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50 CFR Part 17

Endangered and Threatened Wildlife Plants; Designation of Critical Habitat for the Bull Trout; Final Rule

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AJ12; 1018–AU31

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Bull Trout

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Klamath River, Columbia River, Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River populations of bull trout (*Salvelinus confluentus*) in the coterminous United States pursuant to the Endangered Species Act of 1973, as amended (Act). This final designation totals approximately 3,828 miles (mi) (6,161 kilometers (km) of streams, 143,218 acres (ac) (57,958 hectares (ha) of lakes in Idaho, Montana, Oregon, and Washington, and 985 mi (1,585 km) of shoreline paralleling marine habitat in Washington. We solicited data and comments from the public on all aspects of the proposed rules, including data on economic and other impacts of the designations.

DATES: This rule becomes effective October 26, 2005.

ADDRESSES: Comments received, as well as supporting documentation used in the preparation of this final rule, will be available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 N.E. 11th Avenue, Portland, OR 97232. The final rule, economic analyses, and maps are also available via the Internet at *http://pacific.fws.gov/bulltrout/*.

FOR FURTHER INFORMATION CONTACT: Branch of Endangered Species (see **ADDRESSES** section), telephone, facsimile 503/231–6237.

SUPPLEMENTARY INFORMATION:

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under ESA section 4(b)(2), there are significant limitations on the regulatory effect of designation under ESA section 7(a)(2). In brief, (1) designation provides additional protection to habitat only where there is a federal nexus; (2) the protection is relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would in fact take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat, but it does not require specific actions to restore or improve habitat.

Currently, only 470 species, or 37 percent of the 1,264 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,264 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, the Section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas originally proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force* v. *United States Fish and Wildlife Service*. In that case, the Ninth Circuit invalidated the Service's regulation defining "destruction or adverse modification of critical habitat." In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas in this final designation. The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office prior to finalizing to ensure that an adequate analysis has been conducted that is informed by the Director's guidance.

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

In light of these circumstances, 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.

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 limited ability to provide for 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, and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species. The costs resulting from the

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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). These costs, which are not required for many other conservation actions, directly reduce the funds available for direct and tangible conservation actions.

Background

Bull trout (*Salvelinus confluentus*) are members of the char subgroup of the family Salmonidae and are native to waters of western North America. Bull trout range throughout the Columbia River and Snake River basins, extending east to headwater streams in Montana and Idaho, into Canada, and in the Klamath River basin of south-central Oregon. The distribution of populations, however, is scattered and patchy (Goetz 1989; Rieman and McIntyre 1993; Zeller 1992; Light *et al.* 1996; Quigley and Arbelbide 1997).

Bull trout exhibit a number of life-history strategies. Stream-resident bull trout complete their entire life cycle in the tributary streams where they spawn and rear. Most bull trout are migratory, spawning in tributary streams where juvenile fish usually rear from 1 to 4 years before migrating to either a larger river (fluvial) or lake (adfluvial) where they spend their adult life, returning to the tributary stream to spawn (Fraley and Shepard 1989). Resident and migratory forms may be found together, and either form can produce resident or migratory offspring (Rieman and McIntyre 1993).

Bull trout, coastal cutthroat trout (*Oncorhynchus clarki clarki*), Pacific salmon (*Oncorhynchus* spp.), and some other species are commonly referred to as "anadromous" (fish that can migrate from saltwater to freshwater to reproduce). However, bull trout, coastal cutthroat trout, and some other species that enter the marine environment are more properly termed "amphidromous." Unlike strictly anadromous species, such as Pacific salmon, amphidromous species often return seasonally to fresh water as subadults, sometimes for several years, before returning to spawn (Wilson 1997). The amphidromous life history form of bull trout is unique to the Coastal-Puget Sound population. For additional information on the biology of this life form, see our June 25, 2004, proposed critical habitat designation for the Jarbidge River, Coastal-Puget sound, and Saint Mary-Belly River populations of bull trout (69 FR 35767).

For additional information on population ranges, biology, and habitat requirements of the bull trout, please refer to the following published rules: Proposed critical habitat designation for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River populations (69 FR 35767, June 25, 2004; as corrected by 69 FR 43058, July 19, 2004); final critical habitat designation (69 FR 59995, October 6, 2004) and proposed critical habitat designation (67 FR 71235, November 29, 2002) for the Klamath River and Columbia River populations; and listing rules for the Klamath River and Columbia River populations (63 FR 31647, June 10, 1998), Jarbidge River population (64 FR 17110, April 8, 1999), and for all populations (64 FR 58909, November 1, 1999).

Previous Federal Action

Please refer to the November 29, 2002, proposed critical habitat designation for the Klamath River and Columbia River bull trout populations (67 FR 71235) for a detailed summary of Federal actions completed prior to publication of that proposal related to all bull trout populations. Please refer to the October 6, 2004, final critical habitat designation for the Klamath River and Columbia River bull trout populations (69 FR 59995) for a detailed summary of Federal actions completed between the proposed and final rules related to the Columbia and Klamath populations. Please refer to the June 25, 2004, proposed critical habitat designation for the Jarbidge, Coastal-Puget, and St. Mary Belly bull trout populations (69 FR 35767) for a detailed summary of previous Federal actions completed prior to publication of that proposal related to those bull trout populations.

On December 14, 2004, Alliance for the Wild Rockies *et al.* filed a complaint challenging the adequacy of the final critical habitat designation for the Klamath River and Columbia River bull trout populations. Our motion for partial voluntary remand was subsequently granted by the court with a final rule due by September 15, 2005. On May 25, 2005, we announced the opening of a public comment period on the proposed and final designations of critical habitat for the Klamath River and Columbia River bull trout populations (70 FR 29998). On June 6, 2005, we published a notice clarifying the reopening of the comment period for the proposed and final designation of critical habitat for the Klamath River and Columbia River bull trout populations (70 FR 32732). The comment period was open until June 24, 2005.

On May 3, 2005, we published a notice of the availability of the draft economic analysis (DEA) and reopening of a 30-day comment period until June 2, 2005 (70 FR 22835), for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-belly River populations of bull trout. On June 27, 2005, Judge Jones extended the deadline for designating critical habitat for the Puget Sound-Coastal, Jarbidge, and St. Mary-Belly River bull trout populations to September 15, 2005. This rule combines all of the listed populations of bull trout into one final critical habitat designation, and, in doing so, replaces the final critical habitat designation for the Klamath River and Columbia River populations of bull trout published in the **Federal Register** on October 6, 2004 (69 FR 59995).

Summary of Comments and Recommendations

Jarbidge River, Coastal-Puget Sound, and Saint Mary-belly River Bull Trout Populations

We requested written comments from the public on the proposed designation of critical habitat for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-belly River populations of bull trout in the proposed rule published on June 25, 2004 (69 FR 35767). We also contacted and invited the appropriate Federal, State, and local agencies, scientific organizations, and other interested parties to comment on the proposed rule. In addition, we held one public hearing on August 10, 2004, in Tumwater, Washington.

During the comment period that opened on June 25, 2004, and closed on August 24, 2004, we received 34 comment letters directly addressing the proposed critical habitat designation: 8 from peer reviewers, 5 from Federal agencies, 3 from State agencies, 2 from County or city agencies, 6 from tribes, and 10 from organizations or individuals.

During the reopened comment period (May 3, 2005 through June 2, 2005) (70 FR 228350), we received 16 comment letters directly addressing the proposed critical habitat designation and DEA, 7 of which were from organizations or individuals that submitted comments during the first comment period. Of the 16 letters, we received 1 from a peer reviewer, 2 from Federal agencies, 3 from State agencies, 3 from county or city agencies, 1 from a tribe, and 6 from organizations or individuals.

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Klamath River and Columbia River Bull Trout Populations

Responses to public and peer review comments on proposed critical habitat for the Klamath River and Columbia River bull trout populations (67 FR 71235, November 29, 2002) and the DEA (69 FR 17634, April 5, 2004) were published in the final designation of critical habitat (69 FR 59995, October 6, 2004). The following summary responds only to those comments received during the reopened comment period period (May 3, 2005 through June 2, 2005) on the proposed and final rules for critical habitat designation for the Klamath River and Columbia River bull trout populations (70 FR 32732).

During the reopened comment period, we received 33 letters addressing the final critical habitat designation and economic analysis (EA). Of these letters, we received 7 from Federal agencies, 4 from State agencies, 10 from local entities, 1 from a tribe, and 11 from organizations or individuals.

All comments of a similar nature were grouped together for all populations of bull trout and are addressed in the following summary. Substantive comments have been incorporated into the final rule as appropriate.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicit opinions from individuals who have expertise with the species and the geographic region where the species occurs and are familiar with conservation biology principles. The peer review process for the Klamath and Columbia River bull trout populations was discussed in the October 6, 2004, final critical habitat designation for the Klamath River and Columbia River bull trout populations (69 FR 59995).

For the proposed critical habitat designation for Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations, we solicited independent expert review from eight individuals and all responded. The peer reviewers generally concurred with our methods, but also provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Key elements of the reviewers' critical comments related to the proposal's scope and whether existing laws and regulations already protect some areas. Comments also addressed the need for greater prioritization of conservation issues influencing critical habitat designation, emphasis on quality habitat to support the migratory life form of bull trout, and an explanation of why some particular habitat, including areas of degraded habitat, are important to bull trout conservation. Additionally, the reviewers provided many technical comments on the appropriateness and bounds of specific geographic areas proposed as critical habitat. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments for Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River Bull Trout Populations

When similar comments were also received from other reviewers, they are addressed in the comments here to avoid redundancy.

(1) *Comment:* A peer reviewer requested clarification on the difference between critical habitat subunits (CHSUs) and core areas described in the bull trout draft recovery plans (draft Recovery Plans) (Service 2002, 2004).

Our Response: In general, critical habitat subunits (CHSUs) correspond to core areas identified in the draft Recovery Plans (*http://www.fws.gov/pacific/bulltrout/*). However, the Olympic Peninsula and Puget Sound Critical Habitat Units (Coastal-Puget Sound populations) also contain nearshore and freshwater habitats outside of natal river basins that are used by bull trout from more than one CHSU or core area. These habitats outside of core areas contain all the physical elements and features (primary constituent elements) critical to overwintering, migration, and subadult and adult foraging needs essential for the conservation of amphidromous (referring to the migratory behavior of fishes moving from fresh water to the sea and vice versa, not for breeding purposes but occurring regularly at some stage of the life cycle, such as feeding or overwintering) bull trout, which are unique to the Coastal-Puget Sound bull trout population. Within the core areas, certain areas identified by the Service as containing features essential for the conservation of the species, and in need of special management or protection, are designated critical habitat. Although core areas contribute to recovery and share primary constituent elements (PCEs) with critical habitat, only those portions of the core areas that meet the statutory definition of critical habitat and provide defined PCEs are considered for designation.

(2) *Comment:* Since little of the Belly River is within the United States, this core area is not a biologically functioning unit that contains necessary features or PCEs.

Our Response: A short reach of the North Fork Belly River, extending across the international border from Canada (downstream) into the United States (upstream), is the only known spawning reach for bull trout in the entire Belly River system. Thus, this portion of the North Fork Belly River in the United States is vital as spawning and rearing habitat for this bull trout population. It contains the PCEs necessary for the spawning and rearing life stages (*i.e.*, permanently flowing, cold, upwelling groundwater with suitable spawning substrate and complex rearing habitat). The foraging, migration, and overwintering (FMO) habitat for this population is found downstream in Alberta, Canada. This downstream habitat includes the PCEs found in a migratory corridor, including deep holding pools and a forage base to support large adult bull trout. Adult fish from Canada travel into the United States portions of the watershed annually to spawn. Because of the important spawning areas in the United States, and the presence of necessary PCEs, we have determined that this area is essential to this important biologically functioning unit and is designated critical habitat.

(3) *Comment:* Although it may be consistent with section 4(b)(2) of the Act to exclude Habitat Conservation Plans (HCPs) and the areas covered by the Washington Forest Practice Rules, there are no provisions in the rule to include these excluded lands within designated critical habitat if land-use practices or ownership changes.

Our Response: Although the specific provisions vary for each plan, HCPs typically include language that addresses change in circumstances or ownership. For example the draft Implementing Agreement for the Washington Department of Natural Resources, Forest Practices HCP states that any changes in the permits must be adopted through the procedures specified in the Act, other applicable Federal laws, and applicable regulations and if the Service determines that such changes materially impair the conservation plan contained in the HCP, they will notify the State and, if the matter is not otherwise resolved, may suspend or terminate the HCP, permits and the Implementing Agreement. If land ownership changes and a new landowner does not agree to the terms and conditions of the original permit, the original permittee must work with the Services to determine whether, and under what circumstances, the permit can be terminated. In order to terminate a permit, the Services must determine if the minimization and mitigation

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measures that were conducted up to that point were commensurate with the amount of incidental take that occurred during the term of the permit. The Services will always require implementation of any outstanding minimization and mitigation measures before a permit is terminated.

(4) *Comment:* Freshwater foraging, migratory, and overwintering habitats outside core areas are not clearly essential to bull trout nor well documented. Therefore, these areas should not be included in the critical habitat designation.

Our Response: Some habitats outside of core areas contain all the physical elements to meet critical overwintering, migration, and subadult and adult foraging needs that are essential for the conservation of amphidromous bull trout. Recent tagging studies on the Olympic Peninsula and in Puget Sound have tracked the complex migrations of amphidromous bull trout from their core areas to marine and freshwater foraging, migratory, and overwintering habitats outside of their natal core areas (Brenkman and Corbett 2003, 2005; Goetz *et al.* 2004). Amphidromous bull trout have shown site fidelity to, and extensive use of, freshwater and marine habitat areas, demonstrating these are necessary in completing their life history and therefore, are included as critical habitat.

