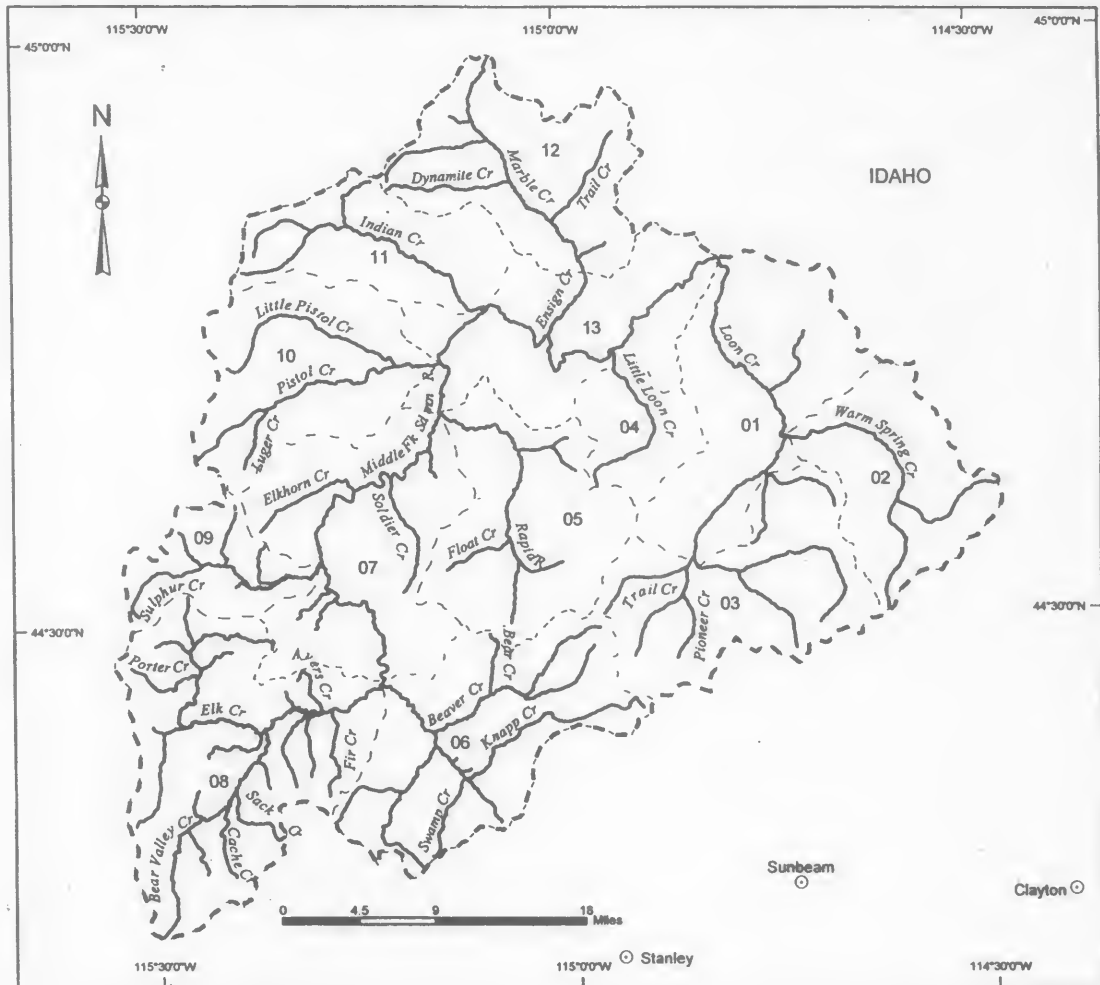
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 14 = Watershed code - last 2 digits of 17060204xx

Area of Detail

Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

UPPER MIDDLE FORK SALMON SUBBASIN 17060205, Unit 13



Legend

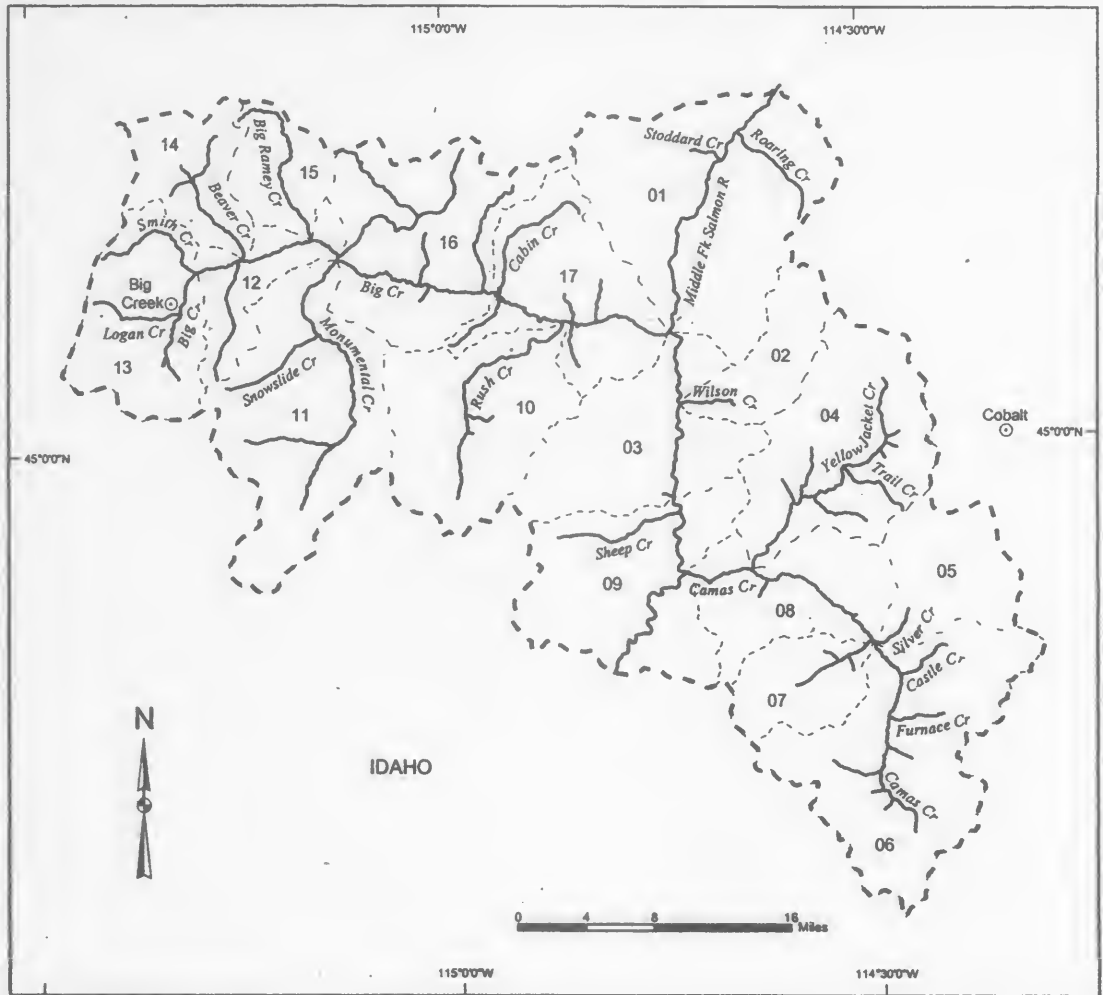
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17060205xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

LOWER MIDDLE FORK SALMON SUBBASIN 17060206, Unit 14



Legend

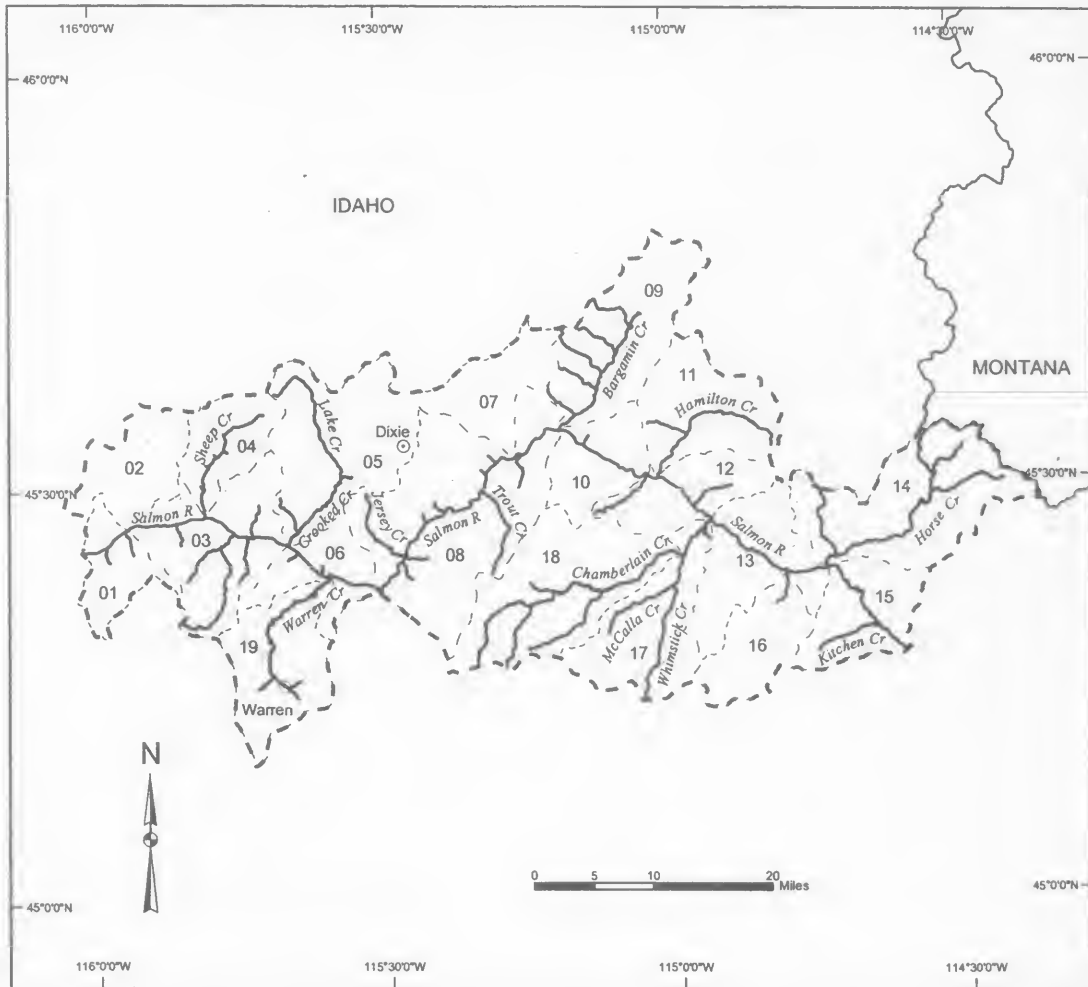
- ⊙ Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- - - - Watershed Boundaries

01 - 17 = Watershed code - last 2 digits of 17060206xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

**MIDDLE SALMON-CHAMBERLAIN SUBBASIN
17060207, Unit 15**



Legend

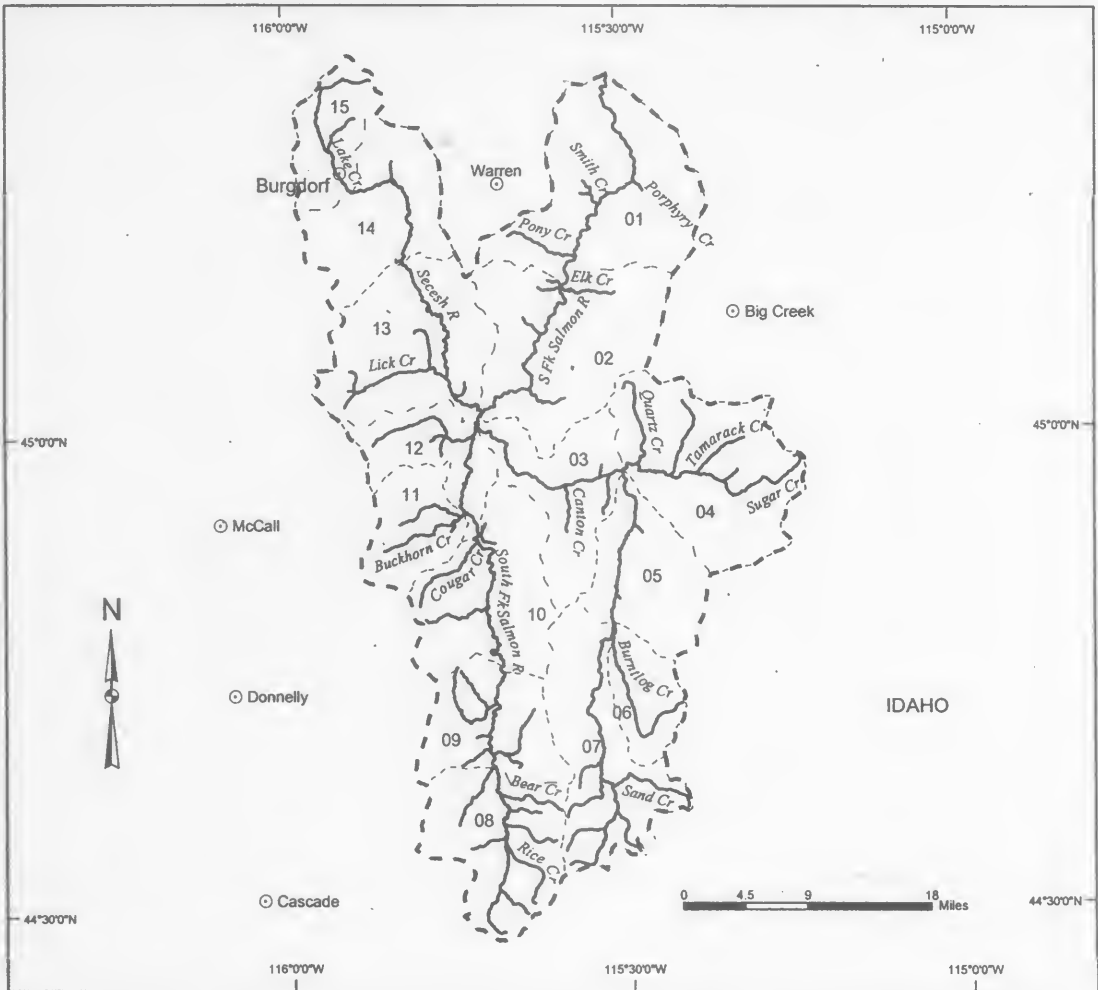
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 19 = Watershed code - last 2 digits of 17060207xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

SOUTH FORK SALMON SUBBASIN 17060208, Unit 16



Legend

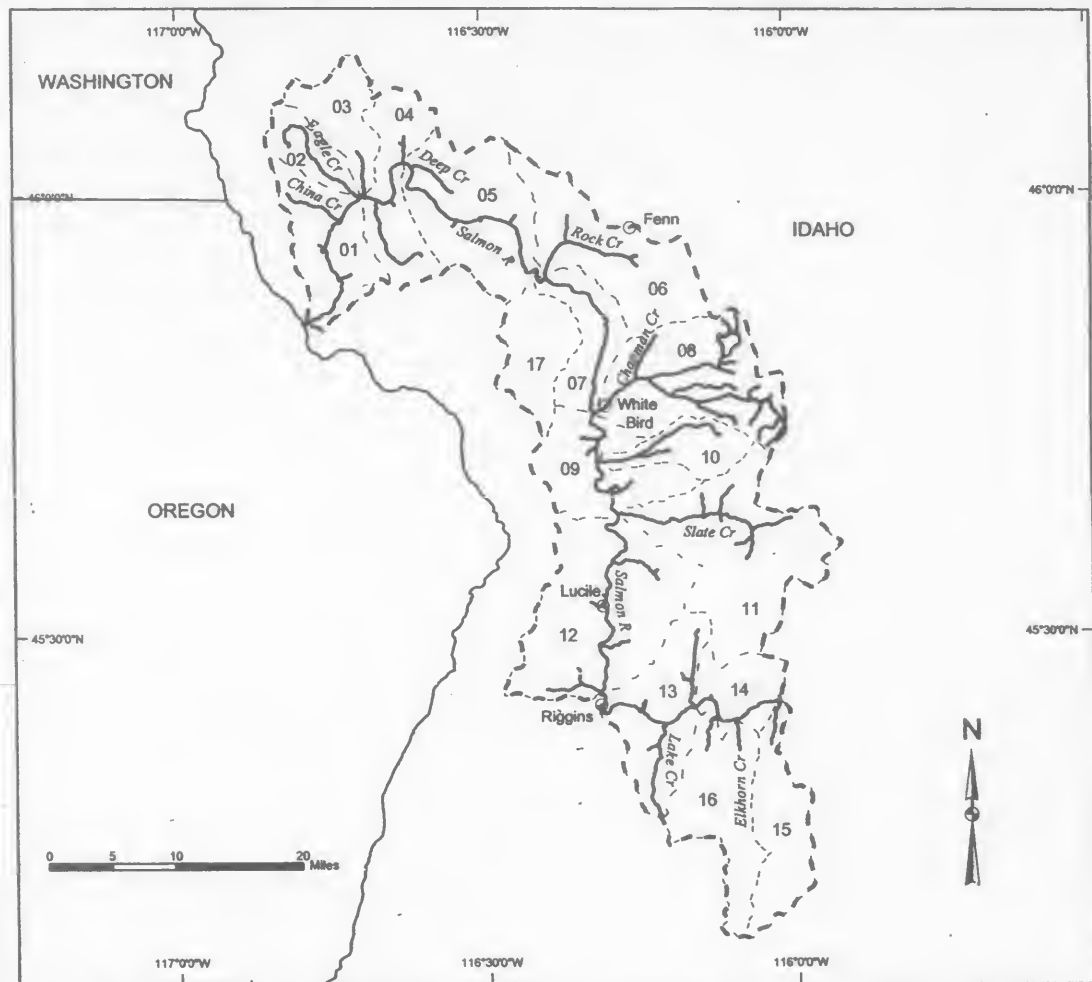
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 15 = Watershed code - last 2 digits of 17060208xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**LOWER SALMON SUBBASIN
17060209, Unit 17**



Legend

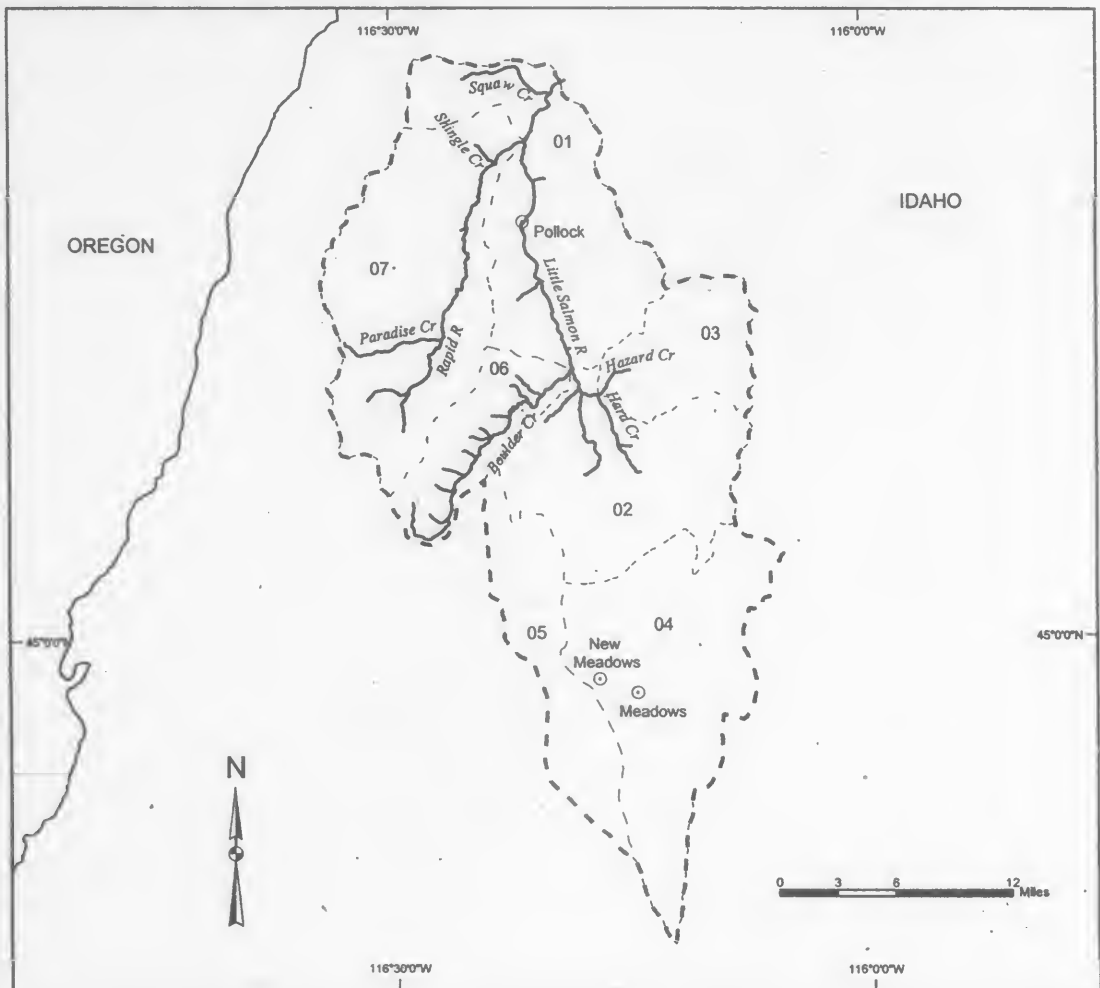
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 17 = Watershed code - last 2 digits of 17060209xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**LITTLE SALMON SUBBASIN
17060210, Unit 18**



Legend

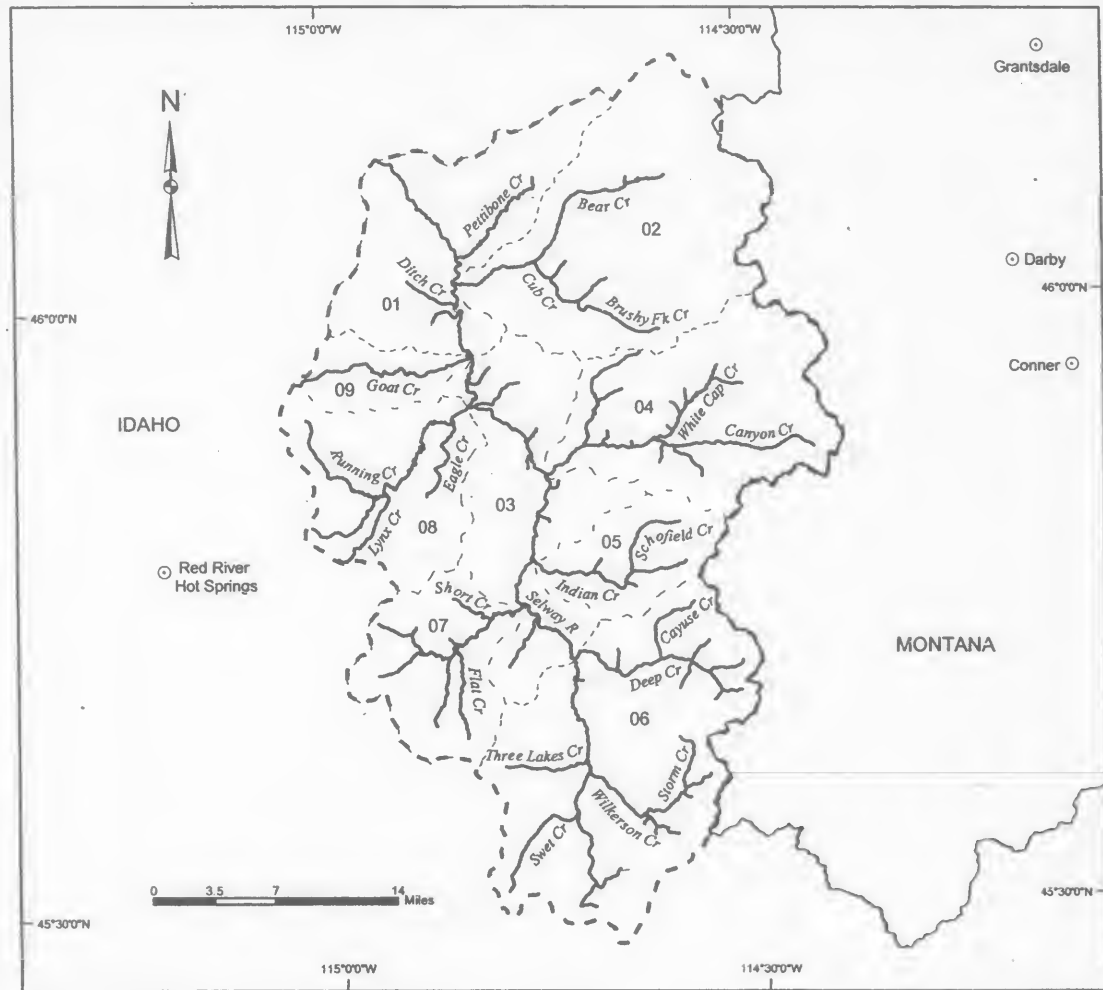
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17060210xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**UPPER SELWAY SUBBASIN
17060301, Unit 19**



Legend

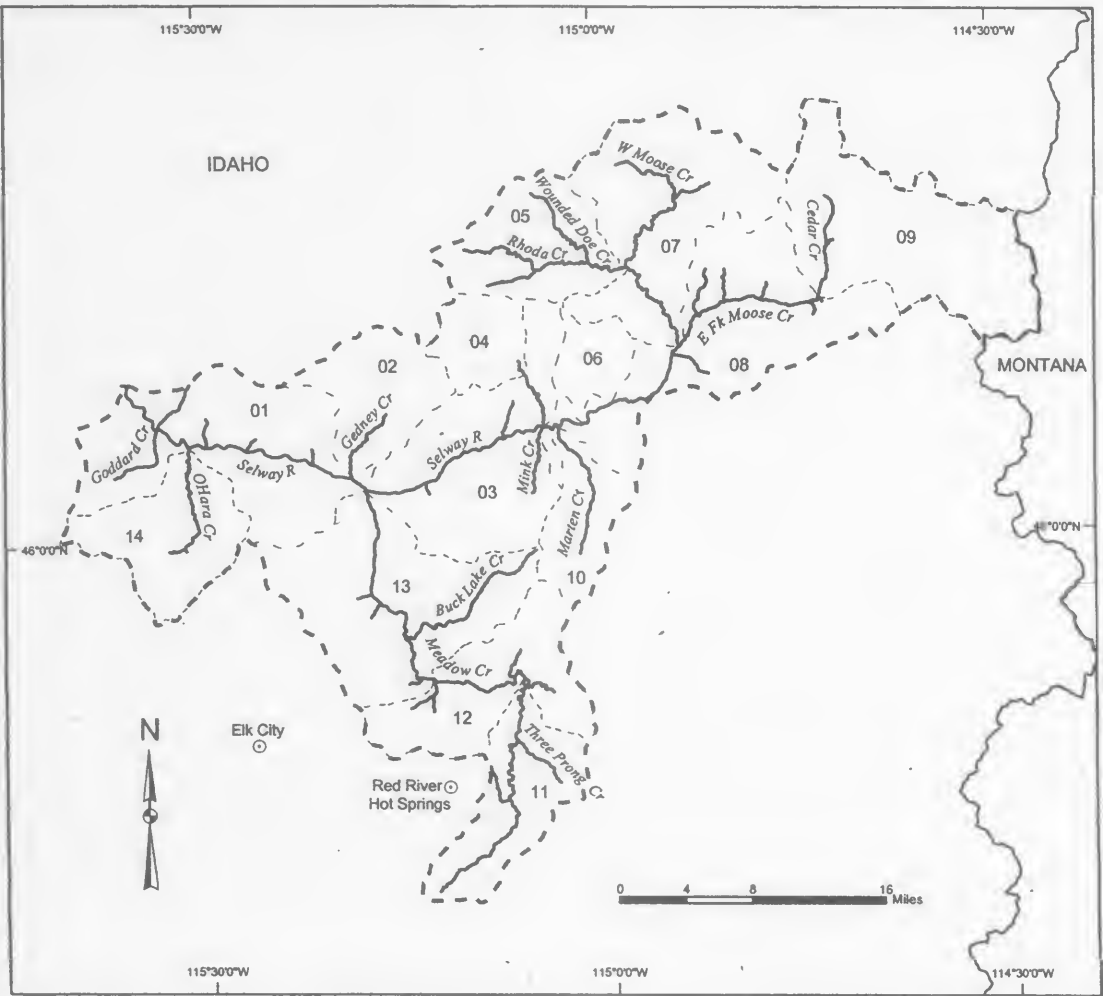
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 09 = Watershed code - last 2 digits of 17060301xx



Proposed Critical Habitat for the Snake River Basin O. mykiss ESU

LOWER SELWAY SUBBASIN 17060302, Unit 20



Legend

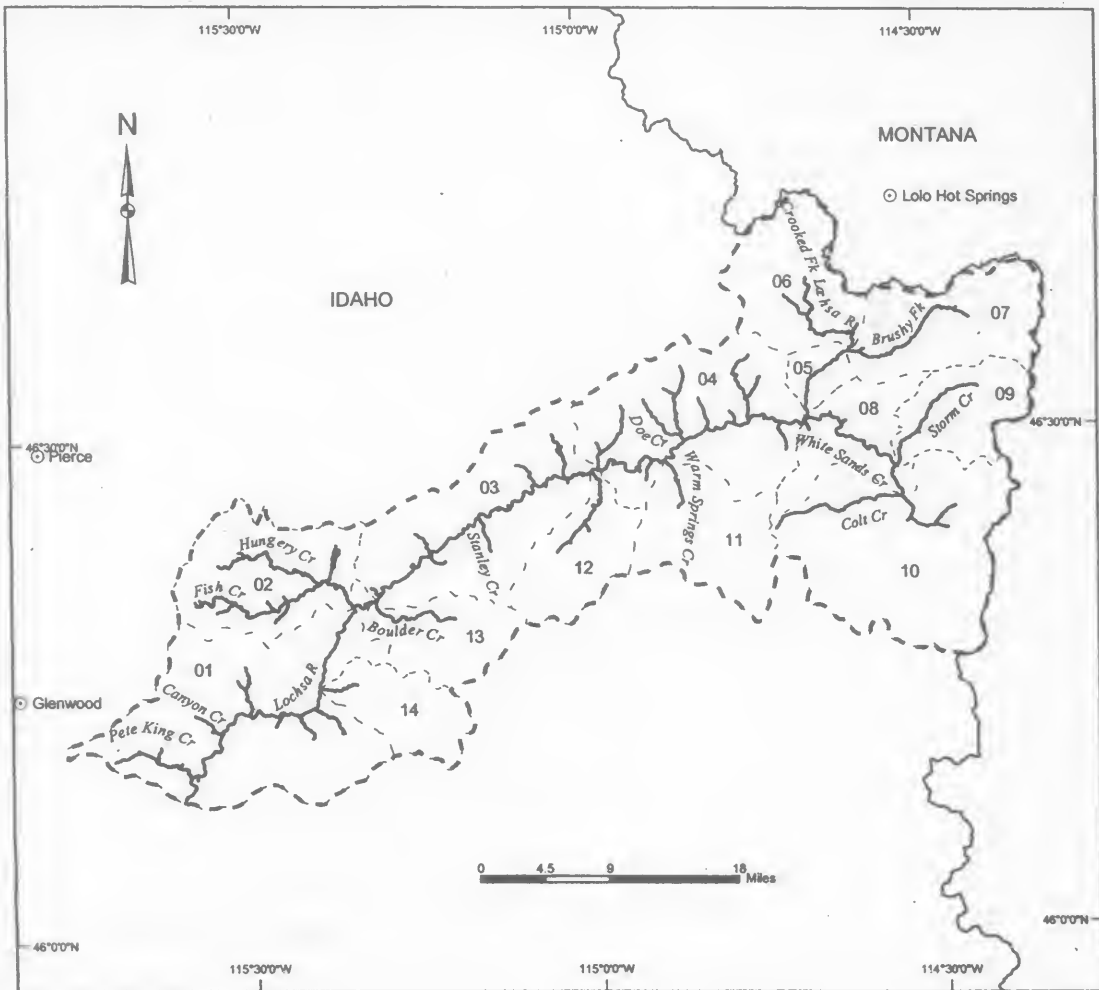
- Cities / Towns
- State Boundary
- Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 14 = Watershed code - last 2 digits of 17060302xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**LOCHSA SUBBASIN
17060303, Unit 21**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

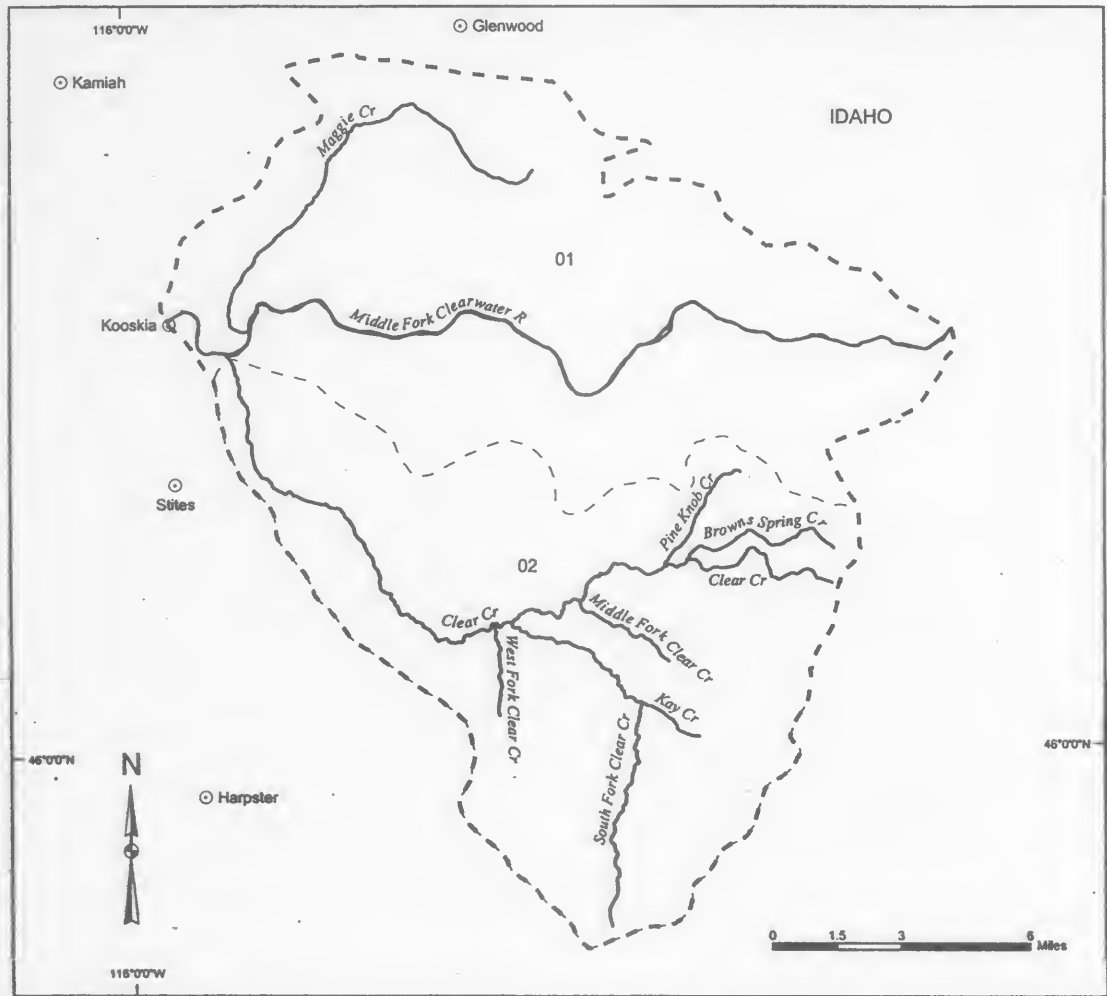
01 - 14 = Watershed code - last 2 digits of 17060303xx

Area of Detail



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**MIDDLE FORK CLEARWATER SUBBASIN
17060304, Unit 22**



Legend

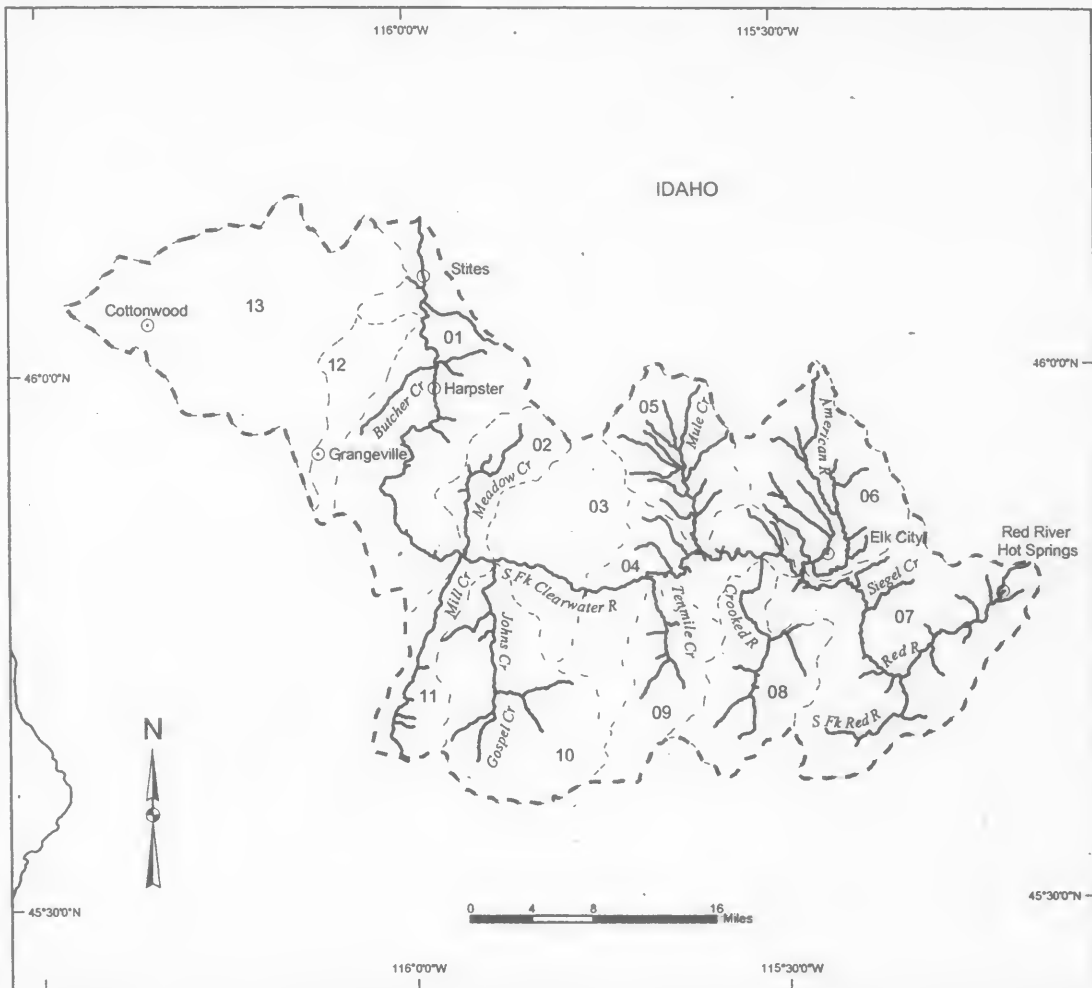
- citiesx020alb point selection
- Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 02 = Watershed code - last 2 digits of 17060304xx



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**SOUTH FORK CLEARWATER SUBBASIN
17060305, Unit 23**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

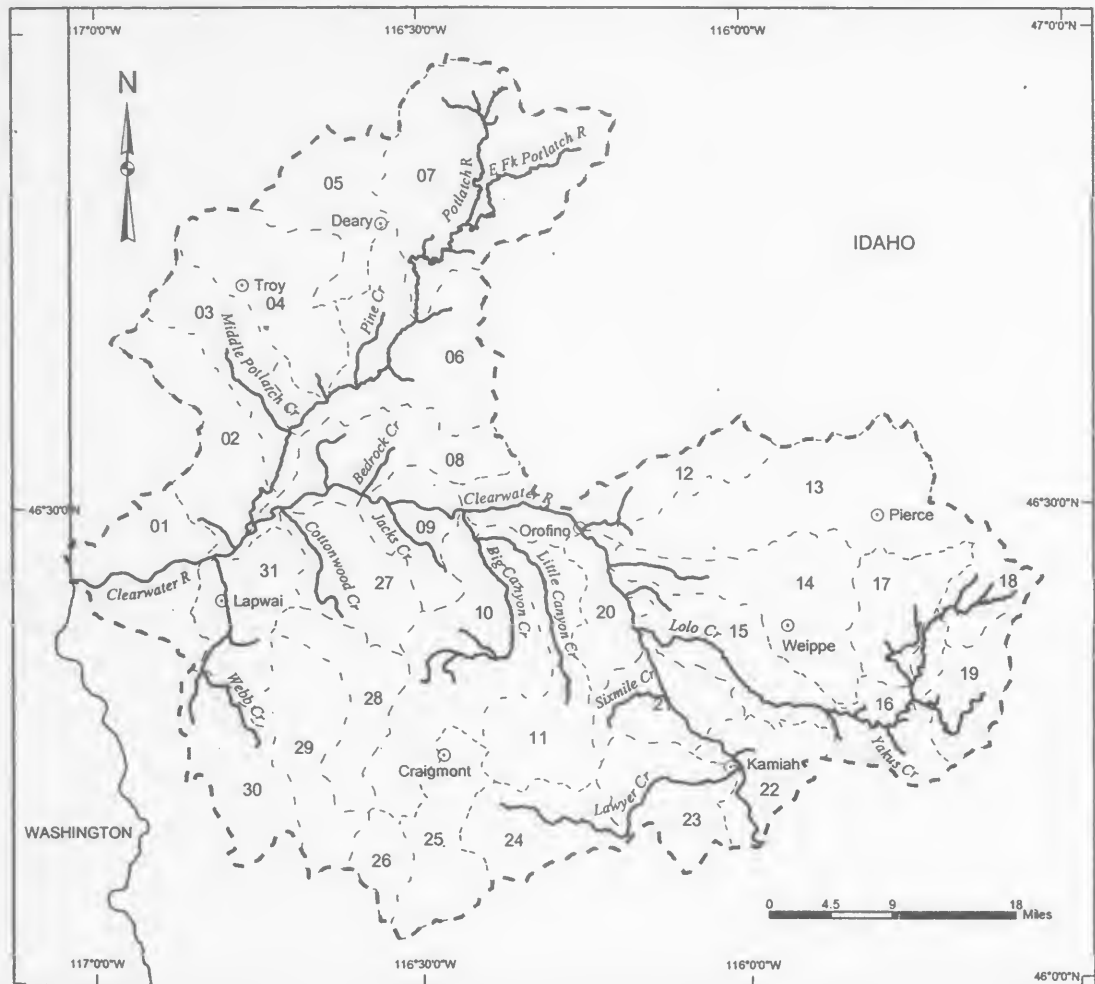
01 - 13 = Watershed code - last 2 digits of 17060305xx

Area of Detail



Proposed Critical Habitat for the Snake River Basin *O. mykiss* ESU

**CLEARWATER SUBBASIN
17060306, Unit 24**



Legend

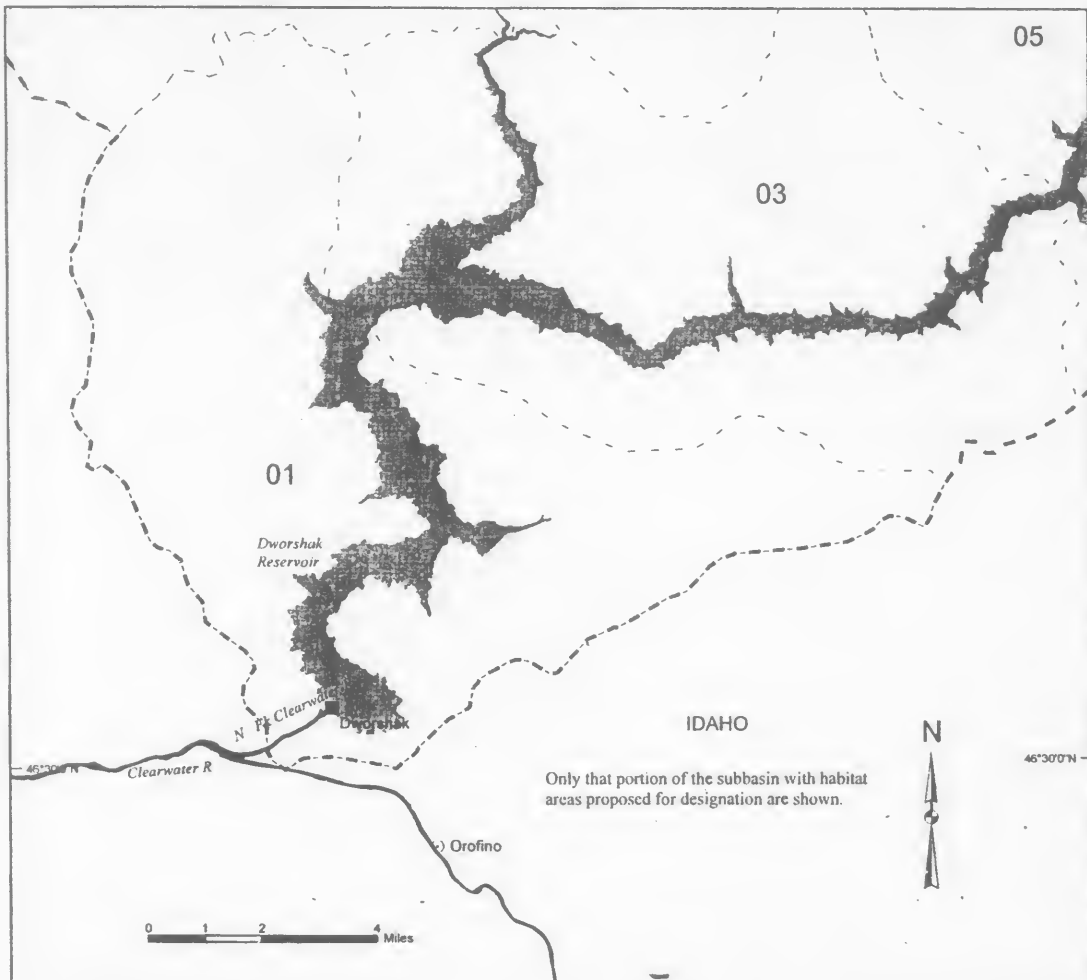
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 31 = Watershed code - last 2 digits of 17060306xx



Proposed Critical Habitat for the Snake River Basin Steelhead ESU

**LOWER NORTH FORK CLEARWATER SUBBASIN
17060308, Unit 25**



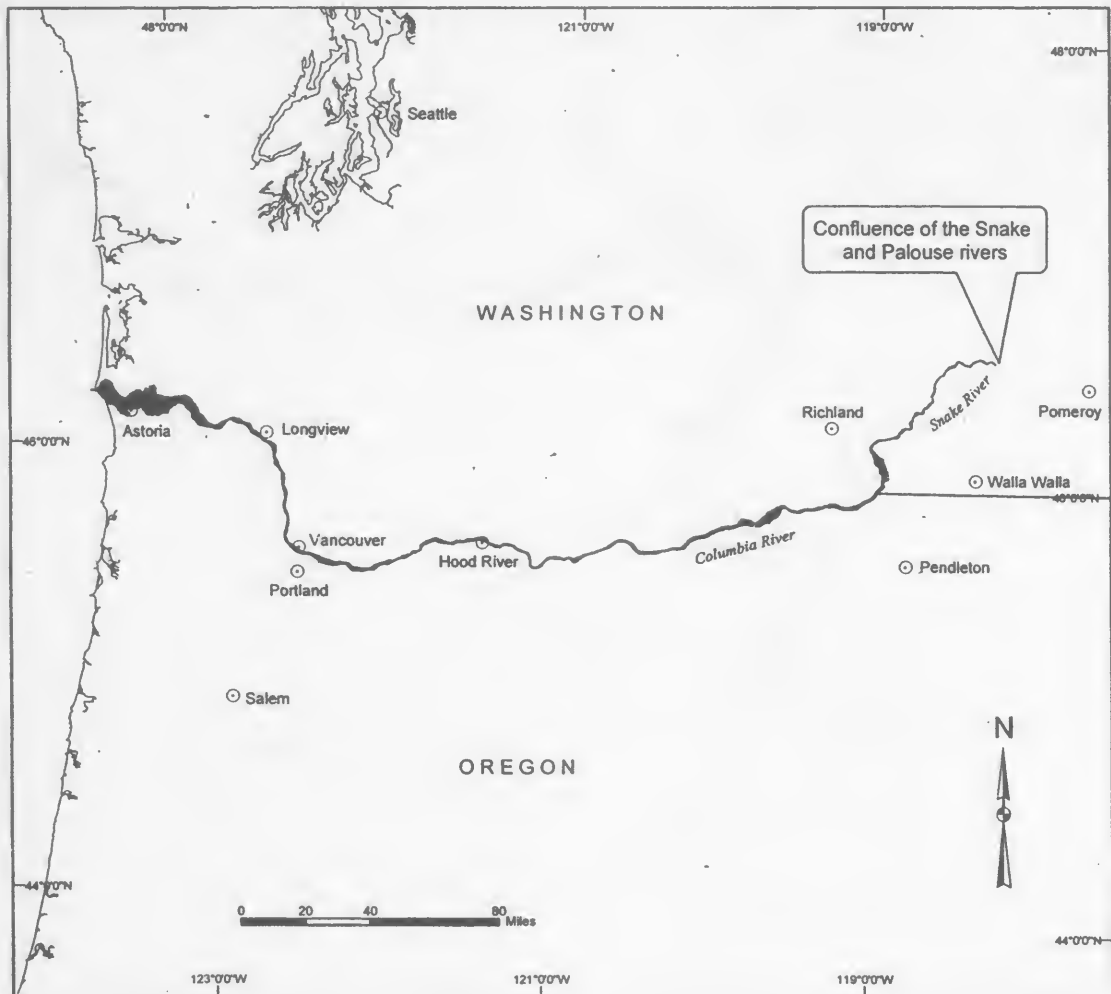
Legend

- Dams
- ⊙ Cities / Towns
- ~ Proposed Critical Habitat
- ☛ Water Bodies
- - - Subbasin Boundary
- - - Watershed Boundaries


01 - 12 = Watershed code - last 2 digits of 17060308xx



Rearing / Migration Corridor for the Snake River Basin *O. mykiss* ESU, Unit 26



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Snake River *O. mykiss* ESU

Unit 26. Lower Snake / Columbia River corridor
 The Lower Snake / Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to the confluence of the Snake and Palouse rivers.

(1) Unit 1. Upper Yakima Subbasin 17030001—*Upper Yakima River Watershed 1703000101*. Outlet(s) = Yakima River (Lat 47.1770, Long -120.9964) upstream to endpoint(s) in: Big Creek (47.1951, -121.1181); Cabin Creek (47.2140, -121.2400); Cle Elum River (47.2457, -121.0729); Kachess River (47.2645, -121.2062); Little Creek (47.2002, -121.0842); Peterson Creek (47.1765, -121.0592); Tucker Creek (47.2202, -121.1639); Yakima River (47.3219, -121.3371).

(ii) *Tenaway River Watershed 1703000102*. Outlet(s) = Yakima River (Lat 47.1673, Long -120.8338) upstream to endpoint(s) in: Bear Creek (47.3684, -120.7902); Dickey Creek (47.2880, -120.8322); Indian Creek (47.3216, -120.8145); Jack Creek (47.3414, -120.8130); Jungle Creek (47.3453, -120.8951); Mason Creek (47.2528, -120.7889); Middle Creek (47.2973, -120.8204); Middle Fork Teanaway River (47.3750, -120.9800); North Fork Teanaway River (47.3851, -120.8936); Tillman Creek (47.1698, -120.9798); Unnamed (47.2809, -120.8995); West Fork Teanaway River (47.3040, -121.0179); Yakima River (47.1770, -120.9964).

(iii) *Middle Upper Yakima River Watershed 1703000103*. Outlet(s) = Yakima River (Lat 46.8987, Long -120.5035) upstream to endpoint(s) in: Badger Creek (46.9305, -120.4805); Coleman Creek (46.9636, -120.4764); Cooke Creek (46.9738, -120.4381); Dry Creek (47.0366, -120.6122); Iron Creek (47.3495, -120.7032); Manastash Creek (46.9657, -120.7347); Naneum Creek (46.9561, -120.4987); North Fork Taneum Creek (47.1224, -121.0396); Reecer Creek (47.0066, -120.5817); South Fork Taneum Creek (47.0962, -120.9713); Swauk Creek (47.3274, -120.6586); Unnamed (46.9799, -120.5407); Unnamed (47.0000, -120.5524); Unnamed (47.0193, -120.5676); Williams Creek (47.2638, -120.6513); Wilson Creek (46.9931, -120.5497); Yakima River (47.1673, -120.8338).

(iv) *Umtanum/Wenas Watershed 1703000104*. Outlet(s) = Yakima River (Lat 46.6309, Long -120.5130) upstream to endpoint(s) in: Burbank Creek (46.7663, -120.4238); Lmuma Creek (46.8224, -120.4510); Umtanum Creek (46.8928, -120.6130); Wenas Creek (46.7087, -120.5179); Yakima River (46.8987, -120.5035).

(2) Unit 2. Naches Subbasin 17030002—(i) *Little Naches River Watershed 1703000201*. Outlet(s) = Little Naches River (Lat 46.9854, Long -121.0915) upstream to endpoint(s) in: American River (46.9008, -121.4194); Barton Creek (46.8645, -121.2869);

Bear Creek (47.0793, -121.2415); Blowout Creek (47.0946, -121.3046); Crow Creek (47.0147, -121.3241); Goat Creek (46.9193, -121.2269); Kettle Creek (46.9360, -121.3262); Mathew Creek (47.0829, -121.1944); Miner Creek (46.9542, -121.3074); Morse Creek (46.9053, -121.4131); North Fork Little Naches River (47.0958, -121.3141); Parker Creek (46.9589, -121.2900); Pinus Creek (46.9682, -121.2766); Quartz Creek (47.0382, -121.1128); Scab Creek (46.8969, -121.2459); South Fork Little Naches River (47.0574, -121.2760); Sunrise Creek (46.9041, -121.2448); Survey Creek (46.9435, -121.3296); Timber Creek (46.9113, -121.3822); Unnamed (46.8705, -121.2809); Unnamed (46.8741, -121.2956); Unnamed (46.8872, -121.2811); Unnamed (46.8911, -121.2816); Unnamed (46.9033, -121.4162); Unnamed (46.9128, -121.2286); Unnamed (46.9132, -121.4058); Unnamed (46.9158, -121.3710); Unnamed (46.9224, -121.2200); Unnamed (46.9283, -121.3484); Unnamed (46.9302, -121.2103); Unnamed (46.9339, -121.1970); Unnamed (46.9360, -121.3482); Unnamed (46.9384, -121.3200); Unnamed (46.9390, -121.1898); Unnamed (46.9396, -121.3404); Unnamed (46.9431, -121.3088); Unnamed (46.9507, -121.2894); Unnamed (47.0774, -121.3092); Wash Creek (46.9639, -121.2810).

(ii) *Naches River/Rattlesnake Creek Watershed 1703000202*. Outlet(s) = Naches River (Lat 46.7467, Long -120.7858) upstream to endpoint(s) in: Glass Creek (46.8697, -121.0974); Gold Creek (46.9219, -121.0464); Hindoo Creek (46.7862, -121.1689); Little Rattlesnake Creek (46.7550, -121.0543); Lost Creek (46.9200, -121.0568); Naches River (46.9854, -121.0915); North Fork Rattlesnake Creek (46.8340, -121.1439); Rattlesnake Creek (46.7316, -121.2339); Rock Creek (46.8847, -120.9718).

(iii) *Naches River/Tieton River Watershed 1703000203*. Outlet(s) = Naches River (Lat 46.6309, Long -120.5130) upstream to endpoint(s) in: Naches River (46.7467, -120.7858); Oak Creek (46.7295, -120.9348); South Fork Cowiche Creek (46.6595, -120.7601); Tieton River (46.6567, -121.1287); Unnamed (46.6446, -120.5923); Wildcat Creek (46.6715, -121.1520).

(3) Unit 3. Lower Yakima Subbasin 17030003—(i) *Ahtanum Creek Watershed 1703000301*. Outlet(s) = Ahtanum Creek (Lat 46.5283, Long -120.4732) upstream to endpoint(s) in:

Foundation Creek (46.5349, -121.0134); Middle Fork Ahtanum Creek (46.5075, -121.0225); Nasty Creek (46.5718, -120.9721); North Fork Ahtanum Creek (46.5217, -121.0917); South Fork Ahtanum Creek (46.4917, -120.9590); Unnamed (46.5811, -120.6390).

(ii) *Upper Lower Yakima River Watershed 1703000302*. Outlet(s) = Yakima River (Lat 46.5283, Long -120.4732) upstream to endpoint(s) in: Unnamed (46.5460, -120.4383); Yakima River (46.6309, -120.5130).

(iii) *Upper Toppenish Creek Watershed 1703000303*. Outlet(s) = Toppenish Creek (Lat 46.3767, Long -120.6172) upstream to endpoint(s) in: Agency Creek (46.3619, -120.9646); Branch Creek (46.2958, -120.9969); North Fork Simcoe Creek (46.4548, -120.9307); North Fork Toppenish Creek (46.3217, -120.9985); Old Maid Canyon (46.4210, -120.9349); South Fork Toppenish Creek (46.2422, -121.0885); Toppenish Creek (46.3180, -121.1387); Unnamed (46.3758, -120.9336); Unnamed (46.4555, -120.8436); Wahtum Creek (46.3942, -120.9146); Willy Dick Canyon (46.2952, -120.9021).

(iv) *Lower Toppenish Creek Watershed 1703000304*. Outlet(s) = Yakima River (Lat 46.3246, Long -120.1671) upstream to endpoint(s) in: Toppenish Creek (46.3767, -120.6172); Unnamed (46.3224, -120.4464); Unnamed (46.3363, -120.5891); Unnamed (46.3364, 120.2288); Unnamed (46.3679, -120.2801); Unnamed (46.4107, -120.5582); Unnamed (46.4379, -120.4258); Yakima River (46.5283, -120.4732).

(v) *Satus Creek Watershed 1703000305*. Outlet(s) = Satus Creek (Lat 46.2893, Long -120.1972) upstream to endpoint(s) in: Bull Creek (46.0314, -120.5147); Kusshi Creek (46.0994, -120.6094); Logy Creek (46.1357, -120.6389); Mule Dry Creek (46.0959, -120.3186); North Fork Dry Creek (46.1779, -120.7669); Satus Creek (46.0185, -120.7268); Unnamed (46.0883, -120.5278); Wilson Charley Canyon (46.0419, -120.6479).

(vi) *Yakima River/Spring Creek Watershed 1703000306*. Outlet(s) = Yakima River (Lat 46.3361, Long -119.4817) upstream to endpoint(s) in: Corral Creek (46.2971, -119.5302); Satus Creek (46.2893, -120.1972); Snipes Creek (46.2785, -119.6772); Spring Creek (46.2359, -119.6952); Unnamed (46.2169, -120.0189); Unnamed (46.2426, -120.0993); Unnamed (46.2598, -120.1322); Unnamed (46.2780, -120.0186); Unnamed (46.2913, -120.0181); Unnamed (46.3314, -119.9787);

Unnamed (46.3319, -119.9794); Yakima River (46.3246, -120.1671).

(vii) *Yakima River/Cold Creek Watershed 1703000307*. Outlet(s) = Yakima River (Lat 46.2534, Long -119.2268) upstream to endpoint(s) in: Yakima River (46.3361, -119.4817).

(4) Unit 4. Middle Columbia/Lake Wallula Subbasin 17070101—(i) *Upper Lake Wallula Watershed 1707010101*. Outlet(s) = Columbia River (Lat 46.0594, Long -118.9445) upstream to endpoint(s) in: Columbia River (46.1776, -119.0183).

(ii) *Lower Lake Wallula Watershed 1707010102*. Outlet(s) = Columbia River (Lat 45.9376, Long -119.2969) upstream to endpoint(s) in: Columbia River (46.0594, -118.9445).

(iii) *Glade Creek Watershed 1707010105*. Outlet(s) = Glade Creek (Lat 45.8895, Long -119.6809) upstream to endpoint(s) in: Glade Creek (45.8978, -119.6962).

(iv) *Upper Lake Umatilla Watershed 1707010106*. Outlet(s) = Columbia River (Lat 45.8895, Long -119.6809) upstream to endpoint(s) in: Columbia River (45.9376, -119.2969).

(v) *Middle Lake Umatilla Watershed 1707010109*. Outlet(s) = Columbia River (Lat 45.8318, Long -119.9069) upstream to endpoint(s) in: Columbia River (45.8895, -119.6809).

(vi) *Alder Creek Watershed 1707010110*. Outlet(s) = Alder Creek (Lat 45.8298, Long -119.9277) upstream to endpoint(s) in: Alder Creek (45.8668, -119.9224).

(vii) *Pine Creek Watershed 1707010111*. Outlet(s) = Pine Creek (Lat 45.7843, Long -120.0823) upstream to endpoint(s) in: Pine Creek (45.8234, -120.1396).

(viii) *Wood Gulch Watershed 1707010112*. Outlet(s) = Wood Creek (Lat 45.7443, Long -120.1930) upstream to endpoint(s) in: Big Horn Canyon (45.8322, -120.2467); Wood Gulch (45.8386, -120.3006).

(ix) *Rock Creek Watershed 1707010113*. Outlet(s) = Rock Creek (Lat 45.6995, Long -120.4597) upstream to endpoint(s) in: Rock Creek (45.8835, -120.5557); Squaw Creek (45.8399, -120.4935).

(x) *Lower Lake Umatilla Watershed 1707010114*. Outlet(s) = Columbia River (Lat 45.7168, Long -120.6927) upstream to endpoint(s) in: Chapman Creek (45.7293, -120.3148); Columbia River (45.8318, -119.9069).

(5) Unit 5. Walla Walla Subbasin 17070102—(i) *Upper Walla Walla River Watershed 1707010201*. Outlet(s) = Walla Walla River (Lat 45.9104, Long -118.3696) upstream to endpoint(s) in: Bear Creek (45.8528, -118.0991); Big Meadow Canyon (45.900, -118.1116);

Burnt Cabin Gulch (45.8056, -118.0593); Couse Creek (45.8035, -118.2032); Elbow Creek (45.7999, -118.1462); Kees Canyon (45.8262, -118.0927); Little Meadow Canyon (45.9094, -118.1333); North Fork Walla Walla River (45.9342, -118.0169); Reser Creek (45.8840, -117.9950); Rodgers Gulch (45.8513, -118.0839); Skiphorton Creek (45.8892, -118.0255); South Fork Walla Walla River (45.9512, -117.9647); Swede Canyon (45.8506, -118.0640); Table Creek (45.8540, -118.0546); Unnamed (45.8026, -118.1412); Unnamed (45.8547, -117.9915); Unnamed (45.8787, -118.0387); Unnamed (45.8868, -117.9629); Unnamed (45.9095, -117.9621).

(ii) *Mill Creek Watershed 1707010202*. Outlet(s) = Mill Creek (Lat 46.0391, Long -118.4779) upstream to endpoint(s) in: Blue Creek (46.0188, -118.0519); Broken Creek (45.9745, -117.9899); Cold Creek (46.0540, -118.4097); Deadman Creek (46.0421, -117.9503); Doan Creek (46.0437, -118.4353); Green Fork (46.0298, -117.9389); Henry Canyon (45.9554, -118.1104); Low Creek (45.9649, -117.9980); Mill Creek (46.0112, -117.9406); North Fork Mill Creek (46.0322, -117.9937); Paradise Creek (46.0005, -117.9900); Tiger Creek (45.9588, -118.0253); Unnamed (46.0253, -117.9320); Unnamed (46.0383, -117.9463); Webb Creek (45.9800, -118.0875).

(iii) *Upper Touchet River Watershed 1707010203*. Outlet(s) = Touchet River (Lat 46.3196, Long -117.9841) upstream to endpoint(s) in: Burnt Fork (46.0838, -117.9311); Coates Creek (46.1585, -117.8431); Green Fork (46.0737, -117.9712); Griffin Fork (46.1100, -117.9336); Ireland Gulch (46.1894, -117.8070); Jim Creek (46.2156, -117.7959); Lewis Creek (46.1855, -117.7791); North Fork Touchet River (46.0938, -117.8460); North Patit Creek (46.3418, -117.7538); Robinson Fork (46.1200, -117.9006); Rodgers Gulch (46.2813, -117.8411); Spangler Creek (46.1156, -117.7934); Unnamed (46.1049, -117.9351); Unnamed (46.1061, -117.9544); Unnamed (46.1206, -117.9386); Unnamed (46.1334, -117.9512); Unnamed (46.1604, -117.9018); Unnamed (46.2900, -117.7339); Weidman Gulch (46.2359, -117.8067); West Patit Creek (46.2940, -117.7164); Whitney Creek (46.1348, -117.8491); Wolf Fork (46.1035, -117.8797).

(iv) *Middle Touchet River Watershed 1707010204*. Outlet(s) = Touchet River (Lat 46.2952, Long -118.3320) upstream to endpoint(s) in: North Fork Coppei Creek (46.1384, -118.0181);

South Fork Coppei Creek (46.1302, -118.0608); Touchet River (46.3196, -117.9841); Whisky Creek (46.2438, -118.0785).

(v) *Lower Touchet River Watershed 1707010207*. Outlet(s) = Touchet River (Lat 46.0340, Long -118.6828) upstream to endpoint(s) in: Touchet River (46.2952, -118.3320).

(vi) *Cottonwood Creek Watershed 1707010208*. Outlet(s) = Walla Walla River (Lat 46.0391, Long -118.4779) upstream to endpoint(s) in: Birch Creek (45.9489, -118.2541); Caldwell Creek (46.0493, -118.3022); East Little Walla Walla River (46.0009, -118.4069); Garrison Creek (46.0753, -118.2726); Middle Fork Cottonwood Creek (45.9566, -118.1776); North Fork Cottonwood Creek (45.9738, -118.1533); Reser Creek (46.0370, -118.3085); Russell Creek (46.0424, -118.2488); South Fork Cottonwood Creek (45.9252, -118.1798); Stone Creek (46.0618, -118.3081); Unnamed (45.9525, -118.2513); Unnamed (46.0022, -118.4070); Walla Walla River (45.9104, -118.3696); Yellowhawk Creek (46.0753, -118.2726).

(vii) *Dry Creek Watershed 1707010210*. Outlet(s) = Dry Creek (Lat 46.0507, Long -118.5932) upstream to endpoint(s) in: Dry Creek (46.0725, -118.0268); Mud Creek (46.1414, -118.1313); South Fork Dry Creek (46.0751, -118.0514); Unnamed (46.1122, -118.1141).

(viii) *Lower Walla Walla River Watershed 1707010211*. Outlet(s) = Walla Walla River (Lat 46.0594, Long -118.9445) upstream to endpoint(s) in: Walla Walla River (46.0391, -118.4779); West Little Walla Walla River (46.0010, -118.4380).

(6) Unit 6. Umatilla Subbasin 17070103—(i) *Upper Umatilla River Watershed 1707010301*. Outlet(s) = Umatilla River (Lat 45.7024, Long -118.3593) upstream to endpoint(s) in: Bear Creek (45.7595, -118.1942); Bobsled Creek (45.7268, -118.2503); Buck Creek (45.7081, -118.1059); East Fork Coyote Creek (45.7553, -118.1263); Johnson Creek #4 (45.7239, -118.0797); Lake Creek #2 (45.7040, -118.1297); Lick Creek (45.7400, -118.1880); North Fork Umatilla River (45.7193, -118.0244); Rock Creek (45.7629, -118.2377); Ryan Creek (45.6362, -118.2963); Shimmiehorn Creek (45.6184, -118.1908); South Fork Umatilla River (45.6292, -118.2424); Spring Creek #2 (45.6288, -118.1525); Swamp Creek (45.6978, -118.1356); Thomas Creek (45.6546, -118.1435); Unnamed (45.6548, -118.1371); Unnamed (45.6737, -118.1616); Unnamed (45.6938, -118.3036);

Unnamed (45.7060, -118.2123); Unnamed (45.7200, -118.3092); Unnamed (45.7241, -118.3197); Unnamed (45.7281, -118.1604); Unnamed (45.7282, -118.3372); Unnamed (45.7419, -118.1586); West Fork Coyote Creek (45.7713, -118.1513); Woodward Creek (45.7484, -118.0760).

(ii) *Meacham Creek Watershed 1707010302*. Outlet(s) = Meacham Creek (Lat 45.7024, Long -118.3593) upstream to endpoint(s) in: Bear Creek #3 (45.4882, -118.1993); Beaver Creek (45.4940, -118.4411); Boston Canyon (45.6594, -118.3344); Butcher Creek (45.4558, -118.3737); Camp Creek (45.5895, -118.2800); Duncan Canyon (45.5674, -118.3244); East Meacham Creek (45.4570, -118.2212); Hoskins Creek (45.5188, -118.2059); Line Creek (45.6303, -118.3291); Meacham Creek (45.4364, -118.3963); North Fork Meacham Creek (45.5767, -118.1721); Owsley Creek (45.4349, -118.2434); Pot Creek (45.5036, -118.1438); Sheep Creek (45.5121, -118.3945); Twomile Creek (45.5085, -118.4579); Unnamed (45.4540, -118.2192); Unnamed (45.5585, -118.2064); Unnamed (45.6019, -118.2971); Unnamed (45.6774, -118.3415).

(iii) *Umatilla River/Mission Creek Watershed 1707010303*. Outlet(s) = Umatilla River (Lat 45.6559, Long -118.8804) upstream to endpoint(s) in: Bachelor Canyon (45.6368, -118.3890); Buckaroo Creek (45.6062, -118.5000); Coonskin Creek (45.6556, -118.5239); Cottonwood Creek (45.6122, -118.5704); Little Squaw Creek (45.5969, -118.4095); Mission Creek (45.6256, -118.6133); Moonshine Creek (45.6166, -118.5392); Patawa Creek (45.6424, -118.7125); Red Elk Canyon (45.6773, -118.4431); Saddle Hollow (45.7067, -118.3968); South Patawa Creek (45.6250, -118.6919); Squaw Creek (45.5584, -118.4389); Stage Gulch (45.6533, -118.4481); Thorn Hollow Creek (45.6957, -118.4530); Umatilla River (45.7024, -118.3593); Unnamed (45.5649, -118.4221); Unnamed (45.6092, -118.7603); Unnamed (45.6100, -118.4046); Unnamed (45.6571, -118.7473); Unnamed (45.6599, -118.4641); Unnamed (45.6599, -118.4711); Unnamed (45.6676, -118.6176); Unnamed (45.6688, -118.5575); Unnamed (45.6745, -118.5859).

(iv) *McKay Creek Watershed 1707010305*. Outlet(s) = McKay Creek (Lat 45.6685, Long -118.8400) upstream to endpoint(s) in: McKay Creek (45.6077, -118.7917).

(v) *Birch Creek Watershed 1707010306*. Outlet(s) = Birch Creek (Lat 45.6559, Long -118.8804)

upstream to endpoint(s) in: Bear Creek (45.2730, -118.8939); Bridge Creek (45.3603, -118.9039); California Gulch (45.3950, -118.8149); Dark Canyon (45.3119, -118.7572); East Birch Creek (45.3676, -118.6085); Johnson Creek #2 (45.3931, -118.7518); Little Pearson Creek (45.3852, -118.7415); Merle Gulch (45.3450, -118.8136); Owings Creek (45.3864, -118.9600); Pearson Creek (45.2901, -118.7985); South Canyon #2 (45.3444, -118.6949); Unnamed (45.2703, -118.7624); Unnamed (45.3016, -118.7705); Unnamed (45.3232, -118.7264); Unnamed (45.3470, -118.7984); Unnamed (45.3476, -118.6703); Unnamed (45.3511, -118.6328); Unnamed (45.4628, -118.7491); West Birch Creek (45.2973, -118.8341); Willow Spring Canyon (45.3426, -118.9833).

(vi) *Umatilla River/Alkali Canyon Watershed 1707010307*. Outlet(s) = Umatilla River (Lat 45.7831, Long -119.2372) upstream to endpoint(s) in: Umatilla River (45.6559, -118.8804).

(vii) *Stage Gulch Watershed 1707010308*. Outlet(s) = Stanfield Drain (Lat 45.7831, Long -119.2372) upstream to endpoint(s) in: Stage Gulch (45.7991, -119.1333).

(viii) *Lower Butter Creek Watershed 1707010310*. Outlet(s) = Butter Creek (Lat 45.7952, Long -119.3285) upstream to endpoint(s) in: Butter Creek (45.7148, -119.3741).

(ix) *Lower Umatilla River Watershed 1707010313*. Outlet(s) = Umatilla River (Lat 45.9247, Long -119.3575) upstream to endpoint(s) in: Umatilla River (45.7831, -119.2372); Unnamed (45.8202, -119.3305).

(7) Unit 7. Middle Columbia/Hood Subbasin 17070105—(i) *Upper Middle Columbia/Hood Watershed 1707010501*. Outlet(s) = Columbia River (Lat 45.6426, Long -120.9142) upstream to endpoint(s) in: Columbia River (45.7168, -120.6927); Frank Fulton Canyon (45.6244, -120.8258); Spanish Hollow Creek (45.6469, -120.8069); Unnamed (45.6404, -120.8654).

(ii) *Fifteenmile Creek Watershed 1707010502*. Outlet(s) = Fifteenmile Creek (Lat 45.6197, Long -121.1265) upstream to endpoint(s) in: Cedar Creek (45.3713, -121.4153); Dry Creek (45.4918, -121.0479); Fifteenmile Creek (45.3658, -121.4390); Ramsey Creek (45.3979, -121.4454); Unnamed (45.3768, -121.4410).

(iii) *Fivemile Creek Watershed 1707010503*. Outlet(s) = Eightmile Creek (Lat 45.6064, Long -121.0854) upstream to endpoint(s) in: Eightmile Creek (45.3944, -121.4983); Middle Fork Fivemile Creek (45.4502,

-121.4324); South Fork Fivemile Creek (45.4622, -121.3641).

(iv) *Middle Columbia/Mill Creek Watershed 1707010504*. Outlet(s) = Columbia River (Lat 45.6920, Long -121.2937) upstream to endpoint(s) in: Brown Creek (45.5911, -121.2729); Chenoweth Creek (45.6119, -121.2658); Columbia River (45.6426, -120.9142); North Fork Mill Creek (45.4999, -121.4537); South Fork Mill Creek (45.5187, -121.3367); Threemile Creek (45.5598, -121.1747).

(v) *Mosier Creek Watershed 1707010505*. Outlet(s) = Mosier Creek (Lat 45.6950, Long -121.3996) upstream to endpoint(s) in: Mosier Creek (45.6826, -121.3896); Rock Creek (45.6649, -121.4352).

(vi) *White Salmon River Watershed 1707010509*. Outlet(s) = White Salmon River (Lat 45.7267, Long -121.5209) upstream to endpoint(s) in: Unnamed (45.7395, -121.5500); White Salmon River (45.7676, -121.5374).

(vii) *Middle Columbia/Grays Creek Watershed 1707010512*. Outlet(s) = Columbia River (Lat 45.7070, Long -121.7943) upstream to endpoint(s) in: Catherine Creek (45.7448, -121.4206); Columbia River (45.6920, -121.2937); Dog Creek (45.7200, -121.6804); East Fork Major Creek (45.8005, -121.3449); Hanson Creek (45.7472, -121.3143); Jewett Creek (45.7524, -121.4704); Rowena Creek (45.6940, -121.3122); Unnamed (45.7238, -121.7227); Unnamed (45.7248, -121.7322); Unnamed (45.7303, -121.3095); Unnamed (45.7316, -121.3094); Unnamed (45.7445, -121.3309); Unnamed (45.7486, -121.3203); Unnamed (45.7530, -121.4697); Unnamed (45.7632, -121.4795); Unnamed (45.7954, -121.3863); Unnamed (45.8003, -121.4062); West Fork Major Creek (45.8117, -121.3929).

(8) Unit 8. Klickitat Subbasin 17070106—(i) *Upper Klickitat River Watershed 1707010601*. Outlet(s) = Klickitat River (Lat 46.1263, Long -121.2881) upstream to endpoint(s) in: Cedar Creek (46.2122, -121.2042); Coyote Creek (46.4640, -121.1839); Cuitin Creek (46.4602, -121.1662); Diamond Fork (46.4794, -121.2284); Huckleberry Creek (46.4273, -121.3720); Klickitat River (46.4439, -121.3756); McCreedy Creek (46.3319, -121.2529); Piscoe Creek (46.3708, -121.1436); Surveyors Creek (46.2181, -121.1838); Unnamed (46.4476, -121.2575); Unnamed (46.4585, -121.2565); West Fork Klickitat River (46.2757, -121.3267).

(ii) *Middle Klickitat River Watershed 1707010602*. Outlet(s) = Klickitat River (Lat 45.9858, Long -121.1233) upstream to endpoint(s) in: Bear Creek

(46.0770, -121.2262); Klickitat River (46.1263, -121.2881); Outlet Creek (46.0178, -121.1740); Summit Creek (46.0035, -121.0918); Trout Creek (46.1166, -121.1968); White Creek (46.1084, -121.0730).

(iii) *Little Klickitat River Watershed 1707010603*. Outlet(s) = Little Klickitat River (Lat 45.8452, Long -121.0625) upstream to endpoint(s) in: Blockhouse Creek (45.8188, -120.9813); Butler Creek (45.9287, -120.7005); Canyon Creek (45.8833, -121.0504); East Prong Little Klickitat River (45.9279, -120.6832); Mill Creek (45.8374, -121.0001); Unnamed (45.8162, -120.9288); West Prong Little Klickitat River (45.9251, -120.7202).

(iv) *Lower Klickitat River Watershed 1707010604*. Outlet(s) = Klickitat River (Lat 45.6920, Long -121.2937) upstream to endpoint(s) in: Dead Canyon (45.9473, -121.1734); Dillacort Canyon (45.7349, -121.1904); Klickitat River (45.9858, -121.1233); Logging Camp Canyon (45.7872, -121.2260); Snyder Canyon (45.8431, -121.2152); Swale Creek (45.7236, -121.0315); Wheeler Canyon (45.7946, -121.1615).

(9) Unit 9. Upper John Day Subbasin 17070201—(i) *Middle South Fork John Day Watershed 1707020103*. Outlet(s) = South Fork John Day River (Lat 44.1918, Long -119.5261) upstream to endpoint(s) in: Blue Creek (44.2183, -119.3679); Corral Creek (44.1688, -119.3573); North Fork Deer Creek (44.2034, -119.3009); South Fork Deer Creek (44.1550, -119.3457); South Fork John Day River (44.1822, -119.5243).

(ii) *Murderers Creek Watershed 1707020104*. Outlet(s) = Murderers Creek (Lat 44.3146, Long -119.5383) upstream to endpoint(s) in: Bark Cabin Creek (44.2481, -119.3967); Basin Creek (44.2700, -119.1711); Cabin Creek (44.3420, -119.4403); Charlie Mack Creek (44.2708, -119.2344); Crazy Creek (44.2421, -119.4282); Dans Creek (44.2500, -119.2774); Duncan Creek (44.3219, -119.3555); Lemon Creek (44.2528, -119.2500); Miner Creek (44.3237, -119.2416); Orange Creek (44.2524, -119.2613); Oregon Mine Creek (44.2816, -119.2945); South Fork Murderers Creek (44.2318, -119.3221); Sugar Creek (44.2914, -119.2326); Tennessee Creek (44.3041, -119.3029); Thorn Creek (44.3113, -119.3157); Todd Creek (44.3291, -119.3976); Unnamed (44.3133, -119.3533); Unnamed (44.3250, -119.3476); White Creek (44.2747, -119.1866).

(iii) *Lower South Fork John Day Watershed 1707020105*. Outlet(s) = South Fork John Day River (Lat 44.4740, Long -119.5344) upstream to endpoint(s) in: Cougar Gulch (44.2279,

-119.4898); Frazier Creek (44.2200, -119.5745); Jackass Creek (44.3564, -119.4958); North Fork Wind Creek (44.3019, -119.6632); Payten Creek (44.3692, -119.6185); Smoky Creek (44.3893, -119.4791); South Fork Black Canyon Creek (44.3789, -119.7293); South Fork John Day River (44.1918, -119.5261); South Fork Wind Creek (44.2169, -119.6192); South Prong Creek (44.3093, -119.6558); Squaw Creek (44.3000, -119.6143); Unnamed (44.2306, -119.6095); Unnamed (44.2358, -119.6013); Unnamed (44.3052, -119.6332); Wind Creek (44.2793, -119.6515).

(iv) *Upper John Day River Watershed 1707020106*. Outlet(s) = John Day River (Lat 44.4534, Long -118.6711) upstream to endpoint(s) in: Bogue Gulch (44.3697, -118.5200); Call Creek (44.2973, -118.5169); Crescent Creek (44.2721, -118.5473); Dads Creek (44.5140, -118.6463); Dans Creek (44.4989, -118.5920); Deardorff Creek (44.3665, -118.4596); Eureka Gulch (44.4801, -118.5912); Graham Creek (44.3611, -118.6084); Isham Creek (44.4649, -118.5626); Jeff Davis Creek (44.4813, -118.6370); John Day River (44.2503, -118.5256); Mossy Gulch (44.4641, -118.5211); North Reynolds Creek (44.4525, -118.4886); Rail Creek #2 (44.3413, -118.5017); Reynolds Creek (44.4185, -118.4507); Roberts Creek (44.3060, -118.5815); Thompson Creek (44.3581, -118.5395); Unnamed (44.2710, -118.5412).

(v) *Canyon Creek Watershed 1707020107*. Outlet(s) = Canyon Creek (Lat 44.4225, Long -118.9584) upstream to endpoint(s) in: Berry Creek (44.3084, -118.8791); Brookling Creek (44.3042, -118.8363); Canyon Creek (44.2368, -118.7775); Crazy Creek #2 (44.2165, -118.7751); East Brookling Creek (44.3029, -118.8082); East Fork Canyon Creek (44.2865, -118.7939); Middle Fork Canyon Creek (44.2885, -118.7500); Skin Shin Creek (44.3036, -118.8488); Tamarack Creek #2 (44.2965, -118.8611); Unnamed (44.2500, -118.8298); Unnamed (44.2717, -118.7500); Unnamed (44.2814, -118.7620); Vance Creek (44.2929, -118.9989); Wall Creek (44.2543, -118.8308).

(vi) *Strawberry Creek Watershed 1707020108*. Outlet(s) = John Day River (Lat 44.4225, Long -118.9584) upstream to endpoint(s) in: Bear Creek (44.5434, -118.7508); Dixie Creek (44.5814, -118.7257); Dog Creek (44.3635, -118.8890); Grub Creek (44.5189, -118.8050); Hall Creek (44.5479, -118.7894); Indian Creek #3 (44.3092, -118.7438); John Day River (44.4534, -118.6711); Little Pine Creek (44.3771, -118.9103); Onion Creek

(44.3151, -118.6972); Overholt Creek (44.3385, -118.7196); Pine Creek (44.3468, -118.8345); Slide Creek (44.2988, -118.6583); Standard Creek (44.5648, -118.6468); Strawberry Creek (44.3128, -118.6772); West Fork Little Indian Creek (44.3632, -118.7918).

(vii) *Beech Creek Watershed 1707020109*. Outlet(s) = Beech Creek (Lat 44.4116, Long -119.1151) upstream to endpoint(s) in: Bear Creek (44.5268, -119.1002); Beech Creek (44.5682, -119.1170); Clear Creek (44.5522, -118.9942); Cottonwood Creek (44.5758, -119.0694); East Fork Beech Creek (44.5248, -118.9023); Ennis Creek (44.5409, -119.0207); Hog Creek (44.5484, -119.0379); Little Beech Creek (44.4676, -118.9733); McClellan Creek #2 (44.5570, -118.9490); Tinker Creek (44.5550, -118.8892); Unnamed (44.5349, -119.0827).

(viii) *Laycock Creek Watershed 1707020110*. Outlet(s) = John Day River (Lat 44.4155, Long -119.2230) upstream to endpoint(s) in: Birch Creek #2 (44.4353, -119.2148); East Fork Dry Creek (44.4896, -119.1817); Fall Creek #2 (44.3551, -119.0420); Hanscombe Creek (44.3040, -119.0513); Harper Creek (44.3485, -119.1259); Ingle Creek (44.3154, -119.1153); John Day River (44.4225, -118.9584); Laycock Creek (44.3118, -119.0842); McClellan Creek (44.3510, -119.2004); Moon Creek (44.3483, -119.2389); Riley Creek (44.3450, -119.1664).

(ix) *Fields Creek Watershed 1707020111*. Outlet(s) = John Day River (Lat 44.4740, Long -119.5344) upstream to endpoint(s) in: Belshaw Creek (44.5460, -119.2025); Bridge Creek (44.4062, -119.4180); Buck Cabin Creek (44.3412, -119.3313); Cummings Creek (44.5043, -119.3250); Fields Creek (44.3260, -119.2828); Flat Creek (44.3930, -119.4386); John Day River (44.4155, -119.2230); Marks Creek (44.5162, -119.3886); Wickiup Creek (44.3713, -119.3239); Widows Creek (44.3752, -119.3819); Wiley Creek (44.4752, -119.3784).

(x) *Upper Middle John Day Watershed 1707020112*. Outlet(s) = John Day River (Lat 44.5289, Long -119.6320) upstream to endpoint(s) in: Back Creek (44.4164, -119.6858); Battle Creek (44.4658, -119.5863); Cottonwood Creek (44.3863, -119.7376); Cougar Creek (44.4031, -119.7056); East Fork Cottonwood Creek (44.3846, -119.6177); Ferris Creek (44.5446, -119.5250); Franks Creek (44.5067, -119.4903); John Day River (44.4740, -119.5344); Rattlesnake Creek (44.4673, -119.6953); Unnamed (44.3827, -119.6479); Unnamed

(44.3961, -119.7403); Unnamed (44.4082, -119.6916).

(xi) *Mountain Creek Watershed 1707020113*. Outlet(s) = Mountain Creek (Lat 44.5214, Long -119.7138) upstream to endpoint(s) in: Badger Creek (44.4491, -120.1186); Fopiano Creek (44.5899, -119.9429); Fort Creek (44.4656, -119.9253); Fry Creek (44.4647, -119.9940); Keeton Creek (44.4632, -120.0195); Mac Creek (44.4739, -119.9359); Milk Creek (44.4649, -120.1526); Unnamed (44.4700, -119.9427); Unnamed (44.4703, -120.0328); Unnamed (44.4703, -120.0597); Unnamed (44.4827, -119.8970); Willow Creek (44.6027, -119.8746).

(xii) *Rock Creek Watershed 1707020114*. Outlet(s) = Rock Creek (Lat 44.5289, Long -119.6320) upstream to endpoint(s) in: Baldy Creek (44.3906, -119.7651); Bear Creek (44.3676, -119.8401); Fir Tree Creek (44.3902, -119.7893); First Creek (44.4086, -119.8120); Fred Creek (44.4602, -119.8549); Little Windy Creek (44.3751, -119.7595); Pine Hollow #2 (44.5007, -119.8559); Rock Creek (44.3509, -119.7636); Second Creek (44.3984, -119.8075); Unnamed (44.4000, -119.8501); Unnamed (44.4232, -119.7271); West Fork Birch Creek (44.4365, -119.7500).

(xiii) *John Day River/Johnson Creek Watershed 1707020115*. Outlet(s) = John Day River (Lat 44.7554, Long -119.6382) upstream to endpoint(s) in: Buckhorn Creek (44.6137, -119.7382); Burnt Corral Creek (44.6987, -119.5733); Frank Creek (44.6262, -119.7177); Indian Creek (44.5925, -119.7636); John Day River (44.5289, -119.6320); Johnny Creek (44.6126, -119.5534); Johnson Creek (44.6766, -119.7363).

(10) Unit 10. North Fork John Day Subbasin 17070202—(i) *Upper North Fork John Day River Watershed 1707020201*. Outlet(s) = North Fork John Day River (Lat 44.8661, Long -118.5605) upstream to endpoint(s) in: Baldy Creek (44.8687, -118.3172); Bear Gulch (44.8978, -118.5400); Crane Creek (44.8715, -118.3539); Crawfish Creek (44.9424, -118.2608); Cunningham Creek (44.9172, -118.2478); Davis Creek (44.9645, -118.4156); First Gulch (44.8831, -118.5588); Hoodoo Creek (44.9763, -118.3673); Long Meadow Creek (44.9490, -118.2932); McCarty Gulch (44.9131, -118.5114); Middle Trail Creek (44.9513, -118.3185); North Fork John Day River (44.8691, -118.2392); North Trail Creek (44.9675, -118.3219); South Trail Creek (44.9434, -118.2930); Trout Creek (44.9666, -118.4656); Unnamed (44.8576, -118.3169);

Unnamed (44.8845, -118.3421); Unnamed (44.9221, -118.5000); Unnamed (44.9405, -118.4093); Unnamed (44.9471, -118.4797); Wagner Gulch (44.9390, -118.5148).

(ii) *Granite Creek Watershed 1707020202*. Outlet(s) = Granite Creek (Lat 44.8661, Long -118.5605) upstream to endpoint(s) in: Beaver Creek (44.7425, -118.3940); Boulder Creek (44.8368, -118.3631); Boundary Creek (44.8106, -118.3420); Bull Run Creek (44.7534, -118.3154); Corral Creek #2 (44.8186, -118.3565); Deep Creek #2 (44.8017, -118.3200); East Ten Cent Creek (44.8584, -118.4253); Granite Creek (44.8578, -118.3736); Lake Creek (44.7875, -118.5929); Lick Creek (44.8503, -118.5065); Lightning Creek (44.7256, -118.5011); Lost Creek (44.7620, -118.5822); North Fork Ruby Creek (44.7898, -118.5073); Olive Creek (44.7191, -118.4677); Rabbit Creek (44.7819, -118.5616); Ruby Creek (44.7797, -118.5237); South Fork Beaver Creek (44.7432, -118.4272); Squaw Creek #5 (44.8552, -118.4705); Unnamed (44.8427, -118.4233); West Fork Clear Creek (44.7490, -118.5440); West Ten Cent Creek (44.8709, -118.4377); Wolesy Creek (44.7687, -118.5540).

(iii) *North Fork John Day River/Big Creek Watershed 1707020203*. Outlet(s) = North Fork John Day River (Lat 44.9976, Long -118.9444) upstream to endpoint(s) in: Backout Creek (44.8560, -118.6289); Basin Creek (44.9081, -118.6671); Big Creek (45.0115, -118.6041); Bismark Creek (44.9548, -118.7020); Corral Creek (44.9592, -118.6368); Cougar Creek (44.9288, -118.6653); Meadow Creek (44.9856, -118.4664); North Fork John Day River (44.8661, -118.5605); Oregon Gulch (44.8694, -118.6119); Oriental Creek (45.0000, -118.7255); Otter Creek (44.9634, -118.7567); Paradise Creek (44.9168, -118.5850); Raspberry Creek (44.9638, -118.7356); Ryder Creek (44.9341, -118.5943); Silver Creek (44.9077, -118.5580); Simpson Creek (44.9383, -118.6794); South Fork Meadow Creek (44.9303, -118.5481); South Martin Creek (44.9479, -118.5281); Unnamed (44.8594, -118.6432); Unnamed (44.9073, -118.5690); Unnamed (45.0031, -118.7060); Unnamed (45.0267, -118.7635); Unnamed (45.0413, -118.8089); White Creek (45.0000, -118.5617); Winom Creek (44.9822, -118.6766).

(iv) *Desolation Creek Watershed 1707020204*. Outlet(s) = Desolation Creek (Lat 44.9977, Long -118.9352) upstream to endpoint(s) in: Battle Creek (44.8895, -118.7010); Beeman Creek (44.8230, -118.7498); Bruin Creek

(44.8936, -118.7600); Howard Creek (44.8513, -118.7004); Junkens Creek (44.8482, -118.7994); Kelsay Creek (44.9203, -118.6899); Little Kelsay Creek (44.9127, -118.7124); North Fork Desolation Creek (44.7791, -118.6231); Park Creek (44.9109, -118.7839); Peep Creek (44.9488, -118.8069); South Fork Desolation Creek (44.7890, -118.6732); Sponge Creek (44.8577, -118.7165); Starveout Creek (44.8994, -118.8220); Unnamed (44.8709, -118.7130); Unnamed (44.9058, -118.7689); Unnamed (44.9163, -118.8384); Unnamed (44.9203, -118.8315); Unnamed (44.9521, -118.8141); Unnamed (44.9735, -118.8707).

(v) *Upper Camas Creek Watershed 1707020205*. Outlet(s) = Camas Creek (Lat 45.1576, Long -118.8411) upstream to endpoint(s) in: Bear Wallow Creek (45.2501, -118.7502); Bowman Creek (45.2281, -118.7028); Butcherknife Creek (45.1495, -118.6913); Camas Creek (45.1751, -118.5548); Dry Camas Creek (45.1582, -118.5846); Frazier Creek (45.1196, -118.6152); Hidaway Creek (45.0807, -118.5788); Lane Creek (45.2429, -118.7749); Line Creek (45.1067, -118.6562); North Fork Cable Creek (45.0535, -118.6569); Rancheria Creek (45.2144, -118.6552); Salsbury Creek (45.2022, -118.6206); South Fork Cable Creek (45.0077, -118.6942); Unnamed (45.0508, -118.6536); Unnamed (45.0579, -118.6705); Unnamed (45.0636, -118.6198); Unnamed (45.0638, -118.5908); Unnamed (45.0823, -118.6579); Unnamed (45.1369, -118.6771); Unnamed (45.1513, -118.5966); Unnamed (45.1854, -118.6842); Unnamed (45.1891, -118.6110); Unnamed (45.2429, -118.7575); Warm Spring Creek (45.1386, -118.6561).

(vi) *Lower Camas Creek Watershed 1707020206*. Outlet(s) = Camas Creek (Lat 45.0101, Long -118.9950) upstream to endpoint(s) in: Bridge Creek (45.0395, -118.8633); Camas Creek (45.1576, -118.8411); Cooper Creek (45.2133, -118.9881); Deerlick Creek (45.1489, -119.0229); Dry Fivemile Creek (45.1313, -119.0898); Fivemile Creek (45.1804, -119.2259); Middle Fork Wilkins Creek (45.1193, -119.0439); North Fork Owens Creek (45.1872, -118.9705); Owens Creek (45.2562, -118.8305); Silver Creek (45.1066, -118.9123); Snipe Creek (45.2502, -118.9707); South Fork Wilkins Creek (45.1078, -119.0312); Sugarbowl Creek (45.1986, -119.0999); Taylor Creek (45.1482, -119.1820); Tribble Creek (45.1713, -119.1617); Unnamed (45.0797, -118.7878); Unnamed (45.1198, -118.8514); Unnamed (45.1993, -118.9062);

Unnamed (45.2000, - 118.8236);
 Unnamed (45.2141, - 118.8079);
 Wilkins Creek (45.1239, - 119.0094).