(5) *Comment:* Reviewers acknowledged the exclusions the Service had proposed for HCPs and the Washington Forest Practice Rules and recommended considering other types of management plans and actions for possible exclusions. They indicated that designation of critical habitat would be a duplication of effort since Federal actions, such as allotment management plans, already undergo formal consultation. One reviewer wanted to know why waterbodies within some Federal lands, such as wilderness, parks, and forests, were not excluded. Another reviewer asked why multi-species conservation plans under development by local watershed organizations in Washington were not excluded. Several reviewers suggested lands covered by Washington State's watershed planning process (subbasin plans), and lands in Olympic and North Cascades National Parks are currently not in need of special management.

Our Response: We believe some existing management plans are appropriate for exclusion because the benefits of exclusion outweigh the benefits of inclusion (see section "Section 3(5)(A) and Exclusions Under Section 4(b)(2)"). Landownership is not a factor in determining which areas contain PCEs and meet the definition of critical habitat. Some waterbodies on Federal lands meet the definition of critical habitat. While we have done so in the past, in this rulemaking we did not consider any pending HCPs for exclusion, primarily because none of the pending HCPs were at a point we could do so without prejudging the outcome of the ongoing HCP process and because we expect further changes to the developing HCPs.

(6) *Comment:* One reviewer suggested that Corps of Engineers 401 and 404 permits should be excluded from critical habitat.

Our Response: Corps of Engineers 401 and 404 or other instream permits are issued to ensure that applicants avoid and minimize impacts to streams. Any mitigation that may be required by a permit is to avoid or minimize degradation and to mitigate for unavoidable impacts.

(7) *Comment:* Are small stream habitats in the Saint Mary-Belly River headwaters in the critical habitat designation contributing to rearing and foraging of bull trout and are they adequately considered?

Our Response: Because of the steep topography, flashy stream flow and very active erosion and depositional processes of the Saint Mary-Belly River headwaters, very few smaller tributary streams support adequate year-round stream flow to allow bull trout passage; in addition, many have natural barriers. Most of those tributary streams have been surveyed, and all those known to support bull trout were considered and included in the final critical habitat designation.

(8) *Comment:* It would help to understand what the threats to bull trout are and how threats relate to critical habitat designation.

Our Response: For details of the threats that were the basis for the bull trout listing, refer to the final listing rules for the Klamath River and Columbia River population (63 FR 31647), Jarbidge River population (64 FR 17110), and Coastal-Puget Sound and Saint Mary-Belly River populations (64 FR 58910). Critical habitat identifies those areas that contain the physical and biological features (PCEs) that are essential to the conservation of the species, and those areas that may require special management considerations or protections.

Public Comments Related to Bull Trout Biology and Habitat; Process of Designating Critical Habitat for the Bull Trout

(9) *Comment:* The proposed critical habitat for the bull trout fails to account for the importance of habitat connectivity.

Our Response: The draft Recovery Plans, critical habitat proposal, and the listing rules for bull trout, citing relevant scientific literature, describe the species' conservation needs. In fact, migratory corridors with minimal physical, biological, or water quality impediments are identified as a PCE in the critical habitat rule. Our proposed designation connected essential occupied waterbodies having PCEs to one another to maintain connectivity within and among habitat types (spawning and rearing, freshwater and marine foraging, migratory, and overwintering habitats). In the final designation, we exclude some critical habitat segments based on a careful balancing of the benefits of inclusion versus the benefits of exclusion. Exclusion of waterbodies from designated critical habitat does not negate or diminish their importance for bull trout conservation, and in most cases does not affect the protections available to that habitat through the Act.

(10) *Comment:* The status of bull trout strongly indicates that critical habitat designation is warranted for all waterbodies occupied by bull trout.

Our Response: Although all occupied habitats are important to the species, not all meet the definition of critical habitat. Examples of exclusions include reaches where bull trout are sometimes entrained and lost to the population or highly fragmented habitats within core areas. We believe that we have identified habitat that contains features essential to the bull trout's conservation. In the final designation, we exclude some critical habitat segments based on a careful balancing of the benefits of inclusion versus the benefits of exclusion. Exclusion of waterbodies from designated critical habitat does not negate or diminish their importance for bull trout conservation.

(11) *Comment:* The Service should describe the relationship between the reduced distribution of salmon and steelhead (*Oncorhynchus* sp.) and the reduced distribution and abundance of bull trout.

Our Response: Our recovery plan and administrative record for critical habitat designation, including public comment and peer review, includes information about the relationship between bull trout and their prey species, such as salmon and steelhead. Such information was employed to support the biological basis of the proposal, but practical considerations limited the amount of such information that could be presented in the proposed critical habitat rule. Refer to the previously

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published bull trout critical habitat designations and listings (63 FR 31647, 64 FR 17109, 64 FR 58910, 68 FR 6863, 69 FR 35767, 69 FR 59995) for additional information.

(12) *Comment:* The Service's position equating adverse modification with jeopardy is not supported by the Act or case law. The Service needs to define adverse modification.

Our Response: In response to recent court decisions, we are no longer using the regulatory definition of adverse modification. Instead, we are following guidance from the Director, embodied in a December 9, 2004 memorandum, which uses the statute as the basis for our regulatory standard when conducting section 7 consultations on critical habitat. We do note in this rule that due to the method of analyzing jeopardy specific to bull trout, that jeopardy and adverse modification rarely diverge. However, that circumstance is due to the specifics of our bull trout analyses rather than an interpretation of regulations or law.

(13) *Comment:* The Service proposed to designate streams as critical habitat that do not currently support bull trout or have little evidence of bull trout use, with no justification for such designation as to why these stream reaches are essential to the conservation of the species, as required by the Act.

Our Response: All streams proposed for critical habitat designation within the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout population segments were known to be occupied. We considered streams occupied if bull trout were documented there within the last 20 years (our 2004 critical habitat designation provides a full explanation for the basis of this standard). Areas of unknown occupancy and unoccupied habitats were included in the proposed designation for the Klamath River and Columbia River populations. However, in this final rule no unoccupied habitat is being designated. The bull trout critical habitat designation is based on the best available scientific information. In addition, the proposed designations were peer-reviewed by individuals who have expertise with bull trout, the geographic region where bull trout occur, and the principles of conservation biology. Justifications for all critical habitat units are available for public review (see **ADDRESSES** section above).

(14) *Comment:* Critical habitat needs to be designated in unoccupied areas because these areas are important for re-introduction of extirpated populations or expansion of existing populations and are the most important areas in need of protection.

Our Response: We have limited the critical habitat designation to areas of known occupancy that have features essential to the conservation of the species because we did not have sufficient data for the Secretary to make a determination that specific unoccupied areas were essential to the bull trout's conservation. We based this designation on the best scientific and commercial information available. Many streams not included in this designation can and will contribute to bull trout recovery, but do not meet the definition of critical habitat.

(15) *Comment:* The Service neglected or violated a variety of regulatory or other requirements including NEPA, the Data Quality Act, Regulatory Flexibility Act, and other laws, regulations, and orders.

Our Response: We are not required to prepare an environmental assessment or an environmental impact statement, as defined under the authority of NEPA, in connection with regulations adopted pursuant to section 4(a) of the Act, and in States under the jurisdiction of the Ninth Circuit Court. A notice outlining our reason for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244). This position has been upheld by the Ninth Circuit Court of Appeals in *Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995). We have addressed all the relevant required regulatory determinations in this rule (see Required Determinations section below). Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on 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. All information in this critical habitat rule is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service. Both public and peer review of the proposed rule further ensures that the final designation will meet this standard.

(16) *Comment:* Stream temperature is a limiting factor for some populations, and bankfull designation may not encompass sufficient shading to maintain water temperatures for bull trout.

Our Response: We agree that temperature can be a limiting factor for some populations which is why it is considered a PCE. Riparian vegetation influences instream habitat conditions by providing shade, organic matter, root strength, bank stability, and large woody debris inputs to streams. Stream width and depth ratios also influence stream temperatures. Even though riparian vegetation may not be within a stream's bankfull width, and therefore not included in the critical habitat designation, effects to these areas are likely to be evaluated during the consultation process due to the indirect effect riparian and upland actions may have on water temperatures, which is one of the identified PCEs for bull trout critical habitat.

(17) *Comment:* The Service failed to consult with Native American tribes in developing the proposed rule and economic analysis.

Our Response: We have been, and will continue, to consult with those tribes affected by the critical habitat designation. We contacted Native American tribes where proposed bull trout critical habitat occurred on, or adjacent to, tribal lands. We discussed the critical habitat proposal with representatives of the tribes that responded. We will continue to work with the tribes on a government-to-government basis for the conservation of bull trout.

(18) *Comment:* A single sighting of a native char (bull trout) in a water body is not sufficient reason to designate the water as critical habitat.

Our Response: We have not designated any unoccupied areas as critical habitat. However, we included any area with documented occupancy (even a single sighting) within the last 20 years, if the area has PCEs essential to the species' conservation and will support the essential life history needs of bull trout. The published survey protocol for juvenile and resident bull trout was not developed until 2002, and no similar survey protocol for adult migratory bull trout has been developed. Many bull trout sightings are the incidental result of surveys for other species (salmon). In addition, bull trout are difficult to find, are migratory, and often exhibit a patchy distribution. Therefore, an incidental sighting of one

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individual or a few bull trout is often the only available information until a targeted survey for bull trout is conducted. With the increasing availability of radio telemetry data, we are finding that the extent or range of bull trout occupied habitat is often greater than was previously known based on incidental observations.

(19) *Comment:* Specific numerical habitat standards for critical habitat must be included along with critical habitat designations.

Our Response: There is no requirement under the Act that PCEs have specific numerical standards, nor would it necessarily promote effective conservation to determine numerical standards for all PCEs given the various life histories expressed by bull trout throughout their range. However, we recognize the value of observable or measurable standards. The PCEs include numerical standards when appropriate (*e.g.*, to bracket a range of acceptable temperatures) and feasible, such as for temperature and substrate embeddedness.

(20) *Comment:* The Service should designate critical habitat for a number of "source water" streams. These are predominantly steep, small streams not occupied by bull trout, but are key sources of cold, clean water that feed bull trout habitat downstream.

Our Response: Streams that contribute necessary habitat elements such as cold, clean water downstream to designated streams are not included in this designation unless bull trout presence has been documented. Our determination of bull trout critical habitat is limited to areas that bull trout rely on for some portion of their life cycle. Although not designated as critical habitat, we recognize that these "source waters" or non-fish-bearing streams influence the character of designated stream segments located downstream. Where section 7 consultation is required, impacts to these "source water" streams that may affect bull trout critical habitat will be evaluated (see Critical Habitat Designation section below).

(21) *Comment:* The Service failed to include areas of historical bull trout occupancy and the rules do not provide adequate justification for their exclusion.

Our Response: The critical habitat proposals did not reflect all habitat areas bull trout are known to occupy or occupied historically, in the coterminous United States. Rather, it reflects those areas that contain the necessary features that are essential for the conservation of the species and are currently occupied by the species. Historical records of bull trout distribution may be anecdotal and incomplete relative to current bull trout distribution and thus, would not provide a sufficient basis for this critical habitat rule. We believe by defining as occupied those segments with at least one documented sighting in the last 20 years we have used a sufficiently broad measure to ensure the most likely occupied areas are included. This standard takes into account the fact that bull trout are abnormally difficult to find as they are primarily nocturnal feeders.

In our proposed critical habitat designation for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River population segments, we specifically solicited additional information on areas of habitat with evidence of occupancy of which we were unaware. These waterbodies had been identified by the bull trout recovery teams as key recovery habitat in the draft recovery plan, however, at that time they had no specific information documenting bull trout occupancy. Since the proposal, we have received additional information on bull trout occupancy for several tributaries in the Nooksack River (Fossil Creek), South Fork Skykomish River (West Fork Foss River), and Ross Lake (North Fork Canyon Creek) systems, which have been excluded from the final designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(22) *Comment:* The contribution of tribal lands to bull trout habitat conservation is unclear and these lands are not essential to bull trout recovery.

Our Response: The scientific information cited in the draft Recovery Plans provided the basis for our evaluation of habitats that contain the features essential to bull trout conservation. Many tribal lands include portions of mainstem rivers that provide essential migratory corridors and overwintering habitat for fluvial and amphidromous bull trout. Waterbodies on tribal lands were included in the critical habitat designation only if they were found to be currently occupied, contain PCEs that are essential for bull trout conservation, and were not adequately covered by management plans (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(23) *Comment:* The proposed rule fails to mention water rights.

Our Response: The proposed and final rules do not specifically address water rights. However, examples of activities that may potentially affect aquatic bull trout critical habitat by altering the PCEs, such as changes in water use or water rights were provided in the proposed and final rules.

(24) *Comment:* The proposal to designate critical habitat in the Saint Mary-Belly Rivers focuses on potential impacts of irrigation activities instead of potential adverse effects of recreational fishing on bull trout.

Our Response: Under the 4(d) rule that was included in the final rule which listed bull trout, take of bull trout in accordance with state, National Park Service, and Native American Tribal permitted fishing activities is allowed (64 FR 58910). Irrigation activities are often linked to Federal agencies, such as Bureau of Reclamation (BOR), for the allocation, delivery or storage of the water. Individual anglers, however, are only required to avoid take of listed bull trout by following fishing regulations.

(25) *Comment:* There is no evidence to specifically identify when marine or estuarine areas are being used by bull trout.

Our Response: Recent radio and acoustic telemetry studies in Grays Harbor, Puget Sound, and the Snohomish, Dungeness, and Hoh Rivers have provided new information on bull trout use of marine and estuarine areas and the importance of this habitat for bull trout recovery (Brenkman and Corbett 2003, 2005; Jeanes *et al.* 2003; Goetz *et al.* 2004). These studies documented that marine forage fish such as herring (*Clupea* spp.), surf smelt (*Hypomesus pretiosus*), sand lance (*Ammodytes hexapterus*), and shiner surfperch (*Cymatogaster aggregate*) are bull trout prey. In addition, marine waters provide essential migratory corridors for amphidromous bull trout moving from their natal river basin to other rivers or streams as they seek suitable foraging or overwintering habitat. We now know that large numbers of bull trout overwinter in streams that do not contain spawning and rearing habitat and are only accessible by migration through marine waters. Therefore, we have included these marine nearshore areas that contain features essential to bull trout conservation in this final designation.

(26) *Comment:* Adequate foraging habitat has not been included in the designation.

Our Response: We believe this designation is based on the best scientific and commercial information available. It includes only occupied habitat, and contains those features that are essential to the conservation of bull trout populations. We recognize that bull trout may forage in areas where their presence has not been detected and these areas may provide access to

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abundant forage. However, because we were unable to identify all areas that are used, we have limited designated critical habitat to areas of known occupancy having the necessary PCEs and which were determined to be essential for recovery. However, because of the relatively broad definition of 'occupied' used in this rule, it is likely that forage habitat is included as well as breeding habitat and migratory corridors.

(27) *Comment:* Floodplains are not mentioned in the proposed designation. Does this mean they are not included?

Our Response: We have only included occupied aquatic habitats that contain the features essential to the conservation of bull trout within the designation. Federal activities occurring in floodplains may affect designated critical habitat, and as such would be reviewed in section 7 consultation.

(28) *Comment:* Comments provided in the previous rule for the Klamath River and Columbia River populations were not addressed.

Our Response: All substantive issues raised in comments received during public comment period for the proposed rule received a response. The response was to either accept or incorporate the issue raised, or to provide a narrative response as to why we did not do so.

(29) *Comment:* Existing regulatory mechanisms are inadequate and continuing threats to bull trout and its habitat from a variety of land and water management activities warrant the designation of all habitat essential to bull trout survival and recovery.

Our Response: We believe this designation is based on the best scientific and commercial information available, includes only occupied habitat, and contains those areas that contain the features essential to the conservation of bull trout. Some areas we identified as essential to the conservation of bull trout are not designated in the final rule. This is due to the areas not meeting the definition of critical habitat under section 3(5)(A) or exclusion under 4(b)(2). Sections 3(5)(A) (definition of critical habitat) and 4(b)(2) (Secretarial weighing of the benefits of inclusion versus the benefits of exclusion) of the Act provide for specifc areas to be excluded from critical habitat if they are otherwise provided needed protection (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(30) *Comment:* The final rule is inadequate to recover bull trout and the status quo is leading to declining populations in spite of section 7 consultations, habitat conservation plans, and state restoration plans.

Our Response: Recovery planning for bull trout is complex due, in part, to its wide geographic distribution and multifaceted life history. Recovery of the species will require a variety of efforts and the cooperation of Federal, state, tribal, and other entities. Critical habitat by itself will not recover the species, but does provide an additional regulatory benefit for bull trout habitat where protection and special management are necessary to ensure the habitat contributes to the conservation of the species. While any one effort will not recover bull trout, we believe that through the cooperative efforts of all stakeholders, using a variety of conservation tools, bull trout can reach the point of no longer needing the protections of the Act.

(31) *Comment:* We believe that the current attempt to solicit more information on the critical habitat rule is unlawful.

Our Response: We disagree and believe that soliciting public comment is essential to conserving any species.

(32) *Comment:* Why is the entire Columbia River mainstem (especially the upper Columbia River) designated as critical habitat, what data were used, and why did the Service use the draft recovery plan?

Our Response: This final rule does not include the entire Columbia River mainstem. The bull trout is a wide ranging migratory species and follows salmon, whitefish, and other prey species in the Columbia River, marine waters and freshwater streams and rivers. Records of bull trout distribution indicate their presence from the mouth of the Columbia River to its uppermost reaches. Past monitoring efforts for salmon rarely recorded bull trout in data collections because bull trout were not the targeted species. In the upper Columbia River data from multiple telemetry studies show the use by bull trout of the area between Priest Rapids pool and the Okanogan River, and back into multiple tributaries. Some bull trout that spawn in the upper Columbia River basin use the mainstem for six months or more. We have excluded some areas of the Columbia mainstem where the benefits of excluding these areas outweigh the benefits of including them in the designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below). Sub-adults and adults that spawn in alternate years have been documented using the Columbia River year-round. In reference to the use of the draft recovery plan, the Service acknowledges there are data gaps within the plan. The science used in the draft recovery plan was the best available data for bull trout at that time and provided the basis for proposing and designating critical habitat. In the process of developing the proposed and final critical habitat designation, additional data have become available, have been used in these rules, and are available as part of our administrative record.

(33) *Comment:* All waters behind dams (reservoirs and pools) and areas covered by habitat conservation plans do not require designation due to existing management activities and should be excluded.

Our Response: We reviewed reservoir operations and habitat conservation plans and carefully weighed the benefits of inclusion versus the benefits of exclusion. Based on this analysis we are excluding all reservoirs and pools that provide flood protection or water supply benefit and we are also excluding habitat conservation plans that adequately address bull trout conservation (see Section 3(5)(a) and Exclusions under Section 4(b)(2) section below).

(34) *Comment:* The final rule for Klamath River and Columbia River populations needs clarification regarding the exclusion of 0.5 mile segments on private land. The inclusion of these stream segments appears to contradict the statement in the rule that exempts segments of less than 0.5 miles on private land.

Our Response: The intent in the previous rule was to exclude those stream segments that were less than 0.5 miles in length and under private landownership. The definition was intended to apply only to unbroken stream segments shorter than 0.5 miles in length, irrespective of underlying landownership patterns. The Service is no longer excluding areas of critical habitat on this basis, and all stream segments regardless of length remain designated critical habitat.

Exclusion Comments

(35) *Comment:*Exclusions are arbitrary and benefit special interest groups.

Our Response: All areas excluded are covered by management plans that specifically address bull trout PCEs, or are being excluded based on policy considerations. Exclusions were carefully reviewed and the Secretary has made the determination that the benefits of excluding these habitats outweighs the benefits of including them in the designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(36) *Comment:* Comments were received to either exclude or to include areas covered by HCPs.

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Our Response: We determined that waterbodies within lands covered under an existing or pending HCP should be excluded from the designation of critical habitat where the benefits of excluding these habitats covered by these management plans outweighs the benefits of including them in the designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(37) *Comment:* Comments were received to either exclude or to include areas covered by the Washington Forest Practice Rules. Reasons cited for including areas covered by the Washington Forest Practice Rules were that the rules are not complete, the rules do not include adequate standards, it has not been fully implemented, and the adaptive management process is incomplete. A primary reason expressed for excluding those lands was that this law protects aquatic habitat on State and private land.

Our Response: Washington State law H.B. 2091, which codified the Washington Forest Practice Rules, is a science-based plan that protects water quality and fish habitat on over 8 million acres (3.2 million ha) of non-Federal forestland throughout Washington State. Implementing these regulations is expected to maintain the thermal regimes of streams within the range of normal variation, contribute to the maintenance of complex stream channels, maintain appropriate substrates, natural hydrograph, ground-water sources and subsurface connectivity, migratory corridors, and provide abundant food sources for bull trout. Because the benefits of excluding the streams covered by the Washington Forest Practice Rules outweigh the benefits of including them, we have excluded stream segments protected by these regulations. See Washington State Forest Practices Rules and Regulations, as amended by the Forest and Fish Law (FFR) under the Lands to be Excluded from Critical Habitat under section 4(b)(2) of this final rule for further discussion on FFR.

(38) *Comment:* We believe the current Forest Service Land and Resource Management Plans (LRMP) as amended by the Northwest Forest Plan, PACFISH, and/or INFISH aquatic conservation strategies provide the necessary protection and special management that would eliminate the need to designate these areas as critical habitat. In addition, the designation would provide little additional benefit as described under Section 4(b)(2) of the Act.

Our Response: We agree. These areas have been excluded from the final critical habitat designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(39) *Comment:* Areas covered by the Oregon Forest Practices Act (OFPA) and the Oregon Plan for Salmon and Watersheds (OR Plan) should be excluded.

Our Response: The OFPA includes provisions that generally limit clear cut size, require retention of green trees within harvest units for stream shading and downed wood for recruitment into riparian areas, and require replanting after harvest. However, the OFPA has no provisions that specifically address any of the PCEs for bull trout or for ensuring their conservation or protection. The OR Plan serves as a general salmon conservation planning guide and encourages close coordination among the agencies responsible for salmon conservation. Both the OFPA and OR Plan are well intentioned and provide encouragements and some benefits to aquatic habitats in areas where they apply. However, we were unable to determine that the OFPA or the OR Plan provide adequate conservation or protection of bull trout or their PCEs. Therefore, the areas covered by the OFPA or OR Plan do not warrant exclusion based on special protections or management.

(40) *Comment:* The Montana Bull Trout Plan should not be used as the basis for excluding lands from critical habitat. It is a voluntary plan without tracking, reporting, or funding certainty, and it provides no protections against detrimental groundwater or surface water extraction. Implementation has been slow or nonexistent, the list of recommended immediate conservation actions were not acted upon or incorporated into the Plan.

Our Response: We have reviewed the plan and determined it does not provide special management protections to the same extent a critical habitat designation would. Therefore, we are not using the Montana Bull Trout Plan as a basis for excluding lands from critical habitat.

(41) *Comment:* No critical habitat should be designated on military lands for national security concerns or those that have Integrated Natural Resource Plans.

Our Response: Pursuant to section 4(a)(3)(B)(i) of the Act, the Service has not included critical habitat on military installations that have an Integrated Natural Resource Plan (INRMP) that provide benefits to the bull trout. Pursuant to section 4(b)(2) of the Act, we have excluded other military lands based on national security concerns (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(42) *Comment:* Reservoirs should be included as critical habitat.

Our Response: In many places reservoirs provide important foraging and overwintering habitat for bull trout and contain the features essential to the conservation of the bull trout. However, under 4(b)(2) of the Act, the Secretary has discretion to exclude any area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species. The Secretary carefully weighed the benefits of inclusion versus the benefits of exclusion regarding reservoirs (see Section 3(5)(A) and Exclusions under Section 4(b)(2) section below) and found that, for those reservoirs that provide a flood control or water for human consumption function, the benefits of exclusion outweighed the benefits of inclusion.

(43) *Comment:* All tribal reservation lands should be excluded from critical habitat designation.

Our Response: 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 512 DM 2, we coordinate with federally-recognized tribes on a government-to-government basis. Further, Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (1997) provides that critical habitat should not be designated in an area that may impact tribal trust resources unless it is determined to be essential to the conservation of a listed species and that Tribes be given deference when evaluating conservation management planning.

Accordingly, we are obligated to consult with tribes based on their unique relationship with the Federal government, and to evaluate the appropriateness of designating tribal lands within the framework of the above mentioned directives. In addition, we evaluate tribes' past and ongoing efforts for species conservation and the benefits of including or excluding tribal lands in the designation under section 4(b)(2). We contacted all tribes potentially affected by the proposed designations and met with a number of these tribes to discuss their ongoing or future management strategies for bull trout. Several tribes subsequently submitted letters requesting exclusions from the designation based on their ongoing

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management and conservation efforts, or their commitment to develop an appropriate management plan, on their lands. We excluded those tribal lands where there was a commitment to conserve bull trout habitat and where the benefits of exclusion where found to outweigh the benefits of inclusion (*see* Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act section below).

(44) *Comment:* The Service ignores court decisions and required components of the Act when it states that areas can be excluded based on economic impacts, national security, management plans, and the preservation of partnerships (*see Center for Biological Diversity* v. *Norton* (2003)).

Our Response: Section 4(b)(2) of the Act allows us to consider the economic impact, national security impact, and any other relevant impact of designating 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 designating a particular area as critical habitat, unless the failure to designate such an area as critical habitat will result in the extinction of the species. In addition, the congressional record is clear that the consideration and weight given to any impact is completely within the Secretary's discretion (*see* Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(45) *Comment:* Does excluding habitat covered by HCPs also exclude covered activities on lands the applicant does not own or manage? For example, studies are occurring on lands not owned by the City of Seattle but required by the terms of the approved HCP.

Our Response: Areas excluded due to the existence of an approved HCP only include those areas directly covered by the HCP. Areas outside the HCP *e.g.*, City of Seattle, remain designated critical habitat unless excluded for some other reason.

Comments Related to the Economic Analysis

(46) *Comment:* The Service neglected to conduct an economic analysis (EA) for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations, contrary to the Act's requirements.

Our Response: The Service did conduct an economic analysis for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations. We informed the public in the proposed rule that we would be conducting an analysis of the economic impacts of designating the proposed areas as critical habitat prior to making a final determination. We announced the availability of the DEA with a notice in the **Federal Register** (May 3, 2005, 70 FR 22835) that reopened the public comment period on the DEA and the proposed rule at that time. Reopening the comment period allowed the public to concurrently review and comment on both the DEA and the proposed critical habitat designation. We subsequently provided this same information when replying to electronic mail (e-mail) messages and telephone calls, and during the public hearing held in Washington.