(vii) *North Fork John Day River/Potamus Creek Watershed 1707020207*. Outlet(s) = North Fork John Day River (Lat 44.8832, Long - 119.4090) upstream to endpoint(s) in: Buckaroo Creek (45.0245, - 119.1187); Butcher-Bill Creek (45.1290, - 119.3197); Cabin Creek (44.9650, - 119.3628); Deep Creek (45.0977, - 119.2021); Deerhorn Creek (45.0513, - 119.0542); Ditch Creek (45.1584, - 119.3153); East Fork Meadow Brook Creek (44.9634, - 118.9575); Ellis Creek (45.1197, - 119.2167); Graves Creek (44.9927, - 119.3171); Hunter Creek (45.0114, - 119.0896); Jericho Creek (45.0361, - 119.0829); Little Potamus Creek (45.0462, - 119.2579); Mallory Creek (45.1030, - 119.3112); Martin Creek (45.1217, - 119.3538); Matlock Creek (45.0762, - 119.1837); No Name Creek (45.0730, - 119.1459); North Fork John Day River (44.9976, - 118.9444); Pole Creek (45.1666, - 119.2533); Rush Creek (45.0498, - 119.1219); Skull Creek (44.9726, - 119.2035); Smith Creek (44.9443, - 118.9687); Stalder Creek (45.0655, - 119.2844); Stony Creek (45.0424, - 119.1489); West Fork Meadow Brook (44.9428, - 119.0319); Wickiup Creek (45.0256, - 119.2776); Wilson Creek (45.1372, - 119.2673).

(viii) *Wall Creek Watershed 1707020208*. Outlet(s) = Big Wall Creek (Lat 44.8832, Long - 119.4090) upstream to endpoint(s) in: Alder Creek (45.1049, - 119.4170); Bacon Creek (45.0137, - 119.4800); Bear Creek (45.0551, - 119.4170); Big Wall Creek (44.9369, - 119.6055); Bull Prairie Creek (44.9753, - 119.6604); Colvin Creek (44.9835, - 119.6911); East Fork Alder Creek (45.1028, - 119.3929); East Fork Indian Creek (44.9009, - 119.4918); Happy Jack Creek (44.8997, - 119.5730); Hog Creek (45.0507, - 119.4821); Indian Creek (44.8810, - 119.5260); Johnson Creek (45.0097, - 119.6282); Little Bear Creek (45.0433, - 119.4084); Little Wall Creek (45.0271, - 119.5235); Little Wilson Creek (44.8979, - 119.5531); Lovlett Creek (44.9675, - 119.5105); Skookum Creek (45.0894, - 119.4725); South Fork Big Wall Creek (44.9315, - 119.6167); Swale Creek (45.1162, - 119.3836); Three Trough Creek (44.9927, - 119.5318); Two Spring Creek (45.0251, - 119.3938); Unnamed (44.9000, - 119.6213); Unnamed (44.9830, - 119.7364); Unnamed (44.9883, - 119.7248); Unnamed (45.0922, - 119.4374); Unnamed (45.1079, - 119.4359); Willow Spring Creek (44.9467, - 119.5921); Wilson Creek (44.9861, - 119.6623).

(ix) *Cottonwood Creek Watershed 1707020209*. Outlet(s) = Cottonwood Creek (Lat 44.8141, Long - 119.4183) upstream to endpoint(s) in: Beck Creek (44.5795, - 119.2664); Board Creek (44.5841, - 119.3763); Boulder Creek (44.5876, - 119.3006); Camp Creek #3 (44.6606, - 119.3283); Cougar Creek #2 (44.6230, - 119.4133); Day Creek (44.5946, - 119.0235); Donaldson Creek (44.5919, - 119.3480); Dunning Creek (44.6416, - 119.0628); Fox Creek (44.6163, - 119.0078); Indian Creek #3 (44.6794, - 119.2196); McHaley Creek (44.5845, - 119.2234); Mill Creek (44.6080, - 119.0878); Mine Creek (44.5938, - 119.1756); Murphy Creek (44.6062, - 119.1114); Smith Creek (44.6627, - 119.0808); Squaw Creek #3 (44.5715, - 119.4069); Unnamed (44.6176, - 119.0806).

(x) *Lower North Fork John Day River Watershed 1707020210*. Outlet(s) = North Fork John Day River (Lat 44.7554, Long - 119.6382) upstream to endpoint(s) in: East Fork Deer Creek (44.7033, - 119.2753); Gilmore Creek (44.6744, - 119.4875); North Fork John Day River (44.8832, - 119.4090); Rudio Creek (44.6254, - 119.5026); Straight Creek (44.6759, - 119.4687); West Fork Deer Creek (44.6985, - 119.3372).

(11) Unit 11. Middle Fork John Day Subbasin 17070203—(i) *Upper Middle Fork John Day River Watershed 1707020301*. Outlet(s) = Middle Fork John Day River (Lat 44.5946, Long - 118.5163) upstream to endpoint(s) in: Bridge Creek (44.5326, - 118.5746); Clear Creek (44.4692, - 118.4615); Crawford Creek (44.6381, - 118.3887); Dry Fork Clear Creek (44.5339, - 118.4484); Fly Creek (44.6108, - 118.3810); Idaho Creek (44.6113, - 118.3856); Middle Fork John Day River (44.5847, - 118.4286); Mill Creek (44.6106, - 118.4809); North Fork Bridge Creek (44.5479, - 118.5663); North Fork Summit Creek (44.5878, - 118.3560); Squaw Creek (44.5303, - 118.4089); Summit Creek (44.5831, - 118.3585).

(ii) *Camp Creek Watershed 1707020302*. Outlet(s) = Middle Fork John Day River (Lat 44.6934, Long - 118.7947) upstream to endpoint(s) in: Badger Creek (44.7102, - 118.6738); Balance Creek (44.6756, - 118.7661); Beaver Creek (44.6918, - 118.6467); Bennett Creek (44.6095, - 118.6432); Big Boulder Creek (44.7332, - 118.6889); Blue Gulch (44.6952, - 118.5220); Butte Creek (44.5913, - 118.6481); Camp Creek (44.5692, - 118.8041); Caribou Creek (44.6581, - 118.5543); Charlie Creek (44.5829, - 118.8277); Cottonwood Creek (44.6616, - 118.8919); Cougar Creek (44.6014, - 118.8261); Coxie Creek

(44.5596, - 118.8457); Coyote Creek (44.7040, - 118.7436); Davis Creek (44.5720, - 118.6026); Deerhorn Creek (44.5984, - 118.5879); Dry Creek (44.6722, - 118.6962); Eagle Creek (44.5715, - 118.8269); Granite Boulder Creek (44.6860, - 118.6039); Lemon Creek (44.6933, - 118.6169); Lick Creek (44.6102, - 118.7504); Little Boulder Creek (44.6661, - 118.5807); Little Butte Creek (44.6093, - 118.6188); Middle Fork John Day River (44.5946, - 118.5163); Myrtle Creek (44.7336, - 118.7187); Placer Gulch (44.5670, - 118.5593); Ragged Creek (44.6366, - 118.7048); Ruby Creek (44.6050, - 118.6897); Sulphur Creek (44.6119, - 118.6672); Sunshine Creek (44.6424, - 118.7437); Tincup Creek (44.6489, - 118.6320); Trail Creek (44.6249, - 118.8469); Unnamed (44.5535, - 118.8139); Unnamed (44.5697, - 118.5975); Unnamed (44.6041, - 118.6051); Unnamed (44.6471, - 118.6869); Unnamed (44.6559, - 118.5777); Vincent Creek (44.6663, - 118.5345); Vinegar Creek (44.6861, - 118.5378); West Fork Lick Creek (44.6021, - 118.7891); Whiskey Creek (44.6776, - 118.8659); Windlass Creek (44.6653, - 118.6030); Wray Creek (44.6978, - 118.6588).

(iii) *Big Creek Watershed 1707020303*. Outlet(s) = Middle Fork John Day River (Lat 44.8363, Long - 119.0306) upstream to endpoint(s) in: Barnes Creek (44.8911, - 118.9974); Bear Creek (44.7068, - 118.8742); Big Creek (44.7726, - 118.6831); Deadwood Creek (44.7645, - 118.7499); Deep Creek (44.7448, - 118.7591); East Fork Big Creek (44.7923, - 118.7783); Elk Creek (44.7167, - 118.7721); Granite Creek (44.8893, - 119.0103); Huckleberry Creek (44.8045, - 118.8605); Indian Creek (44.8037, - 118.7498); Lick Creek (44.8302, - 118.9613); Little Indian Creek (44.8743, - 118.8862); Lost Creek (44.7906, - 118.7970); Middle Fork John Day River (44.6934, - 118.7947); Mosquito Creek (44.7504, - 118.8021); North Fork Elk Creek (44.7281, - 118.7624); Onion Gulch (44.7622, - 118.7846); Pizer Creek (44.7805, - 118.8102); Slide Creek (44.6950, - 118.9124); Swamp Gulch (44.7606, - 118.7641); Unnamed (44.8249, - 118.8718); Unnamed (44.8594, - 118.9018).

(iv) *Long Creek Watershed 1707020304*. Outlet(s) = Long Creek (Lat 44.8878, Long - 119.2338) upstream to endpoint(s) in: Basin Creek (44.7458, - 119.2452); Everett Creek (44.7106, - 119.1063); Jonas Creek (44.6307, - 118.9118); Long Creek (44.6076, - 118.9402); Pass Creek (44.7681, - 119.0414); Paul Creek (44.7243, - 119.1304); Pine Creek

(44.8125, -119.0859); South Fork Long Creek (44.6360, -118.9756).

(v) *Lower Middle Fork John Day River Watershed 1707020305*. Outlet(s) = Middle Fork John Day River (Lat 44.9168, Long -119.3004) upstream to endpoint(s) in: Eightmile Creek (44.9584, -119.0679); Middle Fork John Day River (44.8363, -119.0306); Rush Creek (44.8994, -119.0630); Sixmile Creek (44.9384, -119.1797); Threemile Creek (44.9310, -119.2399); Twelvemile Creek (44.9123, -119.0764); Unnamed (44.9506, -119.0771); Unnamed (44.9584, -119.0808).

(12) Unit 12. Lower John Day Subbasin 17070204—(i) *Lower John Day River/Kahler Creek 1707020401*.

Outlet(s) = John Day River (Lat 44.8080, Long -119.9585) upstream to endpoint(s) in: Alder Creek (44.9575, -119.8621); Camp Creek (44.9005, -119.9505); East Bologna Canyon (44.8484, -119.5842); Henry Creek (44.9609, -119.7683); Horseshoe Creek (44.7076, -119.9465); John Day River (44.7554, -119.6382); Kahler Creek (44.9109, -119.7030); Lake Creek (44.9012, -119.9806); Left Hand Creek (44.7693, -119.7613); Parrish Creek (44.7207, -119.8369); Tamarack Butte #2 (44.6867, -119.7898); Tamarack Creek (44.9107, -119.7026); Unnamed (44.9334, -119.9164); Unnamed (44.9385, -119.9088); Unnamed (44.9451, -119.8932); Unnamed (44.9491, -119.8696); Unnamed (44.9546, -119.8739); Unnamed (44.9557, -119.7561); West Bologna Canyon (44.8338, -119.6422); Wheeler Creek (44.9483, -119.8447); William Creek (44.7458, -119.9027).

(ii) *Lower John Day River/Service Creek Watershed 1707020402*. Outlet(s) = John Day River (Lat 44.7368, Long -120.3054) upstream to endpoint(s) in: Big Service Creek (44.9286, -120.0428); Girds Creek (44.6681, -120.1234); John Day River (44.8080, -119.9585); Rowe Creek (44.8043, -120.1751); Service Creek (44.8951, -120.0892); Shoofly Creek (44.6510, -120.0207).

(iii) *Bridge Creek Watershed 1707020403*. Outlet(s) = Bridge Creek (Lat 44.7368, Long -120.3054) upstream to endpoint(s) in: Bear Creek (44.5585, -120.4198); Bridge Creek (44.4721, -120.2009); Carroll Creek (44.5460, -120.3322); Dodds Creek (44.5329, -120.3867); Gable Creek (44.5186, -120.2384); Johnson Creek #2 (44.5193, -120.0949); Slide Creek (44.4956, -120.3023); Thompson Creek (44.5270, -120.2489); West Branch Bridge Creek (44.4911, -120.3098).

(iv) *Lower John Day River/Muddy Creek Watershed 1707020404*. Outlet(s) = John Day River (Lat 44.9062, Long -120.4460) upstream to endpoint(s) in:

Cherry Creek (44.6344, -120.4543); Clubfoot Hollow (44.8865, -120.1929); Cove Creek (44.9299, -120.3791); Dry Creek (44.6771, -120.5367); John Day River (44.7368, -120.3054); Little Muddy Creek (44.7371, -120.5575); Muddy Creek (44.7491, -120.5071); Pine Creek (44.8931, -120.1797); Robinson Canyon (44.8807, -120.2678); Steers Canyon (44.9247, -120.2013).

(v) *Lower John Day River/Clarno Watershed 1707020405*. Outlet(s) = John Day River (Lat 45.1626, Long -120.4681) upstream to endpoint(s) in: Pine Creek (44.9062, -120.4460).

(vi) *Butte Creek Watershed 1707020406*. Outlet(s) = Butte Creek (Lat 45.0574, Long -120.4831) upstream to endpoint(s) in: Butte Creek (44.9266, -120.1142); Cottonwood Creek (44.9816, -120.2136); Deep Creek (45.0166, -120.4165); Hunt Canyon (45.1050, -120.2838); Straw Fork (44.9536, -120.1024); Unnamed (45.0952, -120.2928); West Fork Butte Creek (44.9883, -120.3332).

(vii) *Pine Hollow Watershed 1707020407*. Outlet(s) = Pine Hollow (Lat 45.1531, Long -120.4757) upstream to endpoint(s) in: Big Pine Hollow (44.9968, -120.7342); Brush Canyon (45.0255, -120.6329); Eakin Canyon (45.1608, -120.5863); Hannafin Canyon (45.1522, -120.6158); Long Hollow Creek (44.9922, -120.5565); West Little Pine Hollow (44.9921, -120.7324).

(viii) *Thirtymile Creek Watershed 1707020408*. Outlet(s) = Thirtymile Creek (Lat 45.1626, Long -120.4681) upstream to endpoint(s) in: Condon Canyon (45.1870, -120.1829); Dry Fork Thirtymile Creek (45.1858, -120.1338); East Fork Thirtymile Creek (45.1575, -120.0556); Lost Valley Creek (45.1062, -119.9916); Patill Canyon (45.1252, -120.1870); Thirtymile Creek (44.9852, -120.0375); Unnamed (44.9753, -120.0469); Wehrli Canyon (45.1539, -120.2137).

(ix) *Lower John Day River/Ferry Canyon Watershed 1707020409*. Outlet(s) = John Day River (Lat 45.3801, Long -120.5117) upstream to endpoint(s) in: John Day River (45.1626, -120.4681).

(x) *Lower John Day River/Scott Canyon Watershed 1707020410*. Outlet(s) = John Day River (Lat 45.5769, Long -120.4041) upstream to endpoint(s) in: John Day River (45.3801, -120.5117).

(xi) *Upper Rock Creek Watershed 1707020411*. Outlet(s) = Rock Creek (Lat 45.2190, Long -119.9597) upstream to endpoint(s) in: Allen Canyon (45.1092, -119.5976); Allen Spring Canyon (45.0471, -119.6468); Board Creek (45.1120, -119.5390); Brown Creek

(45.0365, -119.8296); Buckhorn Creek (45.0272, -119.9186); Chapin Creek (45.0538, -119.6727); Davidson Canyon (45.0515, -119.5952); Hahn Canyon (45.1491, -119.8320); Harris Canyon (45.0762, -119.5856); Hollywood Creek (45.0964, -119.5174); Indian Creek (45.0481, -119.6476); John Z Canyon (45.0829, -119.6058); Juniper Creek (45.0504, -119.7730); Middle Fork Rock Creek (45.0818, -119.7404); Rock Creek (45.0361, -119.5989); Stahl Canyon (45.0071, -119.8683); Tree Root Canyon (45.0626, -119.6314); Tupper Creek (45.0903, -119.4999); Unnamed (45.0293, -119.5907); Unnamed (45.0698, -119.5329); Unnamed (45.0714, -119.5227); West Fork Juniper Creek (45.0192, -119.7786).

(xii) *Lower Rock Creek Watershed 1707020412*. Outlet(s) = Rock Creek (Lat 45.5769, Long -120.4041) upstream to endpoint(s) in: Dry Creek (45.3238, -119.9709); Rock Creek (45.2190, -119.9597); Sixmile Canyon (45.2448, -120.0283); South Fork Rock Creek (45.2770, -120.1232).

(xiii) *Grass Valley Canyon Watershed 1707020413*. Outlet(s) = Grass Valley Canyon (Lat 45.5974, Long -120.4232) upstream to endpoint(s) in: Grass Valley Canyon (45.4071, -120.7226); Hay Canyon (45.5104, -120.6085); Rosebush Creek (45.3395, -120.7159).

(xiv) *Lower John Day River/McDonald Ferry Watershed 1707020414*. Outlet(s) = John Day River (Lat 45.7389, Long -120.6520) upstream to endpoint(s) in: John Day River (45.5769, -120.4041).

(13) Unit 13. Lower Deschutes Subbasin 17070306—(i) *Upper Deschutes River Watershed 1707030603*. Outlet(s) = Deschutes River (Lat 44.8579, Long -121.0668) upstream to endpoint(s) in: Deschutes River (44.7243, -121.2465); Shitike Creek (44.7655, -121.5835); Unnamed (44.7934, -121.3715).

(ii) *Mill Creek Watershed 1707030604*. Outlet(s) = Mill Creek (Lat 44.8792, Long -121.3711) upstream to endpoint(s) in: Boulder Creek (44.8261, -121.4924); Mill Creek (44.8343, -121.6737); Unnamed (44.8330, -121.6756).

(iii) *Beaver Creek Watershed 1707030605*. Outlet(s) = Beaver Creek (Lat 44.8730, Long -121.3405) upstream to endpoint(s) in: Beaver Butte Creek (45.0786, -121.5746); Beaver Creek (45.1306, -121.6468); Indian Creek (45.0835, -121.5113).

(iv) *Warm Springs River Watershed 1707030606*. Outlet(s) = Warm Springs River (Lat 44.8579, Long -121.0668) upstream to endpoint(s) in: Badger Creek #2 (44.9352, -121.5569); South Fork Warm Springs River (44.9268,

– 121.6995); Warm Springs River (44.9812, – 121.7976).

(v) *Middle Deschutes River Watershed 1707030607*. Outlet(s) = Deschutes River (Lat 45.2642, Long – 121.0232) upstream to endpoint(s) in: Cove Creek (44.9673, – 121.0430); Deschutes River (44.8579, – 121.0668); Eagle Creek (44.9999, – 121.1688); Nena Creek (45.1030, – 121.1653); Oak Creek (44.9336, – 121.0981); Paquet Gulch (45.0676, – 121.2911); Skookum Creek (44.9171, – 121.1251); Stag Canyon (45.1249, – 121.0563); Unnamed (45.0186, – 121.0464); Unnamed (45.0930, – 121.1511); Wapinitia Creek (45.1177, – 121.3025).

(vi) *Bakeoven Creek Watershed 1707030608*. Outlet(s) = Bakeoven Creek (Lat 45.1748, Long – 121.0728) upstream to endpoint(s) in: Bakeoven Creek (45.1261, – 120.9398); Booten Creek (45.1434, – 121.0131); Cottonwood Creek (45.0036, – 120.8720); Deep Creek (44.9723, – 120.9480); Robin Creek (45.1209, – 120.9652); Trail Hollow Creek (45.1481, – 121.0423).

(vii) *Buck Hollow Creek Watershed 1707030611*. Outlet(s) = Buck Hollow Creek (Lat 45.2642, Long – 121.0232) upstream to endpoint(s) in: Buck Hollow Creek (45.0663, – 120.7095); Finnegan Creek (45.2231, – 120.8472); Macken Canyon (45.1093, – 120.7011); Thorn Hollow (45.0450, – 120.7386).

(viii) *Lower Deschutes River Watershed 1707030612*. Outlet(s) = Deschutes River (Lat 45.6426, Long – 120.9142) upstream to endpoint(s) in: Bull Run Canyon (45.4480, – 120.8655); Deschutes River (45.2642, – 121.0232); Fall Canyon (45.5222, – 120.8538); Ferry Canyon (45.3854, – 120.9373); Jones Canyon (45.3011, – 120.9404); Macks Canyon (45.3659, – 120.8524); Oak Canyon (45.3460, – 120.9960); Sixteen Canyon (45.4050, – 120.8529).

(14) Unit 14. Trout Subbasin 17070307—(i) *Upper Trout Creek Watershed 1707030701*. Outlet(s) = Trout Creek (Lat 44.8229, Long – 120.9193) upstream to endpoint(s) in: Amity Creek (44.6447, – 120.5854); Auger Creek (44.5539, – 120.5381); Beaver Creek (44.6390, – 120.7034); Big Log Creek (44.5436, – 120.6997); Big Whetstone Creek (44.6761, – 120.7645); Board Hollow (44.6064, – 120.7405); Cartwright Creek (44.5404, – 120.6535); Clover Creek (44.6523, – 120.7358); Dutchman Creek (44.5320, – 120.6704); Foley Creek (44.5861, – 120.6801); Little Trout Creek (44.7816, – 120.7237); Opal Creek (44.5792, – 120.5446); Potlid Creek (44.5366, – 120.6207); Trout Creek (44.5286, – 120.5805); Tub Springs Canyon (44.8155, – 120.7888); Unnamed (44.5428, – 120.5848); Unnamed (44.6043, – 120.7403); Unnamed (44.6510, – 120.7337).

(ii) *Antelope Creek Watershed 1707030702*. Outlet(s) = Antelope Creek (Lat 44.8229, Long – 120.9193) upstream to endpoint(s) in: Antelope Creek (44.8564, – 120.8574); Boot Creek (44.9086, – 120.8864); Pole Creek (44.9023, – 120.9108); Ward Creek (44.9513, – 120.8341).

(iii) *Mud Springs Creek Watershed 1707030704*. Outlet(s) = Mud Springs Creek (Lat 44.8020, Long – 121.0614) upstream to endpoint(s) in: Mud Springs Creek (44.7870, – 121.0479).

(iv) *Lower Trout Creek Watershed 1707030705*. Outlet(s) = Trout Creek (Lat 44.8214, Long – 121.0876) upstream to endpoint(s) in: Brocher Creek (44.8357, – 121.0330); Hay Creek (44.7824, – 120.9652); Trout Creek (44.8229, – 120.9193).

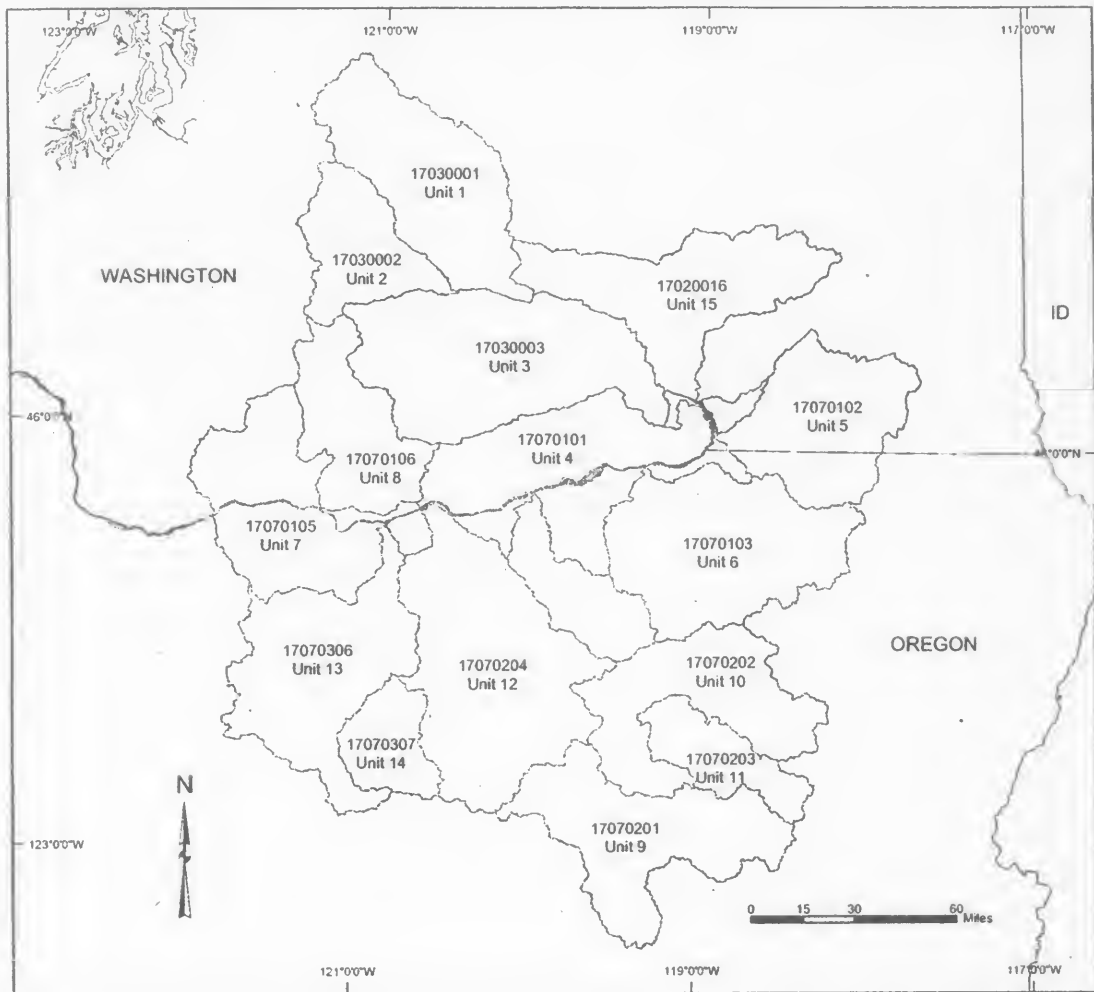
(15) Unit 15. Upper Columbia/Priest Rapids Subbasin 17020016—*Columbia River/Zintel Canyon Watershed 1702001606*. Outlet(s) = Columbia River (Lat 46.1776, Long – 119.0183) upstream to endpoint(s) in: Columbia River (46.2534, – 119.2268).

(16) Unit 16. Columbia River Corridor—*Columbia River Corridor*. Outlet(s) = Columbia River (Lat 46.2485, Long – 124.0782) upstream to endpoint(s) in: Columbia River (45.7070, – 121.7943).



(17) Maps of proposed critical habitat for the Middle Columbia River *O. mykiss* ESU follow:

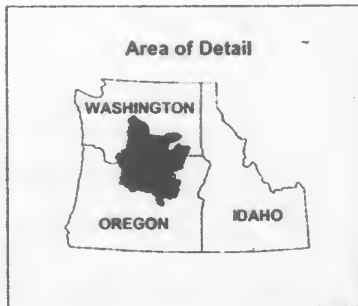
BILLING CODE 3510-22-P

Map of the Middle Columbia River O. Mykiss ESU



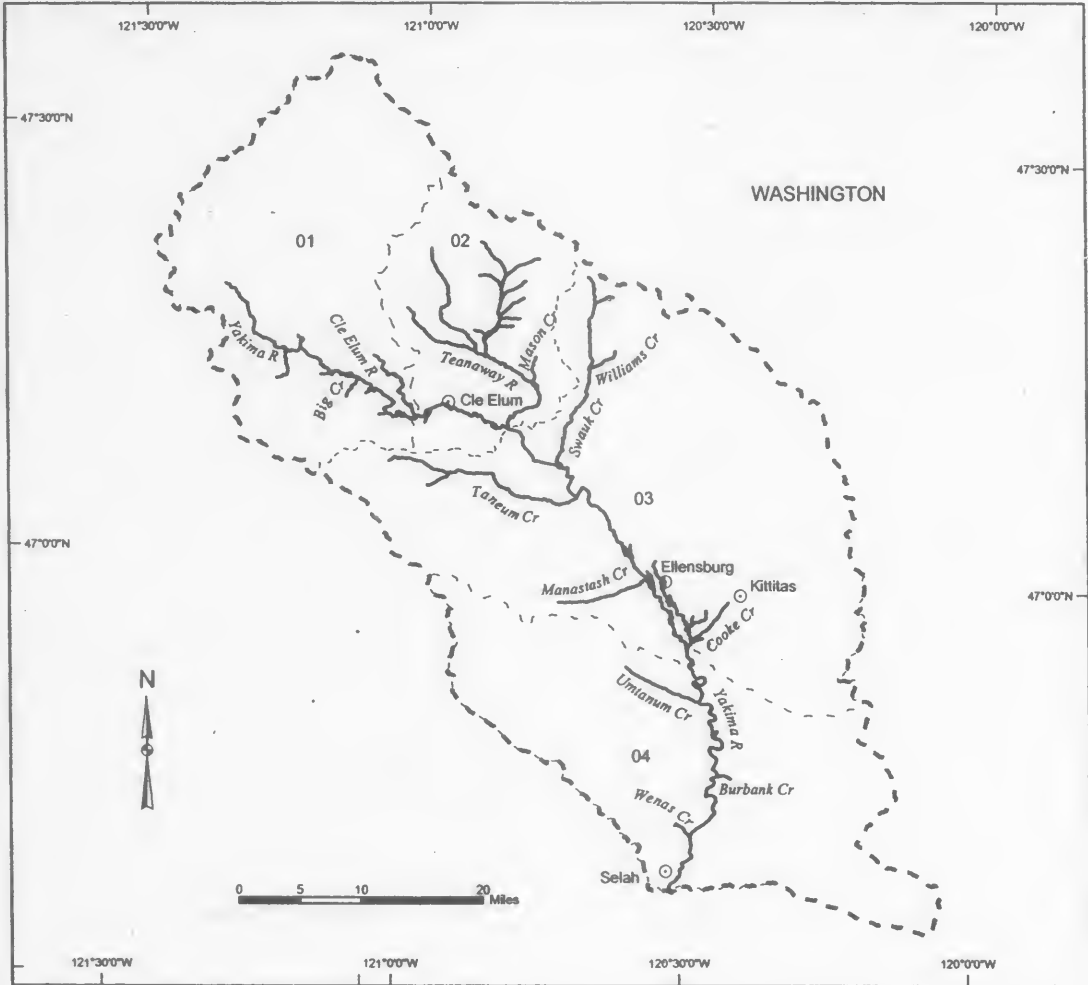
Legend

- State Boundaries
-  Water Bodies
-  Subbasin Boundaries



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**UPPER YAKIMA SUBBASIN
17030001, Unit 1**



Legend

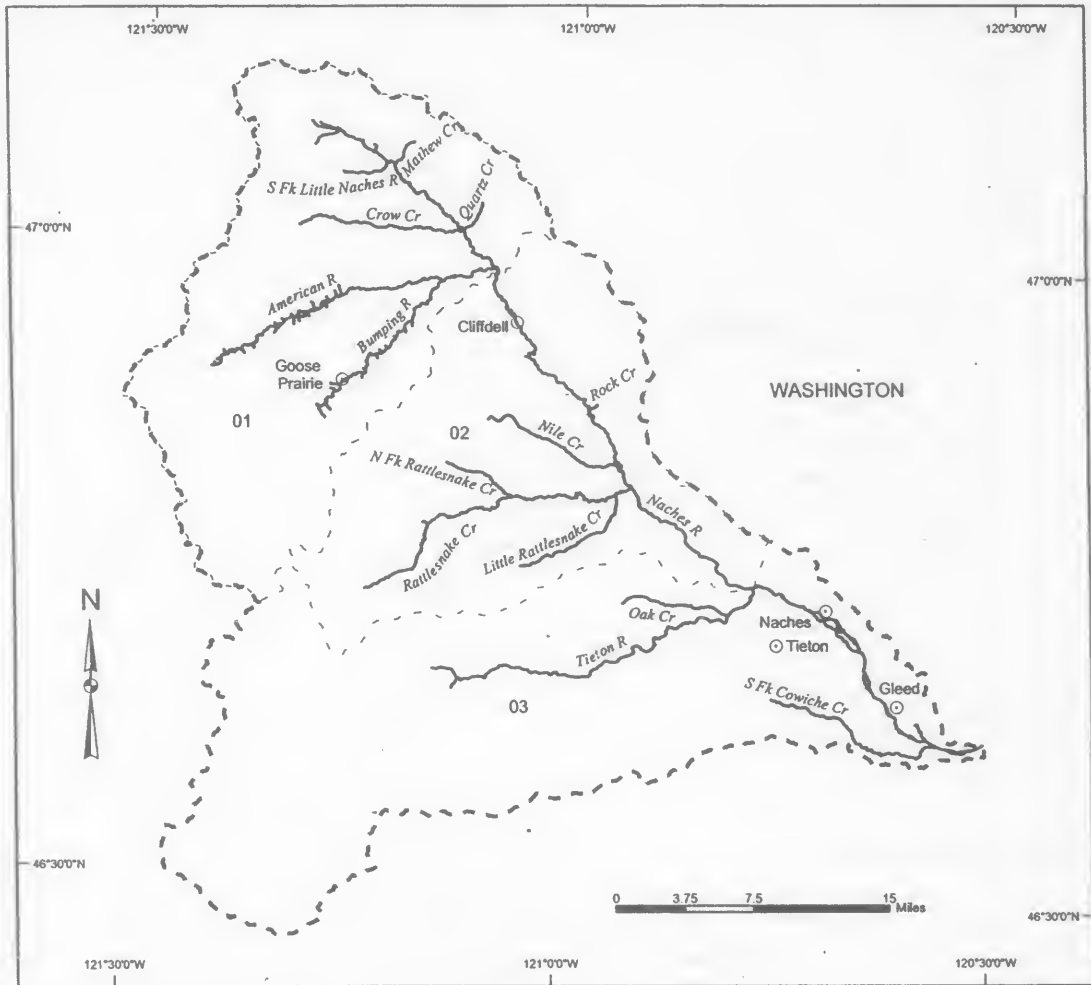
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17030001xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**NACHES SUBBASIN
17030002, Unit 2**



Legend

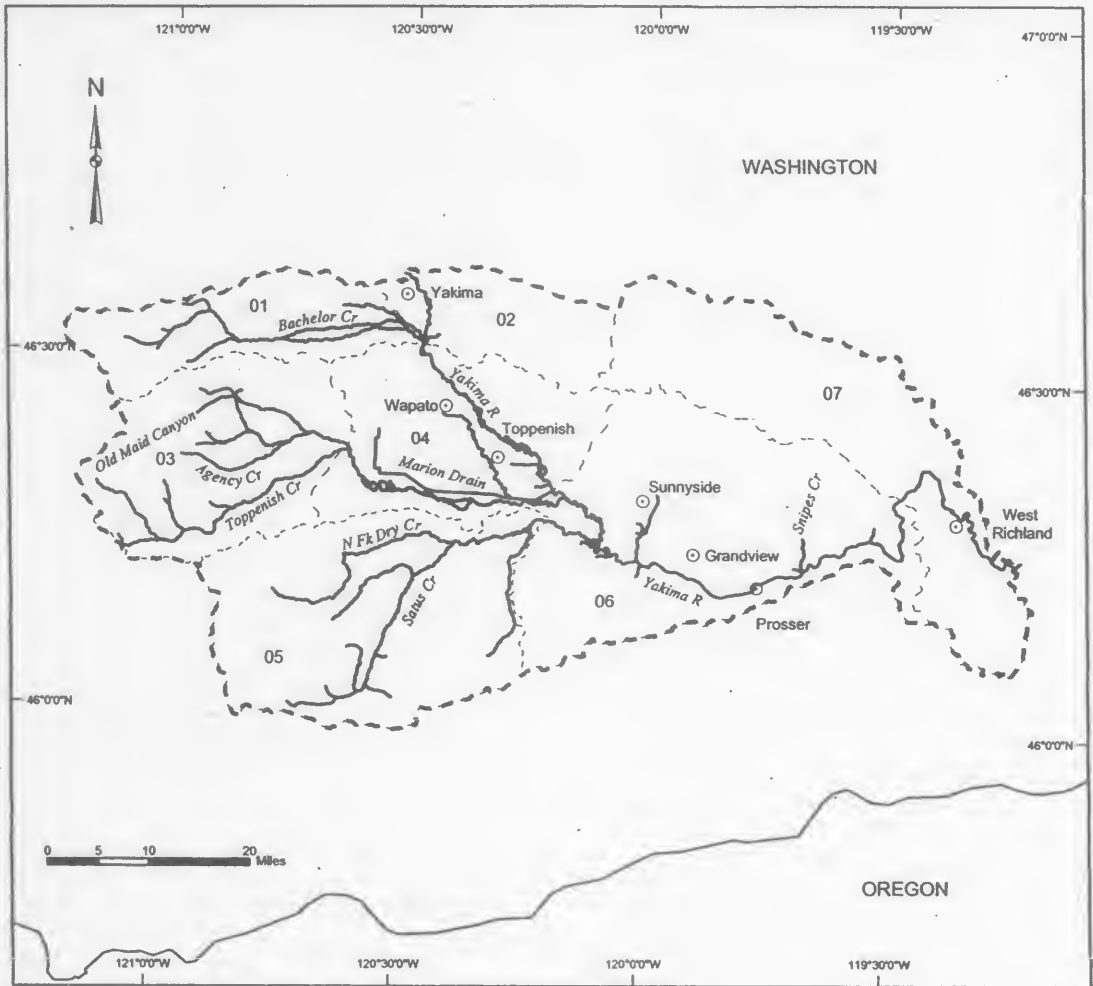
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 03 = Watershed code - last 2 digits of 17030002xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**LOWER YAKIMA SUBBASIN
17030003, Unit 3**



Legend

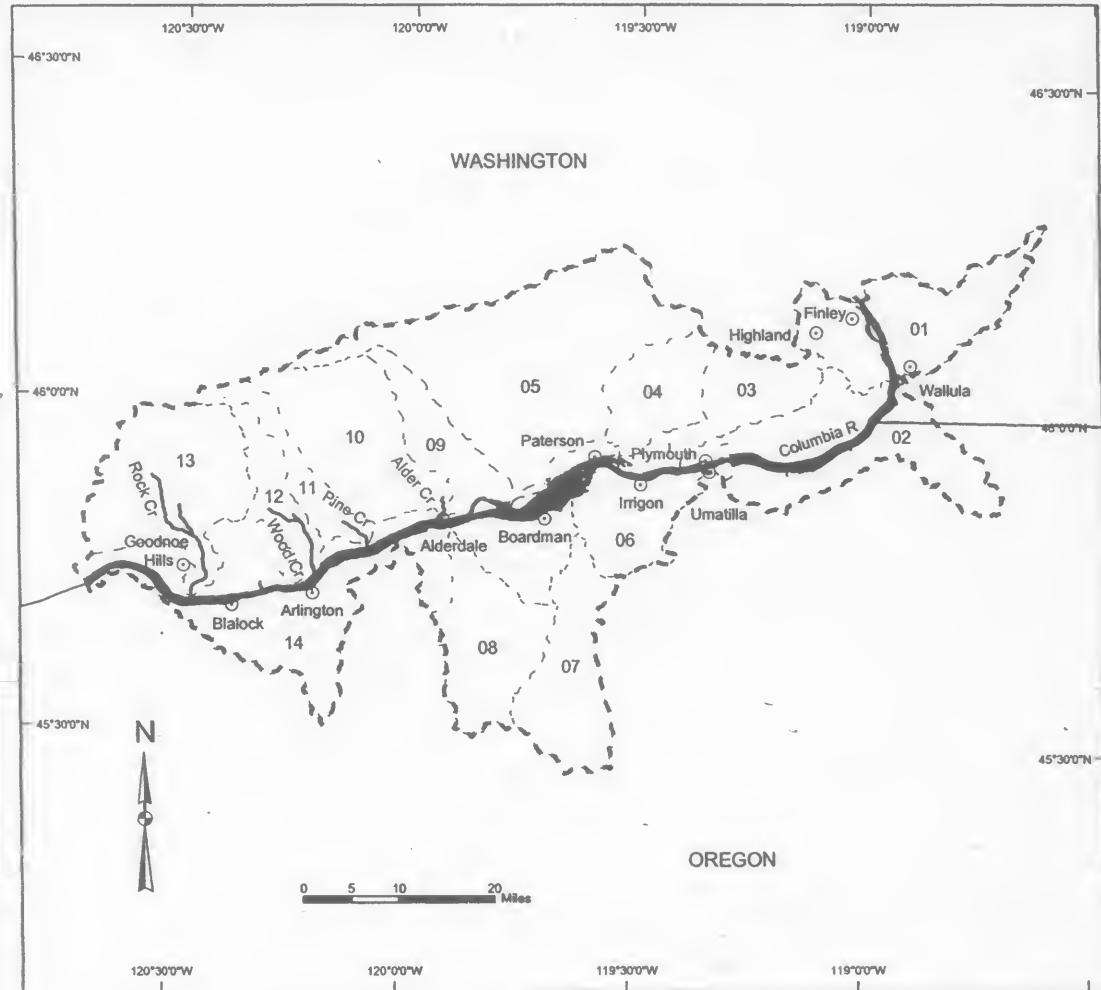
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17030003xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**MIDDLE COLUMBIA / LAKE WALLULA SUBBASIN
17070101, Unit 4**



Legend

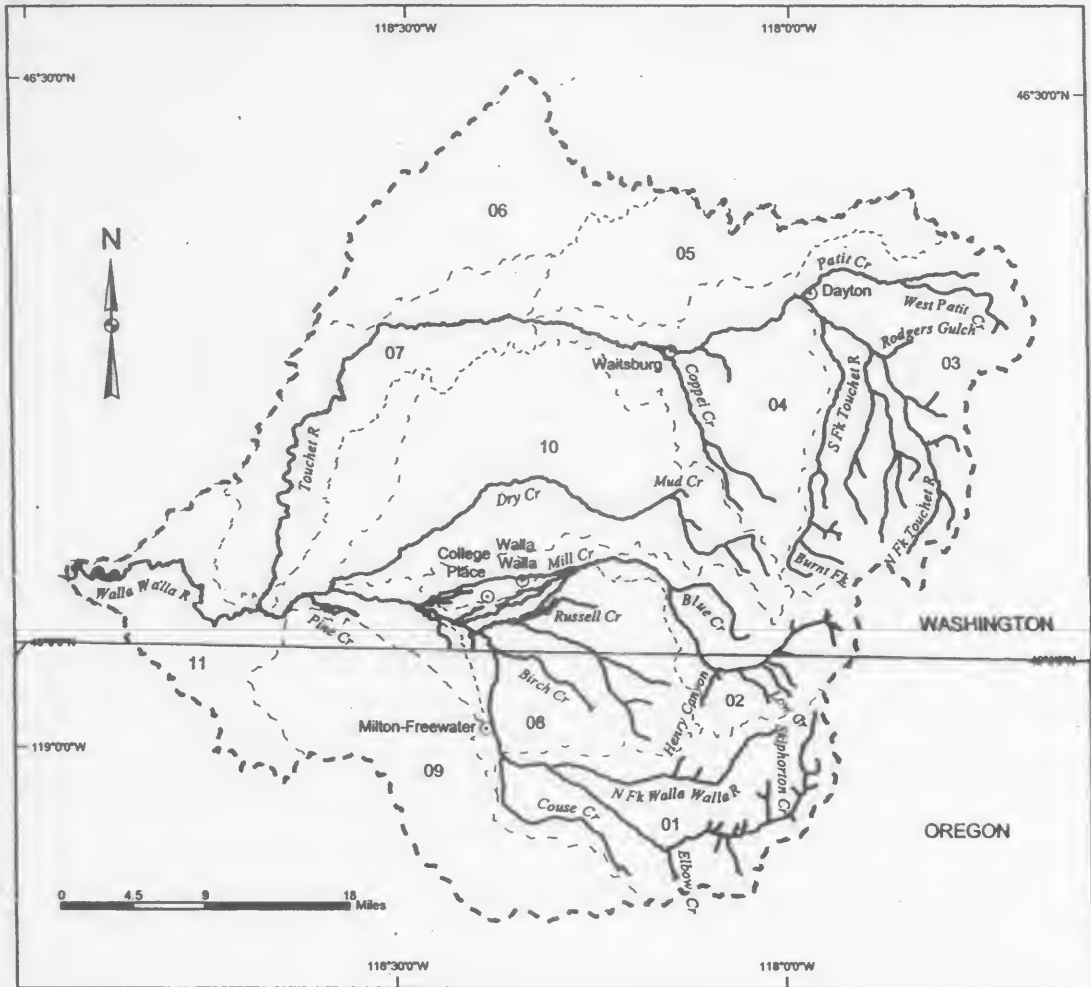
- Cities / Towns
 - State Boundary
 - ~ Proposed Critical Habitat
 - - - Subbasin Boundary
 - - - Watershed Boundaries
- 01 - 14 = Watershed code - last 2 digits of 17070101xx

Area of Detail



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**WALLA WALLA SUBBASIN
17070102, Unit 5**



Legend

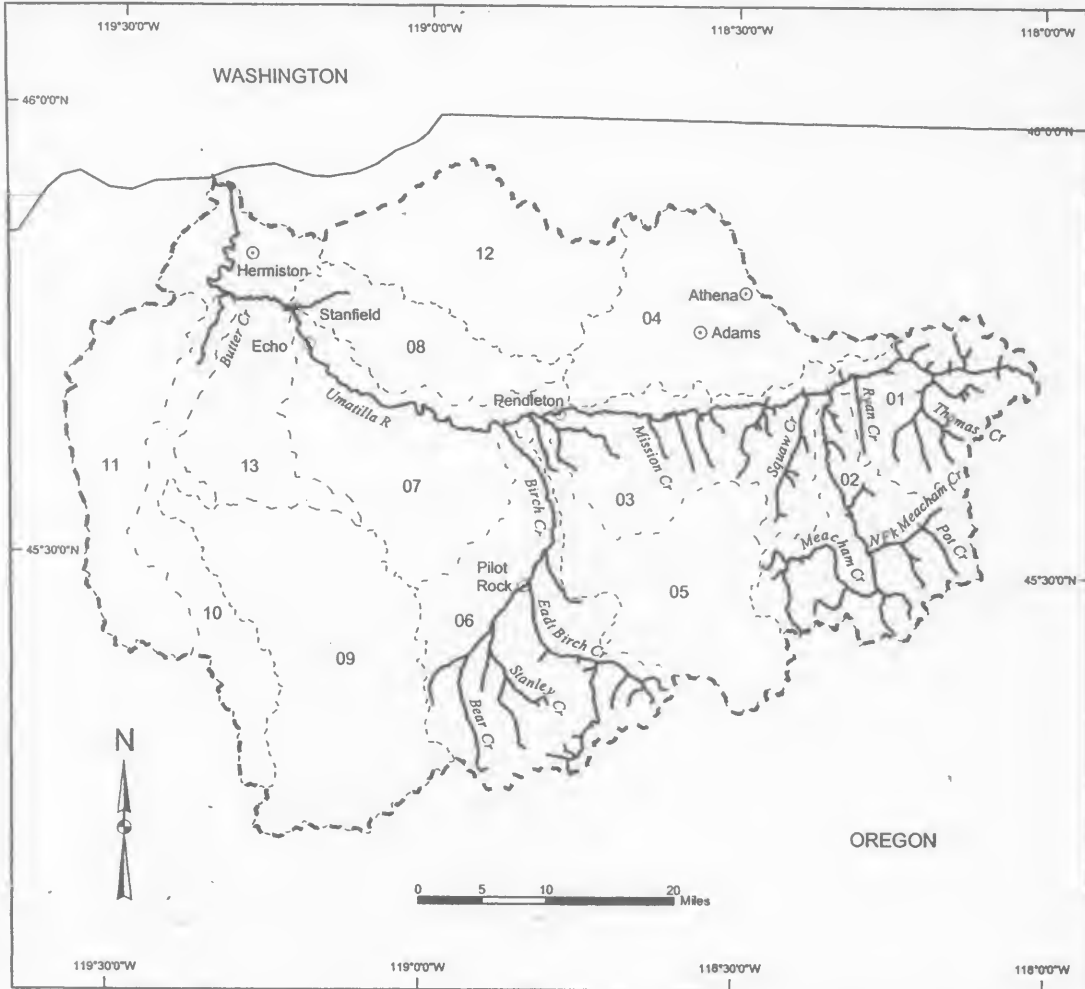
- Cities / Towns
- State Boundary
- Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 11 = Watershed code - last 2 digits of 17070102xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**UMATILLA SUBBASIN
17070103, Unit 6**



Legend

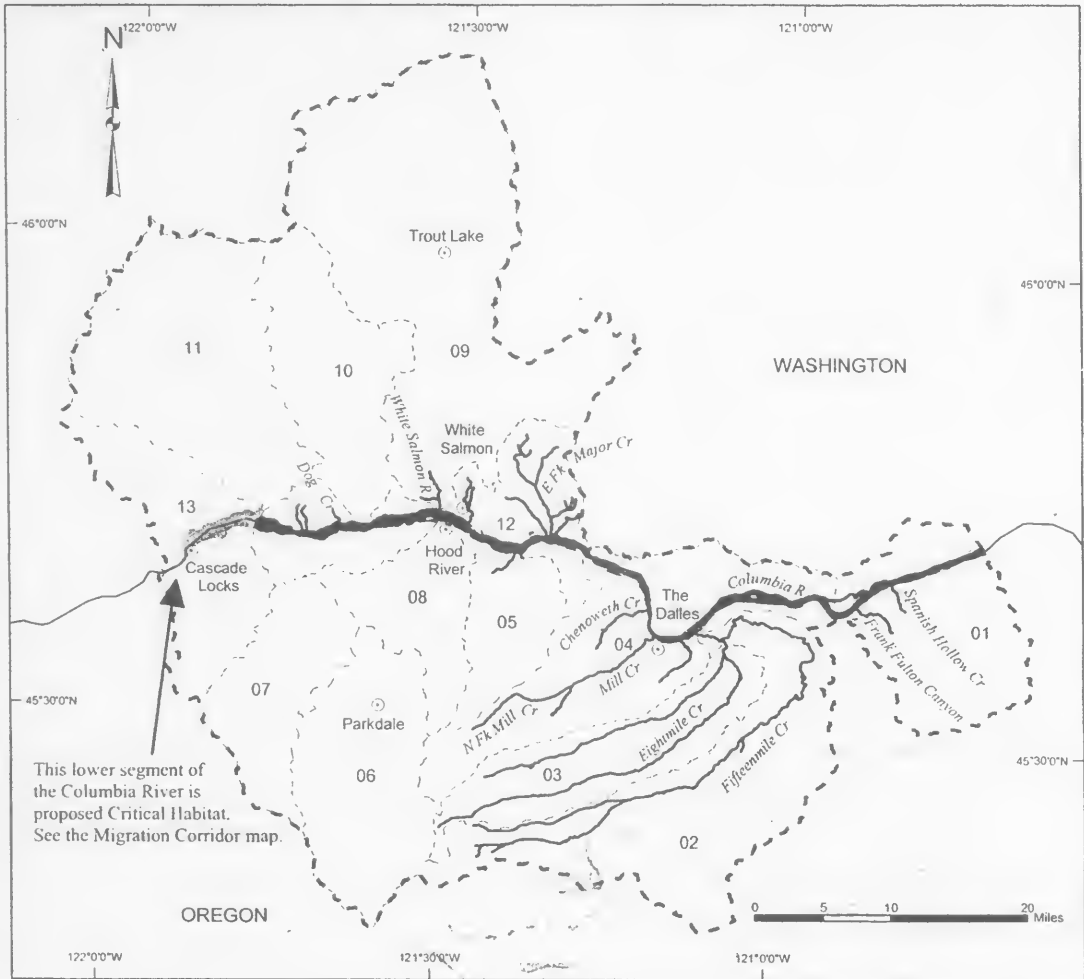
- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17070103xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**MIDDLE COLUMBIA / HOOD SUBBASIN
17070105, Unit 7**



This lower segment of the Columbia River is proposed Critical Habitat. See the Migration Corridor map.

Legend

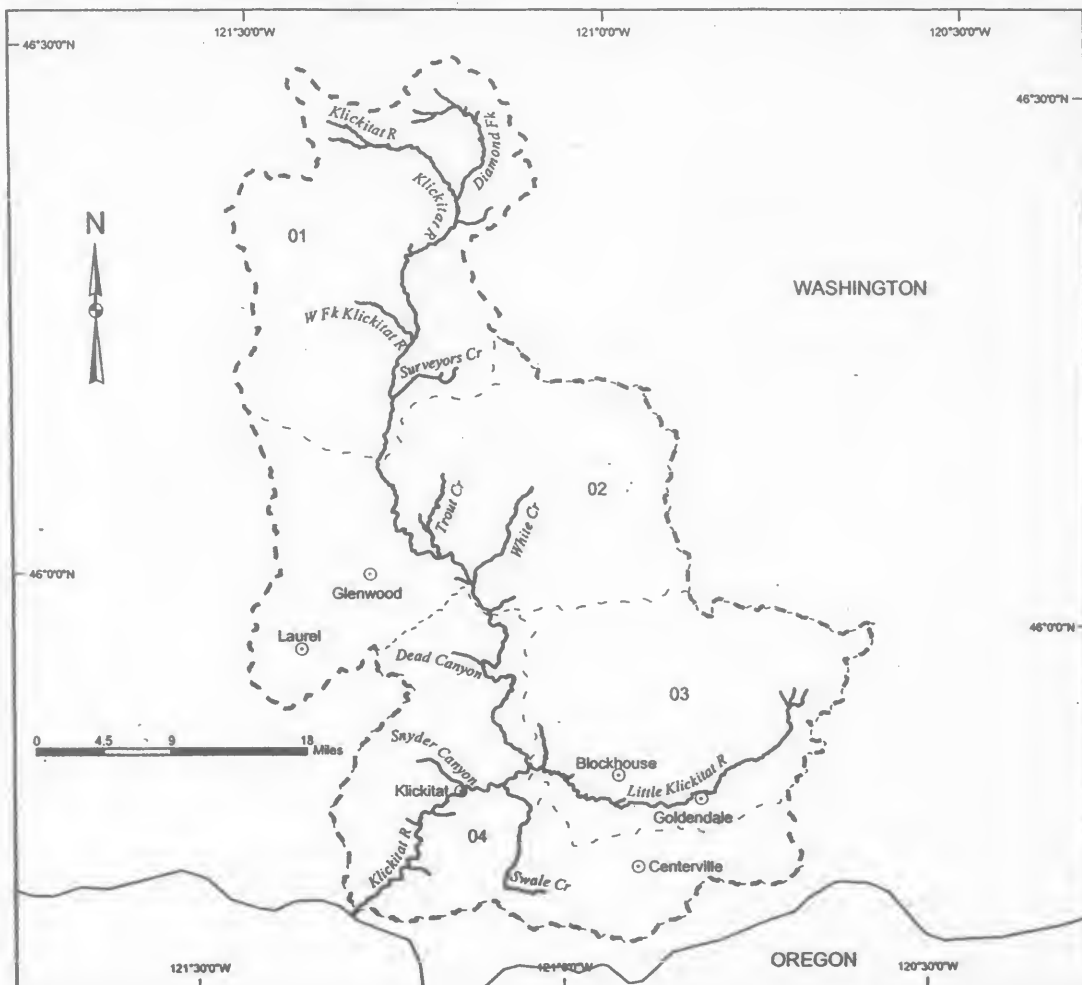
- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17070105xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**Klickitat Subbasin
17070106, Unit 8**



Legend

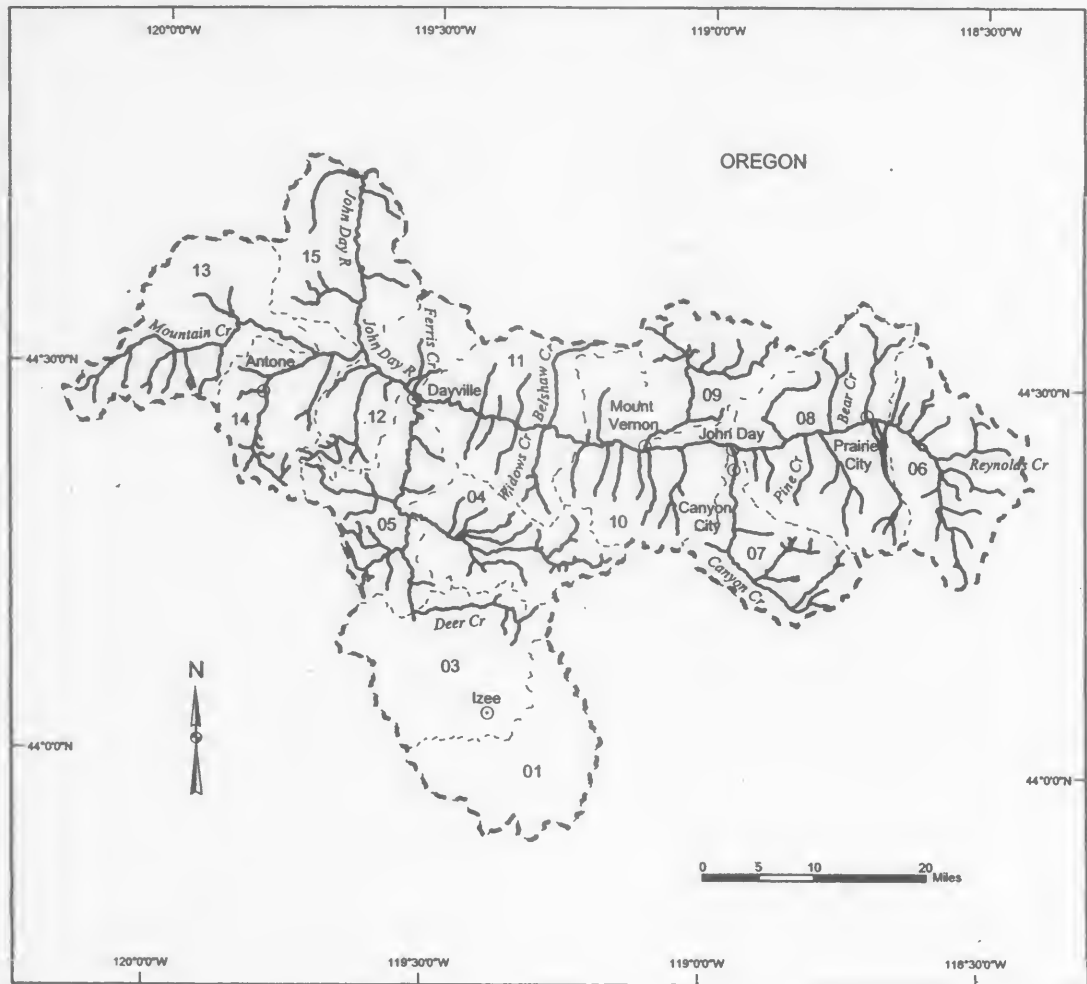
- Cities / Towns
- State Boundary
- Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17070106xx



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**UPPER JOHN DAY SUBBASIN
17070201, Unit 9**