(47) *Comment:* The costs of critical habitat outweigh the benefits of designation and all costs associated with critical habitat should be included in the analysis.

Our Response: This final rule excludes areas where the benefits of excluding critical habitat have been determined to exceed the benefit of including these areas in the designation under provisions of section 4(b)(2). The economic analysis (EA) considers the economic efficiency effects that may result from the designation, including habitat protections that may be coextensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. The analysis focuses on quantifying the direct and indirect costs of the rule although economic impacts to land-use activities may exist in the absence of designating critical habitat. For example, economic impacts may result from local zoning laws, state and natural resource laws, and enforceable management plans and best management practices applied by other state and Federal agencies. The information in the EA can be used by the Secretary when taking into consideration the economic impact, and any other relevant impact of specifying any particular area as critical habitat.

(48) *Comment:* Costs associated with the operations of agencies such as the Bureau of Reclamation (BOR) to deliver water belonging to irrigation districts must be taken into consideration. The impact of attempting to alter pre-existing legal requirements, and the constraints those legal rights have on designating critical habitat, must be considered before a final decision can be made.

Our Response: Potential costs associated with the designation of bull trout critical habitat, including those related to BOR water management, are addressed through the economic analysis. We received additional information regarding the possible under-or over-estimate of costs related to regulation of water and power generation due to the designation. Where appropriate, this information was used by the Secretary in making determinations under section 4(b)(2) of the Act.

(49) *Comment:* In the economic analysis, the Service did not account for the many economic benefits that the designation of critical habitat for bull trout provides.

Our Response: In the context of a critical habitat designation, the primary purpose of the rulemaking (*i.e.*, the direct benefit) is to designate areas that contain the features essential to the conservation of listed species and that may require special management or protections. While the Act is clear that it is the policy of the Federal government to provide a means whereby the ecosystems upon which endangered and threatened species depend are conserved, it is also clear that Congress provided several methods for achieving this policy and critical habitat designation is just one of the methods. The Act states that this policy is to be achieved through cooperation with states through the resolution of water resource issues in concert with conservation. Finally, the Act provides the flexibility for the Secretary to exclude portions of critical habitat based on the consideration of economics, national security, or any other relevant impact if the Secretary determines that the benefit of exclusion exceeds the benefits of inclusion, as long as that exclusion does not result in the extinction of the species.

The designation of critical habitat may result in two distinct categories of benefits to society: (1) Measurable or economic benefits and (2) intangible benefits. The economic analysis generally captures the measurable benefits (such as increased tourism or recreational expenditures) by quantifying them in terms of dollars. The less tangible social benefits that accrue from the physical existence of a resource are more difficult to capture. Non-use benefits, in contrast, represent benefits that individuals perceive from "just knowing" that a particular listed species" natural habitat is being specially managed for the survival and recovery of that species. This benefit is virtually impossible to quantify as there is no market transaction to use as a measurement for such a benefit.

The economic analysis captures those benefits that can be quantified and provides information regarding the economic costs associated with a proposed critical habitat designation.

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The economic analysis is used by the Secretary in making decisions under section 4(b)(2) of the Act based on economic impacts. Economic impacts can be both positive and negative and, by definition, are observable through market transactions.

In our designations we recognize that critical habitat may also generate ancillary benefits which can be both negative and positive. That is, management actions undertaken to conserve a species or habitat as a result of designation may have coincident implications to a place's quality of living. For example, fewer consumptive activities (*e.g.*, timber harvesting or cattle grazing) may affect some individuals' enjoyment of an area. While they are not the primary purpose of critical habitat, these ancillary effects which are perceived as benefits may result in gains in non-economic benefits that may offset the direct, negative impacts to a region's economy resulting from actions to conserve a species or its habitat. Conversely, for those formerly dependent on the timber industry or grazing for their livelihood, they may find that significantly reduced employment opportunities which represent reduction in benefits.

It is often difficult to evaluate the ancillary benefits of a critical habitat designation. Where data are available, this analysis attempts to recognize and measure the net economic impact of the proposed designation. For example, if the fencing of a species' habitat to restrict motor vehicles results in an increase in the number of individuals visiting the site for wildlife viewing, then the analysis would recognize the potential for a positive economic impact and attempt to quantify the effect (*e.g.*, impacts that would be associated with an increase in tourism spending by wildlife viewers). Conversely, if the critical habitat designation will result in increased fishing and hiking opportunities, that benefit would be reflected in economic benefits from tourism and related industries. What is not measurable in other than qualitative terms are such benefits as increased quality-of-life values for some and decreased quality-of-life for others (*e.g.*, lower employment due to family wage jobs supported by industrial timber harvesting being replaced by service jobs in the recreation industry).

While section 4(b)(2) of the Act gives the Secretary discretion to exclude certain areas from the final designation, she is authorized to do so only if an exclusion does not result in the extinction of the species. Thus, we believe that explicit consideration of broader social values for the species and its habitat, beyond economic impacts, is evidenced by the designation itself that protects areas for the conservation of the species despite costs associated with that designation. In other words, the Secretary begins a designation based on an assumption that the benefit of designation outweighs the benefit of exclusion and only excludes where an explicit determination is made that the benefit of exclusion, in fact, does outweigh the benefit of inclusion.

(50) *Comment:* The DEA for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations must evaluate impacts of bull trout critical habitat designation on the tribes' trust resources to be consistent with trust responsibilities.

Our Response: The DEA for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations evaluates the impacts of this designation on tribal trust resources. Refer to section 3.1.4 in the DEA for further discussion on impacts of the bull trout critical habitat designation on the tribes' trust resources.

(51) *Comment:* The Service needs to address habitat and economic concerns in Canada, as well since a critical habitat designation may affect waters that flow into Canada.

Our Response: We state on page 35771 of the critical habitat proposed rule for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations that, "The inter-jurisdictional nature of the Saint Mary River and Belly River watersheds is unique in the bull trout's range and makes international coordination especially critical." However, we cannot propose to establish critical habitat in other countries or address economic concerns of critical habitat in other countries.

(52) *Comment:* The BOR requires water users to pay for all maintenance and operational and mitigation costs associated with the Milk River irrigation system in Montana, so it is the irrigators not the BOR that must avoid adverse modification.

Our Response: Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of 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 its actions do not destroy or adversely modify critical habitat. The Service consults with the Federal agencies (in this case BOR) not private individuals. Private individuals may, however, have an identified role in the consultation if they are "applicants" as defined in section 7.

(53) *Comment:* The BOR indicated that bypass facilities at the Saint Mary Diversion dam should be included among the costs attributable to bull trout (not included in the DEA), at an estimate of $128,000 (in 2002 dollars). In addition, there are costs associated with the Sherburne Dam rehabilitation, and BOR estimates those costs to be $700,000 (in 2004 dollars).

Our Response: The DEA acknowledged that elements of the Saint Mary Diversion fish entrainment and bypass costs and modifications to Sherburne Dam, located upriver of the Saint Mary Diversion, may be necessary. However, the specific elements or their costs for these components were not available at the time they were requested from BOR, and only preliminary estimates were provided in the DEA (see page 239). We have incorporated new information on these costs into the final economic analysis and our final critical habitat designation. Based on the costs provided in BOR's comment, updated to current dollars, the inclusion of bypass facility costs on the Saint Mary Diversion and the portion of Sherburne Dam rehabilitation attributable to bull trout would increase the total prospective costs by $830,900 and the total annualized cost by $78,400 in the Saint Mary-Belly River region.

(54) *Comment:* BOR noted that fish screens to reduce entrainment on the Saint Mary Diversion would likely not be installed were it not for the bull trout listing, and that the costs in the DEA were underestimated. BOR estimates the cost to be $4,270,000 for an 850 cubic feet/second (cfs) canal.

Our Response: BOR's project modification estimates for the rehabilitation of the Saint Mary Diversion were addressed in the DEA (page 239). However, specific costs for fish screens associated with the modification options were not available when we requested the information from BOR, and other sources of information were instead used in the DEA for estimating those costs. We appreciate receiving the estimate of cost that was provided in the comment. A decision has not yet been made about whether to proceed with the rehabilitation as planned, or when, or the size of the rehabilitated canal. Assuming that the rehabilitation is completed in 5 years, and based on the cost for fish screens provided by BOR

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for an 850 cfs canal (updated to current dollars), the prospective cost attributable to bull trout would increase by $3,024,800 in the Saint Mary-Belly River region from that presented in the DEA. The total annualized cost would increase by $285,500.

(55) *Comment:* Monitoring riparian areas will occur in areas where there is no grazing. If grazing is unlikely to affect bull trout, why are costs involved?

Our Response: Monitoring livestock grazing that may affect the conservation status of sensitive species is a requirement of INFISH in eastern Oregon and Washington, Idaho, western Montana, and portions of Nevada. INFISH was developed as an amendment to U.S. Forest Service (USFS) land and resource management plans and Bureau of Land Management (BLM) resource management plans. The monitoring responsibility would be in effect even in the absence of the designation of critical habitat for bull trout. Costs were included in the economic analysis as they are related to the conservation of bull trout.

(56) *Comment:* The impacts in the economic analysis are overestimated because it does not differentiate between the impacts of the listing and impacts of critical habitat designation. This method of estimating costs unfairly attributes too large a percentage of costs to critical habitat.

Our Response: The economic analysis is intended to assist the Secretary in determining whether the benefits of excluding particular areas from the designation outweigh the biological benefits of including those areas in the designation. Also, this information allows us to comply with direction from the U.S. 10th Circuit Court of Appeals that "co-extensive" effects should be included in the economic analysis to inform decision-makers regarding which areas to designate as critical habitat (*New Mexico Cattle Growers Association* v. *U.S. Fish and Wildlife Service* (248 F.3d 1277)).

This analysis identifies those potential activities believed to be most likely to threaten the bull trout and its habitat and, where possible, quantifies the economic impact to avoid, mitigate, or compensate for such threats within the boundaries of the critical habitat designation. Where critical habitat is being proposed after a species is listed, some future impacts may be unavoidable, regardless of the final designation and exclusions under section 4(b)(2). However, due to the difficulty in making a credible distinction between listing and critical habitat effects within critical habitat boundaries, this analysis considers all future conservation-related impacts to be co-extensive with the designation.

(57) *Comment:* The economic analysis overestimates impacts of critical habitat designation by not differentiating between impacts attributable to bull trout conservation verses salmon conservation.

Our Response: There are several salmonid species that are listed as threatened or are candidates for listing under the Act whose ranges overlap the critical habitat designation of bull trout. Conservation activities designed to protect bull trout may provide coincident protection to salmon. Conversely, conservation activities designed specifically for salmon may provide protection for bull trout. In assigning costs for fish-related conservation activities in watersheds supporting previously listed salmon species and bull trout, we assume in the analysis that the economic effect of fish-related conservation measures is attributed co-extensively to both species. Therefore, where a conservation activity provides indivisible benefits to both salmon and bull trout, the cost of the activity is apportioned to both species. In areas where proposed critical habitat for bull trout does not overlap the range of other listed species, the costs are assigned solely to bull trout conservation activities. Co-extensive effects may also include impacts associated with overlapping protective measures of other Federal, State, and local laws that aid habitat conservation in the areas proposed for designation. We note that in past instances, some of these measures have been precipitated by the listing of the species. Because habitat conservation efforts affording protection to a listed species likely contribute to the efficacy of the critical habitat designation efforts, the impacts of these actions are considered relevant for understanding the full effect of the proposed designation. Enforcement actions taken in response to violations of the Act, however, are not included.

(58) *Comment:* Critical habitat creates undue economic hardship on private land owners.

Our Response: Private landowners are only required to consult with the Service if their action has a Federal nexus and if the action is likely to affect bull trout or its critical habitat.

(59) *Comment:* By designating less area as critical habitat, the costs are disproportionately high for the areas included in critical habitat.

Our Response: Excluding areas does not increase the costs on those areas left within the designation. The costs associated with the designation are the section 7 administrative costs of preparing a biological assessment and the potential costs associated with implementing a Reasonable and Prudent Alternative (RPA) if we find that an action is likely to destroy or adversely modify critical habitat. Given that we are only designating critical habitat in occupied areas, where an action agency would need to consult on any adverse effects to bull trout, and given our framework for conducting section 7 consultations on bull trout and bull trout critical habitat, we anticipate that most projects that would result in destruction or adverse modification of critical habitat would also constitute jeopardy to the species. Thus, any costs associated with conducting consultations or implementing an RPA would be present with or without the critical habitat designation, and would not be correlated with the size of the designation.

(60) *Comment:* The EA does not address impacts/costs to the Klamath Lake BOR project or to Agency Lake Ranch.

Our Response: BOR staff were contacted and consulted on the likelihood of projects requiring section 7 consultation, as described in Section 4.2.4 for the final EA. When contacted, BOR staff in Klamath Falls stated that no significant consultation activity concerning bull trout was anticipated. As a result, the analysis assumes impacts are not reasonably foreseeable for a BOR project on Agency Lake Ranch.

(61) *Comment:* Specific cost information related to fencing, well installation, maintenance, grass filter strip installation was not accurate in the EA. The comment letter provided specific costs on a per acre basis.

Our Response: The DEA (Section 4.2.2, page 4–9 and Section 4.2.7, page 4–72) estimates the number of grazing-related consultations likely to take place in the future and then multiplies the consultations by per consultation estimates of fencing, monitoring, and water requirement costs. Whether the per acre costs presented in the comment fall within the range of per consultation costs estimated in the DEA is difficult to determine. The estimate in the DEA is drawn from a sample of historical consultations.

(62) *Comment:* The EA underestimated costs in the upper Deschutes River basin because 95 percent of crops depend on irrigation.