Legend

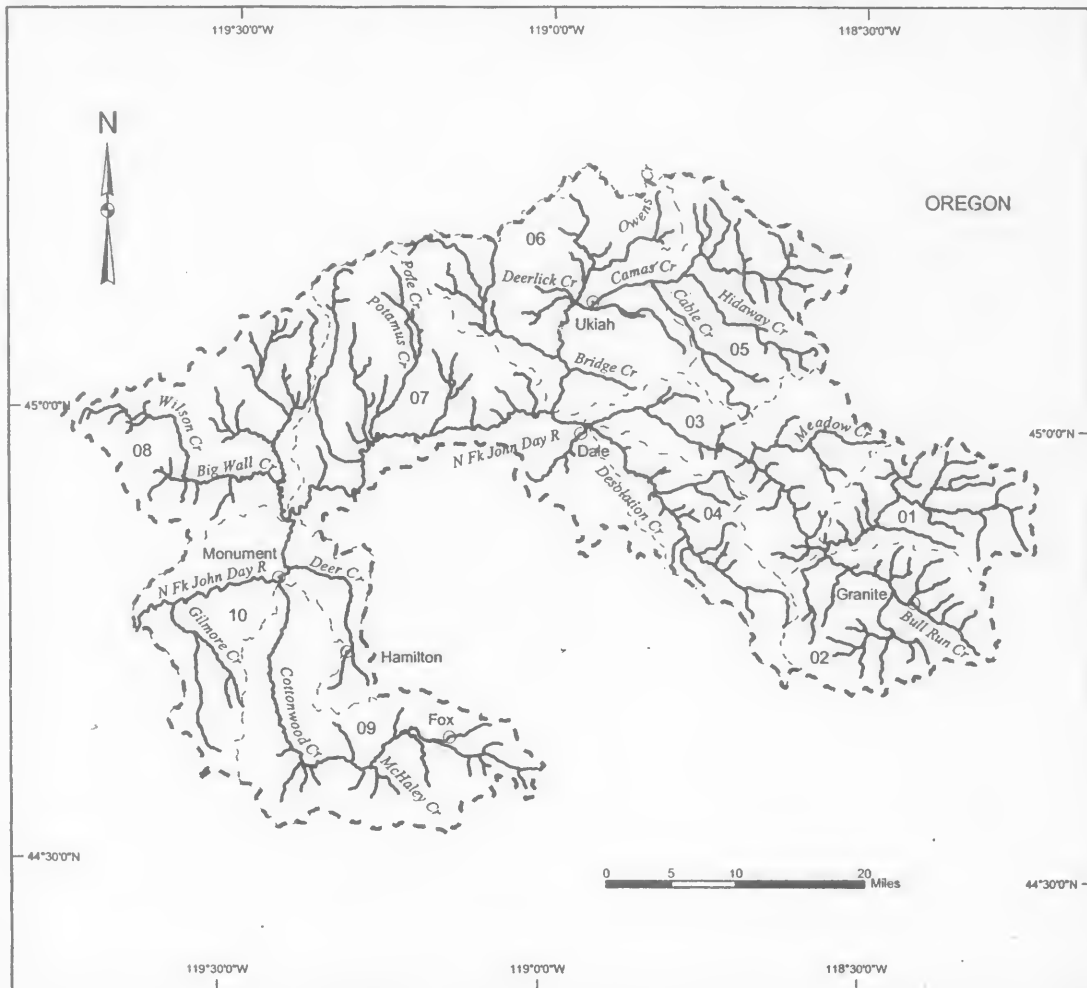
- Cities / Towns
 - ~~~~~ Proposed Critical Habitat
 - - - - Subbasin Boundary
 - - - - Watershed Boundaries
- 01, 03 - 15 = Watershed code - last 2 digits of 17070201xx

Area of Detail



**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**NORTH FORK JOHN DAY SUBBASIN
17070202, Unit 10**



Legend

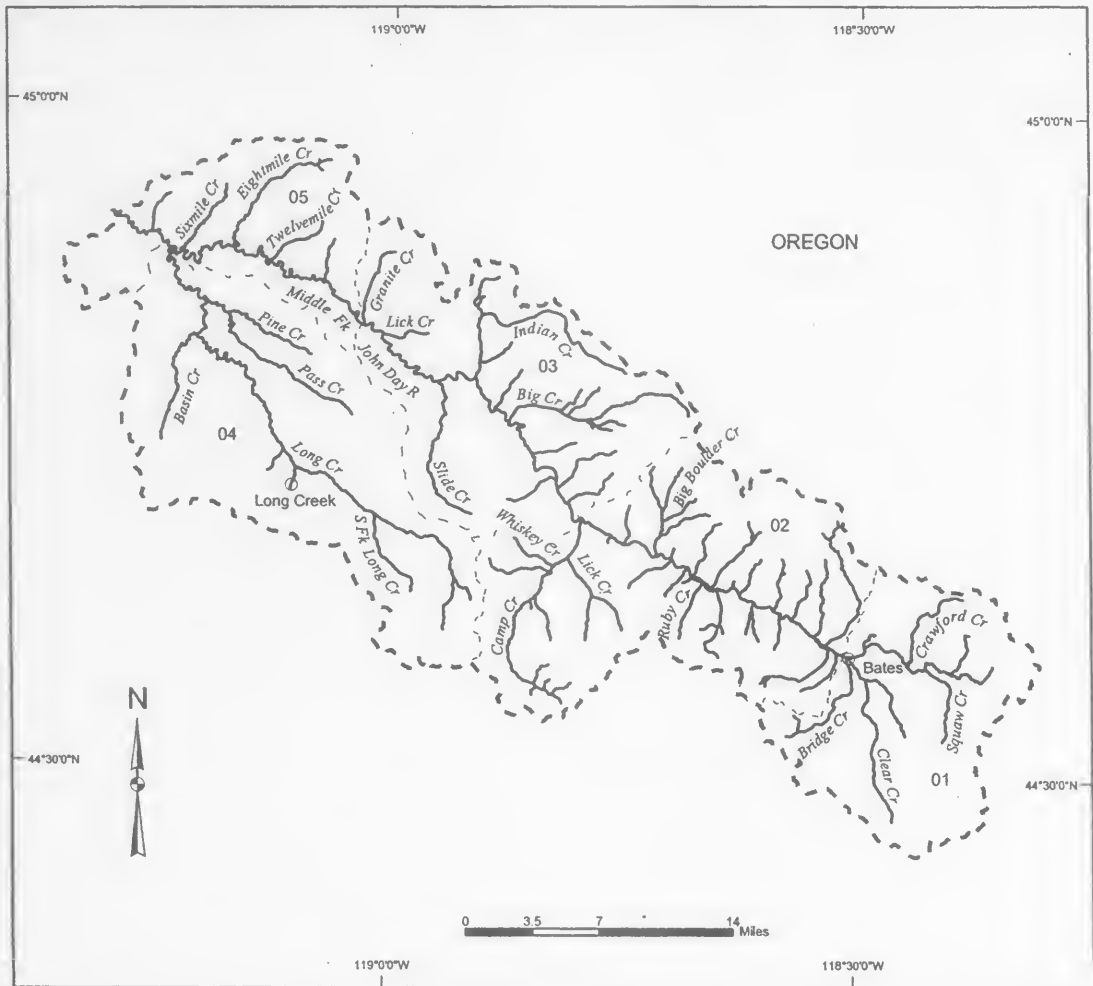
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 10 = Watershed code - last 2 digits of 17070202xx

Area of Detail

**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**MIDDLE FORK JOHN DAY SUBBASIN
17070203, Unit 11**



Legend

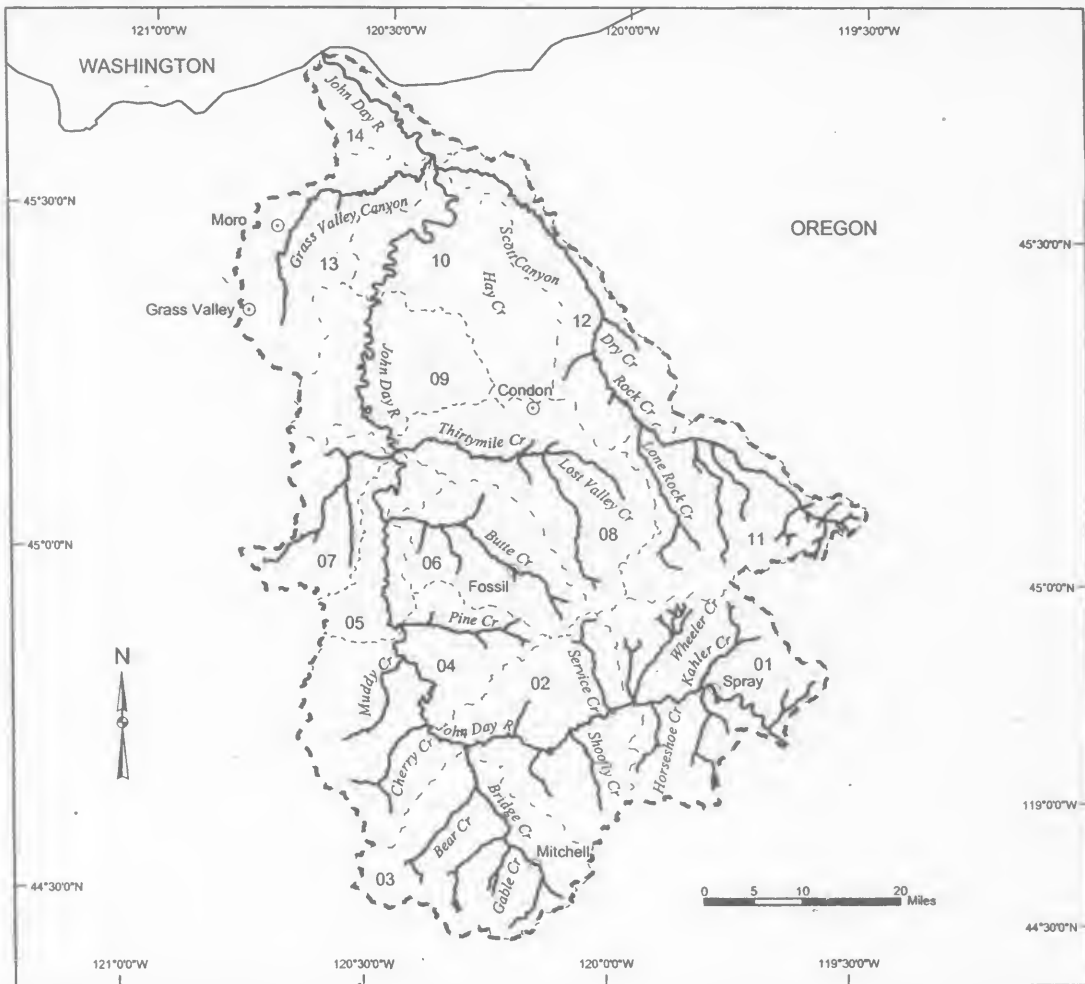
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17070203xx

Area of Detail

Proposed Critical Habitat for the Middle Columbia River O. Mykiss ESU

LOWER JOHN DAY SUBBASIN 17070204, Unit 12



Legend

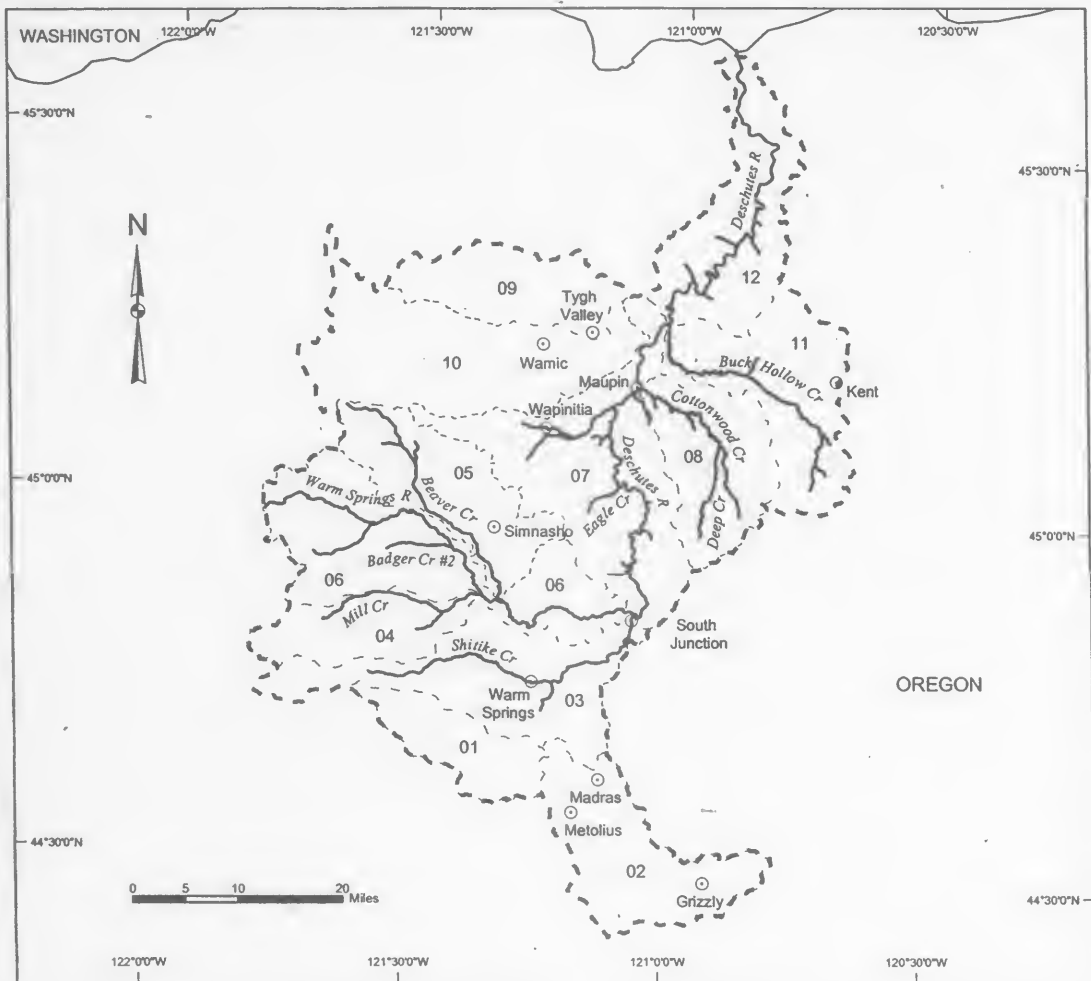
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- · - · - Watershed Boundaries

01 - 14 = Watershed code - last 2 digits of 17070204xx



Proposed Critical Habitat for the Middle Columbia River O. Mykiss ESU

LOWER DESCHUTES SUBBASIN 17070306, Unit 13



Legend

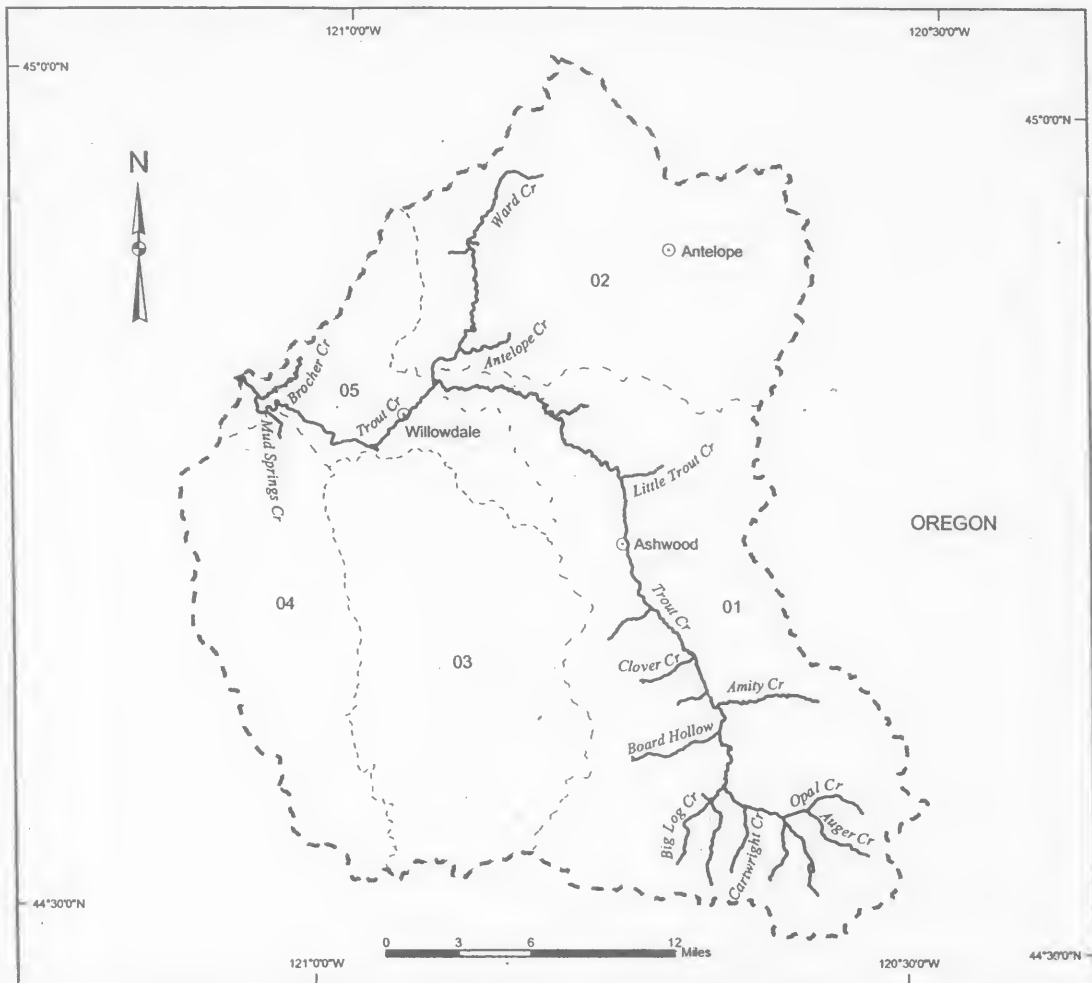
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Watershed Boundaries
- - - Subbasin Boundary

01 - 12 = Watershed code - last 2 digits of 17070306xx

Area of Detail

**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**TROUT SUBBASIN
17070307, Unit 14**



Legend

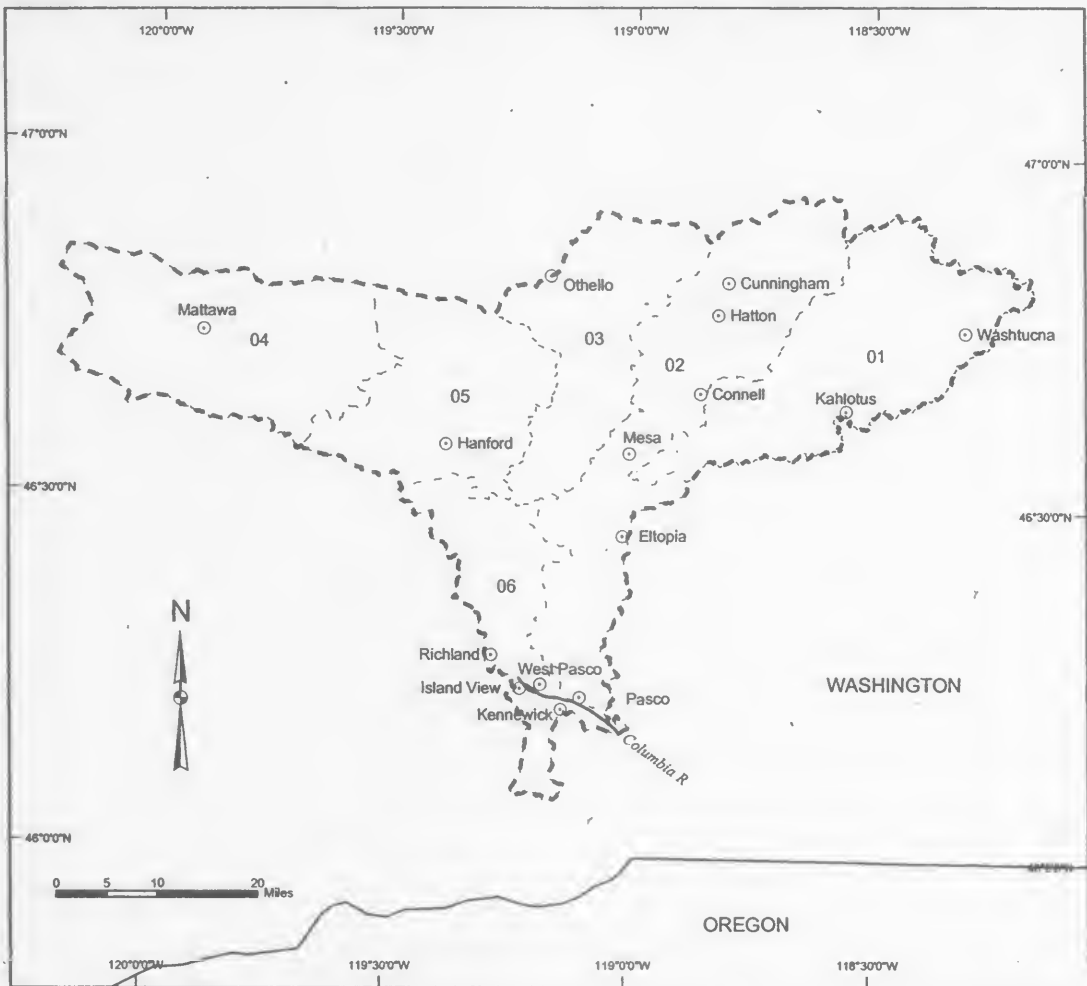
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17070307xx

Area of Detail

**Proposed Critical Habitat for the
Middle Columbia River O. Mykiss ESU**

**UPPER COLUMBIA / PRIEST RAPIDS SUBBASIN
17020016, Unit 15**



Legend

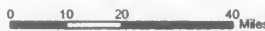
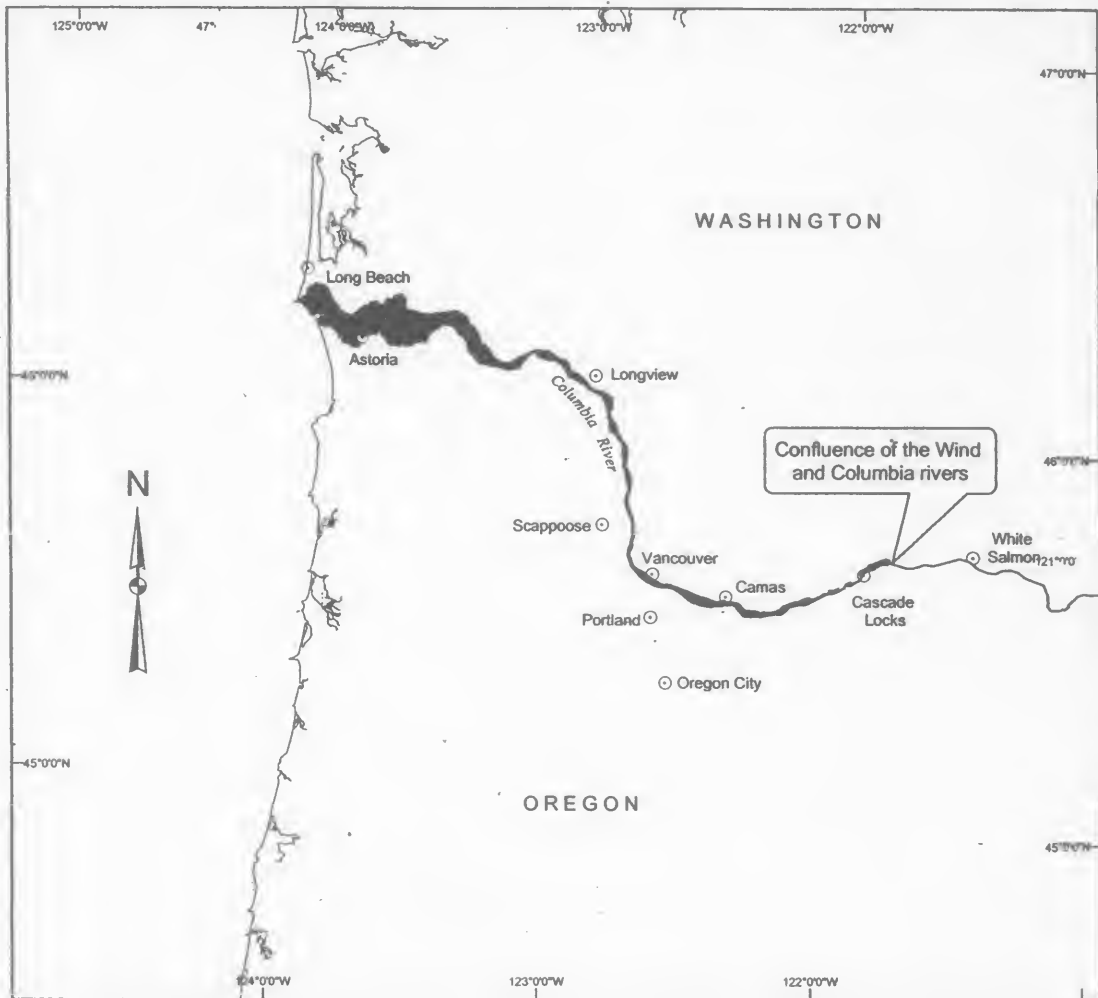
- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Watershed Boundaries
- - - Subbasin Boundary

01 - 06 = Watershed code - last 2 digits of 17020016xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A shaded area in the northern part of Washington indicates the location of the Upper Columbia / Priest Rapids Subbasin.

Rearing / Migration Corridor for the Middle Columbia River O. Mykiss ESU, Unit 16



Legend

- Cities / Towns
- State Boundary
- Rearing / Migration Corridor

Middle Columbia River O. Mykiss ESU

Unit 16. Columbia River Corridor
 The Columbia River Corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to the confluence of the Wind River.

BILLING CODE 3510-22-C

(q) Lower Columbia River *Oncorhynchus mykiss*. Critical habitat is proposed to include the areas defined in the following units:

(1) Unit 1. Middle Columbia/Hood Subbasin 17070105—(i) *East Fork Hood River Watershed 1707010506*. Outlet(s) = Hood River (Lat 45.6050, Long -121.6323) upstream to endpoint(s) in: Baldwin Creek (45.5618, -121.5585); Bear Creek (45.4894, -121.6516); Cat Creek (45.4708, -121.5591); Clark Creek (45.3335, -121.6420); Coe Branch (45.4342, -121.6673); Cold Spring Creek (45.4020, -121.5873); Culvert Creek (45.3770, -121.5660); Dog River (45.4404, -121.5623); East Fork Hood River (45.3172, -121.6390); Eliot Branch, Middle Fork Hood River (45.4534, -121.6362); Emil Creek (45.5223, -121.5886); Evans Creek (45.4872, -121.5894); Graham Creek (45.5463, -121.5639); Meadows Creek (45.3195, -121.6279); Newton Creek (45.3370, -121.6261); Pinnacle Creek (45.4595, -121.6568); Pocket Creek (45.3025, -121.5969); Polallie Creek (45.4132, -121.5826); Tony Creek (45.5254, -121.6584); Unnamed (45.3470, -121.5843); Unnamed (45.4661, -121.5627); Unnamed (45.5208, -121.6198); Unnamed (45.5445, -121.5738).

(ii) *West Fork Hood River Watershed 1707010507*. Outlet(s) = West Fork Hood River (Lat 45.6050, Long -121.6323) upstream to endpoint(s) in: Divers Creek (45.5457, -121.7447); Elk Creek (45.4294, -121.7884); Green Point Creek (45.5915, -121.6981); Indian Creek (45.5375, -121.7857); Jones Creek (45.4673, -121.8020); Lake Branch (45.5083, -121.8485); McGee Creek (45.4120, -121.7598); No Name Creek (45.5347, -121.7929); Red Hill Creek (45.4720, -121.7705); Unnamed (45.5502, -121.7014).

(iii) *Hood River Watershed 1707010508*. Outlet(s) = Hood River (Lat 45.7237, Long -121.5049) upstream to endpoint(s) in: Hood River (45.6050, -121.6323); Lenz Creek (45.6291, -121.5220); Neal Creek (45.5787, -121.4875); West Fork Neal Creek (45.5751, -121.5215); Whiskey Creek (45.6827, -121.5064).

(iv) *Wind River Watershed 1707010511*. Outlet(s) = Wind River (Lat 45.7067, Long -121.7929) upstream to endpoint(s) in: Bear Creek (45.7619, -121.8295); Big Hollow Creek (45.9408, -122.0075); Bourbon Creek (45.9246, -121.9982); Brush Creek (45.7720, -121.7528); Cedar Creek (45.8388, -121.7956); Compass Creek (45.8372, -122.0633); Crater Creek (45.8637, -122.0639); Dry Creek (45.9551, -121.9924); East Fork Trout Creek (45.8503, -122.0096); Eightmile Creek (45.8616, -121.8966); Falls Creek (45.9107, -121.9151); Hollis Creek (45.8524, -121.9304); Jimmy Creek (45.7886, -121.8409); Layout Creek

(45.8096, -122.0475); Little Wind River (45.7763, -121.7222); Martha Creek (45.7846, -121.9482); Mouse Creek (45.8415, -121.8428); Ninemile Creek (45.8942, -121.9023); Oldman Creek (45.9856, -121.9369); Panther Creek (45.8605, -121.8422); Pass Creek (45.8555, -122.0133); Planting Creek (45.8071, -122.0010); Proverbial Creek (45.9816, -121.9654); Tenmile Creek (45.8760, -121.8694); Trapper Creek (45.9113, -122.0470); Trout Creek (45.8679, -122.0477); Unnamed (45.7862, -121.9097); Unnamed (45.8008, -121.9881); Unnamed (45.8025, -121.9678); Unnamed (45.8142, -122.0204); Unnamed (45.8149, -122.0532); Unnamed (45.8161, -121.8437); Unnamed (45.8206, -121.8111); Unnamed (45.8218, -121.9470); Unnamed (45.8242, -122.0295); Unnamed (45.8427, -121.9180); Unnamed (45.8509, -121.9190); Unnamed (45.8529, -122.0406); Unnamed (45.8551, -122.0638); Unnamed (45.8610, -121.9635); Unnamed (45.8637, -122.0625); Unnamed (45.8640, -121.9764); Unnamed (45.8682, -121.9714); Unnamed (45.8940, -122.0348); Unnamed (45.8965, -122.0035); Unnamed (45.9652, -121.9517); Unnamed (45.9798, -121.8873); Unnamed (45.9844, -121.9171); Wind River (45.9964, -121.9000).

(v) *Middle Columbia/Grays Creek Watershed 1707010512*. Outlet(s) = Columbia River (Lat 45.7070, Long -121.7943) upstream to endpoint(s) in: Columbia River (45.7237, -121.5049).

(vi) *Middle Columbia/Eagle Creek Watershed 1707010513*. Outlet(s) = Columbia River (Lat 45.6453, Long -121.9395) upstream to endpoint(s) in: Columbia River (45.7070, -121.7943).

(2) Unit 2. Lower Columbia/Sandy Subbasin 17080001—(i) *Salmon River Watershed 17080001*. Outlet(s) = Salmon River (Lat 45.3768, Long -122.0293) upstream to endpoint(s) in: Bighorn Creek (45.2582, -121.9204); Boulder Creek (45.3027, -122.0209); Cheeney Creek (45.2919, -121.9710); Copper Creek (45.2454, -121.9051); Mack Hall Creek (45.2391, -121.9508); Salmon River (45.2511, -121.9025); South Fork Salmon River (45.2500, -121.9770); Unnamed (45.2576, -121.9068); Unnamed (45.2600, -121.9093); Unnamed (45.2633, -121.9153); Unnamed (45.2646, -121.9175); Unnamed (45.2708, -121.9246); Unnamed (45.2946, -121.9388); Unnamed (45.3161, -121.9565); Unnamed (45.3225, -121.9609); Unnamed (45.3254, -121.9582); Unnamed (45.3277, -121.9635); Unnamed (45.3336,

-121.9538); Unnamed (45.3383, -121.9768); Unnamed (45.3398, -121.9954).

(ii) *Zigzag River Watershed 1708000102*. Outlet(s) = Zigzag River (Lat 45.3489, Long -121.9442) upstream to endpoint(s) in: Camp Creek (45.3070, -121.7921); Cool Creek (45.2867, -121.8849); Devil Canyon (45.3186, -121.8587); Henry Creek (45.3241, -121.8869); Lady Creek (45.3199, -121.8225); Little Zigzag Canyon (45.3138, -121.8035); Still Creek (45.3167, -121.7228); Unnamed (45.2647, -121.8342); Unnamed (45.2706, -121.8194); Unnamed (45.2793, -121.8529); Unnamed (45.2801, -121.8537); Wind Creek (45.2961, -121.8515); Zigzag River (45.3270, -121.7786).

(iii) *Upper Sandy River Watershed 1708000103*. Outlet(s) = Sandy River (Lat 45.3489, Long -121.9442) upstream to endpoint(s) in: Cast Creek (45.3794, -121.8538); Clear Creek (45.3998, -121.8936); Clear Fork (45.4256, -121.8006); Horseshoe Creek (45.3664, -121.8680); Little Clear Creek (45.3854, -121.9190); Lost Creek (45.3670, -121.8091); Muddy Fork (45.3920, -121.7577); Sandy River (45.3719, -121.7560); Unnamed (45.3813, -121.8954); Unnamed (45.3904, -121.7979); Unnamed (45.4090, -121.8056); Unnamed (45.4164, -121.8342).

(iv) *Middle Sandy River Watershed 1708000104*. Outlet(s) = Sandy River (Lat 45.4464, Long -122.2459) upstream to endpoint(s) in: Alder Creek (45.3459, -122.0875); Bear Creek #2 (45.3368, -121.9265); Cedar Creek (45.4046, -122.2513); Hackett Creek (45.3525, -121.9504); North Boulder Creek (45.3900, -122.0037); Sandy River (45.3489, -121.9442); Unnamed (45.3469, -122.0673); Unnamed (45.3699, -122.0764); Unnamed (45.3808, -122.0325); Unnamed (45.3864, -122.0355); Whiskey Creek (45.3744, -122.1202).

(v) *Washougal River Watershed 1708000106*. Outlet(s) = Unnamed (Lat 45.5812, Long -122.4077); Washougal River (45.5795, -122.4023) upstream to endpoint(s) in: Bear Creek (45.7732, -122.1468); Bluebird Creek (45.7486, -122.1717); Cougar Creek (45.6514, -122.2677); Dougan Creek (45.7080, -122.1817); East Fork Little Washougal River (45.6722, -122.2827); Grouse Creek (45.7574, -122.1352); Hagen Creek (45.7154, -122.2518); Jackson Creek (45.6755, -122.2530); Jones Creek (45.6913, -122.2870); Lacamas Creek (45.5972, -122.3933); Little Washougal River (45.7006, -122.3212); Lookout Creek (45.7806, -122.1006); Meander Creek (45.7708, -122.0848);

- Prospector Creek (45.7590, -122.0890); Silver Creek (45.7343, -122.1694); Stebbins Creek (45.7285, -122.0683); Texas Creek (45.6946, -122.1873); Timber Creek (45.7236, -122.1001); Unnamed (45.5873, -122.4121); Unnamed (45.6002, -122.3312); Unnamed (45.6132, -122.3238); Unnamed (45.6177, -122.2425); Unnamed (45.6206, -122.3449); Unnamed (45.6213, -122.2807); Unnamed (45.6243, -122.2283); Unnamed (45.6251, -122.3419); Unnamed (45.6279, -122.2549); Unnamed (45.6297, -122.2463); Unnamed (45.6321, -122.2753); Unnamed (45.6328, -122.2574); Unnamed (45.6382, -122.2915); Unnamed (45.6477, -122.3665); Unnamed (45.6487, -122.3336); Unnamed (45.6507, -122.1562); Unnamed (45.6531, -122.2739); Unnamed (45.6594, -122.2062); Unnamed (45.6622, -122.3015); Unnamed (45.6625, -122.3446); Unnamed (45.6675, -122.3415); Unnamed (45.6694, -122.1553); Unnamed (45.6703, -122.3399); Unnamed (45.6721, -122.1725); Unnamed (45.6749, -122.3370); Unnamed (45.6798, -122.2905); Unnamed (45.6835, -122.3336); Unnamed (45.6836, -122.1146); Unnamed (45.6871, -122.2996); Unnamed (45.6934, -122.1063); Unnamed (45.6949, -122.3305); Unnamed (45.6959, -122.3149); Unnamed (45.6965, -122.0837); Unnamed (45.7074, -122.1566); Unnamed (45.7080, -122.2600); Unnamed (45.7092, -122.2510); Unnamed (45.7179, -122.0744); Unnamed (45.7201, -122.1360); Unnamed (45.7249, -122.1067); Unnamed (45.7285, -122.1965); Unnamed (45.7303, -122.1126); Unnamed (45.7458, -122.1328); Unnamed (45.7476, -122.0518); Unnamed (45.7482, -122.1594); Unnamed (45.7624, -122.1308); Unnamed (45.7841, -122.1211); Washougal River (45.7798, -122.1403); West Fork Washougal River (45.7382, -122.2173); Wildboy Creek (45.6712, -122.2172); Winkler Creek (45.6377, -122.2588).
- (vi) *Columbia Gorge Tributaries Watershed 1708000107*. Outlet(s) = Columbia River (Lat 45.5710, Long -122.4021) upstream to endpoint(s) in: Columbia River (45.6453, -121.9395).
- (vii) *Lower Sandy River Watershed 1708000108*. Outlet(s) = Sandy River (Lat 45.5679, Long -122.4023) upstream to endpoint(s) in: Beaver Creek (45.4959, -122.3643); Big Creek (45.5068, -122.2966); Buck Creek (45.4985, -122.2671); Gordon Creek (45.5021, -122.1805); Kelly Creek (45.5134, -122.3953); Sandy River (45.4464, -122.2459); Smith Creek (45.5136, -122.3339); Trout Creek (45.4819, -122.2769); Unnamed (45.4889, -122.3513); Unnamed (45.5557, -122.3715); Unnamed (45.5600, -122.3650).
- (3) Unit 3. Lewis Subbasin 17080002—(i) *East Fork Lewis River Watershed 1708000205*. Outlet(s) = Allen Creek (Lat 45.8641, Long -122.7499); East Fork Lewis River (45.8664, -122.7189); Gee Creek (45.8462, -122.7803) upstream to endpoint(s) in: Allen Creek (45.8279, -122.6968); Anaconda Creek (45.8208, -122.2652); Basket Creek (45.8327, -122.4579); Big Tree Creek (45.8572, -122.3728); Brezee Creek (45.8625, -122.6637); Cedar Creek (45.7226, -122.3290); Cold Creek (45.7493, -122.3252); Copper Creek (45.8177, -122.2637); Coyote Creek (45.7554, -122.2641); East Fork Lewis River (45.8380, -122.0948); Gee Creek (45.7920, -122.6679); Green Fork (45.8462, -122.1274); Grouse Creek (45.7214, -122.2709); King Creek (45.7802, -122.2552); Little Creek (45.8417, -122.1779); Lockwood Creek (45.8986, -122.5953); Mason Creek (45.8661, -122.5430); McCormick Creek (45.8521, -122.6907); McKinley Creek (45.8026, -122.1797); Niccolls Creek (45.8148, -122.3093); Poison Gulch (45.7898, -122.1617); Riley Creek (45.8936, -122.6175); Rock Creek (45.7375, -122.2571); Roger Creek (45.8183, -122.3426); Slide Creek (45.8477, -122.2090); Unnamed (45.7212, -122.3389); Unnamed (45.7623, -122.2727); Unnamed (45.7697, -122.3157); Unnamed (45.7726, -122.6651); Unnamed (45.7770, -122.3539); Unnamed (45.7802, -122.6068); Unnamed (45.7858, -122.3283); Unnamed (45.7916, -122.3780); Unnamed (45.7919, -122.2780); Unnamed (45.7961, -122.1312); Unnamed (45.7980, -122.5650); Unnamed (45.8033, -122.6667); Unnamed (45.8038, -122.3545); Unnamed (45.8075, -122.1120); Unnamed (45.8076, -122.6285); Unnamed (45.8079, -122.2942); Unnamed (45.8146, -122.4818); Unnamed (45.8147, -122.3144); Unnamed (45.8149, -122.5653); Unnamed (45.8172, -122.5742); Unnamed (45.8207, -122.4916); Unnamed (45.8230, -122.7069); Unnamed (45.8242, -122.6390); Unnamed (45.8292, -122.6040); Unnamed (45.8306, -122.3769); Unnamed (45.8353, -122.4842); Unnamed (45.8363, -122.1252); Unnamed (45.8368, -122.6498); Unnamed (45.8381, -122.4685); Unnamed (45.8427, -122.3708); Unnamed (45.8432, -122.1480); Unnamed (45.8434, -122.2292); Unnamed (45.8439, -122.6478); Unnamed (45.8471, -122.7486); Unnamed (45.8475, -122.6486); Unnamed (45.8484, -122.4401); Unnamed (45.8498, -122.7300); Unnamed (45.8502, -122.5228); Unnamed (45.8513, -122.1323); Unnamed (45.8537, -122.5973); Unnamed (45.8600, -122.6112); Unnamed (45.8604, -122.3831); Unnamed (45.8606, -122.3981); Unnamed (45.8662, -122.5772); Unnamed (45.8667, -122.5744); Unnamed (45.8689, -122.4227); Unnamed (45.8698, -122.6777); Unnamed (45.8756, -122.4795); Unnamed (45.8813, -122.4772); Unnamed (45.8899, -122.6256); Unnamed (45.8986, -122.5742); Unnamed (45.8988, -122.6123); Unnamed (45.9055, -122.5187); Yacolt Creek (45.8761, -122.4220).
- (ii) *Lower Lewis River Watershed 1708000206*. Outlet(s) = Lewis River (Lat 45.8519, Long -122.7806) upstream to endpoint(s) in: Bitter Creek (45.9133, -122.4593); Brush Creek (45.9280, -122.4674); Cedar Creek (45.9019, -122.3655); Chelatchie Creek (45.9357, -122.3784); Colvin Creek (45.9400, -122.6081); Houghton Creek (45.9559, -122.6348); John Creek (45.9291, -122.4964); Johnson Creek (45.9536, -122.6183); Lewis River (45.9570, -122.5550); Pup Creek (45.9486, -122.5245); Robinson Creek (45.9362, -122.7243); Ross Creek (45.9536, -122.7043); Staples Creek (45.9423, -122.6665); Unnamed (45.8696, -122.7658); Unnamed (45.8878, -122.3688); Unnamed (45.8928, -122.4209); Unnamed (45.8940, -122.4371); Unnamed (45.9001, -122.7226); Unnamed (45.9136, -122.6836); Unnamed (45.9141, -122.5565); Unnamed (45.9172, -122.3591); Unnamed (45.9202, -122.5339); Unnamed (45.9203, -122.4557); Unnamed (45.9245, -122.3731); Unnamed (45.9258, -122.5964); Unnamed (45.9294, -122.6225); Unnamed (45.9396, -122.4097); Unnamed (45.9417, -122.7035); Unnamed (45.9436, -122.6417); Unnamed (45.9438, -122.6190); Unnamed (45.9446, -122.6437); Unnamed (45.9457, -122.3926); Unnamed (45.9474, -122.6695); Unnamed (45.9549, -122.6967).
- (4) Unit 4. Lower Columbia/ Clatskanie Subbasin 17080003—*Kalama River Watershed 1708000301*. Outlet(s) = Burris Creek (Lat 45.8926, Long -122.7892); Bybee Creek (45.9667,

- 122.8150); Kalama River (46.0340, - 122.8695); Mill Creek (45.9579, - 122.8030); Schoolhouse Creek (45.9785, - 122.8282); Unnamed (46.0001, - 122.8438); Unnamed (46.0075, - 122.8455) upstream to endpoint(s) in: Arnold Creek (46.0206, - 122.5638); Bear Creek (46.0951, - 122.5772); Burris Creek (45.9506, - 122.7428); Bush Creek (46.0828, - 122.4611); Bybee Creek (45.9695, - 122.8135); Canyon Creek (45.9540, - 122.7925); Cedar Creek (46.0333, - 122.8110); Dee Creek (45.9953, - 122.6525); Elk Creek (46.1154, - 122.4796); Hatchery Creek (46.0673, - 122.7548); Indian Creek (46.0516, - 122.7502); Jacks Creek (46.0400, - 122.5014); Kalama River (46.1109, - 122.3579); Knowlton Creek (46.0245, - 122.6454); Langdon Creek (46.1137, - 122.4364); Little Kalama River (45.9745, - 122.6604); Lost Creek (46.0692, - 122.5292); Mill Creek (45.9741, - 122.7756); North Fork Elk Creek (46.1086, - 122.5284); North Fork Kalama River (46.1550, - 122.4007); Schoolhouse Creek (45.9810, - 122.8217); Spencer Creek (46.0253, - 122.8285); Summers Creek (46.0357, - 122.6529); Unnamed (45.9034, - 122.7792); Unnamed (45.9423, - 122.7761); Unnamed (45.9683, - 122.7751); Unnamed (45.9772, - 122.6534); Unnamed (45.9820, - 122.7123); Unnamed (45.9830, - 122.8249); Unnamed (45.9957, - 122.6742); Unnamed (46.0023, - 122.8001); Unnamed (46.0034, - 122.8330); Unnamed (46.0059, - 122.7350); Unnamed (46.0064, - 122.7377); Unnamed (46.0238, - 122.5834); Unnamed (46.0257, - 122.5913); Unnamed (46.0389, - 122.6305); Unnamed (46.0437, - 122.5713); Unnamed (46.0440, - 122.8548); Unnamed (46.0462, - 122.5097); Unnamed (46.0473, - 122.7668); Unnamed (46.0611, - 122.5514); Unnamed (46.0618, - 122.4290); Unnamed (46.0634, - 122.5630); Unnamed (46.0645, - 122.3953); Unnamed (46.0861, - 122.6708); Unnamed (46.0882, - 122.5729); Unnamed (46.0982, - 122.4887); Unnamed (46.0986, - 122.6384); Unnamed (46.0998, - 122.6089); Unnamed (46.1031, - 122.3851); Unnamed (46.1076, - 122.5965); Unnamed (46.1086, - 122.4399); Unnamed (46.1088, - 122.3440); Unnamed (46.1124, - 122.6411); Unnamed (46.1153, - 122.5646); Unnamed (46.1159, - 122.5728); Unnamed (46.1169, - 122.3397); Unnamed (46.1242, - 122.5932); Unnamed (46.1244, - 122.4255); Unnamed (46.1355, - 122.4413); Unnamed (46.1451, - 122.4279); Unnamed (46.1543, - 122.4131); Unnamed (46.1559, - 122.4254); Wild Horse Creek (46.1018, - 122.6755); Wolf Creek (46.0523, - 122.4334).
- (5) Unit 5. Upper Cowlitz Subbasin 17080004—(i) *Headwaters Cowlitz River Watershed 1708000401*. Outlet(s) = Cowlitz River (Lat 46.6580, Long - 121.6032) upstream to endpoint(s) in: Clear Fork Cowlitz River (46.6846, - 121.5668); Muddy Fork Cowlitz River (46.6973, - 121.6177); Ohanapecosh River (46.6909, - 121.5809); Purcell Creek (46.6722, - 121.5877).
- (ii) *Upper Cowlitz River Watershed 1708000402*. Outlet(s) = Cowlitz River (Lat 46.5742, Long - 121.7059) upstream to endpoint(s) in: Butter Creek (46.6451, - 121.6749); Coal Creek (46.6438, - 121.6108); Cowlitz River (46.6580, - 121.6032); Hall Creek (46.6044, - 121.6609); Johnson Creek (46.5546, - 121.6373); Lake Creek (46.6227, - 121.6093); Skate Creek (46.6850, - 121.8052); Unnamed (46.6930, - 121.8024).
- (iii) *Cowlitz Valley Frontal Watershed 1708000403*. Outlet(s) = Cowlitz River (Lat 46.4765, Long - 122.0952) upstream to endpoint(s) in: Burton Creek (46.5423, - 121.7505); Cowlitz River (46.5742, - 121.7059); Davis Creek (46.5410, - 121.8084); Kilborn Creek (46.5081, - 121.8007); Oliver Creek (46.5450, - 121.9928); Peters Creek (46.5386, - 121.9830); Siler Creek (46.4931, - 121.9085); Silver Creek (46.5909, - 121.9253); Smith Creek (46.5620, - 121.6923); Unnamed (46.4913, - 122.0820); Unnamed (46.5657, - 122.0489); Willame Creek (46.5805, - 121.7319).
- (iv) *Upper Cispus River Watershed 1708000404*. Outlet(s) = Cispus River (Lat 46.4449, Long - 121.7954) upstream to endpoint(s) in: Cispus River (46.3450, - 121.6833); East Canyon Creek (46.3472, - 121.7028); North Fork Cispus River (46.4362, - 121.6479); Timonium Creek (46.4318, - 121.6548); Twin Creek (46.3748, - 121.7297); Yozoo Creek (46.4363, - 121.6637).
- (v) *Lower Cispus River Watershed 1708000405*. Outlet(s) = Cispus River (Lat 46.4765, Long - 122.0952) upstream to endpoint(s) in: Ames Creek (46.4654, - 121.9233); Camp Creek (46.4513, - 121.8301); Cispus River (46.4449, - 121.7954); Covell Creek (46.4331, - 121.8516); Crystal Creek (46.4454, - 122.0234); Greenhorn Creek (46.4217, - 121.9042); Iron Creek (46.3887, - 121.9702); McCoy Creek (46.3891, - 121.8190); Quartz Creek (46.4250, - 122.0519); Unnamed (46.4633, - 121.9548); Woods Creek (46.4741, - 121.9473); Yellowjacket Creek (46.3869, - 121.8342).
- (6) Unit 6. Cowlitz Subbasin 17080005—(i) *Tilton River Watershed 1708000501*. Outlet(s) = Tilton River (Lat 46.5432, Long - 122.5319) upstream to endpoint(s) in: Connelly Creek (46.6040, - 122.3159); Coon Creek (46.6168, - 122.2831); Eagle Creek (46.6535, - 122.2579); East Fork Tilton River (46.5941, - 122.1694); Heller Creek (46.5955, - 122.2773); Jesse Creek (46.6446, - 122.4204); Johnson Creek (46.5325, - 122.2374); Little Creek (46.6664, - 122.4031); Minnie Creek (46.5400, - 122.2330); Nineteen Creek (46.5996, - 122.2215); Otter Creek (46.6206, - 122.4098); Rockies Creek (46.6426, - 122.3980); Snow Creek (46.6207, - 122.2664); South Fork Tilton River (46.5632, - 122.1563); Tilton River (46.6258, - 122.2142); Trout Creek (46.6586, - 122.2582); Unnamed (46.5736, - 122.2423); Unnamed (46.6091, - 122.3134); Wallanding Creek (46.6228, - 122.3677); West Fork Tilton River (46.6587, - 122.3067); Winnie Creek (46.6570, - 122.4207).
- (ii) *Riffe Reservoir Watershed 1708000502*. Outlet(s) = Cowlitz River (Lat 46.5033, Long - 122.5870) upstream to endpoint(s) in: Cowlitz River (46.4765, - 122.0952).
- (iii) *Jackson Prairie Watershed 1708000503*. Outlet(s) = Cowlitz River (Lat 46.3678, Long - 122.9337) upstream to endpoint(s) in: Bear Creek (46.4538, - 122.9192); Blue Creek (46.4885, - 122.7253); Brights Creek (46.5015, - 122.6247); Cedar Creek (46.4110, - 122.7316); Coon Creek (46.4371, - 122.9065); Cougar Creek (46.3937, - 122.7945); Cowlitz River (46.5033, - 122.5870); Foster Creek (46.4073, - 122.8897); Hopkey Creek (46.4587, - 122.5533); Jones Creek (46.5125, - 122.6825); Lamas Creek (46.5246, - 122.7923); Little Salmon Creek (46.4402, - 122.7458); Mill Creek (46.5024, - 122.8013); Mill Creek (46.5175, - 122.6209); Otter Creek (46.4801, - 122.7000); Pin Creek (46.4133, - 122.8321); Rapid Creek (46.4320, - 122.5465); Skook Creek (46.5031, - 122.7561); Unnamed (46.3838, - 122.7243); Unnamed (46.3841, - 122.6789); Unnamed (46.3849, - 122.7043); Unnamed (46.3857, - 122.9224); Unnamed (46.3881, - 122.6949); Unnamed (46.3900, - 122.7368); Unnamed (46.3998, - 122.8974); Unnamed (46.4001, - 122.7437); Unnamed (46.4015, - 122.7327); Unnamed (46.4097, - 122.5887); Unnamed (46.4102, - 122.6787); Unnamed (46.4106, - 122.7075); Unnamed (46.4115, - 122.9091); Unnamed

(46.4117, -122.7554); Unnamed (46.4143, -122.7823); Unnamed (46.4174, -122.6365); Unnamed (46.4241, -122.8170); Unnamed (46.4269, -122.6124); Unnamed (46.4291, -122.6418); Unnamed (46.4293, -122.8354); Unnamed (46.4412, -122.5192); Unnamed (46.4454, -122.8662); Unnamed (46.4496, -122.5281); Unnamed (46.4514, -122.8699); Unnamed (46.4703, -122.7959); Unnamed (46.4708, -122.7713); Unnamed (46.4729, -122.6850); Unnamed (46.4886, -122.8067); Unnamed (46.5172, -122.6534); Unnamed (46.5312, -122.8196).

(iv) *North Fork Toutle River*

Watershed 1708000504. Outlet(s) = North Fork Toutle River (Lat 46.3669, Long -122.5859) upstream to endpoint(s) in: Alder Creek (46.2813, -122.4964); Bear Creek (46.3085, -122.3504); Coldwater Creek (46.2884, -122.2675); Cow Creek (46.3287, -122.4616); Hoffstadt Creek (46.3211, -122.3324); Maratta Creek (46.2925, -122.2845); Unnamed (46.3050, -122.5416); Unnamed (46.3346, -122.5460); Unnamed (46.3394, -122.3314).

(v) *Green River Watershed*

1708000505. Outlet(s) = Green River (Lat 46.3718, Long -122.5847) upstream to endpoint(s) in: Beaver Creek (46.4056, -122.5671); Cascade Creek (46.3924, -122.3529); Devils Creek (46.4017, -122.4089); Elk Creek (46.4178, -122.2477); Green River (46.3857, -122.1815); Jim Creek (46.3885, -122.5256); Miners Creek (46.3483, -122.1932); Shultz Creek (46.3684, -122.2848); Tradedollar Creek (46.3769, -122.2411); Unnamed (46.3271, -122.2978); Unnamed (46.3467, -122.2092); Unnamed (46.3602, -122.3257); Unnamed (46.3655, -122.4774); Unnamed (46.3683, -122.3454); Unnamed (46.3695, -122.4132); Unnamed (46.3697, -122.4705); Unnamed (46.3707, -122.5175); Unnamed (46.3734, -122.3883); Unnamed (46.3817, -122.2348); Unnamed (46.3844, -122.4335); Unnamed (46.3876, -122.4870); Unnamed (46.3931, -122.3726); Unnamed (46.4023, -122.5543); Unnamed (46.4060, -122.5415); Unnamed (46.4087, -122.5061); Unnamed (46.4106, -122.4300); Unnamed (46.4143, -122.4463); Unnamed (46.4173, -122.2910); Unnamed (46.4196, -122.2850); Unnamed (46.4226, -122.3029); Unnamed (46.4285, -122.2662).

(vi) *South Fork Toutle River*

Watershed 1708000506. Outlet(s) = South Fork Toutle River (Lat 46.3282,

Long -122.7215) upstream to endpoint(s) in: Bear Creek (46.2219, -122.4620); Big Wolf Creek (46.2259, -122.5662); Disappointment Creek (46.2138, -122.3080); Eighteen Creek (46.2453, -122.5989); Harrington Creek (46.2508, -122.4126); Johnson Creek (46.3047, -122.5923); Sheep Canyon (46.2066, -122.2672); South Fork Toutle River (46.2137, -122.2347); Studebaker Creek (46.2825, -122.6805); Thirteen Creek (46.2374, -122.6230); Trouble Creek (46.1999, -122.3774); Twenty Creek (46.2508, -122.5738); Unnamed (46.1858, -122.2983); Unnamed (46.1953, -122.2881); Unnamed (46.2068, -122.3301); Unnamed (46.2075, -122.3267); Unnamed (46.2082, -122.2591); Unnamed (46.2107, -122.4301); Unnamed (46.2115, -122.2786); Unnamed (46.2117, -122.2378); Unnamed (46.2121, -122.5188); Unnamed (46.2157, -122.3467); Unnamed (46.2215, -122.5318); Unnamed (46.2234, -122.3265); Unnamed (46.2265, -122.3906); Unnamed (46.2271, -122.3367); Unnamed (46.2277, -122.3719); Unnamed (46.2309, -122.3828); Unnamed (46.2357, -122.4802); Unnamed (46.2365, -122.4402); Unnamed (46.2424, -122.4860); Unnamed (46.2444, -122.5427); Unnamed (46.2457, -122.6283); Unnamed (46.2523, -122.5147); Unnamed (46.2587, -122.5333); Unnamed (46.2591, -122.5240); Unnamed (46.2608, -122.5493); Unnamed (46.2618, -122.5705); Unnamed (46.2693, -122.5763); Unnamed (46.2707, -122.6094); Unnamed (46.2932, -122.5890); Unnamed (46.2969, -122.6718); Unnamed (46.2976, -122.6129); Unnamed (46.3035, -122.5952); Unnamed (46.3128, -122.7032); Unnamed (46.3217, -122.6473); Whitten Creek (46.2328, -122.4944).

(vii) *East Willapa Watershed*

1708000507. Outlet(s) = Cowlitz River (Lat 46.2660, Long -122.9154) upstream to endpoint(s) in: Arkansas Creek (46.3345, -123.0567); Baxter Creek (46.3367, -122.9841); Brim Creek (46.4446, -123.0395); Campbell Creek (46.3436, -123.0700); Cline Creek (46.3397, -122.8550); Cowlitz River (46.3678, -122.9337); Delameter Creek (46.2705, -123.0143); Ferrier Creek (46.4646, -122.9374); Hemlock Creek (46.2586, -122.7270); Hill Creek (46.3861, -122.8864); King Creek (46.5304, -123.0203); McMurphy Creek (46.4113, -122.9469); Monahan Creek (46.3041, -123.0614); North Fork Brim Creek (46.4627, -123.0222); North Fork Toutle River (46.3669, -122.5859);

Owens Creek (46.3994, -123.0457); Rock Creek (46.3479, -122.8144); Rock Creek (46.3531, -122.9368); Snow Creek (46.4486, -122.9805); Stankey Creek (46.3259, -122.8266); Stillwater Creek (46.3583, -123.1144); Sucker Creek (46.2600, -122.7684); Tucker Creek (46.2565, -123.0162); Unnamed (46.2413, -122.9887); Unnamed (46.2480, -123.0169); Unnamed (46.2480, -122.7759); Unnamed (46.2517, -123.0173); Unnamed (46.2606, -122.9549); Unnamed (46.2629, -123.0188); Unnamed (46.2663, -122.9804); Unnamed (46.2709, -122.7687); Unnamed (46.2711, -122.8159); Unnamed (46.2840, -122.8128); Unnamed (46.2878, -123.0286); Unnamed (46.2883, -122.9051); Unnamed (46.2892, -122.9625); Unnamed (46.2900, -122.8124); Unnamed (46.3030, -123.0645); Unnamed (46.3092, -122.9826); Unnamed (46.3160, -122.7783); Unnamed (46.3161, -123.0123); Unnamed (46.3173, -122.8950); Unnamed (46.3229, -122.8152); Unnamed (46.3245, -122.8609); Unnamed (46.3248, -123.0292); Unnamed (46.3252, -122.9238); Unnamed (46.3294, -122.9084); Unnamed (46.3309, -123.0046); Unnamed (46.3316, -122.8257); Unnamed (46.3346, -123.0167); Unnamed (46.3378, -122.9398); Unnamed (46.3393, -122.9402); Unnamed (46.3415, -122.9208); Unnamed (46.3456, -122.6405); Unnamed (46.3472, -122.9457); Unnamed (46.3488, -123.0519); Unnamed (46.3510, -123.0079); Unnamed (46.3511, -122.7678); Unnamed (46.3584, -122.7902); Unnamed (46.3585, -123.0369); Unnamed (46.3586, -122.7477); Unnamed (46.3599, -123.0992); Unnamed (46.3623, -122.6910); Unnamed (46.3665, -122.6334); Unnamed (46.3667, -122.8953); Unnamed (46.3683, -122.8930); Unnamed (46.3683, -122.7502); Unnamed (46.3718, -122.6202); Unnamed (46.3720, -123.0933); Unnamed (46.3748, -122.6167); Unnamed (46.3818, -122.8822); Unnamed (46.3824, -122.6090); Unnamed (46.3942, -122.9794); Unnamed (46.4015, -123.0272); Unnamed (46.4045, -123.0194); Unnamed (46.4177, -122.9611); Unnamed (46.4200, -123.0403); Unnamed (46.4286, -123.0467); Unnamed (46.4362, -123.0451); Unnamed (46.4379, -122.9985); Unnamed (46.4571, -122.9604); Unnamed (46.4606, -123.0166); Unnamed (46.4724, -122.9989); Unnamed

(46.4907, -122.9352); Unnamed (46.5074, -122.8877); Unnamed (46.5089, -122.9291); Unnamed (46.5228, -122.8539); Unnamed (46.5336, -122.9793); Unnamed (46.5371, -122.8214); Unnamed (46.5439, -122.8538); Whittle Creek (46.3122, -122.9501); Wyant Creek (46.3381, -122.6117).

(viii) *Coweeman River Watershed 1708000508*. Outlet(s) = Cowlitz River (Lat 46.0977, Long -122.9141); Owl Creek (46.0771, -122.8676) upstream to endpoint(s) in: Baird Creek (46.1942, -122.5483); Coweeman River (46.1505, -122.5172); Cowlitz River (46.2660, -122.9154); Goble Creek (46.1103, -122.6789); Hill Creek (46.1784, -122.5990); Leckler Creek (46.2317, -122.9470); Little Baird Creek (46.1905, -122.5709); Martin Creek (46.1394, -122.5519); Mulholland Creek (46.2013, -122.6450); Nineteen Creek (46.1437, -122.6146); North Fork Goble Creek (46.1363, -122.6769); Nye Creek (46.1219, -122.8040); O'Neil Creek (46.1760, -122.5422); Ostrander Creek (46.2103, -122.7623); Owl Creek (46.0913, -122.8644); Salmon Creek (46.2547, -122.8839); Sandy Bend Creek (46.2319, -122.9140); Skipper Creek (46.1639, -122.5887); South Fork Ostrander Creek (46.1875, -122.8240); Turner Creek (46.1167, -122.8149); Unnamed (46.0719, -122.8607); Unnamed (46.0767, -122.8605); Unnamed (46.0824, -122.7200); Unnamed (46.0843, -122.7195); Unnamed (46.1185, -122.7253); Unnamed (46.1289, -122.8968); Unnamed (46.1390, -122.5709); Unnamed (46.1430, -122.8125); Unnamed (46.1433, -122.8084); Unnamed (46.1478, -122.8649); Unnamed (46.1546, -122.6376); Unnamed (46.1562, -122.7808); Unnamed (46.1579, -122.6476); Unnamed (46.1582, -122.5332); Unnamed (46.1605, -122.6681); Unnamed (46.1620, -122.5885); Unnamed (46.1671, -122.6284); Unnamed (46.1688, -122.9215); Unnamed (46.1724, -122.6118); Unnamed (46.1735, -122.8282); Unnamed (46.1750, -122.8428); Unnamed (46.1750, -122.7557); Unnamed (46.1797, -122.7746); Unnamed (46.1803, -122.7801); Unnamed (46.1811, -122.7631); Unnamed (46.1814, -122.7656); Unnamed (46.1840, -122.6191); Unnamed (46.1955, -122.9082); Unnamed (46.1966, -122.5542); Unnamed (46.1971, -122.7118); Unnamed (46.2014, -122.8241); Unnamed (46.2021, -122.6941); Unnamed (46.2027, -122.5593); Unnamed (46.2172, -122.9516);

Unnamed (46.2192, -122.6663); Unnamed (46.2199, -122.8375); Unnamed (46.2208, -122.8887); Unnamed (46.2231, -122.9509); Unnamed (46.2257, -122.7667); Unnamed (46.2261, -122.8023); Unnamed (46.2379, -122.8859); Unnamed (46.2430, -122.8842).

(7) Unit 8. Clackamas Subbasin 17090011—(i) *Collawash River Watershed 1709001101*. Outlet(s) = Collawash River (Lat 45.0321, Long -122.0600) upstream to endpoint(s) in: Blister Creek (44.9594, -122.1590); Dickey Creek (44.9335, -122.0469); East Fork Collawash River (44.8789, -121.9850); Elk Lake Creek (44.8886, -122.0128); Fan Creek (44.9926, -122.0735); Farm Creek (44.9620, -122.0604); Hot Springs Fork Collawash River (44.9005, -122.1616); Hugh Creek (44.9226, -122.1978); Pansy Creek (44.9463, -122.1420); Skin Creek (44.9477, -122.2015); Thunder Creek (44.9740, -122.1230).

(ii) *Upper Clackamas River Watershed 1709001102*. Outlet(s) = Clackamas River (Lat 45.0321, Long -122.0600) upstream to endpoint(s) in: Berry Creek (44.8291, -121.9176); Cabin Creek (45.0087, -121.8958); Clackamas River (44.8723, -121.8470); Cub Creek (44.8288, -121.8863); Fawn Creek (44.9089, -121.9226); Hunter Creek (44.8926, -121.9285); Kansas Creek (44.9820, -121.8999); Last Creek (44.9759, -121.8424); Lost Creek (45.0180, -121.9070); Lowe Creek (44.9636, -121.9457); Pinhead Creek (44.9421, -121.8359); Pot Creek (45.0201, -121.9014); Rhododendron Creek (44.9358, -121.9154); Sisi Creek (44.9110, -121.8875); Unnamed (44.8286, -121.9225); Unnamed (44.8343, -121.8778); Unnamed (44.8944, -121.9028); Unnamed (44.9355, -121.8735); Unnamed (44.9661, -121.8894); Unnamed (44.9687, -121.8920); Unnamed (45.0000, -121.8910).

(iii) *Oak Grove Fork Clackamas River Watershed 1709001103*. Outlet(s) = Oak Grove Fork Clackamas River (Lat 45.0746, Long -122.0520) upstream to endpoint(s) in: Oak Grove Fork Clackamas River (45.0823, -121.9861); Pint Creek (45.0834, -122.0355).

(iv) *Middle Clackamas River Watershed 1709001104*. Outlet(s) = Clackamas River (Lat 45.2440, Long -122.2798) upstream to endpoint(s) in: Big Creek (45.0694, -122.0848); Calico Creek (45.0682, -122.1627); Clackamas River (45.0321, -122.0600); Cripple Creek (45.1149, -122.0618); Fish Creek (45.0634, -122.1597); Mag Creek (45.0587, -122.0488); North Fork Clackamas River (45.2371, -122.2181); Pick Creek (45.0738, -122.1994); Pup

Creek (45.1451, -122.1055); Roaring River (45.1773, -122.0650); Sandstone Creek (45.0862, -122.0845); Second Creek (45.1081, -122.1601); South Fork Clackamas River (45.1912, -122.2261); Tag Creek (45.0605, -122.0475); Tar Creek (45.0494, -122.0569); Third Creek (45.0977, -122.1649); Trout Creek (45.0379, -122.0720); Wash Creek (45.0473, -122.1893); Whale Creek (45.1102, -122.0849).

(v) *Eagle Creek Watershed 1709001105*. Outlet(s) = Eagle Creek (Lat 45.3535, Long -122.3823) upstream to endpoint(s) in: Bear Creek (45.3369, -122.2331); Currin Creek (45.3369, -122.3555); Delph Creek (45.2587, -122.2098); Eagle Creek (45.2766, -122.1998); Little Eagle Creek (45.3003, -122.1682); North Fork Eagle Creek (45.3142, -122.1135); Trout Creek (45.3305, -122.1187).

(vi) *Lower Clackamas River 1709001106*. Outlet(s) = Clackamas River (Lat 45.3719, Long -122.6071) upstream to endpoint(s) in: Bargfeld Creek (45.3195, -122.4398); Clackamas River (45.2440, -122.2798); Clear Creek (45.2022, -122.3121); Deep Creek (45.3421, -122.2799); Foster Creek (45.3512, -122.4082); Goose Creek (45.3621, -122.3549); Little Clear Creek (45.2803, -122.4055); Mosier Creek (45.2683, -122.4516); North Fork Deep Creek (45.4271, -122.3094); Richardson Creek (45.4097, -122.4484); Rock Creek (45.4157, -122.5013); Tickle Creek (45.3932, -122.2775); Unnamed (45.3502, -122.4861); Unnamed (45.3626, -122.2858); Unnamed (45.3816, -122.3721); Unnamed (45.4057, -122.3223); Unnamed (45.4102, -122.2987); Wade Creek (45.2922, -122.3237).

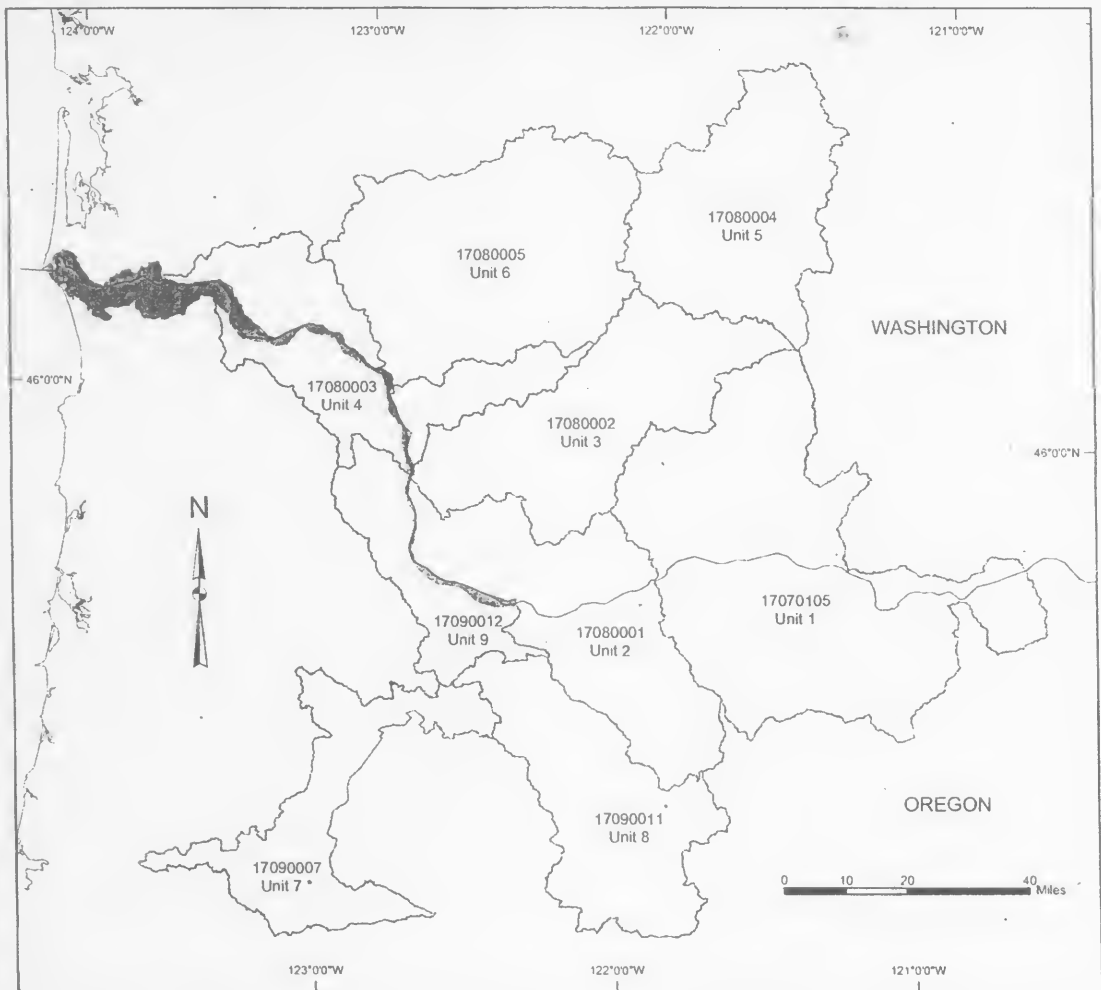
(8) Unit 9. Lower Willamette Subbasin 17090012—(i) *Johnson Creek Watershed 1709001201*. Outlet(s) = Willamette River (Lat 45.4423, Long -122.6453) upstream to endpoint(s) in: Crystal Springs Creek (45.4811, -122.6381); Crystal Springs Lake (45.4799, -122.6361); Johnson Creek (45.4610, -122.3432); Kellogg Creek (45.4083, -122.5925); Kelly Creek (45.4661, -122.4655); Mount Scott Creek (45.4306, -122.5556); Oswego Creek (45.4105, -122.6666); Phillips Creek (45.4328, -122.5763); Tryon Creek (45.4472, -122.6863); Unnamed (45.4793, -122.4165); Willamette River (45.3719, -122.6071).

(ii) *Scappoose Creek Watershed 1709001202*. Outlet(s) = Multnomah Channel (Lat 45.8577, Long -122.7919) upstream to endpoint(s) in: Multnomah Channel (45.6188, -122.7921).

(iii) *Columbia Slough/Willamette River Watershed 1709001203*. Outlet(s) = Willamette River (Lat 45.6530, Long

- 122.7646) upstream to endpoint(s) in: Bybee Lake (45.6266, - 122.7523); Bybee/Smith Lakes (45.6105, - 122.7285); Columbia Slough #1 (45.6078, - 122.7447); Swan Island Basin (45.5652, - 122.7120); Unnamed	(45.6253, - 122.7568); Willamette River (45.4423, - 122.6453). (9) Unit 10. Lower Columbia River Corridor— <i>Lower Columbia River</i> Corridor Outlet(s) = Columbia River (Lat 46.2485, Long - 124.0782) upstream to	endpoint(s) in: Columbia River (45.5710, - 122.4021). (10) Maps of proposed critical habitat for the Lower Columbia River <i>O. mykiss</i> ESU follow: BILLING CODE 3510-22-P
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Map of the Lower Columbia River O. Mykiss ESU



Legend

- State Boundaries
- Water Bodies
- Subbasin Boundaries

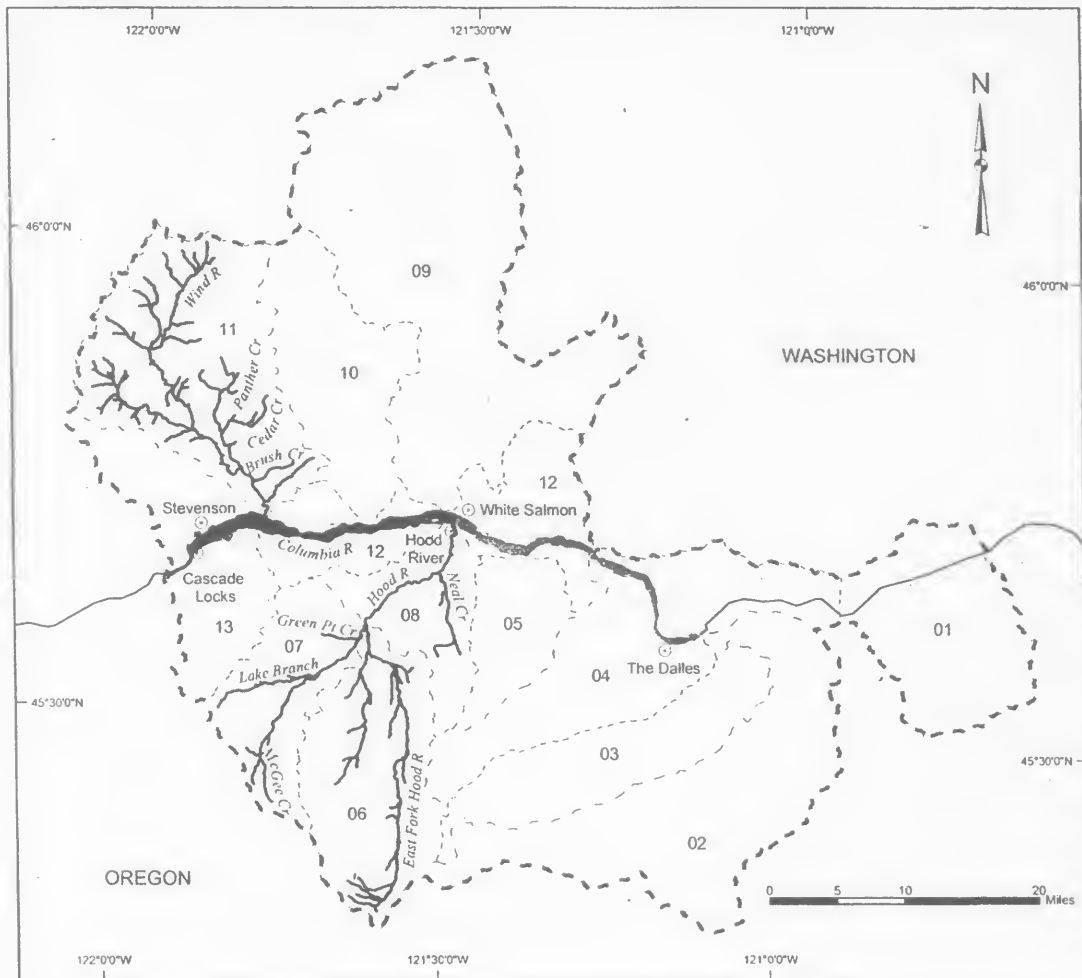
* All habitat areas in unit are proposed for exclusion

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A shaded area in Washington indicates the specific region covered by the main map.

**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**MIDDLE COLUMBIA / HOOD SUBBASIN
17070105, Unit 1**



Legend

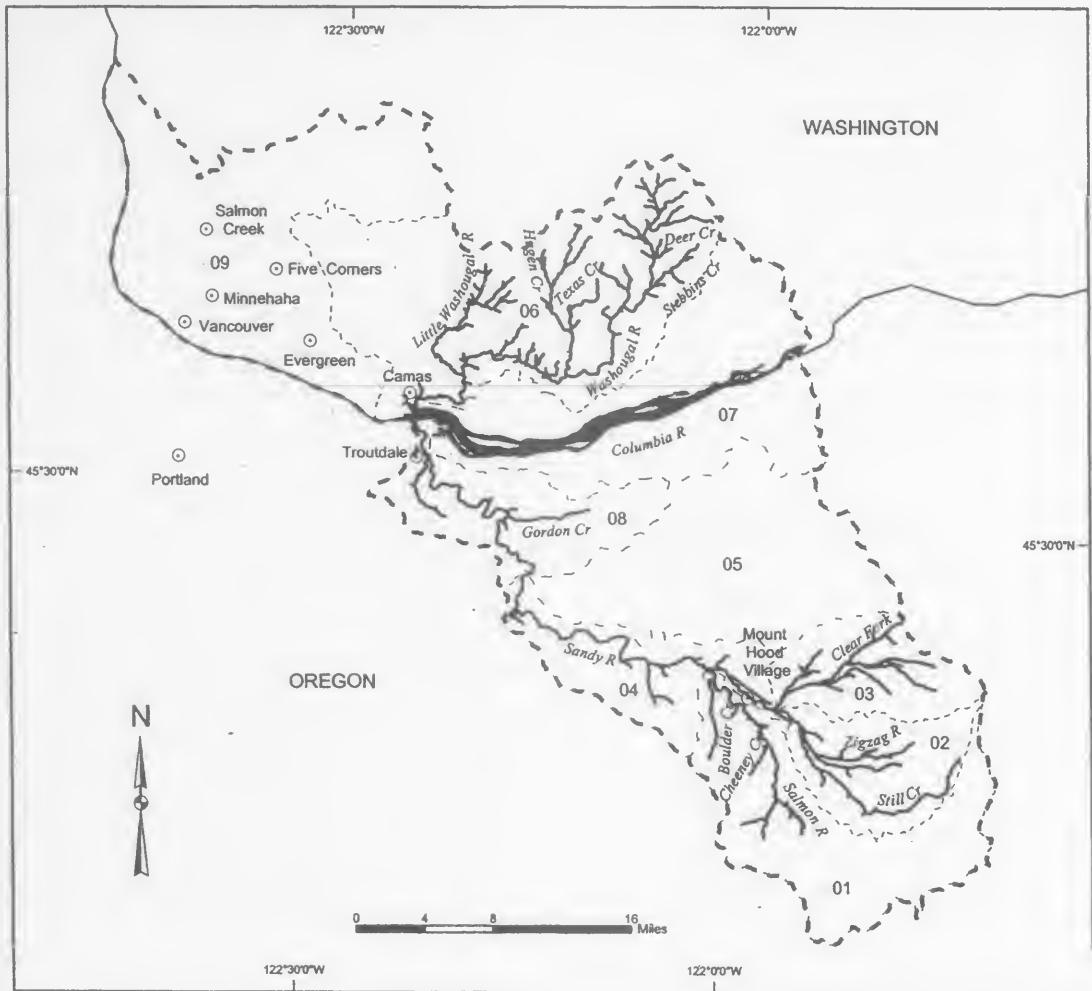
- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · · Watershed Boundaries

01 - 13 = Watershed code - last 2 digits of 17070105xx



Proposed Critical Habitat for the Lower Columbia River O. Mykiss ESU

LOWER COLUMBIA / SANDY SUBBASIN 17080001, Unit 2



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

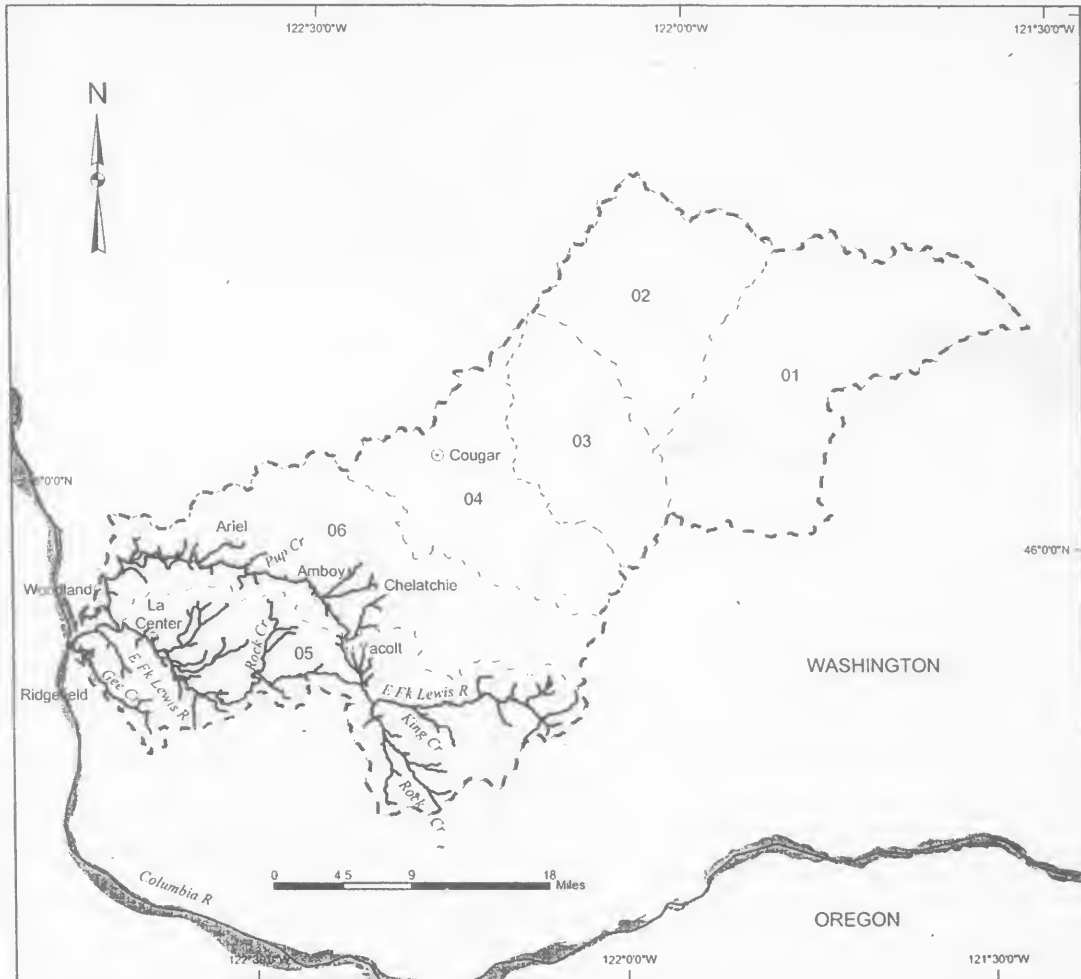
01 - 09 = Watershed code - last 2 digits of 17080001xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**LEWIS SUBBASIN
17080002, Unit 3**



Legend

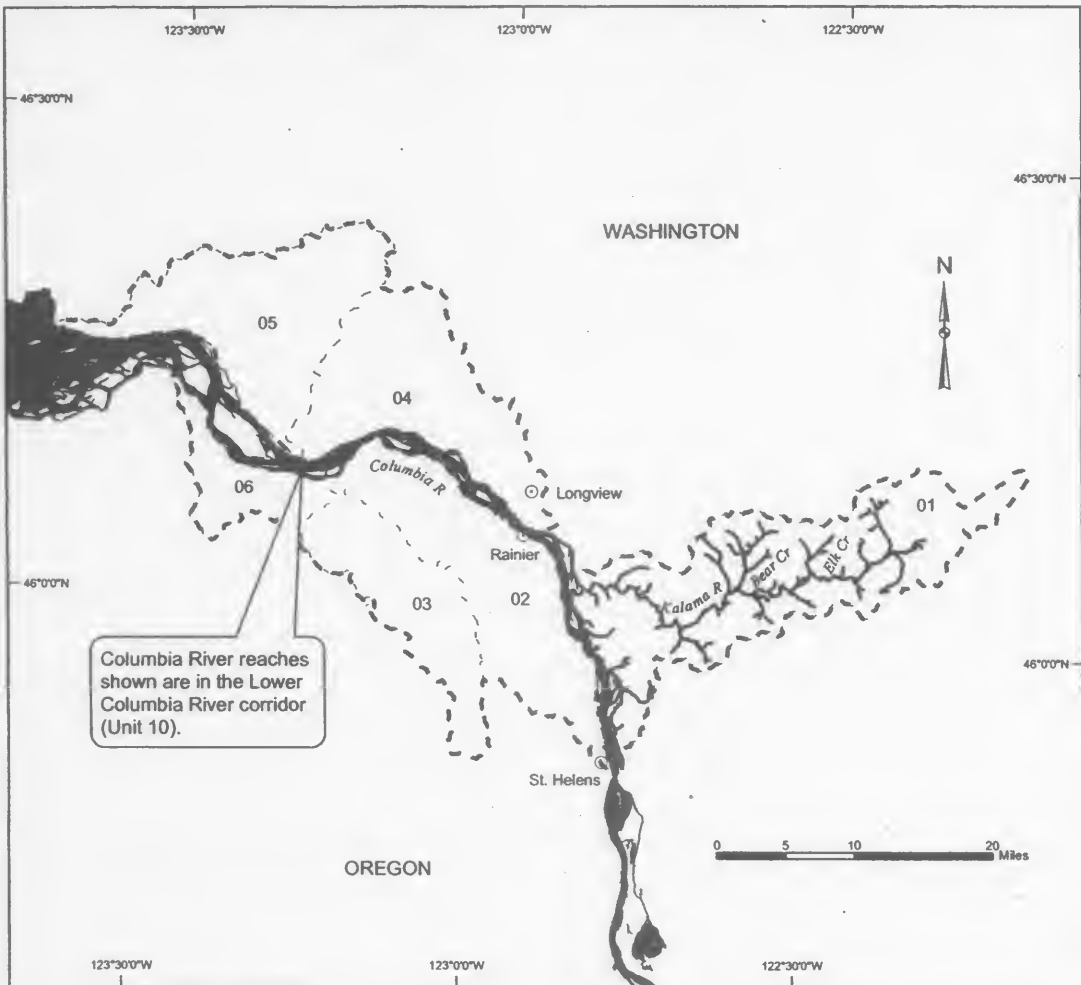
- ⊙ Cities / Towns
 - State Boundary
 - ~ Proposed Critical Habitat
 - - - Subbasin Boundary
 - · - · - Watershed Boundaries
 - ☛ Water Bodies
- 01 - 06 = Watershed code - last 2 digits of 17080002xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**LOWER COLUMBIA / CLATSKANIE SUBBASIN
17080003, Unit 4**



Legend

- Cities / Towns
- State Boundary
- Proposed Critical Habitat
- Water Bodies
- Subbasin Boundary
- Watershed Boundaries
- Cities / Towns

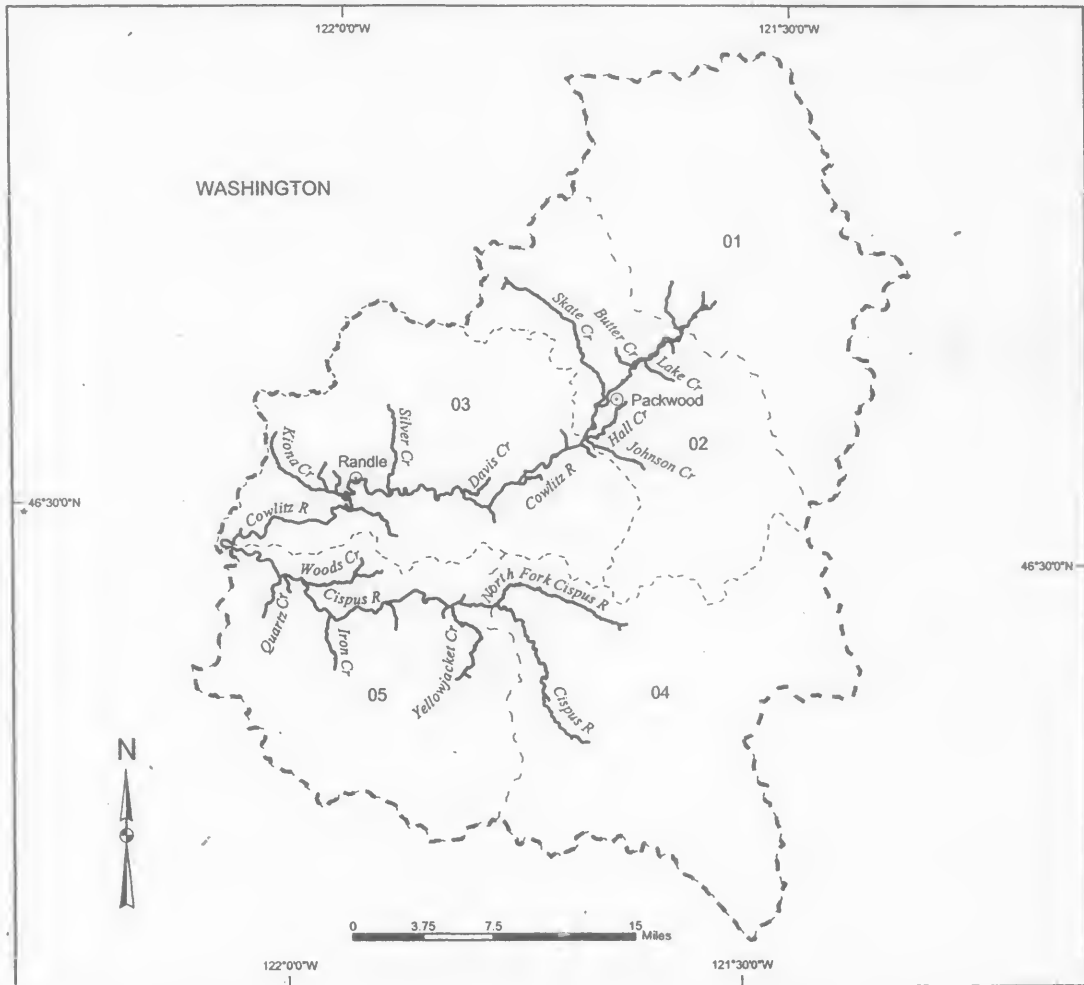
01 - 06 = Watershed code - last 2 digits of 17080003xx

Area of Detail



**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**UPPER COWLITZ SUBBASIN
17080004, Unit 5**



Legend

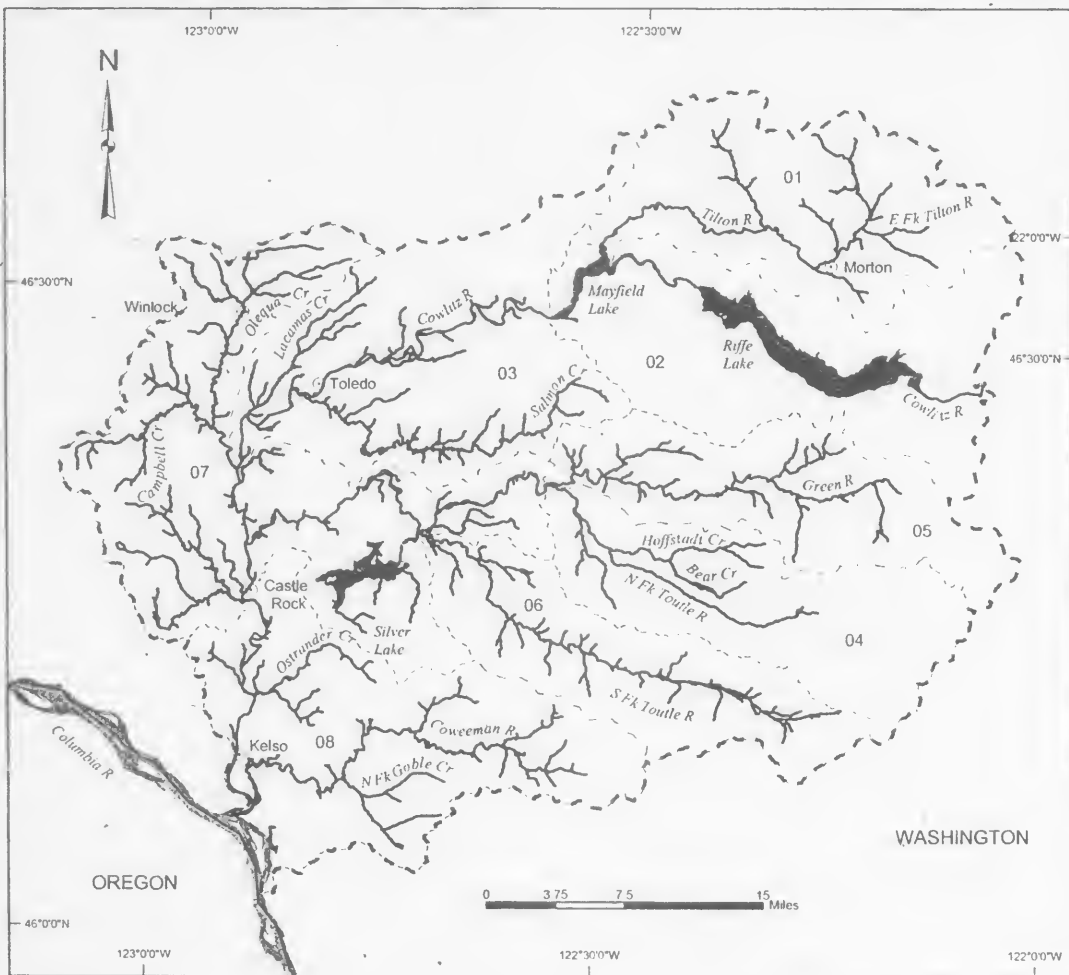
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17080004xx

Area of Detail

Proposed Critical Habitat for the Lower Columbia River O. Mykiss ESU

**COWLITZ SUBBASIN
17080005, Unit 6**



Legend

- Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17080005xx



**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**CLACKAMAS SUBBASIN
17090011, Unit 8**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

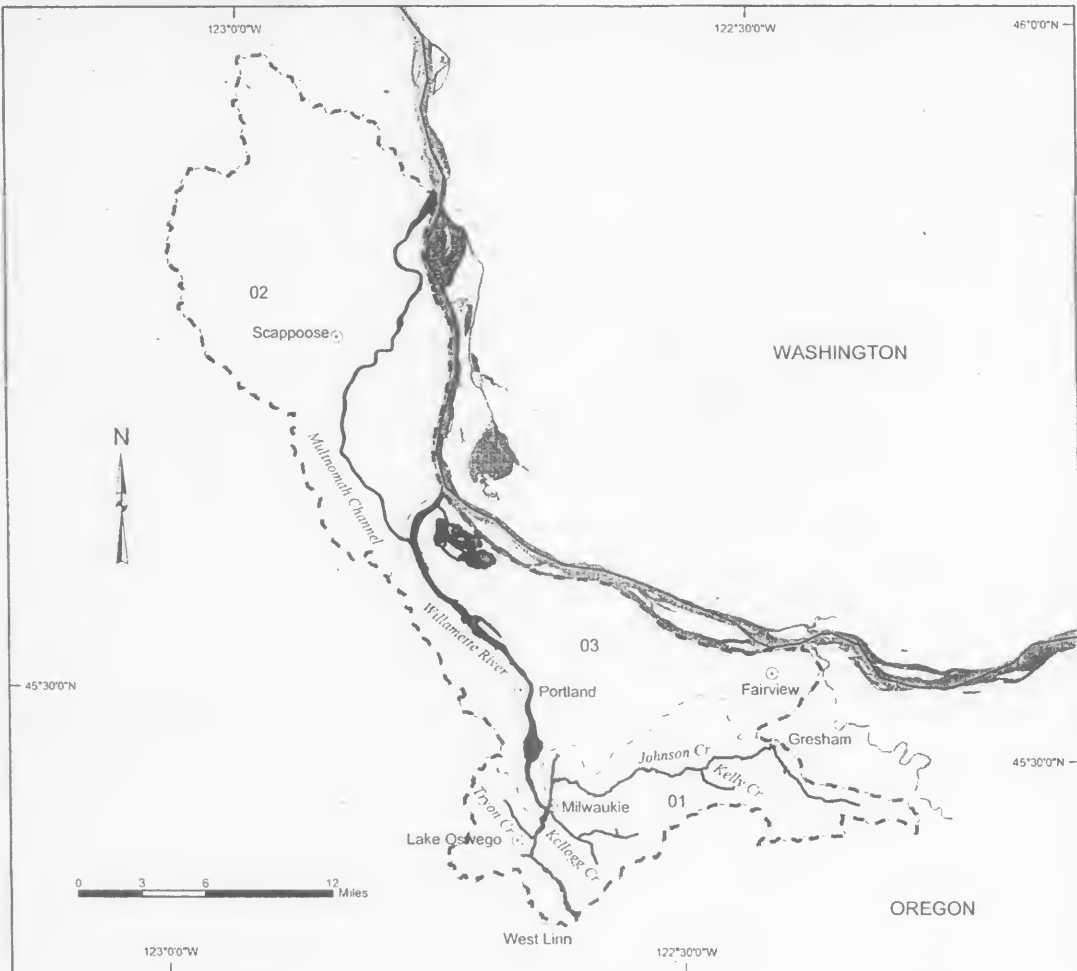
01 - 06 = Watershed code - last 2 digits of 17090011xx

Area of Detail

The inset map shows the states of Washington, Oregon, and Idaho. A small shaded area in Oregon indicates the location of the Clackamas Subbasin.

**Proposed Critical Habitat for the
Lower Columbia River O. Mykiss ESU**

**LOWER WILLAMETTE SUBBASIN
17090012, Unit 9**



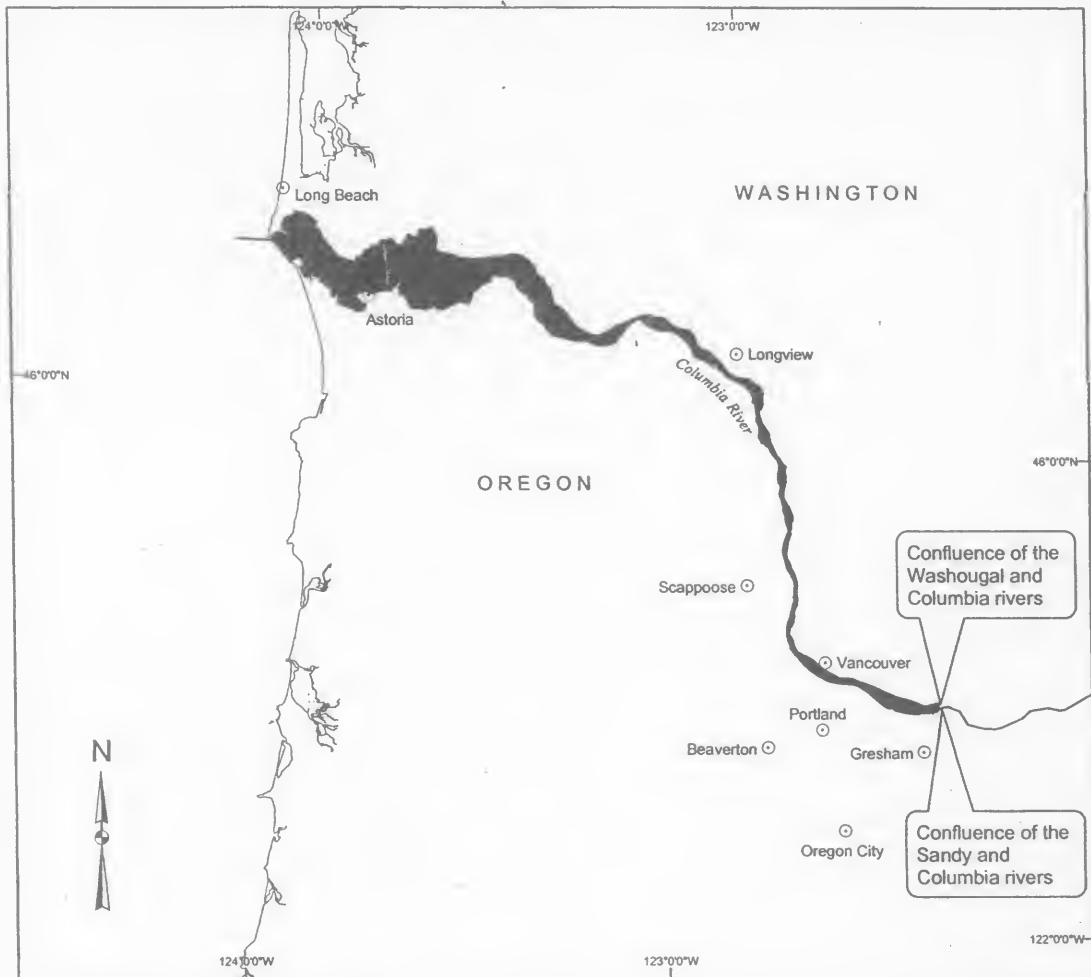
Legend

- ⊙ Cities / Towns
- State Boundary
- ~ Proposed Critical Habitat
- Water Bodies
- - - Subbasin Boundary
- · - · - Watershed Boundaries


01 - 03 = Watershed code - last 2 digits of 17090012xx



Rearing / Migration Corridor for the Lower Columbia River *O. Mykiss* ESU, Unit 10



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Lower Columbia River *O. Mykiss* ESU

Unit 10. Lower Columbia River Corridor
 The lower Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to a line connecting the confluences of the Sandy River (Oregon) and Washougal River (Washington).

(1) Unit 1. Upper Willamette Subbasin 17090003—(i) *Calapooia River Watershed 1709000303*. Outlet(s) = Calapooia River (Lat 44.5088, Long -123.1101) upstream to endpoint(s) in: Bigs Creek (44.2883, -122.6133); Butte Creek (44.4684, -123.0488); Calapooia River (44.2361, -122.3664); Hands Creek (44.2559, -122.5127); King Creek (44.2458, -122.4452); McKinley Creek (44.2569, -122.5621); North Fork Calapooia River (44.2497, -122.4094); Potts Creek (44.2581, -122.4756); Spoon Creek (44.4379, -123.0877); United States Creek (44.2244, -122.3825).

(ii) *Oak Creek Watershed 1709000304*. Outlet(s) = Willamette River (Lat 44.7504, Long -123.1421) upstream to endpoint(s) in: Calapooia River (44.5088, -123.1101); Cox Creek (44.6417, -123.0680); Periwinkle Creek (44.6250, -123.0814); Truax Creek (44.6560, -123.0598).

(iii) *Luckiamute River Watershed 1709000306*. Outlet(s) = Luckiamute River (Lat 44.7561, Long -123.1468) upstream to endpoint(s) in: Bonner Creek (44.6735, -123.4849); Burgett Creek (44.6367, -123.4574); Clayton Creek (44.7749, -123.4870); Cooper Creek (44.8417, -123.3246); Grant Creek (44.8389, -123.4098); Little Luckiamute River (44.8673, -123.4375); Luckiamute River (44.7970, -123.5270); Maxfield Creek (44.6849, -123.3427); McTimmonds Creek (44.7622, -123.4125); North Fork Pedee Creek (44.7866, -123.4511); Plunkett Creek (44.6522, -123.4241); Price Creek (44.6677, -123.3732); Sheythe Creek (44.7683, -123.5027); Soap Creek (44.6943, -123.2488); South Fork Pedee Creek (44.7798, -123.4667); Teal Creek (44.8329, -123.4582); Unnamed (44.7562, -123.5293); Unnamed (44.7734, -123.2027); Unnamed (44.7902, -123.6211); Vincent Creek (44.6380, -123.4327); Waymire Creek (44.8725, -123.4128); Woods Creek (44.6564, -123.3905).

(2) Unit 2. North Santiam Subbasin 17090005—(i) *Middle North Santiam River Watershed 1709000504*. Outlet(s) = North Santiam River (Lat 44.7852, Long -122.6079) upstream to endpoint(s) in: Little Rock Creek (44.7330, -122.3927); Mad Creek (44.7373, -122.3735); North Santiam River (44.7512, -122.2825); Rock Creek (44.7011, -122.4080); Snake Creek (44.7365, -122.4870).

(ii) *Little North Santiam River Watershed 1709000505*. Outlet(s) = Little North Santiam River (Lat 44.7852, Long -122.6079) upstream to endpoint(s) in: Cedar Creek (44.8439, -122.2682); Elkhorn Creek (44.8139,

-122.3451); Evans Creek (44.8412, -122.3601); Fish Creek (44.8282, -122.3915); Little North Santiam River (44.8534, -122.2887); Little Sinker Creek (44.8235, -122.4163); Sinker Creek (44.8211, -122.4210).

(iii) *Lower North Santiam River Watershed 1709000506*. Outlet(s) = Santiam River (Lat 44.7504, Long -123.1421) upstream to endpoint(s) in: Bear Branch (44.7602, -122.7942); Chehulpun Creek (44.7554, -122.9898); Cold Creek (44.7537, -122.8812); Morgan Creek (44.7495, -123.0443); North Santiam River (44.7852, -122.6079); Salem Ditch (44.8000, -122.8120); Santiam River (44.6869, -123.0052); Smallman Creek (44.7293, -122.9139); Stout Creek (44.8089, -122.5994); Trask Creek (44.7725, -122.6152); Unnamed (44.7972, -122.7328); Valentine Creek (44.7999, -122.7311).

(3) Unit 3. South Santiam Subbasin 17090006—(i) *Hamilton Creek/South Santiam River Watershed 1709000601*. Outlet(s) = South Santiam River (Lat 44.6869, Long -123.0052) upstream to endpoint(s) in: Albany—Santiam Canal (44.5512, -122.9032); Hamilton Creek (44.5392, -122.7018); Johnson Creek (44.4548, -122.7080); McDowell Creek (44.4640, -122.6803); Mill Creek (44.6628, -122.9575); Morgan Creek (44.4557, -122.7058); Noble Creek (44.4513, -122.7974); South Santiam River (44.4163, -122.6693).

(ii) *Crabtree Creek Watershed 1709000602*. Outlet(s) = Crabtree Creek (Lat 44.6756, Long -122.9557) upstream to endpoint(s) in: Bald Barney Creek (44.5469, -122.5959); Bald Peter Creek (44.5325, -122.6024); Beaver Creek (44.6337, -122.8537); Camp Creek (44.5628, -122.5768); Crabtree Creek (44.6208, -122.5055); Cruiser Creek (44.5543, -122.5831); Green Mountain Creek (44.5777, -122.6258); Roaring River (44.6281, -122.7148); Rock Creek (44.5883, -122.6000); South Fork Crabtree Creek (44.5648, -122.5441); White Rock Creek (44.6050, -122.5209).

(iii) *Thomas Creek Watershed 1709000603*. Outlet(s) = Thomas Creek (Lat 44.6778, Long -122.9654) upstream to endpoint(s) in: Criminal Creek (44.7122, -122.5709); Ella Creek (44.6815, -122.5228); Hortense Creek (44.6756, -122.5017); Jordan Creek (44.7527, -122.6519); Mill Creek (44.7060, -122.7849); Neal Creek (44.6923, -122.6484); South Fork Neal Creek (44.7016, -122.7049); Thomas Creek (44.6776, -122.4650); West Fork Ella Creek (44.6805, -122.5288).

(iv) *South Santiam River Watershed 1709000606*. Outlet(s) = South Santiam River (Lat 44.3977, Long -122.4473)

upstream to endpoint(s) in: Canyon Creek (44.3074, -122.3300); Falls Creek (44.4007, -122.3828); Harter Creek (44.4166, -122.2605); Keith Creek (44.4093, -122.2847); Moose Creek (44.4388, -122.3671); Owl Creek (44.2999, -122.3686); Shuttle Camp Creek (44.4336, -122.2597); Soda Fork South Santiam River (44.4410, -122.2466); South Santiam River (44.3980, -122.2610); Trout Creek (44.3993, -122.3464); Two Girls Creek (44.3248, -122.3346).

(v) *South Santiam River/Foster Reservoir Watershed 1709000607*. Outlet(s) = South Santiam River (Lat 44.4163, Long -122.6693) upstream to endpoint(s) in: Lewis Creek (44.4387, -122.6223); Middle Santiam River (44.4498, -122.5479); South Santiam River (44.3977, -122.4473).

(vi) *Wiley Creek Watershed 1709000608*. Outlet(s) = Wiley Creek (Lat 44.4140, Long -122.6752) upstream to endpoint(s) in: Farmers Creek (44.3383, -122.5812); Jackson Creek (44.3669, -122.6344); Little Wiley Creek (44.3633, -122.5228); Unnamed (44.3001, -122.4579); Unnamed (44.3121, -122.5197); Unnamed (44.3455, -122.5934); Unnamed (44.3565, -122.6051); Wiley Creek (44.2981, -122.4318).

(4) Unit 4. Middle Willamette Subbasin 17090007—(i) *Mill Creek/Willamette River Watershed 1709000701*. Outlet(s) = Mill Creek (Lat 44.9520, Long -123.0381) upstream to endpoint(s) in: Battle Creek (44.8399, -122.9891); Beaver Creek (44.8504, -122.8094); McKinney Creek (44.8207, -122.9599); Mill Creek (44.8268, -122.8249); Salem Ditch (44.8268, -122.8249); Simpson Creek (44.8625, -122.8495).

(ii) *Rickreall Creek Watershed 1709000702*. Outlet(s) = Willamette River (Lat 44.9288, Long -123.1124) upstream to endpoint(s) in: Willamette River (44.7504, -123.1421).

(iii) *Willamette River/Chehalem Creek Watershed 1709000703*. Outlet(s) = Willamette River (Lat 45.2552, Long -122.8806) upstream to endpoint(s) in: Willamette River (44.9288, -123.1124).

(iv) *Abernethy Creek Watershed 1709000704*. Outlet(s) = Willamette River (Lat 45.3540, Long -122.6186) upstream to endpoint(s) in: Willamette River (45.2552, -122.8806).

(5) Unit 5. Yamhill Subbasin 17090008—(i) *Upper South Yamhill River Watershed 1709000801*. Outlet(s) = South Yamhill River (Lat 45.0784, Long -123.4753) upstream to endpoint(s) in: Agency Creek (45.1799, -123.6976); Cedar Creek (45.0892, -123.6969); Cockerham Creek (45.0584, -123.5077); Cosper Creek

(45.1497, -123.6178); Cow Creek (45.0410, -123.6165); Crooked Creek (45.0964, -123.6611); Doane Creek (45.0449, -123.4929); Ead Creek (45.1214, -123.6969); Elmer Creek (45.0794, -123.6714); Gold Creek (45.0108, -123.5496); Jackass Creek (45.0589, -123.6495); Joe Creek (45.1216, -123.6216); Joe Day Creek (45.0285, -123.6660); Kitten Creek (45.1110, -123.7266); Klees Creek (45.0784, -123.5496); Lady Creek (45.0404, -123.5269); Little Rowell Creek (45.0235, -123.5792); Mule Tail Creek (45.0190, -123.5547); Pierce Creek (45.1152, -123.7203); Rock Creek (45.0130, -123.6344); Rogue River (45.0613, -123.6550); Rowell Creek (45.0187, -123.5699); Unnamed (45.0318, -123.5421); Unnamed (45.0390, -123.4620); Unnamed (45.0431, -123.5541); Unnamed (45.0438, -123.4721); Unnamed (45.0493, -123.6044); Unnamed (45.0599, -123.4661); Unnamed (45.0945, -123.6110); Unnamed (45.0994, -123.6276); Unnamed (45.1151, -123.6566); Unnamed (45.1164, -123.6717); Unnamed (45.1412, -123.6705); West Fork Agency Creek (45.1575, -123.7032); Wind River (45.1367, -123.6392); Yoncalla Creek (45.1345, -123.6614).

(ii) *Mill Creek/South Yamhill River Watershed 1709000803*. Outlet(s) = Mill Creek (Lat 45.0908, Long -123.4434) upstream to endpoint(s) in: Glenbrook Creek (45.0019, -123.4568); Gooseneck Creek (45.0113, -123.4705); Meadow Creek (45.0000, -123.4443); Mill Creek (45.0048, -123.4184); Red Prairie Creek (45.0271, -123.4058); Unnamed (45.0245, -123.4346); Unnamed (45.0257, -123.4456); Unnamed (45.0749, -123.4421).

(iii) *Lower South Yamhill River Watershed 1709000804*. Outlet(s) = South Yamhill River (Lat 45.1616, Long

-123.2190) upstream to endpoint(s) in: Ash Creek (45.1016, -123.4638); Deer Creek (45.1063, -123.3498); Muddy Creek (45.1611, -123.3160); Rock Creek (45.1223, -123.4375); South Yamhill River (45.0784, -123.4753); Swale Creek (45.1173, -123.3173); Unnamed (45.0724, -123.3203); Unnamed (45.0841, -123.3539); Unnamed (45.1235, -123.3175); Unnamed (45.1409, -123.2500); Unnamed (45.1433, -123.2807); Unnamed (45.1605, -123.2586); Unnamed (45.1668, -123.2501).

(iv) *Yamhill River Watershed 1709000807*. Outlet(s) = Yamhill River (Lat 45.2301, Long -122.9950) upstream to endpoint(s) in: South Yamhill River (45.1616, -123.2190).

(6) Unit 6. *Molalla/Pudding Subbasin 17090009—(i) Butte Creek/Pudding River Watershed 1709000902*. Outlet(s) = Pudding River (Lat 45.1907, Long -122.7527) upstream to endpoint(s) in: Butte Creek (44.9258, -122.5127); Fall Creek (44.9674, -122.5368); Pudding River (45.0740, -122.8525); Zollner Creek (45.0946, -122.7931).

(ii) *Rock Creek/Pudding River Watershed 1709000903*. Outlet(s) = Rock Creek (Lat 45.1907, Long -122.7527) upstream to endpoint(s) in: Rock Creek (45.0876, -122.5916).

(iii) *Senecal Creek/Mill Creek Watershed 1709000904*. Outlet(s) = Pudding River (Lat 45.2843, Long -122.7149) upstream to endpoint(s) in: Mill Creek (45.2220, -122.7691); Pudding River (45.1907, -122.7527).

(iv) *Upper Molalla River Watershed 1709000905*. Outlet(s) = Molalla River (Lat 45.1196, Long -122.5342) upstream to endpoint(s) in: Camp Creek (44.9630, -122.2928); Cedar Creek (45.0957, -122.5257); Copper Creek (44.8877, -122.3704); Cougar Creek (45.0421, -122.3145); Dead Horse Canyon Creek (45.0852, -122.3146);

Gawley Creek (44.9320, -122.4304); Lost Creek (44.9913, -122.2444); Lukens Creek (45.0498, -122.2421); Molalla River (44.9124, -122.3228); North Fork Molalla River (45.0131, -122.2986); Pine Creek (45.0153, -122.4560); Table Rock Fork Molalla River (44.9731, -122.2629); Trout Creek (45.0577, -122.4657).

(v) *Lower Molalla River Watershed 1709000906*. Outlet(s) = Molalla River (Lat 45.2979, Long -122.7141) upstream to endpoint(s) in: Buckner Creek (45.2382, -122.5399); Canyon Creek (45.1317, -122.3858); Cedar Creek (45.2037, -122.5327); Gribble Creek (45.2004, -122.6867); Jackson Creek (45.1822, -122.3898); Milk Creek (45.2036, -122.3761); Molalla River (45.1196, -122.5342); Woodcock Creek (45.1508, -122.5075).

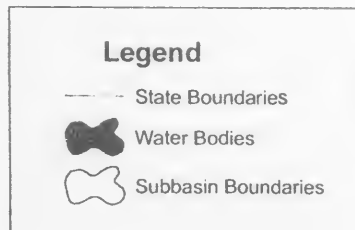
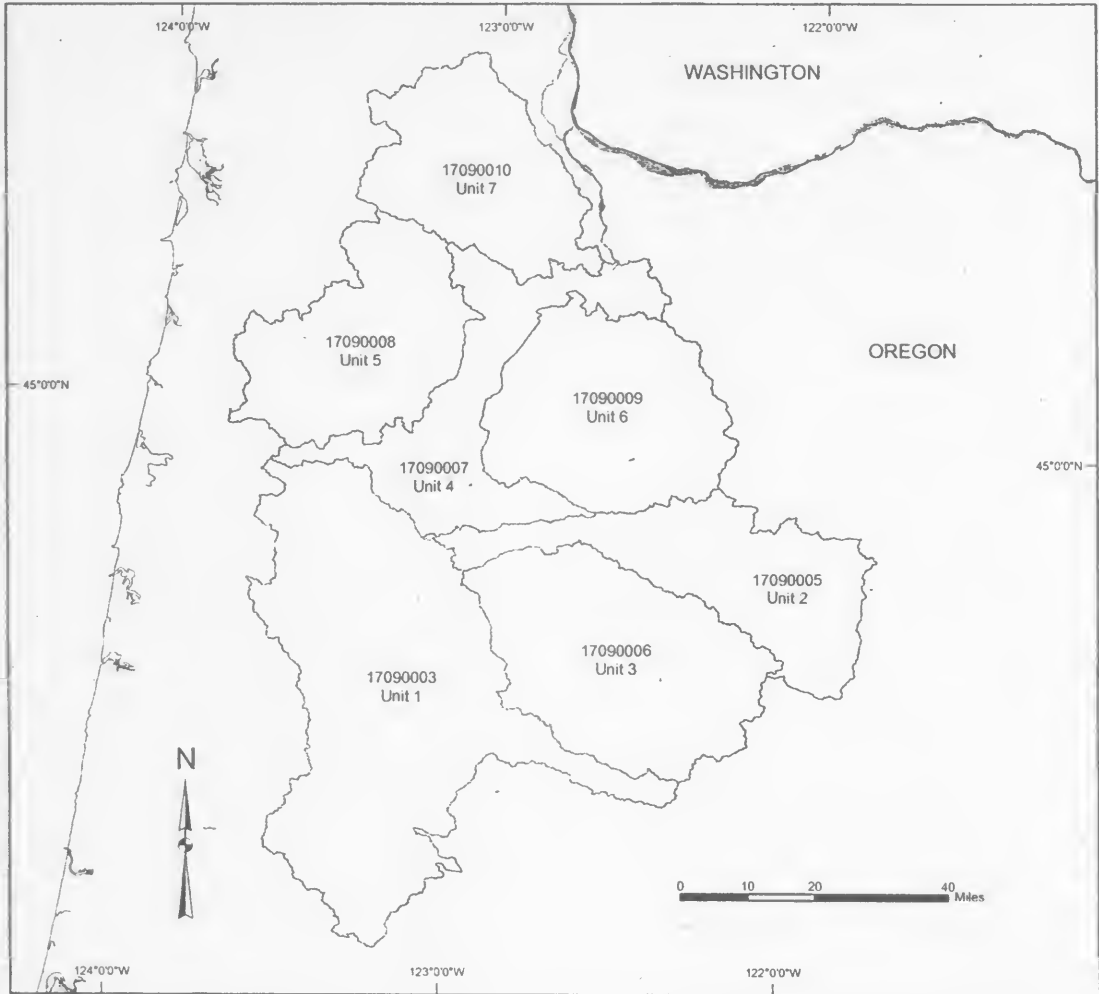
(7) Unit 7. *Tualatin Subbasin 17090010—(i) Gales Creek Watershed 1709001002*. Outlet(s) = Tualatin River (Lat 45.5019, Long -122.9946) upstream to endpoint(s) in: Bateman Creek (45.6350, -123.2966); Beaver Creek (45.6902, -123.2889); Clear Creek (45.5705, -123.2567); Gales Creek (45.6428, -123.3576); Iler Creek (45.5900, -123.2582); North Fork Gales Creek (45.6680, -123.3394); Roaring Creek (45.5620, -123.2574); Roderick Creek (45.5382, -123.2013); South Fork Gales Creek (45.6059, -123.2978); Tualatin River (45.4917, -123.1012).

(8) Unit 8. *Lower Willamette/Columbia River Corridor—(i) Lower Willamette/Columbia River Corridor*. Outlet(s) = Columbia River (Lat 46.2485, Long -124.0782) upstream to endpoint(s) in: Willamette River (45.3540, -122.6186).

(9) Maps of proposed critical habitat for the Upper Willamette River O. mykiss ESU follow:

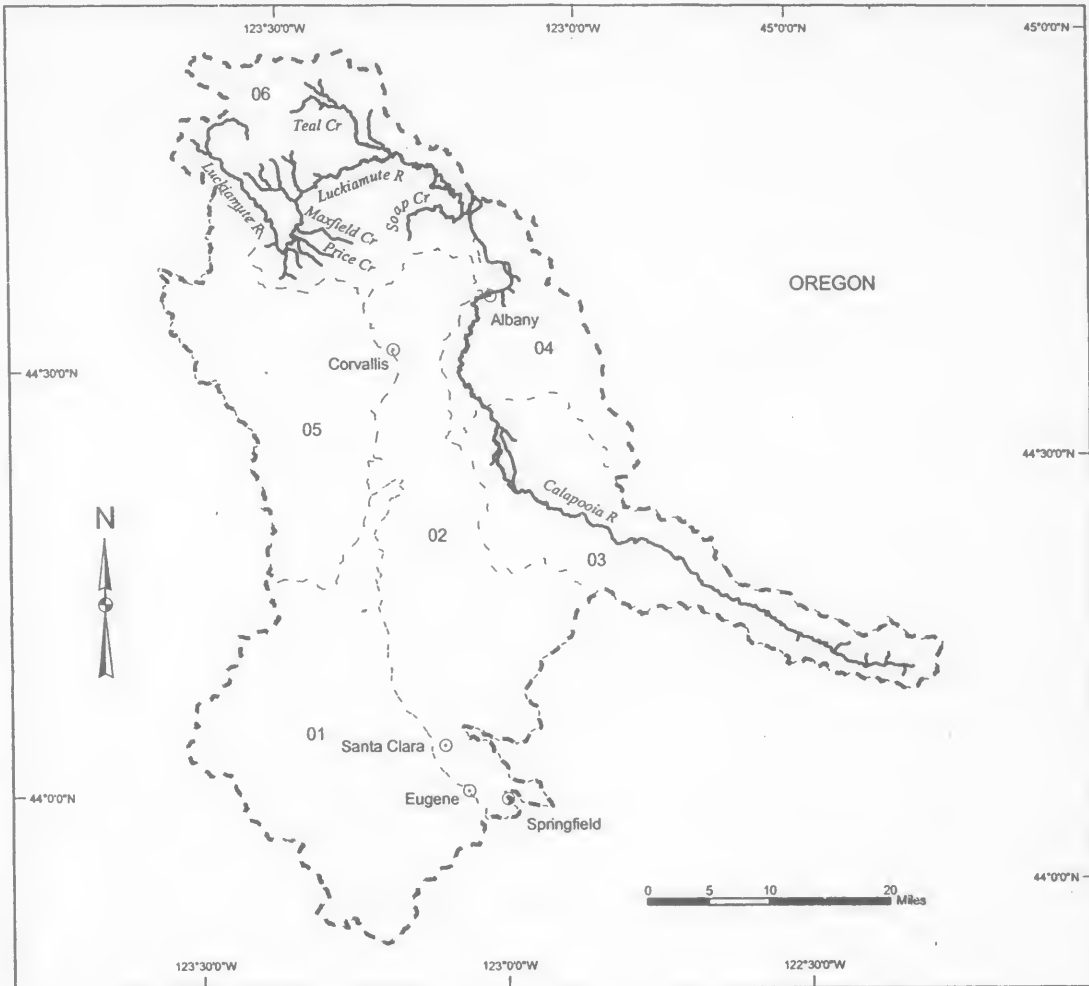
BILLING CODE 3510-22-P

Map of the Upper Willamette River O. Mykiss ESU



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**UPPER WILLAMETTE SUBBASIN
17090003, Unit 1**



Legend

- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

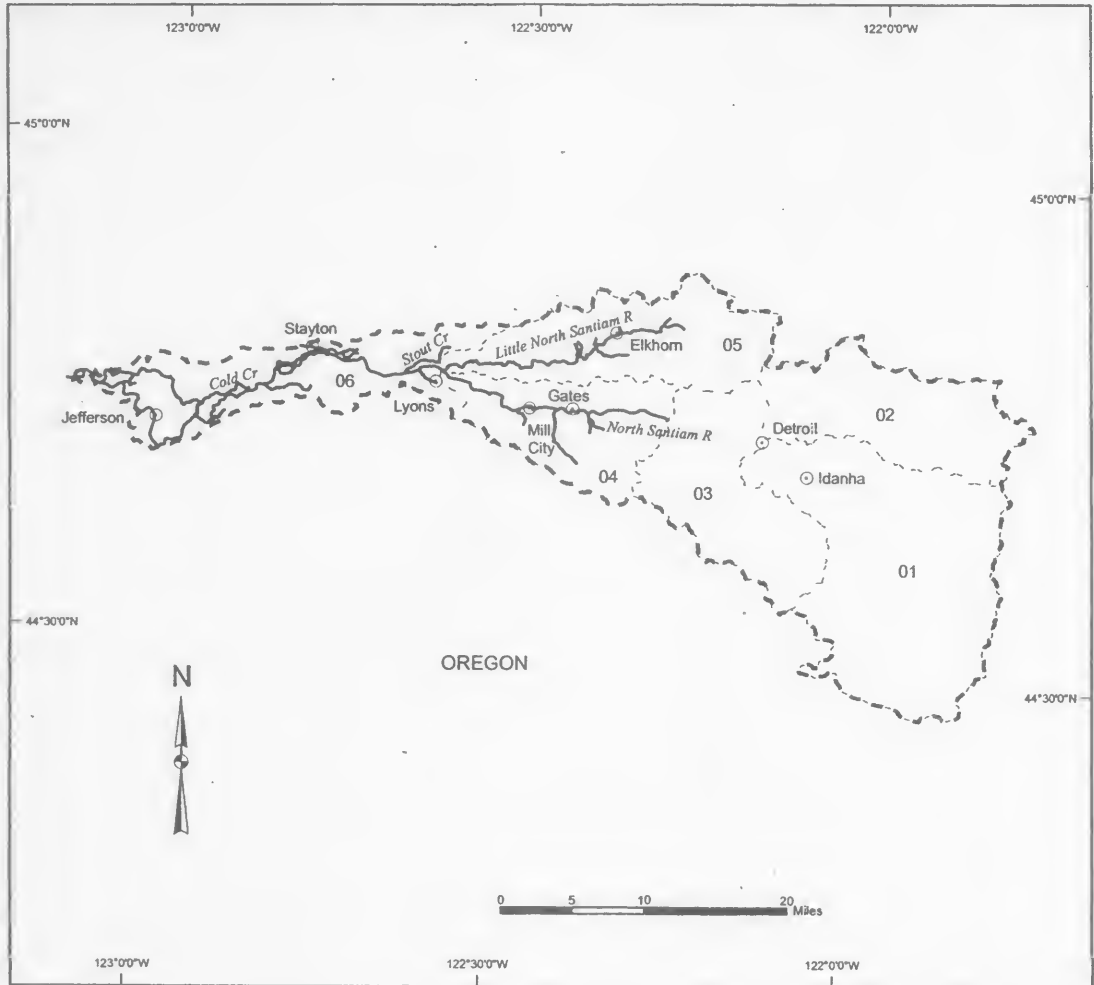
01 - 06 = Watershed code - last 2 digits of 17110001xx

Area of Detail



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**NORTH SANTIAM SUBBASIN
17090005, Unit 2**



Legend

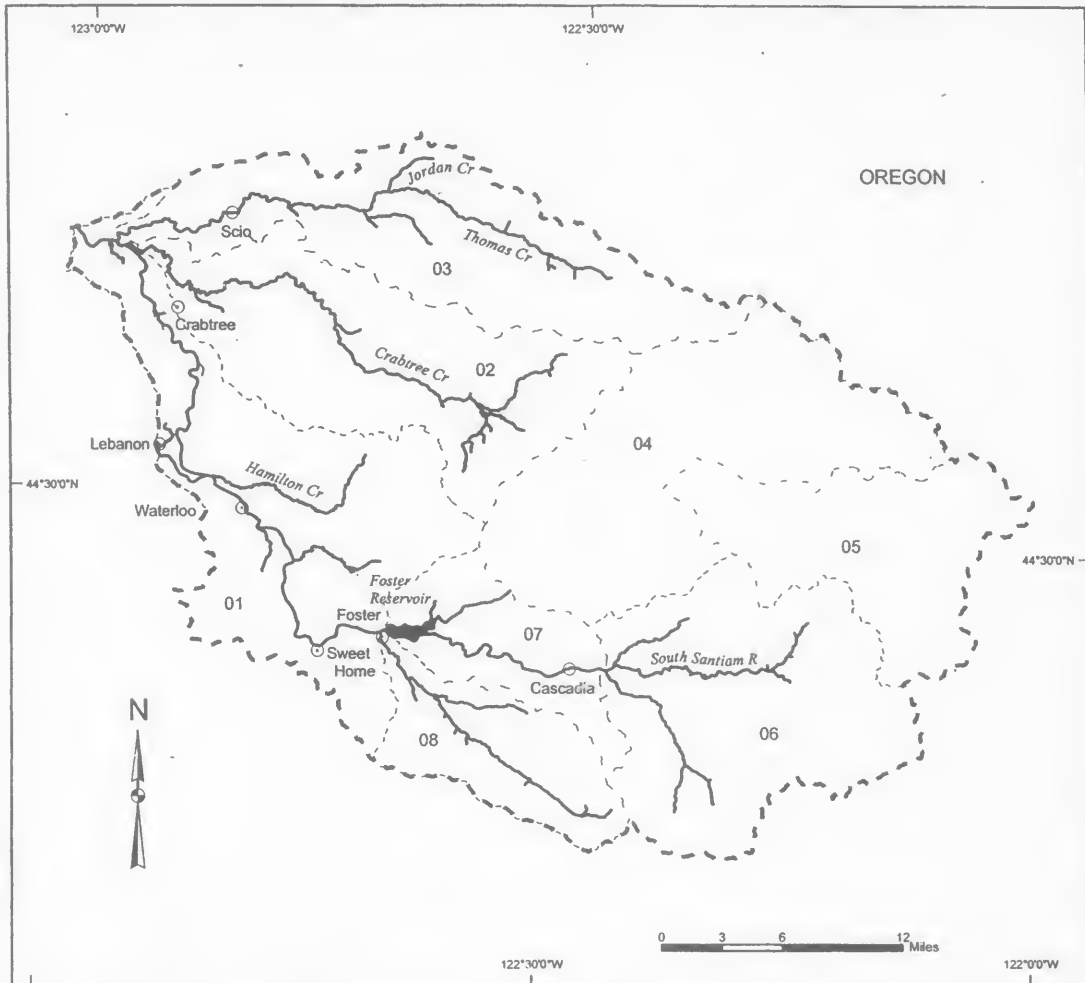
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 06 = Watershed code - last 2 digits of 17090005xx



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**SOUTH SANTIAM SUBBASIN
17090006, Unit 3**



Legend

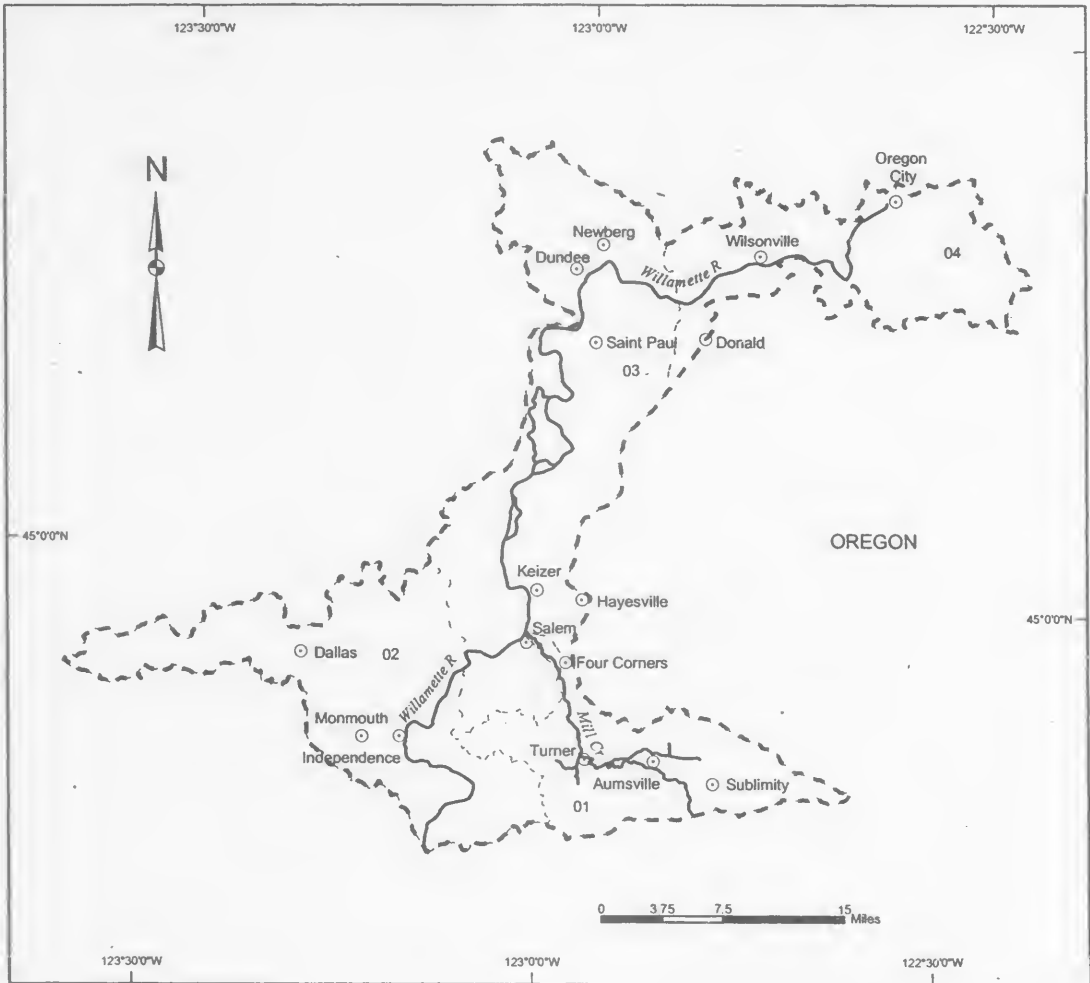
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 08 = Watershed code - last 2 digits of 17090006xx



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**MIDDLE WILLAMETTE SUBBASIN
17090007, Unit 4**



Legend

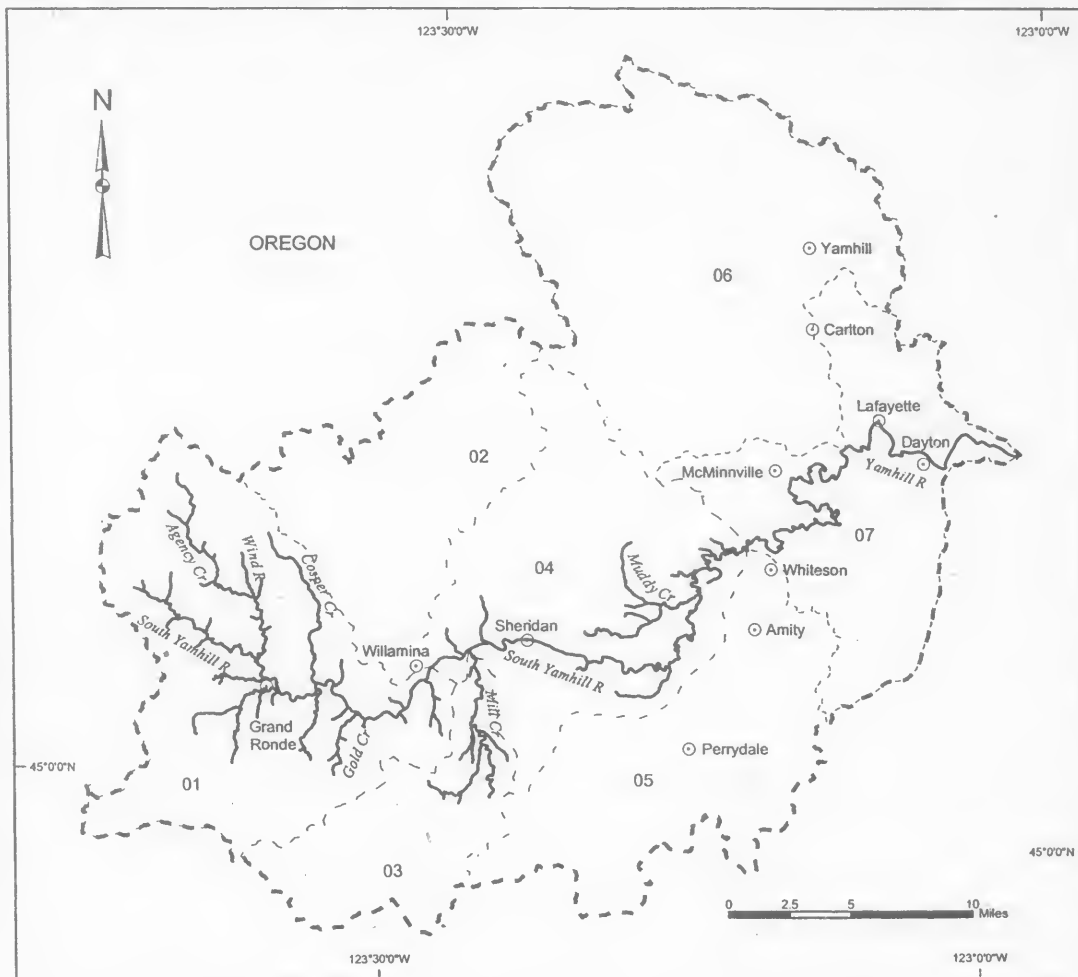
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 04 = Watershed code - last 2 digits of 17090007xx



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**YAMHILL SUBBASIN
17090008, Unit 5**



Legend

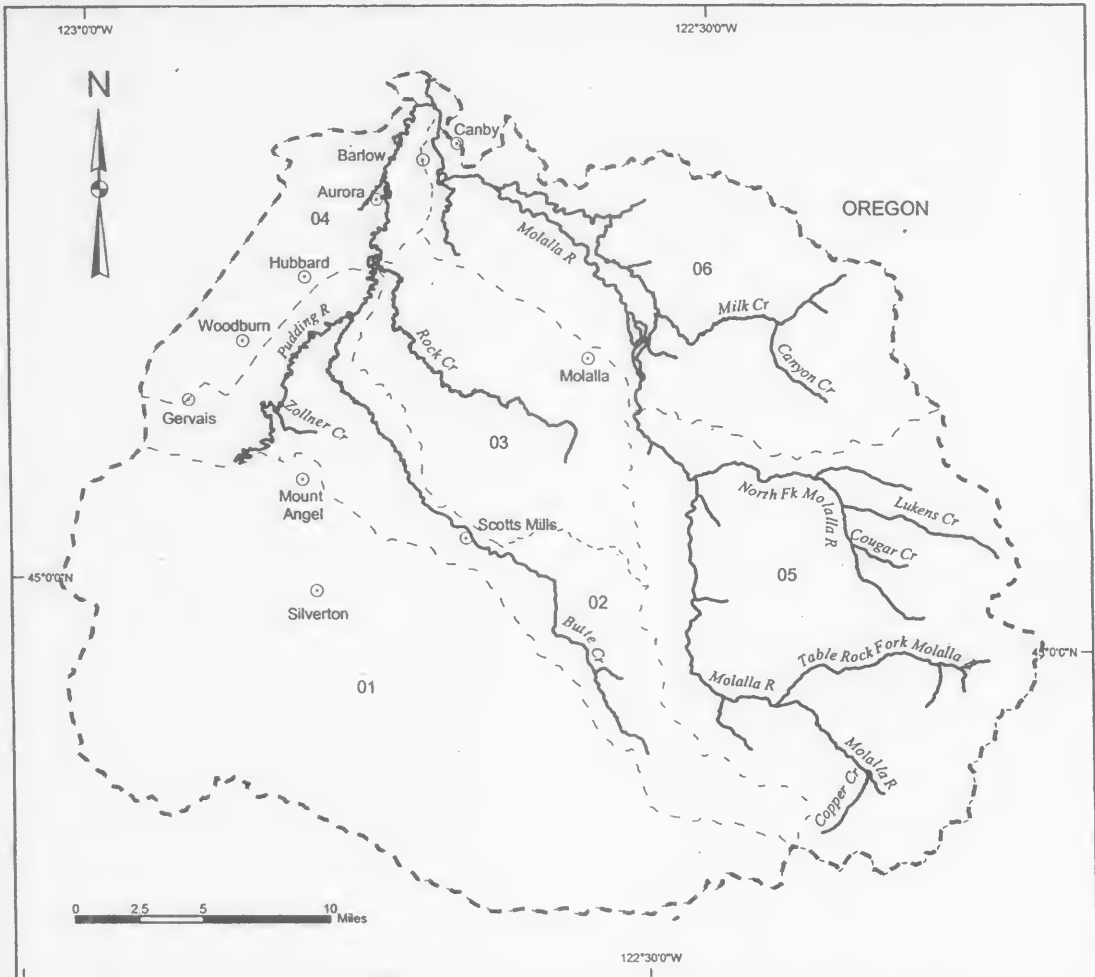
- Cities / Towns
- ~ Proposed Critical Habitat
- - - Subbasin Boundary
- - - Watershed Boundaries

01 - 07 = Watershed code - last 2 digits of 17090008xx



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**MOLALLA / PUDDING SUBBASIN
17090009, Unit 6**



Legend

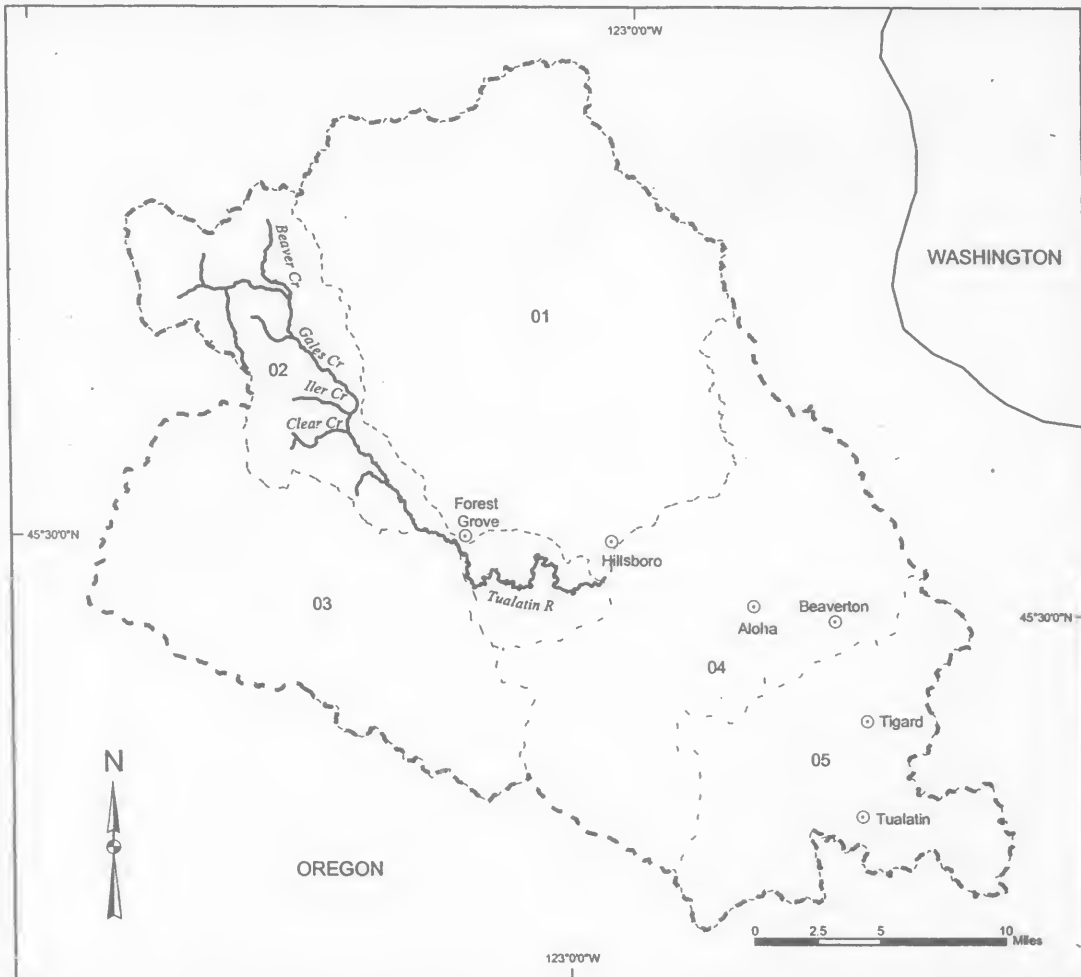
- Cities / Towns
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- Watershed Boundaries

01 - 06 = Watershed code - last 2 digits of 17090009xx



**Proposed Critical Habitat for the
Upper Willamette River O. Mykiss ESU**

**TUALATIN SUBBASIN
17090010, Unit 7**



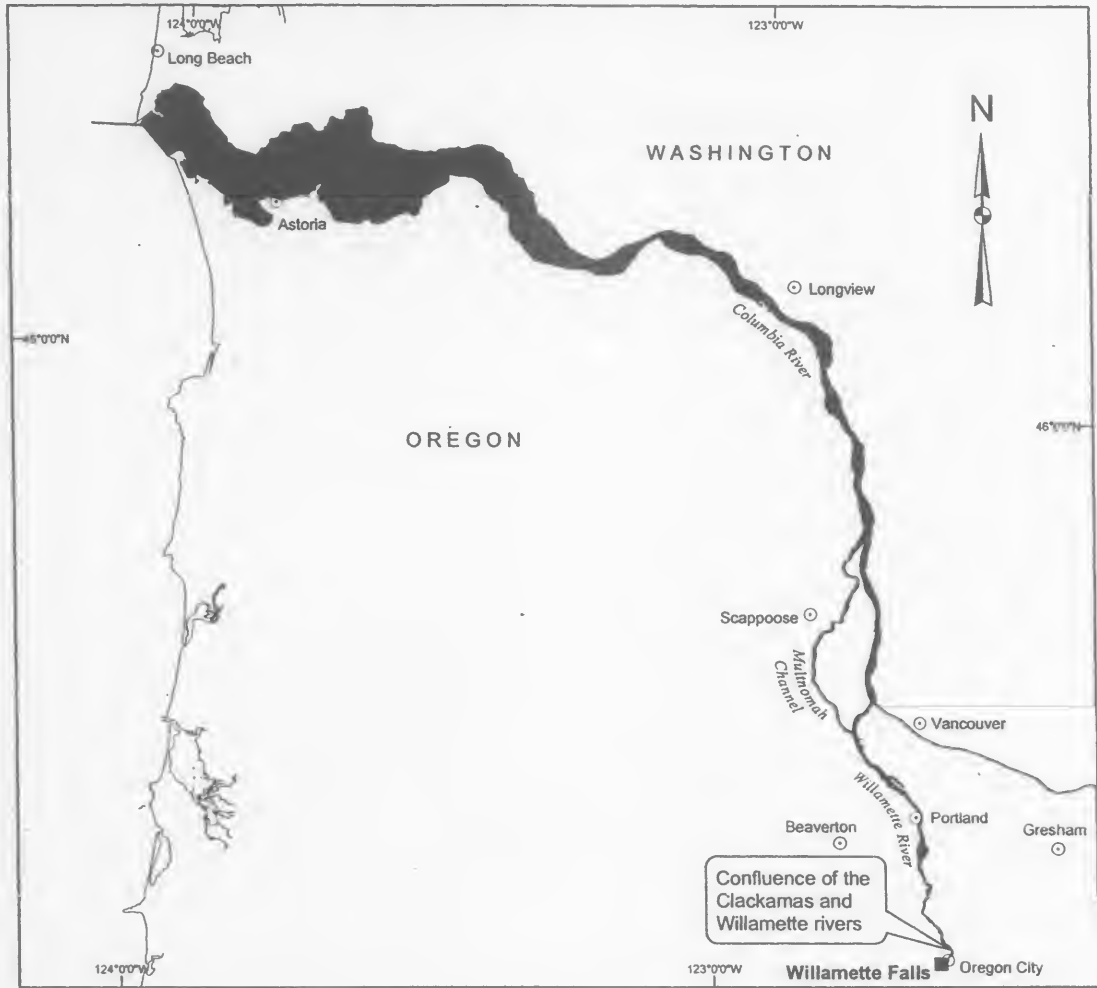
Legend

- ⊙ Cities / Towns
- State Boundary
- ~~~~~ Proposed Critical Habitat
- - - - Subbasin Boundary
- · - · Watershed Boundaries

01 - 05 = Watershed code - last 2 digits of 17090010xx



**Rearing / Migration Corridor for the
Upper Willamette River O. Mykiss ESU, Unit 8**



Legend

- Cities / Towns
- State Boundary
-  Rearing / Migration Corridor

Upper Willamette River O. Mykiss ESU

Unit 8. Lower Willamette / Columbia River Corridor

The lower Willamette / Columbia River corridor is that segment from the mouth of the Columbia River at the Pacific Ocean upstream to the confluence of the Clackamas and Willamette rivers, including the Multnomah Channel portion of the lower Willamette River.



Federal Register

Tuesday,
December 14, 2004

Part III

Department of Transportation

**National Highway and Traffic Safety
Administration**

**49 CFR Part 571
Federal Motor Vehicle Safety Standards;
Head Restraints; Final Rule**

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA-2004-19807]

RIN 2127-AH09

Federal Motor Vehicle Safety Standards; Head Restraints

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule upgrades NHTSA's head restraint standard in order to reduce whiplash injuries in rear collisions. For front seats, the rule establishes a higher minimum height requirement, a requirement limiting the distance between the back of an occupant's head and the occupant's head restraint, as well as a limit on the size of gaps and openings within head restraints. The rule also establishes new strength and dynamic compliance requirements, and amends most existing test procedures. In addition, the rule establishes requirements for head restraints voluntarily installed in rear outboard designated seating positions. The upgraded standard becomes mandatory for all vehicles manufactured on or after September 1, 2008. Until that time, the manufacturers may comply with the existing NHTSA standard, the upgraded NHTSA standard or the current European regulations.

DATES: *Effective Date:* This rule is effective March 14, 2005.

Incorporation by reference: The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 14, 2005.

Petitions: Petitions for reconsideration must be received by January 28, 2005.

ADDRESSES: Petitions for reconsideration should refer to Docket No. NHTSA-2004-19807 and be submitted to: Administrator, Room 5220, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590. Please see the Privacy Act heading under Regulatory Notices.

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may contact Louis Molino of the Office of Rulemaking, Office of Crashworthiness Standards, Light Duty Vehicle Division, NVS-112, (Phone: (202) 366-2264; Fax: (202) 366-4329; E-mail:

Louis.Molino@nhtsa.dot.gov).

For legal issues, you may contact George Feygin of the Office of Chief Counsel, NCC-112, (Phone: (202) 366-

2992; Fax (202) 366-3820; E-mail: *George.Feygin@nhtsa.dot.gov*).

You may send mail to both of these officials at the National Highway Traffic Safety Administration, 400 7th Street, SW., Washington, DC 20590.

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I. Executive Summary

This final rule upgrades Federal Motor Vehicle Safety Standard No. 202, *Head Restraints* (FMVSS No. 202). The standard, which seeks to reduce whiplash injuries in rear collisions, currently requires head restraints for front outboard designated seating positions in passenger cars and in light multipurpose passenger vehicles, trucks and buses.

To provide better whiplash protection for a wider range of occupants, this rule requires that front outboard head restraints meet more stringent height

requirements. Fixed front head restraints must be not less than 800 mm. In their lowest adjustment position, adjustable head restraints must not be lower than 750 mm, and in their highest position, they must be at least 800 mm. To reduce the distance that a vehicle occupant's head can be whipped backward in a rear end crash, this rule establishes new requirements limiting backset in front seats, *i.e.*, the distance between the back of a person's head and his or her head restraint, and limiting the size of gaps and openings in the restraints. The rule also establishes new strength and position retention requirements. Finally, it significantly amends the dynamic compliance test option currently in the standard to encourage continued development and use of "active" head restraint systems because the test is designed to allow a manufacturer the flexibility necessary to offer innovative active head restraint designs while still ensuring a minimal level of head restraint performance.

After a careful consideration of the public comments and further analysis of our proposal to require head restraints in each rear outboard designated seating position, we have decided not to adopt that proposal. In the Notice of Proposed Rulemaking (NPRM),¹ we expressed concern that the proposal had a high cost per equivalent life saved. We have now made a more refined estimate of costs and benefits and found that the cost per equivalent life saved for such a requirement is even greater than originally thought. In response to the NPRM, several manufacturers raised visibility concerns associated with mandatory rear head restraints in all vehicles. While not a universal problem, we believe reduced visibility is a legitimate problem in some vehicles. Finally, in commenting on the NPRM, vehicle manufacturers expressed concern that adoption of the requirement would reduce vehicle utility by interfering with or even reducing the ability to provide the sort of folding seats currently available in "multi-configuration" vehicles such as vans and multipurpose vehicles. We believe that those concerns may have some merit.

However, in order to ensure that head restraints voluntarily installed in rear outboard seating positions do not pose a risk of exacerbating whiplash injuries, this final rule requires that those head restraints meet certain height, strength, position retention, and energy absorption requirements. NHTSA notes that the head restraint regulation of the United Nations/Economic Commission

¹ See 66 FR 968 (January 4, 2001).

for Europe (UN/ECE) similarly does not mandate rear seat head restraints, but does regulate the performance of voluntarily installed ones. The ECE regulation is discussed at greater length several paragraphs below and in Appendix A.

In the future stages of our efforts to improve occupant protection in rear impacts,² NHTSA intends to evaluate the performance of head restraints and seat backs as a single system to protect occupants, just as they work in the real world, instead of evaluating their performance separately as individual components. Accordingly, in making our decisions about the upgraded requirements for head restraints in this final rule, we sought, *e.g.*, through upgrading our dynamic test procedure option, to make those requirements consistent with the ultimate goal of adopting a method of comprehensively evaluating the seating system.

This final rule harmonizes the FMVSS requirements for head restraints with the head restraint regulation of the UN/ECE, except to the extent needed to provide increased safety for vehicle occupants or to facilitate enforcement.³ In some instances, a desire to achieve increased safety in a cost effective manner made it necessary for us to go beyond or take an approach different from that in the ECE regulation.

While some of the requirements of this final rule are more stringent than those of the ECE regulation, the latter is functionally equivalent to the current FMVSS No. 202.⁴ For this reason, in the interim before the mandatory compliance date of this rule (September 1, 2008), the agency is giving manufacturers the option of complying with any of three alternatives: the existing FMVSS No. 202, the ECE 17, or the new, upgraded FMVSS No. 202, designated as FMVSS No. 202a.⁵

The agency estimates that approximately 272,464 whiplash injuries occur annually. This final rule will result in approximately 16,831 fewer whiplash injuries, 15,272

involving front seat occupants and 1,559 involving rear seat occupants. The estimated average cost in 2002 dollars, per vehicle, of meeting this rule will be \$4.51 for front seats, and \$1.13 for rear seats currently equipped with head restraints, for a combined cost of \$5.42.⁶ The cost per year is estimated to be \$70.1 million for front head restraints and \$14.1 million for optional rear head restraints, for a combined annual cost of \$84.2 million. This final rule is economically significant because we estimate that the final rule will result in economic benefits in excess of \$100 million.

II. Background

Vehicle manufacturers currently use three types of head restraints to meet the requirements of FMVSS No. 202. The first type is the "integral head restraint," which is non-adjustable and is built into the seat. It typically consists of a seat back that extends high enough to meet the height requirement of the standard. The second type is the "adjustable" head restraint, which consists of a separate cushion that is attached to the seat back, typically by a two sliding metal shafts. Adjustable head restraints typically adjust vertically to accommodate different occupant seating heights. Some also provide adjustments to allow the head restraint to be moved closer to the occupant's head. The third type is the active head restraint system, which deploys in the event of a collision to minimize the potential for whiplash. During the normal vehicle operation, the active head restraint system is retracted.

a. The Safety Concern

Whiplash injuries are a set of common symptoms that occur in motor vehicle crashes and involve the soft tissues of the head, neck and spine. Symptoms of pain in the head, neck, shoulders, and arms may be present along with damage to muscles, ligaments and vertebrae, but in many cases lesions are not evident. The onset of symptoms may be delayed and may only last a few hours; however, in some cases, effects of the injury may last for years or even be permanent. The relatively short-term symptoms are associated with muscle and ligament trauma, while the long-term ones are associated with nerve damage.

Based on National Analysis Sampling System (NASS) data, we estimate that between 1988 and 1996, 805,581

whiplash injuries⁷ occurred annually in crashes involving passenger cars and LTVs (light trucks, multipurpose passenger vehicles, and vans). Of these whiplash injuries, 272,464 occurred as a result of rear impacts. For rear impact crashes, the average cost of whiplash injuries in 2002 dollars is \$9,994 (which includes \$6,843 in economic costs and \$3,151 in quality of life impacts, but not property damage), resulting in a total annual cost of approximately \$2.7 billion.

b. Understanding Whiplash

Although whiplash injuries can occur in any kind of crash, an occupant's chances of sustaining this type of injury are greatest in rear-end collisions. When a vehicle is struck from behind, typically several things occur in quick succession to an occupant of that vehicle. First, from the occupant's frame of reference, the back of the seat moves forward into his or her torso, straightening the spine and forcing the head to rise vertically. Second, as the seat pushes the occupant's body forward, the unrestrained head tends to lag behind. This causes the neck to change shape, first taking on an S-shape and then bending backward. Third, the forces on the neck accelerate the head, which catches up with—and, depending on the seat back stiffness and if the occupant is using a shoulder belt, passes—the restrained torso. This motion of the head and neck, which is like the lash of a whip, gives the resulting neck injuries their popular name.

Previous regulatory approach. As discussed in the NPRM preceding this final rule, a historical examination of head restraint standards in this country indicates that the focus has been the prevention of neck hyperextension (the rearward movement of the head and neck over a large range of motion relative to the torso), as opposed to controlling lesser amounts of head and neck movement in a crash. The predecessor to FMVSS No. 202 was General Services Administration (GSA) Standard 515/22, which applied to vehicles purchased by the U.S. Government and went into effect on October 1, 1967. GSA 515/22 required that the top of the head restraint achieve a height 700 mm (27.5 inches (in)) above the H-point.⁸ Also in 1967, research

⁷ Non-contact Abbreviated Injury Scale (AIS) 1 neck.

⁸ The H-point is defined by a test machine placed in the vehicle seat (Society of Automotive Engineers (SAE) J826, July 1995). From the side, the H-point represents the pivot point between the torso and upper leg portions of the test machine. It can be

Continued

² As part of this effort, NHTSA issued a final rule upgrading the performance of vehicle fuel systems in rear impacts. (68 FR 67068, December 1, 2003).

³ The regulation, adopted by the UN/ECE's Working Party 29, World Forum for Harmonization of Vehicle Regulations, is ECE 17, Uniform Provisions Concerning the Approval of Vehicles With Regard to the Seats, Their Anchorages, and Any Head Restraints (<http://www.unecce.org/trans/main/wp29/wp29regs/r017r4e.pdf>). A comparison of this final rule with ECE 17 is in Appendix A.

⁴ We determined that the current FMVSS No. 202 is functionally equivalent to the applicable ECE regulation using the method described in Appendix B of 49 CFR part 553.

⁵ Once the FMVSS No. 202a becomes fully effective on September 1, 2008, it will be re-designated as FMVSS No. 202.

⁶ Because this rule does not require head restraints in rear outboard designated seating positions, it does not impose any costs associated with installing head restraints where none were previously installed.

using staged 48 kilometer per hour (kph) (30 mile per hour, mph) crashes concluded that a head restraint 711 mm (28 in) above the H-point was adequate to prevent neck hyperextension of a 95th percentile male. FVMSS No. 202, which became effective on January 1, 1969, required that head restraints be at least 700 mm (27.5 in) above the seating reference point or limit the relative angle between the head and the torso to 45 degrees or less during a dynamic test.

Current knowledge. There are many hypotheses as to the mechanisms of whiplash injuries. Despite a lack of consensus with respect to whiplash injury biomechanics, there is research indicating that reduced backset will result in reduced risk of whiplash injury. For example, one study of Volvo vehicles reported that, when vehicle occupants involved in rear crashes had their heads against the head restraint (an equivalent to 0 mm backset) during impact, no whiplash injury occurred.⁹ By contrast, another study showed significant increase in injury and duration of symptoms when occupant's head was more than 100 mm away from the head restraint at the time of the rear impact.¹⁰

In addition, the persistence of whiplash injuries in the current fleet of vehicles indicates that the existing height requirement is not sufficient to prevent excessive movement of the head and neck relative to the torso for some people. Specifically, the head restraints do not effectively limit rearward movement of the head of a person at least as tall as the average occupant. Research indicates that taller head restraints would better prevent whiplash injuries because at heights of 750 to 800 mm, the head restraint can more effectively limit the movement of the head and neck.

In a recent report from the Insurance Institute for Highway Safety (IIHS), Farmer, Wells, and Lund examined automobile insurance claims to determine the rates of neck injuries in rear end crashes for vehicles with the improved geometric fit of head restraints (reduced backset and increased head restraint height).¹¹ Their data indicate that these improved head

restraints are reducing the risk of whiplash injury. Specifically, there was an 18 percent reduction in injury claims. Similarly, NHTSA computer generated models have shown that the reduction of the backset and an increase in the height of the head restraint reduces the level of neck loading and relative head-to-torso motion that may be related to the incidence of whiplash injuries.¹²

With respect to impact speeds, research and injury rate data indicate that whiplash may occur as a result of head and neck movements insufficient to cause hyperextension. Staged low speed impacts indicate that mild whiplash symptoms can occur without a person's head exceeding the normal range of motion. This means that our previous focus on preventing neck hyperextension is insufficient to adequately protect all rear impact victims from risks of whiplash injuries. Instead, to effectively prevent whiplash, the head restraint must control smaller amounts of rapid head and neck movement relative to the torso.

In sum, in light of recent evidence that whiplash may be caused by smaller amounts of head and neck movements relative to the torso, and that reduced backset and increased height of head restraints help to better control these head and neck movements, we conclude that head restraints should be higher and positioned closer to the occupant's head in order to be more effective in preventing whiplash.

Further, information about consumer practices regarding the positioning of adjustable head restraints indicates that there is a need to improve consumer awareness and knowledge of importance of properly adjusted head restraints. Specifically, in 1995, NHTSA surveyed 282 vehicles to examine how well head restraints were adjusted and if the restraints should have been adjusted higher. Approximately 50 percent of adjustable head restraints were left in the lowest adjustable position. Three quarters of these could have been raised to decrease whiplash potential by bringing the head restraint higher in relation to the center of gravity of the occupant's head.

III. Notice of Proposed Rulemaking

Using the new information gained about the effectiveness of head restraints, NHTSA published the NPRM for this final rule to improve on the effectiveness of head restraints. The

continued persistence of high numbers of whiplash injuries indicated a need for the rulemaking.

The NPRM proposed new height and backset requirements, and other requirements, described below. NHTSA also proposed that head restraints be required in the rear outboard seating positions.

In the proposed FMVSS No. 202a, manufacturers were given the option of meeting either of two sets of requirements. The first set is a comprehensive group of dimension and strength requirements, compliance with which is measured statically. The second set was made of requirements that would have to be met in a dynamic test.¹³

Proposed requirements for head restraints tested statically. To ensure that head restraints would be properly used in a position high enough to limit hyperextension, the NPRM proposed the following height requirements. The top of the front integral head restraint would have to reach the height of at least 800 mm above the H-point. The top of the front adjustable head restraint would have to reach the height of at least 800 mm above the H-point, and could not be adjusted below 750 mm. The top of the rear mandatory head restraint would have to reach the height of at least 750 mm above the H-point. The NPRM also proposed that adjustable head restraints must lock in their adjustment positions. NHTSA proposed to retain existing requirements for head restraint width.¹⁴ To control even smaller amounts of rapid head and neck movement relative to the torso than the amount of relative motion resulting in neck hyperextension, the NPRM proposed also to limit the amount of backset to 50 mm (2 in). In addition, the NPRM also proposed maximum gap requirements for head restraints openings within the perimeter of the restraint, and for height adjustable head restraints, between the seat and head restraint. Head restraints must remain locked in specific positions after being set by the user.

The agency also proposed to prohibit head restraints in the front seats from being removable solely by hand, i.e., without use of tools. Comments were requested on applying such a requirement to rear seat head restraints. Rear seat head restraints could be folded or retracted to "non-use" positions if

thought of, roughly, as the hip joint of a 50th percentile male occupant viewed laterally.

⁹ Jakobsson et al., *Analysis of Head and Neck Responses in Rear End Impacts—A New Human-Like Model*. Volvo Car Corporation Safety Report (1994).

¹⁰ Olsson et al., *An In-depth Study of Neck Injuries in Rear-end Collisions*. International IRCOBI Conference, pp 269-280 (1990).

¹¹ Farmer, Charles, Wells, JoAnn, Lund, Adrian, "Effects of Head Restraint and Seat Redesign on Neck Injury Risk in Rear—End Crashes," Insurance Institute For Highway Safety, October 2002.

¹² "Effect of Head Restraint Position on Neck Injury in Rear Impact," World Congress of Whiplash-Associated Disorders (1999), Vancouver, British Columbia.

¹³ The current version of FMVSS No. 202 also features two sets of requirements; one applies to statically tested head restraints and the other to dynamically tested head restraints.

¹⁴ 254 mm (10 in) for restraints on bench-type seats, and 171 mm (6.75 in) for restraints on individual seats.

they give the occupant an "unambiguous physical cue" that the restraint is not properly positioned by altering the normal torso angle of the seat occupant or automatically returning to a "use" position when the seat is occupied.

In addition, the NPRM proposed that these statically-tested head restraints would have to meet a new energy absorption requirement, compliance with which would be measured using a free-motion impactor. Additionally, the agency proposed placing a minimum on the radius of curvature for the front surface of the vehicle seat and head restraint. The NPRM proposed modifications to the existing strength versus displacement test procedure to require simultaneous loading of the back pan¹⁵ and the head restraint, and to remove the allowance for seat back failure.

Proposed requirements for head restraints tested dynamically. The NPRM proposed a dynamic test alternative and said that the purpose was to ensure that the final rule does not discourage or preclude continuing development and implementation of active head restraints and other advanced seat back/head restraint systems designed to minimize rear impact injuries. Specifically, the NPRM proposed that head restraints tested dynamically would have to meet a Head Injury Criterion (HIC) limit of 150 with a 15 millisecond (ms) window. In addition, NHTSA proposed a head-to-torso rotation limit of 20 degrees when testing with a 95th percentile male dummy in front outboard seats, and of 12 degrees when testing with a 50th percentile male dummy in all outboard seats.¹⁶ Further, the NPRM proposed that the head restraints must have the same lateral width specified for statically tested restraints. Comments were requested on whether dynamically tested restraints should be subject to the width requirement or any of the other dimensional requirements used in the static test option.

IV. Summary of Comments on the NPRM

The agency received approximately 50 comments on the NPRM, from motor vehicle manufacturers, seat suppliers, members of the engineering and

research community, insurance companies, consumer groups, and governments and members of Congress. Overall, commenters supported upgrading FMVSS No. 202 while expressing concerns about and recommending changes to various proposals made in the NPRM.

A majority of the commenters generally supported the new height proposal, particularly as applied to head restraints for front seats. While few commenters had knowledge of any specific data regarding benefits of the proposed height increase, most commenters agreed that the new height requirement is potentially beneficial in reducing whiplash injury and had merit in harmonizing with ECE 17. Nonetheless, some concerns were expressed. Some comments supported the position that increasing the height of head restraints would not obstruct a driver's rearward visibility, but there were concerns expressed that the new height requirements would reduce the ability of a driver in following vehicles to "see through" a vehicle in front of him or her. There was concern that the taller head restraints could make it more difficult to install seats during vehicle assembly. Several manufacturers commented that the taller head restraints might not be able to fit in the rear seats of some vehicles or may impede seat folding, thus limiting cargo capacity.

As to the proposed width of head restraints, all of the vehicle manufacturers believed that a 254 mm width requirement for rear seat head restraints would reduce rearward visibility and is unwarranted. In contrast, Advocates for Highway Safety (Advocates) believed that the current widths of head restraints do not protect occupants in offset collisions and should be increased.

Commenters expressed differing opinions with regard to the proposed backset requirement. Insurers, consumer groups and Transport Canada supported 50 mm as the maximum allowable backset. A majority of the seat and vehicle manufacturers supported a backset of more than 50 mm, because they believed that a backset of 50 mm could result in occupant discomfort, particularly to smaller occupants who, commenters maintained, tend to use steeper seat back angles. Some manufacturers suggested that NHTSA allow for an adjustable backset of up to 100 mm. Manufacturers also generally wanted to measure backset with the seat back at the manufacturer's design seating angle rather than placed at a 25-degree angle. Some had concerns about

the suitability of the head restraint measuring device for measuring backset.

There were no significant objections to the 60 mm gap limit for gaps within the perimeter of head restraints. However, manufacturers and others had questions about the proposal that adjustable head restraints in their lowest position must have some position of backset adjustment at which the gap between the seat and the head restraint is less than 25 mm.

A majority of industry commenters opposed the prohibition against the removability of head restraints. Some suggested allowing removability by hand, particularly of rear seat head restraints. Manufacturers stated that no limitations should be placed on non-use positions.

Several manufacturers and suppliers objected to the proposed height retention test requirement. Some believed current head restraints do not move downward during crashes. Others were concerned that the requirement does not account for the compression of head restraint foam. In contrast, some non-industry commenters believed that the height retention requirement is needed to prevent designs that tend to "fall" to their lowest position during normal vehicle operation.

With regard to the energy absorption test, all manufacturers suggested use of a pendulum impactor instead of the free-motion head form. Most manufacturers expressed concerns about the need for or wide-reaching application of the proposed limit on the radius of curvature of vehicle seats or head restraints (proposed S4.2(b)(8)).

Most manufacturers and suppliers believed that rear seat head restraints should not be required. Concerns were raised about the safety need for them, and about possible interference of the head restraints with child restraint use in rear seats. Honda, Advocates and others believed that rear seat head restraints should be mandated.

Concerning the proposed changes to the dynamic compliance test procedures, some commenters believed that the proposals should not be adopted at this time. Commenters disagreed on the most appropriate dummy to use for the dynamic test. Most vehicle manufacturers and some seat suppliers objected to the proposed HIC₁₅ 150 limit, seeing no correlation between HIC and the reduction of neck injuries. Some commenters stated that the dynamic test should be with the seat attached to a test buck, instead of the actual vehicle.

In response to the NPRM's request for comments on the need to require vehicle manufacturers to provide

¹⁵ The back pan is the portion of the SAE J826 manikin (July 1995) that comes in contact with the seat back. Its shape is intended to simulate the shape of an occupant's back and thus allow for a realistic load distribution.

¹⁶ Changes to the dynamic test procedures were also proposed, including a new sled pulse corridor. Also, the entire vehicle would be mounted on the test sled, not merely the seat.

information in vehicle owners' manuals on how to properly adjust head restraints, the Insurance Corporation of British Columbia (ICBC) commented that it believed that consumer education has a positive influence on proper head restraint adjustment. Several manufacturers commented that most manufacturers already provide information in vehicle owners' manuals about proper head restraint use.

V. Summary of the Final Rule

Based on our consideration of the comments and other available information, the agency is issuing a final rule that upgrades existing FMVSS No. 202. As noted above, the new upgraded version of the standard is designated as FMVSS No. 202a.

Under this final rule, the top of the front outboard integral head restraint must reach the height of at least 800 mm above the H-point, instead of the 700 mm above the seating reference point (SgRP)¹⁷ currently required. The top of the front outboard adjustable head restraint must be adjustable to at least 800 mm above the H-point, and cannot be adjusted below 750 mm. Rear outboard head restraints are optional. However, if a manufacturer chooses to install head restraints in rear outboard seating positions, these head restraints must meet certain height,¹⁸ strength, position retention, and energy absorption requirements. The rear outboard head restraint is defined as a rear seat back, or any independently adjustable seat component attached to or adjacent to the rear seat back, that has a height equal to or greater than 700 mm, in any position of backset and height adjustment, as measured with the J826 manikin.¹⁹ Accordingly, any rear outboard seat back or any independently adjustable component attached to or adjacent to that seat back that exceeds 700 mm above the H-point, must meet the above requirements.

In recognition of the manufacturing and measurement variability concerns highlighted by the industry commenters, the agency has increased the maximum allowable backset for front head restraints from the proposed 50 mm to 55 mm. Backset adjustment to less than 55 mm is permitted. However,

the backset may not be adjustable to greater than 55 mm when the top of the front head restraint is positioned between 750 and 800 mm, inclusive, above the H-point. There is no backset limit for optional rear head restraints. The agency will use an HRMD; consisting of a head form developed by ICBC attached to the SAE J826 manikin (rev. Jul 95), for measuring backset compliance.

The minimum width requirement for front outboard head restraints in vehicles without a front center seating position, and for optional rear head restraints is 170 mm. The minimum width requirement for front outboard head restraints in vehicles with a center seating position between the outboard positions is 254 mm. For integral head restraints, there is a limit of 60 mm on the maximum gap between the head restraint and the top of the seat. The gap limit for adjustable head restraints in their lowest position of adjustment and any position of backset adjustment is similarly 60 mm. The final rule does not adopt the proposed 25 mm limitation for adjustable head restraints in their lowest position of adjustment and single position of backset adjustment proposed in the NPRM. For all head restraints, gaps within the restraint are limited to not more than 60 mm.

Under today's rule, an adjustment retention mechanism that locks into place is mandatory for all adjustable head restraints. NHTSA will test retention of the head restraint in its vertical position using a loading cylinder measuring 165 mm in diameter and 152 mm in length. The rearward (with respect to the seat direction) position retention testing will be conducted using a loading sphere, with the seat back braced. Under both tests, the head restraint must return to within 13 mm of the initial reference point, an increase from the proposed 10 mm return requirement.

The energy absorption test procedure will be conducted using a linear impactor, rather than the proposed free-motion impactor or the pendulum impactor used in ECE 17.

The dynamic compliance option will utilize a Hybrid III 50th percentile adult male test dummy only, as the 95th percentile Hybrid III dummy is not yet available for compliance purposes. The head-to-torso rotation is limited to 12 degrees, and the maximum HIC₁₅ is limited to 500 instead of 150 in the NPRM. These performance limits must be met with the head restraint midway between the lowest and the highest position of adjustment.

Between the effective date of today's rule and September 1, 2008,

manufacturers may comply with FMVSS No. 202 by meeting: (1) All the requirements of the current FMVSS No. 202, (2) the specified requirements of ECE 17, or (3) all the requirements of FMVSS No. 202a. NHTSA has found that ECE 17 is functionally equivalent to the existing FMVSS No. 202, so we are permitting compliance with ECE 17 during the interim.

The ECE has two regulations applicable to head restraints, ECE 17 and ECE 25.²⁰ The two regulations have similar requirements. However, the provisions of ECE 17 supersede the requirements of ECE 25 for most vehicles subject to this final rule. Specifically, as amended in July 2002, ECE 17 applies to vehicles in the following categories:

1. Passenger vehicles, including multipurpose passenger vehicles (MPVs) with 9 or fewer designated seating positions ("M1").
2. Passenger vehicles, MPVs and buses with more than 9, but less than 17 designated seating positions ("M2" and "M3").²¹
3. Trucks ("N").

This final rule applies to passenger cars, MPVs, trucks and buses with a GVWR of 4,536 kg or less. Accordingly, the only vehicles that will be subject to this final rule, but will not fall under the requirements of ECE 17, are buses with at least seventeen designated seating positions. Because of the GVWR limit, it is unlikely that such buses will be subject to this final rule. Nevertheless, we note that the requirements of ECE 25 are more stringent than those of this final rule because they mandate rear head restraints. Since we want to provide a compliance option for the interim period that is functionally equivalent to the current standard, we decided that all vehicles, including large capacity buses subject to this final rule, may certify to the specified ECE 17 requirements instead of ECE 25.²²

During this interim period, manufacturers must irrevocably elect one of the compliance options in its entirety and may not certify under an alternative compliance option, if there is a noncompliance. This restriction is necessary because each certification option addresses the risks associated

¹⁷ The term "seating reference point" is fully defined in 49 CFR 571.3. It represents a unique design H-point. The H-point is the mechanically hinged hip point of an SAE J826 (July 1995) three-dimensional manikin (SAE J826 manikin), which simulates the actual pivot center of the human torso and thigh.

¹⁸ Exceptions to the height requirements for rear head restraints are discussed in Sections VI(b) and IX.

¹⁹ Section XII(a) explains how we arrived at our definition of rear head restraints.

²⁰ ECE 25, Uniform Provisions Concerning the Approval of Head Restraints (Head Rests), whether or not Incorporated in Vehicle Seats (<http://www.unec.org/trans/main/wp29/wp29regs/r025r1e.pdf>).

²¹ We note that buses with at least 17 designated seating positions are still classified as M2, M3. However, ECE 17 specifically excludes these vehicles.

²² We note that ECE 17, Paragraph 5.3.1 expressly allows other categories of vehicles equipped with head restraints to be certified to ECE 17.

with poor head restraint design differently, and because individual parts of each of the compliance options provide different levels of safety. We note, however, that the manufacturer may select different compliance options for different designated seating positions.

Major differences between this final rule and the NPRM. The following highlights the major differences between the NPRM and the final rule:

- This final rule does not require head restraints in rear outboard designated seating positions. However, if a manufacturer chooses to install head restraints in rear outboard seating positions (as defined in FMVSS No. 202a.), these head restraints must meet the new height, strength, position retention, and energy absorption requirements, but not backset requirements.

- The maximum allowable backset for front head restraints has been increased from 50 mm to 55 mm;

- The 25 mm gap limit for adjustable head restraints in their lowest height position and a single position of backset adjustment has been eliminated, leaving the 60 mm limit at any position of backset adjustment;

- With respect to position retention, the head restraint must return to within 13 mm of the initial reference point, instead of to within 10 mm, as proposed;

- The proposed radius of curvature requirement has not been adopted;

- The energy absorption testing procedure will be conducted using a linear impactor, instead of the proposed free-motion impactor;

- The dynamic compliance option will require that the head-to-torso rotation be limited to 12 degrees, when tested with a 50th percentile male Hybrid III dummy with the head restraint midway between the lowest and the highest position of adjustment (there will be no test with a 95th percentile dummy);

- The dynamic compliance option mandates a maximum HIC₁₅ limit of 500, as opposed to 150 proposed in the NPRM, and;

- Vehicle owner's manual must include information describing the vehicle's head restraint system, how to properly adjust head restraints, and how to remove and re-install head restraints.

VI. Height and Width Requirements

a. Requirements for Front Seats

Height of front seat head restraints. FMVSS No. 202 currently requires that front head restraints be capable of reaching a height of at least 700 mm

above the SgRP. The NPRM proposed amending the standard to increase the minimum height of front integral head restraints to 800 mm above the H-point. It proposed that if the head restraints were adjustable, they must adjust up to at least 800 mm, and not below 750 mm, with respect to the H-point. This adjustment range was estimated to ensure that the top of the head restraint exceeded the head C.G. (center of gravity) for an estimated 93 percent of all adults.

A majority of the manufacturers and other commenters, among them the Alliance of Automobile Manufacturers (Alliance), General Motors North America (GM), TRW Automotive (TRW), the Association of International Automobile Manufacturers, Inc. (AIAM) and IIHS, generally supported the new height proposal. IIHS's support was based, in part, on a new standard for evaluating head restraints promulgated by the Research Council for Automobile Repairs (RCAR), which deems taller head restraints to be superior to shorter ones.²³ In contrast, Advocates commented that fixed and adjustable head restraints should be subject to the same height requirements. According to Advocates, the NPRM did not justify allowing a 750 mm height for adjustable restraints in front seats.

There were some concerns expressed about the effect of taller front outboard head restraints on driver visibility through the backlight,²⁴ and on the ability of drivers in following vehicles to see through the backlight of a vehicle in front of them. Honda and Ford also said that taller front seats would contribute to rear seat occupants feeling closed-in.

Several manufacturers also stated that the taller head restraints could make it more difficult to install seats during vehicle assembly.

Agency response: The persistence of high numbers of whiplash injuries in the current fleet of vehicles indicates that the height requirement currently in effect for front outboard head restraints is not preventing excessive movement of the head and neck relative to the torso. The current requirement allows head restraints that do not effectively limit rearward movement of an average

²³ RCAR is an international organization intended to reduce insurance costs by improving automotive damageability, repairability, safety and security (www.RCAR.org). Under the RCAR standards, the head restraint is tested with the HRMD to evaluate the restraint geometry and then is rated as good, acceptable, marginal, or poor. These types of rating systems do not contain the level of objectivity or specificity to translate easily into a regulatory requirement.

²⁴ Backlight is the window located at the rear of the roof panel (SAE J953).

occupant's head at its center of gravity, resulting in continuing high numbers of whiplash. Research indicates that a minimum height of 800 mm above the H-point for integral head restraints, and a minimum height of 750 mm for adjustable head restraints in their full down position and at least 800 mm in their full upward position, will prevent whiplash injuries because at this height the head restraints can effectively limit the movement of the head and neck.

We have decided against adopting Advocates' suggestion that adjustable head restraints should not be allowed to have an adjustment position below the minimum 800 mm requirement set for integral head restraints.²⁵ Advocates' argument was based on the possibility that occupants will not adjust their head restraints to an effective position. We acknowledge that head restraint misuse has been a problem in the past and that some consumers may not receive the full benefit of an adjustable head restraint if they leave them in the lowest possible position of adjustment. However, we believe that misuse will decrease as consumers become more aware of the merit of raising their head restraints.

Further, prohibiting any position less than 800 mm for adjustable head restraints would likely result in a substantial increase in the overall height of the seat back. (The gap between the top of the seat back and the head restraint in its lowest position could not be widened substantially, because of the restrictions in today's rule that restricts such gaps to 60 mm.) The practical effect of adopting Advocates' suggestion would be to require integral head restraints, which we believe is unwarranted and overly design restrictive. Adjustable head restraints may allow shorter and very tall occupants to position their head restraints more optimally. Further, even occupants of average size may benefit from certain adjustment features, such as head restraint backset adjustment to positions closer than 55 mm, if they find it comfortable. Finally, when properly designed to maintain their position, adjustable head restraints can provide protection comparable to that provided by integral head restraints.

We note that integral head restraints have in the past been considered more effective than adjustable head restraints, largely because many occupants do not properly position adjustable head restraints. In 1982, NHTSA assessed the performance of head restraints installed

²⁵ We note that heights greater than 800 mm are permitted for both integral and adjustable head restraints.

pursuant to FMVSS No. 202 and reported that integral head restraints are 17 percent effective at reducing neck injuries in rear impacts and adjustable head restraints are 10 percent effective at doing so. The difference was due to integral head restraints' being higher with respect to the occupant's head than adjustable head restraints, which were normally left down. More recently, however, the Preliminary Economic Assessment (PEA) for the NPRM found no statistical difference in the protection offered by adjustable and integral head restraints. This may be attributable to increases in the height of adjustable head restraints relative to integral head restraints since the 1982 NHTSA study.

With respect to comments on visibility concerns, we do not believe that the greater height of front seat head restraints will decrease rearward visibility. Numerous vehicles currently produced for the U.S. market already have head restraints reaching 800 mm without reports of visibility problems. In its comment, Transport Canada referred to a study conducted by Biokinetics & Associates entitled, "The Effects of Increased Head Restraint Height on Driver Visibility," in support of its suggestion that increasing the height of head restraints would not result in any major visual obstruction. The study indicated that a fixed head restraint tall enough to accommodate a 95th percentile male would have a negligible effect on driver visibility in 83 percent of vehicles in the fleet, as compared to an adjustable head restraint in the lowest position.

With regard to concerns about the difficulty of manufacturing vehicles with taller head restraints, we do not believe this is a major manufacturing obstacle. Numerous manufacturers already comply with ECE17, which requires front head restraints to be as tall as in this rule.²⁶ Further, the manufacturers will have ample opportunity to address vehicle assembly processes during the interim period before the final rule becomes effective.

Some commenters believed that taller front seat head restraints will make rear seat passengers feel "closed in" and claustrophobic. There has been no indication of such problems from the European markets where rear seat passengers are already subjected to taller head restraints in the front outboard seating positions. We are unable to conclude, without supporting data, that a head restraint that is less

²⁶ We also note that some vehicles already feature rear seat head restraints that would comply with the new height, backset, strength, position retention, and energy absorption requirements for optional rear outboard head restraints.

than 100 mm (4 inches) higher than current restraints is generally likely to have this effect on passengers.

Nissan and ICBC requested that height and backset requirements, as applied to active or dynamically deployed head restraints, be measured when such head restraints are fully activated. Unless the system is tested when fully activated, Nissan claimed that the active head restraint system currently featured in several Nissan and Infiniti vehicles would not pass under the new static testing requirements.

We believe that it may be difficult to deploy these systems manually and to keep them deployed while making static measurements, unless the actual seat is partially disassembled. Further, this artificially deployed position may not accurately represent position of the head restraint when the occupant's head comes in contact with it during a rear impact. The agency knows of no practicable way to address these issues in the context of a static test nor did any commenter present one. Accordingly, this rule requires that front outboard active head restraint systems be tested for height in their un-deployed position. We note that there are practical limitations of any static test procedure on a system with dynamic properties.²⁷ However, if an active head restraint were to meet the static test procedure requirements, this would not eliminate the value of the active nature of those head restraints since further gains in controlling the occupant's head-to-torso motion and energy absorption could be achieved.

Front head restraints in low roofline vehicles. This rule permits a lower minimum height for head restraints for front outboard-designated seating positions to allow a maximum of 25 mm of vertical clear space between the top of the front head restraint and the roofline. The NPRM proposed to permit a similar exception during the interim period as part of the option of complying with ECE 17. ECE 17,

²⁷ We note that the manufacturers' concerns are alleviated by the availability of the dynamic compliance option. The dynamic compliance option provides an alternative for those manufacturers who are now utilizing active or dynamic head restraint systems. Agency testing and other published research have shown that an active head restraint system can be designed to meet dynamic testing requirements with a comfortable compliance margin. Further, a manufacturer electing to certify compliance via dynamic testing is relieved from multiple static performance requirements. Our analysis also indicates that several active head restraint systems currently on the market would pass our static compliance requirements in their normal or non-deployed position. Accordingly, we believe most head restraints will be able to meet today's static test requirements. For those that cannot, the dynamic compliance option remains available.

paragraph 5.5.4 allows for up to 25 mm of clear space between front head restraint and any fixed vehicle structure, provided that use of the exception does not result in a height lower than 700 mm.

For front head restraints, DaimlerChrysler, Nissan, Alliance, Volkswagen, and Porsche requested that the 25 mm clearance exemption remain in the final rule to accommodate the possible situation in which the 800 mm head restraint may not clear the roof or front header when the seat back is folded for egress to or ingress from the rear seat area. In response to these comments we decided to adopt a 25 mm height allowance in this final rule. As in ECE 17, paragraph 5.5.4, the 25 mm height allowance is limited to the extent that the resulting front head restraint height cannot fall below 700 mm. However, this rule permits the 25 mm height allowance only in situations in which a full height front head restraint would interfere with the roofline, but not with any fixed vehicle structure, as allowed by ECE. We believe adopting the full ECE exception could provide relief in instances in which none may be needed. For example, an upper seat belt anchorage or the side of the vehicle's interior could be within 25 mm of the head restraint and yet would likely not create any compliance difficulties for vehicle manufacturers or unduly restrict visibility.

The 25 mm height allowance for rear head restraints is described in the next section.

Width of front seat head restraints: The NPRM proposed to maintain the existing width requirements of FMVSS No. 202: i.e., that both front and rear outboard seat head restraints must be at least 171 mm (6.7 in) wide on single seats and 254 mm (10 in) wide on bench seats.²⁸ We note that ECE 17 regulation provides a 170 mm minimum width requirement for all head restraints. In the NPRM, we stated that bench seat head restraints should be wider because occupants seated on bench seats are freer than occupants of single seats to position themselves so that they are not directly in front of the head restraint.

AIAM called the proposed 254 mm head restraint width for bench seats unreasonable, stating that NHTSA should instead adopt the same 170 mm width for bench seat head restraints. AIAM asserted that comfort factors and seat belt placement on most bench seats help place occupants in the proper seating positions. In contrast, Advocates

²⁸ A bench seat is a seat that has a center designated seating position between the two outboard designated seating positions.

expressed concern that requiring a 254 mm width for bench head restraints and a 170 mm width for non-bench head restraints would protect only target occupants in centered, perpendicular rear impacts, not occupants in offset collisions, causing head/neck excursion to one side of the restraint. Given those concerns, Advocates stated it did not understand why all restraints, especially front head restraints, should not have a minimum width of 254 mm.

For front bench seats we disagree with AIAM that the width requirement should be reduced. The 254 mm width requirement for these head restraints on bench seats has been in effect since January 1, 1969. We are not aware of any evidence showing that the present level of protection should be reduced. We decided to maintain wider head restraints for front bench-type seats because wider head restraints tend to better reduce relative head-to-torso motion in off-axis impacts. However, rather than use the term "bench," which some commenters felt required further clarification, we have defined the requirement in terms of front outboard designated seating positions in vehicles that have a front center designated seating position.

With regard to Advocates' comment, NHTSA declines to require all head restraints to have a minimum width of 254 mm. With respect to front outboard seating positions, we note that front outboard non-bench seats have a defined contour that, in addition to belt use, better prescribe occupant seating position relative to the head restraint. Therefore, the front non-bench head restraints can be narrower than the front bench seat head restraints. With respect to rear outboard seating positions, we believe that the rearward visibility concerns associated with wider rear head restraints outweigh an unquantified off-axis rear impact benefit of wider restraints in all seats at this time.

b. Requirements for Rear Seats Equipped With Head Restraints

In the NPRM, we proposed to require head restraints in rear outboard seating positions. Presently, neither FMVSS No. 202 nor ECE 17 requires head restraints in rear outboard seating positions. Based on further analysis of the proposal and submitted comments, we have decided not to require head restraints in rear outboard designated seating positions. For a more detailed discussion of our decision not to require head restraints, please see section XII.

While rear head restraints are not required, this final rule does impose certain requirements on head restraints

voluntarily installed in outboard designated seating positions. The strength, position retention, and energy absorption requirements are the same for front outboard and optional rear head restraints. However, the requirements for height and width differ from those applicable to front outboard head restraints.

Height of rear seat head restraints.

The NPRM proposed that rear restraints have a minimum height of 750 mm if integral and, if adjustable, not be adjustable to a height below 750 mm.

DaimlerChrysler, GM, Honda, and the Alliance expressed concern about diminished visibility and decreased functionality of rear seat storage due to the taller rear seat head restraints. As a result of this expected decline in visibility and utility, DaimlerChrysler indicated that customer dissatisfaction with the restraints could trigger misuse or removal. Johnson Controls expressed concerns pertaining to reduced rearward visibility (particularly for shorter drivers), as well as feasibility issues, including difficult ingress/egress for third-row SUV or van seating, inability to fold and install all rows of seats, and lack of clearance between head restraints and the rear backlight area for sport coupes with rear seating.

Porsche objected to the 750 mm rear head restraint height, claiming impracticability and lack of safety need. Porsche indicated that some of its current fleet would be unable to meet the new height requirements for rear head-restraints. Specifically, Porsche presented their computer aided design data showing that several models, including the 911, have less than 750 mm of distance between the rear seat H-point and the roofline, making compliance with the proposed requirements impossible.²⁹ Accordingly, Porsche asked that the final rule either not require rear head restraints, or provide an exception for low roofline vehicles. Magna and Volkswagen also requested that a 25 mm clearance between the top of head restraint and the roofline be allowed regardless of the actual head restraint height measurement. Such a provision would be similar to an ECE 17, Paragraph 5.5.4, which allows head restraints to have a lower maximum height in order to provide 25 mm of clear space between the head restraint and the roofline. Nissan suggested

allowing a 25 mm clearance between the head restraint and interior vehicle structures as necessitated by vehicle design.

In contrast, Advocates argued for an 800 mm minimum height for rear seat head restraints, in order to include (according to the commenter) sufficient whiplash protection for 95th percentile male adults.

Agency response: As discussed above, NHTSA has concluded that any voluntarily installed rear head restraints must meet the height requirements proposed in the NPRM. Specifically, the optional rear head restraints must reach a minimum height of not less than 750 mm above the H-point.

In the NPRM, we indicated that the 750 mm minimum head restraint height would reach above the head center of gravity of approximately 93 percent of all adults. We note that with respect to the rear seat head restraint target population, the 750 mm height would sufficiently protect an even higher percentage of rear seat passengers because larger occupants typically sit in front seats.

Some manufacturers stated that a taller rear head restraint might interfere with seat mechanisms designed to provide access to and from third row seats. Because we have decided not to require rear head restraints, a manufacturer concerned with functionality of these mechanisms need not install a head restraint in the affected seats. Additionally, as will be discussed in sections IX.b. and c., the manufacturers will be allowed to install removable rear outboard head restraints or rear outboard head restraints with "non-use positions."

Several commenters discussed the possible effects of the proposed head restraint height increases on vehicle utility with respect to seat folding and cargo capacity. The Alliance, DaimlerChrysler, Honda and GM commented that the rear head restraint heights proposed in the NPRM could impede seat folding, thus limiting cargo capacity, or otherwise limit interior configuration possibilities.

Since rear outboard head restraints will not be mandatory, vehicle manufacturers need not equip their rear seats with head restraints. Further, as will be discussed in section IX, if the manufacturers provide rear outboard head restraints, they will be allowed to make them removable and to design them so that they can be moved into "non-use positions." As a result, manufacturers will have ample design flexibility to address the cargo carrying needs of their customers.

²⁹The distance from the H-point to the point 25 mm below the roofline for 911 Coupe, Targa, and Cabrio models is 693, 666, and 691 mm, respectively. Porsche also noted that requiring rear head restraints in such vehicles would create an almost 100 percent rear window obstruction (Docket No. NHTSA-2000-8570-39).

Rear head restraints in low roofline vehicles. This rule permits a lower minimum height for rear outboard seating positions equipped with optional head restraints to allow a maximum of 25 mm of vertical clear space between the top of the rear head restraint and the roofline or the backlight. The NPRM proposed to permit a similar exception during the interim period as part of the option of complying with ECE 17. ECE 17, paragraph 5.5.4 allows for up to 25 mm of clear space between rear head restraint and any fixed vehicle structure, provided that use of the exception does not result in a height lower than 700 mm.

We decided to adopt a similar provision for the long term. However, this rule permits the 25 mm height allowance only in situations in which the rear head restraint interferes with the roofline or the rear window, but not with any fixed vehicle structure as allowed by ECE. Further, the 25 mm height allowance is permitted only if the interference occurs when seats are positioned as intended for occupant use.³⁰

In their comments, DaimlerChrysler, Nissan, Alliance, Volkswagen, and Porsche asked for a permanent 25 mm height allowance and suggested that the clearance should apply in situations where the seat interferes with all fixed vehicle structures, including roof liners, seat backs, headers, and rear windows. Further, they stated the clearance should be allowed regardless of whether the seats are placed in either upright or folded down positions.

This final rule does not permit a 25 mm height allowance in situations in which the rear head restraint interferes with fixed vehicle structures other than the roofline or the backlight. We believe adopting the full ECE exception could provide relief in instances in which remedies other than changing the basic vehicle structure are available.

As previously stated, the rear seat 25 mm height allowance in this final rule applies only to seat adjustment positions intended for occupant use.³¹ That is, if a second row seat folds forward to permit ingress and egress and would hit the seat in front of it or some other vehicle structure, the 25 mm height allowance is not available for that

situation. In situations in which interference occurs when a seat is not in a position intended for occupant use, the manufacturers may choose to utilize the "non-use" head restraint positions described later in this document, or redesign the seat fold-down mechanisms. We note that redesigning the fold down mechanism, though not necessitated by this final rule, can provide a practicable resolution at a reasonable cost.

The ECE 25 mm height allowance is limited to the extent that the resulting head restraint height cannot fall below 700 mm. As a practical matter, however, this requirement is moot with respect to the upgraded standard because the rear seat backs and attached or adjacent components that have a height of less than 700 mm are not considered rear head restraints under this final rule.

Width requirements for rear head restraints. The agency tentatively concluded in the NPRM that a 171 mm width for single seats and a 254 mm width for bench seats were the appropriate specifications for all outboard seating positions. These proposed widths differed from ECE 17, Paragraph 5.10, which provides a 170 mm minimum width requirement for all head restraints. The NPRM asked whether NHTSA should implement specific requirements for rear seat head restraints in order to alleviate problems associated with potential visibility losses.

All industry commenters agreed that the appropriate width requirement for rear seat head restraints should be 170 mm, and that 254 mm is overly wide. Honda commented that the 254 mm bench seat width requirement could reduce rearward visibility and was unwarranted, given the unknown safety problems of rearward visibility reduction and the unidentified need for wider head restraints. Honda attached the results of a simulation it conducted to show the decreased visibility created when 750 mm high, 254 mm wide head restraints are installed in a coupe and a hatchback vehicle. When 254 mm wide head restraints were installed on a second row rear bench seat of a coupe model, Honda's simulation showed a 40 percent decline in rearward visibility. Similarly, when installed on a hatchback model, the 254 mm wide head restraints produced a 60 percent loss of rearward visibility. To rectify this reduction of rearward visibility, Honda suggested a head restraint minimum width requirement of 170 mm for both bench seats and individual seats. Honda based this 170 mm requirement for both types of seats on ECE 25.

Ford presented data from a study it conducted, showing that rear head restraints with widths of 171 mm trimmed backlight visibility by 10–12 percent, while 254 mm wide rear head restraints reduced visibility by 15–17 percent.

In contrast, Advocates stated that it believed that all restraints should have a minimum width of 254 mm.

Upon reviewing the comments, NHTSA has decided to require a 170 mm minimum width for all voluntarily installed rear head restraints. This decision was made to further reduce the effects of this rule on rearward visibility. In order to harmonize our requirements with that of ECE 17, we are adopting a 170 mm minimum width, as opposed to the 171 mm proposed in the NPRM.

VII. Backset Requirements for Front Seats

In the NPRM, we proposed that the front and rear outboard head restraints have a backset of no more than 50 mm, as measured by HRMD. "Backset" means the minimum horizontal distance between the back of a representation of the head of a seated 50th percentile male occupant and the head restraint (*i.e.*, the back of the ICBC head form and the head restraint). The 50 mm maximum backset requirement was to be met at all head restraint heights between 750 mm and 800 mm. We solicited comments on whether a maximum 50 mm backset limit would be effective in preventing whiplash injuries; whether 50 mm backset would provide sufficient comfort for the occupants; and whether an adjustable backset would be more appropriate.

Commenters offered a range of opinions about the need for, and acceptable level of, a maximum backset requirement. Several commenters, including ICBC, IIHS, Transport Canada, and Advocates, supported establishing 50 mm as the maximum allowable backset. ICBC and Magna Seating Systems argued that Mathematical Dynamic Model (MADYMO) simulations performed by NHTSA confirm the decreasing safety benefit of head restraints with backsets greater than 50 mm. Therefore, ICBC believes 50 mm is sufficient to reduce whiplash significantly.

ICBC provided data showing 49 of 164 vehicles manufactured in 2001 by 19 different manufacturers have a backset of 50 mm or less.³² IIHS stated that a group of model year (MY) 2001 vehicles,

³⁰The term "intended for occupant use" has been defined in the final rule to apply to seat positions other than those intended solely for the purpose of allowing ease of ingress and egress of occupants and access to cargo storage areas of a vehicle.

³¹We note that both front and rear optional head restraints must meet the applicable height requirements with the seat positioned as intended for occupant use.

³²We note that the ICBC evaluated backset using the measurement technique and seat back angle identical to that of this final rule.

among them Jeep Cherokee, Ford Ranger, Toyota Camry, and Volvo S80 already have 50 mm or smaller backsets. Because many newer vehicles already have backsets of 50 mm, these commenters claimed it was evident that the 50 mm requirement provides sufficient head clearance and that passenger comfort would not be compromised in a significant manner. IIHS stated that it was unaware of any significant comfort issues.

In opposition, a majority of the manufacturers, among them GM, Magna, Johnson Controls, AIAM, the Alliance, Nissan, Porsche, DaimlerChrysler, and Ford, suggested that vehicle occupants would prefer a head restraint backset of more than 50 mm. Specifically, they maintained that smaller female occupants tend to utilize steeper seat back angles. According to these commenters, a backset of 50 mm may cause significant intrusions into the space where these occupants typically place their heads, forcing their heads into an unnatural forward-tilting position. DaimlerChrysler indicated that a recent decrease in the backset to 50 mm in one of its models yielded four times as many warranty claims for the new head restraint. It did not elaborate on the basis for these claims. Autoliv commented that even a 50 mm backset is not a guarantee to prevent whiplash, and that it will lead to discomfort for more than 20 percent of the occupants. General Motors and Ford suggested that an 80 mm backset is more appropriate to accommodate consumer comfort.

Some commenters stated that IIHS rates backsets of 70 to 90 mm "acceptable" and so that backset requirement should be increased to that range.

The University of Michigan Transportation Research Institute (UMTRI) commented that it had conducted an extensive study of vehicle occupants' posture and position. Based on its research, a 50 mm backset would result in head restraint interference for 13 percent of the driving public.³³ The head restraint would actually come in contact with the hair of approximately 33 percent of drivers, assuming a hair margin of 25 mm. Based on their calculations, the individuals who preferred seat back angles more upright than 25 degrees (usually small stature people) were most likely to be subject to the head restraint interference. UMTRI estimated that with current seat designs, a backset of 91 mm would accommodate the preferred head positions of 99

percent of the population and a 70 mm maximum backset would accommodate all but a small percentage of the population.

Ford cited 3 studies by Eichberger *et al.*,³⁴ Szabo *et al.*,³⁵ and Davidsson *et al.*,³⁶ which used sled-mounted seats to simulate low speed rear impacts. Eichberger *et al.* tested volunteers on 9 different seat types at simulated impact speed changes (delta Vs) of 8 and 11 km/h. When the measured backset was less than 70 mm, none of the volunteers complained of any discomfort or pain. Szabo *et al.* tested 5 volunteers at delta Vs of 8–10 km/h under two conditions: an unmodified head restraint, and the same head restraint with 50 mm of additional padding. Backsets for the volunteers ranged between 76 to 114 mm with the unmodified head restraint, and by assumption between 26 to 64 mm with the modified head restraints. None of the volunteers reported any discomfort or pain after either test. Davidsson *et al.* subjected 13 volunteers to multiple sled tests (2–4) with delta Vs of 5 to 7 km/h. The measured backsets ranged from 70 to 160 mm. The head restraint position was not varied during the test so the variation in backset for the different occupants was due to occupant size differences. Only one subject reported any symptoms. The symptom was a headache, which occurred after his third run, and desisted within 36 hours.

We also received a comment from Cervigard, Inc., which has designed a head restraint that incorporates a contoured shape intended to match the curvature of the head and cervical spine, which is essentially a neck bolster. In Appendix B of this NPRM, we discuss our reasons for not adopting a requirement for a neck bolster.

Agency response: This final rule requires that front outboard head restraints meet the backset requirements described below. Because of occupant comfort countermeasure issues unique to rear seats, the agency decided not to regulate backset in the rear designated seating positions voluntarily equipped

³⁴ Eichberger A, Geigl BC, Moser A, Fachbach B, Steffan H, Hell W, Langwieder K: Comparison of Different Car Seats Regarding Head-Neck Kinematics of Volunteers During Rear End Impact; Proceedings of the 1996 International IRCOBI Conference on the Biomechanics of Impact; September 1996; pp. 153–164.

³⁵ Szabo TJ, Welcher JB: Human Subject Kinematics and Electromyographic Activity during Low Speed Rear Impacts, Proceedings of the 40th Stapp Car Crash Conference; November 1996, 962432, pp. 235–315.

³⁶ Davidsson J, Deutscher C, Hell W, Linder A, Lovsund P, Svensson: Proceedings of the 1998 International IRCOBI Conference of the Biomechanics of Impact; September 1998; pp. 289–301.

with head restraints. We concluded that comfort-related issues are not insurmountable in front seats because front seat backs can be adjusted to alleviate discomfort. Further, as explained further below, our Final Regulatory Impact Analysis (FRIA) does not attribute any safety benefits to vehicle occupants as a result of regulating backset in rear seats.

For front outboard designated seating positions, we have decided to increase the maximum allowable backset to 55 mm, with the seat back positioned at an angle that gives the HRMD a torso reference line angle of 25-degrees. Our decision to relax the maximum allowable backset requirement is based on the ± 5 mm tolerance of the measuring device. This tolerance is discussed more fully in the next section. Briefly stated, a 5 mm increase beyond the 50 mm limit proposed in the NPRM represents the variability associated with measuring backset with the ICBC measuring device.

In sum, under today's rule, the backset for front outboard head restraints must not be adjustable beyond the new maximum allowable distance of 55 mm when the head restraint is at a height between 750 mm and 800 mm, inclusive. Backset adjustment to distances below 55 mm is allowed. Also, backset adjustment of above 55 mm at head restraint positions higher than 800 mm is allowed. For manufacturers of active head restraint systems who choose to certify to the static dimension and strength requirements, the backset measurements will be taken with the head restraints in non-deployed position because we believe that the artificially deployed position may not accurately represent the actual position of the head restraint when the occupant's head comes in contact with it.

Necessity for a limited backset. Our decision to propose a 50 mm backset was based on published research, testing, computer modeling, and real world crash data.

The consensus within the biomechanics community is that the backset dimension has an important influence on forces applied to the neck and the length of time a person is disabled by an injury. As early as 1967, Mertz and Patrick first showed that reducing the initial separation between the head restraint and head minimizes loading on the head during a rear impact.³⁷ More recently, the Olsson

³⁷ Mertz, H.J.; Patrick, L.M.: "Investigation of the Kinematics and Kinetics of Whiplash," Proceedings of the 11th Stapp Car Crash Conference, Anaheim, California, 1967; pp. 267–317.

³³ The UMTRI evaluated backset of 50 mm at the seat back angle of 25 degrees, using a CAD representation of a HRMD and a typical seat.

study, which examined neck injuries in rear end collisions and the correlation between the severity of injuries and vehicle parameters, showed that the duration of neck symptoms was correlated to the head restraint backset. Specifically, reduced backset, coupled with greater head restraint height, results in lower injury severity and shorter duration of symptoms.³⁸

A different study examined sled tests to determine the influence of seat back and head restraint properties on head-neck motion in rear impacts. The study concluded that the head restraint backset had the largest influence on the head-neck motion among all the seat properties examined. With a smaller backset, the rearward head motion was stopped earlier by the head restraint, resulting in a smaller head to torso displacement. The findings indicated that a reduction in backset from 100 mm to 40 mm would result in a significant reduction in whiplash injury risk.³⁹

A study conducted by Eichberger examined real world rear crashes and sled tests with human volunteers to determine whiplash injury risk and vehicle design parameters that influence this risk. The study found a positive correlation between head restraint backset and head to torso rotation of the volunteers and to the reported whiplash injury complaints. The most important design parameters were a low horizontal distance between the head and head restraint as well as the head restraint height.⁴⁰

A study conducted by Dr. Allan Tencer, PhD, used rigid occupant body models enhanced with finite element models of the cervical spine for simulating rear impacts in order to examine the effect of backset on neck kinematics and forces and moments in the neck. The study concluded larger backset correlates to greater displacement between cervical vertebrae and shearing at the facet capsules that are likely associated with whiplash injury. With the head initially closer to the head restraint, the time difference

between the occurrences of the peak upper and lower neck shear forces are smaller. At 50 mm backset and lower, the head moved more in phase with the torso and extension of the head was reduced indicating a lower risk of whiplash injury.⁴¹ IIHS, in its studies of head restraints, considers a backset of 70 mm (2.8 inches) or less to be "good."⁴²

NHTSA used computer modeling described in the NPRM to verify our assumption regarding the benefits of a smaller backset. Our research indicates that lower head-to-torso rotation values were seen when the backset was approximately 50 mm in comparison to head restraints with large backset values. As discussed further in this notice, lower head-to-torso rotation values are predicted to result in a lower probability of whiplash injury. Therefore, we continue to conclude that 50 mm of backset is an appropriate upper limit for all outdoor seating positions. No data presented in the comments have indicated that a higher backset value is more appropriate from the occupant safety-standpoint. Other than Ford's comments, all of the comments opposing the proposed 50 mm maximum backset were related to comfort issues and the repeatability of placement of the proposed test device. In sum, research indicates that limiting backset is critical to reducing whiplash injuries occurring in rear impacts.

In its comments, Ford referred to three crash studies conducted at delta V's ranging from 5 to 11 km/h with varying degrees of backset and occupant size. Ford emphasized that there were no occupant injuries both with and without the backset reduction. We note that all of these tests utilized volunteers and therefore, the impact delta Vs were intended to be below the injury threshold. The primary goal of these studies was to understand occupant kinematics. The same research also indicated that when backset was reduced from 76 mm to 26 mm and from 114 mm to 64 mm, the head acceleration, rearward head displacement and cervical extension were all reduced. These data confirm our contention that injury measures, including head-to-torso rotation, decrease with smaller backset and predict a lower probability of injury. While some of the data supplied by Ford seems to suggest that smaller backsets have no bearing on the

occurrence of whiplash injuries at low speeds, we note that if all impacts in the real world were limited to this very slow speed, the backset limit indeed might not be as critical. The same data seem to support our rulemaking efforts, as Eichberger observed that backset "is very important for a good seat design. Even a head restraint placed high enough can only prevent neck injuries when the head is sustained as soon as possible by the head restraint during rear end collision."⁴³

Finally, we note that other seat parameters beyond the head restraint geometry play a role in risk of injury in rear impacts. Specifically, seat back frame force deflection characteristics and seat upholstery compliance characteristics can influence the occupant's kinematics. Thus, the head restraint geometric requirements specified in this final rule should be thought of as an interim step in the agency's goal of a unified seat/head restraint standard.

Comfort of the seat occupant. In selecting a backset limit, we have attempted to balance comfort, safety and measurement variability concerns. As noted above, no commenter disputed scientific data indicating that the closer the head restraint is to the occupant's head at the time of impact, the better the protection the head restraint offers. Numerous commenters, however, stated that occupants may be intolerant of head restraints very close to the back of their head. Further, because of differences in the occupant size, posture and seat angle preference, the same head restraint can yield different amounts of backset clearance for different individuals.

Several manufacturers argued that some occupants would select a steeper or more upright front seat back angle, thus causing the backset distance to be below 50 mm. They contend that a backset of less than 50 mm will interfere with the normal position of the head. However, since ICBC reported that 49 of 164 vehicles from model year 2001 met the 50 mm backset limit, it appears that occupant discomfort in front seats is not an insurmountable obstacle. Accordingly, we conclude that the available information does not substantiate the industry concerns associated with discomfort from front seat back adjustment to a more upright position.

UMTRI commented that a 50 mm backset causes interference with 13 percent of drivers "preferred" head position. Generally, these tend to be smaller occupants, who prefer a more

³⁸ Olsson, I.; Bunketorp, O., Carlsson G., Gustafsson, C., Planath, I., Norin, H., Ysander, L. An In-Depth Study of Neck Injuries in Rear End Collisions, 1990 International Conference on the Biomechanics of Impacts, September, 1990, Lyon, France. See Table IV and the Appendix.

³⁹ Svensson, M., Lovsund, P., Haland, Y., Larsson, S. The Influence of Seat-Back and Head-Restraint Properties on the Head-Neck Motion During Rear-Impact, 1993 International Conference on the Biomechanics of Impacts, September, 1993, Eindhoven, Netherlands.

⁴⁰ Eichberger A, Geigl BC, Moser A, Fachbach B, Steffan H, Hell W, Langwieder K. Comparison of Different Car Seats Regarding Head-Neck Kinematics of Volunteers During Rear End Impact, International IRCOBI Conference on the Biomechanics of Impact, September, 1996, Dublin.

⁴¹ Tencer, A., Mirza, S., Bensek, K. Internal Loads in the Cervical Spine During Motor Vehicle Rear-End Impacts, SPINE, Vol. 27, No. 1 pp 34-42, 2002.

⁴² The IIHS head restraint rating criteria is discussed at: http://www.iihs.org/vehicle_ratings/head_restraints/head.htm.

⁴³ See Eichberger at pp. 153-164.

upright seat back angle. The "preferred" backset position, as articulated by UMTRI, may merely refer to a position that the drivers are most accustomed to. The term does not necessarily mean that the position is the only acceptable one or even the safest one for a given occupant. We note that the driving population as a whole is accustomed to a backset position that is, while comfortable, not optimal to prevent whiplash injuries.

We believe that no significant deviation from our proposed backset limit of 50 mm is necessary to provide an overwhelming majority of front seat occupants with an acceptable backset position. Further, any potential discomfort can be reduced by a slight increase in seat back angle. We believe that most front seat occupants can increase the seat back angle slightly without compromising their ability to reach the steering wheel comfortably or see the road ahead. For every additional degree of inclination, approximately 3 mm of additional backset clearance would be obtained. For example, a 2-degree increase in seat back angle will result in additional 6 mm of backset.

In addition to potential ways to alleviate potential discomfort, we note that our own measurements of 14 vehicles showed that the front seat head restraints in the MY 1999 Toyota Camry, Chevy C1500, Chevy S10, Saab 9-5, and Chevy Malibu, all had backsets within the proposed 50 mm limit. This supports comments by ICBC and IIHS that many vehicles already have a 50 mm backset. We think the seat manufacturers can provide a front seating system design, such as a different head restraint shape, that would allow for better comfort.

With respect to rear seats, however, the agency believes that potential occupant discomfort cannot be as easily reduced because most rear seat backs in passenger cars are not adjustable. In many vehicles, the rear seat back angle cannot be changed to provide additional backset clearance. Consequently, some vehicle occupants may experience interference with the normal position of their head, and could decide to completely remove the optional rear head restraints. NHTSA believes that it is preferable that the rear head restraints remain in the vehicle instead of being removed due to occupant discomfort, because we estimate that the increased height of optional rear head restraints will result in 1559 fewer whiplash injuries each year. Further, we are concerned that some manufacturers may choose not to install optional rear head restraints due to concerns of customer

dissatisfaction with uncomfortable rear head restraints.

Because of rear seat occupant comfort concerns, the agency decided not to limit the amount of backset in the rear designated seating positions equipped with optional head restraints.⁴⁴ Because of abundant scientific evidence showing that smaller backset reduces instances of whiplash injuries, we believe that the vehicle manufacturers will install optional rear head restraints in a manner that will strike a proper balance between rear seat occupant safety and comfort.

In addition to rear occupant comfort concerns, we note that our FRIA does not attribute any safety benefits to vehicle occupants as a result of regulating backset in rear seats. By contrast, we estimated that for front seats, the limit on backset would result in 15,272 fewer whiplash injuries each year. As explained in Section XVI of this notice, we based our estimates of benefits on either increased height or reduced backset, but not both. We could not combine effectiveness of increased height and reduced backset because this, in some instances, would result in "double-counted" benefits. For front seats, we attribute the benefits to the backset limit. We estimate that greater share of the safety benefits will come from the backset limit because many current vehicles already include taller front seat head restraints. For rear seats, we attribute the benefits to height because we anticipate that the greater share of the benefits will come from regulating the height of optional head restraints.

Adjustable backset suggestion. Several seat and automobile manufacturers argued that, to accommodate occupant comfort, a 50 mm backset requirement should be supplemented with an allowance for backset to be adjustable to distances of up to 100 mm, so long as it could also be adjustable to a minimum setting of 50 mm. In contrast, most consumer groups voiced opposition to allowing a backset distance of up to 100 mm, even if it would be adjustable to a shorter distance of 50 mm. Advocates argued that the backset should be limited to 50 mm or less, and there should not be an allowance for an adjustable 100 mm backset, because it is commonly known that most occupants will not properly adjust their head restraints. Florida International University (FIU) students claimed that most occupants would

simply leave their head restraints adjusted at a backset of 100 mm because of the lack of adequate consumer awareness. Johnson Controls was similarly opposed to an adjustable backset, stating that it is evident that most head restraints would be misadjusted. Johnson Controls stated that 60 to 80 percent of occupants do not properly adjust their head restraints. ICBC was similarly opposed to head restraints with adjustability beyond 50 mm, stating that it would lead to misadjustment and reduced effectiveness.

We were not persuaded to allow a head restraint system featuring adjustable backset mechanism that would allow as much as 100 mm of backset, even if such mechanism would be capable of achieving a 50 mm backset measurement. We agree with arguments put forth by ICBC and Advocates that the possibility of misadjustment is too great. In case of vertical adjustment, the height between the ears and the top of the head provides a clear target zone for adjustment. There is no such clear target adjustment zone for backset. Further, if a vertically adjustable front head restraint is adjusted to its lowest position, it still provides an acceptable level of protection at a height of 750 mm. If the head restraint is adjusted too high, it provides an obvious visual cue to the seat occupant. In the case of backset misadjustment, there would not be a minimally acceptable level of protection at 100 mm of backset, because such measurement does not provide sufficient protection against excessive head-to-torso rotation. Further, a head restraint with a misadjusted backset would not provide an occupant with an obvious visual cue, as most occupants are unaware of the necessity for proper backset adjustment. In sum, we conclude that allowing for an adjustable backset could end up defeating the purpose of the new backset requirement.

Seat back angle for backset measurement. We are aware of certain variability concerns associated with backset measurement using the HRMD device with a SAE J826 manikin torso reference line angle of 25 degrees. We will refer to the torso reference line angle of the J826 manikin and seat back angle interchangeably. Concerns associated with the use of HRMD device are discussed in Section IX. The seat back angle of 25 degrees was chosen because it is on the edge of the range of normally selected seat back angles and would most likely be selected by larger occupants. ICBC, which developed the HRMD, designed it to be used at 25 degrees. Of course, for some fixed

⁴⁴ We note that the decision not to regulate the backset of rear head restraints has the effect of making our upgraded standard consistent with the ECE regulation on this point.

position rear seats, this is not possible. The 25-degree angle is also consistent with the methods used by IIHS and RCAR for measurement of height and backset. ECE 17 does not specify a limit on backset, but for height measurement the seat back is set to 25 degrees unless the manufacturer's recommended seat back angle is specified. While several manufacturers stated that measuring head restraint height at steeper (*i.e.*, smaller) seat back angles result in smaller measured height, our own data indicate that reducing seat back angle by one degree results only in a 2 to 3 mm reduction in head restraint height measurement. We also find persuasive the information provided by ICBC stating that a ± 1 -degree error in torso angle results in a change in backset measurement of only ± 3 mm.

We note that the 25-degree seat back angle in comparison to steeper angles represents a more stringent requirement for backset measurements because it maximizes the distance between the head and head restraint. However, a 25-degree angle is less stringent for measuring head restraint height. Indeed, if we decided to adopt the manufacturer's design seat back angle, typically around 23 degrees,⁴⁵ we would in fact be requiring even taller head restraints. Although we considered measuring height at a steeper angle than 25 degrees, we decided against it. Rather, we are adopting a single measurement angle for both height and backset in order to reduce unnecessary complexity in measurements and increase accuracy of testing results. We believe the 25-degree specification will not compromise safety for shorter or taller occupants. Finally, using the same angle for the measurement of backset and height for every seat, rather than the manufacturer's design seat back angle, will allow comparison of height and backset measurement from seat to seat.

VIII. Measurement of Backset and Height

NHTSA proposed that compliance with the backset and height requirements be measured through use of the ICBC HRMD. The HRMD consists of a SAE J826 three-dimensional manikin with a head form designed by ICBC attached. The ICBC head form contains a probe that slides rearward until contact is made with the head restraint, thus allowing a backset measurement. For height measurement, the SAE J826 manikin is used without the HRMD. The SAE J826 manikin

provides a scale that gives the distance from the H-point along the torso line, thus allowing a height measurement.⁴⁶ If the seat cushion adjusts vertically independently of the seat back, the measurements will be taken with the seat cushion adjusted to the most unfavorable position; *i.e.*, the position that minimizes head restraint height.

Most vehicle manufacturers and seat suppliers opposed the use of the HRMD. Generally, they questioned the accuracy and repeatability of head restraint geometry measurements made using that device. Further, the HRMD was deemed too sensitive to foam, trim, actual H-point, temperature, and humidity variations. Johnson Controls, Nissan, Magna, Ford, VW, and GM commented that the HRMD was not appropriate for compliance testing because repeated testing on the same seat assembly yielded different results. For example, Ford noted that the 2000 Ford Taurus and 2000 Mercury Sable received different ratings despite the fact that they are manufactured on the same platform and have identical front seats. Additionally, DaimlerChrysler commented that NHTSA's own compliance procedure for Standard No. 208, involving the J826 manikin, allows for variability of ± 12.5 mm for the Hybrid III test dummy's H-point in comparison to the J826 H-point and that the Hybrid III is a more biofidelic representation of a seated occupant. Ford stated that when measuring a head restraint reaching 800 mm, a manikin torso angle variation of ± 1 degree produced a 28 mm variation in the backset measurement. Porsche stated that the HRMD device could not be properly positioned in the seats that have strong-contoured shape, therefore preventing accurate measurements. Honda provided data showing repeated backset measurement of a single seat by 3 test technicians. The largest range for any technician was 10 mm and the overall range of backset was 17 mm.

On the other hand, Transport Canada reported that a study commissioned by several Canadian insurance companies, conducted by Rona Kinetics and Associates; Ltd., entitled "Head Restraint Field Study," concludes that HRMD is repeatable and an effective predictor of head restraint positions. Transport Canada has used HRMD for years and finds it to be a convenient and accurate tool.

In addressing accuracy concerns, ICBC said that the HRMD yields a level

of accuracy of ± 5 mm when used by competent, well-trained operators. ICBC stated further that manufacturers have historically had to accommodate similar tolerance levels with other compliance testing based on the H-point machine. Further, according to ICBC, 1 degree in seat back variance yields a deviation of no more than 3 mm as opposed to 13–28 mm as suggested by some commenters. In addressing Ford's comments on different measurement results for virtually identical vehicles, ICBC stated that the two seats, while identical in theory, had different upholstery materials (leather and cloth) and also had different stitching patterns. As a result, the deviation between two seat measurements was 5 mm, which ICBC noted was enough to warrant awarding two different vehicle head restraint ratings.

The SAE cautioned that the current H-point machine is undergoing considerable revision and the ICBC device could not be mounted on the new manikin. It argued that if the ICBC device were mandated, the manufacturers would be forced to use an otherwise outdated compliance device. Magna suggested that we consider the ASPECT (Automotive Seat and Package Evaluation and Comparison Tools) manikin as a compliance tool, instead of the HRMD.

According to several manufacturers, including Magna, Porsche and Honda, a more appropriate measurement methodology would utilize SgRP. The SgRP is a theoretical point in the vehicle, usually representing the most rearward normal riding or driving H-point, as determined by the manufacturer. Further, they requested that a CAD drawing be used to obtain the most precise height and backset measurements. Specifically, Magna recommended that we use a CAD design tool to measure the required head restraint height. Similarly, Porsche has asked us to consider virtual measurement methods using Ramsis software. Honda suggested that the HRMD assembly be translated into electronic data and the measurements be taken electronically.

UMTRI also recommended a height and backset measurement technique that uses the H-point as the reference. Once the H-point is established, a 165 mm sphere would be rolled vertically. The most rearward part of the sphere would map a path. From this path, the height of the head restraint and backset can be calculated at any height. The procedure could be done at any position of head restraint adjustment.

In response to the suggestion of alternative measuring devices, ICBC

⁴⁵ SAE J1100—Motor Vehicle Dimensions. All 1999–2000 make and model data submitted to NHTSA. The data ranged from 18 to 28 degrees.

⁴⁶ Although HRMD has a probe that makes it possible to measure head restraint height vertically down from the top of the HRMD, this probe will not be used because it is not consistent with measurement along the torso line.

commented that it developed the HRMD because there were no similar tools available to produce accurate and repeatable measurements. It claimed the HRMD is more biofidelic than other similar or proposed devices, because it has an articulating neck joint that approximates the C7-T1 joint (*i.e.*, the location on the spine between the most inferior cervical vertebra and the most superior thoracic vertebra). This allows the operator to approximate human posture at any seat back angle. The ICBC noted that there are 35 HRMD devices now in use, arguing this makes it a well-accepted compliance tool; the device is readily available from ICBC. Further, the HRMD represents a small cost for demonstrating compliance.

ICBC further stated that despite industry comments to the contrary, the ICBC device does not add extra weight to the H-point machine. The ICBC weight closely approximates the weight of the 50th percentile head and neck. No extra weight is added to the H-point machine because some upper torso weights are removed from the manikin to compensate for the ICBC device. Specifically, the HRMD with two "replacement weights" substitutes for 4 out of 8 H-point machine weights.

Generally, ICBC suggested that the HRMD device be used instead of a computer-based method of determining compliance. However, if some sort of electronic compliance were implemented, it believes Honda's proposal is preferable because it contemplates the use of "virtual" HRMD, which most closely replicates actual human seating positions. In response to SAE's concern with the forthcoming development of the revised J826 H-point machine, ICBC pledged full cooperation to ensure that HRMD can fit the future H-point machine.

RCAR submitted a test procedure it developed for head restraint measurement that uses the HRMD. It recommended using its measurement procedures in determining compliance with the new criteria.

Agency response: Despite the objections of numerous commenters, we have decided to adopt the HRMD for our compliance tests. Under the current version of FMVSS No. 202, the manufacturers provide NHTSA with the theoretical location of the SgRP with respect to some vehicle reference point. The new rule eliminates the need for obtaining a theoretical point from the vehicle manufacturer, determined by a CAD technique, because the HRMD defines the H-point of the specific seat being measured. In addition, the H-point can be found for any position of seat cushion adjustment, thus allowing

the worst-case head restraint height to be measured.

We conclude that the ICBC comments related to a CAD technique for determining head restraint geometry are the most compelling. Specifically, ICBC noted that various techniques suggested by the manufacturers all have the limitation of not measuring the actual seat, as it exists in the real world. Instead, they rely upon measurements made in a virtual or computer generated environment. The current FMVSS No. 202 height measurement technique has the same weakness, as it uses the SgRP determined by drawing techniques and a seat position defined by the manufacturer. While we appreciate the numerous benefits associated with CAD techniques in the design of vehicles and their components, we believe these techniques are not yet appropriate for a regulatory environment. Any CAD method would not only have to rely on an adequate model of the J826 manikin, but, even more importantly, an accurate representation of the vehicle seats. Each seat model would require extensive validation to assure that the CAD results would match the results achieved by direct measurement. A design change such as new upholstery foam or covering material would likely require a re-validation of the model. This type of process is appropriate for research or product development, but is not yet ready for regulatory purposes.