Our Response: The Upper Deschutes basin is currently unoccupied by the species. For effects to irrigated agriculture to occur, the Service would first have to reintroduce bull trout to this basin, consult with BOR on the

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operation of the reservoir, and recommend reasonable and prudent measures that would reduce the available irrigation water. As discussed on page 4–28 of the report, this sequence of events is not reasonably foreseeable.

(63) *Comment:* Comments made on the DEA for the Columbia/Klamath Rivers populations were not incorporated into the final EA.

Our Response: We believe that the Final Economic Analysis adequately addresses all the comments provided during the public comment period that are consistent with the framework for the analysis described in Section 1.3 of the report. Specifically, impacts to families and small entities are addressed in Section 4.3; costs to irrigators, cities, industries, and other water users are addressed in Section 4.2; costs to hydropower customers are discussed in Section 4.4.2; potential costs to recreational users are discussed in Section 3.3.6; costs associated with flood damages are addressed in Section 4.2.4; costs associated with water quality changes are addressed in paragraphs 16 and 211; costs due to regulatory uncertainty are captured in Section 4; values of potential lost irrigation water supplies are discussed in paragraphs 494 through 499; and employment and secondary impacts are discussed in paragraph 274.

(64) *Comment:* The EA cited the existence of irrigated agricultural diversions and the need for fish screening of those diversions to prevent bull trout entrainment, however the EA did not extrapolate out screening costs. The EA acknowledged that fish screening costs are substantial, ranging between $2,000 and $5,000 per cfs the structure can divert.

Our Response: The Service agrees that irrigators incur costs associated with fish screens. However, as described in footnote 110 of the FEA, "* * * installation of diversion fish screen[s] is a baseline regulation within Idaho, Oregon, and Washington. That is, screens on agricultural diversions are already required under Idaho Code 36–906(b)." Because fish screens are required in Idaho, Oregon and Washington in the absence of the Endangered Species Act (ESA), these costs are not included in this analysis.

(65) *Comment:* The economic impact to Baker County and the Regulatory Flexibility Act was ignored in the DEA and final EA.

Our Response: In accordance with the Regulatory Flexibility Act, the Final Economic Analysis includes a quantitative screening analysis (see Section 4.3) that the Service used as the basis for its certification that a substantial number of small agricultural entities will not be significantly impacted by the proposed designation. Impacts to small farmers resulting from curtailed irrigation diversions are discussed specifically in Section 4.3.2.

(66) *Comment:* The costs for fish passage and habitat restoration are associated with compliance of Sections 4(e) and 18 of the FPA. The costs for fish passage and restoration of habitat address the recovery of other native salmonids found in the aquatic system, such as westslope cutthroat trout and mountain whitefish. The cost for total dissolved gas abatement is associated with compliance with the Clean Water Act under the 401 Water Quality Certification and Section 4(e) of the FPA. It is not clear what the final terms of the relicensing of the Box Canyon Project will be. The project modifications and costs are not due to bull trout Section 7 consultation as no biological opinion (BO) has been done. It is unclear why Box Canyon Project was picked for a discussion of detailed project modification costs since this project has no modification costs related to Section 7 consultation or the designation of critical habitat.

Our Response: FERC relicensing costs are discussed in Section 4.2.6 in the Final Economic Analysis (paragraphs 416–452). Estimates of project modification costs for the FERC Environmental Impact Statement (EIS) on Box Canyon are summarized in paragraph 452 as an example of the uncertainty surrounding the estimate of FERC-related costs. The discussion is consistent with this view that passage modifications are not attributable to section 7 bull trout consultations.

(67) *Comment:* The EA's estimate of conservation costs of $570 per acre for Dungeness Irrigation District is artificially low. The costs for revision or addition of fish passage facilities at those federal dams would be passed on to irrigation contractors through the United States Bureau of Reclamation.

Our Response: Following the framework described in on pages 1–11 and 1–12, the FEA considers the costs of proposed or reasonably foreseeable HCPs. In Section 4.1.2, the FEA identifies two HCPs that were currently under development at the writing of the analysis, and projects the costs of future based on the historical costs of developing these plans. HCPs are not reasonably foreseeable in the irrigation districts providing comment. However, the FEA accounts for HCP costs at unspecified locations for the 10-year time period of the analysis (see paragraph 359).

Unit Specific Comments

Unit 1: Klamath River Basin

(68) *Comment:* No critical habitat in Agency Lake was requested because of limited to no occurrences or use by bull trout.

Our Response: Historically, bull trout are known to have been distributed in several streams along the west side of Agency Lake (Cherry Creek, Threemile Creek, and Sevenmile Creek) and in the Wood River system (Sun, Annie, and Fort Creeks). Given the proximity of habitat and local populations and the predatory and migratory nature of the species, it is likely that bull trout utilized Agency Lake, at least seasonally, as feeding, migrating, and overwintering habitat, however, we are not able to document bull trout use in the last 20 years and have not included Agency Lake in this designation.

Unit 4: Willamette River Basin

See Comments from States (Oregon) section below.

Unit 6: Deschutes River Basin

(69) *Comment:* The Service properly chose not to designate the Crooked River as critical habitat because it is unoccupied and was not essential to the conservation of the species, that designation could also cause harm to ongoing conservation efforts, and that the benefits of excluding this area outweigh the benefits of including it.

Our Response: We have limited the critical habitat designation to areas of known occupancy (defined by documented occurrence within the last 20 years) that have features essential to the conservation of the species because we did not have sufficient data for the Secretary to make a determination that specific unoccupied areas were essential to the bull trout's conservation. We have determined that the approximately 14 mile-long section of the Crooked River downstream of the Highway 97 bridge to the Opal Springs Dam is occupied and contains many of the features essential to the conservation of the bull trout. The volume of cold water spring flows that enter the Crooked River downstream of the Highway 97 bridge crossing decreases stream temperatures enough to make this section of the Crooked River suitable for foraging bull trout even during the summer months. The additional habitat in the Crooked River also allows bull trout in Lake Billy Chinook to forage.

(70) *Comment:* There are many plans in the Deschutes River basin that provide special management and protections for bull trout (list of plans provided).

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Our Response: The Service has reviewed information regarding numerous plans in the Deschutes River basin including the Middle Deschutes/ Lower Crooked River Wild and Scenic Management Plan, the Lower Deschutes River Wild and Scenic River Management plans, the Aquatic Conservation Strategy of the Northwest Forest Plan, PACFISH, INFISH, and the Deschutes River Subbasin Plan. For each plan we assessed the protections of the plan as compared with the protections of critical habitat and weighed the benefits of inclusion versus the benefits of exclusion. For those plans where the benefits of exclusion outweighed the benefits of designating critical habitat we excluded those lands from the final designation (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

Unit 8: John Day River Basin

(71) *Comment:* Critical habitat should be removed on the mainstem John Day River below 4,500 ft elevation because the mainstem John Day River below this elevation does not have the appropriate water temperatures for bull trout.

Our Response: The Service acknowledges that the current distribution of bull trout in the John Day River basin is fragmented and that water temperature is a limiting factor in the lower portion of the river outside of peak runoff periods (late winter and spring). Bull trout distribution occurs primarily in the headwaters of the Upper Mainstem, North Fork and Middle Fork John Day River tributaries, with seasonal use of the entire North Fork John Day River. However, in 2000, the Oregon Department of Fish and Wildlife captured eleven subadult bull trout in the mainstem John Day River near the town of Spray, Oregon (1,802 ft elevation), while seining for juvenile Chinook salmon. Two of the fish were implanted with radio-tags and both were subsequently tracked into the North Fork John Day River. This suggests that subadult migrations do seasonally occur within lower river segments of the Upper Mainstem, North Fork, and Middle Fork John Day River. Within the John Day Subbasin, historic bull trout distribution likely included seasonal use of the entire mainstem and larger tributaries. Bull trout from the John Day Subbasin were known to migrate to and from the Columbia River (Buchanan *et al.* 1997). Historical records indicate presence of bull trout in Dads Creek, Dixie Creek, Pine Creek, Canyon Creek, Laycock Creek, and Beech Creek (Buchanan *et al.* 1997) all below 1,800 ft in elevation. The lower segments of the John Day Basin currently have many PCEs, including permanent water with low levels of contaminants, stream temperatures from 36° to 59° F (2° to 15° C), complex stream channels, and an abundant food base. Lower segments of the John Day River are typically suitable for bull trout use during peak runoff periods in late winter and spring when water temperatures range from 36° to 59° F (2° to 15° C). During those periods, these streams contain the necessary features essential to the conservation of the bull trout because they serve as migratory corridors that connect local populations in the basin. Such connections are particularly critical in the John Day River Basin because the existing local populations are small and highly vulnerable to localized extirpation. The most viable way to avoid extinction in these areas is to maintain seasonal habitat connections so that the movement of fish between them can sustain or periodically re-establish these small populations. We recognize the apparent difficulty in designating critical habitat where the presence of the PCEs is sporadic. To avoid future misinterpretations of the effect of this designation where PCEs occur as a result of current ongoing federal management, we have included that management in the baseline for future section 7 consultations.

Unit 9: Umatilla/Walla Walla River Basin

(72) *Comment:* There are many examples of additional special management and protections governing habitat utilized by bull trout on BLM-managed lands including the South Fork of the Walla Walla River ACEC, which is an amendment to the Resource Management Plan (RMP) for the Baker Resource Area of the Vale District. The amended plan was signed in February 1992, creating an ACEC of 1,273 acres within the South Fork of the Walla Walla River watershed. The river provides high quality spawning and rearing habitat for bull trout. The decision included: (1) No surface occupancy stipulation for oil and gas leasing; (2) prohibition against development of mineral resources within the ACEC boundary unless needed on an emergency basis to protect ACEC values; (3) prohibition against issuance of grazing leases; (4) no fire salvage will occur unless it meets the goal of ACEC management; and (5) reduction by 99% of the permitted amount of timber removed on the 120 acres of commercial timberland economically operable within the ACEC.

Our Response: We agree that the designation in 1992 of the South Fork Walla Walla River as an Area of Critical Environmental Concern added habitat protections that benefit bull trout. The ACEC management actions in the plan amendment, particularly the livestock grazing restrictions and measures to limit and control recreational motor vehicle traffic along the river, are actions that have improved bull trout habitat along the approximately two miles of river that cross BLM land. As a result we have determined this lads do not meet the definition of "in need of special management or protection" in order to be designated as critical habitat.

Unit 10: Grande Ronde River Basin

(73) *Comment:* Wright Slough (Grande Ronde River Basin) has been designated as critical habitat and should not have been. It now has restrictions on it that are impacting agricultural use of the land.

Our Response: Wright Slough, a tributary of the Grande Ronde River, was not designated as critical habitat for bull trout in the previous final rule and is not being designated in this rule. The mainstem Grande Ronde River immediately above and below where Wright Slough enters the river is designated as bull trout critical habitat. The State of Oregon has designated Wright Slough as "essential salmonid habitat", which may have been confused with bull trout critical habitat. Critical habitat does not create a preserve and does not, by itself, place restrictions on agricultural land use. If, through section 7 consultation, a proposed Federal action was found to destroy or adversely modify critical habitat, then a reasonable and prudent alternative may result in restrictions on agricultural use. We have not issued any adverse modification biological opinions on bull trout critical habitat and therefore have not imposed any restrictions on agricultural use of lands in Wright Slough through designation of critical habitat.

(74) *Comment:* It is not appropriate to designate critical habitat in the Powder River Basin in areas located below 4,500 ft elevation to prevent extinction of bull trout because these low elevation streams do not have appropriate water temperatures.

Our Response: We acknowledge that temperatures in the lower portions of the Powder River Basin are likely only suitable for bull trout use during peak runoff periods in late winter and spring. During these times, lower elevation areas contain the features that are essential to bull trout conservation. These areas are important because they

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serve as migratory corridors that connect local populations in the basin. Such connections are particularly critical in the Powder Basin because the existing local populations are small and highly vulnerable to localized extirpation. The most viable way to avoid extirpation in these areas is to maintain seasonal habitat connections so that the movement of fish between them can sustain or periodically re-establish these small populations. We have also indicated that current federal management is included in the baseline so as to ensure that existing PCEs—in this case migrating corridors are maintained without implying that other PCEs are present or require special management or protections.

(75) *Comment:* The previously designated stream segments in the Powder River Basin below the Wallowa-Whitman National Forest boundary are not essential for conservation of bull trout, because: (1) The presence of brook trout downstream of most known bull trout populations and the large number of existing physical barriers in low-elevation stream sections preclude genetic exchange between local populations and attempts to provide connectivity will result in increased hybridization; (2) given the physical and biological barriers, it would be advisable to keep resident bull trout populations in the upper tributaries to prevent brook trout hybridization; (3) the listed segments lack almost all of the identified PCEs and, in fact, dry up or go subsurface for much of the year; and (4) with the single exception of Big Muddy Creek, all observations of bull trout have been above the National Forest boundary, thus the stream sections below the boundary are unoccupied.

Our Response: It is true that many of the Powder River tributaries contain impediments to bull trout movement, particularly those that flow through the Baker Valley, where the stream channels and stream flows have been altered for many years to support agricultural production. We also concur that brook trout hybridization is a problem in this area. Nevertheless, the designated tributary streams are deemed essential for bull trout conservation for the following reasons: (1) These streams are occupied and contain PCEs; (2) given the small size of the local populations, which appear to be currently confined to upper elevation headwaters, it is highly unlikely that they will persist in isolation, thus the long-term viability of this core area is dependent on the ability of bull trout to move between populations; and (3) the impediments to seasonal fish movement in these streams are mostly human-caused and could feasibly be corrected. The lower reaches of these streams can function as effective movement corridors even if only during high runoff periods; their designation as critical habitat does not imply that they need to be maintained as suitable habitat year-round. Therefore, we have designated critical habitat in these areas. In addition our inclusion of present operations in the baseline is designed to recognize the particular contributions of the area to bull trout conservation without overstating them.