In regard to the backset and height measurement technique suggested by UMTRI, we conclude that the technique is useful to the extent it allows backset to be calculated for an occupant of any height rather than just for a 50th percentile male. However, we are not aware of any physical device currently available to map out the continuous backset. Thus, in order for the agency to adopt the UMTRI method, a CAD technique would have to be adopted, unless a new physical testing device is developed. We have rejected the use of CAD methods for the reasons specified above.

Numerous commenters questioned the accuracy of the HRMD device. Specifically, the manufacturers questioned repeatability of measurements and stated that the HRMD is incapable of accounting for foam, trim, actual H-point, temperature, and humidity variations. However, ICBC submitted data showing accuracy of ± 5 mm. Because ICBC has a significant amount of experience in using the HRMD, its assertion that the overall level of repeatability of its device is within a ± 5 mm, when used correctly, is persuasive.

We also conclude that ICBC provided adequate explanation for the discrepancy between the measurement results for Ford Taurus and Mercury Sable, a discrepancy that would not have been found using a CAD technique. Different upholstery and stitching patterns can result in different measurements. If these differences are significant, the difference in both height and backset may be significant. Further, a Transport Canada study concluded that the HRMD is repeatable and an effective predictor of head restraint position of humans. Transport Canada has used the HRMD for years and finds it to be a convenient and accurate tool. There are at least 35 HRMDs now in use, and the head form is readily available from ICBC.

We found that while measuring head restraint geometries with the HRMD for use in a cost study, the backset measurements varied by a total of 10 mm when NHTSA's Vehicle Research and Test Center (VRTC) repeated the measurement of a single vehicle seat 3 times. This is consistent with the ICBC statements showing ± 5 mm accuracy. Further, experience indicates that greater familiarity with the device reduces the variability of measurements. Thus, the measurement variance shown in the Honda data (10 mm for 1 operator and 17 mm for 3 operators) may have been due to a lack of familiarity with HRMD.

Porsche stated that the HRMD device could not be properly positioned in the seats that have "strong-contoured shape," therefore preventing accurate measurements. However, Porsche did not provide any data comparing the position of HRMD head form to the position of an actual occupant's head in one of its "strong-contoured shape" seats. We believe that Porsche must currently use the SAE J826 manikin to find the reference H-point position of the Hybrid III 50th percentile manikin for frontal barrier tests in FMVSS No. 208, and therefore has some familiarity with how to properly position the device. Generally, we believe that experienced operators will not encounter any difficulties in measuring seating structures with HRMD.

Several comments suggested that the HRMD device is insufficiently biofidelic. However, we are persuaded by ICBC's comments that HRMD is more biofidelic than other similar devices because it has an articulating neck joint that approximates the C7-T1 joint. This design feature allows the operator to level HRMD's head regardless of the seat back angle, similar to the posture of a human occupant, resulting in superior accuracy of backset measurement. While

we are aware that the SAE has updated the J826 manikin in the form of the ASPECT manikin in July 2002, this new device has yet to be evaluated by the agency for incorporation into FMVSS.

Based on the comments and analysis presented above, we have decided that the HRMD will be the measurement tool.

IX. Maximum Gap Allowance and Removability

a. Maximum Gap Allowance

The NPRM proposed allowing for gaps within the perimeter of the front (anterior) surface of head restraints in order to provide for better rearward visibility for drivers.⁴⁷ The NPRM proposed two types of maximum gap allowances. First, for both integral and adjustable head restraints, a gap within the perimeter of the head restraint could not exceed 60 mm. Because there may not be a clear distinction between the end of the seat back and the beginning of the head restraint in integral head restraints, compliance with this first gap limit is determined by measuring any point on the front surface of the seat back 540 mm above the H-point and within the minimum head restraint width. We note that ECE 17, Paragraph 5.8, similarly regulates gaps at heights above 540 mm.

The second type of gap allowance was between an adjustable head restraint in its lowest position and the seat. There were two levels of requirements. First, an adjustable head restraint in its lowest position must have some backset position in which the gap between the seat and the head restraint was less than 25 mm. Second, an adjustable head restraint in its lowest position, with the backset in any position of adjustment, must not have a gap between the head restraint and the seat back of greater than 60 mm.

The HRMD used for measuring backset has a probe that slides out of the center of the back of the head form. The probe is relatively thin laterally, and cannot adequately measure gaps within the perimeter of the head restraints and between the head restraint and the seat. Accordingly, the gaps were to be measured with a 165 mm diameter sphere placed against them.

Gaps within the perimeter of the restraint. Nearly all industry commenters concurred with the proposal for a 60 mm limit for gaps

within the perimeter of any head restraint, because it was consistent with ECE 17 requirements. There were no significant objections to the specific value of 60 mm. The Alliance indicated that while it did not know of any data supporting the need for the 60 mm gap limit for a seat with an integral head restraint, it did not object because the dimension matched the ECE limit. Honda, GM and DaimlerChrysler stated that they did not have any data addressing the 60 mm gap limits but supported harmonizing the requirement with ECE 25.

In contrast, Advocates argued against allowing gaps of any size, as it was not convinced by the NPRM's arguments pertaining to the proposed gap allowances.

Agency response: NHTSA has adopted the 60 mm gap limit rather than allowing for gaps of any size in the perimeter of the head restraint, as is the case under the current standard. In doing so, NHTSA does not harmonize the final rule with the ECE regulation merely for the sake of harmonization, as Advocates alleged. Rather, the agency is harmonizing the requirement because while we believe that some gaps are beneficial for visibility, we also believe that gaps of excessive size can significantly reduce effectiveness of head restraints through effectively increasing backset. Absent evidence that the ECE 17, Paragraph 5.7 requirement is ineffective at balancing the need for adequate rearward visibility and a reduction in injuries, NHTSA is adopting the same 60 mm gap limit.

Gaps between seat back and adjustable restraint. The Alliance stated that it did not understand why a limit of 25 mm would be placed on any gap between the top of the seat and the bottom of the head restraint. It stated that while the 25 mm gap limit is identical to the ECE 17 limit, the measurement procedure utilizing the 165 mm diameter sphere differs from that in the ECE regulation. ECE 17 only measures the distance directly between the bottom of the head restraint and the top of the seat back. The Alliance recommended NHTSA adopt a linear measurement technique employed by ECE 17.

Honda commented on gap requirements in ECE 25 instead of ECE 17, and the gap limits proposed in the NPRM. Specifically, Honda submitted a figure showing that its Accord sedan with the head restraint in its lowest position complies with ECE 25 with no gap between the top of the seat back and the bottom of the head restraint. However, the Accord would not meet the proposed gap limit, because its gap

would measure 44.8 mm. That is, the Accord head restraint in its lowest position has a 44.8 mm gap in the front surface between the seat back and head restraint when measured with the 165 mm diameter sphere. Accordingly, Honda requested complete harmonization with the gap requirements in ECE 25, which would exclude use of the 165 mm sphere for this gap limit. Honda stated that some of its current seat designs would need drastic modifications in order to comply with the 25 mm gap limit, as measured with the 165 mm sphere.

GM remarked that if NHTSA considers gaps of 60 mm acceptable within a restraint, the need for a 25 mm gap limit between the top of the seat and the bottom of the head restraint is unclear. DaimlerChrysler said that the 25 mm gap limit, as applied to rear head restraints, could lead to an additional loss in visibility. DaimlerChrysler also stated that a head restraint making direct contact with the seat back with a 15 mm radius at the head restraint's bottom front contour and seat back's top front contour would create a gap of more than 25 mm. AIAM expressed its support for all the proposed gap limits except for the 25 mm limit on gaps between the seat and the head restraint for adjustable head restraints with adjustable backsets. In view of this, AIAM argued that unless NHTSA could show a safety necessity for backset adjustability, NHTSA should only mandate the head restraint specifications independent of backset adjustability, provided that the adjustability does not have a material effect on height. AIAM advocated, then, that the final rule should require that the gap be less than 25 mm at any position of backset adjustment, which is more stringent than the NPRM.

In contrast, Advocates opposed allowing gaps of any size between an adjustable head restraint and seat back in any position of adjustment. Johnson Controls expressed support for a universal 25 mm gap limit between the lower edge of a head restraint and the seat for both adjustable and integral head restraints.

Agency response: In consideration of comments submitted by GM and other manufacturers, we have decided not to adopt the 25 mm maximum gap limit for adjustable head restraints in their lowest height position and a single position of backset adjustment. After considering the comments, NHTSA does not believe there is a safety benefit in measuring the smallest space between the bottom of an adjustable head restraint and top of the seat back because an occupant's head does not necessarily come into contact

⁴⁷ The gap limits are applied between two vertical longitudinal planes, which are one half the minimum head restraint width from the head restraint centerline. Thus, any part of the front surface of the head restraint outside of the minimum width requirement is excluded from the gap limits.

with these areas. Instead, a limit on gaps will focus on gaps in the front surface of the head restraint, *i.e.*, the area designed to restrain an occupant's head in a rear impact collision. The maximum gap limit for adjustable head restraints in their lowest position and any backset position will be 60 mm. Thus, there is a single requirement for this type of gap, regardless of backset adjustability.⁴⁸

Gaps between seat back and raised restraint. Comments were requested on whether there should be a maximum gap allowance between adjustable head restraints and the seat back when the restraint is in a raised position. NHTSA indicated in the NPRM that if such a maximum gap limit were adopted, most adjustable head restraints currently on the market would not meet it.

The Alliance and Johnson Controls said that they did not know of any data supporting the need for this limit or any data indicating that such a requirement would be appropriate. DaimlerChrysler commented that there is not any known safety benefit related to such a limit. When head restraints are misadjusted, DaimlerChrysler said, they are most often in the full down position. Because a maximum gap limit between the seat and head restraint in its highest position potentially would only benefit shorter drivers who would most likely be positioned in a seat with a head restraint in the lowest position, DaimlerChrysler surmised that the maximum gap allowance is unnecessary. Taller drivers, according to DaimlerChrysler, would face no risks from this gap because their potential risks exist in head restraints not positioned high enough, not in head restraints adjusted too high.

AIAM also commented with respect to the effect of a maximum gap limit on taller or shorter drivers. It commented that if a seat represents the lower stop of a head restraint for which the highest possible position is 800 mm, the gap could only be 50 mm unless a head restraint provides for positions higher than 800 mm. If higher positions are possible, AIAM asserted that such a head restraint would only be positioned higher than 800 mm when a taller person occupies the seat. AIAM acknowledged that there might be instances in which a shorter person sits in a seat with a head restraint adjusted in the higher position, but it commented that in such instances, the likelihood of injury to shorter occupants is unknown.

Advocates believed that NHTSA should require adjustable head restraint designs such that no gap would exist when the head restraint is placed in its uppermost position.

Agency response: After considering the comments, NHTSA concludes that there is no need to adopt a maximum gap limit when the head restraint is in its uppermost position. Transport Canada data indicate that head restraints are usually improperly adjusted too low rather than too high. AIAM's comment suggests that any minimum gap limit could have the effect of eliminating head restraint designs providing positions higher than 800 mm, which would adversely affect the protection offered for taller adults.

b. Removability

The NPRM proposed prohibiting the removability of head restraints in front seats "solely by hand," but allowed removability of rear seat head restraints in this manner. The NPRM noted that, given the lower occupancy rate of rear seats than of front seats, a rule allowing rear seat head restraints to be removed by hand might be warranted if it would have a positive effect on visibility.

A number of commenters opposed any prohibition against the removability of head restraints, front or rear. AIAM asserted that all head restraints should be removable by hand in order to improve rear vision, cargo carrying, and overall functionality. In addition, it contended that allowing removability by hand would help prevent permanent damage to head restraint mountings caused when occupants use tools to temporarily remove head restraints that are non-removable by hand. Nissan asserted that there are potential production difficulties arising from front head restraint non-removability. Installing a large seat fitted with a head restraint into a small vehicle, Nissan asserted, might be an arduous task.

Honda wanted all restraints to be removable by hand, out of concern that non-removable head restraints would limit seat design flexibility. Honda believed that a non-removability prohibition would prevent it from offering the "fully flat seat" option in its CRV model vehicle.⁴⁹

In contrast, some commenters supported prohibiting head restraints from being removable by hand. Magna expressed concern that if head restraints were removable, they might not be replaced or correctly reinstalled. Advocates believed that head restraint

removal and misuse would be similar to occupants placing both arms over shoulder belts or placing shoulder belts behind their torsos, effectively defeating the safety purposes of the safety system. DaimlerChrysler concurred with making front seat head restraints more difficult to remove than rear seat restraints because of their safety benefits and the absence of a need to remove them for visibility and functionality reasons. DaimlerChrysler also agreed that there should be some means to remove front head restraints for purposes such as seat cover installation. However, DaimlerChrysler wanted the word "tool" to be interpreted as including the mechanism in their current vehicles requiring two hands to operate.

A majority of industry commenters wanted NHTSA to allow removability of rear head restraints in the final rule. Ford believed that removability of rear head restraints would allow occupants to fold seats to increase space and would reduce possible incompatibility with child restraints. Ford stated that while many vehicles are currently designed with head restraints that are removable by hand, Ford does not know of any data regarding misuse or improper adjustment of head restraints caused by hand removability. DaimlerChrysler believed that NHTSA should permit rear seat head restraint removability to facilitate increased vehicle utility and rearward visibility.

Agency response to comments on head restraint removability: After considering comments, NHTSA decided to allow removability of head restraints solely by hand. However, for both front and rear optional head restraints, removal must be by means of a deliberate action that is distinct from any act necessary for adjustment. That is, the "action" required for removal must be distinct from that required for adjustment. For example, the head restraint may be removed by depressing a special button or operating a lever located somewhere on the head restraint or the seat back. However, the action involved in adjusting head restraints must be different. This insures that head restraints are not accidentally removed when being adjusted. The new removability requirement uses language very similar to that in ECE 17, Paragraph 5.13.

We are establishing the new head restraint requirements to ensure that vehicle occupants receive better protection from whiplash and related injuries. To achieve this purpose, the agency wants to take reasonable steps to increase the likelihood that a head restraint is available when needed. If head restraints were too easily

⁴⁸ We note that all head restraints subject to this final rule must meet the backset limit of 55 mm irrespective of 60 mm gap allowances.

⁴⁹ In alternative, Honda recommended that we allow head restraint removal by use of some tool included with the vehicle.

removable, chances are greater that they will be removed. That, in turn, increases the chances that the restraints might not be reinstalled correctly, if at all. By prohibiting removability without the use of deliberate action distinct from any act necessary for adjustment, the likelihood of inadvertent head restraint removal will be reduced, thus increasing the chances that vehicle occupants will receive the benefits of properly positioned head restraints.

While NHTSA wants to increase the likelihood that a head restraint is available when needed, we also want to ensure that head restraints, especially in the rear outboard designated seating positions, can be removed in order to improve rear visibility, child restraint accommodation, and cargo carrying capacity. In certain very limited circumstances discussed by DaimlerChrysler, it may also be necessary to remove front head restraints. We are also persuaded by AIAM's comments concerning potential damage to head restraint mountings and locking mechanism that could be caused by occupants using a tool to temporarily remove the head restraints. Further, we believe that unforeseen problems could arise if the tool provided by the manufacturer for the purpose of removing head restraints is lost or otherwise unavailable at the time the head restraint must be removed. Because of these concerns, we decided not to adopt a proposed requirement that would have mandated that head restraints could not be removed without the use of a tool.

We have considered Advocates' comments that head restraint removal would defeat the purpose of the safety device. We believe that our approach strikes a balance between the need to ensure that a head restraint is available when needed and the need to improve rear visibility, cargo carrying capacity and accommodate child restraints. Further, with respect to rear seats, prohibiting head restraint removal when no head restraint is required could have the effect of encouraging manufacturers to design vehicles without rear head restraints. Our preference is that when possible, manufacturers install optional rear head restraints.

c. Non-use Positions

In connection with its proposal to mandate rear head restraints, NHTSA proposed to address concerns about the potential effect of those head restraints on the driver's view to the rear by allowing them to be foldable or retractable if they met certain requirements. Specifically, if a head restraint was adjusted to a "non-use"

position (any position in which a head restraint's minimum height was less than the proposed 750 mm height or its backset was more than the 50 mm proposed backset), it would have been required to either return automatically to its proper use position when a dummy representing a person was placed in the seat, or give a person who occupied the seat an "unambiguous physical cue" of the improper head restraint position by significantly altering the torso angle of the occupant. If the head restraint was designed to return automatically from a non-use position to a normal use position, this had to occur when either a 5th percentile female or a 50th percentile male test dummy was placed in the seating position. To determine if the head restraint in a non-use position provided an "unambiguous physical cue," the SAE J826 manikin was to be placed in the seat position. The torso angle of the manikin would have been required to be at least 10 degrees closer to the vertical than when the head restraint was in a normal use position.

Industry commenters uniformly favored a final rule permitting non-use positions for rear head restraints. However, many stated that because non-use positions in current vehicle designs are obvious to occupants, NHTSA need not condition allowance of those positions upon either automatic repositioning or 10-degree torso angle displacement. GM contended that designing head restraints to fold forward into non-use positions is not always feasible, especially given the proposed 254 mm minimum rear head restraint width for bench seats. GM, Honda and others remarked that folding or retractable head restraints with automatic return capabilities might not be practical and could result in excessive cost.

Other commenters asked NHTSA to permit methods different from the 10-degree torso displacement angle to alert vehicle occupants to non-use head restraint positioning. Specifically, VW and Honda advocated harmonization with ECE 17, Paragraph 5.5.3.3, which allows for head restraints to be retracted into non-use positions as long as this position is "clearly recognizable to the occupant." Similarly, Ford stated it believed that the NPRM's 10-degree proposed displacement rule would be excessively burdensome and would require substantial redesign of seating systems.

Several commenters opposed allowing non-use positions. State Farm suggested that NHTSA should only permit non-use positions for rear head restraints if NHTSA determines either

visibility or child restraint incompatibility are issues meriting consideration. Advocates noted that automatically retracting or manually folding head restraints might malfunction or become stuck in a non-use position. Advocates opposed the proposal to the extent that it did not specifically require that non-use positions for rear head restraints remain limited to ones achieved by folding or retracting. Moreover, Advocates expressed doubt about the objectivity of the "unambiguous physical cue" as an occupant's indication of a non-use position, stating that the subjective standard would create the potential for ambiguous designs that would give rise to misuse.

Transport Canada and Honda asserted that forward-folding head restraint designs might be misused in that an occupant may sit in the seat without returning the head restraint to an in-use position. Honda commented that smaller occupants might not recognize that the seating position moved 10 degrees closer to vertical is a warning of a non-use position. Instead, according to Honda, smaller stature occupants might consider the more upright position comfortable without understanding that the head restraint was positioned for non-use. In addition, Transport Canada stated that the proposal to require manufacturers to design their head restraints so that the torso angle of the SAE J826 manikin at least 10 degrees changes when the head restraint is in a non-use position might bring about a low fulcrum, which would increase neck injury in a rear impact collision.

Agency response: NHTSA does not believe that non-use positions for rear head restraints should be allowed without any limitations. Instead, there must be objective performance requirements established to reduce the chances of injuries stemming from misused head restraints. Accordingly, the final rule adopts non-use position requirements proposed in the NPRM, but with some modifications. Further, this rule changes the test procedure and the test device to be used in determining compliance. Specifically, we are adopting the following: (1) A head restraint in a non-use position must automatically return to a normal "use position" when the seat is occupied by a 5th percentile female dummy whose midsagittal plane is aligned within 15 mm of the head restraint centerline; or (2) a head restraint must be capable of manually rotating at least 60 degrees forward or rearward in a vehicle vertical longitudinal plane between the "use position" and the non-use position.

The final rule does not require that the non-use positions cause a 10-degree change of the torso angle of the J826 manikin. Our proposal was based on the premise that the non-use position should give the occupant an obvious physical cue when the head restraint is not properly positioned. We have reassessed this requirement in light of our decision not to mandate rear head restraints and to allow head restraints to be removable without the use of tools. Given those decisions, it would be incongruous to mandate a possibly complex seat mechanism to ensure that non-use positions provide a physical cue to the occupant in the form of a 10-degree change to the torso reference angle. The changes to the non-use position requirements will also address comments made by Ford, GM and Transport Canada with respect to complexity, inconvenience and possible neck injury risk increase associated with the proposed requirement of 10 degree change in the torso reference angle.

We note that our requirements remain consistent with the ECE 17, Paragraph 5.5.3.3 to the extent that it mandates that a head restraint be capable of achieving a non-use position that is "clearly recognizable to the occupant." With respect to Advocates' concerns that the "unambiguous physical cue" language in the NPRM was subjective, we note that unlike the ECE requirements, this rule provides an objective test procedure to assess the "clearly recognizable" factor. Specifically, if the head restraint is capable of rotating forward or rearward by at least 60 degrees to achieve a non-use position, it is deemed "clearly" in a non-use position. This restriction is necessary to clearly inform the occupant that the head restraint is available, but out of place.

The final rule does not require that the rear head restraint automatically rotates the full 60 degrees or that the head restraint remains in this fully retracted position. In order to meet the strength requirements of this final rule, a head restraint that rotates rearward would likely need to have some mechanism that releases the head restraint from the position intended for occupant use. Accordingly, the head restraint would only be placed in a non-use position because of a particular need. It is possible that some vehicle operators may not rotate such head restraint fully. However, we believe in most instances the rear head restraint would be rotated the entire 60 degrees because this would best accommodate the vehicle operator's particular interest in adjusting the head restraint to a non-use position.

For head restraints that automatically return to a use position when occupied, the final rule does not require the use of a 50th percentile male dummy in addition to the 5th percentile female dummy, as was the case in the NPRM. Based on our review of current sensing technology, we assume the head restraint systems that will be designed to automatically return to a normal use position when a seat becomes occupied will use weight or optically based occupant-sensing technology. Thus, the use of the taller and heavier 50th percentile male dummy would be redundant since it would be more difficult to detect the shorter and lighter 5th percentile female dummy.⁵⁰

In response to Transport Canada and Honda's concern with respect to fold-forward designs, we note that non-use positions can be achieved by means other than fold-forward head restraints. Further, in allowing this type of design, we anticipate that a forward-folded head restraint will provide both a physical and visual cue to the occupant to properly position the head restraint.⁵¹

NHTSA concludes that the allowing for non-use positions will facilitate better rearward visibility because the manufacturers will be able to design optional rear head restraints that fold or retract when rear seats are unoccupied, encouraging manufacturers to install rear head restraints.

X. Position Retention

In the NPRM, we proposed two loading test procedures to ensure that the head restraints remain in their position of adjustment (lock) upon application of force. These test procedures ensure that the head restraints can withstand the forces associated with normal pressure applied upon the head restraint during ingress and egress, as well as in the event of a crash. We note that while the ECE 17, Paragraph 5.1.1 requires locks on adjustable head restraints, it does not mandate that these locks meet vertical and horizontal position retention requirements to insure their functionality. In contrast, we proposed vertical and horizontal position retention requirements to ensure test objectivity associated with retention lock requirements.

The first test provided for the vertical, downward application of force upon a head restraint when placed at its highest

position of adjustment and not less than, but closest to 800 mm for front seats and 750 mm for rear seats. A head restraint with an adjustable backset must meet the height retention requirements in any position of adjustment. Under the proposed procedure, a small, 50 N initial load would first be applied to the head restraint to provide a reference position for the head restraint. The reference position would be measured to eliminate variability associated with the soft upholstery of the head restraint. Next, a larger load would be applied to test the locking mechanism. The load would be increased to 500 N and held for 5 seconds. The load would then be reduced to the level of 50 N, at which point the head restraint would be required to return to within 13 mm of the initial reference position.

The second test procedure provided for a rear (posterior—rear with respect to the direction that the seat is facing) application of force perpendicular to the torso line. Testing for this position retention requirement to the rear is performed in the context of the displacement and ultimate strength requirements. This test is performed at any position of backset adjustment (if applicable) with the height adjusted to not less than, but closest to 800 mm for front seats and 750 mm for rear seats. In this instance, the NPRM proposed that a load producing a 373 Nm moment be applied to the back pan about the H-point to establish a displaced torso reference line. Next, a force producing 37 Nm would be applied to the head restraint to provide a reference position. The load would then be increased until it produced 373 Nm moment about the H-point and this load would be held for 5 seconds. At this point, any displacement beyond the displaced torso reference line would be limited to 102 mm. The head restraint load would then be reduced back to the level of 37 Nm, at which point the head restraint must return to within 13 mm of the initial reference position. To satisfy the ultimate strength requirement, the head restraints must be capable of providing resistance to an 890 N load for a period of 5 seconds.

We stated in the NPRM that the 500 N downward force and 373 Nm⁵² rearward moment are representative of the peak loads likely to be encountered in moderate to severe rear impacts. The agency has reviewed upper neck shear loading from 33 rigid moving barrier,

⁵⁰ We believe Advocates' statement that automatic return head restraints may fail to function overstates the safety concern. Although such failures are possible, they can occur with any safety mechanism.

⁵¹ We note that Volvo uses such a design in their S60 and S80 sedans.

⁵² For an 800 mm high head restraint, the 373 Nm moment is achieved by applying a load 65 mm below the top of the head restraint. Thus the applied load is 507 N = 373 Nm/0.735 m.

rear impact (48 km/h (30 mph)) FMVSS No. 301 tests and found the average maximum load caused by the head being loaded in the forward direction with respect to the torso is 351 N. This direction of shear load is a good indicator of head restraint loading on the head and, therefore, head loading on the head restraint. Thus, the 373 Nm rearward moment and 500 N downward force are representative of the peak loads likely to be encountered in moderate to severe rear impacts. We asked for comments on the appropriateness of load values proposed for the two tests as well as the role of the retention locks in preventing head restraint maladjustment.

Several commenters disagreed with the proposed height retention test requirement. Johnson Controls commented that it is unaware of any situations in which head restraints would move downward during accidents and thus does not understand the need for the vertical position retention test. In its opinion, the new requirement would unnecessarily complicate the locking adjustment mechanism, which consumers already find hard to use. Other commenters requested that NHTSA alter or simplify its height retention requirement. GM recommended that the testing criteria require that the head restraints simply "remain in their adjusted position" after an application of the required loads. According to GM, a more specific requirement that the head restraint be within 10 mm of its initial position, after position retention tests, might be difficult to meet because of possible compression of the head restraint foam. Similarly, DaimlerChrysler stated that the proposed height-retention test is inadequate to account for low recovery rate of crushable "friendly" materials designed to cushion an occupant's head upon contact.

Both Magna Seating Systems and DaimlerChrysler submitted the same test data showing a vertical load test in which an upholstered head restraint returned to within 22 mm of its initial position. The same head restraint with the upholstery removed returned to within 1 mm of its initial position. According to DaimlerChrysler, instead of testing the adjustment mechanism integrity, the proposed test indirectly measures the entire seating system, which includes energy-absorbing components. Therefore, a more appropriate solution is to simply measure head restraint position at the adjuster mechanism. Additionally, DaimlerChrysler stated that 500 N vertical load for position retention test may be excessive and unnecessarily

harsh, and may end up requiring manufacturers to produce seats that are unnecessarily rigid and would result in potential harm to the passengers.

The Alliance generally agreed with most aspects of the proposed head restraint loading procedure. However, it was not aware of any reasons for the 5-second "hold" requirement in the position retention test. The Alliance recommended that the "hold" requirement be completely stricken or, in the alternative, limited to one second. AIAM was likewise of the opinion that the stringent height retention requirements would in fact discourage adjustability, because a mechanism meeting such requirements would be unduly difficult to design and use. Therefore, it recommended that the height retention requirement be eliminated from the proposed rule.

Honda commented that the problem with the vertical load test procedure is the shape and initial position of the loading device. Honda believed that this would cause the loading sphere to slip off of the head restraint. Honda recommended that loading test for height retention requirement be performed using a flat plate as opposed to a head form. Honda commented that, no further height retention position testing (other than upper most position) should be tested, because the upper most position can be regarded as the worst position.

VW stated, "[s]ome Volkswagen and Audi vehicles provide head restraint adjustment above 800 mm to accommodate tall occupants, but in this situation a locking system at the maximum height is not provided." They requested that the height retention requirement not be applied to position of adjustment above 800 mm. They contended that when a seat back is folded the head restraint might interfere with the roof and cause damage to a locked head restraint.⁵³

In contrast, IIHS commented that the height retention test is necessary to prevent poor head restraint designs that, for example, tend to "fall" to their lowest position during normal road movement. IIHS cautioned that many occupants place their hand or arm on the head restraints in getting into and out of the vehicles, thus applying vertical and non-vertical pressure on the restraint mechanism.

⁵³ Volkswagen also commented on the backset retention requirement. They asked that the agency clarify their interpretation that the initial reference position to which that the test device must return within 10 mm (now 13 mm in the final rule) is the position the test device obtains after the 37 Nm reference load. The agency confirms this interpretation of the test procedure.

There were no comments regarding the likelihood of misadjustment due to the absence of retention locks. There were no comments regarding the horizontal displacement requirement, other than the IIHS comment that the NPRM did not propose a horizontal loading requirement.

Agency response: We have decided to adopt the position retention tests, both in the vertical and rearward directions, largely as proposed. As previously stated, ECE 17 requires locks on adjustable head restraints but does not mandate that these locks meet vertical and horizontal position retention requirements to insure their functionality. However, we find it necessary to require a certain minimal level of performance to ensure that the retention locks perform their function. Accordingly, the vertical and horizontal position retention requirements of this final rule apply to all front outboard head restraints and voluntarily installed rear outboard head restraints.

We proposed performance requirements for adjustable head restraints to assure that they remain locked in a specific position and are not unduly difficult to properly adjust. A 1982 NHTSA study found that the effectiveness of integral head restraints was greater than adjustable head restraints. The study concluded that the difference in effectiveness was due, in part, to adjustable head restraints being improperly positioned. Furthermore adjustable restraints can be pushed down inadvertently during occupant ingress and egress, and can collapse in a collision. Adjustment retention locks can mitigate this problem by helping to retain the adjusted position. Our new height and backset requirements are expected to improve performance of all head restraints. The performance of adjustable head restraints will be further improved if steps are taken to ensure that a restraint remains locked in a position selected by the user.

Today's rule requires that the head restraints remain within 13 mm of their vertical and horizontal position under the application of a downward and rearward force. For front seats, the height position retention requirements must be met at any backset position of adjustment and with the head restraint at a height not less than, but closest to 800 mm, and at the highest position of vertical adjustment. For optional rear seats, the height position retention requirements must be satisfied at a height not less than, but closest to 750 mm and at the highest position of vertical adjustment. The horizontal position retention requirements must be met at the height of 800 mm for front

head restraints and 750 mm for rear head restraints.

We are not persuaded by the arguments presented by GM and the Alliance related to the load hold time of five seconds. These commenters argue that a 5 second hold time is not consistent with ECE 17 requirements. Instead, they suggest a one second limit. We believe the ECE requirements are insufficient in this regard in that they do not specify a loading rate or hold time. Despite our attempts to bring the new rule into harmony with the ECE regulations when adopting a requirement already covered by the ECE, there are instances in which we need to further clarify the test compliance procedure to provide an objective measurement, as required by statute. This is one of those instances. We do not believe a 5 second hold period is onerous and have adopted it as part of the final rule. We further note availability of strong and properly functioning retention locks should not have any negative effect on occupants' ability to properly adjust their head restraints.

We disagree with VW's objection to head restraints locking in the highest adjusted position above 800 mm. To the extent that such an adjustment position is provided, it would be intended to protect the tallest occupants. However, without the ability to lock in this position, the head restraint could slip down to the 800 mm position or perhaps even lower during normal use, or in a rear impact. Thus, the head restraint would not offer the intended protection, while giving these taller occupants the impression that they are well protected. We are not persuaded by Volkswagen's argument that the locking mechanism may be damaged if the front seat head restraint comes in contact

with the vehicle roof when folded forward for rear seat access. We acknowledge that in some vehicles this interference between the roof and head restraint may exist. In fact, such interference may exist between rear seat head restraints and more forward seats. However, we are not convinced that such contact would be damaging to the locking mechanism. If a manufacturer were concerned about damage to their locking mechanism, two solutions would be to either increase the robustness of the lock or to decrease the spring load in the seat back folding mechanism. Another design alternative discussed above in the context of non-use positions, although more mechanically involved, would be a design that disengages both the seat back and head restraint simultaneously.

We proposed a 10 mm performance limit on the return position of the actual loading device to the reference point because we considered this to be the most objective method of determining the actual performance of locks. Some vertical loading data provided by the industry indicated a return position as much as 22 mm from the initial position. No similar data were provided for the horizontal loading test. In order to verify that the performance value selected for the position retention requirement is reasonable, we performed a series of static tests on several seats. The tests were performed at General Testing Laboratories (GTL), under the FMVSS No. 202 compliance-testing contract. The tests were performed in January 2002, on five MY 2001 vehicles.⁵⁴

The test program assessed the ability of current head restraint designs to comply with the position retention requirements. We tested feasibility of the 10 mm limit on displacement from

the initial position. Both the height retention and backset retention were tested. (See Table 1.) All head restraints were vertically adjustable and one (Mercedes E320) had rotational adjustment.

Table 1 shows the results of the height position retention tests and Table 2 shows the result of the backset position retention tests. One determination made by analysis of the test results was that the head restraint should not be allowed to displace more than 25 mm during the application of a pre-load to account for foam compression and other mechanical tolerances in the head restraint attachment as well as the situation in which the locking mechanism is so weak it cannot resist the preload.

The test results suggest that the backset displacement is less than the height displacement if the characteristics of the vehicle seat are accounted for. Therefore, if a single compliance value is selected for both the backset and height retention, we believe it is reasonable to allow the results of the height retention tests to drive the selection. However, if one does not account for seat characteristics, the horizontal displacement may be larger because of those characteristics.

Based on this limited data set, we believe that it is reasonable to alter the position retention tests to allow the seat back frame to be braced. Further, we have determined that the displacement limit after full load and return to preload should be increased to 13 mm from 10 mm. We believe using the limit of 13 mm would allow most vehicles to comfortably meet the requirement for both the height and backset retention. Therefore, we do not agree with DaimlerChrysler's comments that suggested the 500 N vertical load for the position retention test is excessive.

TABLE 1.—HEIGHT POSITION RETENTION, FINAL DISPLACEMENT VALUES (MM)

Reference load	Vehicle model	Final displacement (mm)
50 N—not braced	Mercedes E320	6.4
50 N—not braced	Honda Civic	21.8
50 N—braced	Toyota Echo	11.4
100 N—not braced	Dodge Stratus	24.0
100 N—braced	Buick LeSabre*	Moved at Reference Load†

* Detents but no locking mechanism.

† No lock.

⁵⁴ For complete test results, please see Docket No. NHTSA-2000-8570-60, 61, 62, 63, 64.

TABLE 2.—BACKSET POSITION RETENTION, FINAL DISPLACEMENT VALUES (MM)

Reference load	Vehicle model	Final displacement (mm)
50 N—not braced.	Mercedes 320.	10.9‡
50 N—not braced.	Honda Civic.	10.6
50 N—braced	Toyota Echo.	6.9
100 N—not braced.	Dodge Stratus.	24.0
100 N—braced.	Buick LeSabre*.	20.3†

‡ Rotational Adjustment.

* Detents but no locking mechanism.

† No Lock.

In response to comments provided by Honda, we believe that the vertical load test can be improved by replacing the loading sphere with a loading cylinder measuring 165 mm in diameter and 152 mm in length. We believe that any potential slippage of the head restraint with respect to the loading sphere, if it were to occur, would be primarily in the longitudinal direction. Since the long axis of the cylinder will be oriented in the vehicle longitudinal direction, the potential of slippage will be substantially reduced. Further, we have no experience with using a flat plate as the loading device, while the loading cylinder is currently an option in FMVSS No. 202. The cylinder is to be loaded at the point on the head restraint with the greatest vertical position, rather than at the "top" as previously defined in the standard. The term "top" has been defined as the highest point of the head restraint at which a plane that is perpendicular to the torso reference line of the J826 manikin intersects the head restraint. For the backset position retention loading test, however, the lower edge of the cylinder may inhibit the return of the head restraint during the unloading phase. Therefore the loading sphere, positioned perpendicular to the torso line, will be kept for this test.

We believe that DaimlerChrysler's comments related to upholstery crush and Honda's comments related to the loading sphere slipping might have merit. However, we disagree with the commenters who have suggested that these issues can be resolved by simply specifying that the head restraint stay in its pre-load adjusted position. Although similar wording is used in other regulations, including Standard No. 207, such a performance requirement can in certain instances be difficult to enforce. We acknowledge that removing the head restraint upholstery and loading only

the underlying structure would make it easier to determine lock failure and would remove the foam variability from the test. However, this would not be a realistic way of loading the head restraint and may, in fact, change the path of loading. We also note that measuring the movement of the loading device instead of directly measuring the head restraint (pre- and post-condition) produces more accurate measurements for compliance purposes.

We believe that the proposed height and backset position retention requirements are comprehensive and that requirements for other positions than those mentioned above are unnecessary and would not result in significant additional safety benefits. We note, however, that manufacturers are not precluded from providing additional lockable positions within the range of the head restraint adjustment.

XI. Energy Absorption

The NPRM proposed that a specified area of the head restraint would have to limit the deceleration of a 6.8 kg mass impactor, traveling at 24.1 km/h, to 80 g's. The impactor was a free-motion head form. In addition, we proposed that any portion of the head restraint that was outside of the impact area and that had a radius of curvature of less than 5 mm would be required to pass the energy absorption test. We requested comments on whether a free-motion head form was an appropriate testing device and whether the radius of curvature requirement was necessary.

Impactor. Industry commenters were unanimous in their desire for the use of the pendulum impactor instead of the free-motion head form. Johnson Controls and Honda suggested that the use of a pendulum impactor, as specified in ECE 17, Paragraph 5.1.3, is preferable to the use of a free-motion impactor for the energy absorption compliance testing. According to Honda, the primary reason for the desirability of the pendulum impactor is that conducting testing using this device would allow the manufacturers to use existing testing facilities and equipment.

Agency response: In proposing the free-motion head form, we intended to simplify the ECE energy absorption test by making the impactor similar to that used for the upper interior impact portion of Standard No. 201. We also attempted to assure consistency with the ECE testing results by making the mass of the proposed free-motion impactor identical to that of the ECE 17 pendulum impactor (6.8 kg).

We have decided to adopt a linear impactor, as opposed to a pendulum impactor or free-motion head form, as

the compliance tool. Our decision was based on several factors. First, the use of a pendulum impactor could prevent us from running compliance tests on the actual vehicle without significant vehicle alteration, because of the interference of the vehicle interior with that type of impactor. If, as suggested by the manufacturers, a pendulum impactor were used, the seats would either have to be removed to allow for the pendulum swing or the roof of the vehicle would have to be cut open. Because of the cost involved, we often use the same vehicle to run multiple compliance tests. Removing seats or cutting into the vehicle to accommodate test equipment would limit our ability to run subsequent compliance tests for other standards.

Second, the differences between the linear impactor and free-motion impactor are insignificant in terms of their ability to measure compliance with the energy absorption requirement. The linear impactor is constrained so that it moves along a line, while the free-motion impactor is free to rotate upon impact or to have a rotation imposed upon it at the time of launch. This unconstrained motion is beneficial for use with types of impactors that have an irregular surface, such as a surface simulating a human face. However, since the impactor for the energy absorption test is spherical, there is no need for the free motion.

Third, the linear impactor is easier to target than the free motion head form, leading to more repeatable results. Currently, a linear impactor is used for the instrument panel and seat back impact testing under Standard No. 201. Fourth, we believe that the results obtained from a linear impactor will in fact be very similar to the results obtained from a pendulum impactor or free-motion impactor because the impactors have the same mass and impact velocity.

Radius of curvature. We proposed an energy absorption requirement for all surfaces with less than a 5 mm radius of curvature to eliminate potential sources of high-pressure contacts between occupants and head restraints. We have decided against adopting this requirement.

The Alliance stated that it is unaware of a need for a "radius of curvature of less than 5 mm requirement," and recommended its deletion. Honda commented that the ECE 25 requirement for 5 mm radius of curvature limit is intended to apply to unpadding structures or structures padded with material softer than 50 Shore A hardness.

Agency response: In our opinion, the burden associated with the enforcement of this requirement outweighs its benefits. In order to determine that structures with the soft upholstery have radii of less than 5 mm, we would be forced to remove the soft upholstery. Thereafter, a second, upholstered head restraint would have to be subjected to the impact test. No commenter provided information supporting such a requirement. Accordingly, we are not adopting our proposal regarding areas on the front surface of the head restraint that are outside of the impact area.

As previously discussed, this final rule does not mandate rear outboard head restraints. However, this rule does require that the voluntarily installed rear outboard head restraints meet the energy absorption requirements discussed above.

XII. Issues Unique to Rear Head Restraints

a. Optional Head Restraints for Rear Seating Positions

The NPRM proposed mandating head restraints for all rear outboard seating positions, but asked whether NHTSA should limit the final rule to front seating positions. This question was based on visibility concerns as well as the lower safety benefits that would be obtained from rear seat head restraints, as compared to those from front seat head restraints, given lower occupancy rates for rear seats. Most of the industry commenters stated that, consistent with ECE 17, rear head restraints should remain optional. ECE 17 treats rear head restraints as an option, but regulates them if they are installed in a vehicle. Johnson Controls reasoned that because the dangers for rear seat occupants are less than those for front seat occupants, rear head restraints should not be mandated. GM, the Alliance, and others believed that rear head restraints should be an option because of rear seats' lower occupancy rates, occupancy of rear seats usually by shorter individuals, potential child seat interference with rear head restraints, and the potential reduction of direct and indirect rear vision. In supplemental comments, GM stated its concern that rear seat head restraints will affect its ability to comply with the requirements of FMVSS No. 111, *Rear View Mirrors*.⁵⁵

⁵⁵ GM's concern that rear head restraints will affect compliance with FMVSS No. 111 is not warranted because head restraints are an allowable obstruction. In addition, if the rear window field of view requirements are not met, compliance could be achieved by adding passenger-side outside mirrors. These side mirrors are standard equipment on most vehicles.

In contrast, Magna, Honda, Advocates, and the FIU students commented that NHTSA should mandate rear seat head restraints in addition to front seat head restraints. Magna stated that rear seats are designed to accommodate occupants ranging in size from the 5th percentile female to the 95th percentile male. Accordingly, Magna maintained that head restraints should support the entire range of rear seat occupants. Honda requested an additional three years of lead time to comply with the rear head restraint mandate, beyond the NPRM's proposed three-year lead time.⁵⁶

Agency response: As noted previously in this document, this final rule does not mandate head restraints in rear outboard designated seating positions. Instead, this final rule regulates only voluntarily installed rear head restraints. Our decision was based on the several factors described below.

First, additional analysis produced a more refined estimate of costs and benefits associated with mandating head restraints. Specifically, the benefits derived from: (a) Designing and installing compliant rear head restraints where none were previously provided, and (b) redesigning vehicles featuring multiple seating configurations (usually SUVs and minivans) that feature head restraints that do not meet the proposed requirements, are lower than originally estimated. The relationship of costs to benefits is represented as a cost per equivalent life saved. In the NPRM, the agency estimated that the cost per equivalent life saved for rear outboard head restraints was \$9 million as compared to \$3 million for front outboard head restraints.⁵⁷ We now estimate the cost per equivalent life saved for mandatory rear outboard head restraints to be greater than \$13.8 million, as compared to approximately \$2.4 million for front outboard head restraints.⁵⁸ The primary reason for the difference in the cost per equivalent life saved for front and rear seat head restraints is the difference in the numbers of front and rear seat occupants exposed to risk of whiplash injury in rear impacts and the difference between the costs of upgrading front head restraints and the costs of installing or upgrading rear head restraints.

Fewer rear seat occupants are exposed to risks in rear impacts because rear

seats are much less likely to be occupied than front seats. An analysis of the distribution of occupants by seating position for all vehicle types in 2Q01 to 2003 NASS shows that 10 percent of all occupants sit in the second (or higher) row of outboard seats. We note that children and small adults derive less benefit from taller head restraints because their head center of gravity often does not reach the height of 750 mm above the H point. Therefore, if we further refine these data to include only occupants who are 13 years or older, the relevant percentage is reduced to approximately 5.1.⁵⁹ Our conclusions about rear seat occupancy are further supported by the FRIA data, which indicate that out of a total of 272,464 annually occurring whiplash injuries, approximately 21,429 (7.8%) occur to the rear seat occupants. In sum, only a small percentage of occupants who are tall enough to benefit from taller head restraints sit in rear outboard seating positions.

We have also reevaluated our compliance cost estimates. The cost of upgrading or installing rear head restraints in response to a mandate would have been significantly greater than the cost of upgrading front head restraints.⁶⁰ Our data indicate that, on average, front seats were closer to meeting the proposed front head restraint requirements than the rear seats were to meeting proposed rear head restraint requirements. In fact, some vehicles currently in production already comply with the front head restraint height requirement because they were manufactured to comply with ECE 17. However, because ECE 17 does not require rear head restraints, we are not aware of any passenger vehicles that comply with the proposed requirements for rear seats.

In addition to cost effectiveness, our decision not to require rear head restraints was influenced by comments indicating that rear head restraints would significantly reduce a driver's view through the rear view mirror in some vehicles. Although we are not able to estimate the associated adverse effects that might result from the rearward visibility losses, it is likely that the effect would not be safety neutral for some vehicles.

Finally, based on submitted comments, we conclude that mandating rear outboard head restraints could either decrease availability of certain

⁵⁶ As discussed in a later section, the rule does not provide Honda's suggested additional lead time.

⁵⁷ See 66 FR 963 at 981.

⁵⁸ By contrast, the cost per equivalent life saved for voluntarily installed rear head restraints is \$4.71 million.

⁵⁹ We further note that approximately 2 percent of rear seat occupants sit in the center seating positions.

⁶⁰ We estimated that equipping rear seats with head restraints would result in the annual costs of approximately \$103 million.

utility features currently available in "multi-configuration" vehicles such as minivans and SUVs, or make it necessary for vehicle manufacturers to alter interior or seat designs to maintain these features. At least initially, these alterations could significantly increase the cost of manufacturing these "multi-configuration" vehicles. Alternatively, such designs would necessitate the ability to remove the rear head restraints to allow seat folding.

As previously discussed, we were aware of low occupancy rates and potentially detrimental effect on rearward visibility when we proposed to require head restraints at each rear outboard designated seating position. These factors alone, however, were not decisive enough to convince us that we should not to propose requirements for mandatory rear head restraints and obtain public comment before making a final judgment on the merits. At the time, we tentatively concluded that the philosophy that commonly used seating positions should offer similar levels of protection to their occupants warranted further exploration of the merits of a mandate. However, in light of the newly refined, higher estimates of the cost per equivalent life saved, we conclude that rear head restraints should not be mandated.⁶¹

Nevertheless, in order to ensure that voluntarily installed rear seat head restraints do not pose a risk of exacerbating whiplash injuries, this final rule requires that those head restraints meet certain height, strength, position retention and energy absorption requirements proposed in the NPRM. We are considering inclusion in our annual "Buying a Safer Car" brochure, and on our web site, the list of vehicles equipped with rear head restraints. We believe this could provide an added incentive for the manufacturers to equip their vehicles with optional rear head restraints.

The definition of a rear head restraint: This final rule provides an objective definition and a test procedure for determining the presence of a rear head restraint. We decided that a vehicle seat

will be considered to have a rear head restraint if the seat back, or any independently adjustable seat component attached to or adjacent to the rear seat back, that has a height equal to or greater than 700 mm, in any position of backset and height adjustment, as measured with the J826 manikin.

We chose this method for the following reasons. Based on the survey of vehicles used to determine the cost effectiveness of this regulation, we found that a 700 mm threshold captured all of the seats that had adjustable cushion components at the top of the seat back; *i.e.*, what the general public would probably consider being a head restraint.⁶² Further, this definition of the rear head restraint will allow the manufacturers to provide a relatively tall seat back (up to 700 mm) without having to comply with rear head restraint requirements. We anticipate that such taller seat backs might offer some safety benefits to a certain portion of rear seat occupants. We note that the current head restraint standards do not require a height of above 700 mm even for front head restraints.

Because rearward visibility remains a concern, we note that the manufacturer will be able to determine whether providing a seat back structure above 700 mm would be consistent with the amount of rearward visibility they wish to provide.

As discussed previously, the agency has made significant accommodations to mitigate possible visibility losses associated with rear head restraints. First, the agency is making their installation voluntary. Second, the agency allows non-use positions that can move the head restraints out of view when the seat is unoccupied. Third, the agency allows rear head restraints to be removable. Fourth, the maximum required head restraint width for rear bench seats is 84 mm less than for front bench seats. Fifth, gaps as large as 60 mm can be provided within the perimeter of the head restraint.

b. Exception for Seats Adjacent to an Aisle

Johnson Controls expressed a concern that the NPRM's proposed heights for head restraints for third-row seating in vehicles would create a problem for outboard designated seating positions that are next to an aisle. The commenter suggested that the 750 mm proposed head restraint height requirement could

create ingress and egress difficulties for people using these third-row seats, which could pose a safety problem in certain vehicle emergencies.

NHTSA believes that these concerns are now addressed by making the head restraints optional for rear outboard seating positions. If a manufacturer believes that it is better not to place the head restraints in designated seating positions adjacent to the aisles in order to facilitate ingress and egress into third and higher rows, it may act accordingly.

c. Potential Interference With Child Restraints and Tethers

The NPRM solicited comments related to safety concerns arising from potential interference of rear seat head restraints with the attachment of upper tethers of child restraint systems. The NPRM asked for test data and related comments regarding whether the passage of tethers over or under adjustable head restraints would affect the amount of head excursion of child restraint occupants in a crash or the lateral stability of child restraints.

Interaction between tethers and head restraints. NHTSA received numerous responses to these requests and questions. Advocates believed that the performance of child seat tethers would not be negatively affected by the proposed FMVSS No. 202 amendments. Nevertheless, Advocates recommended that NHTSA's final rule prohibit child seat tethers from being designed so that their use necessitates either removing rear head restraints or placing them in the non-use position.

Some industry commenters expressed concerns about, but did not provide any specific test data on, the safety impact of incompatibilities between child restraint tethers and rear seat head restraints. Johnson Controls asserted that safety concerns exist with respect to integral or adjustable head restraints and the proper management of child tether placement and loading. Johnson Controls commented that misuse or improper installation could occur. DaimlerChrysler suggested that a tether routed over the top of a head restraint would provide less effective safety protection in a side impact, given the longer tether length and routing. Honda believed that the perceived potential safety concern pertained to misuse that could occur when the tether strap is positioned over the head restraint and attached to the tether anchor when the head restraint is not positioned in the lowest possible adjustment position.

Ford acknowledged its lack of information regarding any head excursion effects of child restraint routing over or under a head restraint.

⁶¹ As the agency noted in its 1995 final rule establishing upper interior head impact protection requirements, the application of the philosophy of providing similar levels of protection in all seating positions is subject to the limits of reasonableness:

While the costs per equivalent life saved still vary according to seating position, the conclusive factor in determining whether to regulate a particular seating position should not be the existence of such variations, but the reasonableness of the cost for that particular position. * * * So long as the cost per equivalent life is reasonable, NHTSA believes that a vehicle should be designed to offer the same level of protection to all occupants, regardless of the occupant's choice of seat. 60 FR 43031, at 43046; Aug. 18, 1995.

⁶² The survey included twelve 1999 model year vehicles (9 passenger cars, 1 minivan, and 2 SUVs). Five of the twelve vehicles featured rear seating systems that fell under our definition of the rear head restraint.

Ford indicated that in some frontal sled tests it conducted, it discovered a degree of tether slippage to the side of the head restraint when the tether was routed over head restraints. Ford assumed this slippage would increase head excursion, although Ford's tests did not produce evidence of excessive head excursions. Ford stated that increased head restraint heights also might increase the effects of slippage on chest acceleration, neck loads, and HIC.

Transport Canada said that it has investigated whether interference between head restraints and child restraint tethers might alter the angle at which the tethers depart the child restraint, or create slack in the strap, in a manner that would affect the performance of the child restraint. Transport Canada conducted numerous sled tests to discern any effects of varying strap angles and slack on child seat tether performance. Transport Canada's data indicated that tethers remained effective even at rather large strap angles. The data additionally showed that tethers retained their effectiveness up to the point at which large amounts of slack were incorporated into the tethers.

The Alliance commented that the extent of head restraint and tether interference varies depending on the exit point of the tether from the child restraint, as—the commenter believed—a lower exiting tether will produce greater interference. With respect to the NPRM's suggestion that a Y-shaped tether strap design might be used to go around the head restraint, the Alliance maintained that no child restraints currently on the market are equipped with Y-shaped tethers. However, it noted the availability of a V-shaped tether strap design on a few high-priced child restraints.

Less of a snug fit between child restraint and vehicle seat because of head restraints.

Several commenters believed that the proposed backset and gap requirements could interfere with proper child restraint and booster seat installation.

The Partners for Child Passenger Safety (PCPS) said that there is an existing incompatibility between rear head restraints and some high-back convertible child restraints and boosters. In particular, PCPS asserted that a rear head restraint might affect the tightness of a hybrid child restraint's⁶³ fit on the seat when the child restraint is used as a forward-facing seat. The Alliance commented that many existing

child restraint systems have higher and straighter backs that could interfere with head restraints meeting the proposed 50 mm backset limit, thus causing child restraint fit problems. The Alliance further indicated that head restraint interference causes tipping and sliding of high-back boosters during cornering due to the lack of contact between the back of the booster and the vehicle's seat back. The Alliance asserted that the interference of head restraints with reduced backsets with high-back belt-positioning boosters could push the booster seat forward, causing an adverse effect on the positioning of lap and shoulder belts.

Effect of new head restraints on child restraint anchorage systems. Several commenters raised concerns about the effect that the new head restraints might have on the design and testing of child restraint anchorage systems (pursuant to FMVSS No. 225). DaimlerChrysler expressed concern about the issue of interference with the child restraint and the Child Restraint Fixture (CRF) used by NHTSA to test the strength and positioning of child restraint anchorage systems in vehicles under FMVSS No. 225. Less desirable relocation of lower anchors for child seats, the Alliance contended, might also result from reduced backset due to head restraint interference with the CRF design.

Agency response regarding child restraints and tethers: NHTSA reviewed the comments submitted with respect to potential child restraint and/or tether interference. These comments pertain exclusively to rear seats. Since the final rule does not require rear seat head restraints, any incompatibility can be addressed by the manufacturers. Therefore, we have concluded that the final rule's head restraint requirements will not adversely affect child restraint safety. In addition, we believe that optional rear head restraints will not have a significantly negative effect on child restraint compatibility. Below we provide responses specific to several areas of commenters' concern if a head restraint is present.

Agency response regarding tethers: As the agency stated in the NPRM, tethered child restraint requirements have been in effect for quite some time in Canada and Australia, and vehicles with rear head restraints meeting requirements similar to those of today's final rule are relatively common in those countries. Transport Canada indicates that interference between rear head restraints and child restraint tethers has not created any significant problems. To the extent that interference occurs, it creates incentives for child restraint manufacturers to design child restraints

to assure maximum child protection. For example, a demand would likely develop for Y- or V-shaped tethers, if such tethers make attaching to a tether anchor easier.

As indicated above, Johnson Controls, Honda, DaimlerChrysler, and Ford suggested that routing tethers over head restraints might lead to increased head excursions. However, industry commenters did not provide any data on this issue, while Transport Canada's data indicate that tethers remain effective up to the point at which large amounts of slack are introduced.

NHTSA assumes that the worst-case tether location is floor mounting because floor-mounted tethers have the potential to introduce the most slack in a collision, while deck-mounted and roof-mounted tethers likely would not produce significant slack because of their shorter distance to the child restraint. If current voluntarily installed rear seat head restraints are an indication of future systems, NHTSA anticipates manufacturers will install adjustable systems, in which case the tether could be routed under the adjustable head restraints, reducing the potential for excessive amounts of slack.

Vehicle manufacturers are required to provide instructions for proper attachment of the child restraint tether under FMVSS No. 225. Manufacturers must determine how child restraint tethers should be routed with respect to the particular head restraints in their vehicles, and how the head restraint should be adjusted. In some instances, a manufacturer may recommend that the head restraint be temporarily removed.

Agency response regarding fit of child restraints: With respect to comments pertaining to the potential incompatibility between rear head restraints and some high-back hybrid child restraints and boosters, NHTSA notes that high-back child restraints are used in Europe with no reports of incompatibilities. As Magna commented, rear seat head restraints are much more common in Europe due to competitive pressures. Nonetheless, if incompatibilities arise in this country, they can be resolved by several means. First, we believe that an adjustable head restraint is likely to have a position that does not interfere with high back hybrid child restraints. That is, raising the head restraint may alleviate the potential interference. Second, the high-back child restraint can be installed in a seating position for which a head restraint is not provided, removable, or has a non-use position. We note that even where rear outboard head restraints are provided, many vehicles do not provide a head restraint in the

⁶³ A hybrid child restraint is one that can be used as a forward facing seat below a certain child weight and a belt positioning booster seat above.

center seating position.⁶⁴ We recognize that, even with the flexibility afforded to the manufacturers with respect to rear seat head restraints, there may be isolated situations where certain high back child restraints are not compatible with specific seating positions in certain vehicles. However, we expect this to be relatively infrequent. In short, the agency does not believe that the possible incompatibilities are insurmountable even in situations in which rear seats are equipped with optional head restraints. The agency will monitor these and other issues associated with the implementation of this final rule.

Agency response regarding testing of child restraint anchorage system: NHTSA disagrees with the Alliance's comments asserting that rear head restraints will cause interference with the CRF, thereby resulting in unfavorable positioning of lower anchors. In an earlier rulemaking on FMVSS No. 225, the agency modified the CRF so that it can be broken down into a short-back configuration, eliminating the potential for head restraint interference.

XIII. Dynamic Test Alternative

In the NPRM, we proposed a dynamic compliance option for forward facing seats as an alternative to static requirements of this final rule. The dynamic compliance option was proposed primarily for two reasons. First, the dynamic test better represents "real-world" injury-causing events and thus produces greater assurance than the static measurement option of effective real world performance. Second, as explained below, we believe that the dynamic test will help to encourage continued development and use of "active" head restraint systems because the test is designed to allow a manufacturer the flexibility necessary to offer innovative active head restraint designs while still ensuring a minimal level of head restraint performance.

Active head restraint systems deploy⁶⁵ in the event of a collision to minimize the potential for whiplash. During the normal vehicle operation, the active head restraint system is "retracted." Because an active head restraint system requires a certain range of motion to work effectively, an "un-

deployed" active head restraint system might not meet the static measurement requirements of FMVSS No. 202a.

Several manufacturers now offer active head restraints. For example, Volvo offers the Whiplash Head Impact Protection System (WHIPS) in which the seat back recliner is designed to control the rearward motion of the seat back relative to the seat base in a rear impact. Volvo believes that this allows the head and torso to be more uniformly supported. A number of other vehicle models including Saab, Infiniti, and BMW also offer active head restraints in their vehicles.

Although the dynamic compliance option is intended to ensure that the final rule encourages continuing development of active head restraint systems, the option is available to both active and conventional, or "static" head restraint systems. That is, both types of head restraints can be certified to either static requirements or the dynamic compliance option. As explained above in the discussion of the height requirements for front seat head restraints, if the choice were made to certify to the static requirements, an active head restraint would have to meet these requirements in its undeployed state. If an active head restraint were unable to do this, the dynamic compliance option provides an alternative means of certification. Head restraints certified to the dynamic compliance option must still meet the static width requirements of this final rule. As discussed below, a manufacturer's selection of a compliance option would be irrevocable. However, the manufacturer may select different compliance options for different designated seating positions.

The current dynamic test in FMVSS No. 202 accelerates a seat to an 8 g half sine acceleration pulse over 80 ms. The NPRM proposed a new dynamic compliance test option involving a sled test with a target pulse of 86 m/s² over an 88 ms duration and a 17.3 ± 0.6 km/h change of velocity.

Most commenters on the NPRM agreed with maintaining an alternative dynamic compliance option. However, as IIHS noted, that there has been no strong interest in the industry to take advantage of a dynamic compliance option. Because the dynamic test requirements are based on the static location requirements, the AIAM commented that there is little incentive to use the dynamic testing option. King⁶⁶ commented in favor of dynamic

testing. The final rule adopts the proposed dynamic compliance option, with modification, because we believe it desirable and necessary to encourage continued development and use of "active" head restraint systems. Especially as modified, the test is designed to allow a manufacturer the flexibility necessary to offer innovative active head restraint designs while still ensuring a minimal level of head restraint performance.

Test Dummies. For the dynamic compliance test option, the NPRM proposed the use of a 95th percentile male dummy in a front seat with the head restraint at a single manufacturer selected position, and a 50th percentile male dummy in the front and rear seats with the head restraint midway between the lowest and the highest position of vertical adjustment. In vehicles in which the seat cushion adjusts independently of the seat back, the dynamic measurements were to be taken with the seat cushion adjustment in the most unfavorable position.⁶⁷

The Alliance commented that there are many potential test dummy candidates, but no consensus on the most appropriate one to use for a dynamic head restraint test. Magna argued in favor of using 5th percentile female, 50th percentile male and 95th percentile male dummies. Honda stated that the 95th percentile male dummy should have priority in testing. DaimlerChrysler said that a 5th percentile female dummy is not needed for testing because if a head restraint is high enough for a 50th percentile male, it will also be high enough for a 5th percentile female. Tencer suggested that in order to be certain that a smaller occupant's head contacts the intended surface of the head restraint, there should be some indication of how a small female would fit the seat. Autoliv commented that since the most common neck-injured occupant is an average size female, a 50th percentile female dummy should be used in dynamic testing. Autoliv also said that a BioRID⁶⁸

⁶⁷ If the seat cushion adjusts independently of the seat back, the seat cushion would be positioned such that the highest H-point position is achieved with respect to the seat back, as measured by the HRMD.

⁶⁸ BioRID stands for Biofidelic Rear Impact Dummy. It was developed by a consortium of Chalmers University of Technology in Sweden, Autoliv, Saab and Volvo to help safety engineers evaluate the relative motion of the head and torso in rear crashes. BioRID has a flexible spine with 24 vertebra-like segments, the same number as in the human spine. It has joints that allow for forward and backward movement of the head, and integrates spring-loaded cables that simulate the action of human neck muscles. Its spine is said to interact with vehicle seats in a more humanlike way than the Hybrid III's rigid spine. Further, its neck is

⁶⁴ NHTSA has issued an NPRM that would mandate installation of lap/shoulder belt restraint systems in the center rear seating position (68 FR 46546), which will ensure availability of restraints for use with an older child in a belt positioning booster.

⁶⁵ Besides mechanical deployment, some systems use other methods. For example, BMW 760Li uses a pyrotechnic head restraint system that utilizes a gas discharge to deploy head restraints.

⁶⁶ Albert I. King, PhD, Bioengineering Center, Wayne State University.

dummy, with its flexible spine, should be used in dynamic testing instead of the Hybrid III dummy. IIHS commented that the Hybrid III dummies are not biofidelic for rear impacts, that they represent large adult males, and that dynamic testing based on them may lead to dynamic head restraint designs that are not effective for smaller occupants such as children and females. King agreed that there is not any truly biofidelic dummy now available for rear impacts, but recommended use of the Hybrid III dummy as the best alternative currently available. He specifically recommended against the use of the BioRID dummy, stating that it had not been validated against cadaveric data in detail and that relative displacements between the pinned joints are not available. Advocates supported dynamic testing with 5th percentile female dummies to limit the negative effects of head restraints that are adjusted too high. Advocates also stated that the 95th percentile male dummy should be used in the rear seat as well as the front seat.

Agency Response: There was no consensus among the commenters on the use of the Hybrid III dummy or the range of dummy sizes to be utilized. NHTSA is aware of the criticism associated with Hybrid III. Specifically, many commenters assert that the 50th percentile male Hybrid III neck lacks sufficient biofidelity to be a useful tool for rear impact testing. Because of likely design similarities, the same criticism could be made of the 95th percentile male and 5th percentile female dummy necks. We are aware of a newly developed test device, BioRID II and RID 2, which purport to model a human neck more accurately. We are also familiar with a paper by Ford (SAE 973342), which argues that the 50th percentile male Hybrid III neck is sufficiently biofidelic in the rearward direction. Another recent publication indicated that the overall flexibility of the Hybrid III dummy is comparable to that of a tensed volunteer, while the flexibility of the BioRID II and RID 2 are greater than those of tensed volunteers and embalmed cadavers.⁶⁹ We are likely to revisit the decisions made in this final rule about dynamic performance values and the test device as more advanced dummies are developed and the injury criteria achieve broader consensus.

Any consensus advancement in adaptation of a new, more biofidelic

dummy will be welcomed by the agency and considered as part of future possible modifications to the standard. However, we believe the introduction of a modified dynamic test alternative should not be delayed, even if it is only an interim step toward a more advanced test procedure. We find especially persuasive King's comments, stating that the Hybrid III dummy is the only reasonable option at this time.

In our opinion, the 95th male dummy in the front, and 50th percentile male dummy in the rear, provide for a relatively worst-case scenario in terms of potential occupants and assure that the head restraint has sufficient height. However, the 95th percentile male dummy is not yet available and thus has not been incorporated into 49 CFR part 572, *Anthropomorphic Test Devices*. Therefore, the final rule does not use the 95th percentile male dummy in the dynamic compliance option for front seats. Instead, as discussed further below, this final rule requires that the head-to-torso rotation be limited to 12 degrees with the 50th percentile male dummy with the head restraint midway between the lowest and the highest position of vertical adjustment. Ideally, it would be preferable that the dynamic testing be performed with the 5th percentile female and 95th percentile male dummy. However, we conclude that the 50th percentile male dummy with the 12-degree head-to-torso rotation performance limit is sufficient to discern between acceptably safe head restraint systems and those that allow unacceptable levels of head-to-torso rotation for the taller occupants. We note that sled testing performed by the agency and described further below shows that the 50th percentile male dummy is capable of discerning the difference between 800 mm and 750 mm high head restraints. This data set did not vary backset. However, previous agency modeling results presented in the NPRM and sled testing by Viano have shown the 50th percentile male Hybrid III dummy to be sensitive to changes in backset as well.⁷⁰ Thus, the 50th percentile male Hybrid III can, for the time being, be used as to determine the adequacy of head restraints for taller occupants.

In regard to commenters who preferred testing with a 5th percentile female dummy, we conclude that it is not necessary to use such a dummy to determine if the tested head restraint has the height and backset required to

protect most occupants. Recent agency testing of several modified seat designs showed that dummy head-to-torso rotation is lower for a 5th percentile female than for a 50th percentile male dummy. Accordingly, a test featuring the 50th percentile male dummy captures the injury criteria associated with a 5th percentile female. We note, however, that this may not be the case for all seat designs. Any future upgrade proposals for dynamic rear impact testing in general, and the development of more refined injury criteria in particular, should consider incorporation of a small female dummy.⁷¹

Injury criteria. In the NPRM, we proposed two criteria for the dynamic performance option: A maximum head-to-torso rotation criterion and a maximum HIC15 level. Johnson Controls commented that the criteria should bear a direct relationship to whiplash injury prevention. Magna, along with AIAM, requested that a performance corridor be established for the dynamic testing alternative.

Maximum head-to-torso rotation: The NPRM proposed a maximum head-to-torso rotation of 20 degrees for a 95th percentile male test dummy in front outboard seats and 12 degrees for a 50th percentile male test dummy in all outboard seats. With the 95th percentile male dummy, the head restraint could be at a single manufacturer selected position of adjustment. With the 50th percentile dummy, the head restraint could be at any position of adjustment.

Tencer and King both suggested time-dependent limits in their comments regarding the head-to-torso rotation performance criterion. Tencer believes that the extent of "S" shape curve correlates to the magnitude and time difference in the forward shear of the upper and lower neck. King believes that facet capsule stretch between the vertebrae could be a source of injury. In low speed impacts with a rigid seat back, the measured peak stretch occurs 100-120 ms after impact. He suggested that head restraint contact should be made within 50 ms. AIAM recommended that the head-to-torso rotation be tested only at maximum backset. GM commented that because there is not yet a consensus on neck injury criteria, a limit of 12 degrees should not yet be established. The Alliance expressed concerns because the specified head rotation limits may be too restrictive. Advocates voiced

capable of producing the S-shape observed in human necks during rear crashes.

⁶⁹ Kim, A., Anderson, K., Berliner, J., Hassan, J., Jensen, J., Mertz, H., Pietzch, H., Rao, A., Schere, R., Sutterfield, A. (2003) Stapp Car Crash Journal, Vol. 47, pp. 489-523.

⁷⁰ Viano, D., Davidsson, J., "Neck Displacement of Volunteers, BioRID P3 and Hybrid III in Rear Impacts: Implications to Whiplash Assessment by a Neck Displacement Criterion (NDC)," *Traffic Injury Prevention*, 3:105-116, 2002.

⁷¹ In response to Autoliv's suggestion that we test with a 50th percentile adult female dummy, we note that there currently is no test dummy representing a 50th percentile female.

concerns that the 20-degree rotation limit for the 95th percentile male dummy in front seats is too large.

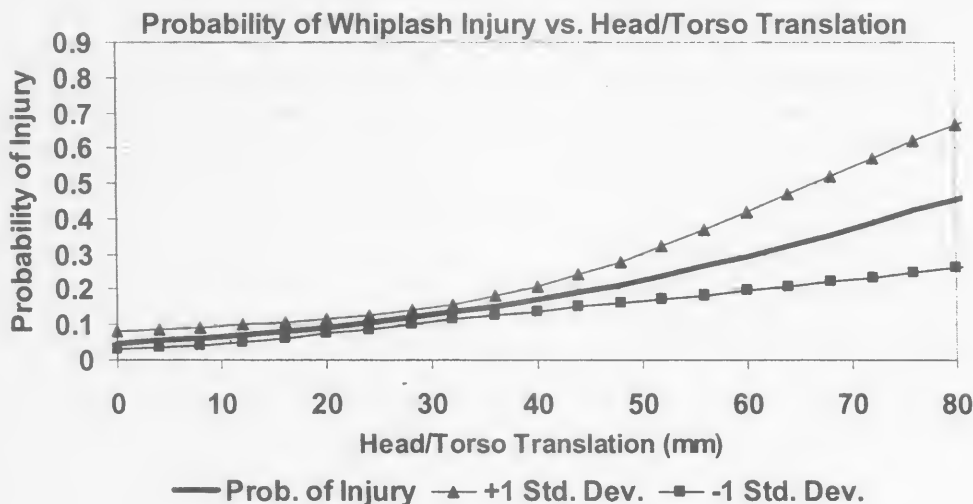
Under today's rule, we are adopting a maximum relative head-to-torso rotation value of 12 degrees with the 50th percentile male dummy in all outboard seats, with the head restraint adjusted vertically midway between the lowest and the highest position of adjustment.⁷²

We decided to require that the head restraint be positioned at one middle position of vertical adjustment instead

of requiring that the head restraint meet the dynamic compliance option requirements at all positions of head restraint vertical adjustment because we are concerned with the effects of this final rule on active head restraint systems. As previously stated, we want to ensure that the dynamic compliance option encourages continuing development of active head restraint systems. As discussed below, research indicates that current head restraint systems can easily meet the head-to-torso rotation limit in this final rule

when the head restraint is adjusted midway between the lowest and the highest position of adjustment.

Using published data of low speed rear impact testing of original equipment manufacturer (OEM) seats with Hybrid III 50th percentile male dummies (Viano *et al.*, 2002), and information on whiplash injuries sustained by occupants of these seats, the agency used logistic regression to develop a probability of whiplash injury as a function of dummy head-to-torso rotation. The function is shown below:



$$\text{Probability of Whiplash} = (1 + e^{(3.295 - 0.063 * \theta)})^{-1}$$

A 12-degree head-to-torso rotation corresponds to a 7.3 percent probability of whiplash. This criterion was selected to ensure adequate protection for occupants who range in stature from shorter females up to and including taller males, for all outboard seats. In evaluating the head-to-torso rotation limit, we note that in the past there has not been a consensus among the biomechanics community on how best to measure the potential for whiplash injury. This lack of consensus is evidenced by the related, yet different, criteria recommended by King and Tencer. In our opinion, the relative head-to-torso rotation is presently the best criterion available, and will assure

early head restraint interaction consistent with King's recommendation. Our goal in selecting performance criterion limits for the dynamic compliance option was to provide a level of safety similar to that provided by the static requirements. Our research shows that it is feasible to meet these limits with both active and static head restraints.

The agency performed sled testing as specified in the dynamic compliance option on a specially designed seat to explore how various seat characteristics affect relative head rotation and other dummy injury measures.⁷³ An OEM seat with an adjustable head restraint was modified by removing the original

recliner mechanism and replacing it with a pin joint free to rotate. The seat back was also reinforced with steel channels that provided the attachment points for a spring and damper system on each side of the seat. Seat back strength in the rearward direction was modified by changing the springs and/or their location of attachment relative to the hinge joint. In addition to seat back strength, sensitivity analyses to head restraint attachment strength and seat back upholstery compliance were also performed. Tests were performed with belted 5th percentile female, 50th percentile male and 95th percentile male Hybrid III dummies.

⁷² We note that the manufacturer may select different compliance options for different

designated seating positions to which the requirements of this section are applicable.

⁷³ For full details of these tests, please see Docket No. NHTSA-2002-8570-57, 58, 59.

The head restraint height was either 750 mm or 800 mm and the backset was always 50 mm as measured by the HRMD. However, the majority of tests (20 tests) were performed with the 50th percentile male dummy with a 750 mm high head restraint. For all seat back parameters tested with this configuration of dummy and head restraint height, the range of relative head-to-torso rotation was 6 to 16 degrees. HIC₁₅ was measured for half of these tests and ranged from 40 to 75. Nearly half of the seat configurations (9 of 20) met the 12-degree limit placed on the dynamic compliance option for a head restraint in the lowest adjustment position (750 mm). In general, the

smallest relative rotations were seen for the baseline seat back strength⁷⁴ and non-rotating seat backs irrespective of the other seat/head restraint parameters. From these tests, we conclude that the head rotation and HIC limits selected can be met with typical seat back/head restraint designs when appropriate consideration is given to design in terms of height, backset and strength of head restraint attachment.

In a separate set of tests, the agency subjected a MY 2000 Saab 9-3 seat to the sled pulse of the dynamic compliance option. A 95th percentile male Hybrid III dummy occupied the seat. The Saab 9-3 has an active head restraint system, and the head restraint

was set to its highest position of adjustment. The maximum head-to-torso rotation was 9 degrees. Viano and Davidsson (2002) also sled tested a 9-3 head restraint at a slightly lower, 16 km/h ΔV, with the seat occupied by a 50th percentile male Hybrid III dummy. With the head restraint in the up position, the relative head rotation was measured at 6.5 degrees. With the head restraint midway between the lowest and the highest position of adjustment, the relative head rotation was 10 degrees at 23.5 km/h ΔV. We believe that this configuration would yield an even smaller head rotation at the 17.2 km/h ΔV.⁷⁵

TABLE 3.—VIANO REAR IMPACT SLED TEST DATA

Test type	Vehicle	DeltaV km/h	Backset mm	HR position in height	HIC15	Head-to-torso rotation (deg)
Sled	Saab 9-5 + SAHR	12.8	35	up	11	1
Sled	Saab 9-3 SAHR	16	41-43	up .....	.....	4.6-6.5
Sled	Saab 9-5 + SAHR	30	35	up	39	11
Sled	Saab 9-3 SAHR	23.5	46	mid	35	10
Sled	Saab 9-3 SAHR	16	48-65	down .....	.....	13.3-16

In sum, research indicates that the head-to-torso rotation limit of 12 degrees will not discourage the development of active head restraint systems. Current systems, such as the one in 2000 Saab 9-3, can readily meet the head-to-torso rotation limit in this final rule. Agency testing has also shown that current static head restraints/seats need more extensive modification to meet the head-to-torso rotation limits. These changes might include increasing the strength of attachment to the seat for adjustable head restraints and optimization of the seat back upholstery for compliance.

We also considered performance criteria other than head-to-torso rotation for the dynamic compliance option. Alternative criteria included N_{ij}, which is a combination of upper neck moments and forces introduced in the Advanced Air Bag Rulemaking (Docket NHTSA-98-4405); and NIC, which was developed by Chalmers University and has been used by IIHS in testing active head restraints; and individual values of force, moment and acceleration. We have decided in favor of head-to-torso rotation because, in the absence of generally accepted injury criteria

specifically applicable to whiplash injuries, we believe that a head restraint's ability to prevent whiplash is primarily due to its ability to prevent the rearward translation and rotation of the occupant's head with respect to the torso. The sled tests showed that rearward head rotation seemed to correlate with head restraint position. Other biomechanics researchers have found a similar correlation and used head-to-torso rotations for the evaluation of whiplash injury.⁷⁶ The agency is willing to reconsider the dynamic performance criteria if and when more advanced whiplash injury criteria become available.

HIC₁₅ criterion: The NPRM proposed a HIC₁₅ limit of 150 for the dynamic compliance option. Johnson Controls, GM and the Alliance opposed the 150 HIC₁₅ limit. They saw no correlation between HIC and the reduction of neck injuries. AIAM recommended that we adopt an "acceleration limit," instead of 150 HIC₁₅ limit requirement. Advocates supported the HIC₁₅ limit as a prudent safeguard against head restraints that may meet a head rotation limit, but still inflict cranial trauma. The FIU students commented that the current 150 limit of

HIC₁₅ is sufficient for testing. No comments were made in favor of using a 36 ms window.

We are adopting a HIC₁₅ window to be consistent with the new HIC criterion in Standard No. 208 (65 FR 30680; May 12, 2000). The agency did not propose the HIC₁₅ limit as a means of limiting whiplash, but instead as a surrogate for the 80 g energy absorption test required for the static compliance option. If we were to eliminate the HIC₁₅ limit from the dynamic compliance test, we would need to re-introduce the 80 g limit energy absorption test required for static compliance. Because HIC₁₅ is easily measured during dynamic testing, it appears to be a more appropriate measuring tool. However, we have decided to specify a limit of 500 in the final rule rather than the 150 limit proposed in the NPRM. We raised the limit because of concerns that the 150 level is at a location on the injury risk curve that indicates a very small probability of injury. Thus, requiring head restraints not to exceed this level might inhibit innovative whiplash protection. The HIC₁₅ level of 500 is associated with an 18.8 percent probability (95 percent confidence: 1.8

⁷⁴ The baseline seat back strength was obtained through static testing of OEM seats and modeling to determine the corresponding amount of seat back rotation. The static testing can be found in Docket NHTSA-1998-4064-26.

⁷⁵ Viano, D., Olsen, S., "The Effectiveness of Active Head Restraint in Preventing Whiplash," Journal of Trauma, Injury, Infection, and Critical Care, Vol. 51, No. 5, 2001; and Viano, D., "Role of

the Seat in Rear Crash Safety," Society of Automotive Engineers Inc., Warrendale, PA, 2002.
⁷⁶ Geigl et al. (1994) The Movement of Head and Cervical Spine During Rear-end Impact, IRCOBI, pp 127-137.

to 32.5 percent) of moderate (AIS 2+) head injury.⁷⁷ While the 80 g limit and the HIC₁₅ limit of 500 are not necessarily equivalent, the two requirements do share the same intent of mitigating potential injury related to the head's striking a rigid or insufficiently padded head restraint. We analyzed data from FMVSS No. 201 impactor tests on the back of head restraints and also vehicle seat sled test data. We superimposed a 80 g half sine acceleration on the time duration of the

impacts from these tests. This resulted in range of HIC₁₅ values from approximately 425 to 800. Accordingly, we believe a limit of 500 is appropriate. The greatest HIC₁₅ value obtained in testing sled testing using a 50th percentile male dummy was 57. Thus, the HIC₁₅ limit of 500 is practicable. The 500 HIC₁₅ limit will give a strong indication of deleterious effects on the occupant's head and/or neck from deploying head restraints.

Summary of injury criteria: Table 4 summarizes the injury criteria to be met

for the dynamic compliance option. Our research indicates that currently available dynamic head restraints can readily meet the requirements of this final rule. We believe that the dynamic compliance option is sufficiently flexible to encourage continuing development of dynamic head restraint systems. However, the agency remains open to alternative suggestions on dynamic criteria that would further encourage innovative active head restraint designs.

TABLE 4.—TESTING PARAMETERS FOR THE DYNAMIC COMPLIANCE OPTION

Seating position	Dummy size	Rotation limit	HIC ₁₅ limit	Height adjustment	Backset adjustment	Head restraint width
Front & Rear	50th Male Hybrid III.	12 Deg	500	Midway between the lowest and the highest position of adjustment.	Any position of adjustment	170 mm except 254 mm for front bench seats.

Other dynamic compliance option issues. There were three additional aspects of the dynamic compliance option that the agency discussed in the NPRM.

Minimum width requirement: The NPRM proposed that the same head restraint width requirement in the static compliance option be applicable to the dynamic compliance option as well. As discussed above, the final rule requires that all head restraints on front bucket seats and all voluntarily installed rear head restraints certified to the static compliance option have a minimum width of 170 mm. The bench seat head restraints located in the front outboard seating positions must have a minimum width of 254 mm. The final rule adopts the same width requirement for head restraint systems certified to the dynamic compliance option.

GM commented that the width requirement would be inappropriate, especially for active or deployable head restraints. Honda also stated that the requirement would be unnecessary. DaimlerChrysler had no concerns related to the width requirement in the dynamic option, except for the same visibility issues it had raised in the discussion of the static test requirements. Ford and the Alliance commented that the width requirement is necessary, and repeated their desire for a single 170 mm width for all seat types. Advocates commented in favor of

adding the width criteria to the dynamic option.

There appears to be no industry consensus as to whether the width requirement should be included in the dynamic compliance option. We disagree with GM's assertion that the width requirement is inappropriate for deployable systems. Regardless of whether the head restraint pivots forward to contact the head in a collision or is permanently situated behind the head, the head restraint should be sufficiently wide to provide protection. We note that unlike height and backset, the dynamic test does not assure sufficient width because it decelerates the vehicle in the longitudinal plane which causes the occupant to move in that plane, rather than to one side of the other as might occur in an off-axis impact.⁷⁸ Therefore, we have decided that vehicles certified to the dynamic compliance option must also meet the width requirements of the static compliance option. For reasons discussed in Section VI.a., we decline to adopt a single 170 mm width requirement for all head restraints.

Seating procedure: The seating procedure for the dynamic compliance option is set forth in S10 of Standard No. 208, with additional details added to address lateral positioning of the dummy. Since the manufacturers are already familiar with these procedures, they should not encounter any seating

procedure difficulties while conducting the dynamic compliance test. Since testing of the head restraint is the focus of this procedure, we found it necessary to add provisions specifying that the dummy torso be placed within 15 mm of the head restraint centerline. In the event that the dummy cannot be seated because of space limitations, such as might be the case in the outboard rear seat of a vehicle, the dynamic option would not be available for that seating position.

Test fixture: For the dynamic compliance option, the NPRM proposed mounting the entire vehicle on a sled.

The Alliance, among other commenters, asked the agency to consider allowing the use of a seat attached to a test buck, instead of an actual vehicle for the dynamic compliance option. GM commented that no one would certify to the dynamic performance option because mounting the whole vehicle on the sled, instead of just the seat, imposes an undue level of complexity.

NHTSA concludes that attaching the seat to a test buck is problematic for compliance tests. NHTSA cannot use a vehicle for further testing involving a seat if we remove the seat for the purposes of dynamic compliance option testing. Accordingly, NHTSA will conduct its compliance testing using the whole vehicle. The manufacturers are, of course, free to conduct their

⁷⁷Eppinger, R., et al. (1999) Development of Improved Injury Criteria for the Assessment of Advanced Automotive Restraint Systems—II.

Available at http://www.nrd.nhtsa.dot.gov/pdf/nrd-11/airbags/rev_criteria.pdf.

⁷⁸The test procedure specifies that the midsagittal plane of the dummy must be aligned

within 15 mm of the head restraint centerline as opposed to off-center as a vehicle occupant might be positioned.

development and certification testing on a buck. To assure that any certification is in good faith, we would expect such a manufacturer to show a correlation between buck testing and full vehicle testing.

XIV. Consumer Information

In the NPRM, we asked for comments regarding whether vehicle users understand how to properly adjust head restraints and, if not, whether the rule should require manufacturers to provide information on this subject to consumers in vehicle owners' manuals or elsewhere. In addition, the NPRM solicited comments regarding whether vehicle users intentionally misadjust head restraints for reasons related to comfort, visibility, or other factors.

ICBC provided extensive comments on these issues. According to ICBC, most motorists are not aware of the need to properly adjust their head restraints. Results from focus group studies commissioned by ICBC in 1996 suggest that drivers do not perceive a head restraint as a safety device and do not understand how a head restraint protects them. Consumer education programs, ICBC asserted, can increase the rate of proper adjustment, and manufacturers should play a role in educating consumers through owners' manuals, advertising, and in vehicle showrooms. ICBC initiated media information and direct intervention with vehicle users at various locations, including emissions testing stations, ferry terminals, and insurance offices. Education at ferry terminals alone resulted in 79,000 of 190,000 vehicle drivers adjusting their head restraints. ICBC cited these results, as well as similar studies of Transport Canada, in support of its effort to show that consumer education programs can positively influence proper head restraint adjustment. Transport Canada relied on ICBC data and suggested that the public does not properly adjust head restraints in the absence of consumer information programs.

Johnson Controls and the Alliance noted that they knew of no data suggesting whether head restraints are intentionally or inadvertently misadjusted. Based on consumer surveys conducted by Johnson Controls, users adjust their head restraint height at most only once, in order to increase comfort, not to improve safety.

DaimlerChrysler believed vehicle users intentionally misadjust head restraints for reasons related to comfort, visibility, convenience, and a lack of knowledge about proper positioning. However, DaimlerChrysler indicated it did not have any data to show why this

intentional misadjustment occurs as opposed to inadvertent misadjustment. DaimlerChrysler commented in favor of requiring additional literature, either in owners' manuals or elsewhere, to educate consumers about the proper use and positioning of head restraints. The Alliance stated that vehicle users generally do not fully understand the appropriate use and purpose of head restraints. The Alliance and GM stated that a consumer information program coordinated between NHTSA and industry members could substantially reduce the problem of improper head restraint adjustment.

Ford indicated that it voluntarily includes head restraint adjustment information in its owners' manuals and that such information is adequate to educate consumers about proper head restraint positioning. State Farm expressed support for requiring manufacturers to include head restraint positioning information in owners' manuals.

Agency response: NHTSA believes proper adjustment of head restraints is necessary to ensure that vehicle occupants realize the maximum whiplash protection from head restraints. In order to address head restraint misadjustment, this final rule requires that vehicle manufacturers include in owners' manuals information about appropriate head restraint adjustment. We note that most manufacturers already provide some of this information in their owners' manuals.

XV. Effective Date and Interim Compliance Options

In the NPRM, we proposed that compliance with the upgraded standard would be mandatory on the first September 1 that occurred following the three-year period that began with the publication of the final rule. We asked for comments on the appropriateness of the three-year lead time.

Today's final rule becomes mandatory for all vehicles manufactured on or after September 1, 2008. We decided to extend the lead time by one additional year in order to allow vehicle manufacturers to phase in the new head restraint requirements in conjunction with their natural product cycle. The four-year lead time will, in most instances, allow vehicle manufacturers to design compliant head restraints for newly introduced vehicles, as opposed to redesigning existing seating systems for vehicles currently in production.

Between March 14, 2005, the effective date of today's rule, and September 1, 2008, manufacturers have five compliance options. First,

manufacturers may comply with ECE 17, except that they must meet the current width requirements of FMVSS No. 202. Second, manufacturers may comply with either dynamic or static requirements of the existing FMVSS No. 202. Third, they may comply with either dynamic or static requirements of the new FMVSS No. 202a. Consistent with our approach in other standards in which there are compliance options, the manufacturer must irrevocably elect a particular option prior to certification of the vehicle. However, the manufacturer may select different compliance options for different designated seating positions.

There were relatively few comments related to the proposed lead time or compliance choices during that time. Honda commented that an additional three years of lead time should be added for rear seat head restraint compliance, in addition to the three years for front seat head restraints. Magna requested that an additional 3-year phase-in period be included along with the proposed 3-year lead time period, to allow for proper product development. Porsche commented that limited line manufacturers should be provided additional lead time, or if a phase-in is utilized, they should be given until the end of the phase-in period to comply. The Alliance argued that the final rule implementation should be postponed, and compliance with the current version of FMVSS No. 202 be allowed until at least 2005. The Alliance also recommended a phase-in period of 3 years after the rule is finally published. DaimlerChrysler believed four years of lead time was in order, in light of significant deviations from the ECE standards. Advocates strongly supported the 3-year interim period followed by complete implementation of the new standard.

We believe that the requests for lead time in addition to the four years provided in this final rule are unwarranted. Unlike the NPRM proposal, this final rule does not require head restraints in rear outboard designated seating positions. With respect to height, this final rule harmonizes our head restraint requirements with those already in effect under the ECE 17 regulation. Accordingly, a significant number of vehicles for sale in the United States already meet the European height requirement. Finally, we believe the four-year lead time provides sufficient time to resolve any problems associated with the new backset requirement.

As previously discussed, most of the commenters agreed that the new requirements for head restraints that are

taller and closer to the head are likely to reduce the instances of whiplash injuries. According to ICBC, numerous vehicles currently in production already satisfy the 55 mm backset requirement. Similarly, we believe that numerous vehicles currently in production satisfy the 800 mm requirement. Most of the manufacturers who requested additional lead time sell cars in Europe and, therefore, are already in compliance with the ECE regulation requiring similar head restraint height. In light of the aforementioned circumstances, we conclude that a four-year lead time allows ample opportunity to redesign head restraints in order to comply with the new standard.

In regard to comments made by Porsche on behalf of small, independent automobile manufacturers, we note that Porsche and other small line European manufacturers are, presumably, already manufacturing vehicles that are in compliance with ECE 17. Further, rear head restraints are optional, and the final rule does not consider a seat back lower than 700 mm above the H-point as a head restraint. Therefore, Porsche can continue to produce the 911 vehicle line without installing rear head restraints.⁷⁹ Moreover, we have allowed 25 mm clearance between the rear head restraint and the roofline, thus alleviating some of the concerns raised by Porsche. Accordingly, Porsche can take advantage of the 25 mm height allowance if they choose to equip the rear seats in their 911 vehicle line with head restraints.

We received a number of comments pertaining to the interim compliance options. Advocates called NHTSA's interim compliance proposals "an eminently reasonable compromise" and supported this approach in lieu of allowing a phase-in. TRW also supported the interim compliance options set forth in the NPRM, stating that allowing compliance options would spur the growth of better technologies.

AIAM disagreed with the requirement that a manufacturer must choose a particular compliance option prior to certification. For reasons explained in other rulemakings, the agency will not allow manufacturer to recertify under an alternative compliance option, if there is a noncompliance with the option to which the manufacturer initially certified.⁸⁰

The Alliance argued against the interim compliance option approach, instead favoring a phase-in schedule after NHTSA better identified the causes of soft tissue neck injuries. This phase-in approach, the Alliance contended, should give manufacturers credit for early compliance. DaimlerChrysler asserted that NHTSA should allow compliance with the interim options indefinitely or at least until NHTSA gained a better understanding of whiplash injuries.

Based on our consideration of ECE 17, and the existing version of FMVSS No. 202 under the functional equivalence process defined in Appendix B of 49 CFR Part 553, we have concluded that ECE 17 offers greater safety benefits than the existing version of FMVSS No. 202. The most notable differences between FMVSS No. 202 and ECE 17 are that while FMVSS No. 202 currently does not address head restraints for rear seating positions or contain any requirements for energy absorption, ECE 17 specifies requirements for head restraints that are voluntarily installed in rear seating positions and for energy absorption.

Accordingly, we will permit interim compliance with the specified requirements of ECE 17. As stated above, the final rule also permits certification using either of the existing FMVSS No. 202 requirements or either of the upgraded FMVSS No. 202a requirements. Upon expiration of the four-year interim period, however, manufacturers must comply with upgraded FMVSS No. 202a.

XVI. Costs and Benefits Associated With the Final Rule

The NPRM estimated that the proposed rule would reduce the annual number of whiplash injuries by 14,247 (9,575 for front outboard seats and 4,672 for rear outboard seats).⁸¹ The cost of raising the front head restraint was estimated to be \$4.21 per vehicle, resulting in a fleet cost of \$65.5 million.⁸² Installing two rear head restraints in vehicles that previously did not have rear head restraints was estimated at \$12.34 per vehicle, resulting in a fleet cost of \$74.8 million. Raising the rear head restraints in vehicles already equipped with rear head restraints was estimated at \$3.61 per vehicle, resulting in a fleet cost of \$19.6 million. Adding a locking mechanism would cost \$0.15 per vehicle, for a total fleet cost of \$5.9

million. The total estimated fleet cost for all changes required by the new rule was \$171.9 million. The cost per equivalent life saved was estimated at \$3 million for front seats and \$9 million for rear seats.

The sole commenter on the estimated costs of the upgrade was DaimlerChrysler, which estimated the cost of the proposal to be as high as \$12 per head restraint. No commenter provided an estimate of potential benefits. The Alliance stated that the potential benefits are unproven. AIAM commented that general lack of understanding of the injury mechanism makes it nearly impossible to calculate the benefits of the proposal or any modifications to it.

ICBC stated that any figures pertaining to whiplash injury costs are underestimated because whiplash injury symptoms do not manifest themselves until 12 to 72 hours after the accident. Additionally, unlike other spinal injuries, whiplash has no linear relationship to crash severity. Low speed crashes may nevertheless result in whiplash. Many low speed rear end collisions resulting in whiplash are never reported to the police, because of little physical damage to the actual vehicles and lack of immediate injury symptoms. Advocates stated that the proposed rule would be a cost-effective advance in vehicle occupant safety, even if forecasted benefits were reduced to more conservative figures and costs of compliance were substantially higher. The FIU students stated that the rear outboard head restraint cost for equivalent lives saved would be approximately \$9 million.

In support of this final rule, the agency has prepared and docketed a FRIA that contains a thorough analysis of the benefits and the costs associated with the new FMVSS No. 202a, as well as our response to the NPRM comments on our initial cost and benefits estimates.⁸³

Costs: In the NPRM, we estimated the yearly costs of the proposed rule at approximately \$171 million. Accordingly, the NPRM was deemed to be economically significant. As previously noted, the final rule will not require head restraints at each rear outboard designated seating position. Consequently, the costs associated with this final rule are significantly lower than the costs estimated in the NPRM. Specifically, the cost per year is estimated to be \$70.1 million for front head restraints and \$14.1 million for optional rear head restraints for a total yearly cost of \$84.2 million. However,

⁷⁹ A survey of 2004 model year Porsche 911 vehicles (911, 911 Targa, 911 4S, 911 Cabriolet, 911 Turbo, 911 GT2, 911 GT3) indicates that none currently feature rear head restraints.

⁸⁰ See, e.g., 64 FR 10786 at 10808 (March 15, 1999) and 64 FR 69665 at 69668 (December 14, 1999).

⁸¹ For details on the PEA, please see Docket No. NHTSA-2000-8570-4.

⁸² The NPRM costs were estimated in 1999 dollars.

⁸³ See Docket No. NHTSA-2004-19807.

the final rule remains economically significant because we estimate the benefits of this final rule to be in excess of \$100 million. The average cost per vehicle is estimated to be:

- (a) \$4.51 for front seats
 - (b) \$1.13 for rear seats previously equipped with head restraints
- The cost per equivalent life saved is estimated to be:
- (a) \$2.39 million for front seats
 - (b) \$4.71 million for rear seats equipped with optional rear head restraints
 - (c) \$2.61 million for front seats and optional rear seats combined

Benefits: We estimate the annual number of whiplash injuries to be approximately 272,464. 251,035 of these injuries involve occupants of front outboard seats, 21,429 injuries involve occupants of rear outboard seats. The average economic cost of each whiplash injury resulting from a rear impact collision is \$9,994,⁸⁴ which includes \$6,843 in economic costs and \$3,151 in quality of life impacts. The total annual cost of rear impact whiplash injuries is approximately \$2.7 billion.

Based on a study conducted by Kahane in 1982, the agency estimates that current integral head restraints are 17 percent effective in reducing whiplash injury in rear impact crashes for adult occupants, while current adjustable head restraints are 10 percent effective in reducing whiplash injury in rear impact crashes for adult occupants.⁸⁵ The overall effectiveness of current head restraints for passenger cars is estimated to be 13.1 percent.

In the FRIA, we estimate that upgrading the head restraint requirements would yield the following benefits:

- (a) For front seats, reducing the backset to 55 mm increases the head restraint effectiveness by 5.83 percent, resulting in 15,272 fewer whiplash injuries for front seat occupants each year.
- (b) For rear seats, increasing the height of voluntarily installed rear head restraints increases the effectiveness of these head restraints by 17.45 percent, resulting in 1,559 fewer whiplash injuries for rear seat occupants each year.⁸⁶

⁸⁴ The cost is estimated in 2002 dollars.

⁸⁵ Kahane, C., "An Evaluation of Head Restraints, Federal Motor Vehicle Safety Standard 202." NHTSA, February 1982, DOT HS-806-108.

⁸⁶ In computing benefits, we based our estimates on the effectiveness of either increased height or reduced backset, but not both. We could not combine effectiveness of increased height and reduced backset because this, in some instances, would result in "double-counted" benefits. Since determining combined effectiveness is not possible, the agency notes that these estimates may underestimate the true effectiveness.

(c) The total annual reduction in rear impact whiplash injuries is thus estimated at (15,272 + 1,559) 16,831 or 6 percent of the annual number of whiplash injuries (272,464).⁸⁷

In sum, we estimate that this rulemaking will further reduce the incidence of whiplash by an additional ≈6 percent (272,464 .0618 = 16,831). We note that with respect to whiplash injuries, a 6 percent reduction in the incidence of whiplash is a significant step forward because the current head restraints only prevent 13.1 percent of whiplash injuries occurring in rear impact crashes. The agency anticipates further improvements in head restraint effectiveness if we decide, in the future, to combine evaluation of the head restraints and the seats in a single standard.

As was the case in the PEA, no estimate was made for potential injury mitigation other than for whiplash. Further, the agency has not prepared an analysis of the potential benefits of the position retention requirement. Although we have some estimates on the percentage of misadjusted head restraints, we have no data on how the availability of a lock would reduce this maladjustment.

We have several reasons to believe that the potential benefits of this regulation are understated. First, for the reason stated above, we did not perform a separate analysis of benefits associated with reduced position retention requirement. Second, we agree with the ICBC comments regarding inherent underestimation of whiplash injury costs due to the underreporting of such injuries. As previously stated, whiplash injuries are often underreported because of late onset of symptoms. Third, no estimate of the potential reduction of higher-level neck injury (>AIS 1) was made. Although such injuries are much less frequent, their associated costs are much greater.

XVII. Rulemaking Analyses and Notices

a. Executive Order 12866 and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's regulatory policies and procedures. The Office of Management and Budget reviewed rulemaking document under E.O. 12866, "Regulatory Planning and Review." This rulemaking action has been

⁸⁷ For the full details of how the agency arrived at these estimates, please see FRE, in subsection entitled "Benefits Accrued From Increasing Height and Reducing Backset."

determined to be significant under DOT Policies and Procedures and Executive Order 12866 because of public interest. Further, this rulemaking action is economically significant because the agency estimates yearly economic cost savings of approximately \$127 million (\$2.61 million × 48.79 equivalent fatalities). NHTSA is placing in the public docket a Final Regulatory Evaluation describing the costs and benefits of this rulemaking action. The costs and benefits are summarized in the previous section of this document. The total estimated recurring fleet cost for all changes required by the new rule is \$84.2 million. The average economic cost of a whiplash injury (excluding quality of life values) in a rear impact is estimated be \$9,994 in 2002 dollars, resulting in a total annual cost of approximately \$2.707 billion for 272,464 whiplash injuries.⁸⁸ We estimate that when the new rule is fully implemented, it will reduce yearly instances of whiplash injuries by 6 percent or 16,831, resulting in yearly economic cost savings of approximately \$127 million.

b. Regulatory Flexibility Act

NHTSA has considered the effects of this rulemaking action under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) The final rule will affect motor vehicle manufacturers, alterers, and seating manufacturers. NHTSA has determined that this action will not have a significant economic impact on a substantial number of small entities.

First, NHTSA estimates that there are only four small passenger car and light truck manufacturers in the United States. These companies buy their seats from a seat manufacturer and install them in their vehicles. Accordingly, the necessary changes to seat design will be accomplished by seat manufacturers and not these small businesses.

Second, there are approximately 30 seat manufacturers in the U.S. Many of these fall under the category of small businesses. The final rule will have some effect on these small businesses by changing the requirements for head restraints. However, raising the height of an integral or adjustable head restraint or changing the design of a head restraint to meet the new backset limit is not a novel or complex task that would require significant financial expenditures. Further, numerous vehicles currently in production already meet the new requirements. Consequently, the agency does not believe that this rulemaking will have a

⁸⁸ Unless otherwise specified, all dollar values in this document are represented in 2002 dollars.

significant impact on small seat manufacturers.

Third, this rulemaking could affect final stage vehicle manufacturers and vehicle alterers. Many final stage manufacturers and alterers install supplier-constructed seating systems. Some of those seats and head restraints will have to be redesigned to meet the new requirements. However, final stage manufacturers or alterers most often purchase seats that have already been tested by the seat manufacturers and rely on that testing to certify to the requirements of FMVSS No. 202. Accordingly, the agency does not believe that this rulemaking will have a significant impact on final stage manufacturers and vehicle alterers.

For the reasons discussed above, the small entities that will most likely be affected by the new rule are seat manufacturers. While these seat manufacturers will face additional compliance costs, the agency believes that raising the height of a head restraint is not a novel or complex engineering task. The agency notes that, in the unlikely event that a small vehicle manufacturer did face substantial economic hardship, it could apply for a temporary exemption for up to three years.⁶⁹ Additional information concerning the potential impacts of the new rule on small entities is presented in the FRIA.

c. National Environmental Policy Act

NHTSA has analyzed the final rule for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action will not have any significant impact on the quality of the human environment.

d. Executive Order 13132 (Federalism)

The agency has analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 and has determined that it does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The final rule has no substantial effects on the States, or on the current Federal-State relationship, or on the current distribution of power and responsibilities among the various local officials. The final rule is not intended to preempt State tort civil actions.

e. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA)

requires Federal agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of more than \$100 million in any one year (\$120,700,000 as adjusted for inflation with base year of 1995).

The total estimated fleet cost for all changes required by the new rule is \$84.2 million. Because this final rule will not have a \$100 million effect, no Unfunded Mandates assessment has been prepared. A full assessment of the rule's costs and benefits is provided in the ERIA.

f. Executive Order 12988 (Civil Justice Reform)

This final rule will not have any retroactive effect. Under 49 U.S.C. 30103, whenever a Federal motor vehicle safety standard is in effect, a State may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the State requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 30161 sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

g. Paperwork Reduction Act

This final rule includes the following "collections of information," as that term is defined in 5 CFR part 1320 Controlling Paperwork Burdens on the Public: The final rule requires that vehicle manufacturers include in owners' manuals information about appropriate head restraint adjustment. At present, OMB has approved NHTSA's collection of owner's manual requirements under OMB clearance No. 2127-0541 *Consolidated Justification of Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment*. This clearance will expire on 1/31/2005. NHTSA anticipates renewal of OMB clearance no. 2127-0541 before the requirements established by today's rule become mandatory.

h. Executive Order 13045

Executive Order 13045⁹⁰ applies to any rule that: (1) Is determined to be

"economically significant" as defined under E.O. 12866, and (2) concerns an environmental, health or safety risk that NHTSA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

This rule is economically significant. However, this rule will not have a disproportionate effect on children. Most children do not need a head restraint because they are short enough for the seat back to adequately address a risk of whiplash injury. Once a child is tall enough to need a head restraint, this rule will provide additional protection because rear seats will now be equipped with head restraints, thus providing a new level of safety to taller children.

i. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) requires NHTSA to evaluate and use existing voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law (e.g., the statutory provisions regarding NHTSA's vehicle safety authority) or otherwise impractical. In meeting that requirement, we are required to consult with voluntary, private sector, consensus standards bodies. Examples of organizations generally regarded as voluntary consensus standards bodies include the American Society for Testing and Materials (ASTM), the Society of Automotive Engineers (SAE), and the American National Standards Institute (ANSI). If NHTSA does not use available and potentially applicable voluntary consensus standards, we are required by the Act to provide Congress, through OMB, an explanation of the reasons for not using such standards.

Voluntary consensus standards are technical standards developed or adopted by voluntary consensus standards bodies. Technical standards are defined by the NTTAA as "performance-based or design-specific technical specifications and related management systems practices." They pertain to "products and processes, such as size, strength, or technical performance of a product, process or material."

We have incorporated a Society of Automotive Engineers (SAE) Recommended Practice J211/1 (rev. Mar 95), "Instrumentation for Impact Test—

⁶⁹ See 49 CFR part 555.

⁹⁰ 62 FR 19885, April 23, 1997.

Part 1—Electronic Instrumentation.” We have incorporated a three-dimensional manikin from the Society of Automotive Engineers (SAE) J826 (rev. Jul 95). None of the voluntary consensus standards incorporated into this final rule provides a comprehensive head restraint geometry standard that could replace this rule in its entirety. Instead, certain specific components of the final rule were adopted from available voluntary consensus standard.

In sum, while two specific voluntary consensus standards are incorporated in the final rule, the overall need for extensive and precise new head restraint safety requirement precludes us from adopting of such voluntary consensus standards as a complete substitute for the final rule. No other voluntary consensus standards are addressed by this rulemaking. We were also unable to identify any other relevant voluntary consensus standards.

j. Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477 at 19478).

Appendix A: Efforts To Harmonize With ECE 17

In proposing to upgrade FMVSS No. 202, we sought to harmonize with existing ECE regulations, except to the extent needed to increase safety of vehicle occupants and to facilitate enforcement. The ECE has two regulations pertinent to our efforts on upgrading FMVSS No. 202. ECE 17 and ECE 25 both regulate head restraints. However, the provisions of ECE 17 supersede the requirements of ECE 25 for most vehicles subject to this final rule. Specifically, ECE 17 governs the head restraint requirements in all passenger vehicles, light trucks, and buses with fewer than 17 designated seating positions. The ECE 25 applies only to buses with 17 or more designated seating positions. Because this final rule applies to vehicles with a GVWR equal or less than 4536 kg, it is unlikely that any buses subject to this final rule would fall under ECE 25. Accordingly, we sought to harmonize certain aspects of this final rule with ECE 17, and not ECE 25.

In some instances, achieving improved safety has made it necessary for us to go beyond or take an approach different from that in ECE 17. For example, this final rule limits the backset, while ECE 17 does not. We note that in most instances in which this rule is harmonized with the substance of the ECE requirements, the actual regulatory language is nevertheless drafted differently in order to facilitate enforcement. Specifically, we have

found it necessary to specify different compliance procedures to facilitate their enforcement under our statutory provisions. For example, there are differences in the way in which gaps within head restraints are measured.

In response to the NPRM, industry commenters generally advocated harmonizing the new FMVSS No. 202 with ECE 17, which applies to most vehicles subject to this final rule, although Honda requested harmonization with ECE 25. GM and Volkswagen suggested that it would be more appropriate to harmonize with ECE 17, rather than ECE 25, because ECE 17 is utilized for the type approval of vehicles, while ECE 25 is used for the type approval of head restraints only.

As previously stated, this final rule is not fully harmonized with the ECE requirements. Instead, the rule adopts or modifies certain portions of ECE 17. Several of our newly adopted requirements do not have any counterparts in the ECE regulations. Among those is a limit on backset and position retention requirement for adjustable head restraints. In addition, our limit on gaps in adjustable restraints is different from that in the ECE regulations.

The discussions that follow provide a brief description of those instances in which the final rule does or does not harmonize with the ECE regulations.

A. Areas in Which the Final Rule Requirements and Procedures Are Harmonized With Those of the ECE Regulations

Neither this final rule nor ECE 17 requires head restraints for rear outboard seating positions. Although we proposed mandatory rear head restraints in the NPRM, we have decided against requiring head restraints in rear outboard seating positions because a more refined estimate of the cost effectiveness expressed as cost per equivalent life saved no longer supported this requirement and because we were concerned about potential visibility issues and with potential loss of certain features currently available in some “multi-configuration” vehicles.

This final rule and ECE 17 specify theoretically identical front and optional rear head restraint height requirements. For integral head restraints, the ECE 17, Paragraph 5.5.2 requires that front head restraints reach a height of 800 mm and rear head restraints reach the height of 750 mm. For adjustable head restraints, the ECE 17, Paragraph 5.5.3.1 requires that front head restraints be capable of reaching a height of 800 mm, and have no “use positions” with a height of less than 750 mm. The optional rear adjustable head restraints must reach the height of at least 750 mm and cannot have any “use position” below that height. Additionally, ECE 17, Paragraph 5.5.4 allows for a 25 mm exception to the head restraint height requirement for head restraints installed in low roofline vehicles.

This final rule likewise requires that the front integral head restraints reach a height of 800 mm above the H-point. The optional rear integral head restraints must reach the height of 750 mm above the H-point. For

adjustable head restraints, the front head restraint must be capable of reaching the height of at least 800 mm above the H-point, and both front and optional rear head restraints cannot have an adjustment position below 750 mm above the H-point, unless it is a “non-use” position described above in Section IX c.

Additionally, the final rule allows for a 25 mm height exception for head restraints installed in low roofline vehicles. However, the application of the 25 mm height exception is narrower in this final rule. Specifically, ECE 17 allows for a 25 mm height exception if the head restraint interferes with any interior vehicle structure. By contrast, this final rule limits the 25 mm exception to situations in which a head restraint would interfere with the roofline or the backlight (for rear head restraint). The 25 mm height exception for low roofline vehicles is discussed in Section VI a. and b.

For height measurement ECE17, Paragraph 6.5.4 uses the R-point as the point of reference, while the final rule uses the H-point. Theoretically, these points are the same if the seat is placed in its rearmost normal riding or driving position, as specified by the vehicle manufacturer. The chief difference between the two points is that the H-point is referenced to the seat, while the R-point is referenced to the vehicle. NHTSA prefers the H-point as the point of reference because it takes into consideration the characteristics of the actual seat being tested.

The final rule and ECE 17 Paragraph 5.1.3 both have an energy absorption test procedure. However, the final rule specifies using a linear impactor, while ECE 17, Annex 6, Paragraph 1.2.1 specifies a pendulum impactor. Nonetheless, NHTSA believes that the compliance testing methods are substantially similar because the mass and velocity of the impactor specified in this final rule is the same as the impactor specified in ECE 17. We chose to test using the linear impactor in order to facilitate enforcement. For a more detailed explanation of our rationale with respect to the choice of impactor, please see Section XI.

ECE 17, Paragraph 5.10 mandates that the head restraint for a seat must extend at least 85 mm to each side of the centerline of the seat. In other words, a head restraint width must be at least 170 mm. This ECE 17 minimum width requirement applies to both bench seats and bucket seats. This final rule specifies identical requirements of 170 mm,⁹¹ except for bench seats in the front outboard seating positions where the head restraint width must not be less than 254 mm.

Some of the head restraint gap allowances incorporated into the final rule harmonize with ECE 17. The final rule and ECE 17, Paragraphs 5.7, 5.8 all limit gaps within the perimeter of a head restraint to 60 mm. Similarly, for integral head restraints, the gap between the head restraint and the seat is limited to 60 mm in both regulations. However, the final rule requires different gap

⁹¹ We note that the NPRM proposed a value of 171 mm rather than 170, which is consistent with the current regulation. We have reduced this value by 1 mm for consistency with ECE 17.

limits between the seat and the adjustable head restraint. The details of these requirements are discussed in the next section.

The ECE 17, Paragraph 5.1.1 requires locks on adjustable head restraints, but does not mandate that these locks meet vertical and horizontal position retention requirements to insure their functionality. By contrast, this rule requires that adjustable head restraints meet vertical and horizontal position retention requirements described above in Section X. We note, however, that both ECE 17, Paragraphs 5.11, 5.12 and this final rule impose horizontal displacement limits and strength requirements on all seating position equipped with head restraints.

Finally, both this final rule and ECE 17, Paragraph 5.13 allow removability of head restraints with a deliberate action distinct from any act necessary for adjustment. For a more detailed discussion on removability of front and rear head restraints, please see Section IX b.

B. Areas in Which the Final Rule Requirements and Procedures Differ From Those in the ECE Regulations

The chief difference between ECE 17 and this final rule is that we are requiring a backset limit of 55 mm for front seat head restraints. The ECE regulation does not limit the amount of backset. Studies show that a head restraint that is close to the back of an occupant's head reduces the potential for whiplash.⁹² Further, backset is a critical component of head restraint geometry. For these reasons and those outlined in Section VII above, NHTSA believes it is necessary to depart from the ECE regulations and set a limit on backset.

To measure height of head restraints, the final rule specifies the use of SAE J826 manikin. To measure front seat backset, the final rule specifies the use of the Head Restraint Measurement Device (HRMD). ECE 17 does not specify any device for height measurement and, as noted above, has no backset requirement. We chose the SAE J826 manikin and HRMD instead of certain Computer Aided Design (CAD) programs, as suggested by the manufacturers, because the HRMD and SAE J826 manikin measure the actual seating system, instead of relying on the computer-generated seat model utilized by other computer-aided measuring techniques.

In addition to the measuring device, the height measuring procedure in this final rule in some circumstances differs from the measuring procedure of ECE 17. Specifically, this final rule specifies that the seat back angle for height measurement be as close as possible to 25 degrees. ECE 17, Paragraph 6.1.1 similarly specifies the 25-degree seat back angle if there is no manufacturer specified seat back angle. However, if there is a manufacturer specified seat back angle, the manufacturer specified angle is used instead of the 25-degree angle. Further, this final rule specifies that the seat cushion be adjusted to its most unfavorable position, i.e., the highest position. ECE 17, Annex 3,

Paragraph 2.13 specifies that the cushion is to be placed in the manufacturer specified position of adjustment. Positioning the cushion in the highest position of adjustment allows us to measure the height of head restraints in the "worst case scenario." That is, the minimum required height would be assured even if the seat occupant adjusts the seat cushion all the way up.

ECE 17, Paragraph 5.7 limits the gap between the lower edge of an adjustable head restraint and the top of the seat back to 25 mm when the head restraint is in its lowest position. The final rule, however, adopts a 60 mm gap limit between the seat back and the head restraint. Further, the final rule differs from the ECE requirements in that it specifies measuring this gap with a 165 mm diameter sphere placed on the front of the head restraint in lieu of measuring the smallest gap between the top of a seat back and the bottom of a head restraint. For a more detailed discussion on why we chose to adopt a different gap requirement and different measuring device, please see Section IX a.

ECE 17, Paragraph 5.5.3.4 permits non-use positions (resulting in a height of less than 750 mm) for front head restraints, provided that the head restraints automatically return from those positions to their proper use positions when the seats become occupied. With respect to rear head restraints, ECE 17, Paragraph 5.5.3.3 allows displacement to a position below 750 mm as long as the non-use position is "clearly recognizable to the occupant." In contrast, this final rule does not permit non-use positions for front head restraints. NHTSA believes non-use positions in front seats are unnecessary since the front head restraints do not raise the same visibility concern as the rear head restraints.

While we permit non-use positions for optional rear head restraints, our requirements differ from those of the ECE. That is, the final rule allows rear head restraint to be in non-use positions when seats are unoccupied, subject to meeting certain requirements. Specifically, a manually folding optional rear head restraint must rotate forward or rearward by at least 60 degrees between the "proper use position" and the "non-use position." No other "non-use positions" are allowed unless the head restraint returns automatically to its "proper use position when the seat becomes occupied" (as tested by placing a 5th percentile female dummy in the rear outboard seat with the optional head restraint in a "non-use position"). As with other procedural differences between this final rule and the ECE, this test procedure is necessary in order to facilitate enforcement.

The final rule also features a dynamic compliance option not found in ECE 17. For front outboard and optional rear outboard head restraints, with the head restraint midway between the lowest and the highest position of adjustment, the final rule requires a head-to-torso rotation limit of 12 degrees using the 50th percentile male Hybrid III dummy. The final rule limits HIC₁₅ to 500 for all the dynamic compliance option tests.

The final rule specifies that adjustable head restraints must remain within 13 mm of their vertical and horizontal position under the application of force. Although ECE 17

requires locks on adjustable head restraints, the horizontal and vertical position retention requirements do not have a counterpart in the ECE regulations. However, we find it necessary to require a certain minimal level of performance to ensure that the retention locks perform their function.

Both ECE 17, Paragraphs 5.11, 5.12 and this final rule have limits on the horizontal displacement and strength requirements. The purpose of this requirement is to ensure that the head restraint can withstand the application of rearward force and will not fail when the occupant's head makes contact with the head restraint during a rear impact to the vehicle. The final rule and ECE both maintain a 373 Nm moment on the vehicle seat, applied through the back pan, as the head restraint is loaded. However, the head restraint loading sequence differs in the two standards. In the final rule, the loading device's reference position is located by first applying a force producing 37 Nm moment about the H-point. Then, the load is increased at a rate of 187 Nm/minute, until a 373 Nm moment is generated. This moment is held for 5 seconds and then reduced to 37 Nm. While the 373 Nm moment applied to the head restraint is being maintained, the head restraint must not allow the loading device to displace more than 102 mm. When the moment is reduced, the head restraint loading device must return to within 13 mm of the initial reference position. This horizontal position retention requirement is unique to our final rule. While the ECE regulations do contain a similar rearward displacement test that limits displacement to 102 mm, they do not require that the head restraint loading device return to within 13 mm of its reference position. Further, the ECE regulations do not specify a loading rate and hold time. NHTSA believes the 5-second hold time and loading rate specifications are a necessary clarification of the test procedure.

Finally, the ECE 17, Paragraph 5.5.4 allows a 25 mm height allowance in those instances in which the front or rear head restraint would otherwise interfere with any fixed vehicle structure, when the seat is in the "use" or "non-use" position of adjustment. This final rule permits a 25 mm height allowance only in situations in which the head restraint interferes with either the roofline or the backlight. We decided against allowing a 25 mm height allowance in situations in which the head restraint interferes with other fixed vehicle structures because we believe that such an exception would provide relief in instances in which none is needed. For a more detailed explanation of our rationale with respect to the 25 mm height allowance please see Section VI a. and b.

Appendix B: Cervigard Suggestion

Cervigard, Inc. is a New Jersey based company that designed a head restraint incorporating a contoured shape intended to match the curvature of the head and cervical spine. The portion of the head restraint that protrudes forward adjacent to the neck is referred to as a neck bolster.

Cervigard submitted two sets of test data, comparing conventional head restraints

⁹² See ICBC comments and attached research papers (Docket No. NHTSA-2000-8570-16).

against the Cervigard Head Restraint System using a special neck-bolstering contour. The first set came from an experiment that was conducted by Cadillac and Lear, which used Hybrid III dummies representing a 5th percentile female, 50th percentile male, and 95th percentile male in sled tests at 16 and 24 km/h delta-Vs. Specific positions of the test head restraints relative to the occupants were not given. Instead, they were designated as "Full Up" or "Full Down." These were described as being "In-Position" or "Out-of-Position." HIC, NIC,⁹³ upper neck shear and moment were provided. "Out-of-Position" results were provided for the 5th percentile female, 50th percentile male and 95th percentile male. "In-Position" results were provided for the 50th percentile male only. In general, the results provided indicated lower injury measures for the Cervigard head restraint tests.

The second set of tests was performed by Wayne State University using a computer simulation model. The model appeared to be of a head and neck without a torso. A standard OEM head restraint was compared to what was called the Cervigard head restraint. Both restraints were modeled with the backsets shown in the table below. The height measurement of the head restraint relative to the head was not disclosed. Thus, it is unclear whether the head restraint height was within the range specified in the NPRM. The commenter states that, according to a researcher from Wayne State University, the Cervigard head restraint performed much better, better, or as good as a standard head restraint.

Head restraint	Backset
Standard Down	70 mm
Standard Up	70 mm
Cervigard Down	75 mm
Cervigard Up	30 mm

Based on their submissions, Cervigard requested that the new rule require a neck-bolstering device. According to an engineering report from Cervigard, the Cervigard head restraint exhibited 23 percent to 38 percent lower NIC and neck shear forces compared to samples of presently used head restraints, modified to comply with the proposed rule. Cervigard commented that a 50 mm backset position without neck-bolstering device might actually be too close to the head, which could result in potentially exacerbating the injury. We note that no other commenter or research source indicated that a 50 mm backset position may prove to be too close to the head, as it relates to occupant safety, or somehow dangerous to the occupant.

In support of its recommendation, Cervigard asserted that the additional costs of adding a neck-bolster device would be minimal if the requirement were added to the new rulemaking immediately, because seat manufacturers will be retooling for a new

standard anyway. Specifically, Cervigard provided an estimate of \$3.50 per each head restraint.

Several lawmakers, among them Senator Torricelli of New Jersey, Congressman Bill Pascrell Jr. of the 8th District of New Jersey, New Jersey State Senator Anthony R. Bucco, and New Jersey Assemblyman Alex DeCroce submitted comments in support of Cervigard. Collectively, they urged NHTSA to incorporate a neck-bolstering requirement into the new rule, in light of minimal additional cost to manufacturers, support from safety and medical experts, and the societal benefit of reducing instances of neck trauma.

Several chiropractors and other medical professionals submitted comments to support the addition of a requirement for the Cervigard device to the upgraded head restraint standard. In general, most commented that the Cervigard device reduces facet joint injury in the lower cervical region by maintaining normal curvature of the spine at time of impact.

In contrast, according to the comments submitted by Lear Corporation and General Motors, Cervigard has put forth an incomplete and inaccurate summary of tests performed by Lear using the Cervigard device. Evaluations of the Cervigard device were conducted with the head restraints improperly positioned. Lear has never compared Cervigard head restraints to optimally positioned head restraints or latest head restraint designs and never stated that Cervigard head restraints performed "as good" or "better" than conventional head restraints. Indeed, GM opines that any improvement was due to decreased backset distance and not necessarily to Cervigard contour (See David E. Calder Engineering Report No. 2, top graph, Docket NHTSA-00-8570-42). GM further stated that any assertion indicating that Cervigard head restraints passed the "do no harm" criteria is false because no such criteria exists.

Lear cautioned that the submitted data results were based on preliminary, unapproved data that have since been revised. Additionally, Cervigard omitted data showing that its device consistently increased certain injury parameters. Lear also indicated that what was reported by Cervigard as upper neck extension moment was actually lateral bending moment, which one would expect to be much lower than the extension moment. In fact, the Cervigard device often increased neck tension. Lear's own research indicated that the Cervigard device increased risk of neck injury in 62.5 percent of "Out of Position" head restraint conditions tested.

In examining the test data from Wayne State, we conclude that the results confirm our position that the backset is a critical parameter in head restraint performance. It is not surprising that the Cervigard device tested with a 30 mm backset was able to limit the head's rearward motion to a much greater degree, compared to other configurations, with a much greater backset. Because the rest of the Wayne State testing was performed with backset greater than 70 mm, it is impossible to draw any conclusions about the benefits of a head restraint with a neck

bolster in comparison to those of a conventional head restraint, positioned, as we will require.

In regard to the sled testing performed by Lear for GM, the docket submission by Cervigard did not provide positioning information. Additionally, as the proprietors of the data (Lear and GM) have indicated, the comparative sled testing between conventional head restraints and Cervigard did not take place with the same backset values. Our conclusion is that there is no way to determine from this information whether the neck bolster was actually helpful. In sum, we believe that a head restraint meeting the new height and backset requirements will serve to restrain the head with respect to the torso. The proposed neck bolster has not yet been shown to provide any additional benefit.

We have an additional concern about a neck bolster. Unless the bolstered head restraint is precisely positioned at the appropriate height, the neck bolster will not support the neck. Currently, adjustable head restraints need only be adjusted such that the top is at least as high as the occupant's head C.G. If the adjustable restraint were supplemented by a neck bolster, positioning would need to be more precise. It appears that, for integral or fixed head restraints, the bolstered restraint would only fit an individual of a specific height. Thus, any neck bolster requirement would by necessity eliminate integral head restraint designs. We also conclude that it would be difficult to require a specific neck bolster contour that would fit a majority of occupants. Further, we note that we did not propose to adopt a neck bolster in the NPRM. Therefore, adopting such a requirement in this final rule would fall outside the scope of notice. Based on the comments and analysis presented above, we are not adopting any requirements for a neck bolster.

List of Subjects in 49 CFR Part 571

Imports, Incorporation by Reference, Motor Vehicle Safety, Motor Vehicles, and Tires.

■ In consideration of the foregoing, 49 CFR part 571 is amended as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

■ 1. The authority citation for part 571 of title 49 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50.

■ 2. Section 571.202 is amended as follows:

■ A. Revise the section heading, S2, S3, S4, and S4.1 through S4.3;

■ B. Add S4.4, S4.5, and S4.6; and

■ C. Revise S5, S5.1 introductory text, S5.1(a)(2), (a)(3), and (b), S5.2 introductory text, and S5.2(b) to read as follows:

⁹³ NIC is a whiplash criterion developed by Adman and Bostrom *et al.* $NIC = 0.2 a_{rel} + v_{rel}^2$, where a_{rel} is the resultant relative acceleration between first thoracic vertebra (T1) and first cervical vertebra (C1), v_{rel} is the resultant relative velocity between T1 and C1.

§ 571.202 Standard No. 202; Head restraints; Applicable at the manufacturers option until September 1, 2008.

* * * * *

S2. Application. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks and buses with a 4,536 kg or less, manufactured before September 1, 2008. Until September 1, 2008, manufacturers may comply with the standard in this § 571.202, with the European regulations referenced in S4.3 of this § 571.202, or with the standard in § 571.202a.

* * * * *

S3. Definitions.
Head restraint means a device that limits rearward displacement of a seated occupant's head relative to the occupant's torso.

Height means, when used in reference to a head restraint, the distance from the H-point, measured parallel to the torso reference line defined by the three dimensional SAE J826 (rev. Jul 95) manikin, to a plane normal to the torso reference line.

Top of the head restraint means the point on the head restraint with the greatest height.

S4. Requirements.
S4.1 Each passenger car, and multipurpose passenger vehicle, truck and bus with a 4,536 kg or less, must comply with, at the manufacturer's option, S4.2, S4.3 or S4.4 of this section.

S4.2 Except for school buses, a head restraint that conforms to either S4.2 (a) or (b) of this section must be provided at each outboard front designated seating position. For school buses, a head restraint that conforms to either S4.2 (a) or (b) of this section must be provided at the driver's seating position.

(a) When tested in accordance with S5.1 of this section, limit rearward angular displacement of the head reference line to 45 degrees from the torso reference line; or

(b) When adjusted to its fully extended design position, conform to each of the following:

(1) When measured parallel to the torso line, the top of the head restraint must not be less than 700 mm above the seating reference point;

(2) When measured either 64 mm below the top of the head restraint or 635 mm above the seating reference point, the lateral width of the head restraint must be not less than:

(i) 254 mm for use with bench-type seats; and

(ii) 170 mm for use with individual seats;

(3) When tested in accordance with S5.2 of this section, any portion of the head form in contact with the head

restraint must not be displaced to more than 102 mm perpendicularly rearward of the displaced extended torso reference line during the application of the load specified in S5.2 (c) of this section; and

(4) When tested in accordance with S5.2 of this section, the head restraint must withstand an increasing load until one of the following occurs:

(i) Failure of the seat or seat back; or,

(ii) Application of a load of 890N.

S4.3 Incorporation by reference.

The English language version of the Economic Commission for Europe (ECE) Regulation 17: "Uniform Provisions Concerning the Approval of Vehicles with Regard to the Seats, their Anchorages and any Head Restraints" ECE 17 Rev. 1/Add. 16/Rev. 4 (31 July 2002) is incorporated by reference in S4.4(a) of this section. The Director of the Federal Register has approved the incorporation by reference of this material in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. A copy of ECE 17 Rev. 1/Add. 16/Rev. 4 (31 July 2002) may be obtained from the ECE Internet site: <http://www.unece.org/trans/main/wp29/wp29regs/r017r4e.pdf>, or by writing to: United Nations, Conference Services Division, Distribution and Sales Section, Office C.115-1, Palais des Nations, CH-1211, Geneva 10, Switzerland. A copy of ECE 17 Rev. 1/Add. 16/Rev. 4 (31 July 2002) may be inspected at NHTSA's Technical Information Services, 400 Seventh Street, SW., Plaza Level, Room 403, Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

S4.4. Except for school buses, a head restraint that conforms to S4.4 (a) and (b) of this section must be provided at each outboard front designated seating position. For school buses, a head restraint that conforms to S4.4 (a) and (b) of this section must be provided at the driver's seating position.

(a) The head restraint must comply with Paragraphs 5.1.1, 5.1.3, 5.3.1, 5.5 through 5.13, 6.1.1, 6.1.3, and 6.4 through 6.8 of the English language version of the Economic Commission for Europe (ECE) Regulation 17: ECE 17 Rev. 1/Add. 16/Rev. 4 (31 July 2002).

(b) The head restraint must meet the width requirements specified in S4.2(b)(2) of this section.

S4.5 Except for school buses, head restraints that conform to the requirements of § 571.202a must be provided at each front outboard

designated seating position. If a rear head restraint (as defined in § 571.202a) is provided at a rear outboard designated seating position, it must conform to the requirements of § 571.202a applicable to rear head restraints. For school buses, a head restraint that conforms to the requirements of § 571.202a must be installed at the driver's seating position.

S4.6 Where manufacturer options are specified in this section or § 571.202a, the manufacturer must select an option by the time it certifies the vehicle and may not thereafter select a different option for that vehicle. The manufacturer may select different compliance options for different designated seating positions to which the requirements of this section are applicable. Each manufacturer must, upon request from the National Highway Traffic Safety Administration, provide information regarding which of the compliance options it has selected for a particular vehicle or make/model.

S5. Demonstration procedures:

S5.1 Compliance with S4.2(a) of this section is demonstrated in accordance with the following with the head restraint in its fully extended design position:

(a) * * *

(2) Rotate the head of the dummy rearward until the back of the head contacts the flat horizontal surface specified in S5.1(a)(1) of this section.

(3) Position the SAE J-826 two-dimensional manikin's back against the flat surface specified in S5.1(a)(1) of this section, alongside the dummy with the H-point of the manikin aligned with the H-point of the dummy.

* * * * *

(b) At each designated seating position having a head restraint, place the dummy, snugly restrained by Type 2 seat belt, in the manufacturer's recommended design seating position.

* * * * *

S5.2 Compliance with S4.2(b) of this section is demonstrated in accordance with the following with the head restraint in its fully extended design position:

* * * * *

(b) Establish the displaced torso reference line by applying a rearward moment of 373 Nm about the seating reference point to the seat back through the test device back pan specified in S5.2(a) of this section.

* * * * *

■ 3. Section 571.202a is added to read as follows:

§ 571.202a Standard No. 202a; Head restraints; Mandatory applicability begins on September 1, 2008.

S1. Purpose and scope. This standard specifies requirements for head restraints to reduce the frequency and severity of neck injury in rear-end and other collisions.

S2. Application & incorporation by reference.

S2.1 Application. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks and buses with a GVWR of 4,536 kg or less, manufactured on or after September 1, 2008. Mandatory applicability begins on September 1, 2008. Until September 1, 2008, manufacturers may comply with the standard in this § 571.202a, with the standard in § 571.202, or with the European regulations referenced in S4.3(a) of § 571.202.

S2.2 Incorporation by reference.

(a) Society of Automotive Engineers (SAE) Recommended Practice J211/1 rev. Mar 95, "Instrumentation for Impact Test—Part 1—Electronic Instrumentation," SAE J211/1 (rev. Mar 95) is incorporated by reference in S5.2.5(b), S5.3.8, S5.3.9, and 5.3.10 of this section. The Director of the Federal Register has approved the incorporation by reference of this material in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of SAE J211/1 (rev. Mar 95) may be obtained from SAE at the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. A copy of SAE J211/1 (rev. Mar 95) may be inspected at NHTSA's Technical Information Services, 400 Seventh Street, SW., Plaza Level, Room 403, Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) Society of Automotive Engineers (SAE) Standard J826 "Devices for Use in Defining and Measuring Vehicle Seating Accommodation," SAE J826 (rev. Jul 95) is incorporated by reference in S3, S5, S5.1, S5.1.1, S5.2, S5.2.1, S5.2.2, and S5.2.7 of this section. The Director of the Federal Register has approved the incorporation by reference of this material in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. A copy of SAE J826 (rev. Jul 95) may be obtained from SAE at the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. A copy of SAE J826 (rev. Jul 95) may be inspected at NHTSA's Technical Information

Services, 400 Seventh Street, SW., Plaza Level, Room 403, Washington, DC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

S3. Definitions.

Backset means the minimum horizontal distance between the rear of a representation of the head of a seated 50th percentile male occupant and the head restraint, as measured by the head restraint measurement device.

Head restraint means a device that limits rearward displacement of a seated occupant's head relative to the occupant's torso.

Head restraint measurement device (HRMD) means the Society of Automotive Engineers (SAE) (rev. Jul 95) J826 three-dimensional manikin with a head form attached, representing the head position of a seated 50th percentile male, with sliding scale at the back of the head for the purpose of measuring backset. The head form is designed by and available from the ICBC, 151 West Esplanade, North Vancouver, BC V7M 3H9, Canada (www.icbc.com).

Height means, when used in reference to a head restraint, the distance from the H-point, measured parallel to the torso reference line defined by the three dimensional SAE J826 (rev. Jul 95) manikin, to a plane normal to the torso reference line.

Intended for occupant use means, when used in reference to the adjustment of a seat, positions other than that intended solely for the purpose of allowing ease of ingress and egress of occupants and access to cargo storage areas of a vehicle.

Rear head restraint means, at any rear outboard designated seating position, a rear seat back, or any independently adjustable seat component attached to or adjacent to a seat back, that has a height equal to or greater than 700 mm, in any position of backset and height adjustment, as measured in accordance with S5.1.1.

Top of the head restraint means the point on the head restraint with the greatest height.

S4. Requirements. Except as provided in S4.4 and S4.2.1(b)(2) of this section, each vehicle must comply with S4.1 of this section with the seat adjusted as intended for occupant use. Whenever a range of measurements is specified, the head restraint must meet the requirement at any position of adjustment within the specified range.

S4.1 Performance levels. In each vehicle other than a school bus, a head restraint that conforms to either S4.2 or S4.3 of this section must be provided at each front outboard designated seating position. In each vehicle equipped with rear head restraints, the rear head restraint must conform to either S4.2 or S4.3 of this section. In each school bus, a head restraint that conforms to either S4.2 or S4.3 of this section must be provided for the driver's seating position. At each designated seating position incapable of seating a 50th percentile male Hybrid III test dummy specified in 49 CFR Part 572, subpart E, the applicable head restraint must conform to S4.2 of this section.

S4.2 Dimensional and static performance. Each head restraint located in the front outboard designated seating position and each head restraint located in the rear outboard designated seating position must conform to paragraphs S4.2.1 through S4.2.7 of this section:

S4.2.1 Minimum height.

(a) **Front outboard designated seating positions.** (1) Except as provided in S4.2.1(a)(2) of this section, when measured in accordance with S5.2.1(a)(1) of this section, the top of a head restraint located in a front outboard designated seating position must have a height not less than 800 mm in at least one position of adjustment.

(2) Exception. The requirements of S4.2.1(a)(1) do not apply if the vehicle roofline physically prevents a head restraint, located in the front outboard designated seating position, from attaining the required height. In those instances in which this head restraint cannot attain the required height, when measured in accordance with S5.2.1(a)(2), the maximum vertical distance between the top of the head restraint and the roofline must not exceed 25 mm. Notwithstanding this exception, when measured in accordance with S5.2.1(a)(2), the top of a head restraint located in a front outboard designated seating position must have a height not less than 700 mm in the lowest position of adjustment.

(b) **All outboard designated seating positions equipped with head restraints.**

(1) Except as provided in S4.2.1(b)(2) of this section, when measured in accordance with S5.2.1(b)(1) of this section, the top of a head restraint located in an outboard designated seating position must have a height not less than 750 mm in any position of adjustment.

(2) Exception. The requirements of S4.2.1(b)(1) do not apply if the vehicle

roofline or backlight physically prevent a head restraint, located in the rear outboard designated seating position, from attaining the required height. In those instances in which this head restraint cannot attain the required height, when measured in accordance with S5.2.1(b)(2), the maximum vertical distance between the top of the head restraint and the roofline or the backlight must not exceed 25 mm.

S4.2.2 Width. When measured in accordance with S5.2.2 of this section, 65 ± 3 mm below the top of the head restraint, the lateral width of a head restraint must be not less than 170 mm, except the lateral width of the head restraint for front outboard designated seating positions in a vehicle with a front center designated seating position, must be not less than 254 mm.

S4.2.3 Front Outboard Designated Seating Position Backset. When measured in accordance with S5.2.3 of this section, the backset must not be more than 55 mm, when the seat is adjusted in accordance with S5.1. For adjustable restraints, the requirements of this section must be met with the top of the head restraint in any height position of adjustment between 750 mm and 800 mm, inclusive. If the top of the head restraint, in its lowest position of adjustment, is above 800 mm, the requirements of this section must be met at that position. If the head restraint position is independent of the seat back inclination position, the head restraint must not be adjusted such that backset is more than 55 mm when the seat back inclination is positioned closer to vertical than the position specified in S5.1.

S4.2.4 Gaps within head restraint and between the head restraint and seat. When measured in accordance with S5.2.4 of this section using the head form specified in that paragraph, there must not be any gap greater than 60 mm within or between the anterior surface of the head restraint and anterior surface of the seat, with the head restraint adjusted to its lowest height position and any backset position.

S4.2.5 Energy absorption. When the anterior surface of the head restraint is impacted in accordance with S5.2.5 of this section by the head form specified in that paragraph at any velocity up to and including 24.1 km/h, the deceleration of the head form must not exceed 785 m/s² (80 g) continuously for more than 3 milliseconds.

S4.2.6 Height retention. When tested in accordance with S5.2.6 of this section, the cylindrical test device specified in S5.2.6(b) must return to within 13 mm of its initial reference position after application of at least a

500 N load and subsequent reduction of the load to 50 N ± 1 N. During application of the initial 50 N reference load, as specified in S5.2.6(b)(2) of this section, the cylindrical test device must not move downward more than 25 mm.

S4.2.7 Backset retention, displacement, and strength.

(a) *Backset retention and displacement.* When tested in accordance with S5.2.7 of this section, the described head form must:

(1) Not be displaced more than 25 mm during the application of the initial reference moment of 37 ± 0.7 Nm;

(2) Not be displaced more than 102 mm perpendicularly and posterior of the displaced extended torso reference line during the application of a 373 ± 7.5 Nm moment about the H-point; and

(3) Return to within 13 mm of its initial reference position after the application of a 373 ± 7.5 Nm moment about the H-point and reduction of the moment to 37 ± 0.7 Nm.

(b) *Strength.* When the head restraint is tested in accordance with S5.2.7 (b) of this section with the test device specified in that paragraph, the load applied to the head restraint must reach 890 N and remain at 890 N for a period of 5 seconds.

S4.3 Dynamic performance and width. At each forward-facing outboard designated seating position equipped with a head restraint, the head restraint adjusted midway between the lowest and the highest position of adjustment, and at any position of backset adjustment, must conform to the following:

S4.3.1 Injury criteria. When tested in accordance with S5.3 of this section, during a forward acceleration of the dynamic test platform described in S5.3.1, the head restraint must:

(a) *Angular rotation.* Limit posterior angular rotation between the head and torso of the 50th percentile male Hybrid III test dummy specified in 49 CFR Part 572, Subpart E to 12 degrees for the dummy in all outboard designated seating positions;

(b) *Head injury criteria.* Limit the maximum HIC₁₅ value to 500. HIC₁₅ is calculated as follows: for any two points in time, t_1 and t_2 , during the event which are separated by not more than a 15 millisecond time interval and where t_1 is less than t_2 , the head injury criterion (HIC₁₅) is determined using the resultant head acceleration at the center of gravity of the dummy head, a_r , expressed as a multiple of g (the acceleration of gravity) and is calculated using the expression:

$$HIC = \left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a_r dt \right]^{2.5} (t_2 - t_1)$$

4.3.2 Width. The head restraint must have the lateral width specified in S4.2.2 of this section.

S4.4 Folding or retracting rear head restraints. A rear head restraint may be adjusted to a position at which its height does not comply with the requirements of S4.2.1 of this section. However, in any such position, the head restraint must meet either S4.4 (a) or (b) of this section.

(a) The head restraint must automatically return to a position in which its minimum height is not less than that specified in S4.2.1(b) of this section when a test dummy representing a 5th percentile female Hybrid III test dummy specified in 49 CFR Part 572, Subpart O is positioned according to S5.4(a); or

(b) The head restraint must, when tested in accordance with S5.4(b) of this section, be capable of manually rotating forward or rearward by not less than 60 degrees from any position of adjustment in which its minimum height is not less than that specified in S4.2.1(b) of this section.

S4.5 Removability of head restraints. The head restraint must not be removable without a deliberate action distinct from any act necessary for adjustment.

S4.6 Compliance option selection. Where manufacturer options are specified in this section, the manufacturer must select an option by the time it certifies the vehicle and may not thereafter select a different option for that vehicle. The manufacturer may select different compliance options for different designated seating positions to which the requirements of this section are applicable. Each manufacturer must, upon request from the National Highway Traffic Safety Administration, provide information regarding which of the compliance options it has selected for a particular vehicle or make/model.

S4.7 Information in owner's manual.

S4.7.1 The owner's manual for each vehicle must emphasize that all occupants, including the driver, should not operate a vehicle or sit in a vehicle's seat until the head restraints are placed in their proper positions in order to minimize the risk of severe injury in the event of a crash.

S4.7.2 The owner's manual for each vehicle must—

(a) Include an accurate description of the vehicle's head restraint system in an easily understandable format. The owner's manual must clearly identify

which seats are equipped with head restraints;

(b) If the head restraints are removable, the owner's manual must provide instructions on how to remove the head restraint by a deliberate action distinct from any act necessary for adjustment, and how to reinstall head restraints;

(c) Warn that all head restraints must be reinstalled to properly protect vehicle occupants.

(d) Describe in an easily understandable format the adjustment of the head restraints and/or seat back to achieve appropriate head restraint position relative to the occupant's head. This discussion must include, at a minimum, accurate information on the following topics:

(1) A presentation and explanation of the main components of the vehicle's head restraints.

(2) The basic requirements for proper head restraint operation, including an explanation of the actions that may affect the proper functioning of the head restraints.

(3) The basic requirements for proper positioning of a head restraint in relation to an occupant's head position, including information regarding the proper positioning of the center of gravity of an occupant's head in relation to the head restraint.

S5. Procedures. Demonstrate compliance with S4.2 through S4.4 of this section with any adjustable lumbar support adjusted to its most posterior nominal design position. If the seat cushion adjusts independently of the seat back, position the seat cushion such that the highest H-point position is achieved with respect to the seat back, as measured by SAE J826 (rev. Jul 95) manikin, with leg length specified in S10.4.2.1 of § 571.208.

S5.1 Except as specified in S5.2.3 of this section, if the seat back is adjustable, it is set at an initial inclination position closest to 25 degrees from the vertical, as measured by SAE J826 manikin (rev. Jul 95). If there is more than one inclination position closest to 25 degrees from vertical, set the seat back inclination to the position closest to and rearward of 25 degrees.

S5.1.1 Procedure for determining presence of head restraints in rear outboard seats. Measure the height of the top of a rear seat back or the top of any independently adjustable seat component attached to or adjacent to the rear seat back in its highest position of adjustment using the scale incorporated into the SAE J826 (rev. Jul 95) manikin or an equivalent scale, which is positioned laterally within 15

mm of the centerline of the rear seat back or any independently adjustable seat component attached to or adjacent to the rear seat back.

S5.2 Dimensional and static performance procedures. Demonstrate compliance with S4.2 of this section in accordance with S5.2.1 through S5.2.7 of this section. Position the SAE J826 (rev. Jul 95) manikin according to the seating procedure found in SAE J826 (rev. Jul 95).

S5.2.1 Procedure for height measurement. Demonstrate compliance with S4.2.1 of this section in accordance with S5.2.1 (a) and (b) of this section, using the scale incorporated into the SAE J826 (rev. Jul 95) manikin or an equivalent scale, which is positioned laterally within 15 mm of the head restraint centerline. If the head restraint position is independent of the seat back inclination position, compliance is determined at a seat back inclination position closest to 25 degrees from vertical, and each seat back inclination position less than 25 degrees from vertical.

(a)(1) For head restraints in front outboard designated seating positions, adjust the top of the head restraint to the highest position and measure the height.

(2) For head restraints located in the front outboard designated seating positions that are prevented by the vehicle roofline from meeting the required height as specified in S4.2.1(a)(1), measure the clearance between the top of the head restraint and the roofline, with the seat adjusted to its lowest vertical position intended for occupant use, by attempting to pass a 25 mm sphere between them. Adjust the top of the head restraint to the lowest position and measure the height.

(b)(1) For head restraints in all outboard designated seating positions equipped with head restraints, adjust the top of the head restraint to the lowest position other than allowed by S4.4 and measure the height.

(2) For head restraints located in rear outboard designated seating positions that are prevented by the vehicle roofline or rear backlight from meeting the required height as specified in S4.2.1(b)(1), measure the clearance between the top of the head restraint or the seat back and the roofline or the rear backlight, with the seat adjusted to its lowest vertical position intended for occupant use, by attempting to pass a 25 mm sphere between them.

S5.2.2 Procedure for width measurement. Demonstrate compliance with S4.2.2 of this section using calipers to measure the maximum dimension perpendicular to the vehicle vertical longitudinal plane of the intersection of

the head restraint with a plane that is normal to the torso reference line of SAE J826 (rev. Jul 95) manikin and 65 ± 3 mm below the top of the head restraint.

S5.2.3 Procedure for backset measurement. Demonstrate compliance with S4.2.3 of this section using the HRMD positioned laterally within 15 mm of the head restraint centerline. Adjust the front head restraint so that its top is at any height between and inclusive of 750 mm and 800 mm and its backset is in the maximum position other than allowed by S4.4. If the lowest position of adjustment is above 800 mm, adjust the head restraint to that position. If the head restraint position is independent of the seat back inclination position, compliance is determined at each seat back inclination position closest to and less than 25 degrees from vertical.

S5.2.4 Procedures for gap measurement. Demonstrate compliance with S4.2.4 of this section in accordance with the procedures of S5.2.4 (a) through (c) of this section, with the head restraint adjusted to its lowest height position and any backset position.

(a) The area of measurement is anywhere on the anterior surface of the head restraint or seat with a height greater than 540 mm and within the following distances from the centerline of the seat—

(1) 127 mm for seats required to have 254 mm minimum head restraint width; and

(2) 85 mm for seats required to have a 170 mm head restraint width.

(b) Applying a load of no more than 5 N against the area of measurement specified in S5.2.4(a) of this section, place a 165 ± 2 mm diameter spherical head form against any gap such that at least two points of contact are made within the area. The surface roughness of the head form is less than $1.6 \mu\text{m}$, root mean square.

(c) Determine the gap dimension by measuring the vertical straight line distance between the inner edges of the two furthest contact points, as shown in Figures 2 and 3 of this section.

S5.2.5 Procedures for energy absorption. Demonstrate compliance with S4.2.5 of this section in accordance with S5.2.5 (a) through (e) of this section, with the seat back rigidly fixed and the adjustable head restraints in any height and backset position of adjustment.

(a) Use an impactor with a semispherical head form and a 165 ± 2 mm diameter and a surface roughness of less than $1.6 \mu\text{m}$, root mean square. The head form and associated base have a combined mass of 6.8 ± 0.05 kg.

(b) Instrument the impactor with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements for a 600 Hz channel class as specified in SAE Recommended Practice J211/1 (rev. Mar 95). The axis of the acceleration-sensing device coincides with the geometric center of the head form and the direction of impact.

(c) Propel the impactor toward the head restraint. At the time of launch, the longitudinal axis of the impactor is within 2 degrees of being horizontal and parallel to the vehicle longitudinal axis. The direction of travel is posteriorly.

(d) Constrain the movement of the head form so that it travels linearly along the path described in S5.2.5(c) of this section for not less than 25 mm before making contact with the head restraint.

(e) Impact the anterior surface of the seat or head restraint at any point with a height greater than 635 mm and within a distance of the head restraint vertical centerline of 70 mm.

S5.2.6 Procedures for height retention. Demonstrate compliance with S4.2.6 of this section in accordance with S5.2.6 (a) through (d) of this section.

(a) Adjust the adjustable head restraint so that its top is at any of the following height positions at any backset position—

(1) For front outboard designated seating positions—

(i) The highest position; and
(ii) Not less than, but closest to 800 mm; and

(2) For rear outboard designated seating positions equipped with head restraints—

(i) The highest position; and
(ii) Not less than, but closest to 750 mm.

(b)(1) Orient a cylindrical test device having a 165 ± 2 mm diameter in plane view (perpendicular to the axis of revolution), and a 152 mm length in profile (through the axis of revolution) with a surface roughness of less than 1.6 μm , root mean square, such that the axis of the revolution is horizontal and in the longitudinal vertical plane through the longitudinal centerline of the head restraint. Position the midpoint of the bottom surface of the cylinder in contact with the head restraint.

(2) Establish initial reference position by applying a vertical downward load of 50 ± 1 N.

(c) Increase the load at the rate of 250 ± 50 N/minute to at least 500 N and maintain this load for not less than 5 seconds.

(d) Reduce the load at the rate of 250 ± 50 N/minute to 50 ± 1 N and determine the position of the cylindrical

device with respect to its initial reference position.

S5.2.7 Procedures for backset retention, displacement, and strength. Demonstrate compliance with S4.2.7 of this section in accordance with S5.2.7 (a) and (b) of this section. The load vectors that generate moment on the head restraint are initially contained in a vertical plane parallel to the vehicle longitudinal centerline.

(a) *Backset retention and displacement*—

(1) Adjust the head restraint so that its top is at a height closest to and not less than:

(i) 800 mm for front outboard designated seating positions (or the highest position of adjustment for head restraints subject to S4.2.1(a)(2)); and

(ii) 750 mm for rear outboard designated seating positions equipped with head restraints (or the highest position of adjustment for rear head restraints subject to S4.2.1(b)(2)).

(2) Adjust the head restraint to any backset position.

(3) In the seat, place a test device having the back pan dimensions and torso reference line (vertical center line), when viewed laterally, with the head room probe in the full back position, of the three dimensional SAE J826 (rev. Jul 95) manikin;

(4) Establish the displaced torso reference line by creating a posterior moment of 373 ± 7.5 Nm about the H-point by applying a force to the seat back through the back pan at the rate of 187 ± 37 Nm/minute. The initial location on the back pan of the moment generating force vector has a height of $290 \text{ mm} \pm 13$ mm. Apply the force vector normal to the torso reference line and maintain it within 2 degrees of a vertical plane parallel to the vehicle longitudinal centerline. Constrain the back pan to rotate about the H-point. Rotate the force vector direction with the back pan.

(5) Maintain the position of the back pan as established in S5.2.7 (4) of this section. Using a 165 ± 2 mm diameter spherical head form with a surface roughness of less than 1.6 μm , root mean square, establish the head form initial reference position by applying, perpendicular to the displaced torso reference line, a posterior initial load at the seat centerline at a height 65 ± 3 mm below the top of the head restraint that will produce a 37 ± 0.7 Nm moment about the H-point. Measure the posterior displacement of the head form during the application of the load.

(6) Increase the initial load at the rate of 187 ± 37 Nm/minute until a 373 ± 7.5 Nm moment about the H-point is produced. Maintain the load level

producing that moment for not less than 5 seconds and then measure the posterior displacement of the head form relative to the displaced torso reference line.

(7) Reduce the load at the rate of 187 ± 37 Nm/minute until a 37 ± 0.7 Nm moment about the H-point is produced. While maintaining the load level producing that moment, measure the posterior displacement of the head form position with respect to its initial reference position; and

(b) *Strength.* Increase the load specified in S5.2.7(a)(7) of this section at the rate of 250 ± 50 N/minute to at least 890 N and maintain this load level for not less than 5 seconds.

S5.3 Procedures for dynamic performance. Demonstrate compliance with S4.3 of this section in accordance with S5.3.1 through S5.3.9 of this section with a 50th percentile male Hybrid III test dummy specified in 49 CFR part 572 subpart E, with the head restraint midway between the lowest and the highest position of adjustment, and at any position of backset adjustment.

S5.3.1 Mount the vehicle on a dynamic test platform at the vehicle attitude set forth in S13.3 of § 571.208, so that the longitudinal centerline of the vehicle is parallel to the direction of the test platform travel and so that movement between the base of the vehicle and the test platform is prevented. Instrument the platform with an accelerometer and data processing system. Position the accelerometer sensitive axis parallel to the direction of test platform travel.

S5.3.2 Remove the tires, wheels, fluids, and all unsecured components. Remove or rigidly secure the engine, transmission, axles, exhaust, vehicle frame and any other vehicle component necessary to assure that all points on the acceleration vs. time plot measured by an accelerometer on the dynamic test platform fall within the corridor described in Figure 1 and Table 1.

S5.3.3 Place any moveable windows in the fully open position.

S5.3.4 *Seat adjustment.* At each outboard designated seating position, using any control that primarily moves the entire seat vertically, place the seat in the lowest position. Using any control that primarily moves the entire seat in the fore and aft directions, place the seat midway between the forwardmost and rearmost position. If an adjustment position does not exist midway between the forwardmost and rearmost positions, the closest adjustment position to the rear of the midpoint is used. Adjust the seat cushion and seat back, without using any controls that move the entire seat,

as required by S5 and S5.1 of this section. If the specified position of the H-point can be achieved with a range of seat cushion inclination angles, adjust the seat inclination such that the most forward part of the seat cushion is at its lowest position with respect to the most rearward part. If the head restraint is adjustable, adjust the top of the head restraint to a position midway between the lowest position of adjustment and the highest position of adjustment. If an adjustment position midway between the lowest and the highest position does not exist, adjust the head restraint to a position below and nearest to midway between the lowest position of adjustment and the highest position of adjustment.

S5.3.5 Seat belt adjustment. Prior to placing the Type 2 seat belt around the test dummy, fully extend the webbing from the seat belt retractor(s) and release it three times to remove slack. If an adjustable seat belt D-ring anchorage exists, place it in the adjustment position closest to the mid-position. If an adjustment position does not exist midway between the highest and lowest position, the closest adjustment position above the midpoint is used.

S5.3.6 Dress and adjust each test dummy as specified in S8.1.8.2 through S8.1.8.3 of § 571.208.

S5.3.7 Test dummy positioning procedure. Place a test dummy at each outboard designated seating position equipped with a head restraint.

S5.3.7.1 Head. The transverse instrumentation platform of the head is level within 1/2 degree. To level the head of the test dummy, the following sequences is followed. First, adjust the position of the H point within the limits set forth in S10.4.2.1 of § 571.208 to level the transverse instrumentation platform of the head of the test dummy. If the transverse instrumentation platform of the head is still not level, then adjust the pelvic angle of the test dummy. If the transverse instrumentation platform of the head is still not level, then adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting to ensure that the transverse instrumentation platform of the head is horizontal within 1/2 degree. The test dummy remains within the limits specified in S10.4.2.1 of § 571.208 after any adjustment of the neck bracket.

S5.3.7.2 Upper arms and hands. Position each test dummy as specified in S10.2 and S10.3 of § 571.208.

S5.3.7.3 Torso. Position each test dummy as specified in S10.4.1.1, S10.4.1.2, and S10.4.2.1 of § 571.208, except that the midsagittal plane of the dummy is aligned within 15 mm of the

head restraint centerline. If the midsagittal plane of the dummy cannot be aligned within 15 mm of the head restraint centerline then align the midsagittal plane of the dummy as close as possible to the head restraint centerline.

S5.3.7.4 Legs. Position each test dummy as specified in S10.5 of § 571.208, except that final adjustment to accommodate placement of the feet in accordance with S5.3.7.4 of this section is permitted.

S5.3.7.5 Feet. Position each test dummy as specified in S10.6 of § 571.208, except that for rear outboard designated seating positions the feet of the test dummy are placed flat on the floorpan and beneath the front seat as far forward as possible without front seat interference. For rear outboard designated seating position, if necessary, the distance between the knees can be changed in order to place the feet beneath the seat.

S5.3.8 Accelerate the dynamic test platform to 17.3 ± 0.6 km/h. All of the points on the acceleration vs. time curve fall within the corridor described in Figure 1 and Table 1 when filtered to channel class 60, as specified in the SAE Recommended Practice J211/1 (rev. Mar 95). Measure the maximum posterior angular displacement.

S5.3.9 Calculate the angular displacement from the output of instrumentation placed in the torso and head of the test dummy and an algorithm capable of determining the relative angular displacement to within one degree and conforming to the requirements of a 600 Hz channel class, as specified in SAE Recommended Practice J211/1, (rev. Mar 95). No data generated after 200 ms from the beginning of the forward acceleration are used in determining angular displacement of the head with respect to the torso.

S5.3.10 Calculate the HIC₁₅ from the output of instrumentation placed in the head of the test dummy, using the equation in S4.3.1(b) of this section and conforming to the requirements for a 1000 Hz channel class as specified in SAE Recommended Practice J211/1 (rev. Mar 95). No data generated after 200 ms from the beginning of the forward acceleration are used in determining HIC.

S5.4 Procedures for folding or retracting head restraints for unoccupied rear outboard designated seating positions.

(a) Demonstrate compliance with S4.4 (a) of this section, using a 5th percentile female Hybrid III test dummy specified in 49 CFR part 572, subpart O, in

accordance with the following procedure—

(1) Position the test dummy in the seat such that the dummy's midsagittal plane is aligned within the 15 mm of the head restraint centerline and is parallel to a vertical plane parallel to the vehicle longitudinal centerline.

(2) Hold the dummy's thighs down and push rearward on the upper torso to maximize the dummy's pelvic angle.

(3) Place the legs as close as possible to 90 degrees to the thighs. Push rearward on the dummy's knees to force the pelvis into the seat so there is no gap between the pelvis and the seat back or until contact occurs between the back of the dummy's calves and the front of the seat cushion such that the angle between the dummy's thighs and legs begins to change.

(4) Note the position of the head restraint. Remove the dummy from the seat. If the head restraint returns to a retracted position upon removal of the dummy, manually place it in the noted position. Determine compliance with the height requirements of S4.2.1 of this section by using the test procedures of S5.2.1 of this section.

(b) Demonstrate compliance with S4.4 (b) of this section in accordance with the following procedure:

(1) Place the rear head restraint in any position meeting the requirements of S4.2 of this section;

(2) Strike a line on the head restraint. Measure the angle or range of angles of the head restraint reference line as projected onto a vertical longitudinal vehicle plane;

(3) Fold or retract the head restraint to a position in which its minimum height is less than that specified in S4.2.1 (b) of this section or in which its backset is more than that specified in S4.2.3 of this section;

(4) Determine the minimum change in the head restraint reference line angle as projected onto a vertical longitudinal vehicle plane from the angle or range of angles measured in S5.4(b)(2) of this section.

TABLE 1 OF § 571.202A.—SLED PULSE CORRIDOR REFERENCE POINT LOCATIONS.

Reference point	Time (ms)	Acceleration (m/s ²)
A	0	10
B	28	94
C	60	94
D	92	0
E	4	0
F	38.5	80
G	49.5	80
H	84	0

Figure 1 of §571.202a - Sled pulse acceleration corridor. The target acceleration with time expressed in milliseconds is $a = 86 \sin(\pi t/88) \text{ m/s}^2$, for $V = 17.3 \pm 0.6 \text{ km/h}$. The time zero for the test is defined by the point when the sled acceleration achieves 2.5 m/s^2 (0.25 G's).

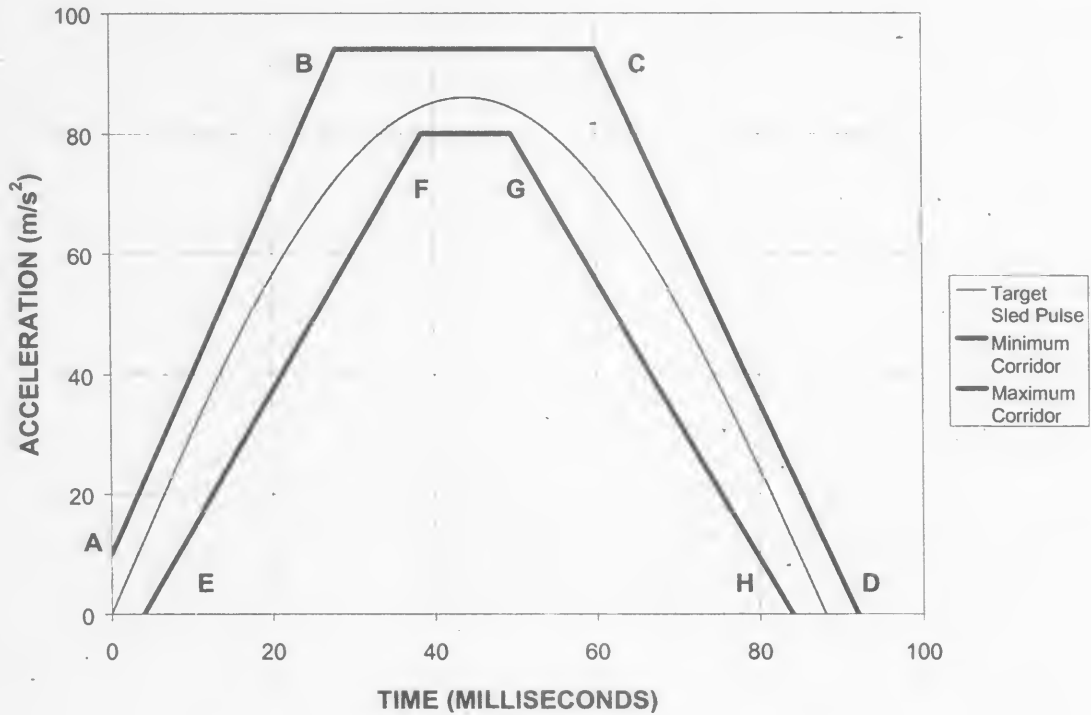


Figure 2 of §571.202a - Measurement of a vertical gap "a".

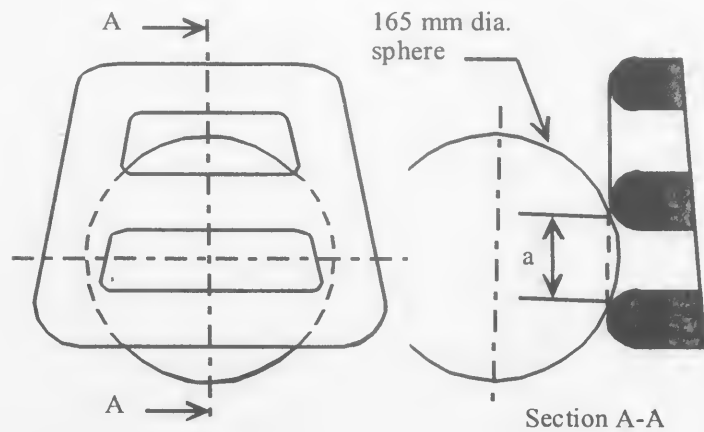
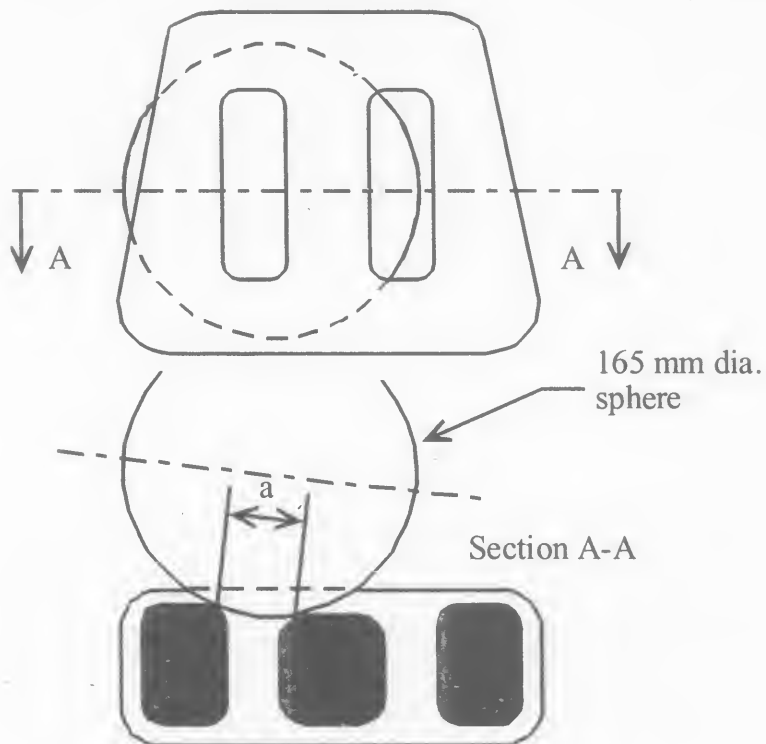


Figure 3 of §571.202a - Measurement of a horizontal gap "a".

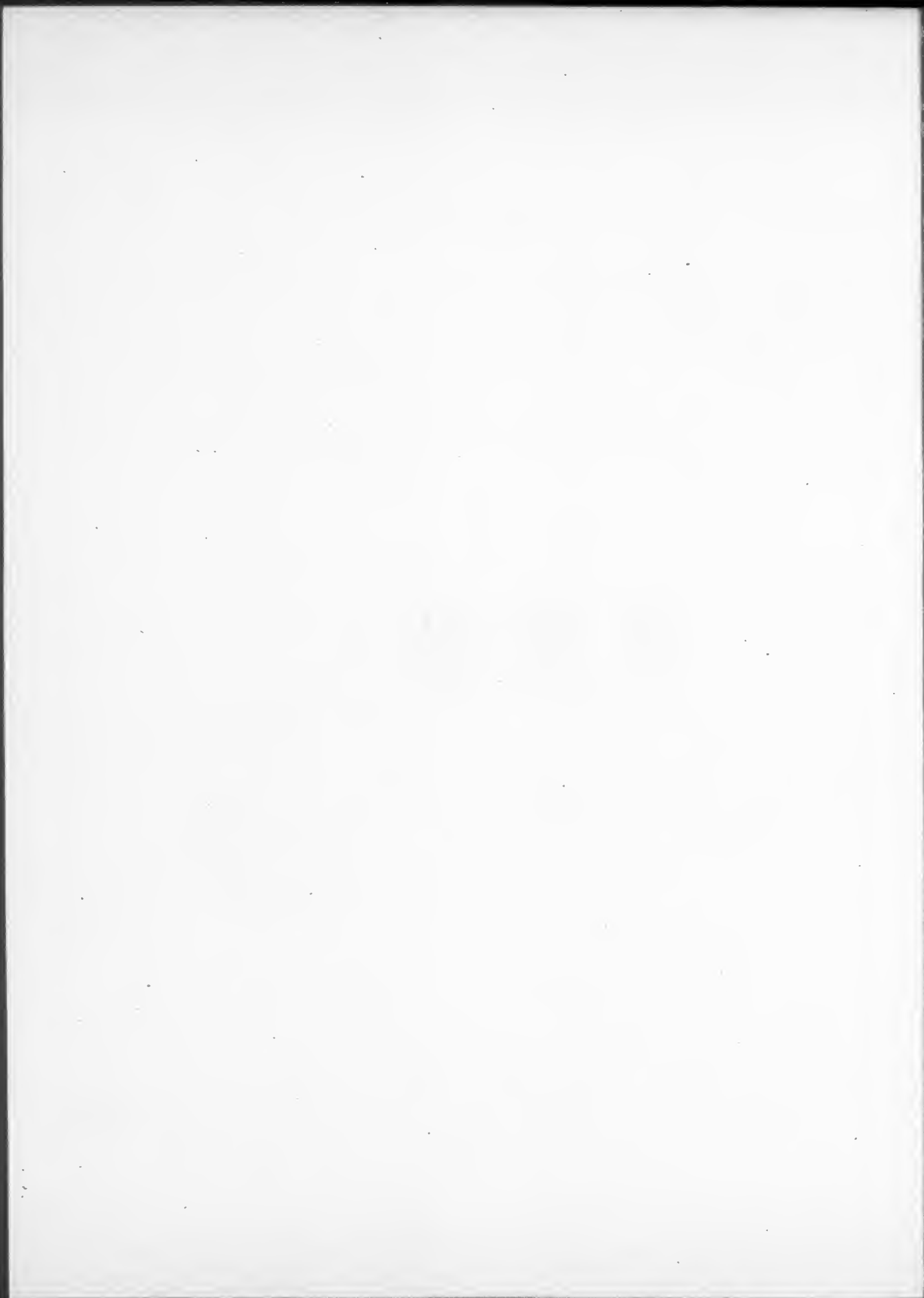


Dated: November 28, 2004.

Jeffrey W. Runge,
Administrator.

[FR Doc. 04-26641 Filed 12-7-04; 11:50 am]

BILLING CODE 4910-59-P





Federal Register

Tuesday,
December 14, 2004

Part IV

Department of Housing and Urban Development

24 CFR Part 200

Distribution of Tax Credit Proceeds; Final
Rule

**DEPARTMENT OF HOUSING AND
URBAN DEVELOPMENT**

24 CFR Part 200

[Docket No. FR-4792-F-02]

RIN 2502-AH91

Distribution of Tax Credit Proceeds

AGENCY: Office of the Assistant Secretary for Housing-Federal Housing Commissioner, HUD.

ACTION: Final rule.

SUMMARY: This rule adopts as final an interim rule that amended the Department's regulations with respect to funding for project completion. The regulatory change allows the proceeds from syndication of low-income housing tax credits and historic tax credits to be treated in the same manner as loan or grant funding provided through federal, state, or local government agencies. This final rule follows an interim rule that was published in the *Federal Register* of July 30, 2003. Two comments were received in response to the interim rule's invitation for public comment. After careful consideration of the two comments received, HUD is adopting the interim rule without change.

DATES: *Effective date:* January 13, 2005.

FOR FURTHER INFORMATION CONTACT: Michael McCullough, Director, Office of Multifamily Development, Office of the Deputy Assistant Secretary for Multifamily Housing, Room 6148, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410-8000. Telephone (202) 708-1142, extension 5426 (this is not a toll-free number). Hearing- or speech-impaired persons may access this number by calling the Federal Information Relay Service at 800-877-8339 (this is a toll-free number).

SUPPLEMENTARY INFORMATION:

I. Background

On July 30, 2003, (68 FR 44844) HUD published an interim rule to revise the Department's regulations at 24 CFR 200.54. Readers are referred to the July 30, 2003, interim rule for a full discussion of the basis and rationale advanced by the Department for adopting the revised regulations.

II. This Final Rule

This final rule follows publication of the July 30, 2003, interim rule, and takes into consideration the two public comments received on the interim rule. The two comments received during the public comment period were from an association representing mortgage

bankers and an association of home builders, respectively.

Comment: Support for interim rule. One commenter strongly supported the rule, applauding HUD for taking a proactive step to simplify and improve the process of using low-income housing tax credits with FHA-insured multifamily loans. The commenter also encouraged HUD to seek additional ways to streamline the approval process for FHA-insured loans that fund low-income tax credit properties.

HUD Response. HUD appreciates the commenter's support. As suggested by the commenter, HUD will continue to pursue ways to make the approval process for FHA-insured loans more efficient.

Comment: Clarify amount of tax credit proceeds to be escrowed. The commenter requested that HUD's implementing instructions clarify that only the tax credit proceeds required for the front money escrow be placed in escrow with the mortgagee prior to the start of construction.

HUD Response. HUD agrees with the comment and has made the clarification in the implementing instructions in the Multifamily Accelerated Processing (MAP) guide.

Comment: A letter of credit should satisfy the tax credit proceeds required at closing. The second commenter recommended that to make FHA insurance a more attractive and cost-effective financing vehicle for projects with low-income housing tax credits, HUD allow tax credit proceeds required at closing to be held by the mortgagee in the form of an unconditional, irrevocable letter of credit issued by a banking institution. The commenter wrote that if this recommendation were adopted, it would conform the policy for tax credit proceeds with that now allowed where grant or loan funds such as funds provided under HUD's HOME or Community Development Block Grant (CDBG) program are provided from a government agency or instrumentality. If there is a problem with collecting on the letter of credit, the mortgagee would be at risk and required to provide the funds necessary to complete the project. The commenter concluded that HUD would be at risk only if both the banking institution and the mortgagee failed to meet their obligations.

HUD Response: HUD disagrees with the recommendation and, as noted above, adopts the interim rule without change. Where FHA has insured loans with funds from a governmental agency, the agency executes a commitment that is binding on present and future administrations. Under the commenter's

recommendation, if the lending institution that issued the letter of credit failed to honor its letter of credit, FHA's sole reliance would be on the mortgagee. FHA permits mortgagees to accept letters of credit in lieu of cash for items such as initial operating deficit, working capital, and assurance of completion. In a tax credit transaction, a mortgagee that accepted a letter of credit would be backing major equity (sometimes at least 50 percent of the cost of the transaction).

Multifamily mortgagees are currently required to have only \$250,000 of net worth. For FHA to consider an arrangement such as the one suggested by the commenter, FHA would have to evaluate the current net worth of the mortgagee at the time of the transaction or establish a separate category of mortgagees with much higher net worth that could handle such financial risk. Either solution would be too administratively burdensome for the Department to undertake at this time.

III. Findings and Certifications

Environmental Review

A Finding of No Significant Impact with respect to the environment for this rule was made at the interim stage, in accordance with HUD regulations at 24 CFR part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969. That Finding of No Significant Impact remains applicable to this final rule and is available for public inspection between 8 a.m. and 5 p.m. weekdays in the Regulations Division, Office of the General Counsel, Room 10276, Department of Housing and Urban Development, Room 10276, 451 Seventh Street, SW., Washington, DC 20410-0500.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) establishes requirements for federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. This final rule does not impose a federal mandate that will result in expenditure by state, local, or tribal government, within the meaning of the Unfunded Mandates Reform Act of 1995.

Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial

number of small entities. There are no anti-competitive discriminatory aspects of the rule with regard to small entities, and there are no unusual procedures that would need to be complied with by small entities. Rather, this rule amends 24 CFR 200.54(b) to allow the proceeds from syndication of low-income housing tax credits and historic tax credits to be treated in the same manner as loan or grant funds provided through federal, state, or local government agencies. To the extent that the rule has an impact on program participants, it will be the beneficial impact of simplifying the use of tax credits with the FHA mortgage insurance programs by allowing the pro-rata distribution of the required borrower equity and of the mortgage proceeds. As a result, this rule will not have a significant economic impact on a substantial number of small entities. Accordingly, the undersigned certifies that this rule will not have a significant

economic impact on a substantial number of small entities.

Executive Order 13132, Federalism

Executive Order 13132 (entitled "Federalism") prohibits an agency from publishing any rule that has federalism implications if the rule either imposes substantial direct compliance costs on state and local governments and is not required by statute, or the rule preempts state law, unless the agency meets the consultation and funding requirements of section 6 of the order. This rule does not have federalism implications and will not impose substantial direct compliance costs on state and local governments nor preempt state law within the meaning of the order.

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance numbers for 24 CFR part 200 are 14.135 and 14.139.

List of Subjects in 24 CFR Part 200

Administrative practice and procedure, Claims, Equal employment opportunity, Fair housing, Housing standards, Lead poisoning, Loan programs-housing and community development, Manufactured homes, Mortgage insurance, Reporting and recordkeeping requirements.

■ Accordingly, for the reasons stated in the preamble, the interim rule for part 200 of title 24 of the Code of Federal Regulations, published on July 30, 2003 at 68 FR 44844, is promulgated as final without change.

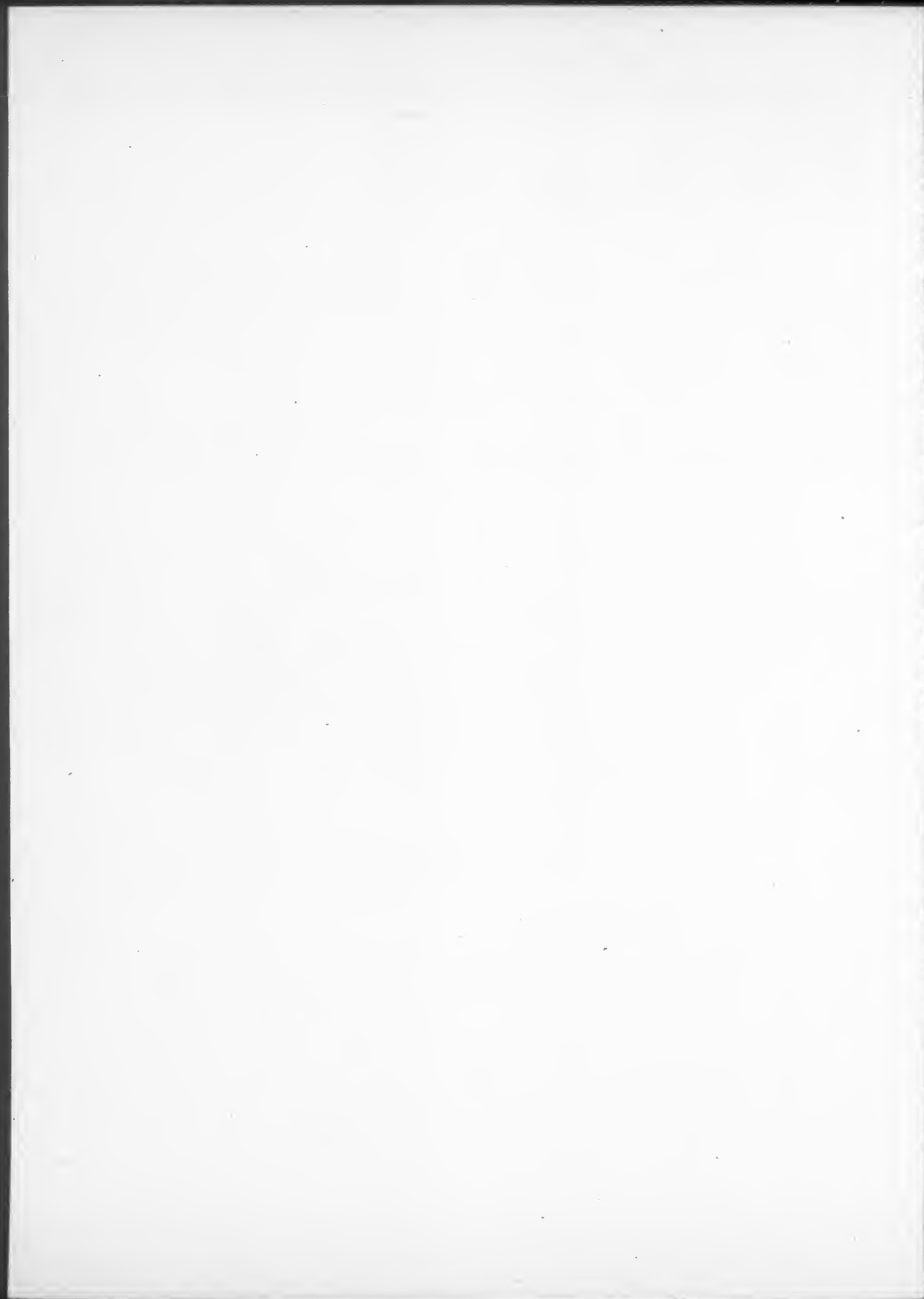
Dated: November 15, 2004.

John C. Weicher,

Assistant Secretary for Housing—Federal Housing Commissioner.

[FR Doc. 04-27208 Filed 12-13-04; 8:45 am]

BILLING CODE 4210-27-P





Federal Register

Tuesday,
December 14, 2004

Part V

Department of Transportation

Federal Aviation Administration

14 CFR Parts 61, 63, et al.

**Disqualification for Airman and Medical
Certificate Holders Based on Alcohol
Violations and Refusals to Submit to Drug
or Alcohol Testing; Proposed Rule**

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration**

14 CFR Parts 61, 63, 65, 67, 91, 121, and 135

[Docket No. FAA-2004-19835]

RIN 2120-AH82

Disqualification for Airman and Medical Certificate Holders Based on Alcohol Violations and Refusals to Submit to Drug or Alcohol Testing

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to amend the airman medical certification standards to disqualify an airman based on an alcohol test result of 0.04 or greater breath alcohol concentration (BAC) or a refusal to take a drug or alcohol test required by the Department of Transportation (DOT) or a DOT agency. Further, the FAA proposes to standardize the time period for reporting refusals and certain test results to the FAA, and to require employers to report pre-employment and return-to-duty test refusals. We also propose to amend the airman certification requirements to allow suspension or revocation of airman certificates for pre-employment and return-to-duty test refusals. Finally, we propose to amend the regulations to recognize current breath alcohol testing technology. These amendments are necessary to ensure that persons who engage in substance abuse do not operate aircraft or perform contract air traffic control tower operations until it is determined that these individuals can operate safely.

DATES: Send your comments to reach us by March 14, 2005.

ADDRESSES: You may send comments [identified by Docket Number 2004-19835] using any of the following methods:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001.
- Fax: 1-202-493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building,

400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For more information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

Privacy: We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. For more information, see the Privacy Act discussion in the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: To read background documents or comments received, go to <http://dms.dot.gov> or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Sherry M. de Vries, Aeromedical Standards and Substance Abuse Branch, Medical Specialties Division, AAM-210, Office of Aerospace Medicine, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-8693.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to take part in this rulemaking by sending written comments, data, or views. We also invite comments about the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel about this proposed rulemaking. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also review the docket using the Internet at the web address in the **ADDRESSES** section.

Before acting on this proposal, we will consider all comments we receive by the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change this proposal because of the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a preaddressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

Privacy Act: Using the search function of our docket web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Availability of Rulemaking Documents

You can get an electronic copy using the Internet by:

- (1) Searching the Department of Transportation's electronic Docket Management System (DMS) web page (<http://dms.dot.gov/search>);
- (2) Visiting the Office of Rulemaking's web page at <http://www.faa.gov/avr/arm/index.cfm>; or
- (3) Accessing the Government Printing Office's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Chapter 447, Section 44703, Airman Certificates, and Chapter 451, Section 45102, Alcohol and Controlled Substances Testing Programs. Under Section 44703, the FAA is authorized to issue an airman certificate to an individual who "is qualified for, and physically able to perform the duties related to, the position to be authorized by the certificate." Under Section 45102, the FAA is charged with prescribing regulations to establish programs for drug and alcohol testing employees

performing safety-sensitive functions for air carriers and to take certificate or other action when an employee violates the testing regulations. This regulation is within the scope of the FAA's authority because it updates the existing regulations regarding airman certification of individuals who have violated the drug and alcohol testing regulations or who have otherwise demonstrated a substance abuse history through violation of State or local driving while intoxicated/driving under the influence laws. This rulemaking is a current example of FAA's continuing efforts to ensure that only drug- and alcohol-free individuals perform pilot duties.

Background

The FAA is proposing to revise its regulations that apply to airmen who fail or refuse a drug or alcohol test. We proposed these changes to conform the FAA's regulations to changes in DOT's drug and alcohol testing regulations.

In a final rule published on March 19, 1996 (61 FR 11256), the FAA comprehensively revised our medical standards in 14 CFR part 67. The revisions recognized that a verified positive drug test result on a test required under the DOT internal program or under the industry regulations of a DOT agency is a disqualifying medical condition known as "substance abuse". When the 1996 revisions were adopted, "substance abuse" did not specifically include breath alcohol test results and refusals to submit to a test required by the DOT or a DOT agency.

In 2000, DOT changed its regulations to address many issues including refusals to submit to testing. In its final rule, DOT substantially revised its "Procedures for Transportation Workplace Drug and Alcohol Testing Programs" (65 FR 79462, December 19, 2000), which are the procedural provisions underlying the drug and alcohol testing regulations of the DOT agencies. In the NPRM, DOT explained "adulteration and substitution are real and possibly increasing threats to the integrity of the Department's drug testing program, with the potential for increased safety risks if drug users succeed in frustrating the testing process" (64 FR 69075, 69081, December 9, 1999). In making its changes to the refusal provisions, DOT examined the FAA's experience with airman refusal cases and decided that regulatory changes were needed to address the increasing number of refusals and the inherent threat those refusals posed to transportation safety.

On August 9, 2001, DOT further revised its refusal provisions (66 FR 41944). In these final rules, DOT broadened the scope of what constitutes a refusal to test under the DOT agency regulations. We are proposing to revise several sections in our regulations that have been affected by the DOT revisions.

Section-by-Section Discussion of the Proposal

14 CFR 61.14, 63.12b, and 65.23

The FAA proposes to revise the airman certification requirements in 14 CFR 61.14, 63.12b, and 65.23 to include refusals to take a pre-employment or return to duty test. Currently these sections only address refusals committed by an individual actually performing a safety-sensitive function for an employer regulated under 14 CFR part 121, appendices I and J. An individual who takes a pre-employment or return to duty test is not actually performing a safety-sensitive function. The scope of refusals in 49 CFR part 40 clearly includes FAA-required return to duty and some pre-employment tests. The FAA airman certificate regulations should similarly be clarified to include pre-employment and return to duty tests that involve situations in which an airman intends to enter into a position to perform a safety-sensitive function.

14 CFR 67.107(b)(2), 67.207(b)(2), and 67.307(b)(2)

The FAA is proposing to add medically disqualifying factors to the substance abuse provisions for the three classes of airman medical certificates. Currently, to obtain a medical certificate, a person must not have engaged in any substance abuse during the preceding 2 years. Under 14 CFR 67.107(b), 67.207(b), and 67.307(b), the term "substance abuse" is defined as any of the following three criteria:

- (1) Use of a substance, for the second time, in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result on a test required by an internal program of DOT or a test required by any DOT agency; or
- (3) Misuse of a substance that in the Federal Air Surgeon's judgment makes or may make a person unable to safely exercise the privileges of the airman certificate held.

In the interest of aviation safety, we propose to add the following disqualifying factors to the definition of substance abuse in the regulation:

- (1) An alcohol test result of 0.04 or greater breath alcohol concentration (BAC) on an alcohol test required by DOT or a DOT agency; and

- (2) A refusal to submit to an alcohol or drug test required by DOT or a DOT agency.

A discussion of these proposals follows.

Alcohol Test Results of 0.04 or Greater BAC

The FAA has reviewed its medical qualification regulations because we continue to be concerned about the number of commercial pilots misusing alcohol, resulting in their potential impairment during the performance of commercial flight duties. Between 1998 through 2003, seventy-one commercial airline pilots were identified by DOT alcohol testing programs as having a BAC of 0.04 or greater. The misuse of alcohol affects the performance of a commercial pilot's duties, reflects an inability to control his or her use of alcohol, and is a direct threat to aviation safety. Consequently, the FAA proposes to revise 14 CFR part 67 to more comprehensively define substance abuse to medically disqualify any pilot who has received a confirmed alcohol test result of 0.04 or greater BAC on a test required by DOT or a DOT agency.

The only individuals required to submit to an alcohol test are those who perform safety-related duties for the DOT or for an industry regulated by the DOT. In the aviation context, individuals subject to testing who hold an airman medical certificate typically include pilots and flight crewmembers of commercial air carriers and operations conducted under 14 CFR 135.1(c), and contract air traffic controllers. These individuals know they are subject to testing because of their work in a DOT-regulated industry and have a duty to operate safely. When these individuals misuse alcohol, resulting in a BAC of 0.04 or greater on a DOT test, they have shown a disregard for safety by their inability to control their use of alcohol. This behavior, in the opinion of the Federal Air Surgeon, constitutes substance abuse.

This proposed revision is consistent with decisions issued by the National Transportation Safety Board (NTSB) holding that single events of alcohol misuse formed a legitimate basis for the Federal Air Surgeon's finding of substance abuse. In these cases, the Federal Air Surgeon made a finding that each airman was "unable to safely perform the duties or exercise the privileges of the airman certificate" because of substance abuse under 14 CFR 67.107(b)(3)(i), 67.207(b)(3)(i), and 67.307(b)(3)(i). There have been at least two challenges to such findings. In both cases, the NTSB upheld the Federal Air Surgeon's finding of substance abuse in

instances of only one alcohol event. In *Administrator v. Taylor*, NTSB Order No. EA-5003 (2002), the NTSB upheld "the Federal Air Surgeon's interpretation that a single occurrence of substance abuse is sufficient under the regulation [to warrant revocation of his medical certificate]." In *Administrator v. Polinchock*, NTSB Order No. EA-5023 (2003), the NTSB upheld the revocation of an airman's medical certificate on the basis of "the Federal Air Surgeon's determination that respondent's misuse of alcohol while on duty in a safety-sensitive position renders him unqualified."

Because a single event of alcohol misuse resulting in a BAC of 0.04 or greater on a DOT test would affect medical qualifications, any person who holds or applies for an airman medical certificate would be affected by the proposed rule change. Thus, persons subject to testing who hold an airman medical certificate for reasons unrelated to their safety-related job would also be affected by the proposed revisions. For example, a mechanic who also holds a pilot certificate would be affected by the proposed revisions.

Refusals to Take DOT Tests

In addition to pilots misusing alcohol, we have continued to see numbers of pilots who refuse to take FAA-required drug and alcohol tests. From 1997 through 2003, the FAA received reports that 89 commercial airline pilots refused to take required FAA drug and alcohol tests. These refusals can include: walk-aways from the testing site; refusals to report for testing; committing violence against the testing personnel; substituting other liquids for the testing specimens; and adding adulterating substances to hide or destroy the presence of illegal drugs in the person's urine specimen. Whenever a person is required to submit to a DOT or a DOT agency drug or alcohol test and refuses to do so, that person willfully decides not to comply with a fundamental component of transportation safety.

The FAA is proposing to further amend 14 CFR 67.107(b)(2), 67.207(b)(2), and 67.307(b)(2) by adding to the description of "substance abuse" any refusal to submit to a drug or alcohol test required by DOT or a DOT agency. If adopted, this change would result in the revocation or denial of the airman medical certificate of any person who refused to submit to the required testing.

Adding refusals to 14 CFR part 67 is consistent with the language and intent of 49 CFR part 40, the DOT's drug and alcohol testing procedural regulations prescribed for use by all DOT-regulated

industries required to conduct Federal testing. In 49 CFR part 40, the DOT and its agencies treat positive test results, alcohol violations, and refusals substantially the same. In the preamble to its final rule, DOT explained "the consequences of a refusal are the same or more severe as for any other violation of DOT agency drug and alcohol regulations." (65 FR 79462, 79501, December 19, 2000). The FAA believes that it is appropriate to respond to a refusal to take a test required by DOT or a DOT agency as firmly and directly as a positive drug test result or an alcohol test result of 0.04 or greater BAC on a required test.

The drug and alcohol testing regulations prescribed by DOT and incorporated into the regulations of the DOT agencies directly affect transportation safety because they prohibit the use of illegal drugs and misuse of alcohol by people who perform safety critical transportation functions. When regulated individuals refuse to take a test required by DOT or a DOT agency, they violate their duty to uphold transportation safety. Furthermore, their refusals are overt attempts to subvert the testing program.

In applying the principles of 49 CFR part 40 to the 14 CFR part 67 airman medical qualification standards, the FAA is proposing that a refusal to take a drug or alcohol test should be an immediately disqualifying factor, resulting in the denial or revocation of the airman medical certificate. An airman who refuses to submit to testing interferes with the ability of the testing process to detect the presence of an illegal drug or alcohol misuse. Such interference with the testing process may be intended to conceal prohibited drug or alcohol use. This conduct typifies a substance abuse problem and justifies the removal of an airman medical certificate until the airman can prove that he or she is rehabilitated and medically qualified to hold an airman medical certificate.