(76) *Comment:* We believe that fish survey data from the Powder River Basin has been misused because: (1) No accepted, scientific protocol was used for many of the surveys; (2) some of the fish counts were erroneous and contained inaccurate information; (3) some purported sightings and inferences about habitat use were not supported by scientific data; (4) credible evidence provided by local citizens, indicating that bull trout were introduced in the early 1900s into upper tributaries of the Powder River, was ignored or disregarded.

Our Response: It is our intent to use only accurate information about species' occurrences when identifying critical habitat. To address the concerns that were raised about data from the Powder River Basin, we conducted a review of all the survey data and anecdotal information we have received on bull trout locations in this area. The sources and documentation associated with these data have been re-checked and verified to the extent possible. Some of the bull trout sighting information comes from informal surveys that did not follow standardized survey protocols because surveys were done before formal survey protocols existed and in other situations "spot check" type surveys were done because the resource agency lacked sufficient resources to conduct more rigorous surveys. It would not be appropriate to disregard positive sightings just because the survey method was informal. The key credibility factor is the fish identification skills of the person making the observation. Also of major importance is the type of observation (*i.e.*, was the fish in hand or just seen swimming by).

In our review of existing data, we excluded from consideration sightings that did not meet the following two criteria: (1) The sighting was made by a biologist or technician that was trained and experienced in bull trout identification, and (2) the identification was made based on close examination of a fish in hand. We cannot verify the assertion that bull trout were introduced by man to the upper Powder River Basin and thus are not native to the area. We are not ignoring or disregarding the reports that suggest bull trout may have been planted in some streams in the Elkhorn Mountains in the early 1900s. It is just not possible to verify those reports or to conclude from them that bull trout did not exist in the area prior to those introductions. Documented information on the historic distribution of bull trout in other nearby Snake River tributaries is compelling evidence that they are likely native inhabitants of the Powder River.

(77) *Comment:* Data on reported bull trout sightings in Rock Creek and Pine Creek are not scientifically valid.

Our Response: A bull trout/brook trout hybrid was reported in surveys of Rock Creek conducted by ODFW in 1994. Tissue samples were not collected so positive identification of this fish as a hybrid or pure bull or brook trout is not possible. Follow-up surveys conducted by the USFS did not detect any bull trout in Rock Creek, but surveyors did not search the upper portions of Rock Creek and North Fork Rock Creek, nor did they search about 0.7 mile of creek below Eilertson Meadow. Reaching the conclusion that bull trout are absent from this creek will require regular, repeated surveys using the same protocol. Bull trout have been observed, by professional fish biologists, in Pine Creek and Salmon Creek. Memoranda from Mark Lacy in 1995 (a BLM Fish Biologist at the time) and Jackie Dougan (then a USFS Fish Biologist) to Jeff Zakel (ODFW) provide information on bull trout sightings in these drainages in 1994–1995. Therefore, we have designated critical habitat in these areas.

(78) *Comment:* Special management considerations are already provided through the Powder Basin Subbasin Plan and the Powder/Brownlee Agricultural Water Quality Management Area Plan.

Our Response: We have conducted a thorough analysis of the Powder Basin Subbasin Plan and the Powder/Brownlee Agricultural Water Quality Management Area Plan to determine if the benefits of excluding areas covered by these plans from critical habitat outweigh the benefits of including them. We have determined that this plan does not provide a direct conservation benefit to bull trout or any certainty that it will be implemented. Therefore, we have not used these plans as a basis for exclusion.

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Unit 13: Malheur River Basin

(79) *Comment:* Do not exclude the Malheur Basin because the Forest Service has not fully implemented INFISH and has failed to effectively modify and suspend its authorized grazing practices required under INFISH. The matrix of pathways and indicators included in the Forest Service 1999 biological assessment documented ratings of "functioning" and fail to meet standards. The grazing program on the Malheur National Forest is maintaining degraded baseline conditions according to a 2004 Service biological opinion. In addition, grazing effects on the Malheur River are likely to restrict bull trout range expansion or at least slow recovery efforts substantially. Information provided by the U.S. Forest Service did document maintenance of a degraded condition for certain indicators. The Forest Service rated grazing allotments as maintaining the current conditions with the expectation that they would meet the requirement of a near natural rate of recovery if the allotments were grazed according to standards. This and other information provided by the Forest Service helped form the basis for the Service's biological opinions referenced by the commenter. The Service has expressed concerns in the past with grazing effects to bull trout on the Malheur National Forest and is working closely with the Forest Service to help decrease impacts to bull trout and their habitats due to grazing activities.

Response: The Malheur National Forest recently completed its 2004 grazing monitoring report which provided information and summaries/explanations of data analyzed, collected, or submitted during the 2004 field season. The Forest Service also provided documentation to satisfy the reasonable and prudent measures contained in the Service's 2004 biological opinions by summarizing information collected in 2004. The Forest Service recommends potential management strategies for the 2005 Annual Operating Instructions that are consistent with PACFISH and INFISH. A critical habitat designation will not result in improvement of the conditions in the areas designated in and of itself. Critical habitat designation can only prevent erosion of the baseline levels of the PCEs. Forest Service management under INFISH actually takes positive steps to improve conditions in the aquatic habitat. The Forest Service expects that these strategies will move riparian and stream conditions towards desired conditions. The Service will continue to work with the Forest Service, and assist them in development and implementation of appropriate and effective monitoring strategies. In addition, we have determined that the Malheur National Forest management plan as currently implemented provides at least the same special management and protection as a critical habitat designation and goes beyond what a critical habitat designation provides by enhancing and restoring habitat. We have determined under Forest Service management that the Malheur National Forest does not meet the definition of critical habitat in 3(5)(a) and we have excluded the Malheur National Forest from critical habitat because the benefits of excluding areas covered under PACFISH and INFISH outweighed the benefits of inclusion (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

Unit 16: Salmon River Basin

(80) *Comment:* Not all bull trout habitat in the Salmon River basin should be critical habitat.

Our Response: Not all bull trout habitat in the Salmon River basin has been proposed or designated as critical habitat. Numerous streams were not proposed for designation for any, or a combination of, the following reasons: (1) Bull trout are not known to be present; (2) the habitat has low or no potential for bull trout occupation (low elevation, inherently warm water, not historically occupied, etc.); (3) the habitat does not currently contain, or have the potential to contain, one or more PCEs; and (4) the habitat was deemed not necessary to meet draft recovery plan objectives (i.e., non-essential potential populations).

Of those streams that were proposed as critical habitat, not all were designated. Areas covered under PACFISH, INFISH, and the Snake River Basin Adjudication were excluded (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(81) *Comment:* Salmon River bull trout are very healthy and not at risk.

Our *Response:* While it is true that Salmon River bull trout populations are relatively healthy, they are located in areas that contain the features essential to the conservation of bull trout. Areas that are already adequately protected by other management plans, and where the benefits of excluding areas from critical habitat outweigh the benefits of inclusion, exclusions have been applied (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(82) *Comment:* Bull trout are rare in Jordan Creek of the Upper Salmon River and critical habitat should not be designated there.

Our *Response:* We did not exclude areas based on rarity of bull trout. The 2002 critical habitat proposal included stream segments known to be occupied. In our analyses of the species for the draft recovery plan and proposed critical habitat for bull trout, we determined that it is necessary to maintain as many currently occupied areas as possible to facilitate recovery of the species. Jordan Creek supports a local population of bull trout. It is likely that the local population occurring in Jordan Creek was historically, and is currently, supported by migratory bull trout from the Yankee Fork and larger streams, although monitoring has not yet observed this life history strategy. Lower Jordan Creek is important for providing connectivity between the bull trout local population above the mine and larger area of overwintering habitat below. Local populations not connected by migratory fish are believed to be at a substantially greater risk of extirpation.

Unit 17: Southwest Idaho River Basins

(83) *Comment:* Exclude Boise, Payette, and Weiser river basins for economic and social reasons in addition to exclusions based on the Snake River Basin Adjudication plan.

Our Response: In our 2002 proposed critical habitat rule we proposed approximately 2,792 km (1,735 mi) of streams in the Boise, Payette, and Weiser river basins. The economic analysis did not identify costs justifying an economic exclusion with the Snake River basin. Section 4(b)(2) of the Act allows us to consider the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. Therefore, the Secretary of Interior has excluded the area covered by the Snake River Basin Adjudication plan based on collaborative partnerships that have resulted in a settlement agreement benefiting bull trout conservation and where the benefits of excluding these areas outweigh the benefits of including them in the designation (Exclusions Under Section 4(b)(2) section below). The Secretary received inadequate information to make a determination that the economic and social benefits of exclusion outweighed the benefits of the designation.

(84) *Comment:* Many areas in Southwest Idaho do not have sufficient PCEs.

Our Response: The 2002 proposed critical habitat rule was developed based on the best available information at that time. In order for a stream to be proposed as critical habitat, it must have sufficient PCEs to sustain at least one

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essential life process of the species. However, a stream did not have to contain all PCEs to be proposed as critical habitat. In fact, many streams in southwest Idaho do not have all of the PCEs, but do have sufficient PCEs for bull trout to meet this standard. Streams that did not contain the necessary habitat for bull trout (*e.g.*, including one or more primary constituent elements), and streams inherently incapable of becoming bull trout habitat were not proposed for designation. Those streams that were included will have existing conditions included in the baseline for future section 7 consultations.

Unit 19: Lower Columbia River Basin

(85) *Comment:* Describe the validity of Cougar Creek, a tributary to Yale Reservoir in the Lewis River critical habitat sub-unit (CHSU), as part of the critical habitat designation.

Our Response: The Settlement Agreement Concerning the Relicensing of the Lewis River Lewis River Hydroelectric Projects (Agreement) includes a perpetual conservation easement on PacifiCorp's lands in the Cougar/Panamaker Creek area. The measures included in the conservation easement and the settlement agreement provide a high level of conservation benefit to the bull trout PCEs in Cougar Creek. We have determined that lands covered under conservation easements and the Agreement should be excluded from the designation of critical habitat because the benefits of excluding them outweigh the benefits to the species by including them in the designation. Please refer to our discussion concerning the exclusion of Lewis River Hydroelectric Projects Conservation Easements in the Section 3(5)(a) and Exclusions under Section 4(b)(2) of the Act section below.

(86) *Comment:* Rush Creek in the Lewis River CHSU should be included in critical habitat even though it is covered by the Northwest Forest Plan.

Our Response: All National Forest lands covered by the Aquatic Conservation Strategy of the Northwest Forest Plan have been excluded from the final designation because the Secretary determined that the lands did not meet the definition of critical habitat and the benefits of exclusion outweighed the benefits of inclusion (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

Unit 21: Upper Columbia River

(87) *Comment:* Special management activities within Priest Rapids project should be excluded.

Our Response: The Service has considered the special management activities within the Priest Rapids project area for this rule. Currently there is no biological opinion for bull trout or a settlement agreement in place addressing the PCEs for bull trout for the Priest Rapids Dam project area, and the PCEs for bull trout are not addressed by any other current management activities. The NOAA Fisheries biological opinion only covers salmon species. Although some habitat characteristics are similar for salmon species and bull trout, the PCEs have several differences. The Service Interim Guidelines for bull trout list some of these differences, which include the following: Fish passage and performance measures for salmon are not the same as they are for bull trout; bull trout exist year round in the area and are more closely associated with stream substrates; and, they also require a prey base year round. However, since the area does contain PCEs under current ongoing management, that management will be considered part of the baseline in future section 7 consultations.

(88) *Comment:* Additional consultation requirements for critical habitat negatively affect Grant County by increasing workload.

Our Response: Because all areas in this designation are considered occupied, section 7 consultation for the bull trout would be required in all cases where consultation on bull trout critical habitat would be required. The Service has data documenting bull trout occurrence throughout many areas of the mainstem Columbia River, particularly between Priest Rapids pool and the Okanogan River. Fish from the Upper Columbia River Recovery Unit have been documented using this area to fulfill critical elements of their life cycle. A review of the amount of work associated with the incremental costs of completing consultations on bull trout critical habitat revealed that it was relatively minor.

(89) *Comment:* Wells, Rocky Reach, Rock Island, and Comprehensive Bull Trout Monitoring and Management Plans (WBTMP, RRBTMP, RIBTMP, CBTMP), as well as the Anadromous Fish Agreement, Rocky Reach, Rock Island, and Douglas PUD Wells Hydro Project HCPs provide needed benefits to bull trout and their PCEs and should be excluded from critical habitat.

Our Response: The Service has considered these plans in our evaluation of critical habitat. The biological opinion and comprehensive BTMPS do not fully cover all PCEs nor do they address all recovery tasks or issues for bull trout in the upper mid-Columbia area. The BTMPs are limited to the requirements of the biological opinion and it is unclear if other PCEs will be addressed. The specific studies are designed to be implemented with specific timeframes which generally will be implemented every 10 years through the life of the plan (50 years). The goals of the Protection, Mitigation, and Enhancement measures in the BTMPs are to identify, develop, and implement measures to monitor and address ongoing impacts to bull trout resulting from project operations. The BTMPs incorporate "Reasonable and Prudent Measures" which are required by the Service Biological Opinion for the Rock Island, Rocky Reach, and Wells hydroelectric project operation. These measures will address the "complex stream channels (PCE #3) and "migratory corridors" (PCE #7) for bull trout. The Service biological opinion states that other PCE's are expected to be maintained or enhanced, but at this time it is unclear where or when any of the habitat restoration projects for the tributary enhancement provisions will occur. Therefore, we do not believe that these plans are an appropriate basis for exclusion.