The FAA acknowledges the proposed changes may result in the revocation of the airman medical certificate of an individual who is performing duties unrelated to his or her pilot certificate at the time of the refusal to test. For example, a mechanic who is required to be tested under FAA regulations and also who holds a private pilot certificate would be affected by this rule change. We are proposing that the airman medical certificate be revoked because this individual poses an unacceptable risk to transportation safety through his or her refusal to submit to testing required by his or her safety-related work.

14 CFR 91.17(a) and (c)

The FAA proposes to amend 14 CFR 91.17 to recognize current breath alcohol testing technology. Currently, 14 CFR 91.17 only refers to blood alcohol testing. However, breath alcohol testing has become the more commonly administered method for determining alcohol concentration.

When 14 CFR 91.17 was originally written, the prevalent technology for testing alcohol concentration was blood alcohol testing. In 1994, the DOT agencies issued regulations that required alcohol testing by breath for the transportation industries, including aviation. As breath-testing technology has improved and become more cost-efficient, law enforcement personnel have used this less invasive form of testing with increasing frequency. Breath alcohol tests and blood alcohol tests are two separate measures and are not exact equivalents. Therefore, each is reported separately as either breath alcohol concentration or blood alcohol concentration.

We are proposing to amend section 91.17 to include breath alcohol concentration testing results of 0.04 or greater because of the greater use of breath testing technology by local law enforcement and because, since 1994, the DOT has set the violation level for breath alcohol concentrations at 0.04 or greater.

Therefore, the FAA proposes to amend 14 CFR 91.17 to include both blood alcohol testing and breath alcohol testing to determine the concentration of alcohol in an individual's blood or breath, respectively.

14 CFR Part 121, Appendix I, Section II and Appendix J, Section I.D

The FAA proposes to amend "refusal to submit" to a drug test to include engaging in conduct provided in 49 CFR 40.191. Similarly, we propose to amend "refusal to submit" to an alcohol test to include engaging in conduct provided in 49 CFR 40.261. We propose to change the specific wording in the FAA drug and alcohol testing definitions of "refusal to submit" from "conduct specified" to "conduct provided."

The FAA's drug and alcohol regulations cross-reference 49 CFR 40.191 and 40.261 because these sections provide descriptions of kinds of conduct that constitute a "refusal." However, there is no one definition of what commission or omission constitutes a refusal. A refusal involves conduct by the employee that interferes with testing. For example, a refusal includes failure to appear at the testing site for a test other than pre-

employment, failure to remain at the testing site, adulterating one's urine sample, substituting a specimen, behaving violently or uncooperatively during the collection process, not remaining available for a post-accident test, or failing to comply with steps required during the administration of the test. This is not an all-inclusive list of conduct that would constitute a finding of refusal. We invite public comment as to whether "conduct provided" more effectively addresses the expansiveness of conduct that would constitute a refusal under 49 CFR part 40.

We propose to clarify the refusal definition to include post-accident alcohol testing because the employee has a duty under 14 CFR part 121, appendix J, Section III.B.3 "to remain readily available for such testing." Failure to remain readily available for post-accident testing, even in the absence of individualized notice, constitutes a refusal. We also propose to drop the word "covered" from the definition of "Refusal to submit" in 14 CFR part 121, appendix J, section I.D., as a non-substantive editorial change.

14 CFR Part 121, Appendix I, VI.D.2 and Appendix J, Section V.D.2

In 49 CFR 40.191 and 40.261, DOT clarified the scope of what constitutes a "refusal" to include return to duty testing and specific situations in pre-employment testing. In response, we propose to require employers to notify the FAA of refusals to take a return to duty or pre-employment drug or alcohol test. Specifically, we propose to remove 14 CFR part 121, appendix I, section VI.D.2 and appendix J, section V.D.2 because both sections tell employers not to inform the FAA when return to duty or pre-employment refusals occurred.

14 CFR Part 121, Appendix I, Sections VII.C.1, 2, 3, 4, and 6

The FAA proposes to amend 14 CFR part 121, appendix I, section VII.C.1 to change the time frame for the Medical Review Officer (MRO) to submit information to the Federal Air Surgeon regarding part 67 certificate holders. Specifically, we would change the reporting requirement from 12 working days from the date the MRO verifies the positive drug test result to 2 working days to be consistent with the alcohol reporting requirement. We are also proposing some editorial changes for consistency and clarity.

The FAA is proposing to amend 14 CFR part 121, appendix I, section VII.C.2 to clarify that a substance abuse professional (SAP) must not recommend that an employer return to duty an

individual who has refused to take a drug test for a position that requires an airman medical certificate. Only after the Federal Air Surgeon has issued the individual a new airman medical certificate can the SAP recommend to the employer that the individual be returned to duty. This requirement already exists for the airman medical certificate holder who has a positive drug test result.

In 14 CFR part 121, appendix I, section VII.C.3, for consistency with appendix J, we propose to change the time for the employer to forward SAP reports to the Federal Air Surgeon from 12 working days to 2 working days of receipt of the SAP report.

Section VII.C.4 of 14 CFR part 121, appendix I requires employers to ensure that an employee required to hold a part 67 certificate is not returned to the performance of a safety-sensitive duty until the employee has received an airman medical certificate. Because the airman may have retained a previously issued medical certificate, we propose to clarify that the operative medical certificate must be issued after the date of the verified positive drug test result or refusal to test before the employee can be returned to the performance of a safety sensitive duty.

We propose to add 14 CFR part 121, appendix I section VII.C.6 to require MROs, SAPs, and employers to retain a copy of any report they forward to the Federal Air Surgeon under this section. This record retention requirement already exists in 14 CFR part 121, appendix J, section IV.A.2.(a)(2).

14 CFR Part 121, Appendix J, Section IV.A.2.(a)(2)

We propose to add "refusals to submit to testing" to the existing record retention requirements.

4 CFR 65.46a(f), 121.458(f), and 135.253(f)

In a final rule, issued on December 19, 2000, (65 FR 79462), DOT broadened the scope of what is considered to be a refusal to test. In 49 CFR 40.191 and 40.261, the DOT included pre-employment tests and return-to-duty tests under the new refusal provisions. The DOT also clarified the description of refusal to test by explicitly including adulterations and substitutions of specimens within the refusal provisions. On August 9, 2001, (66 FR 41944), DOT further revised the refusal provisions of 49 CFR 40.191 and 40.261 to clarify the scope of pre-employment refusals.

We propose to amend 14 CFR 65.46a(f), 121.458(f), and 135.253(f) because these provisions currently describe a "refusal to submit to a

required alcohol test" as including post-accident, random, reasonable suspicion, and follow-up tests. Because 49 CFR part 40 includes all types of required tests, we propose a minor change to these sections to be consistent. Instead of listing the types of tests included as refusals, we propose substituting the word "any" in place of the list of required tests.

Paperwork Reduction Act

The FAA described the information collection requirements associated with reporting the results of drug and alcohol testing in OMB control number 2120-0535 (current expiration date is December 31, 2005). This NPRM would add the requirement to report refusals to take return-to-duty and pre-employment tests. This is an extremely small additional burden because these reports are already generated and sent to the employer under 49 CFR part 40 and 14 CFR part 121, appendices I and J, and are accounted for in OMB control number 2125-0529. Under the new requirement, employers would merely send these already existing reports on to the FAA, resulting in a total annual burden of fewer than 2 hours across the industry. Specifically, we estimate the annual burden associated with this NPRM to be 1.75 hours to the private sector, costing \$35.00. The annual burden to the Federal Government would be 7 hours, costing \$138.95. Because this burden is extremely small, we will not change Paperwork Burden Submission OMB control number 2120-0535 at this time, but we will include the extra 1.75 hours in the next renewal in 2005.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs) to the maximum extent practicable. SARPs do not address disqualification of an airman based on a refusal to take a required drug or alcohol test.

Executive Order 12866 and DOT Regulatory Policies and Procedures

Executive Order 12866, Regulatory Planning and Review, directs the FAA to assess both the costs and the benefits of a regulatory change. We are not allowed to propose or adopt a regulation unless we make a reasoned determination that the benefits of the intended regulation justify the costs. Our assessment of this rulemaking indicates that its economic impact is minimal. This action imposes minimal

copying, mailing, and faxing costs on small entities subject to this rule. Because the costs and benefits of this action do not make it a "significant regulatory action" as defined in the Order, we have not prepared a "regulatory evaluation," which is the written cost/benefit analysis ordinarily required for all rulemaking under the DOT Regulatory Policies and Procedures. We do not need to do a full evaluation where the economic impact of a rule is minimal.

Economic Assessment, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency proposing or adopting a regulation do so only upon a reasoned determination that the benefits of the intended regulation justify its cost. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis for U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal Agency to prepare a written statement assessing the expenditure of \$100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed a "significant regulatory action." The FAA currently uses an inflation-adjusted value of \$120.7 million in lieu of \$100 million.

In conducting these analyses, FAA has determined this rule: (1) Has benefits that justify its costs, is not a "significant regulatory action" as defined in section 3(f) of Executive Order 12866 and is not "significant" as defined in DOT's Regulatory Policies and Procedures; (2) will not have a significant economic impact on a substantial number of small entities; (3) will not reduce barriers to international trade; and does not impose an unfunded mandate on state, local, or tribal governments, or on the private sector.

However, for regulations with an expected minimal impact the above-specified analyses are not required. The Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the proposal does not warrant a full evaluation, a statement to that effect and the basis for it is included in proposed regulation.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) directs the FAA to fit regulatory requirements to the scale of the business, organizations, and governmental jurisdictions subject to the regulation. We are required to determine whether a proposed or final action will have a "significant economic impact on a substantial number of small entities" as they are defined in the Act. If we find that the action will have a significant impact, we must do a "regulatory flexibility analysis."

We certify that this action will not have a significant economic impact on a substantial number of small entities.

Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal Agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. In accordance with the above statute and policy, the FAA has assessed the potential effect of this NPRM rule to be minimal and therefore has determined that this proposed rule would not result in an impact on international trade by companies doing business in or with the United States.

Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a

"significant regulatory action." The FAA currently uses an inflation-adjusted value of \$120.7 million in lieu of \$100 million.

This NPRM does not contain such a mandate. The requirements of Title II of the Act do not apply.

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore would not have federalism implications.

Plain English

Executive Order 12866 (58 FR 51735, Oct. 4, 1993) requires each agency to write regulations that are simple and easy to understand. We invite your comments on how to make these proposed regulations easier to understand, including answers to questions such as the following:

- Are the requirements in the proposed regulations clearly stated?
- Do the proposed regulations contain unnecessary technical language or jargon that interferes with their clarity?
- Would the regulations be easier to understand if they were divided into more (but shorter) sections?
- Is the description in the preamble helpful in understanding the proposed regulations?

Please send your comments to the address specified in the ADDRESSES section.

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j) this NPRM qualifies for a categorical exclusion.

List of Subjects

14 CFR Part 61

Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Recreation and recreation areas, Reporting and recordkeeping requirements, Security measures, Teachers.

14 CFR Part 63

Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Navigation (air), Reporting and recordkeeping requirements, Security Measures.

14 CFR Part 65

Air traffic controllers, Aircraft, Airmen, Airports, Alcohol abuse, Aviation safety, Drug abuse, Reporting and recordkeeping requirements, Security measures.

14 CFR Part 67

Airmen, Authority delegation (Government agencies), Health, Reporting and record keeping requirements.

14 CFR Part 91

Afghanistan, Agriculture, Air traffic control, Aircraft, Airmen, Airports, Aviation safety, Canada, Cuba, Ethiopia, Freight, Mexico, Noise control, Political candidates, Reporting and recordkeeping requirements, Yugoslavia.

14 CFR Part 121

Air carriers, Aircraft, Airmen, Alcohol abuse, Aviation safety, Charter flights, Drug abuse, Drug testing, Reporting and recordkeeping requirements, Safety, Transportation.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Drug testing, Reporting and recordkeeping requirements.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend parts 61, 63, 65, 67, 91, 121, and 135 of Title 14, Code of Federal Regulations, as follows:

PART 61—GENERAL

1. The authority citation for part 61 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44703, 44707, 44709-44711, 45102-45103, 45301-45302.

2. Revise § 61.14(a) to read as follows:

§ 61.14 Refusal to submit to a drug or alcohol test.

(a) This section applies to an individual who holds a certificate under this part and is subject to the types of testing required under appendix I to part 121 or appendix J to part 121 of this chapter.

* * * * *

PART 63—CERTIFICATION: FLIGHT CREWMEMBERS OTHER THAN PILOTS

3. The authority citation for part 63 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44703, 44707, 44709-44711, 45102-45103, 45301-45302.

4. Revise § 63.12b(a) to read as follows:

§ 63.12b Refusal to submit to a drug or alcohol test.

(a) This section applies to an individual who holds a certificate under this part and is subject to the types of testing required under appendix I to part 121 or appendix J to part 121 of this chapter.

* * * * *

PART 65—CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS

5. The authority citation for part 65 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44703, 44707, 44709-44711, 45102-45103, 45301-45302.

6. Revise § 65.23(a) to read as follows:

§ 65.23 Refusal to submit to a drug or alcohol test.

(a) General. This section applies to an individual who holds a certificate under this part and is subject to the types of testing required under appendix I to part 121 or appendix J to part 121 of this chapter.

* * * * *

7. Revise § 65.46a(f) to read as follows:

§ 65.46a Misuse of alcohol.

* * * * *

(f) Refusal to submit to a required alcohol test. A covered employee must not refuse to submit to any alcohol test required under appendix J to part 121 of this chapter. An employer must not permit an employee who refuses to submit to such a test to perform or continue to perform safety-sensitive functions.

PART 67—MEDICAL STANDARDS AND CERTIFICATION

8. The authority citation for part 67 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44703, 44707, 44709-44711, 45102-45103, 45301-45303.

9. Revise § 67.107(b)(2) to read as follows:

§ 67.107 Mental.

* * * * *

(b) * * * (2) A verified positive drug test result, an alcohol test result of 0.04 or greater alcohol concentration, or a refusal to submit to a drug or alcohol test required by the U.S. Department of Transportation or an agency of the U.S. Department of Transportation; or

* * * * *

10. Revise § 67.207(b)(2) to read as follows:

§ 67.207 Mental.

* * * * *

(b) * * *

(2) A verified positive drug test result, an alcohol test result of 0.04 or greater alcohol concentration, or a refusal to submit to a drug or alcohol test required by the U.S. Department of Transportation or an agency of the U.S. Department of Transportation; or

* * * * *

11. Revise § 67.307(b)(2) to read as follows:

§ 67.307 Mental.

* * * * *

(b) * * *

(2) A verified positive drug test result, an alcohol test result of 0.04 or greater alcohol concentration, or a refusal to submit to a drug or alcohol test required by the U.S. Department of Transportation or an agency of the U.S. Department of Transportation; or

* * * * *

PART 91—GENERAL OPERATING AND FLIGHT RULES

12. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506-46507, 47122, 47508, 47528-47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

13. Revise § 91.17 paragraphs (a)(4), (c)(1) introductory text and (c)(2) to read as follows:

§ 91.17 Alcohol or drugs.

(a) * * *

* * * * *

(4) While having an alcohol concentration of 0.04 or greater in a blood or breath specimen. Alcohol concentration means grams of alcohol per deciliter of blood or grams of alcohol per 210 liters of breath.

* * * * *

(c) * * *

(1) On request of a law enforcement officer, submit to a test to indicate the alcohol concentration in the blood or breath, when—

* * * * *

(2) Whenever the Administrator has a reasonable basis to believe that a person may have violated paragraph (a)(1), (a)(2), or (a)(4) of this section, on request of the Administrator, that person must furnish to the Administrator the results, or authorize any clinic, hospital, or doctor, or other person to release to the

Administrator, the results of each test taken within 4 hours after acting or attempting to act as a crewmember that indicates an alcohol concentration in the blood or breath specimen.

PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS

14. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 40119, 41706, 44101, 44701–44703, 44705, 44709–44711, 44713, 44716–44717, 44722, 44901, 44903–44904, 44912, 45101–45105, 46105.

15. Revise § 121.458(f) to read as follows:

§ 121.458 Misuse of alcohol.

(f) *Refusal to submit to a required alcohol test.* A covered employee must not refuse to submit to any alcohol test required under appendix J to this part. A certificate holder must not permit an employee who refuses to submit to such a test to perform or continue to perform safety-sensitive functions.

16. Amend section II of Appendix I to part 121 by revising the definition of "refusal to submit" as follows:

Appendix I to Part 121—Drug Testing Program

II. Definitions.

Refusal to submit means that an employee engages in conduct provided in 49 CFR 40.191.

17. Amend section VI of Appendix I to part 121 by revising paragraph D.1 as follows and removing and reserving paragraph D.2.

VI. Administrative and Other Matters

D. *Refusal to Submit to Testing.* 1. Each employer must notify the FAA within 2 working days of any employee who holds a certificate issued under part 61, part 63, or part 65 of this chapter who has refused to submit to a drug test required under this appendix. Notification must be sent to: Federal Aviation Administration, Office of Aerospace Medicine, Drug Abatement Division (AAM-800), 800 Independence Avenue, SW., Washington, DC 20591.

18. Amend section VII of Appendix I by revising paragraphs C.1, C.2, C.3, C.4 and adding paragraph C.6 to read as follows:

VII. Medical Review Officer/Substance Abuse Professional, and Employer Responsibilities

C. Additional Medical Review Officer, Substance Abuse Professional, and Employer Responsibilities Regarding 14 CFR part 67 Airman Medical Certificate Holders.

1. As part of verifying a confirmed positive test result or refusal to submit to a test, the MRO must ask and the individual must answer whether he or she holds or would be required to hold an airman medical certificate issued under 14 CFR part 67 to perform a safety-sensitive function for the employer. If the individual answers in the affirmative to either question, in addition to notifying the employer in accordance with 49 CFR part 40, the MRO must forward to the Federal Air Surgeon, at the address listed in paragraph 5, the name of the individual, along with identifying information and supporting documentation, within 2 working days after verifying a positive drug test result.

2. During the SAP interview required for a positive test result or a refusal to submit to a test, the SAP must ask and the individual must answer whether he or she holds or would be required to hold an airman medical certificate issued under 14 CFR part 67 to perform a safety-sensitive function for the employer. If the individual answers in the affirmative, before the SAP can recommend to the employer that the individual be returned to a safety-sensitive position, the individual must be issued an airman medical certificate from the Federal Air Surgeon dated after the verified positive drug test result date or refusal to test date. The receipt of an airman medical certificate does not alter any obligations otherwise required by 49 CFR part 40 or this appendix.

3. An employer must forward to the Federal Air Surgeon within 2 working days of receipt, copies of all reports provided to the employer by a SAP regarding the following:

(a) An individual who the MRO has reported to the Federal Air Surgeon under section VII.C.1 of this appendix; or

(b) An individual who the employer has reported to the Federal Air Surgeon under section VI.D of this appendix.

4. The employer must not permit an employee who is required to hold an airman medical certificate under 14 CFR part 67 to perform a safety-sensitive duty to resume that duty until the employee has:

(a) Been issued an airman medical certificate from the Federal Air Surgeon after the date of the verified positive drug test result or refusal to test; and

(b) Met the return to duty requirements in accordance with 49 CFR part 40.

6. MROs, SAPs, and employers who send reports to the Federal Air Surgeon must keep a copy of each report for 5 years.

19. Amend section I.D. of Appendix J to part 121 by revising the definition of "refusal to submit" as follows:

Appendix J to Part 121—Alcohol Misuse Prevention Program

I. General

D. Definitions.

Refusal to submit means that an employee has engaged in conduct provided in 49 CFR 40.261, or has failed to remain readily available for post-accident testing as required by this appendix.

20. Amend section IV of Appendix J to part 121 by revising paragraph A.2(a)(2) to read as follows:

IV. Handling of Test Results, Record Retention, and Confidentiality

2. Period of Retention.
(a)

(2) Records of notifications to the Federal Air Surgeon of refusals to submit to testing and violations of the alcohol misuse prohibitions in this chapter by covered employees who hold medical certificates issued under part 67 of this chapter.

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

21. The authority citation for part 135 is amended to read as follows:

Authority: 49 U.S.C. 106(g), 41706, 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722, 45101–45105.

22. Revise § 135.253(f) to read as follows:

§ 135.253 Misuse of alcohol.

(f) *Refusal to submit to a required alcohol test.* A covered employee must not refuse to submit to any alcohol test required under appendix J to part 121 of this chapter. An operator or certificate holder must not permit an employee who refuses to submit to such a test to perform or continue to perform safety-sensitive functions.

Issued in Washington, DC, on December 2, 2004.

Jon L. Jordan,

Federal Air Surgeon.

[FR Doc. 04–27216 Filed 12–13–04; 8:45 am]

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Federal Register

Tuesday,
December 14, 2004

Part VI

**Department of
Commerce**

**National Oceanic and Atmospheric
Administration**

**Small Takes of Marine Mammals
Incidental to Specified Activities; Marine
Seismic Survey on the Blanco Fracture
Zone in the Northeastern Pacific Ocean;
Notice**

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 031104B]

Small Takes of Marine Mammals Incidental to Specified Activities; Marine Seismic Survey on the Blanco Fracture Zone in the Northeastern Pacific Ocean

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

ACTION: Notice of issuance of an incidental harassment authorization.

SUMMARY: In accordance with provisions of the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that an Incidental Harassment Authorization (IHA) to take small numbers of marine mammals, by harassment, incidental to conducting oceanographic seismic surveys on the Blanco Fracture and Gorda Ridge zones in the Northeastern Pacific Ocean has been issued to Lamont-Doherty Earth Observatory (L-DEO).

DATES: Effective from October 20, 2004 through October 19, 2005.

ADDRESSES: The application, IHA and a list of the references used in this document are available by writing to Steve Leathery, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225, or by telephoning the contact listed here. A copy of the application is also available at: http://www.nmfs.noaa.gov/prot_res/PR2/Small_Take/smalltake_info.htm#applications

FOR FURTHER INFORMATION CONTACT: Kenneth Hollingshead, Office of Protected Resources, NMFS, (301) 713-2322, ext 128.

SUPPLEMENTARY INFORMATION:**Background**

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Permission may be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses and that the permissible methods of taking and requirements pertaining to the monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except for certain categories of activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny issuance of the authorization.

Summary of Request

On March 8, 2004, NMFS received an application from L-DEO for the taking, by harassment, of several species of marine mammals incidental to conducting a seismic survey program. L-DEO plans to conduct a marine seismic survey in the Northeastern Pacific Ocean (NPO), off Oregon, during the fall of 2004. Up to two seismic surveys are scheduled to take place in the NPO. The main survey is planned to occur near the intersection of the Blanco Transform and the Juan de Fuca Ridge. Time permitting, a second survey may be conducted at Gorda Ridge. The main seismic survey will take place between 44° 0' 20" and 44° 42' N and between 129° 50' and 130° 30' W or at least 450 km (243 nm) offshore and outside the Exclusive Economic Zone (EEZ) of any nation. The Gorda Ridge survey is

located between 42° 20' and 43° N and between 126° 30' and 127° W, at least 84 nm (155.6 km) offshore, but within the EEZ of the United States.

The purpose of the seismic survey is to obtain information on the structure of the oceanic crust created at the Juan de Fuca Ridge. More specifically, the survey will obtain information on the geologic nature of boundaries of the earth's crust created at the intermediate-spreading Juan de Fuca Ridge. Past studies have mapped those boundaries using manned submersibles, but they have not provided a link between geologic and seismic structure. This study will provide the seismic data to assess the geologic nature of the previously mapped areas.

Description of the Activity

The proposed seismic survey will involve one vessel, the *R/V Maurice Ewing* (*Ewing*). The *Ewing* will deploy a 10- or 12-airgun array as an energy source, with discharge volumes of 3050 in³ and 3705 in³, respectively. The *Ewing* will also deploy and retrieve 12 Ocean Bottom Seismometers (OBSs), plus tow a 6-km (3.2 nm) streamer containing hydrophones, to receive the returning acoustic signals. As the airguns are towed along the survey lines, these two systems will receive the returning acoustic signals.

A total of approximately 150 kilometers (km) (81 nautical miles (nm)) of OBS surveys using a 12-gun array (24 hours of operation) and approximately 1017 km (549 nm) of Multi-Channel Seismic (MCS) profiles using a 10-gun array (6.5 days of operation) are planned to be conducted during the main survey. These line-kilometer figures include operations associated with start up, line changes of 10 km (5 nm) for the 12-gun array and 90 km (49 nm) for the 10-gun array, equipment testing, contingency profiles, and repeat coverage of any areas where initial data quality is sub-standard. In the unlikely event that there are no weather or equipment delays, additional MCS profiles may be acquired at the northern end of the Gorda Ridge where it intersects the Blanco Transform. The contingency survey would consist of 220 km (119 nm) of survey lines using the 10-gun seismic array, plus 63 km (34 nm) for turns and connecting lines, for a total of 283 km (153 nm). Water depths within the seismic survey areas are 1600-5000 m (5250-16,405 ft).

During the airgun operations, the vessel will travel at 7.4-9.3 km/hr (4-5 knots), and seismic pulses will be emitted at intervals of 60-90 sec for the OBS lines and approximately 20 sec for the Multi-Channel Seismic profiles

(MCS lines). The 20-sec spacing corresponds to a shot interval of about 50 m (164 ft), while the 60-90 sec spacing corresponds to a distance of 150 m (492 ft) to 220 m (722 ft), respectively. The 60-90 sec spacing along OBS lines is to minimize reverberation from previous shot noise during OBS data acquisition, and the exact spacing will depend on water depth.

For the 10- and 12-airgun arrays, the sound pressure fields have been modeled by L-DEO in relation to distance and direction from the airguns, and in relation to depth. Predicted

sound levels are depicted in Figures 6 and 7 in L-DEO's application. Empirical data concerning those sound levels have been acquired based on measurements during an acoustic verification study conducted by L-DEO in the northern Gulf of Mexico from 27 May to 3 June 2003. L-DEO's analysis of the acoustic data from that study (Tolstoy *et al.* 2004) provides limited measurements in deep water, such as found at Blanco Fracture and Gorda Ridge. Those data indicate that, for deep water, L-DEO's model tends to overestimate the received sound levels at a given distance. NMFS

and L-DEO, therefore, propose that the 180-dB and 190-dB (re 1 microPascal (root-mean-squared (rms)) sound pressure fields that will correspond to the safety radii (see Mitigation) will be the values predicted by L-DEO's model during airgun operations in deep water, including these planned survey operations.

For the Blanco Fracture survey using 10-gun and 12-gun arrays, the distances at which seismic pulses are expected to diminish to received levels of 190 dB, 180 dB, 170 dB and 160 dB re 1 microPa rms are as follows:

TABLE 1: DISTANCES TO WHICH SOUND LEVELS MIGHT BE RECEIVED FROM THE AIRGUN ARRAYS PLANNED FOR USE IN THE BLANCO FRACTURE ZONE.

Airgun Array	RMS Radii (m/ft)			
	190 dB	180 dB	170 dB	160 dB
1 airgun	13/43	36/118	110/361	350/1148
10 airguns	200/656	550/1805	2000/6562	6500/21325
12 airguns	250/820	600/1968	2200/1718	7250/23786

Additional information is contained in the L-DEO application, especially in Appendix A.

In addition to the operations of the airgun array, the ocean floor will be mapped continuously throughout the entire cruise with an Atlas Hydrosweep DS-2 Multibeam 15.5-kHz bathymetric sonar, and a 3.5-kHz sub-bottom profiler. Both of these sound sources are commonly operated simultaneously with the airgun array, but may, on occasion, be utilized independent of the seismic array.

The Atlas Hydrosweep is mounted on the hull of the *Maurice Ewing*, and it operates in three modes, depending on the water depth. There is one shallow water mode and two deep-water modes: an Omni mode and a Rotational Directional Transmission (RDT) mode. The RDT mode is normally used during deep-water operation and has a 237-dB rms source output. In the RDT mode, each "ping" consists of five successive transmissions, each ensonifying a beam that extends 2.67 degrees fore-aft and approximately 30 degrees in the cross-track direction. The five successive transmissions (segments) sweep from port to starboard with minor overlap, spanning an overall cross-track angular extent of about 140 degrees, with small (<1 millisecond) gaps between the pulses for successive 30-degree segments. The total duration of the "ping," including all five successive segments, varies with water depth, but is 1 millisecond in water depths less than 500 m and 10 millisecond in the deepest water. For each segment, ping duration is 1/5th of these values or

2/5th for a receiver in the overlap area ensonified by two beam segments. The "ping" interval during RDT operations depends on water depth and varies from once per second in less than 500 m (1640.5 ft) water depth to once per 15 seconds in the deepest water.

The sub-bottom profiler is normally operated to provide information about the sedimentary features and the bottom topography that is simultaneously being mapped by the Hydrosweep. The energy from the sub-bottom profiler is directed downward by a 3.5 kHz transducer mounted in the hull of the *Ewing*. The output varies with water depth from 50 watts in shallow water to 800 watts in deep water. Pulse duration is 1, 2 or 4 ms and the pulse interval is 1 second (s) but a common mode of operation is to broadcast five pulses at 1-s intervals followed by a 5-s pause. The beamwidth is approximately 30° and is directed downward. Maximum source output is 204 dB re 1 microPa, 800 watts, while nominal source output is 200 dB re 1 microPa, 500 watts. Pulse duration will be 4, 2, or 1 ms, and the bandwidth of pulses will be 1.0 kHz, 0.5 kHz, or 0.25 kHz, respectively.

Sound levels have not been measured directly for the sub-bottom profiler used by the *Ewing*, but Burgess and Lawson (2000) measured sounds propagating more or less horizontally from a similar unit with similar source output (205 dB re 1 microPa m). The 160 and 180 dB re 1 microPa rms radii in the horizontal direction were estimated to be, respectively, near 20 m (66 ft) and 8 m (26 ft) from the source, as measured in

13 m or 43 ft water depth. The corresponding distances for an animal in the beam below the transducer would be greater, on the order of 180 m (591 ft) and 18 m (59 ft), assuming spherical spreading.

The sub-bottom profiler on the *Ewing* has a stated maximum source level of 204 dB re 1 microPa. Thus the received level would be expected to decrease to 160 and 180 dB about 160 m (525 ft) and 16 m (52 ft) below the transducer, respectively, assuming spherical spreading. Corresponding distances in the horizontal plane would be lower, given the directionality of this source (30° beamwidth) and the measurements of Burgess and Lawson (2000).

Characteristics of Airgun Pulses

Discussion of the characteristics of airgun pulses was provided in the notice of proposed authorization to L-DEO for this activity (69 FR 31792, June 7, 2004) and is not repeated here. Reviewers are encouraged to read this earlier document for information on how airgun arrays function.

Comments and Responses

A notice of receipt and request for public comment on the application and proposed authorization was published on June 7, 2004 (69 FR 31792). During the 30-day public comment period, comments were received from the Center for Biological Diversity (CBD), the Natural Resources Defense Council (NRDC), the New York Whale and Dolphin Action League (NYWDAA), the Animal Welfare Institute (AWI), and one

individual member of the public. In addition, NMFS received approximately 300 e-comments on this proposed action. These comments did not raise additional significant issues on the proposed authorization that are not also addressed by the commenters mentioned here.

Marine Mammal Concerns (MMC)

Comment MMC 1: The CBD states the notice and application do not have sufficient data to support the conclusion that only small numbers (of marine mammals) will be taken. For many species, NMFS is relying on incomplete, outdated, or no surveys whatsoever. For example, there is no information provided at all for Blainville's, Hubb's, and Stejneger's beaked whales, California sea lion, Steller sea lion, or harbor seal. Surveys should be conducted prior to authorizing the IHA.

Response: NMFS does not agree that marine mammal assessment surveys are needed prior to issuing an IHA. When information is unavailable on a local marine mammal population size, NMFS uses either stock or species information on abundance. Therefore, additional surveys are unnecessary. Also, while information may be lacking for some species of beaked whales, information on pinniped abundance and trends is found in the application.

Comment MMC 2: The CBD believes that NMFS' analyses of small numbers and negligible impact are flawed. First, NMFS uses "North Pacific Ocean" to define the geographical limits of the "regional" populations that form the basis of its analyses instead of providing an analysis of impacts on stocks or more localized populations that overlap with the project area. The CBD believes that the appropriate geographic scale should be populations and stocks inhabiting the survey area and not the entire North Pacific. Similarly, the NRDC believes that L-DEO uses the population size for humpback whales for the entire North Pacific (6000 animals) rather than on the lower estimates produced for the U.S. West Coast or the defined feeding area off Oregon and Washington coasts (between 300 and 1400).

Response: NMFS agrees that impacts should be assessed on the population or stock unit whenever possible. L-DEO's application (see especially Table 2 in the application) provides information on stock abundance in Oregon/Washington (when available) and larger water bodies (such as the North Pacific Ocean). The data source for each stock estimate is provided. NMFS believes that these data are the best scientific information available for estimating impacts on marine mammal species and

stocks. However, Congress recognized that information on marine mammal stock abundance may not always be satisfactory. When information is lacking to define a particular population or stock of marine mammals then impacts are to be assessed with respect to the species as a whole (54 FR 40338, September 29, 1989). Table 2 in this **Federal Register** document provides the percentage of the regional population of each species of marine mammal (when known) estimated to be exposed to SPLs at or greater than 160 dB (rms).

When estimating take levels for humpback whales, L-DEO calculated humpback whale density using the 1996 and 2001 marine mammal ship survey data for waters off Washington and Oregon found in Barlow (2003). This estimate is based on nine humpback whale sightings during 7482 km (4044 nm) of survey effort during both years. The final density estimate found in Table 3 in the L-DEO application of 0.0005/sq km is the weighted average (based on effort in each year) of the densities reported in Barlow (2003) for the 1996 and 2001 surveys.

Comment MMC 3: The NRDC argues that the numbers used by L-DEO for killer whale abundance estimates fail to capture the distinctions made in the literature among the various resident and transient stocks in the Pacific Northwest. One citizen believes that the management unit for NMFS is the stock, not the species and that while the estimated impacts may be small relative to population size of the species, they may not be small relative to the affected stock. For example, one commenter states the proposed study site is used by the Eastern North Pacific (ENP) Resident Stock of killer whales. It numbers fewer than 85 individuals. It rarely travels in units of fewer than 20 individuals, so if present in the study area at all, at least 25 percent of the population would be affected. Since the stock is already depleted, a lethal taking of this magnitude would be devastating. The potential is obscured by including members of other stocks in the population estimate for killer whales. The CBD believes that the appropriate geographical scale is particularly critical for the killer whale, such as the ENP Transient, ENP Offshore, and the Northern and Southern Resident stocks. NMFS does not even mention the impacts of the proposed authorization on these stocks of killer whales in the proposed authorization, rendering the analysis wholly useless. The take of even one killer whale from these stocks will have more than a negligible impact on the stock and the species.

Response: Information on the killer whale stocks can be found in Angliss and Lodge (2003), particularly on the ENP Northern Resident and Transient stocks, and in Caretta et al. (2003), particularly on the ENP Offshore and Southern Resident stocks. Information was provided in L-DEO's application and in NMFS' proposed authorization notice (see text and Table 2).

Based on summer/fall shipboard line-transect surveys in 1996 (Barlow, 1997) and 2001 (Barlow, 2003) the total number of killer whales within 300 nm (556 km) of the coasts of California, Oregon and Washington has been estimated to be 1340 (CV=0.31). Caretta et al. (2003) note the while there is currently no way to reliably distinguish the different stocks of killer whales from sightings at sea they estimate that, by prorating (as explained in Caretta et al., 2003) there are 466 offshore killer whales along the U.S. West Coast with a Pmin of 361 animals. Because of the location of the Blanco Fracture survey, NMFS believes that Level B harassment would be limited to the ENP Offshore stock of killer whales.

Since this species is unlikely to be in the vicinity of the *Ewing* at the time seismic is operating (L-DEO, 2004), and would be highly visible to observers if it was present, no killer whales will be injured or killed (i.e., no removals from the species or stock) as a result of the *Ewing's* seismic operations. Therefore, the only potential taking might be by Level B harassment. As indicated in Table 2 in this document, L-DEO estimates that approximately 12 killer whales might be within the 160-dB (rms) isopleth and, therefore, presumed to be harassed. This is less than 0.1 percent of the regional killer whale population and less than 0.3 percent of the regional offshore population.

Moreover, since the killer whale's optimum hearing range is not in the low frequency used by seismic sources, this number should not be interpreted as the number being "taken" by Level B harassment, only the number that might be exposed to that level of noise. Therefore, it is highly unlikely that the taking by Level B harassment will be more than negligible on the offshore killer whale stock.

Comment MMC 4: The NRDC states that L-DEO appears to be relying on survey data that are quite limited and, for some species, may be misleading. For Cuvier's beaked whales, a species now thought to be extremely vulnerable to intense noise, the abundance estimate provided by L-DEO and adopted by NMFS is zero, based presumably on a lack of sightings of these animals during the 1996 and 2001 surveys by the

Southwest Fisheries Science Center. It has recently been observed, however, that the likelihood of sighting beaked whales in anything heavier than a light breeze is minimal. If the 1996 and 2001 surveys were mainly conducted in rougher weather, then the density of these animals at the Blanco and Gorda sites may be higher than supposed.

Response: Caretta *et al.* (2004) determined that a multi-year average abundance estimate for Cuvier's beaked whales along the coasts of California, Oregon and Washington is the most appropriate estimate for management purposes on the U.S. West Coast because this species probably spends time outside the U.S. EEZ. The 1996–2001 weighted average abundance estimate is 1884 (CV=0.68) and the minimum population size is 1121 animals. No marine mammal assessment surveys have been conducted off Oregon and Washington so there is not a population estimate for these states separate from California. That was the reason for Table 2 in L-DEO's application indicating zero Cuvier's beaked whales off Oregon and Washington. The population estimate of 1884, as shown in Table 2 of L-DEO's application, has been accepted by NMFS as the best scientific information available for the stock size for Cuvier's beaked whale along the Pacific coast of the United States.

There is a scientific methodology to estimate the probability of detecting marine mammals during vessel assessment surveys, as explained in detail in Buckland *et al.* (1993). NMFS marine mammal ship survey procedures are detailed in Barlow (1995). Methodology includes several components, including the probability that the mammal will be at the surface and potentially sightable while within visual range of the observers, the probability that an animal at the surface will in fact be detected, and the relationship between sighting probability and lateral distance from the ship's trackline. All of these factors are taken into account when making density and population abundance estimates. Finally, Barlow (1995) notes that because small whales and "cryptic" marine mammal species were seldom seen in rough conditions, the abundance estimate for these species were made using only data from calm conditions (see also Barlow, 2003).

Comment MMC 5: The AWI states that combining the ramifications of studies and statements cited in its letter (Jepsen, 2003; Taylor *et al.*, 2004; Mead, 2000; Simmonds and Lopez-Jurado, 1991; Martin-Martel, 2003; and Frantzis, 1998), a highly plausible new

mechanism for injury emerges that must be considered by NMFS in all applications requesting permission to take marine mammals incidental to emission of intense sounds into the ocean, especially, but not exclusively when beaked whales are known to live in the area. This mechanism appears to be an acute behavioral response to relatively low (100–160 dB) levels of sound, which may lead to death.

Response: A review of the Smithsonian stranding database by Mead (2000) shows that there had been seven instances of multiple beaked whale strandings up to that date. One of these instances involved ordnance, two were not associated with military activities, and four were concurrent with military maneuvers. (Taylor *et al.* (2004) recently updated this list.) It is not known whether sonar was involved with these naval exercises (NOAA, 2002). Simmonds and Lopez-Jurado (1991) state that between 1982 and 1989 there were 22 strandings of cetaceans in the Canary Islands, with three being related to military activity. The Simmonds and Lopez-Jurado (1991) and Frantzis (1998) articles were published scientific correspondences based solely on observations. The Jepsen *et al.* (2003) paper, which discussed the September, 2002 multi-species stranding in the Canary Islands, is analyzed in a later response.

Prior to the 2000 Bahamas stranding (see DON and NOAA, 2001), no tissues were collected, and the type of military maneuvers and time and distance separating them from the animals' original location are not known. Without this information NMFS cannot conclude whether sonar did or did not cause these deaths. Therefore, the data do not necessarily suggest a high correlation between naval activities and beaked whale strandings, nor do they provide evidence of causation. It should also be noted that the implicated sonar in the 2000 Bahamas stranding incident was a mid-frequency sonar (2.6 and 3.3 kHz), not the low frequency (0–188 Hz) seismic airguns found on the *Ewing*. In addition, as for reasons noted in response to comment MMC 8, the other acoustic equipment onboard the *Ewing* (the Atlas Hydrosweep DS-2 Multibeam 15.5-kHz bathymetric sonar and the 3.5-kHz sub-bottom profiler) are not likely to be capable of causing marine mammal strandings because of their brief pings.

After the 2000 Bahamas beaked whale stranding, two hypotheses were identified on a possible mechanism for the stranding event. The most widely discussed hypothesis was that the stranding may have resulted from air

cavity resonance caused by exposure to mid-frequency active sonar, or to a source with similar operating characteristics. It was concluded that acoustic resonance in air-filled structures was not likely to have played a primary role in the Bahamas stranding (but could play a secondary role) (Gentry, R. 2002, available at http://www.nmfs.noaa.gov/prot_res/readingrm/MMSURTASS/Res_Wkshp_Rpt_Fin.PDF).

A second hypothesis developed at the workshop considered as a possible cause of beaked whale strandings was the acoustic activation of nitrogen bubble nuclei in tissues that are supersaturated with nitrogen from respiratory gases after diving. Factors that support this hypothesis include: (1) Beaked whales are deep divers with slow descent and ascent rates that promote high degrees of supersaturation which, in theory, should increase their susceptibility to bubble growth, and (2) some trauma in the Bahamas animals was similar to that experienced by terrestrial animals subjected to rapid decompression. Factors that refute the hypothesis include: (1) the resonant frequency of microbubbles is much higher than either low- or mid-frequency sonars, and (2) deep-diving mammals that produce intense vocalizations would be expected to have evolved some bubble suppression mechanisms over time. The Gentry report states that less is known about acoustically mediated bubble activation than about any other hypothesized mechanisms for the strandings. Especially important is (1) determining whether marine mammals have bubbles at all when they dive, (2) the lowest SPL that can trigger bubble activation if it occurs, (3) modeling bubble onset (nucleation) and stabilization, and (4) modeling the role of acoustic waves in bubble growth under realistic levels of nitrogen supersaturation.

NMFS concluded that the scientific community needs more information before it can satisfactorily explain: (1) why most sonar operations apparently do not cause strandings, but some do, depending upon factors present, (2) which taxa are most, and which are least, susceptible to these sounds, (3) whether the differences between these groups suggest a plausible mechanism of effect, (4) whether there is some as yet unknown physiological effect of exposure much lower than those that cause trauma in laboratory animals, (5) whether animals respond behaviorally to sonar in ways that may increase their exposure, and (6) whether mid-frequency sonars affect populations of animals in ways they do not affect

individuals (i.e. through socially facilitated panic). At the present time, NMFS believes that beaked whales are sometimes affected by mid-frequency sonar, but does not know the mechanism for that effect.

Only two papers, Taylor *et al.* (2004) and Engel *et al.* (2004) reference seismic signals as a possible cause for a marine mammal stranding. Taylor *et al.* (2004) noted two beaked whale stranding incidents related to the *Ewing*. Both of those stranding incidents were discussed in L-DEO's application. Additional discussion can be found in response to comment MMC7. However, in recognition of a possibility that seismic operations may be having this possible effect, NMFS is requiring additional mitigation measures as discussed later in this document (see Mitigation).

Engel *et al.* (2004), a recent paper presented to the International Whaling Commission (IWC) in 2004 (SC/56/E28), mentioned a possible link between oil and gas seismic activities and the stranding of 8 humpback whales (7 off the Bahia of Espirito Santo States and 1 off Rio de Janeiro, Brazil). Additional concerns about the relationship between this stranding event and seismic activity were raised by the International Association of Geophysical Contractors (IAGC). The IAGC (2004) argues that not enough evidence is presented in Engel *et al.* (2004) to assess whether or not the relatively high proportion of adult strandings in 2002 is anomalous. The IAGC contends that the data do not establish a clear record of what might be a "natural" adult stranding rate, nor is any attempt made to characterize other natural factors that may influence strandings. NMFS is concerned that the Engel *et al.* (2004) article appears to compare stranding rates made by opportunistic sightings in the past with organized aerial surveys beginning in 2001. If so, then the data are suspect.

Comment MMC 6: The AWI quotes portions of the Jepsen *et al.* (2003) paper that "these lesions (found in the 14 beaked whales that stranded in the Canary Islands in 2002) are consistent with acute trauma due to *in vivo* bubble formation resulting from rapid decompression (as occurs in decompression sickness (DCS)). Bubble formation in response to sonar exposure might result from behavioral changes to normal dive profiles (such as accelerated ascent rate), causing excessive nitrogen supersaturation in the tissues (as occurs in decompression sickness); alternatively, bubble formation might result from a physical effect of sonar on *in vivo* bubble

precursors (gas nuclei) in nitrogen-supersaturated tissues."

Response: The hypothesis proposed by Jepsen *et al.* (2003) is considered by NMFS scientists and others to be speculative at this time. Piantadosi and Thalman (2004) consider the hypothesis to contain two flaws. First, whales do not develop sufficient gas supersaturation in the tissues on ascent to cause extensive bubble formation in the liver (i.e., Jepsen *et al.* (2003) found the livers of these animals to be the most consistently affected organ). Second, large gas-filled cavities in the liver are inconsistent with the pathology of DCS in humans and other mammals in which the bones, joints, lungs and central nervous system are primarily affected. They conclude that identifying the cetacean gas disease with DCS is, therefore, premature because its pathology not only differs from that underlying the syndrome in other mammals, but it also cannot be explained by any physiological mechanism related to diving. Fernandez *et al.* (2004) reply that even if naturally occurring levels of nitrogen supersaturation in the tissues of diving cetaceans are normally insufficient to initiate bubble growth, a theoretical possibility remains that cetaceans with supersaturated tissues could experience bubble growth or formation as a result of intense acoustic exposure. However, Fernandez *et al.* (2004) conclude that these uncertainties argue for caution in interpreting the limited studies available. Finally, all authors concur that further investigation is needed, including an analysis of the composition of the gas in the bubbles.

Comment MMC 7: The AWI states that, in light of the Taylor *et al.* (2004) paper, NMFS needs to reassess its statement that "the evidence with respect to seismic surveys and beaked whale strandings is inconclusive and NMFS has not established a link between the Gulf of California stranding and the seismic activities." The AWI believes the authors document first-hand experience of beaked whale strandings that coincided exactly with a seismic survey being conducted by the *Ewing*.

Response: Taylor *et al.* (2004) does not refute NMFS' statement made in the proposed IHA notice. The statement in Taylor *et al.* (2004) was that the *Ewing* was firing its airguns at 1300 hrs on September 24 and that between 1400 and 1600 hrs, local fishermen found live-stranded beaked whales some 22 km (12 nm) from the ship's location. Review of the *Ewing's* trackline indicates that the closest approach of the *Ewing* and the beaked whales

stranding location was 18 nm (33 km) at 1430 hrs. At 1300 hrs, the *Ewing* was located 25 nm (46 km) from the stranding location. What is unknown is the location of the beaked whales prior to the stranding in relation to the *Ewing*, but the close timing of events indicates that the distance was not less than 18 nm (33 km). No physical evidence for a link between the seismic event and the stranding was obtained. In addition, Taylor *et al.* (2004) indicates that the *Ewing* was operating 500 km (270 nm) from the 2000 Galapagos Island stranding site. Whether the *Ewing* seismic survey caused to beaked whales to strand is a matter of considerable debate (Cox *et al.*, in review). NMFS believes that scientifically, these events do not constitute evidence that seismic surveys have an effect similar to that of mid-frequency sonar. However, these incidents do point to the need to look for such effects during future surveys. Follow-up surveys by the *Ewing* and other vessels are now required whenever time and tracklines permit doing so. To date, follow-up observations have not indicated any beaked whale stranding incidents (a marine mammal does not need to be on the beach in order for it to be considered a stranding).

Comment MMC 8: The AWI argues that given recent events, subsequent research, and expert discussion that support the contention that beaked whales may startle when ensounded by specific anthropogenic noises from seismic survey experiments and mid-range sonars, rise suddenly without adequate decompression time, and suffer injuries and/or die from symptoms similar to decompression sickness in humans, the premise that a ship can avoid causing severe injury or death because they can visually identify whales within the safety zone that extends to the perimeter of 180 dB, is false for two reasons: because the onset of injury appears to come from much lower sound levels and because the whales can't be seen. If the safety perimeter is to include levels of sound that might cause physical injury, injuries that come from an acute behavioral response must be included. Judging from the evidence from strandings of beaked whales in Greece, the Bahamas, Canary Islands, Baja California, and the Azores, and considering the likely received levels of sound from the location of the ships and the location of the strandings, it cannot be proven that this startle response by whales who died was not provoked by received levels of sound well below 160 dB.

Response: As discussed previously, the hypothesis proposed by Jepsen *et al.* (2003) that beaked whales suffer from DCS is considered speculative at this time. In addition, reports by Simmonds and Lopez-Jurado (1991), Martin-Martel (2003), and Frantzis (1998) on the association of beaked whale strandings concerns high intensity, mid-frequency military sonars, not low-frequency seismic activity. NMFS believes that scientifically, the stranding events in the Gulf of California and the Galapagos Islands do not constitute evidence that seismic surveys have an effect similar to that of mid-frequency sonar. The question on whether the *Ewing* seismic survey caused beaked whales to strand is a matter of considerable debate. Finally, not knowing the location of beaked whales in relation to an acoustic source does not allow one to assume that a certain sound pressure level is unsafe.

Comment MMC 9: The CBD states that there is insufficient disclosure of the compounded impact of the array's seismic output along with the other acoustical data acquisition systems, the multi-beam sonar and sub-bottom profiler. Despite the fact that the sonar and pinger will be operating continuously during the voyage, NMFS assumes there will be no additional take from these instruments individually or from all sources collectively. NMFS must address instances when all sources may not be operating simultaneously and provide a substantiated explanation why it assumes there is no enhanced impact of multiple acoustic sources operating together.

Response: This information is provided in detail in the L-DEO application and NSF EA. Although not stated in these documents, additive effects from these sources will not occur because they are not operating in the same frequency, are not in phase with each other and do not have the same sound pressure levels. The multibeam sonar and sub-bottom profiler have anticipated radii of influence significantly less than that for the airgun array. NMFS has stated previously that marine mammals close enough to be affected by the multibeam sonar or sub-bottom profiler would already be affected by the airguns when they are both working. Since NMFS considers all marine mammals to be affected equally by underwater sound and does not determine which species are low-frequency hearing specialists and therefore more affected by seismic (a low-frequency source) and which species are mid- or high-frequency specialists and therefore more likely to be affected by these sonars, NMFS does

not consider it necessary to conduct an analysis on the enhancement of effects for animals that might be affected by these sonars. In other words, the acoustic source with the largest zone of influence is used to determine incidental take levels.

Also, estimates of incidental take by harassment for times when the multibeam sonar and/or sub-bottom profiler are operated without airguns are not necessary because the 160-dB and 180-dB isopleths of the sub-bottom profiler and multibeam are either too small or the acoustic beams are very narrow, making the duration of the exposure and the potential for taking marine mammals by harassment small to non-existent. As provided in the L-DEO application, the 160-dB and 180-dB radii in the horizontal direction for the sub-bottom profiler are estimated to be near 20 m (66 ft) and 8 m (26 ft), respectively. In the vertical direction, the 160-dB and 180-dB radii are 160 m (525 ft) and 16 m (52 ft) directly below the hull-mounted transducer. With the *Ewing's* beam at 14.1 m (46.25 ft) little noise is, therefore, likely to exist at the water surface beyond the immediate vicinity of the *Ewing* from this hull-mounted sonar. As a result, it is unlikely that marine mammals would be affected by sub-bottom profiler signals whether operating alone or in conjunction with other acoustic devices since the animals would need to be swimming immediately adjacent to the vessel or directly under the vessel. This is unlikely to occur during the *Ewing* cruise since the vessel is likely to be in transit mode, when not towing seismic, and will therefore be traveling at about 10–11 knots (18.5–20.4 km/hr) at the time.

For the Hydrosweep multi-beam sonar there is minimal horizontal propagation as these signals project downward and obliquely to the side at angles up to approximately 70 degrees from the vertical, but not horizontally. For the deep-water mode, directly under the *Ewing* the 160- and 180-dB zones are estimated to extend to 3200 m (10500 ft) and 610 m (2000 ft), respectively. However, the beam width of the Hydrosweep signal is only 2.67 degrees fore and aft of the moving vessel, meaning that a marine mammal diving (not on the surface) could receive at most 1 to 2 signals from the Hydrosweep. Also, because NMFS treats behavioral harassment or injury from pulsed sound as a function of total energy received, the actual harassment or injury threshold for Hydrosweep signals (approximately 10 millisecond in duration) would be at a much higher dB level than that for longer duration

pulses such as seismic or military sonar signals. As a result, NMFS believes that marine mammals are unlikely to be harassed or injured from the multibeam sonar or the Hydrosweep sonar due to the short duration and only 1 to 2 pulses received.

MMPA Concerns (MMPAC)

Comment MMPAC 1: The AWI states that L-DEO has applied for the wrong type of "small take authorization" asserting that the proposed project poses a lethal threat to the marine mammals and, therefore, does not qualify for an IHA, which is only allowed where there is no possibility whatsoever of causing a severe injury or death. By law, all possibility of any severe injury or deaths must be eliminated by mitigation, or not exist.

Response: While an authorization for taking marine mammals by mortality cannot be authorized under section 101(a)(5)(D) of the MMPA, those paragraphs do authorize taking by Level A harassment. Level A harassment means any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or a marine mammal stock in the wild. While it is true that an injury can be so severe that it later may result in mortality, the MMPA does not preclude issuance of an authorization under section 101(a)(5)(D) of the MMPA for activities that have the potential to cause injury. However, as NMFS shows in this document mortality and serious injury are not expected to occur during this seismic survey cruise due to implementation of mitigation measures (e.g., ramp-up, passive acoustic and visual monitoring, and quiet acoustic periods). Nor is take by mortality authorized. Therefore, issuance of an IHA is appropriate. Mitigation measures are discussed later in this document.

Comment MMPAC 2: The CBD believes NMFS has not demonstrated that the LDEO project will take only small numbers of marine mammals.

Response: NMFS believes that the small numbers requirement has been satisfied. The U.S. District Court for the Northern District of California held in *NRDC v. Evans* that NMFS' regulatory definition of "small numbers" improperly conflates it with the "negligible impact" definition. Even if that is the case, in the proposed IHA notice and in this document, NMFS has made a separate determination that the takes of the affected marine mammal species will be small. The species most likely to be harassed during seismic surveys in the Blanco Fracture area is the Dall's porpoise, with a "best estimate" of 551 animals being exposed

to sound levels of 160 dB or greater. It should be understood that this does not mean that this is the number of Dall's porpoises that will be taken by Level B harassment, only the best estimate of the number of animals that potentially could have a behavioral modification due to the noise (ignoring for example that Dall's porpoise have best hearing at high frequencies, not the low frequencies used by seismic, and may not even hear seismic sounds). If in fact Dall's porpoise cannot hear the low-frequency seismic sounds, then no taking of this species will occur. Although it might be argued that the absolute number of Dall's porpoise behavioral harassment numbers may not be small, the number is relatively small, representing less than 1 percent of the regional population of that species. It should be noted that during this project, no more than 1 percent of any marine mammal stock will be potentially subject to Level B harassment.

In addition, the mitigation measures set forth by this IHA ensure that there will be negligible impacts on the marine mammals. Cetaceans are expected, at most, to show an avoidance response to the seismic pulses. Mitigation measures such as controlled speed, course alteration, visual and passive acoustic marine mammal monitoring, and shut-downs when marine mammals are detected within the defined ranges should further reduce short-term reactions to disturbance, and minimize any effects on hearing sensitivity. Due to these mitigation measures, the impacts will be negligible.

Mitigation Concerns (MIC)

Comment MIC 1: The AWI questions whether the downward directional nature of seismic airguns would be a mitigation measure as stated by L-DEO and NMFS. The AWI believes that deep diving whales, such as the beaked whale, could be hit by SPLs of at least 168 dB many kilometers from the Ewing, and no observer would ever know. Supersaturated whales might be startled to the surface very quickly, perhaps, triggering a DCS event. The applicant must disprove this potential for a wide horizontal impact zone from airgun array signals.

Response: Discussion of the potential impacts on marine mammals, including beaked whales, was provided previously in this document. Implementation of ramp-up is presumed to allow marine mammals, including beaked whales, to become aware of the approaching vessel and move away from the noise, if they find the noise annoying. This is discussed in more detail later in this section. However, the downward

directionality of the seismic signal provides for lower SPLs for marine mammals, sea turtles and other marine life that spend most of their time in surface waters. As indicated in Figure 7 in L-DEO's application, a safety zone has been established at 600 m (1968 ft) for the 12-gun array (which will be used for only 24 hrs of seismic) where the 180 dB isopleth is at its maximum distance from the sound source at a water depth of 500 m (1640 ft). Therefore, in the surface waters, SPLs are more likely to be in the range of 160–170 dB and 180 dB would not be found unless in the immediate vicinity of the Ewing.

NMFS recognizes that deep-diving marine mammals, such as sperm whales and beaked whales, might receive higher SPLs at depth than they would at the surface. That is why the safety zone is established at the maximum distance at depth and not at the 180 dB isopleth at the surface. This provides greater protection for marine mammals in surface waters than would otherwise be warranted.

Comment MIC 2: The AWI contends that L-DEO does not have the capability to determine the actual acoustical environment (water depth, currents, mixing, lenses, channels, wave action, biologics, etc.) prior to or during an experiment, or to predict zones of potential impact on beaked whales and other marine animals. There is no empirical evidence to substantiate L-DEO's implied claim that there will be no injurious behavioral responses or direct injury, because they also lack the technology and data to determine risk thresholds within the zones. It is also inappropriate for L-DEO to assume that conditions on one day will be similar to the next day.

Response: The issue of potential impacts to beaked whales and other marine mammal species is addressed elsewhere in this document. In regard to the significance of applying empirical measurements, this can be done either on-site at the time of the acoustic work or by modeling site-specific existing data beforehand. If neither is practicable, L-DEO proposed and NMFS has implemented conservative distances for safety zones in the IHA.

It should be noted however, that the deep sound channel (SOFAR channel) is usually found in the 750–1200 m (2461–3937 ft) depth range at this latitude. For this channel to become a duct for seismic sounds from the surface, the most likely scenario would be for the seismic survey to be taking place in an area where this channel would encounter a slope which would redirect the sound into the SOFAR channel.

Both seismic surveys planned for this cruise will be conducted in areas that are well below this water depth and thus increased sound propagation within the deep sound channel is not likely. Shallow water ducts are associated with continental shelves with depths less than 200 m (656 ft) in winter-time. Again this would not apply to the Blanco Fracture cruise. In regard to surface duct effects, increased sound propagation within the mixed water layer between the sea surface and the sonic layer depth could be associated with the seismic sound sources. However, it is unlikely that this effect would be significant because the downward directivity of the sound source will direct most of the energy ray path at an angle greater than the 1.76 degrees (from the surface) within which the sound will enter this duct. It should be noted that strong surface ducts are most common in nearshore areas where there is significant freshwater inflow. That is not a factor in the offshore environment of the Blanco Fracture Zone. Finally, the deep scattering layer and daily fluctuations in temperature, salinity and wave motion are considered inconsequential for calculating sound propagation for estimating safety zones.

While L-DEO has not proposed making empirical measurements of the actual acoustical environment prior to or during a survey, the Ewing has that capability if additional equipment were onboard and time was available. Calibration is principally conducted using a specially adapted spar buoy with two hydrophones suspended at depth beneath the buoy. A second system is the U.S. Navy/University of New Orleans Environmental Recording System (EARS), a bottom-moored recording system. For the Blanco Fracture cruise, neither ship time nor the equipment is available. It should also be recognized that undertaking measurements during a survey would likely result in a smaller observer complement being onboard due to berthing space. Also, because the marine mammal safety zones are conservatively established, based on the 2003 Gulf of Mexico calibration study, use of empirical measurements may result in smaller safety zones rather than larger safety zones.

Comment MIC 3: The AWI questions the validity of the L-DEO statement that the smaller size of the airgun array being deployed (10 and 12-airguns) is a mitigation measure. The AWI states that these airguns would produce 255 (peak-peak (pk-pk) and 257 dB (pk-pk), respectively, both levels among the highest anthropogenic sounds ever made.

Response: The source levels provided here are estimated from a far-field measurement that is extrapolated back to a hypothetical point 1 m (3.3 ft) from the center of a seismic array that is, in this case, 30 m (98 ft) across. Therefore, this number does not closely resemble what a marine mammal might actually experience. NMFS encourages, and works with, applicants for IHAs and Letters of Authorization to design their activity to ensure the lowest levels of sound possible going into the marine environment without compromising the success of the work planned. For the Blanco Fracture study, L-DEO has proposed using the Ewing's 10-gun (255 dB pk-pk or 241.0 dB rms) and 12-gun (257 dB pk-pk, 242.7 dB rms) arrays, instead of its 20-gun (262 dB pk-pk, 244.4 dB rms) array. The larger 12-gun array will be used a total of 24 hours and the smaller 10-gun array will be used for 6.5 days at the Blanco Fracture area. The difference between the 160 dB (rms) isopleths for these two arrays is 750 m (2461 ft). If L-DEO had designed the Blanco Fracture study using the Ewing's standard 20-gun array, the 160 dB isopleth would have been at 9000 m (29529 ft), or 2500 m (8202 ft) larger than the 160 dB isopleth around the 10-gun array. Because of the water depth at the site and the need to determine the structure of the oceanic crust, the 10- and 12-gun arrays were determined by L-DEO to be the smallest sources possible for use at this site. Since L-DEO chose not to use the 20-gun array, this is considered by NMFS to be a valid measure to reduce impacts on marine mammals to the lowest level practicable.

Safety Zones

Comment MIC 4: The CBD believes that NMFS' discussion of measures to ensure the least practicable impact is lacking. For example, NMFS provides no analysis of why larger safety radii were not practicable or why the additional correction factors provided in previous authorizations were not provided.

Response: Safety zones were established and are monitored closely to ensure, to the greatest extent practicable, that no marine mammals would be injured by the proposed activity. While extending safety zones to reduce Level B behavioral harassment would, in theory, result in reducing "takes" further, monitoring larger safety zones results in lower effort directed to the area of greatest concern, the area for potential injury. This lower effort might result in missed animals. This is not acceptable to NMFS and, for that reason, NMFS has determined that safety and

monitoring zones should be established at 180 dB for cetaceans and 190 dB (rms) for pinnipeds.

Additional correction factors for calculating safety zones are necessary based on attenuation due to water depth, not because of distance from shore (although in most cases the two are related). Underwater seismic sounds are subject to spherical spreading to a distance approximately 1.5 times water depth. This is essentially what occurred in the Gulf of Mexico seismic calibration study. These additional correction factors are applied for L-DEO seismic activities taking place in water depths less than 1000 m (3281 ft), which do not apply for the Blanco Fracture study area.

Ramp-Up

Comment MIC 5: The AWI notes that ramp-up assumes that all vulnerable animals will be motivated to move away from the sound source to avoid receiving levels that may result in deleterious impacts. This assumption apparently comes exclusively from citations from Richardson concerning avoidance of bowhead and beluga whales in the path of approaching icebreakers and gray whale avoidance by Tyack during the Navy's low frequency sonar scientific research. Both of these references involved millions of times less intense levels of sound with a greatly diminished reach.

Response: In addition to providing this information in L-DEO's application, observations of behavioral changes in marine mammals in response to seismic surveys were summarized in Gordon *et al.* (2004). Those authors summarized avoidance response levels to seismic noise for a number of species with bowhead whales apparently the most sensitive (120 dB rms and above), other balaenopterid whales less sensitive (blue whales 143 dB pk-pk, humpback whales 157-160 dB pk-pk, and gray whales 164-180 dB (rms)) and dolphins and seals the least sensitive.

Comment MIC 6: The AWI notes that considerable evidence instead documents numerous behaviors such as approaching operating sources, or bowriding on vessels towing operating arrays. It is logical to expect different responses from experienced and naive individuals.

Response: As noted in greater detail in L-DEO's application and especially in Appendix A(e), there may be several reasons why marine mammals may not react to anthropogenic sounds: (1) The source is not within the frequency range for best hearing of the species; (2) the sounds at a distance from the source is not within the best hearing frequencies

of the species; (3) the individual animal has a hearing impairment, and (4) the mammal(s) hear the sound but ignore the sound due to other, more important, biological concerns. If ramp-up was considered to be 100 percent effective, then observers would not be needed to monitor safety zones and could concentrate on monitoring and recording behavioral reactions to seismic sounds.

Anecdotal information obtained from observing bow-riding dolphins and dolphins rubbing on the hydrophone streamer cables may indicate that bottlenose dolphins, whose best hearing frequencies are considerably higher than seismic signals, are either not affected or are tolerant of seismic signals that are not within their range of best hearing. Also, although preliminary, Smultea *et al.* (2004) found that marine mammal densities were 35 percent and 55 percent lower during periods of seismic activity than periods without seismic activity in water depths of 100-1000 m (328-3281 ft) and greater than 1000 m (3281 ft), respectively. The authors hypothesize that some cetaceans probably either moved away from the approaching seismic vessel, beyond the detection range of the observers (i.e. reacted to the seismic sounds), or changed their behavior in a way that made them less conspicuous to the observers. The differences could be a combination of these hypothesized effects. However, Smultea *et al.* (2004) also note the observed differences (especially in intermediate depths) are well within the normal range of variation that might be expected for the study area. As one cannot be certain from this single uncontrolled study what fraction of the apparent displacement effect is attributable to avoidance or behavioral responses, as opposed to natural variation, NMFS recommends priority be given to conducting a controlled exposure experiment to determine if ramping-up seismic signals provides for marine mammals protection through avoidance behavior on the part of the mammals.

Comment MIC 7: The AWI states that ramp-up cannot guarantee a response sufficient to negate any possibility of severe injury or death.

Response: As discussed in detail elsewhere in this document, NMFS believes that ramp-up of the seismic airgun array in combination with the slow vessel speed, use of trained observers, passive acoustics, shut-down procedures, and the behavioral response of marine mammals to avoid areas of high anthropogenic noise all provide protection to marine mammals from serious injury or mortality.

Comment MIC 8: One commenter stated that the ramp-up procedure is flawed. Many marine mammals travel extended distances at speeds ranging from 4–8 km/hr (2.1–4.3 knots). The proposal calls for the 160 dB contour to reach 7 km (3.8 nm) within 20 minutes, requiring travel at speeds up to 21 km/hr to remain outside it. While not explicitly stated, the 140-dB contour, at which strong behavioral responses could be expected, would reach roughly 70 km (37.8 nm) in 20 minutes, requiring travel at speeds in excess of 200 km/hr (108 knots) to remain outside it. This is a biologically unrealistic expectation.

Response: NMFS requires ramp-up in order to allow marine mammals to vacate the area that the HESS Workshop (HESS, 1999) and the NMFS Workshop believed to be a level above which injury could occur. Ramp-up is not intended to prevent marine mammals from Level B behavioral harassment. Ramp-up begins with the smallest airgun in the array (80 in³). Airguns are added in a sequence such that the source level of the array would increase in steps not exceeding 6 dB per 5-minute period. As shown in Table 1 in this document, while the 160-dB isopleth is expected to reach 6.5 km (3.5 nm) for the 10-airgun array and 7.25 km (3.9 nm) for the 12-airgun array, the 180-dB isopleth for cetaceans would be only 550 m (1804 ft) and 600 m (1968 ft) from the *Ewing* for the 10-gun and 12-gun arrays, respectively. Using the commenter's statement that many marine mammals travel for extended periods of time at 4–8 km/hr (2.1–4.3 knots), there would not be a problem for even slower marine mammals to move out of the 180-dB safety zone within the 20 minutes required for the 12-airgun array to reach full power (Smultea *et al.* (2004).

Comment MIC 9: In response to our requirement for night-vision devices (NVDs) to be onboard the *Ewing*, one commenter stated that Generation III light enhancement gear requires significant ambient light to be effective for marine mammal viewing. It is unlikely that sufficient light will be available far from shore.

Response: Earlier this year, L-DEO completed two tests of the effectiveness of monitoring using NVDs (Smultea and Holst 2003, Appendix C; Holst 2004, Appendix B). Results of those tests indicated that the Night Quest NQ220 NVD is effective at least to 150 to 200 m (492 to 656 ft) away under certain conditions. That type of NVD is not effective at the much larger 180-dB radii applicable when a large array of airguns is in use. However, it is the

smaller zone where the received level is well above 180 dB where detection of any marine mammals that are present would be of particular importance. For reasons explained elsewhere in this document, the 205-dB zone, within which TTS might occur, is likely to be about 50 m (164 ft) in radius. That is sufficiently within the range of the NVDs to allow some chance of detecting marine mammals visually within the area of potential TTS during ramp-up. Furthermore, a substantial proportion of the marine mammals that might be within that distance would be expected to move away either during ramp-up or, if the airguns were already operating, as the vessel approaches.

Comment MIC 10: The same commenter notes that his personal observation is that thermal infrared technology would be more appropriate. Not only is it usable in total darkness, warm blows of the larger marine mammals remain visible after they have submerged, and the disturbance of the surface layer also can remain visible for several seconds in a calm sea. However, in practice, even this technology has limited effectiveness. When magnification is sufficiently high to ensure marine mammals can be seen, the field of view is so small that it is difficult to point the devices in the right direction at the right time. When the field of view is increased, marine mammals may not be sufficiently large and warm to create "warm" pixels that will stand out above the noise.

Response: For the reasons pointed out by this marine mammal scientist, NMFS has determined that use of thermal infrared technology is not currently practicable for use in detecting marine mammals at night.

Comment MIC 11: The CBD states that NMFS' analysis of mitigation measures to ensure least practicable impact is flawed because the notice fails to require dedicated observers at night.

Response: Trained marine mammal observers using NVDs will be on watch during periods prior to and during ramp-up from a power-down situation at night. They will also be on watch at other periods during the night, particularly if marine mammals are sighted in the seismic survey area during the day or passive acoustics indicates marine mammal presence. Also, similar to several previous IHA actions, NMFS is requiring that, if marine mammals are detected during daylight hours, the passive acoustic monitoring will need to continue to be operated throughout the succeeding night (if seismic operations are underway). At other times during the night observers will be available, but it

is not necessary or very effective for them to be on watch constantly. The use of passive acoustic monitoring will improve the detection of marine mammals by indicating to the visual observers when an animal is potentially near and prompting a shut-down when necessary.

Comment MIC 12: The CBD states that there is no discussion or consideration of additional monitoring or mitigation measures, such as aerial surveys during operations to search for animals that may be affected, as well as to search nearby remote beaches for possible stranded animals. Without requiring such additional measures, or at a minimum discussing why they are not practical, NMFS cannot lawfully issue the requested authorization.

Response: Prior to issuing this IHA, NMFS thoroughly investigated all measures that might reduce the incidental taking of marine mammals to the lowest level practicable. Mitigation measures are discussed later in this document (see Mitigation). Mitigation measures, such as aerial overflights or support vessels to look for marine mammals prior to an animal entering a safety zone, may be given consideration if the safety zone cannot be adequately monitored from the source vessel. Consideration also must be given to aircraft/vessel availability, access to nearby airfields, distance from an airfield to the survey area, and the aircraft's flight duration. There are serious safety issues regarding aircraft flights over water that must be considered prior to requiring aerial overflights. Additional consideration must be given to the potential for aircraft to also result in Level B harassment since a plane or helicopter would need to fly at low altitudes to be effective. Because the safety zones for this proposed activity are relatively small (≤ 600 m (1968 ft)) and can be monitored from the *Ewing*, use of aircraft or a second vessel for mitigation purposes is not warranted.

Even if aircraft or a second vessel are not necessary or feasible to monitor a safety zone, they might be appropriate to monitor shorelines (presumably for strandings related to the activity). NMFS has weighed this suggestion carefully and has determined that for this survey, neither aircraft, vessel or a land-based team is warranted due to the great distances between the survey site and the nearest land, and the prevailing currents that would tend to move a dead marine mammal lateral to the shore instead of immediately ashore, meaning the animal might land many miles from the nearest shoreline location. However, NMFS has notified the NMFS Stranding

Network regarding the calendar dates that the *Ewing* will be operating sonar off the coast of Oregon.

For this survey, the most appropriate monitoring is for the biological observers onboard the *Ewing* to also monitor the previously run transect lines as the *Ewing* returns along a parallel transect track. Survey lines for this survey are from 0.5 km (0.3 nm) to 2 km (1.1 nm) apart in a concentrated area. Additionally, observers will continue to monitor for marine mammals while the *Ewing* repositions to run another seismic line. Zamboni-style seismic surveys provide extensive opportunities for the biological observers to look for distressed, injured or dead marine mammals (although no injuries or mortalities are expected during this research cruise). The IHA requires immediate suspension of seismic activity and immediate notification to NMFS is an observation is made of a distressed or recently deceased marine mammal. Also, a final post-survey transect will be conducted by the *Ewing* as it retrieves the hydrophone array and as it transits from the survey location to San Diego, CA.

Endangered Species Act (ESA) Concerns (ESAC)

Comment ESAC 1: The CBD states that L-DEO's proposed project may affect 7 species listed as endangered under the ESA. As a result, consultation under section 7 of the ESA must occur prior to authorization of the project. NMFS has not yet complied with its (ESA) duties, and thus may not issue a small take authorization for the LDEO project.

Response: NMFS has completed consultation under section 7 of the ESA. The biological opinion resulting from that consultation concluded that this action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

National Environmental Policy Act (NEPA) Concerns (NEPAC)

Comment NEPAC 1: The CBD states that NSF and NMFS have never prepared a comprehensive Environmental Impact Statement (EIS) that fully analyzes the environmental impacts of its seismic surveys, either individually or collectively, as well as provide the public with the critical opportunity to participate in the decision making process as required by NEPA for actions of this magnitude. The CBD believes that NMFS must prepare an EIS prior to approving this project.

Response: NMFS disagrees that an EIS is required for this action. An EA was

prepared by NSF for this action. NMFS fully reviewed the EA and announced its availability to allow for public review and comment (69 FR 31792, June 7, 2004). Thereafter, NMFS adopted the NSF EA and made a Finding of No Significant Impact (FONSI), determining that an EIS was not required.

NMFS also does not agree that its issuance of multiple IHAs for seismic surveys requires an EIS. Each seismic survey and corresponding IHA is geographically and/or temporally spaced and unrelated to others for purposes of evaluating environmental impacts.

Comment NEPA 2: Prior to approving this project, NMFS must prepare an EIS. An EIS is required if "substantial questions are raised as to whether a project...may cause significant degradation of some human environmental factor." (*Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998) citing *Greenpeace Action v. Franklin*, 14 F.3d 1146, 1149-1150 (9th Cir. 1998)). In this case, CBD asserts an EIS is required because substantial questions have been raised as to the significance factors found in 40 CFR 1508.27(b). First, CBD states there are "uncertain impacts or unknown risks" associated with this project and other similar seismic surveys and geophysical activities undertaken by L-DEO and NSF and authorized by NMFS. There exist large data gaps regarding the impacts of acoustics on marine life. Given the many stranding events that have been linked to underwater acoustics, including the melon-headed whale stranding near Hanalei Bay, Hawaii, a more detailed analysis in the form of a full EIS is more than warranted. CBD also asserts there is significant controversy over the impacts of underwater seismic activity on the environment. In support, CBD states that there are extremely divergent views on how substantial a change in behavior or activity is required before an animal should be deemed to be harassed or impacted, what received levels can be considered "safe," what mitigation measures are effective, and, in general, how to proceed in the face of existing scientific uncertainty on these and other issues.

Response: While NMFS agrees that there are some unknown risks and uncertain impacts associated with this project, the major outstanding issue is in regard to the biological mechanism that caused some sound-related strandings to occur. It is important to note that those strandings occurred in the absence of standard mitigation and monitoring measures employed by seismic vessels

that are designed to prevent serious impacts. Also, it is recognized by many scientists that data gaps exist because of the difficulty of obtaining data in a humane manner on many of the species. NMFS is in the process of developing more species-specific guidelines, but that information is not yet available for use. In the interim, surrogate species are used and conservative mitigation measures taken to ensure that injury or mortality to these animals does not occur. NMFS' FONSI takes into account the considerable mitigation and monitoring efforts required by the IHA to counter the uncertainty of impacts and risks. NMFS also would like to clarify that the melon-headed whale stranding near Hanalei Bay, as with other strandings that coincided with underwater anthropogenic acoustic events, was not caused by seismic survey work.

NMFS does not agree that there is a substantial dispute about the impacts of this action (including all required mitigation and monitoring). Calculations for Level B harassment for this action were based upon conservative assumptions of distance from the source for impact in that L-DEO did not make a judgement as to whether the anticipated impacts would be biologically significant. The actual impacts of the action were analyzed based on the best available science. There was no information suggesting that the mitigation measures are not effective, and, in fact, empirical information from previous surveys suggest they are effective. Moreover, NMFS is charged with basing its decisions on the best available scientific information. Also, while there is currently some debate regarding how effective mitigation measures are, the estimates of take (mortality, injury, or harassment) were made without taking mitigation into account.

Comment NEPAC 3: The CBD states that L-DEO, NSF, and numerous private seismic vessels, may have as yet unanalyzed cumulatively significant effects on the environment. Cumulative impacts is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. The EA generally describes fishing, shipping and other vessel noise, but provides no discussion of actual or potential impacts on the marine environment, either individually or cumulatively. Instead, the EA summarily concludes that actual or potential impacts "are expected to be no more than a very minor (and short-term) within the study area, even when

viewed in light of other human activities occurring in the area." The CBD claims that this explanation turns the cumulative impacts requirement on its head.

Response: The NSF EA adequately addresses the cumulative impacts of a short-term, low-intensity seismic airgun survey in relation to long-term noise and taking events, such as shipping, fishing, and marine tourism. These other activities are long-term activities which are unaffected by NMFS' action here. Nor does this action, when considered in light of the other activities, become significant.

Comment NEPA 4: Because the proposed survey has the potential to expose single individuals to repeated sound exposures, the CBD also believes that the analysis is insufficient as the EA fails to analyze what the cumulative behavioral or other impacts to L-DEO's proposal may be on these individuals.

Response: The issue of repeated exposures is discussed in the NSF EA and in the L-DEO application. This information was summarized in Table 4 of the application and in Table 2 in both the proposed IHA notice and this document. As those documents note, the difference between the number of exposures calculated versus the number of individuals that may be exposed to SPLs ≥ 160 dB is important for this survey because the proposed survey plan calls for repeated airgun operations through the same or adjacent waters. If many marine mammals are present near any of the survey transit lines, then many of the same individuals are likely to be approached by the operating airguns more than once during the 7-day survey operation. However, any animals that react to distant seismic sounds by moving away from the area are not likely to be present and affected during any subsequent transit lines that are run. Estimates of the number of exposures are, therefore, considered precautionary overestimates of the actual numbers of different individuals potentially exposed to seismic sounds, because in all likelihood, exposures represent repeated exposures of some of the same individuals and not all animals will react to the sound exposure, as described in L-DEO's application. For this survey, therefore, both the numbers of individuals in each species/stock potentially exposed to SPLs ≥ 160 dB and the number of potential exposures that a marine mammal may experience are small in number and not likely to have more than a negligible impact on marine mammal populations.

Comment NEPA 5: The CBD states that the proposed project and other

activities in the area have the potential to impact species listed under the ESA, including North, humpback, sei, fin, blue, and North Pacific right whales, the Steller sea lion, and the leatherback sea turtles. The EA does not adequately discuss this impact and instead concludes that the "brief exposure" of these listed species equates to an insignificant impact. Mere conclusions in an EA do not satisfy NEPA. The presence of these and other significance factors clearly triggers the need for an EIS.

Response: NMFS believes that the impacts on marine species listed under the ESA have been adequately addressed in NSF's EA. In addition, impacts on marine species listed under the ESA have been addressed in NMFS' Biological Opinion on this action. The finding of that biological opinion is that this action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. No listed species are expected to be killed or seriously injured, and all impacts will be short-term resulting in no more than minor behavioral harassment. No critical habitat will be affected. A copy of the Biological Opinion has been forwarded to the CBD as requested.

Comment NEPA 6: The CBD states that the EA lacks the required environmental baseline data and adequate analysis of impacts and mitigation measures for marine mammals, sea turtles, fish, and other marine life as discussed previously.

Response: NMFS disagrees. The NSF EA provides a level of detail not usually found in many EAs. The EA provides a step-by-step analysis on how impacts were assessed, starting with (and citing) the best scientific information available on marine mammal and sea turtle distribution and abundance and using those data to make conservative estimates on levels of take by harassment and reasonable assumptions on why no marine mammals are likely to be injured or killed by this survey. A discussion on addressing the mitigation measures as alternatives to the proposed action is provided in the next response.

Comment NEPA 7: The CBD states that the EA does not evaluate a reasonable range of alternatives to the proposed action. The EA does not analyze any alternative that incorporates more mitigation or otherwise lessens the impacts of the seismic operations on the marine environment. Impacts on protected marine species from airgun surveys are not just temporary or transient but have the significant potential to result in lethal impacts. Such impacts clearly require better

analysis in the EA and the preparation of a full EIS.

Response: Discussion on the potential for marine mammal mortality by seismic sounds has been discussed previously in this document. NMFS reviewed the range of alternatives addressed in NSF's EA and agrees with CBD that the alternatives can be expanded by providing an additional analysis of the mitigation measures that have been identified for use during seismic surveys (but not necessarily practicable for each and every survey). For reader convenience that discussion has been provided in this document. It is also found in NMFS' FONSI statement (see NEPA later in this document).

Comment NEPA 8: The CBD states that the EA is also grossly deficient in its discussion of potential impacts to fish species. While the EA briefly analyzes the impacts of fishing on marine mammals and secondary impacts to fish as food for marine mammals, the EA fails to analyze impacts to fish stocks themselves.

Response: In the EA, NSF notes that "fish often react to sounds, especially strong and/or intermittent sounds of low frequency. Sound pulses at received levels of 160 dB re 1 μ Pa (peak) may cause subtle changes in behavior. Pulses at levels of 180 dB (peak) may cause noticeable changes in behavior (Chapman and Hawkins, 1969; Pearson *et al.*, 1992; Skalski *et al.*, 1992)." It also appears that fish often habituate to repeated strong sounds rather rapidly, on time scales of minutes to an hour. Finally, exposure to seismic sound is considered unlikely to result in direct, or even cryptic, fish mortality (Department of Fisheries, 2004). Although not tested independently, post-seismic monitoring has not indicated fish kills (IBID, 2004). NMFS therefore believes that while significant changes in behavior would mean that these fish might be unavailable for fisheries, there would not be a long-term impact on fish stocks themselves. NMFS is confident that the EA has provided the level of information necessary to determine that the Ewing survey in the Northeast Pacific Ocean will not have a significant effect on fish stocks, because, as stated in the EA, it will not have more than a short-term behavioral response on the part of the fish themselves.

Description of Habitat and Marine Mammals Affected by the Activity

A detailed description of the NPO in the Blanco Fracture/Gorda Ridge area and its associated marine mammals can be found in the L-DEO application and a number of documents referenced in

the L-DEO application, and is not repeated here. This document is available online at: http://www.nmfs.noaa.gov/prot_res/PR2/Small_Take/smalltake_info.htm#applications.

The main Blanco Transform survey site, and the Gorda Ridge contingency survey site, are located approximately 450 and 150 km (243 and 81 nm) offshore from Oregon, respectively, over water depths of 1600 to 5000 m (5250 to 16405 ft). Based on their preference for offshore (>2000 m (6560 ft) depth) and/or slope (200–2000 m or 656–6560 ft) waters, 19 of the 39 marine mammal species known to occur in Oregon and Washington waters are considered likely to occur near the survey areas. An additional 14 species could occur, but are unlikely to occur in the project area because they are rare or uncommon in slope and offshore waters or they generally do not occur off Oregon or Washington. While these 14 species are addressed in the L-DEO application it is unlikely that they will occur in the survey area. An additional six species are not expected in the project area because their occurrence off Oregon is limited to coastal/shallow waters (gray whale and sea otter) or they are considered extralimital (beluga whale, ringed seals, ribbon seal, and hooded seal). As it is unlikely that these rare, vagrant mammals would occur during the short time period of this seismic survey, these latter six species are not addressed further as they are unlikely to be impacted by seismic signals from this research operation.

The six species of marine mammals expected to be most common in the deep pelagic or slope waters of the project area include the Pacific white-sided dolphin, northern right whale dolphin, Risso's dolphin, short-beaked common dolphin, Dall's porpoise, and northern fur seal (Green *et al.* 1992, 1993; Buchanan *et al.* 2001; Carretta *et al.* 2002; Barlow 2003). The sperm whale, pygmy sperm whale, mesoplodont species (Blainville's beaked whale, Stejneger's beaked whale, and Hubb's beaked whale), Baird's beaked whale, Cuvier's beaked whale, and northern elephant seals are considered pelagic species but are generally uncommon in the waters near the survey area.

Of the five species of pinnipeds known to occur regularly in waters off Oregon, Washington, or northern California, only the northern fur seal and northern elephant seal are likely to be present in the pelagic waters of the proposed project area, located approximately 150–450 km (243–481 nm) offshore. The Steller sea lion may

also occur there in small numbers. The California sea lion and harbor seal occur in shallow coastal or shelf waters off Oregon and Washington (Bonnell *et al.* 1992, Green *et al.* 1993, Buchanan *et al.* 2001), and are not expected to be seen in the proposed study area. Sea otters were translocated to shallow coastal waters off the Olympic Peninsula of Washington, but are not found in the pelagic waters of the project area off Oregon. More detailed information on these species is contained in the L-DEO application and additional information is contained in Carretta *et al.* (2002) which are available at: http://www.nmfs.noaa.gov/prot_res/PR2/Small_Take/smalltake_info.htm#applications, and http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/sars.html, respectively.

Potential Effects on Marine Mammals

The effects of sounds from airgun arrays might include one or more of the following: tolerance, masking of natural sounds, behavioral disturbance and perhaps temporary or permanent hearing impairment (Richardson *et al.* 1995). In addition, intense acoustic events may cause trauma to tissues associated with organs vital for hearing, sound production, respiration and other functions. This trauma may include minor to severe hemorrhage.

Effects of Seismic Surveys on Marine Mammals

The L-DEO application provides the following information on what is known about the effects on marine mammals of the types of seismic operations planned by L-DEO. The types of effects considered here are (1) masking, (2) disturbance, and (3) potential hearing impairment and other physical effects. Additional discussion on species specific effects can be found in the L-DEO application.

Masking

Masking effects of pulsed sounds on marine mammal calls and other natural sounds are expected to be limited, although there are very few specific data on this. Seismic sounds are short pulses occurring for less than 1 sec every 20 or 60–90 sec in this project. Sounds from the multibeam sonar are very short pulses, occurring for 1–10 msec once every 1 to 15 sec, depending on water depth. (During operations in deep water, the duration of each pulse from the multibeam sonar as received at any one location would actually be only 1/5th or at most 2/5th of 1–10 msec, given the segmented nature of the pulses.) Some whales are known to continue calling in

the presence of seismic pulses. Their calls can be heard between the seismic pulses (Richardson *et al.* 1986; McDonald *et al.* 1995, Greene *et al.* 1999). Although there has been one report that sperm whales cease calling when exposed to pulses from a very distant seismic ship (Bowles *et al.* 1994), a recent study reports that sperm whales continued calling in the presence of seismic pulses (Madsen *et al.* 2002). Masking effects of seismic pulses are expected to be negligible in the case of the smaller odontocete cetaceans, given the intermittent nature of seismic pulses and that sounds important to these species are predominantly at much higher frequencies than are airgun sounds.

Most of the energy in the sound pulses emitted by airgun arrays is at low frequencies, with strongest spectrum levels below 200 Hz and considerably lower spectrum levels above 1000 Hz. These frequencies are mainly used by mysticetes, but not by odontocetes or pinnipeds. An industrial sound source will reduce the effective communication or echolocation distance only if its frequency is close to that of the cetacean signal. If little or no overlap occurs between the industrial noise and the frequencies used, as in the case of many marine mammals relative to airgun sounds, communication and echolocation are not expected to be disrupted. Furthermore, the discontinuous nature of seismic pulses makes significant masking effects unlikely even for mysticetes.

A few cetaceans are known to increase the source levels of their calls in the presence of elevated sound levels, or possibly to shift their peak frequencies in response to strong sound signals (Dahlheim 1987, Au 1993, Lesage *et al.* 1999, Terhune, 1999; as reviewed in Richardson *et al.* 1995). These studies involved exposure to other types of anthropogenic sounds, not seismic pulses, and it is not known whether these types of responses ever occur upon exposure to seismic sounds. If so, these adaptations, along with directional hearing and preadaptation to tolerate some masking by natural sounds (Richardson *et al.* 1995), would all reduce the importance of masking.

Disturbance by Seismic Surveys

Disturbance includes a variety of effects, including subtle changes in behavior, more conspicuous dramatic changes in activities, and displacement. However, there are difficulties in defining which marine mammals should be counted as "taken by harassment." For many species and situations, scientists do not have detailed

information about their reactions to noise, including reactions to seismic (and sonar) pulses. Behavioral reactions of marine mammals to sound are difficult to predict. Reactions to sound, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors. If a marine mammal does react to an underwater sound by changing its behavior or moving a small distance, the impacts of the change may not rise to the level of disruption of a behavioral pattern. However, if a sound source would displace marine mammals from an important feeding or breeding area for a prolonged period, such a disturbance would constitute Level B harassment. Given the many uncertainties in predicting the quantity and types of impacts of noise on marine mammals, scientists often resort to estimating how many mammals may be present within a particular distance of industrial activities or exposed to a particular level of industrial sound. This likely overestimates the numbers of marine mammals whose behavioral patterns may be disrupted. The sound exposure criteria used to estimate how many marine mammals might be harassed behaviorally by the seismic survey are based on behavioral observations during studies of several species. However, information is lacking for many species.

Hearing Impairment and Other Physical Effects

Temporary or permanent hearing impairment is a possibility when marine mammals are exposed to very strong sounds, but there has been no specific documentation of this for marine mammals exposed to airgun pulses. Current NMFS policy regarding exposure of marine mammals to high-level sounds is that cetaceans and pinnipeds should not be exposed to impulsive sounds ≤ 180 and 190 dB re 1 microPa (rms), respectively (NMFS 2000). Those criteria have been used in defining the safety (shut down) radii for seismic surveys. However, those criteria were established before there were any data on the minimum received levels of sounds necessary to cause auditory impairment in marine mammals. As discussed in the L-DEO application and summarized here,

1. The 180 dB criterion for cetaceans is probably quite precautionary, i.e., lower than necessary to avoid TTS let alone permanent auditory injury, at least for delphinids.

2. The minimum sound level necessary to cause permanent hearing impairment is higher, by a variable and

generally unknown amount, than the level that induces onset TTS.

3. The level associated with the onset of TTS is often considered to be a level below which there is no danger of permanent damage.

Several aspects of the planned monitoring and mitigation measures for this project are designed to detect marine mammals occurring near the airgun array (and multibeam sonar), and to avoid exposing them to sound pulses that might cause hearing impairment. In addition, many cetaceans are likely to show some avoidance of the area with ongoing seismic operations. In these cases, the avoidance responses of the animals themselves will reduce or avoid the possibility of hearing impairment.

Non-auditory physical effects may also occur in marine mammals exposed to strong underwater pulsed sound. Possible types of non-auditory physiological effects or injuries that theoretically might occur in mammals close to a strong sound source include stress, neurological effects, bubble formation, resonance effects, and other types of organ or tissue damage. It is possible that some marine mammal species (i.e., beaked whales) may be especially susceptible to injury and/or stranding when exposed to strong pulsed sounds. The following paragraphs discuss the possibility of TTS, permanent threshold shift (PTS), and non-auditory physical effects.

TTS

TTS is the mildest form of hearing impairment that can occur during exposure to a strong sound (Kryter 1985). When an animal experiences TTS, its hearing threshold rises and a sound must be stronger in order to be heard. TTS can last from minutes or hours to (in cases of strong TTS) days. Richardson *et al.* (1995) note that the magnitude of TTS depends on the level and duration of noise exposure, among other considerations. For sound exposures at or somewhat above the TTS threshold, hearing sensitivity recovers rapidly after exposure to the noise ends. Little data on sound levels and durations necessary to elicit mild TTS have been obtained for marine mammals.

For toothed whales exposed to single short pulses, the TTS threshold appears to be, to a first approximation, a function of the energy content of the pulse (Finneran *et al.* 2002). Given the available data, the received level of a single seismic pulse might need to be on the order of 210 dB re 1 microPa rms (approx. 221 226 dB pk pk) in order to produce brief, mild TTS. Exposure to several seismic pulses at received levels

near 200 205 dB (rms) might result in slight TTS in a small odontocete, assuming the TTS threshold is (to a first approximation) a function of the total received pulse energy (Finneran *et al.*, 2002). Seismic pulses with received levels of 200 205 dB or more are usually restricted to a radius of no more than 100 m (328 ft) around a seismic vessel.

There are no data, direct or indirect, on levels or properties of sound that are required to induce TTS in any baleen whale. TTS thresholds for pinnipeds exposed to brief pulses (single or multiple) have not been measured, although exposures to pulses up to 183 dB re 1 microPa (rms) have been shown to be insufficient to induce TTS in California sea lions (Finneran *et al.* (2003). However, prolonged exposures show that some pinnipeds may incur TTS at somewhat lower received levels than do small odontocetes exposed for similar durations (Kastak *et al.* 1999, Ketten *et al.* 2001, Au *et al.* 2000).

A marine mammal within a radius of ≤ 100 m (≤ 328 ft) around a typical array of operating airguns might be exposed to a few seismic pulses with levels of ≥ 205 dB, and possibly more pulses if the mammal moved with the seismic vessel. As noted previously, most cetacean species tend to avoid operating airguns, although not all individuals do so. In addition, ramping up airgun arrays, which is now standard operational protocol for L-DEO and other seismic operators, should allow cetaceans to move away from the seismic source and avoid being exposed to the full acoustic output of the airgun array. It is unlikely that these cetaceans would be exposed to airgun pulses at a sufficiently high level for a sufficiently long period to cause more than mild TTS, given the relative movement of the vessel and the marine mammal. However, TTS would be more likely in any odontocetes that bow-ride or otherwise linger near the airguns. Odontocetes would be at or above the surface while bow-riding, and thus not exposed to strong sound pulses given the pressure-release effect at the surface. However, bow-riding animals generally dive below the surface intermittently. If they did so while bow-riding near airguns, they would be exposed to strong sound pulses, possibly repeatedly. If some cetaceans did incur TTS through exposure to airgun sounds, it would very likely be a temporary and reversible phenomenon.

NMFS currently believes that, whenever possible to avoid Level A harassment, cetaceans should not be exposed to pulsed underwater noise at received levels exceeding 180 dB re 1 microPa (rms). The corresponding limit

for pinnipeds has been set at 190 dB. The predicted 180- and 190-dB received level distances for the airgun arrays operated by L-DEO during this activity are summarized elsewhere in this document. These sound levels are not considered to be the levels at or above which TTS might occur. Rather, they are the received levels above which, in the view of a panel of bioacoustics specialists convened by NMFS (at a time before TTS measurements for marine mammals started to become available), one could not be certain that there would be no injurious effects, auditory or otherwise, to marine mammals. As noted here, TTS data that are now available imply that, at least for dolphins and belugas, TTS is unlikely to occur unless the dolphins are exposed to airgun pulses substantially stronger than 180 dB re 1 microPa (rms).