Unit 22: Northeast Washington

(90) *Comment:* The critical habitat designation is inconsistent with the inclusion of Box Canyon Reservoir.

Our Response: The Service acknowledges that the reservoir exclusion in the previous final rule was not applied consistently. In this final rule we are excluding all reservoirs that provide a flood control, water supply function, or energy generation. Although the Box Canyon Reservoir does not meet this criteria, it is being excluded because it is within the Federal Columbia River Power System (FCRPS) action area (see Section 3(5)(a) and Exclusions under Section 4(b)(2) section below).

(91) *Comment:* The Service needs to add the proposed critical habitat areas of the Northeast Washington Unit back in the designation.

Our Response: We have evaluated which areas meet the definition of critical habitat for bull trout and excluded areas where we have determined that the benefits of excluding those areas outweigh the benefits of including them as critical habitat (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

Unit 26: Jarbidge River

(92) *Comment:* Maintaining connectivity is important for the Jarbidge River population and it is not

clear if connectivity is included in the PCEs for this population.

Our Response: We agree that migratory corridors are important and provide connectivity among local populations and access between spawning, overwintering, and foraging habitats within the Jarbidge River population area. The Jarbidge River bull trout population has been isolated from other bull trout populations by dams and diversion structures for over 100 years (Gilbert and Evermann 1894). The distance between occupied habitats in the Jarbidge River and Columbia River populations is approximately 150 river miles (rmi) (240 river kilometers (rkm)). Critical habitat was not proposed for these areas of unknown bull trout occupancy.

(93) *Comment:* Salmon Falls Creek, Idaho should be designated as critical habitat for the Jarbidge River bull trout population.

Our Response: Salmon Falls Creek is not occupied by bull trout, and therefore under the Act, it cannot be designated as critical habitat unless it is essential for the conservation of the species. Salmon Falls Creek is a tributary to the Snake River in Idaho. It historically provided spawning and rearing habitat for anadromous fish, including Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead. Since Salmon Falls Creek Dam was constructed in 1910, the lower 30 mi (48 km) of the stream have been significantly altered by upstream reservoir storage and water diversions. Migration barriers, water diversions, high water temperatures, sedimentation, and nonnative fish introductions are likely contributing factors to the loss of anadromous fish species in this watershed. This watershed is outside the boundary of the geographical area occupied by the Jarbidge River bull trout population, and bull trout from the listed Jarbidge River population do not have access to Salmon Falls Creek due to a number of intervening dams and diversion structures. Due to poor bull trout habitat quality and inaccessibility it is not essential for the conservation of the Jarbidge River population, and is not included in the designation.

(94) *Comment:* Buck Creek, a tributary to the West Fork of the Jarbidge River, should be added to critical habitat designated for the Jarbidge River population because it is similar to adjacent known occupied bull trout streams and could support multiple life history requirements of bull trout.

Our Response: Bull trout have not been documented in Buck Creek or its tributaries during infrequent surveys (G. Johnson, Nevada Department of Wildlife, in litt 1993a, b; G. Johnson, NDOW, pers. comm. 2003). We are currently unable to determine that Buck Creek is essential to the conservation of the species based on its undocumented use by bull trout and potentially disconnected reaches of suitable habitat. Because we cannot be certain that this habitat would ever be occupied by bull trout, the Secretary could not make a determination that is essential to the conservation of the species, and thus did not designate it as critical habitat.

(95) *Comment:* Critical habitat should include the entire hydrologic watershed for the East/West Forks of Jarbidge River, Jarbidge River, and Bruneau River.

Our Response: We acknowledged in the proposed rule that upstream habitat, as well as adjacent terrestrial habitat, can influence the quality of aquatic habitat downstream. Although the East and West Forks of the Jarbidge River, as well as the mainstem river, are occupied bull trout habitats containing features essential to the conservation of the species we have excluded these areas from the designation after carefully weighing the benefits of inclusion versus the benefits of exclusion (see Section 3(5)(a) and Exclusions under Section 4(b)(2) section below).

Although the Bruneau River has been identified as bull trout habitat in some publications (Conley 1993; Lee *et al.* 1997), there are no records documenting bull trout use. Bull trout may have migrated from the Snake River through the lower Bruneau River and into the Jarbidge River for spawning, similar to Chinook salmon. Bull trout from the Jarbidge River have access to the Bruneau River, and we support implementing research to detect seasonal use of the Bruneau River by bull trout. Research could clarify the importance of the habitat to potential numbers of large migratory bull trout if the Jarbidge River population expands.

Unit 27: Olympic Peninsula

(96) *Comment:* The Quinault River consists of surface water from Lake Quinault and thus has an unsuitable temperature profile for bull trout. It is also part of the Quinault Indian Nation lands; therefore, it should not be designated as critical habitat.

Our Response: Temperatures in the Quinault River are influenced by temperatures in Lake Quinault, and during certain times of the year those temperatures likely exceed optimum temperatures for bull trout. Temperatures are naturally warm in the summer in the Quinault River below Lake Quinault. Bull trout have been documented in tributaries to the lower Quinault River and in the river itself. Water temperatures in the river change in response to the season (colder in winter, warmer in summer). Bull trout seasonally use the river when temperatures are cooler. Also, the river contains a prey base for the bull trout. We do not expect the water temperature profile to change in the future and expect that bull trout will continue to use the river. The nearshore land adjacent to the lake affects water quality in the lake. Only a small portion of the shoreline and habitat that affects the lake is within the Quinault Indian Reservation. The portion of the nearshore that is within the reservation, and included in the Quinault Forest Management Plan, is excluded from critical habitat.

(97) *Comment:* The Quinault River downstream of Lake Quinault does not require special management and therefore should be excluded.

Our Response: That area is addressed in the Quinault Indian Reservation's Forest Management Plan and is excluded from the Quinault River downstream of Lake Quinault.

(98) *Comment:* Cook Creek is poor habitat and inappropriate as critical habitat.

Our Response: Cook Creek has documented bull trout occurrence. The habitat quality is rated as "fair to good" by an analysis of limiting factors for the Quinault River watershed (WSCC 2001). Monthly temperature data indicate that stream temperatures are within the temperature range given in PCE 1 (see Primary Constituent Elements section below) and are suitable for bull trout most of the year. The summer temperatures in the creek are colder than in the river, and Cook Creek likely provides important cold water refuge during the summer months, as well as forage during certain periods of the year. The portion of Cook Creek, from its mouth to approximately rmi 4.8 (rkm 7.7), is addressed in the Forest Management Plan for the Quinault Indian Reservation and excluded from designated critical habitat.

(99) *Comment:* The Raft River and other coastal streams need further evaluation before being designated as critical habitat.

Our Response: The Raft River and other coastal streams have documented foraging and overwintering habitat, features essential for bull trout conservation. Although these streams and rivers do not support spawning bull trout populations, they seasonally do provide foraging and overwintering habitat for bull trout that spawn in other coastal rivers. The portion of the Raft River included in the Quinault Indian Reservation Forest Management Plan is

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excluded from designated critical habitat.

(100) *Comment:* The proposed rule states that the Quinault Tribe owns less than 1 percent of proposed critical habitat and this underrepresents actual ownership.

Our Response: After further review, our Geographic Information System (GIS) indicates that the Quinault tribal ownership is 2.7 percent of the proposed critical habitat designation for the Coastal-Puget Sound bull trout population.

(101) *Comment:* Certain beach areas should be excluded because they are owned by the Quinault Indian Nation.

Our Response: There are areas in nearshore marine waters adjacent to beach areas owned by the Quinault Indian Nation that have features essential to bull trout conservation. However, these beach areas are not addressed in the Quinault Indian Reservation Forest Management Plan. These nearshore marine waters may be affected by activities such as development, bank armoring, bulkheading, or dredging occurring in or near the beach and shoreline areas. Therefore, these areas require special management considerations or protections to ensure any proposed Federal actions do not destroy or adversely modify the critical habitat, and thus are designated as critical habitat.

(102) *Comment:* The Skokomish Tribe's lands, and other tribally owned lands in that vicinity, do not provide important contributions to critical habitat because they are below 500 feet (ft) (152 meters (m)) elevation in areas where there is no spawning and rearing habitat.

Our Response: The portion of the Skokomish River within the Skokomish Reservation boundaries is below 500 ft (152 m) elevation. However, this area and other tribal lands below 500 ft (152 m) in elevation provide important foraging, migratory, and overwintering habitat for bull trout. These habitats contain the features essential to the species' conservation, especially the fluvial and amphidromous life history forms. However, this portion of the Skokomish River is excluded from designated critical habitat based on the Skokomish Tribe's conservation program. Portions of waterbodies within or adjacent to Swinomish, Muckleshoot, Jamestown S'Klallam, Hoh, Skokomish and Quinault tribal lands are also excluded (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(103) *Comment:* Additional Hood Canal nearshore habitat should be included in the designation.

Our Response: Critical habitat is designated on the south and west shores of Hood Canal based on the presence of PCEs, availability of forage fish, and the proximity to streams known to be occupied by bull trout. We have no information suggesting that bull trout use streams draining into the eastern shore of Hood Canal. Therefore, we have not designated critical habitat along the eastern shore.

(104) *Comment:* The Skokomish Tribe has adequate management in place, or in preparation, that precludes the need to designate critical habitat.

Our Response: The Skokomish Tribe has a conservation program that provides aquatic resource protection and restoration through a number of collaborative efforts on the reservation and other trust lands. As a result, we are excluding from this critical habitat designation those portions of the Skokomish River, Nalley Slough, Skobob Creek, and Hood Canal nearshore within the Skokomish Indian Reservation.

(105) *Comment:* The U.S. Navy (Navy) believes that the area proposed for extending the Naval Undersea Warfare Center, Division Keyport (NUWC Keyport) should be excluded based on planned section 7 consultations.

Our Response: We do not exclude areas based on future section 7 consultations. However, NUWC Keyport has an approved INRMP that provides a benefit to the species for which critical habitat is proposed for designation. Therefore it has not been included in the final critical habitat designation, per section 4(a)(3) of the Act (see Non-inclusions under Section 4(a)(3) section below).

(106) *Comment:* The Wynoochee, Satsop, and Canyon Rivers are not appropriate critical habitat.

Our Response: This designation is based on the best scientific and commercial information available and only includes habitat where bull trout have been documented and which contains features essential to bull trout conservation. Bull trout often migrate long distances from their natal streams to find suitable foraging or overwintering habitat. Streams that are not known to contain spawning bull trout populations were included in critical habitat when they provide documented foraging, migratory, and overwintering habitat for bull trout. Although not known as spawning streams, the Wynoochee, Satsop, and Canyon Rivers contain PCEs of critical habitat and bull trout use these areas for foraging, migrating, and overwintering. Therefore, we have included these areas in the designation.

(107) *Comment:* The Navy believes that training and testing areas, including Crescent Harbor, Hood Canal, and Dabob Bay, should be excluded from critical habitat.

Our Response: The area of Hood Canal, outside of Dabob Bay, where the Navy conducts activities, is not within or adjacent to proposed critical habitat and is not included in final critical habitat. The Navy conducts training and testing within the marine waters of Crescent Harbor and Dabob Bay. Because these activities are conducted in open marine waters, they are not included in the military's INRMPs. However, limitations on access to, the use of, or the enhancement of the existing capabilities and capacities of these ranges would limit or curtail both testing and fleet support functions performed by NUWC Keyport for undersea warfare.

These areas have been defined on National Oceanic and Atmospheric Administration (NOAA) charts for over 50 years and operating areas have been further delineated in recent public environmental documentation. NEPA analyses, conducted for these areas within the past 5 years, include biological assessments evaluating effects on endangered species that were reviewed and approved by NOAA-Fisheries and the Service. These biological assessments and associated environmental assessments addressed bull trout and interactions with range operations. Based on the above considerations, the importance of these areas for national security, and consistent with direction provided in section 4(b)(2) of the Act, the Navy training and testing areas of Crescent Harbor and Dabob Bay have been excluded from designated critical habitat (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(108) *Comment:* What are the conservation values of the upper North Fork Skokomish River and Lake Cushman? Designation of habitat in these areas conflicts with the Service's decision not to propose critical habitat in highly fragmented areas.

Our Response: Although hydroelectric dams have affected bull trout in the North Fork Skokomish River, and the two dams operated by Tacoma City Light prevent upstream and downstream passage of bull trout, we do not believe that this results in "highly fragmented habitats in highly fragmented areas." The North Fork Skokomish River represents a significant amount of

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remaining bull trout habitat along Hood Canal and is essential to the conservation and recovery of bull trout in the Skokomish core area and thus, is not excluded from the critical habitat designation.

(109) *Comment:* The Service erroneously assumes that there is downstream connectivity between bull trout located in the upper North Fork Skokomish River and bull trout located in other parts of the Skokomish River.

Our Response: Historic accounts (since the 1920s) indicate bull trout were present in the original Lake Cushman and upper North Fork Skokomish River prior to the river's impoundment. Bull trout in Lake Cushman and the upper North Fork Skokomish River have been continually monitored since 1970, and surveys have counted bull trout there as recently as 2004. This area comprises one of two local populations in the Skokomish River area. Construction of the two dams has largely eliminated downstream migration and interaction with bull trout in the South Fork Skokomish River, although for other hydroelectric projects it is well documented that fish do occasionally escape mortality through turbines or are spilled downstream of a dam.