It has also been shown that most whales tend to avoid ships and associated seismic operations. Thus, whales will likely not be exposed to such high levels of airgun sounds. Because of the slow ship speed, any whales close to the trackline could move away before the sounds become sufficiently strong for there to be any potential for hearing impairment. Therefore, there is little potential for whales being close enough to an array to experience TTS. In addition ramping up airgun arrays, which has become standard operational protocol for many seismic operators including L-DEO, should allow cetaceans to move away from the seismic source and to avoid being exposed to the full acoustic output of the airgun array.

Permanent Threshold Shift (PTS)

When PTS occurs there is physical damage to the sound receptors in the ear. In some cases there can be total or partial deafness, while in other cases the animal has an impaired ability to hear sounds in specific frequency ranges. Physical damage to a mammal's hearing apparatus can occur if it is exposed to sound impulses that have very high peak pressures, especially if they have very short rise times (time required for sound pulse to reach peak pressure from the baseline pressure). Such damage can result in a permanent decrease in functional sensitivity of the hearing system at some or all frequencies.

Single or occasional occurrences of mild TTS are not indicative of permanent auditory damage in terrestrial mammals. However, very prolonged exposure to sound strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter 1985).

Relationships between TTS and PTS thresholds have not been studied in marine mammals but are assumed to be similar to those in humans and other terrestrial mammals. The low-to-moderate levels of TTS that have been induced in captive odontocetes and pinnipeds during recent controlled studies of TTS have been confirmed to be temporary, with no measurable residual PTS (Kastak *et al.* 1999, Schlundt *et al.* 2000, Finneran *et al.* 2002, Nachtigall *et al.* 2003). In terrestrial mammals, the received sound level from a single non-impulsive sound exposure must be far above the TTS threshold for any risk of permanent hearing damage (Kryter 1994, Richardson *et al.* 1995). For impulse sounds with very rapid rise times (e.g., those associated with explosions or gunfire), a received level not greatly in excess of the TTS threshold may start to elicit PTS. Rise times for airgun pulses are rapid, but less rapid than for explosions.

Some factors that contribute to onset of PTS are as follows: (1) exposure to single very intense noises, (2) repetitive exposure to intense sounds that individually cause TTS but not PTS, (3) recurrent ear infections or (in captive animals) exposure to certain drugs, and (4) normal aging process.

Cavanagh (2000) has reviewed the thresholds used to define TTS and PTS. Based on his review and SACLANT (1998), it is reasonable to assume that PTS might occur at a received sound level 20 dB or more above that which induces mild TTS. However, for PTS to occur at a received level only 20 dB above the TTS threshold, it is probable that the animal would have to be exposed to the strong sound for an extended period.

Sound impulse duration, peak amplitude, rise time, and number of pulses are the main factors thought to determine the onset and extent of PTS. Based on existing data, Ketten (1994) has noted that the criteria for differentiating the sound pressure levels that result in PTS (or TTS) are location and species-specific. PTS effects may also be influenced strongly by the health of the receiving animal's ear.

Given that marine mammals are unlikely to be exposed to received levels of seismic pulses that could cause TTS, it is highly unlikely that they would sustain permanent hearing impairment. If we assume that the TTS threshold for exposure to a series of seismic pulses in odontocetes may be on the order of 220 dB re 1 microPa (pk-pk), then the PTS threshold might be about 240 dB re 1 microPa (pk-pk). In the units used by geophysicists, this is 10 bar-m. Such

levels are found only in the immediate vicinity of the largest airguns (Richardson *et al.* 1995, Caldwell and Dragoset 2000). It is very unlikely that an odontocete would remain within a few meters of a large airgun for sufficiently long to incur PTS. Baleen whales generally avoid the immediate area around operating seismic vessels, so it is unlikely that a baleen whale could incur PTS from exposure to airgun pulses. Some pinnipeds do not show strong avoidance of operating airguns. However, pinnipeds are expected to be (at most) uncommon in the Blanco Fracture survey area. However, although it is unlikely that the planned seismic surveys could cause PTS in any marine mammals, caution is warranted given the limited knowledge about noise-induced hearing damage in marine mammals, particularly baleen whales.

Strandings and Mortality

Marine mammals close to underwater detonations of high explosives can be killed or severely injured, and the auditory organs are especially susceptible to injury (Ketten *et al.* 1993, Ketten 1995). Airgun pulses are less energetic and have slower rise times than underwater detonations, and, while there is no documented evidence that airgun arrays can cause serious injury, death, or stranding, the temporal association of strandings of beaked whales with naval exercises and, more recently, an L-DEO seismic survey has raised the possibility that beaked whales may be especially susceptible to injury and/or stranding when exposed to strong pulsed sounds.

In March 2000, several beaked whales that had been exposed to repeated pulses from high intensity, mid-frequency military sonars stranded and died in the Providence Channels of the Bahamas Islands, and were subsequently found to have incurred cranial and ear damage (NOAA and USN 2001). Based on post-mortem analyses, it was concluded that an acoustic event caused hemorrhages in and near the auditory region of some beaked whales. These hemorrhages occurred before death. They would not necessarily have caused death or permanent hearing damage, but could have compromised hearing and navigational ability (NOAA and USN 2001). The researchers concluded that acoustic exposure caused this damage and triggered stranding, which resulted in overheating, cardiovascular collapse, and physiological shock that ultimately led to the death of the stranded beaked whales. During the event, five naval vessels used their AN/SQS-53C or -56

hull-mounted active sonars for a period of 16 hours. The sonars produced narrow (<100 Hz) bandwidth signals at center frequencies of 2.6 and 3.3 kHz (-53C), and 6.8 to 8.2 kHz (-56). The respective source levels were usually 235 and 223 dB re 1 μ Pa, but the -53C briefly operated at an unstated but substantially higher source level. The unusual bathymetry and constricted channel where the strandings occurred were conducive to channeling sound into surface waters. This, and the extended operations by multiple sonars, apparently prevented escape of the animals to the open sea. In addition to the strandings, there are reports that beaked whales were no longer present in the Providence Channel region after the event, suggesting that other beaked whales either abandoned the area or perhaps died at sea (Balcomb and Claridge 2001).

Other strandings of beaked whales associated with operation of military sonars have also been reported (e.g., Simmonds and Lopez-Jurado 1991, Frantzis 1998). In these cases, it was not determined whether there were noise-induced injuries to the ears or other organs. Another stranding of beaked whales (15 whales) happened on 24–25 September 2002 in the Canary Islands, where naval maneuvers were taking place in the area. Jepson *et al.* (2003) concluded that cetaceans might be subject to decompression injury (i.e., the bends or air embolism) in some situations. If so, this might occur if the mammals ascend unusually quickly when exposed to aversive sounds. Previously, it was widely assumed that diving marine mammals are not subject to decompression injury and currently there are no data to question that assumption.

It is important to note that seismic pulses and mid-frequency sonar pulses are quite different. Sounds produced by the types of airgun arrays used to profile sub-sea geological structures are broadband with most of the energy below 1 kHz. Typical military mid-frequency sonars operate at frequencies of 2 to 10 kHz, generally with a relatively narrow bandwidth at any one time (though the center frequency may change over time). Because seismic and sonar sounds have considerably different characteristics and duty cycles, it is not appropriate to assume that there is a direct connection between the effects of military sonar and seismic surveys on marine mammals. However, evidence that sonar pulses can in special circumstances lead to hearing damage and, indirectly, to mortality suggests that caution is warranted when dealing with exposure of marine

mammals to any high-intensity pulsed sound.

In addition to the sonar-related strandings, there was a September, 2002 stranding of two Cuvier's beaked whales in the Gulf of California (Mexico) when a seismic survey by the *Ewing* was underway in the general area (Malakoff 2002). The airgun array in use during that project was the *Ewing's* 20-gun 8490-in³ array. This may possibly be a first indication that seismic surveys can have effects, at least on beaked whales, similar to the suspected effects of naval sonars. However, the evidence linking the Gulf of California strandings to the seismic surveys is inconclusive, and to this date is not based on any physical evidence (Hogarth 2002, Yoder 2002). The ship was also operating its multi-beam bathymetric sonar at the same time but this sonar had much less potential than these naval sonars to affect beaked whales. Although the link between the Gulf of California strandings and the seismic (plus multi-beam sonar) survey is inconclusive, this event plus the various incidents involving beaked whale strandings associated with naval exercises suggests a need for caution in conducting seismic surveys in areas occupied by beaked whales.

Non-auditory Physiological Effects.

Possible types of non-auditory physiological effects or injuries that might theoretically occur in marine mammals exposed to strong underwater sound includes stress, neurological effects, bubble formation, resonance effects, and other types of organ or tissue damage. There is no evidence that any of these effects occur in marine mammals exposed to sound from airgun arrays. It should be noted that seismic has been used far more extensively than tactical sonar, but currently information on strandings associated with seismic is not as clear as it is with sonar. However, there have been no direct studies of the potential for airgun pulses to elicit any of these effects. If any such effects do occur, they would probably be limited to unusual situations when animals might be exposed at close range for unusually long periods.

Long-term exposure to anthropogenic noise may have the potential to cause physiological stress that could affect the health of individual animals or their reproductive potential, which could theoretically cause effects at the population level (Gisner (ed.) 1999). However, there is essentially no information about the occurrence of noise-induced stress in marine mammals. Also, it is doubtful that any single marine mammal would be

exposed to strong seismic sounds during a seismic survey for a sufficiently long period of time that significant physiological stress would develop. For the Blanco Fracture study, the survey area is only 70 km² and the survey will last less than one week.

Gas-filled structures in marine animals have an inherent fundamental resonance frequency. If stimulated at this frequency, the ensuing resonance could cause damage to the animal. There may also be a possibility that high sound levels could cause bubble formation in the blood of diving mammals that in turn could cause an air embolism, tissue separation, and high, localized pressure in nervous tissue (Gisner [ed] 1999, Houser *et al.* 2001). In 2002, NMFS held a workshop (Gentry [ed.] 2002) to discuss whether the stranding of beaked whales in the Bahamas in 2000 might have been related to air cavity resonance or bubble formation in tissues caused by exposure to noise from naval sonar. A panel of experts concluded that resonance in air-filled structures was not likely to have caused this stranding. Among other reasons, the air spaces in marine mammals are too large to have resonant frequencies equal to frequencies emitted by mid- or low-frequency sonar; lung tissue damage has not been observed in any mass, multi-species stranding of beaked whales; and the duration of sonar pings is likely too short to induce vibrations that could damage tissues (Gentry (ed.) 2002). Opinions were less conclusive about the possible role of gas (nitrogen) bubble formation/growth in the Bahamas stranding of beaked whales. Workshop participants did not rule out the possibility that bubble formation/growth caused by static diffusion played a role in the stranding and participants acknowledged that more research is needed in this area. The only available information on acoustically-mediated bubble growth in marine mammals is modeling that assumes prolonged exposure to sound.

In summary, little is known about the potential for seismic survey sounds to cause either auditory impairment or other non-auditory physical effects in marine mammals. Available data suggest that such effects, if they occur at all, would be limited to short distances from the sound source. However, the available data do not allow for meaningful quantitative predictions of the numbers (if any) of marine mammals that might be affected in these ways. Marine mammals that show behavioral avoidance of seismic vessels, including most baleen whales, some odontocetes, and some pinnipeds,

are unlikely to incur auditory impairment or other physical effects.

Possible Effects of Mid-Frequency Sonar Signals

A multi-beam bathymetric sonar (Atlas Hydrosweep DS-2, 15.5-kHz) and a sub-bottom profiler will be operated from the source vessel during much of the planned survey. Details about these sonars were provided previously in this document.

Navy sonars that have been linked to avoidance reactions and stranding of cetaceans generally (1) are more powerful than the Atlas Hydrosweep and sub-bottom profiler, (2) have a longer pulse duration than these two instruments, and (3) are directed close to horizontally (vs. downward for the Hydrosweep and sub-bottom profiler). Also, the area of possible influence of the Hydrosweep and sub-bottom profiler is much smaller - a narrow band below the source vessel. For the Hydrosweep, there is no horizontal propagation as these signals project at an angle of approximately 45 degrees from the ship. For the deep-water mode, under the ship the 160- and 180-dB zones are estimated to be 3200 m (10500 ft) and 610 m (2000 ft), respectively. However, the beam width of the Hydrosweep signal is only 2.67 degrees fore and aft of the vessel, meaning that a marine mammal diving could receive at most 1-2 signals from the Hydrosweep and a marine mammal on the surface would be unaffected.

Marine mammals that do encounter the Hydrosweep at close range are unlikely to be subjected to repeated pulses because of the narrow fore-aft width of the beam, and will receive only limited amounts of pulse energy because of the short pulses and vessel speed.

Sounds from the sub-bottom profiler are very short pulses, occurring for 1, 2 or 4 ms once every second with a stated maximum source level of 204 dB re 1 Pa-m. Most of the energy in the sound pulses emitted by this sub-bottom profiler is at mid frequencies, centered at 3.5 kHz. The beamwidth is approximately 30 and is directed downward. Thus the received level would be expected to decrease to 160 and 180 dB about 160 m (525 ft) and 16 m (52 ft) below the transducer, respectively, assuming spherical spreading. Corresponding distances in the horizontal plane would be lower, given the directionality of this source (30 beamwidth) and the measurements of Burgess and Lawson (2000).

Therefore, as harassment or injury from pulsed sound is a function of total energy received, the actual harassment

or injury threshold for Hydrosweep signals (approximately 10 ms) and sub-bottom profiler signals (approximately 1-4 ms) would be at a much higher dB level than that for longer duration pulses such as sonar signals. As a result, NMFS believes that marine mammals are unlikely to be harassed or injured from either the multibeam sonar or the sub-bottom profiler.

Masking by Mid-Frequency Sonar Signals

Marine mammal communications will be not masked appreciably by the multibeam sonar signals or the sub-bottom profiler given the low duty cycle and directionality of the sonars and the brief period when an individual mammal is likely to be within its beam. Furthermore, in the case of baleen whales, the sonar signals do not overlap with the predominant frequencies of the calls, which would avoid significant masking.

Behavioral Responses Resulting from Mid-Frequency Sonar Signals

Behavioral reactions of free-ranging marine mammals to military and other sonars appear to vary by species and circumstance. Observed reactions have included silencing and dispersal by sperm whales (Watkins *et al.* 1985), increased vocalizations and no dispersal by pilot whales (Rendell and Gordon 1999), and the previously-mentioned beachings by beaked whales. Also, Navy personnel have described observations of dolphins bow-riding adjacent to bow-mounted mid-frequency sonars during sonar transmissions. However, all of these observations are of limited relevance to the present situation. Pulse durations from those sonars were much longer than those of the L-DEO multibeam sonar, and a given mammal would have received many pulses from the naval sonars. During L-DEO's operations, the individual pulses will be very short, and a given mammal would not receive many of the downward-directed pulses as the vessel passes by.

Captive bottlenose dolphins and a white whale exhibited changes in behavior when exposed to 1-sec pulsed sounds at frequencies similar to those that will be emitted by the multi-beam sonar used by L-DEO and to shorter broadband pulsed signals. Behavioral changes typically involved what appeared to be deliberate attempts to avoid the sound exposure (Schlundt *et al.* 2000, Finneran *et al.* 2002). The relevance of these data to free-ranging odontocetes is uncertain and in any case the test sounds were quite different from a bathymetric sonar in either duration or bandwidth.

L-DEO and NMFS are not aware of any data on the reactions of pinnipeds to sonar sounds at frequencies similar to those of the 15.5 kHz frequency of the Ewing's multibeam sonar. Based on observed pinniped responses to other types of pulsed sounds, and the likely brevity of exposure to the bathymetric sonar sounds, pinniped reactions are expected to be limited to startle or otherwise brief responses of no lasting consequences to the individual animals. Finally, the pulsed signals from the sub-bottom profiler are much weaker than those from the airgun array and the multibeam sonar. Therefore, behavioral responses are not expected.

Hearing Impairment and Other Physical Effects

Given recent stranding events that have been associated with the operation of naval sonar, there is much concern that sonar noise can cause serious impacts to marine mammals (for discussion see Effects of Seismic Surveys). It is worth noting that the multi-beam sonar proposed for use by L-DEO is quite different than sonars used for navy operations. Pulse duration of the multi-beam sonar is very short relative to the naval sonars. Also, at any given location, an individual marine mammal would be in the beam of the multi-beam sonar for a very limited time given the generally downward orientation of the beam and its narrow fore-aft beamwidth. (Navy sonars often use near-horizontally-directed sound.) These factors would all reduce the sound energy received from the multi-beam sonar rather drastically relative to that from the sonars used by the Navy. Therefore, hearing impairment by the multi-beam bathymetric sonar is unlikely.

Source levels of the sub-bottom profiler are much lower than those of the airguns and the multi-beam sonar. Sound levels from a sub-bottom profiler similar to the one on the Ewing were estimated to decrease to 180 dB re 1 microPa (rms) at 8 m (26 ft) horizontally from the source (Burgess and Lawson 2000), and at approximately 18 m downward from the source. Furthermore, received levels of pulsed sounds that are necessary to cause temporary or especially permanent hearing impairment in marine mammals appear to be higher than 180 dB (see earlier discussion). Thus, it is unlikely that the sub-bottom profiler produces pulse levels strong enough to cause hearing impairment or other physical injuries even in an animal that is (briefly) in a position near the source.

The sub-bottom profiler is usually operated simultaneously with other

higher-power acoustic sources. Many marine mammals will move away in response to the approaching higher-power sources or the vessel itself before the mammals would be close enough for there to be any possibility of effects from the less intense sounds from the sub-bottom profiler. In the case of mammals that do not avoid the approaching vessel and its various sound sources, mitigation measures that would be applied to minimize effects of the higher-power sources would further reduce or eliminate any minor effects of the sub-bottom profiler.

Estimates of Take by Harassment for the Blanco Fracture Zone Survey

Although information contained in this document indicates that injury to marine mammals from seismic sounds potentially occurs at sound pressure levels higher than 180 and 190 dB, NMFS' current criteria for onset of Level A harassment of cetaceans and pinnipeds from impulse sound are, respectively, 180 and 190 re 1 microPa rms. The rms level of a seismic pulse is typically about 10 dB less than its peak level (Greene 1997, McCauley *et al.* 1998, 2000a). The criterion for Level B harassment onset is 160 dB.

Given the proposed mitigation (see Mitigation later in this document), all

anticipated takes would be limited to Level B harassment. The proposed mitigation measures will minimize or eliminate the possibility of Level A harassment. L-DEO has calculated the "best estimates" for the numbers of animals that could be taken by level B harassment during the proposed Blanco Fracture seismic survey using data on marine mammal density and abundance from marine mammal surveys in the region, and estimates of the size of the affected area, as shown in the predicted RMS radii table (Table 1).

These estimates are based on a consideration of the number of marine mammals that might be exposed to sound levels greater than 160 dB, the criterion for the onset of Level B harassment, by operations with the 10- and 12-gun array planned to be used for this project. The anticipated radius of influence of the multi-beam sonar is less than that for the airgun array, so it is assumed that any marine mammals close enough to be affected by the multi-beam sonar would already be affected by the airguns. Therefore, no additional incidental takings are included for animals that might be affected by the multi-beam sonar.

Conclusions- Effects on Cetaceans

Strong avoidance reactions by several species of mysticetes to seismic vessels have been observed at ranges up to 6–8 km (3.2–4.3 nm) and occasionally as far as 20–30 km (10.8–16.2 nm) from the source vessel. However, reactions at the longer distances appear to be atypical of most species and situations. Furthermore, if they are encountered, the numbers of mysticetes estimated to occur within the 160-dB isopleth at the Blanco Fracture and Gorda Ridge survey sites are expected to be low. In addition, the estimated numbers presented in Table 2 are considered overestimates of actual numbers for two primary reasons. First, the number of line kilometers used to estimate the number of exposures and individuals exposed assumes that both the main and contingency surveys will be completed; this is highly unlikely given the likelihood that some inclement weather, equipment malfunction, and/or implementation of mitigative shut downs or power downs will occur. Secondly, the estimated 160-dB radii used here are probably overestimates of the actual 160-dB radii at deep water sites such as the Blanco Fracture and Gorda Ridge sites (Tolstoy *et al.* 2004).

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TABLE 2. Estimates of the possible numbers of marine mammal exposures to different sound levels, and the numbers of different individuals that might be exposed, during L-DEO's proposed main Blanco Transform seismic survey and the Gorda Ridge contingency survey (combined) off Oregon in July 2004. The column of numbers in boldface shows the numbers of "takes" for which authorization is requested.^a

Species	Number of Exposures to Sound Levels ≥ 160 dB		Number of Individuals Exposed to Sound Levels ≥ 160 dB			
	Best Estimate	Maximum Estimate	Best Estimate		Maximum Estimate	Requested Take Authorization
			Number	% of Regional Pop'n ^b		
Physeteridae						
<i>Sperm whale</i>	17	27	5	0.0	7	27
<i>Pygmy sperm whale</i>	11	29	3	0.1	8	29
<i>Dwarf sperm whale</i>	0	0	0	NA	0	5
Ziphiidae						
<i>Cuvier's beaked whale</i>	0	0	0	0.0	0	2
<i>Baird's beaked whale</i>	5	8	1	0.0	2	8
<i>Blainville's beaked whale</i>				NA		20
<i>Hubb's beaked whale</i>				NA		54
<i>Stejneger's beaked whale</i>				NA		54
<i>Mesoplodon</i> sp. (unidentified)	49	128	13	0.1	35	
Deiphinidae						
<i>Bottlenose dolphin</i>	0	0	0	0.0	0	10
<i>Striped dolphin</i>	2	4	1	0.0	1	10
<i>Short-beaked common dolphin</i>	225	370	61	0.0	101	370
<i>Pacific white-sided dolphin</i>	564	641	154	0.3	175	641
<i>Northern right-whale dolphin</i>	423	599	115	0.6	163	599
<i>Risso's dolphin</i>	425	481	116	0.7	131	481
<i>False killer whale</i>	0	0	0	0.0	0	10
<i>Killer whale</i>	43	69	12	0.1	19	69
<i>Short-finned pilot whale</i>	0	0	0	0.0	0	50
Phocoenidae						
<i>Harbor porpoise</i>	0	0	0	0.0	0	5
<i>Dall's porpoise</i>	2021	4511	551	0.5	1230	4511
Balaenopteridae						
<i>North Pacific right whale</i>	0	0	0	0.0	0	2
<i>Humpback whale</i>	9	21	2	0.0	6	21
<i>Minke whale</i>	14	25	4	0.0	7	25
<i>Sei whale</i>	0	0	0	0.0	0	2

Fin whale	20	23	5	0.1	6	23
Blue whale	2	6	1	0.0	2	6

TABLE 2. continued

Pinnipeds						
Northern fur seal	288	1833	79	0.0	500	1833
California sea lion						5
Steller sea lion						10
Harbor seal						5
Northern elephant seal	53	53	15	0.0	15	53

^a Best estimate and maximum estimates of density are from Table 3 in application.

^b Regional population size estimates are from Table 2 in application.

^c NA indicates that regional population estimates are not available.

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Odontocete reactions to seismic pulses, or at least the reactions of dolphins, are expected to extend to lesser distances than are those of mysticetes. Odontocete low-frequency hearing is less sensitive than that of mysticetes, and dolphins are often seen from seismic vessels. In fact, there are documented instances of dolphins approaching active seismic vessels. However, dolphins as well as some other types of odontocetes sometimes show avoidance responses and/or other changes in behavior when near operating seismic vessels.

Taking into account the mitigation measures that are required to be undertaken, effects on cetaceans are generally expected to be limited to avoidance of the area around the seismic operation and short-term changes in behavior, falling within the MMPA definition of Level B harassment. Furthermore, the estimated numbers of animals potentially exposed to sound levels sufficient to cause appreciable disturbance are small percentages of the population sizes in the NPO generally.

The best estimates of the numbers of individual cetaceans that may be exposed to sounds ≥ 160 dB re 1 microPa (rms) (the current criterion for level B harassment) represent 0 to 0.7 percent of the populations of each species in the NPO. For species listed as endangered under the ESA, this includes no North Pacific right whales or sei whales; less than 0.02 percent of the NPO populations of sperm, humpback and blue whales; and 0.1 percent of the fin whale population (Table 2). In the cases of mysticetes, beaked whales, and sperm whales, these exposure levels are expected to involve no more than very small numbers (0 to 7) of individual

cetaceans. Sperm and fin whales are the endangered species that are most likely to be exposed, and their NPO populations are approximately 26,053 and 8520, respectively (Ohsumi and Wada 1974, Carretta *et al.* 2002).

It is highly unlikely that any right whales will be exposed to seismic sounds ≥ 160 dB re 1 microPa (rms). This conclusion is based on the rarity of this species off Oregon/Washington and in the NPO generally (less than 100, Carretta *et al.* 2002), and information that the remnant population of this species apparently migrates to more northerly areas during the summer. However, L-DEO has requested an authorization to expose up to two North Pacific right whales to ≥ 160 dB, given the possibility (however unlikely) of encountering one or more of this endangered species. If a right whale is sighted by the vessel-based observers, the airguns will be shut down (not just powered down) regardless of the distance of the whale from the airgun array.

Larger numbers of delphinids may be affected by the proposed main and contingency seismic studies, but the population sizes of species likely to occur in the operating area are large, and the numbers potentially affected are small relative to the population sizes. As indicated in Table 2, the best estimate of number of individual delphinids that might be exposed to sounds greater than or equal to 160 dB re 1 microPa (rms) represents a small percentage of the populations of each species occurring there.

Varying estimates of the numbers of marine mammals that might be exposed to airgun sounds during the October 2004 seismic surveys off Oregon have been presented, depending on the specific exposure criteria, calculation

procedures (exposures vs. individuals), and density criteria used (best vs. maximum). The requested "take authorization" for each species is based on the estimated maximum number of exposures to ≥ 160 dB re 1 microPa (rms). That figure likely overestimates (in most cases by a large margin) the actual number of animals that will be exposed to these sounds; the reasons for this have been outlined previously. Even so, the combined estimates for the main and contingency surveys are quite low percentages of the population sizes. Furthermore, mitigation measures such as controlled speed, course alternation, look outs, non-pursuit, ramp ups, and power downs or shut downs when marine mammals are seen within defined ranges should further reduce any short-term reactions, and minimize any effects on hearing sensitivity. In all cases, these relatively short-term exposures are unlikely to result in any long-term negative consequences for the individuals or their populations.

In light of the type of take expected and the small numbers of affected stocks, the action is expected to have no more than a negligible impact on the affected species or stocks of marine mammals. In addition, mitigation measures such as controlled vessel speed, course alteration, look-outs, ramp-ups, and power-downs when marine mammals are seen within defined ranges (see Mitigation) should further reduce short-term reactions to disturbance, and minimize any effects on hearing sensitivity.

Conclusions- Effects on Pinnipeds

Two pinniped species, the northern fur seal and the northern elephant seal, are likely to be encountered at the survey sites, as they are associated with pelagic slope and offshore waters off

Oregon. In addition, it is possible (although unlikely) that a small number of Steller sea lions, California sea lions, and/or harbor seals may also be encountered, most likely at the Gorda Ridge survey area located closer to shore in continental slope water; these three species tend to inhabit primarily coastal and shelf waters. An estimated 79 individual fur seals and 15 individual elephant seals may be exposed to airgun sounds with received levels ≥ 160 dB re 1 microPa (rms). It is most likely that no California sea lions, Steller sea lions, or harbor seals will be exposed to such sounds. Similar to cetaceans, the estimated numbers of pinnipeds that may be exposed to received levels ≤ 160 dB are probably overestimates of the actual numbers that will be significantly affected. This action would therefore have no more than a negligible impact on the affected species or stocks of pinnipeds.

Potential Effects on Habitat

The proposed seismic survey will not result in any permanent impact on habitats used by marine mammals, or to the food sources they utilize. The main impact issue associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals. The actual area that will be affected by the OBSs will be a very small fraction of the marine mammal habitat and the habitat of their food species in the area; thus, any effects are expected to be highly localized and insignificant. The use of OBSs would result in no more than a negligible and highly localized short-term disturbance to sediments and benthic organisms. The area that might be disturbed is a very small fraction of the overall area occupied by fish or marine mammal species.

One of the reasons for the adoption of airguns as the standard energy source for marine seismic surveys was that they (unlike the explosives used in the distant past) do not result in any appreciable fish kill. Various experimental studies showed that airgun discharges cause little or no fish kill, and that any injurious effects were generally limited to the water within a meter or so of an airgun. However, it has recently been found that injurious effects on captive fish, especially on fish hearing, may occur to somewhat greater distances than previously thought (McCauley *et al.*, 2000a,b, 2002; 2003). Even so, any injurious effects on fish would be limited to short distances from the source. Also, many of the fish that might otherwise be within the zone within the injury zone are likely to be displaced from this region prior to the

approach of the airguns through avoidance reactions to the passing seismic vessel or to the airgun sounds as received at distances beyond the injury radius.

Fish often react to sounds, especially strong and/or intermittent sounds of low frequency. Sound pulses at received levels of 160 dB re 1 μ Pa (peak) may cause subtle changes in behavior. Pulses at levels of 180 dB (peak) may cause noticeable changes in behavior (Chapman and Hawkins, 1969; Pearson *et al.*, 1992; Skalski *et al.*, 1992). It also appears that fish often habituate to repeated strong sounds rather rapidly, on time scales of minutes to an hour. However, the habituation does not endure, and resumption of the disturbing activity may again elicit disturbance responses from the same fish. Fish near the airguns are likely to dive or exhibit some other kind of behavioral response. This might have short-term impacts on the ability of cetaceans to feed near the survey area. However, only a small fraction of the available habitat would be ensounded at any given time, and fish species would return to their pre-disturbance behavior once the seismic activity ceased. Thus, the proposed surveys would have little impact on the abilities of marine mammals to feed in the area where seismic work is planned. Some of the fish that do not avoid the approaching airguns (probably a small number) may be subject to auditory or other injuries.

Zooplankton that are very close to the source may react to the airgun's impulse. These animals have an exoskeleton and no air sacs; therefore, little or no mortality is expected. Many crustaceans can make sounds and some crustacea and other invertebrates have some type of sound receptor. However, the reactions of zooplankton to sound are not known. Some mysticetes feed on concentrations of zooplankton. A reaction by zooplankton to a seismic impulse would only be relevant to whales if it caused a concentration of zooplankton to scatter. Pressure changes of sufficient magnitude to cause this type of reaction would probably occur only very close to the source, so few zooplankton concentrations would be affected. Impacts on zooplankton behavior are predicted to be negligible, and this would translate into negligible impacts on feeding mysticetes.

Potential Effects on Subsistence Use of Marine Mammals

There is no subsistence hunting for those marine mammal stocks potentially affected by the Blanco Fracture seismic survey, so the proposed activity will not have any impact on the availability of

the species or stocks for subsistence users.

Mitigation

For the proposed Blanco Fracture seismic survey, L-DEO will deploy a 10- or 12-airgun array as an energy source, with discharge volumes of 3050 in³ and 3705 in³, respectively. The airguns in the arrays will be spread out horizontally so the energy from the array will be directed mostly downward. The directional nature of the arrays to be used in this project is an important mitigating factor. This directionality will result in reduced sound levels at any given horizontal distance as compared with the levels expected at that distance if the source were omnidirectional with the stated nominal source level. Because the actual seismic source is a distributed sound source (10–12 airguns) rather than a single point source, the highest sound levels measurable at any location in the water will be less than the nominal source level. Also, the size of the airgun arrays (which are smaller than the 20-airgun array used for some other surveys) is another important mitigation measure that will reduce the potential for effects relative to those that might occur with a larger array of airguns. This is in conformance with NMFS' encouraging seismic operators to use the lowest intensity airguns practical to accomplish research objectives.

Safety Radii

Received sound levels have been modeled by L-DEO in relation to distance and direction from the two arrays. The radii around the 10-airgun array where the received levels would be 180 dB and 190 dB re 1 μ Pa (rms) were estimated as 550 m (1805 ft) and 200 m (656 ft), respectively. For the 12-airgun array, the radii around the array where the received levels would be 180 dB and 190 dB re 1 μ Pa (rms) were estimated as 600 m (1969 ft) and 250 m (820 ft), respectively. The 180 and 190 dB shutdown criteria, applicable to cetaceans and pinnipeds, respectively, are specified by NMFS (2000) and, as mentioned previously in this document, are considered conservative for protecting marine mammals from potential injury.

Empirical data concerning these safety radii have been acquired based on measurements during the acoustic verification study conducted in the northern Gulf of Mexico from 27 May to 3 June 2003 under an IHA issued to L-DEO (see 68 FR 32460, May 30, 2003). A copy of that report (Tolstoy *et al.*, 2004) is available on-line at: http://www.nmfs.noaa.gov/prot_res/PR2/

Small Take/

smalltake_info.htm#applications, L-DEO's analysis of the acoustic data from that study provides limited measurements in deep water, the situation relevant here. Those data indicate that, for deep water, the model tends to overestimate the received sound levels at a given distance. Until additional data become available, it is proposed that safety radii during airgun operations in deep water, including the planned operations off Oregon, will be the values predicted by L-DEO's model. Previously, more conservative (larger) safety radii that are 1.5 times the modeled radii have been used for these surveys. However, given that these modeled radii are already conservative (i.e., overestimates) for deep water situations, even without the X 1.5 factor, these larger radii will not be used during this seismic survey.

Mitigation Measures

The following mitigation measures, as well as marine mammal visual monitoring (discussed later in this document), are required to be carried out for the subject seismic surveys, provided that they do not compromise operational safety requirements of the *Ewing*: (1) Speed and course alteration; (2) power-down and shut-down procedures; (3) ramp-up procedures; (4) use of passive acoustics to detect vocalizing marine mammals; and (5) incorporation of non-seismic/sonar periods to allow marine mammals to surface from deep dives if acoustic sounds are disrupting dive patterns. Some of these mitigation measures will also be implemented to protect sea turtles. In addition, stricter mitigation measures will be implemented for the North Pacific right whale.

Speed and Course Alteration

If a marine mammal is detected outside the appropriate safety radius and, based on its position and the relative motion, is likely to enter the safety radius, the vessel's speed and/or direct course will be changed if this is practical while minimizing the effects on planned science objectives. Given the presence of the streamer and airgun array behind the vessel, the turning rate of the vessel with trailing streamer and array is no more than five degrees per minute, limiting the maneuverability of the vessel during operations. The marine mammal activities and movements relative to the seismic vessel will be closely monitored to ensure that the marine mammal does not approach within the safety radius. If the mammal appears likely to enter the safety radius, further mitigative actions will be taken,

(i.e., either further course alterations or shutdown of the airguns).

Power-down and Shut-down Procedures

A power down involves decreasing the number of airguns in use such that the radius of the 180-dB (or 190-dB) zone is decreased to the extent that marine mammals are not in the safety zone. A power down may also occur when the vessel is moving from one seismic line to another, unless the full airgun array is scheduled to be operated during line changes. During a power down, one 80 in³ airgun will continue to be operated. The continued operation of one airgun is intended to alert marine mammals to the presence of the seismic vessel in the area. In contrast, a shut down occurs when all airgun activity is suspended.

If a marine mammal is detected outside the safety radius but is likely to enter the safety radius, and if the vessel's speed and/or course cannot be changed to avoid having the mammal enter the safety radius, the airguns will be powered down before the mammal is within the safety radius. Likewise, if a mammal is already within the safety zone when first detected, the airguns will be powered down immediately. During a power down, at least one airgun (e.g., 80 in³) will be operated. If a marine mammal is detected within or near the smaller safety radius around that single airgun (Table 1), all airguns will be shut down.

Following a power down, airgun activity will not resume until the marine mammal has cleared the safety zone. The animal will be considered to have cleared the safety zone if it (1) is visually observed to have left the safety zone, or (2) has not been seen within the zone for 15 min in the case of small odontocetes and pinnipeds, or (3) has not been seen within the zone for 30 min in the case of mysticetes and large odontocetes, including sperm, pygmy sperm, dwarf sperm, and beaked whales.

During a power down, the operating airgun will be shut down if a marine mammal approaches within the modeled safety radius for the then-operating source, typically a single gun of 80 in³. Because no calibration measurements have been done to confirm the modeled safety radii for the single gun, conservative radii may be used (1.5 times the modeled safety radius). For an 80 in³ airgun, the predicted 180-dB distance applicable to cetaceans is 36 m (118 ft) and the x1.5 conservative radius is 54 m (177 ft). The corresponding 190-dB radius applicable to pinnipeds is 13 m (43 ft), with the x1.5 conservative radius being 20 m (66

ft). If a marine mammal is detected within or about to enter the appropriate safety radius around the small source in use during a power down, airgun operations will be entirely shut down. In addition, the airguns will be shut down if a North Pacific right whale is sighted anywhere near the vessel, even if it is located outside the safety radius, because of the rarity and sensitive status of this species. Resumption of airgun activity will follow procedures described for power-down operations.

Ramp-up Procedure

When airgun operations commence after a certain period without airgun operations, the number of guns firing will be increased gradually, or "ramped up" (also described as a "soft start"). Operations will begin with the smallest gun in the array (80 in³). Guns will be added in sequence such that the source level of the array will increase in steps not exceeding 6 dB per 5-min period over a total duration of approximately 18–20 minutes. Throughout the ramp-up procedure, the safety zone for the full 10- or 12-gun array will be maintained.

The "ramp-up" procedure will be required under the following circumstances. Under normal operational conditions (vessel speed 4 knots (7.4 km/hr)), a ramp-up would be required after a power-down or shut-down period lasting more than 4 minutes if the *Ewing* was towing the 10- or 12-gun array. At 4 knots, the *Ewing* would travel 600 m (1969 ft) during a 5-minute period. The 600-m (1969 ft) distance is the calculated 180-dB safety radius.

If the towing speed is reduced to 3 knots (5.6 km/hr) or less, as sometimes required when maneuvering in shallow water (not a factor here), it is proposed that a ramp-up would be required after a "no shooting" period lasting greater than 7 minutes. At towing speeds not exceeding 3 knots (5.6 km/hr), the source vessel would travel no more than 600 m (1969 ft) in about 7 minutes. Based on the same calculation, a ramp-up procedure would be required after a 4-minute period if the speed of the source vessel was 5 knots (9.3 km/hr).

Ramp-up will not occur if the safety radius has not been visible for at least 30 minutes prior to the start of ramp-up operations in either daylight or nighttime. If the safety radius has not been visible for that 30-minute period (e.g., during darkness or fog), ramp-up will not commence unless at least one airgun has been firing continuously during the interruption of seismic activity. That airgun will have a source level of at least 180 dB re 1 microPa m

(rms). It is likely that the airgun arrays will not be ramped up from a complete shut down at night or in thick fog, because the outer part of the safety zone for those arrays will not be visible during those conditions. If one airgun has operated during a power down period, ramp up to full power will be permissible at night or in poor visibility, on the assumption that marine mammals will be alerted to the approaching seismic vessel by the sounds from the single airgun and could move away. Ramp up of the airguns will not be initiated if a marine mammal is sighted within or near the applicable safety radii during the day or close to the vessel at night.

Non-seismic/sonar Periods

To address the current hypothesis that seismic and/or sonar sounds are preventing normal dive patterns by beaked whales, NMFS and L-DEO will implement an acoustic flushing method to allow marine mammals (principally beaked whales) to vacate an area prior to the use of more intense acoustic sounds. Although NMFS believes that beaked whales will generally avoid vessels and vessel noise and, in this instance are unconstrained by topography from moving away from the acoustic source in either their horizontal or vertical movements in the ways that are suspected to have contributed to recent beaked whale strandings. However, in order to address new hypotheses (discussed previously in this document), NMFS and L-DEO will implement the following mitigation measures:

OBS Deployments

L-DEO will secure the multibeam and sub-bottom sonars until approximately 10 minutes prior to deployment of the OBS. At this time these two sonars will commence operation to ensure that the depths and bottom topography are in accordance with the planned OBS location. Immediately after the OBS has been deployed and the Ewing is underway to the next site, these sonars will be secured until 10 minutes from the OBS deployment site.

Shooting Periods During Turns

The volume of the airgun array will be reduced during vessel turns while running seismic lines. L-DEO will develop a protocol that will address the operation's capability to reduce sound in the water column with a reasonable ramp up period following the period of volume reduction. The multi-beam and 3.5 kHz bottom profiler will be secured during turns (unless there is a safety issue).

Night-time Seismic

Comments on past proposed IHAs raised the issue of prohibiting night-time operations as mitigation. However, this is not practicable due to cost considerations. The daily cost to the Federal Government to operate vessels such as *Ewing* is approximately \$33,000 to \$35,000/day (Ljunggren, pers. comin. May 28, 2003). If the vessels were prohibited from operating during nighttime, it is possible that each trip would require an additional 3 to 5 days, or up to \$175,000 more, depending on average daylight at the time of work.

Taking into consideration the additional costs of prohibiting night-time operations and the likely impact of the activity (including all mitigation and monitoring), NMFS has determined that the mitigation and monitoring required to be undertaken during this research cruise, including the new requirements to secure the mid-frequency sonars between OBS deployments and during seismic turns, ensures that the activity will have the least practicable impact on the affected species or stocks. Marine mammals will have sufficient notice of a vessel approaching with operating seismic airguns (at least 1 hour in advance), thereby giving them an opportunity to avoid the approaching array; if ramp-up is required after an extended power-down, two marine mammal observers will be required to monitor the safety radii using night vision devices for 30 minutes before ramp-up begins and verify that no marine mammals are in or approaching the safety radii; ramp-up may not begin unless the entire safety radii are visible; and ramp-up may occur at night only if one airgun with a sound pressure level of at least 180 dB has been maintained during interruption of seismic activity. Therefore it is likely that the 10–12–airgun array will not be ramped-up from a shut-down at night.

Marine Mammal Monitoring

L-DEO must have at least three visual observers and two passive acoustic system biological monitors on board the vessels, and at least two must be experienced marine mammal observers that NMFS approves. These observers will be on duty in shifts of no longer than 4 hours.

The visual observers will monitor marine mammals and sea turtles near the seismic source vessel during all daytime airgun operations, during any nighttime start-ups of the airguns and at night, whenever daytime monitoring resulted in one or more power-down situations due to marine mammal presence. During daylight, vessel-based

observers will watch for marine mammals and sea turtles near the seismic vessel during periods with shooting (including ramp-ups), and for 30 minutes prior to the planned start of airgun operations after an extended power-down or shut-down.

Use of multiple observers will increase the likelihood that marine mammals near the source vessel are detected. L-DEO bridge personnel will also assist in detecting marine mammals and implementing mitigation requirements whenever possible (they will be given instruction on how to do so), especially during ongoing operations at night when the designated observers are on stand-by and not required to be on watch at all times.

The observer(s) will watch for marine mammals and sea turtles from the highest practical vantage point on the vessel, which is either the bridge or the flying bridge. On the bridge of the *Maurice Ewing*, the observer's eye level will be 11 m (36 ft) above sea level, allowing for good visibility within a 210 arc. If observers are stationed on the flying bridge, the eye level will be 14.4 m (47.2 ft) above sea level. The observer(s) will systematically scan the area around the vessel with Big Eyes binoculars, reticle binoculars (e.g., 7 X 50 Fujinon) and with the naked eye during the daytime. Laser range-finding binoculars (Leica L.F. 1200 laser rangefinder or equivalent) will be available to assist with distance estimation. The observers will be used to determine when a marine mammal or sea turtle is in or near the safety radii so that the required mitigation measures, such as course alteration and power-down or shut-down, can be implemented. If the airguns are powered or shut down, observers will maintain watch to determine when the animal is outside the safety radius.

Observers will not be on duty during ongoing seismic operations at night; bridge personnel will watch for marine mammals during this time and will call for the airguns to be powered-down if marine mammals or sea turtles are observed in or about to enter the safety radii. However, an observer must be on standby at night and available to assist the bridge watch if marine mammals are detected. If the airguns are ramped-up at night from a power-down situation, at least two marine mammal observers will monitor for marine mammals for 30 minutes prior to ramp-up and during the ramp-up using night vision equipment that must be available (ITT F500 Series Generation 3 binocular image intensifier or equivalent). All observer activity will be assisted by passive acoustic monitoring.

Passive (Acoustic) Monitoring (PAM)

L-DEO will use the PAM system during the OBS deployment (1) to assess pre-disturbance vocalization behavior, (2) during all seismic operations; and (3) while the *Ewing* is retrieving the hydrophone array and OBSs after completion of the survey. The primary purpose of the acoustic monitoring is to aid visual observers in detecting vocalizing marine mammals, particularly during periods with poor observation conditions, including high sea states, fog, or darkness, when visual monitoring is largely or totally ineffective (Smultea *et al.*, 2004). Passive acoustic equipment was first used on the *Ewing* during the 2003 Sperm Whale Seismic Study conducted in the Gulf of Mexico and subsequently was evaluated by L-DEO to determine whether it was practical to incorporate it into future seismic research cruises. The SEAMAP system has been used successfully in L-DEO's SE Caribbean study (69 FR 24571, May 4, 2004). Smultea *et al.* (2004) provides additional information on testing and evaluating the PAM system during this cruise.

The SEAMAP PAM system has four hydrophones, which allow the SEAMAP system to derive the bearing toward the a vocalizing marine mammal. In order to operate the SEAMAP system, the marine mammal monitoring contingent onboard the *Ewing* will be increased by 2 to 3 additional biologists who will monitor the SEAMAP system. Verification of acoustic contacts will then be attempted through visual observation by the marine mammal observers. However, the PAM system by itself usually does not determine the distance that the vocalizing mammal might be from the seismic vessel. It can be used as a cue by the visual observers as to the presence of an animal and to its approximate bearing (with some ambiguity). At this time, however, it is doubtful if PAM can be used as a trigger to initiate power-down of the array. Perhaps with continued studies the relationship between a signal on a passive acoustic array and distance from the array can be determined with sufficient accuracy to be used for this purpose without complementary visual observations.

Reporting

L-DEO will submit a report to NMFS within 90 days after the end of the cruise in late October, 2004. The report will describe the operations that were conducted and the marine mammals that were detected. The report must provide full documentation of methods, results, and interpretation pertaining to all monitoring tasks. The report will summarize the dates and locations of seismic operations, marine mammal sightings (dates, times, locations, activities, associated seismic survey activities), and estimates of the amount and nature of potential take of marine mammals by harassment or in other ways. This report will be considered the final report unless NMFS provides comments to L-DEO on the 90-day report within 30 days of receipt.

Endangered Species Act (ESA)

NMFS has issued a biological opinion regarding the effects of this action on ESA-listed species and critical habitat under the jurisdiction of NMFS. That biological opinion concluded that this action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. A copy of the Biological Opinion is available upon request (see ADDRESSES).

National Environmental Policy Act (NEPA)

The NSF made a FONSI determination on February 6, 2004, based on information contained within its EA, that implementation of the subject action is not a major Federal action having significant effects on the environment within the meaning of NEPA. NSF determined, therefore, that an environmental impact statement would not be prepared. On June 7, 2004 (69 FR 31792), NMFS noted that the NSF had prepared an EA for the Blanco Fracture Zone surveys and made this EA available upon request. In accordance with NOAA Administrative Order 216-6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999), NMFS has reviewed the information contained in NSF's EA and determined that the NSF EA accurately and completely describes the proposed action alternative, and the potential impacts on marine mammals,

endangered species, and other marine life that could be impacted by the preferred alternative and the other alternatives. Accordingly, NMFS adopted the NSF EA under 40 CFR 1506.3 and made its own FONSI. The NMFS FONSI also takes into consideration additional mitigation measures required by the IHA that are not in NSF's EA. Therefore, it is not necessary to issue a new EA, supplemental EA or an environmental impact statement for the issuance of an IHA to L-DEO for this activity. A copy of the NSF EA and the NMFS FONSI for this activity is available upon request (see ADDRESSES).

Conclusions

Based on the information summarized in this document, NMFS has determined that the impact of conducting the seismic survey on the Blanco Fracture Zone in the NPO. will result, at worst, in a temporary modification in behavior, constituting level B harassment, by certain species of marine mammals. This activity is expected to result in no more than a negligible impact on the affected species or stocks.

While the number of potential incidental harassment takes will depend on the distribution and abundance of marine mammals in the vicinity of the survey activity, the number of potential harassment takings is estimated to be small. In addition, the proposed seismic program is not expected to interfere with any subsistence hunts, since seismic operations will not take place in subsistence whaling and sealing areas and will not affect marine mammals used for subsistence purposes.

Authorization

NMFS has issued an IHA to L-DEO to take marine mammals, by harassment, incidental to conducting seismic surveys in the Blanco Fracture Zone, North Pacific Ocean for a 1-year period, provided the mitigation, monitoring, and reporting requirements are undertaken.

Dated: December 7, 2004.

Stephen L. Leathery,
Acting Director, Office of Protected Resources,
National Marine Fisheries Service.

[FR Doc. 04-27267 Filed 12-13-04; 8:45 am]

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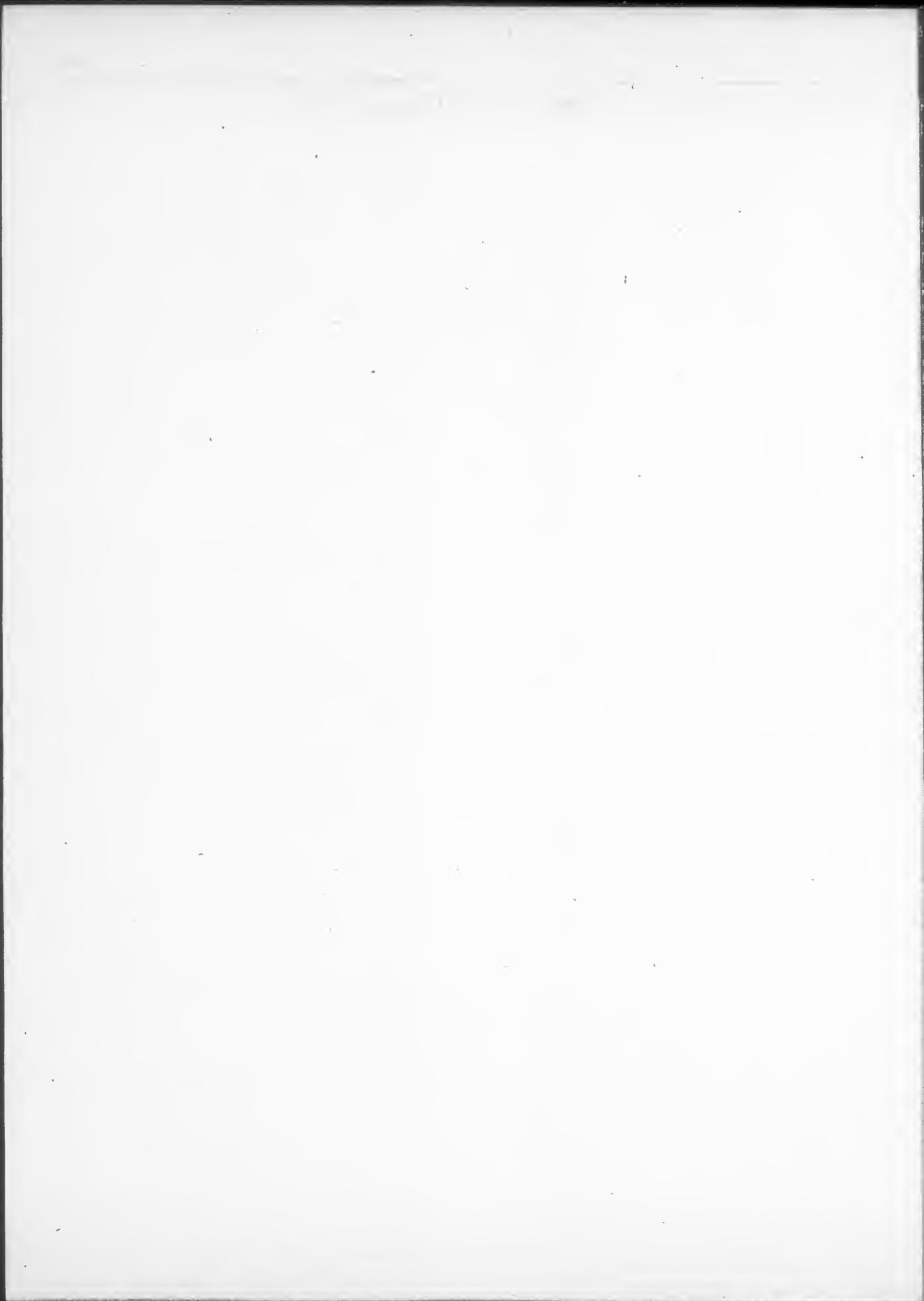
Federal Register

Tuesday,
December 14, 2004

Part VII

The President

Presidential Determination No. 2005-08 of November 29, 2004—Waiving Prohibition on United States Military Assistance with Respect to Burundi, Guyana, and Liberia
Presidential Determination No. 2005-09 of December 6, 2004—Waiver of Restrictions on Assistance to Russia under the Cooperative Threat Reduction Act of 1993 and Title V of the FREEDOM Support Act
Memorandum of December 8, 2004—Delegation of Certain Reporting Authority
Memorandum of December 8, 2004—Delegation of Certain Reporting Authority
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Memorandum of December 8, 2004—Delegation of Certain Reporting Authority



Federal Register

Presidential Documents

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Title 3—

Presidential Determination No. 2005-08 of November 29, 2004

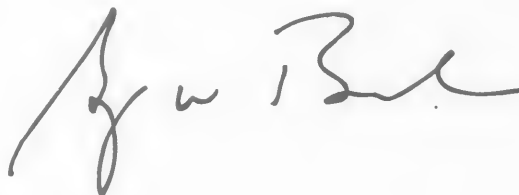
The President

Waiving Prohibition on United States Military Assistance with Respect to Burundi, Guyana, and Liberia**Memorandum for the Secretary of State**

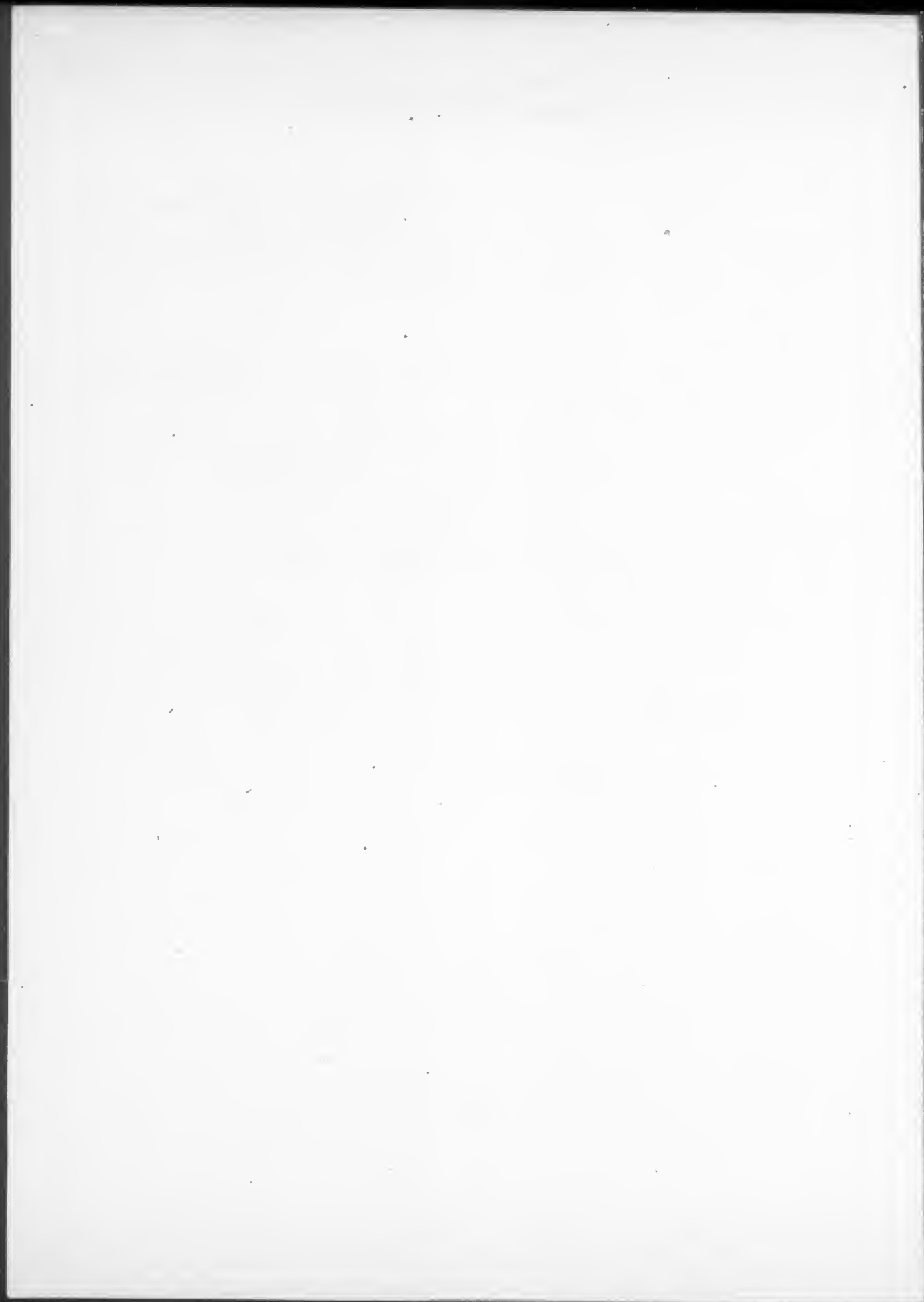
Consistent with the authority vested in me by section 2007 of the American Servicemembers' Protection Act of 2002 (the "Act"), title II of Public Law 107-206 (22 U.S.C. 7421 *et seq.*), I hereby:

- Determine that Burundi, Guyana, and Liberia have each entered into an agreement with the United States pursuant to Article 98 of the Rome Statute preventing the International Criminal Court from proceeding against U.S. personnel present in such countries; and
- Waive the prohibition of section 2007(a) of the Act with respect to these countries for as long as such agreement remains in force.

You are authorized and directed to report this determination to the Congress, and to arrange for its publication in the **Federal Register**.



THE WHITE HOUSE,
Washington, November 29, 2004.



Presidential Documents

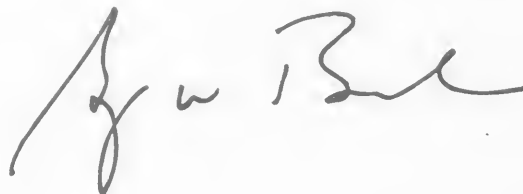
Presidential Determination No. 2005-09 of December 6, 2004

Waiver of Restrictions on Assistance to Russia under the Cooperative Threat Reduction Act of 1993 and Title V of the FREEDOM Support Act

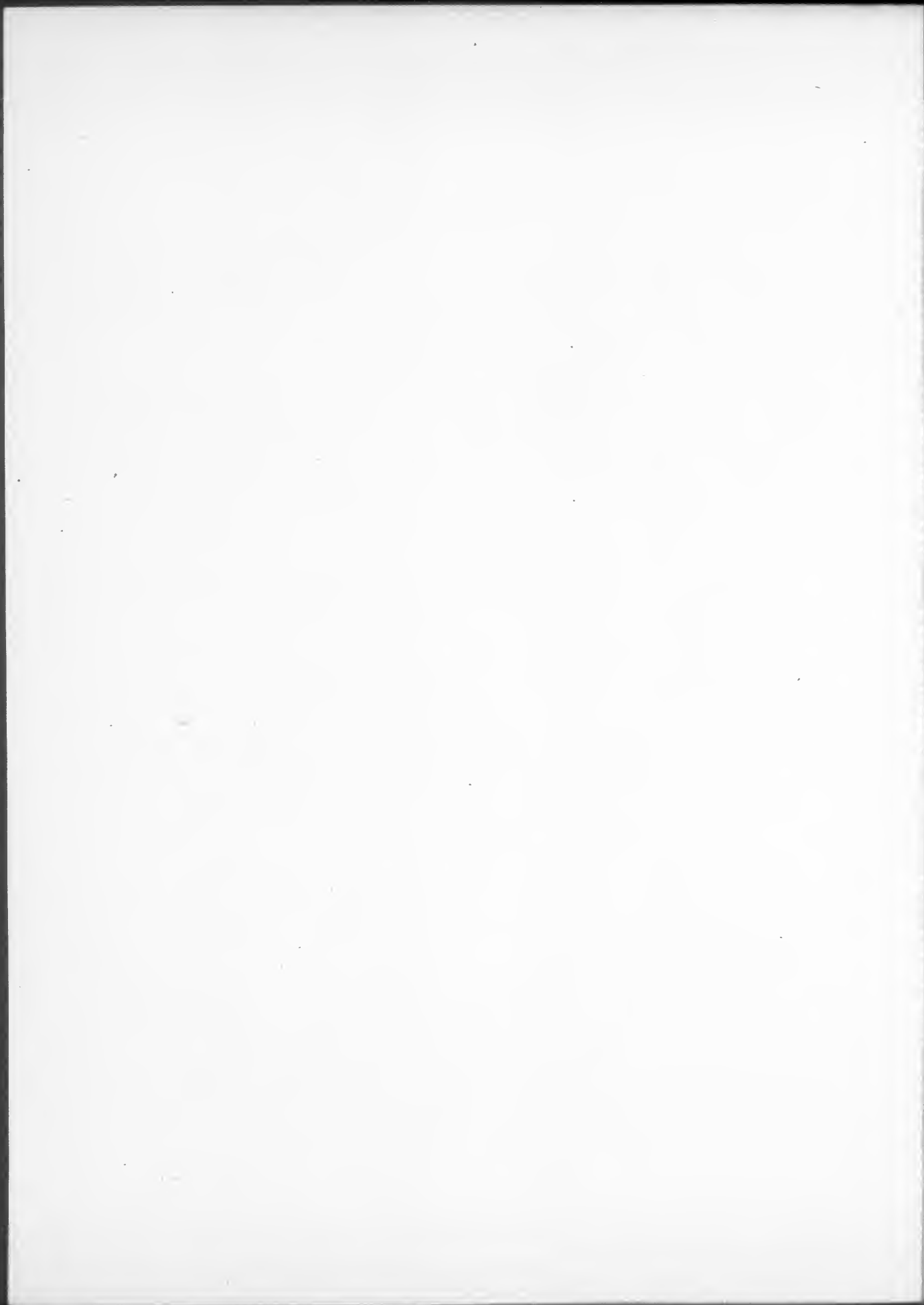
Memorandum for the Secretary of State

Consistent with the authority vested in me by section 1306 of the national Defense Authorization Act for Fiscal Year 2003 (Public Law 107-314), I hereby certify that waiving the restrictions contained in subsection (d) of section 1203 of the Cooperative Threat Reduction Act of 1993 (22 U.S.C. 5952), as amended, and the requirements contained in section 502 of the FREEDOM Support Act (22 U.S.C. 5852) during Fiscal Year 2005 with respect to the Russian Federation is important to the national security interests of the United States.

You are authorized and directed to transmit to the Congress this certification and the associated report (including its classified annex) that has been prepared by my Administration consistent with section 1306(b) of Public Law 107-314. You are further authorized and directed to arrange for the publication of this certification in the **Federal Register**.



THE WHITE HOUSE,
Washington, December 6, 2004.



Presidential Documents

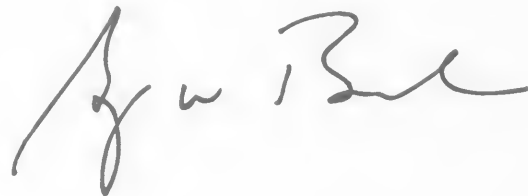
Memorandum of December 8, 2004

Delegation of Certain Reporting Authority

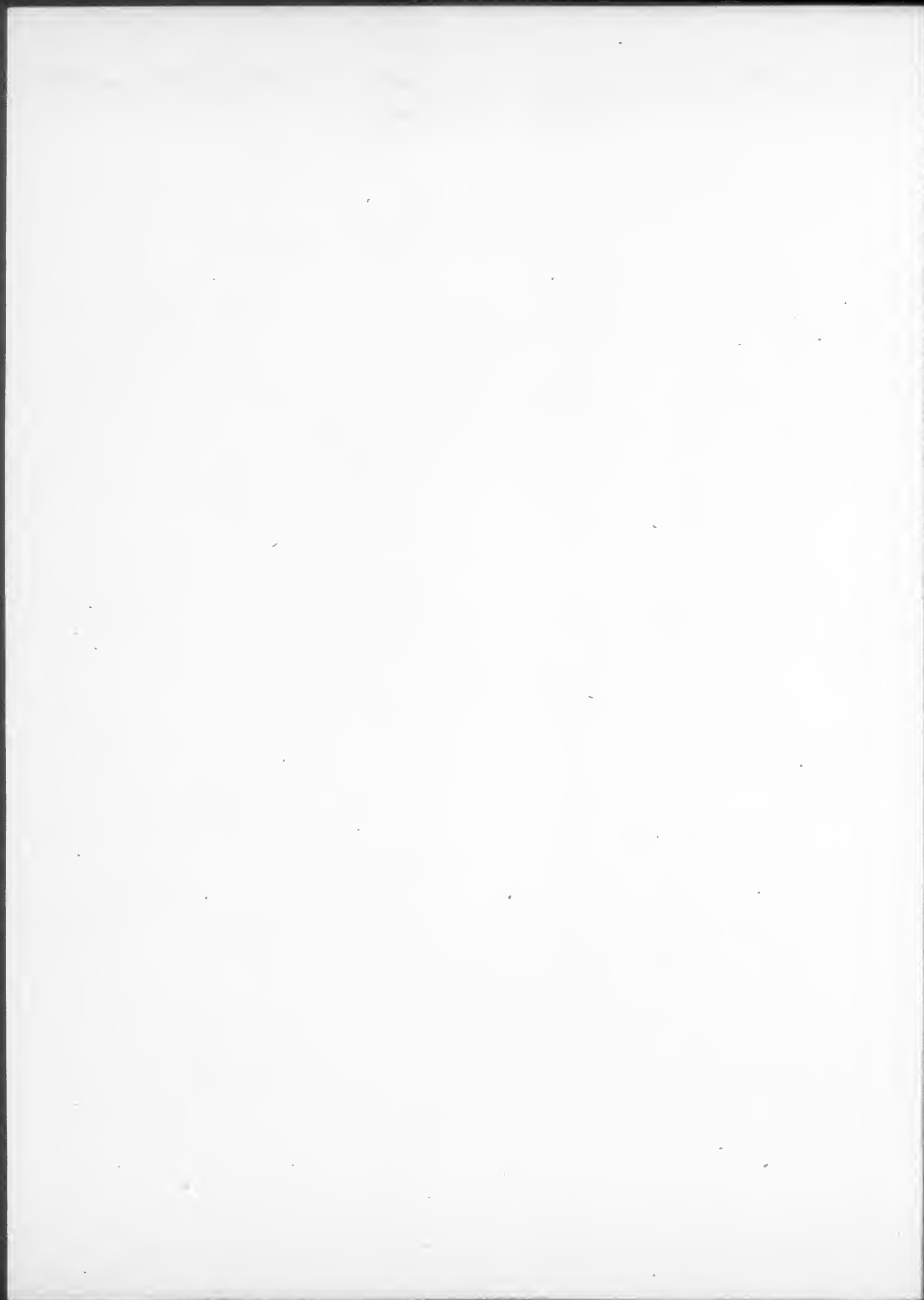
Memorandum for the Chairman of the Federal Labor Relations Authority

By the authority vested in me as President by the Constitution and the laws of the United States, including section 301 of title 3, United States Code, I hereby delegate to the member who has been designated by the President as Chairman the functions conferred upon the President by 5 U.S.C. 7104(e) to provide the specified report to the Congress.

You are authorized and directed to publish this memorandum in the *Federal Register*.



THE WHITE HOUSE,
Washington, December 8, 2004.



Presidential Documents

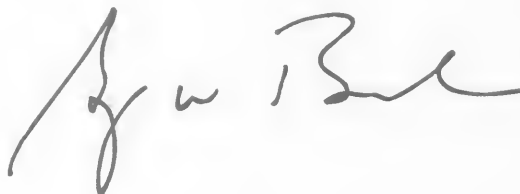
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Delegation of Certain Reporting Authority

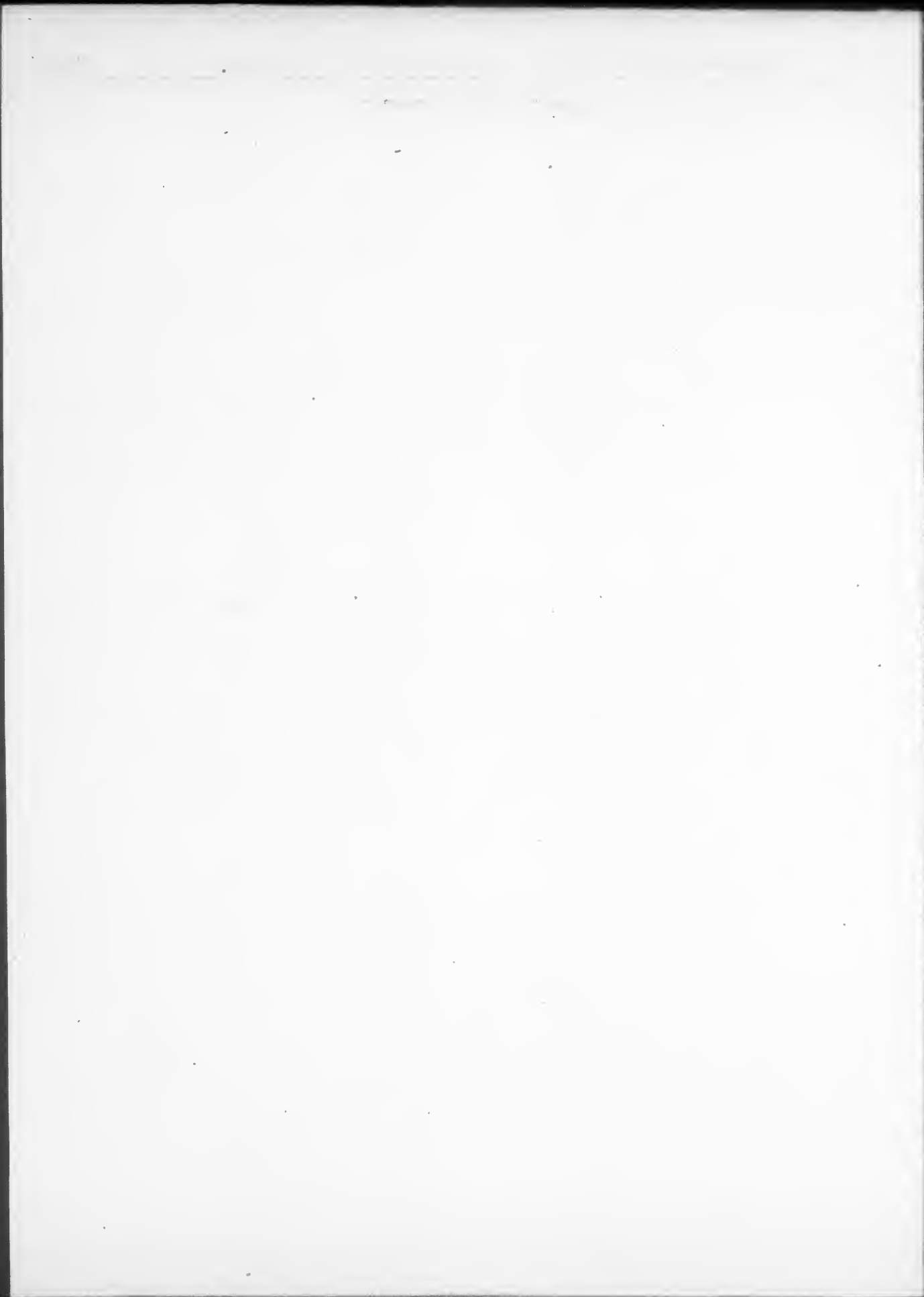
Memorandum for the Chairperson of the National Endowment for the Arts

By the authority vested in me as President by the Constitution and the laws of the United States, including section 301 of title 3, United States Code, I hereby delegate to you the functions conferred upon the President in the National Foundation on the Arts and Humanities Act of 1965, as amended (20 U.S.C. 959(d)) to provide the specified report relating to the National Endowment for the Arts to the Congress.

You are authorized and directed to publish this memorandum in the **Federal Register**.



THE WHITE HOUSE,
Washington, December 8, 2004.



Presidential Documents

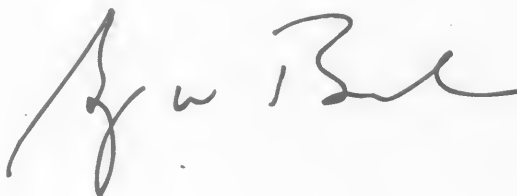
Memorandum of December 8, 2004

Delegation of Certain Reporting Authority

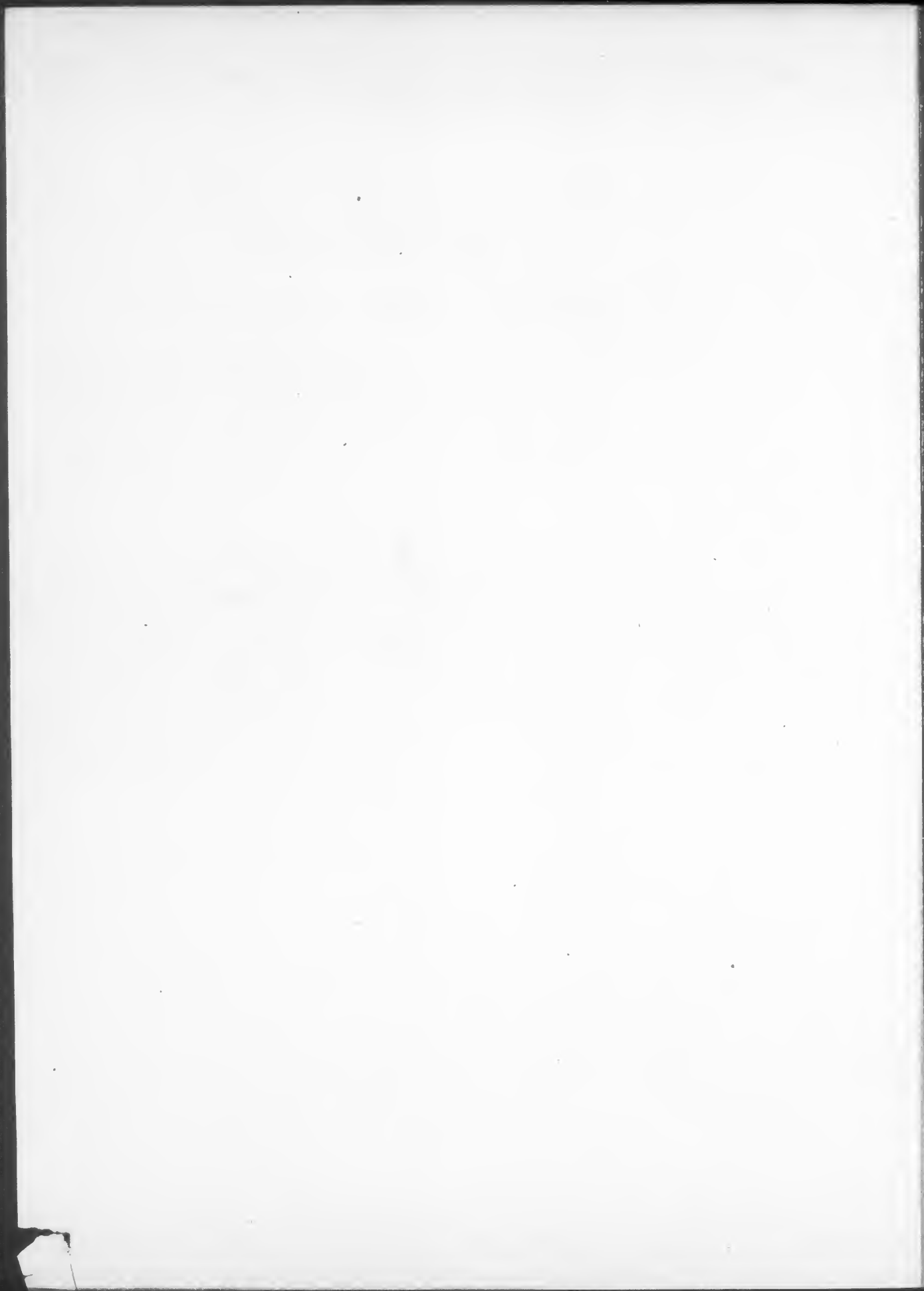
Memorandum for the Chairperson of the National Endowment for the Humanities

By the authority vested in me as President by the Constitution and the laws of the United States, including section 301 of title 3, United States Code, I hereby delegate to you the functions conferred upon the President in the National Foundation on the Arts and Humanities Act of 1965, as amended (20 U.S.C. 959(d)) to provide the specified report relating to the National Endowment for the Humanities to the Congress.

You are authorized and directed to publish this memorandum in the *Federal Register*.



THE WHITE HOUSE,
Washington, December 8, 2004.



Presidential Documents

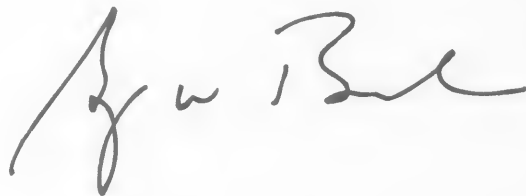
Memorandum of December 8, 2004

Delegation of Certain Reporting Authority

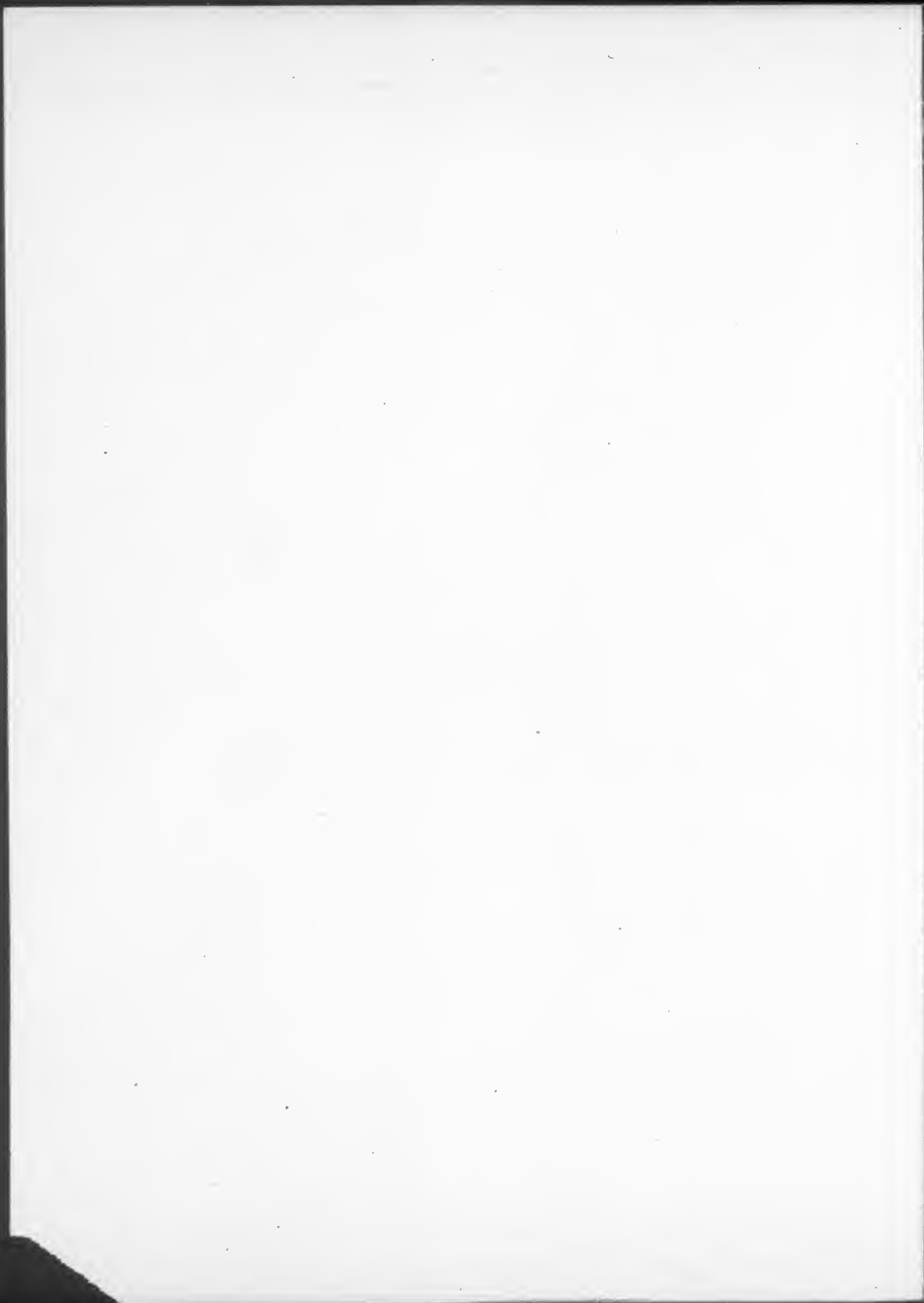
Memorandum for the Secretary of Agriculture

By the authority vested in me as President by the Constitution and the laws of the United States, including section 301 of title 3, United States Code, I hereby delegate to you the functions conferred upon the President by section 13 of Public Law 806, 80th Congress (15 U.S.C. 714k), to provide the specified report to the Congress.

You are authorized and directed to publish this memorandum in the **Federal Register**.



THE WHITE HOUSE,
Washington, December 8, 2004.





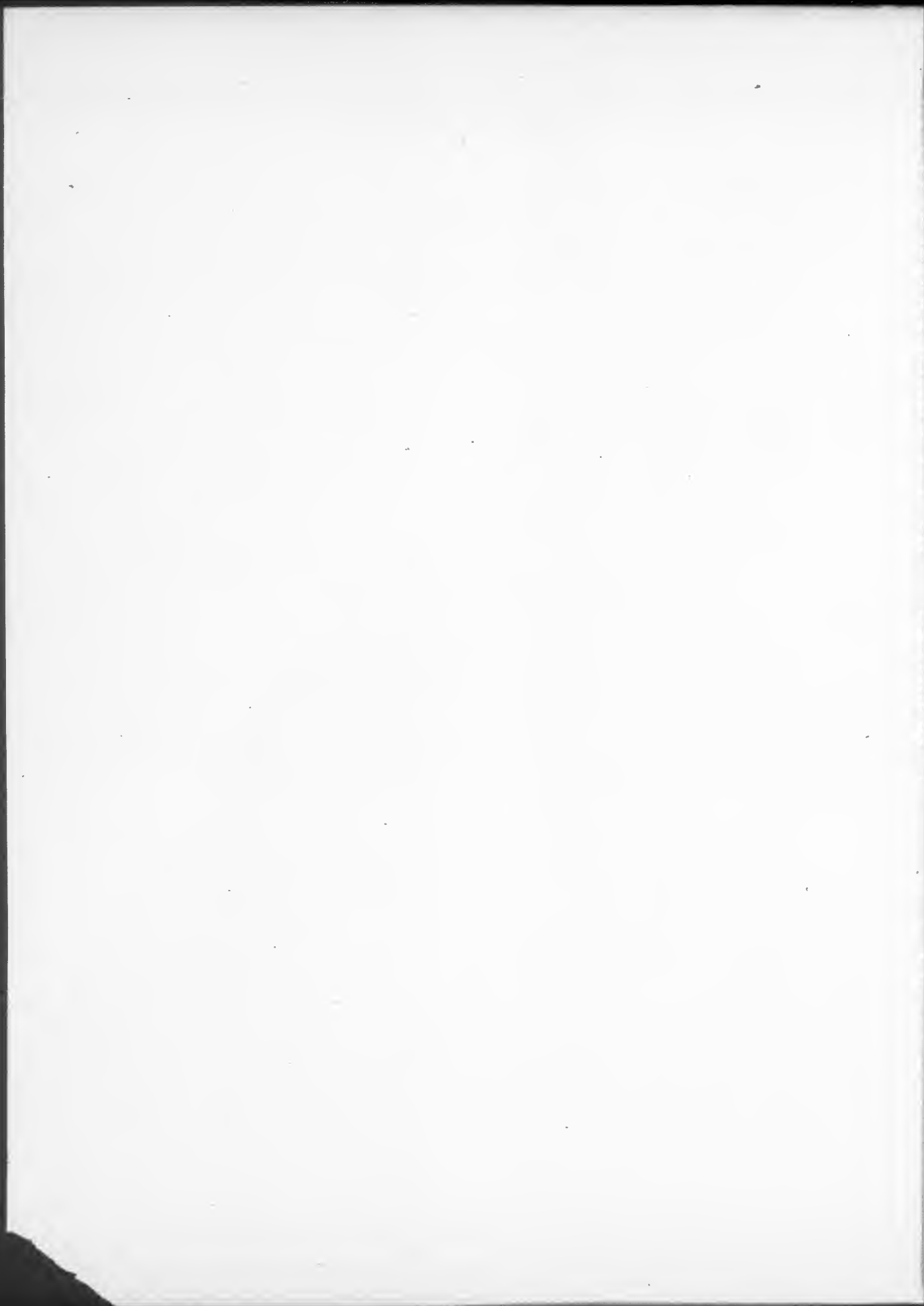
Federal Register

Tuesday,
* December 14, 2004

Part VIII

The President

**Proclamation 7853—To Take Certain
Actions Under the African Growth and
Opportunity Act With Respect to Burkina
Faso**



Presidential Documents

Title 3—

Proclamation 7853 of December 10, 2004

The President

To Take Certain Actions Under the African Growth and Opportunity Act With Respect to Burkina Faso

By the President of the United States of America

A Proclamation

1. Section 506A(a)(1) of the Trade Act of 1974, as amended (the "1974 Act") (19 U.S.C. 2466a(a)(1)), as added by section 111(a) of the African Growth and Opportunity Act (title I of Public Law 106-200) (AGOA), authorizes the President to designate a country listed in section 107 of the AGOA (19 U.S.C. 3706) as a "beneficiary sub-Saharan African country" if the President determines that the country meets the eligibility requirements set forth in section 104 of the AGOA (19 U.S.C. 3703), as well as the eligibility criteria set forth in section 502 of the 1974 Act (19 U.S.C. 2462).
2. Section 104 of the AGOA authorizes the President to designate a country listed in section 107 of the AGOA as an "eligible sub-Saharan African country" if the President determines that the country meets certain eligibility requirements.
3. Section 112(b)(3)(B) of the AGOA (19 U.S.C. 3721(b)(3)(B)) provides special rules for certain apparel articles imported from "lesser developed beneficiary sub-Saharan African countries."
4. Pursuant to section 104 of the AGOA and section 506A(a)(1) of the 1974 Act, I have determined that Burkina Faso meets the eligibility requirements set forth or referenced therein, and I have decided to designate Burkina Faso as a beneficiary sub-Saharan African country.
5. Burkina Faso satisfies the criterion for treatment as a "lesser developed beneficiary sub-Saharan African country" under section 112(b)(3)(B) of the AGOA.
6. Section 604 of the 1974 Act (19 U.S.C. 2483) authorizes the President to embody in the Harmonized Tariff Schedule of the United States (HTS) the substance of the relevant provisions of that Act, and of other acts affecting import treatment, and actions thereunder, including the removal, modification, continuance, or imposition of any rate of duty or other import restriction.

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, acting under the authority vested in me by the Constitution and the laws of the United States of America, including sections 506A and 604 of the 1974 Act and section 104 of the AGOA, do proclaim that:

(1) Burkina Faso is designated as an eligible sub-Saharan African country and as a beneficiary sub-Saharan African country.

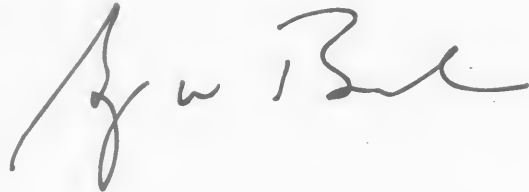
(2) In order to reflect this designation in the HTS, general note 16(a) to the HTS is modified by inserting in alphabetical sequence in the list of beneficiary sub-Saharan African countries "Burkina Faso."

(3) For purposes of section 112(b)(3)(B) of the AGOA, Burkina Faso is a lesser developed beneficiary sub-Saharan African country.

(4) The modification to the HTS made by this proclamation shall be effective with respect to articles entered, or withdrawn from warehouse for consumption, 15 days after the date of this proclamation.

(5) Any provisions of previous proclamations and Executive Orders that are inconsistent with this proclamation are superseded to the extent of such inconsistency.

IN WITNESS WHEREOF, I have hereunto set my hand this tenth day of December, in the year of our Lord two thousand four, and of the Independence of the United States of America the two hundred and twenty-ninth.

A handwritten signature in black ink, appearing to read "G. W. Bush". The signature is written in a cursive style with a large, sweeping initial "G" and a distinct "W" and "B".

[FR Doc. 04-27523
Filed 12-13-04; 10:39 am]
Billing code 3195-01-P

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S. 3014/P.L. 108-456

To reauthorize the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, and for other purposes. (Dec. 10, 2004; 118 Stat. 3630)

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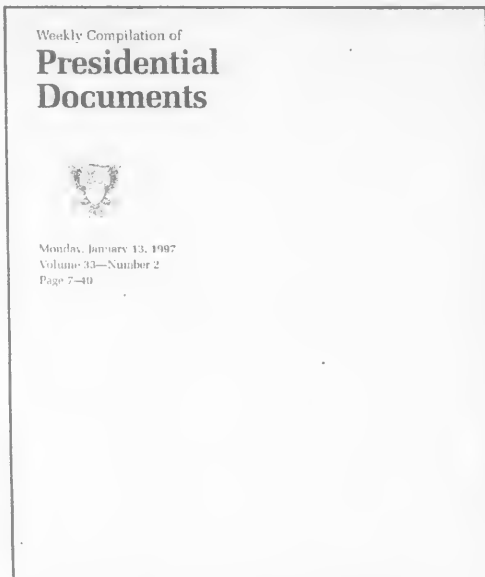
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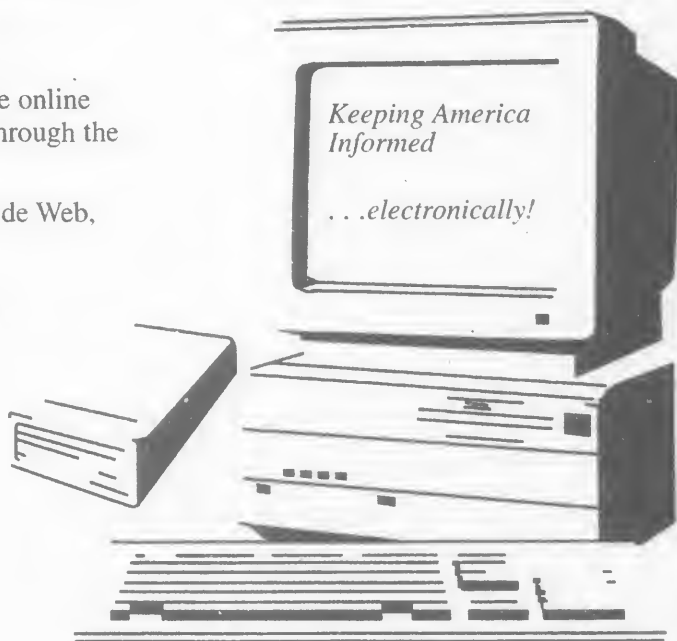
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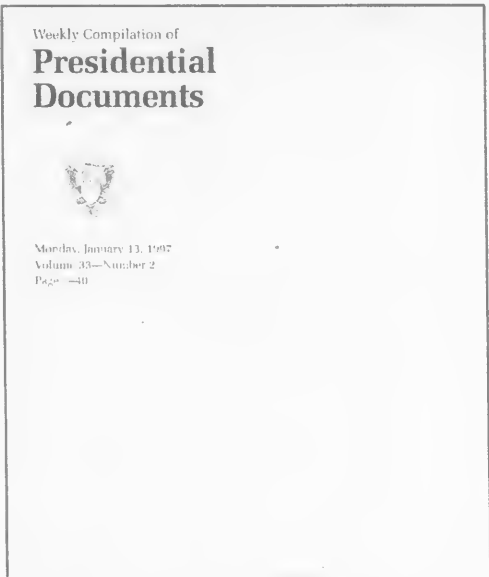
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
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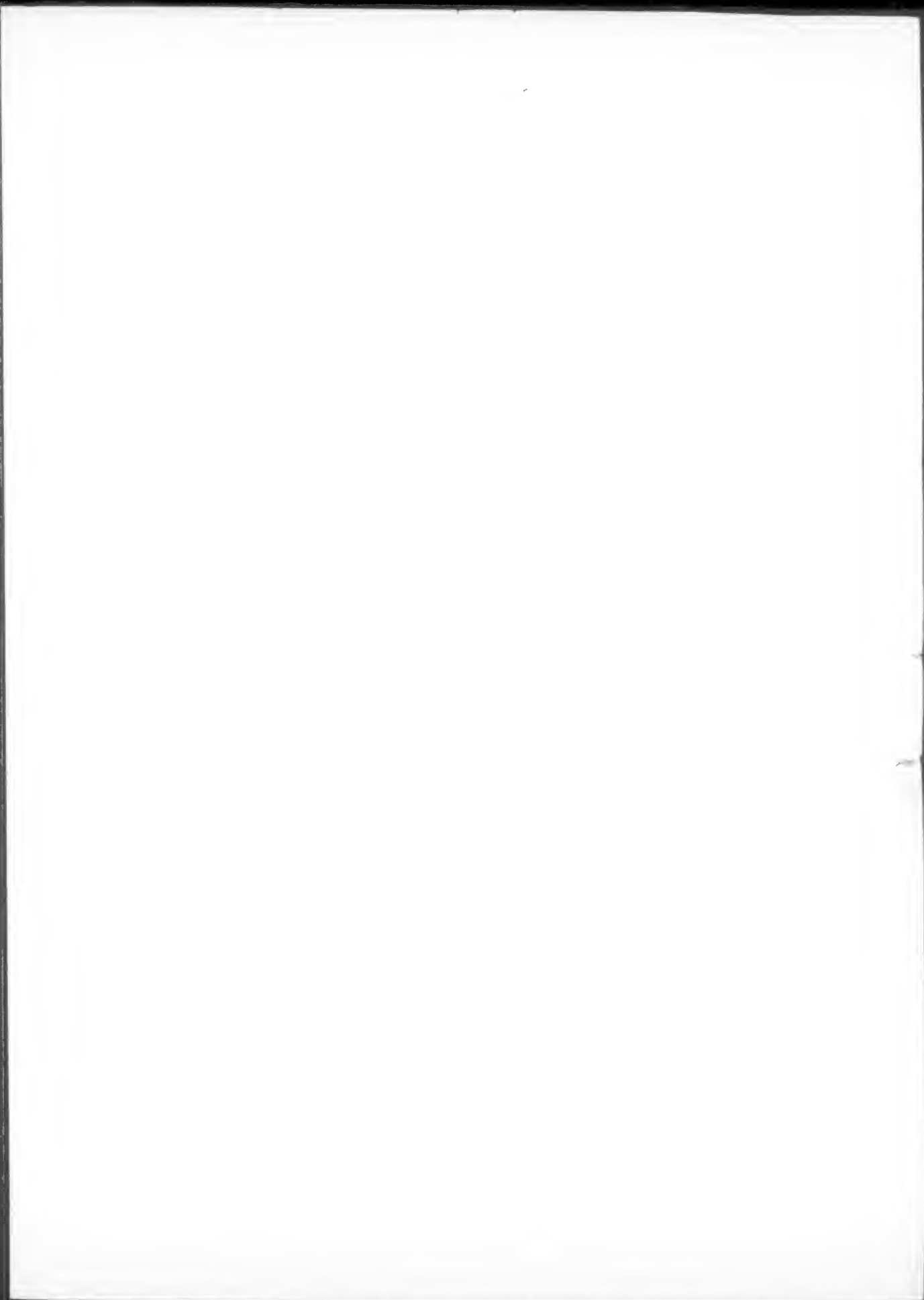
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