(110) *Comment:* The Service inappropriately assumes that connectivity for the upper North Fork Skokomish River and Lake Cushman will be enhanced in the future.

Our Response: Recovery of bull trout in the Skokomish River core area will require addressing connectivity in the North Fork Skokomish River. Bull trout were documented in Lake Cushman and the North Fork Skokomish River above the lake in 2004. Bull trout have also been recently documented in the North Fork Skokomish River below the dams. Bull trout have not been documented in the section of the river between the two dams (Lake Kokanee), and this section is not being designated based on the Federal Energy Regulatory Commission (FERC) license requiring passage at both dams. Implementation of the FERC license for the Cushman Project is expected to result in the construction of trap-and-haul fish passage facilities that will restore connectivity between the lower and upper North Fork, but will bypass and isolate the inundated 2.3 mile long Lake Kokanee segment. Requiring fish passage at the Cushman dams is part of the 1998 FERC license order and is the best available information at this time (FERC 1998).

(111) *Comment:* The upper North Fork Skokomish River should be excluded from critical habitat designation because it is located almost entirely within Olympic National Park (Park), and the Park should be excluded because of their land use restrictions.

Our Response: At present, the Park does not have a general management plan that guides the Park's management and provides for bull trout conservation. A general management plan is currently under internal Park review and is scheduled to go out for public review in the next year or so. It is our understanding that the plan will present several alternatives ranging from increased visitor access and development to more resource protection. We do not know how this plan will address bull trout conservation but will review the Park's plan when it becomes available. Because there is no plan that we can review to determine if the Park will provide the appropriate special management required for the conservation of bull trout PCEs in that area this area was not excluded from the critical habitat designation.

Unit 28: Puget Sound

(112) *Comment:* Quilceda Creek and its tributary Edgecombe Creek in Washington should be designated critical habitat.

Our Response: Although it is possible that bull trout foraged in these two creeks in the past and may currently use these streams on occasion to forage, there is no clear documentation of the use by bull trout in this system. This does not mean these streams cannot or will not contribute to bull trout recovery, but rather that they were not determined to be essential to the species' conservation, and thus are not designated as critical habitat.

(113) *Comment:* The U.S. Army (Army) requests that the marine nearshore areas and Nisqually River adjacent to Fort Lewis be excluded from designation of critical habitat because of the existing INRMP. For its installations, the Navy believes that existing INRMPs for Whidbey Island Seaplane Base and Naval Station Everett provide justification for their non-inclusion from critical habitat.

Response: Fort Lewis has an approved INRMP that provides a benefit to the species for which critical habitat is proposed for designation. Therefore areas covered by the INRMP have not been included in the final critical habitat designation; per section 4(a)(3) of the Act (see Non-inclusions Under Section 4(a)(3) section below).

(114) *Comment:* The designation is not appropriate for four streams, three pocket estuaries, and the nearshore waters of, and adjacent to, the Swinomish Tribal Reservation.

Our Response: We believe that the nearshore areas are essential based on the current use of these areas by amphidromous bull trout for foraging and migration, and because they contain the PCEs. Therefore, only the marine nearshore waters, including the Swinomish Channel, associated with the Swinomish Reservation were proposed and designated as critical habitat. The other four streams were not part of our proposal.

(115) *Comment:* The Swinomish Tribe's habitat management plan provides a sufficient level of protection to bull trout and their habitat, and therefore those portions of waterbodies on or adjacent to Swinomish tribal lands should be excluded from the designation.

Our Response: We have excluded those lands covered by the Swinomish Tribe's habitat management plan (see Section 3(5)(A) and Exclusions under Section 4(b)(2) section below).

Comments From States

Nevada

(116) *Comment:* Those most affected by the designation have not been involved in this designation of critical habitat for the Jarbidge River population of the bull trout.

Our Response: Throughout the process of designating critical habitat, we attempted to include those interested in the designation of critical habitat for the Jarbidge River population, as well as the Coastal-Puget Sound and Saint Mary-Belly River populations, of the bull trout in the rule-making process. We solicited public comment through two public comment periods and one public hearing, accepting oral and written comments. We also held four local public meetings in Idaho and Nevada specifically regarding critical habitat proposed for the Jarbidge River population. We diligently tried to be responsive to the concerns raised and to address those concerns during the development of this final critical habitat designation.

(117) *Comment:* No information is presented to suggest that conservation of the Jarbidge River population is necessary to ensure the persistence of bull trout in the coterminous unit.

Our Response: We considered all available data on the Jarbidge River bull trout population during the listing process (63 FR 31693, 64 FR 17110, 64 FR 58910), and available data that developed since the listing, to designate critical habitat for the Jarbidge River bull trout population. The Jarbidge River population is located in the southernmost habitat currently

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occupied by bull trout. This population is geographically segregated from other bull trout in the Snake River basin by more than 150 rmi (240 rkm) of unsuitable habitat and several impassible dams on the mainstem Snake River and the lower Bruneau River. It is, however, essential to the conservation of bull trout as a whole, as discussed in the draft recovery plans.

(118) *Comment:* Streams within the Jarbidge River population range have not been demonstrated to contain PCEs for bull trout.

Our Response: All streams identified as essential and designated as critical habitat for the Jarbidge River population contain one or more of the PCEs. Only those streams with documented bull trout occurrence are designated. Variable types and amounts of habitat data are available for these streams to document the presence of PCEs and are in our administrative record for this final rule.

(119) *Comment:* Many plans already in place for bull trout protection don't need critical habitat (the comment letter listed many plans).

Our Response: Although there are many plans currently in place that directly or indirectly benefit bull trout, many are interim measures, they improve water quality only, there is no formal management plan, or they are designed to improve habitat on small scale watersheds. Where we could determine that the plans provided protection or management equal to that of a critical habitat designation, we have not included those lands, or otherwise we have designated critical habitat where appropriate (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

Washington

(120) *Comment:* Washington Department of Fish and Wildlife (WDFW) stated that Lake Washington and the Nisqually River are inappropriate as critical habitat because they are little used transient habitats for bull trout from other core areas.

Our Response: Recent tagging studies have clearly shown that amphidromous bull trout have complex migratory patterns within marine waters and between watersheds. We believe that current and future use of foraging, migratory, and overwintering habitats outside their natal basins is essential to the survival and conservation of bull trout, especially the amphidromous life history form. We expect that, as bull trout populations increase in abundance, bull trout use of the Nisqually River and Lake Washington will increase due to the abundant foraging opportunities provided by these systems. Historically, bull trout were reported as abundant in the Nisqually River. In addition, spawning may still occur within the basin as suggested by the recent capture of a smolt-sized bull trout in the Nisqually River delta (C. Ellings, in litt. 2004). These areas therefore, remain in the critical habitat designation.

(121) *Comment:* The proposed critical habitat designation falls short of protecting nearshore habitats essential to the conservation of bull trout by not including the shoreline riparian areas, bluffs, and uplands above the mean higher high water (MHHW) mark. These areas provide lateral recruitment of spawning substrates for surf smelt the principal food source for bull trout in the northern Puget Sound area. With the existing development along the Puget Sound shoreline, the source for suitable spawning gravels for surf smelt is very limited and protection of these last few areas is essential to the conservation of bull trout.

Our Response: We recognize that similar to the influence that riparian and floodplain areas have on stream habitat in freshwater systems, the quality of the habitat within the marine nearshore is intrinsically related to the character of the shoreline riparian areas, bluffs, and uplands, and the human activities that occur above the MHHW mark. Activities that may destroy or adversely modify critical habitat are identified as those that alter the PCEs to an extent that the value of critical habitat for the conservation of bull trout is appreciably reduced, including alterations to foraging habitat and reductions in forage fish abundance. Therefore, although areas above the MHHW mark are not included as critical habitat, in the designation, we recognized the scientific basis for linking the quality of the nearshore environment with the biological and physical processes that occur outside of that environment (see Critical Habitat Designation section below). During section 7 consultations for projects that could cause changes to such areas adjacent to critical habitat, the effects on the critical habitat would be analyzed and protection from adverse modification ensured.

(122) *Comment:* The old Lewis River channel (bypass reach) should be designated as critical habitat.

Our Response: The upper bypass reach was not included in the final critical habitat designation because it does not contain PCEs. Specifically, we do not believe it will support successful bull trout spawning and incubation. The lower segment of the bypass reach from Yale Reservoir to the mouth of Ole Creek is designated as critical habitat, except for that portion of the lower segment covered by the Washington Department of Natural Resources HCP which is excluded under 4(b)(2) (see Exclusions Under Section 4(b)(2) of the Act section below). The remaining lower segment provides foraging, migratory, and overwintering habitat for Yale Reservoir bull trout.

(123) *Comment:* The lower mainstem Lewis River, below Merwin Dam, should not be designated as critical habitat.

Our Response: The lower mainstem Lewis River will provide foraging, migration, and overwintering habitat once fish passage at Merwin, Yale, and Swift Dams is restored. We anticipate increased use by bull trout of the mainstem with these passage improvements. Restoring connectivity among local populations and to the Columbia River is necessary to maintain opportunities for genetic exchange, re-establishment of local populations, and provide access to additional habitat. Recent information documents use of the mainstem Columbia River by adult bull trout for foraging, migration, and overwintering.

(124) *Comment:* WDFW stated that until Condit Dam is removed, it is difficult to justify the designation of the White Salmon River above the dam as critical habitat.

Our Response: There has been a sighting of bull trout in the White Salmon River upstream from Condit Dam as recently as 1989. The designation provides foraging, migration, and overwintering habitat (necessary PCEs) for a potentially remnant population of bull trout within the White Salmon River system. The White Salmon River below Condit Dam is also used by migratory bull trout from other river systems, such as the Hood River. With the restoration of two-way passage at Condit Dam, this will provide access to habitat in the upper White Salmon River for these populations as well.

Oregon

(125) *Comment:* Attributing one third of the consultation costs to bull trout in the economic analysis for the Willamette system is likely too high. Passage modifications at dams in the Willamette would not likely be made solely for bull trout, given the presence of listed salmon and steelhead.

Response: As described in section 2.2.2 of the Final Economic Analysis (FEA), "[n]o clear allocation of costs can be made between these species, as most of the project modifications would be

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sought under both the NOAA and Service consultations." Furthermore, the FEA acknowledges the concern regarding the Willamette. It states" "one-third of estimated costs are allocated to each [salmon, steelhead, and bull trout] species. This is likely to overstate the cost of bull trout conservation rather than understate it, since the primary driving force behind these project modifications is the salmon" (pg. 2–24). As a result, we are not excluding this area from the critical habitat designation based on economics.

(126) *Comment:* The Economic Analysis for critical habitat designations in the Malheur Basin is too high. Some operational changes at Beulah Reservoir have already been implemented and cost less than the annual estimate for Bureau of Reclamation (BOR) provided, and additional activities can be done for less than estimated.

Response: As described in section 4.2.4 of the FEA, BOR submitted a comment on the draft economic analysis stating that its "current average annual cost [associated with bull trout consultation] for the Boise (Anderson Ranch and Arrowrock Reservoirs), Payette (Cascade and Deadwood Reservoirs), Malheur (Buelah and Warm Springs Reservoirs), and Powder (Phillips and Thief Valley Reservoirs) is approximately $250,000 for all projects combined." As five of these reservoirs are currently operating under the terms of section 7 bull trout consultations, including Beulah Reservoir, the finding is that such consultations may result in annual fish passage and research costs of $50,000 per year per reservoir (page 4–25). In addition, we received a letter from Oregon DNR indicating the costs attributed to their basin's designation were too high. The analysis was updated with this new information, as reflected in section 4.2.4 of the Final Economic Analysis. As a result, we are not excluding this area from the critical habitat designation based on economics.

(127) *Comment:* Oregon Department of Fish and Wildlife (ODFW) questioned the exclusion of the John Day Basin based on the subbasin plan and Federal Columbia River Power System (FCRPS) given the uncertainty of the implementation of the management actions on mainstem and tributary streams.

Our Response: Programs, plans, and other authorities used to exclude certain areas that were originally proposed, have been re-evaluated to determine their benefit for exclusion versus the benefit of designating as critical habitat. We have revised the rule to now include this area as critical habitat based on this re-evaluation.

(128) *Comment:* ODFW believes that designations of unoccupied habitat are important for the re-introduction of extirpated populations or expansion of existing populations, and are the most important areas in need of protection.

Our Response: Because there was insufficient information for the Secretary to make a determination that unoccupied areas were essential to the conservation of the species, we have only designated areas of known occupancy that are known to contain the PCEs essential to the conservation of the species. We did not include areas of unknown occupancy in the final critical habitat designation because we did not have adequate information for the Secretary to determine that specific unoccupied areas were essential to the bull trout's conservation. We based this designation on the best scientific and commercial information available. Many streams not included in this designation can and will contribute to bull trout recovery, but do not meet the definition of critical habitat. We evaluated comments documenting stream segments that are not essential and where appropriate, refined this final critical habitat rule (See Summary of Changes from the Proposed Rule section below).

(129) *Comment:* The Clackamas River should be designated as critical habitat.

Our Response: The Clackamas River is not designated as critical habitat because the Service determined it is not essential to the conservation of bull trout in the Willamette River Basin Unit. The Willamette Recovery Unit Team recognized the Clackamas River as core habitat and not a core area based on the lack of data documenting bull trout in the Clackamas River. Bull trout are not known to currently inhabit the Clackamas River, but their presence was documented historically, and the Recovery Unit Team believes that the sub-basin has the necessary habitat elements to support the reintroduction of bull trout. Based on limited historical information, it is unknown whether reproducing bull trout populations existed previously in the Clackamas River.

(130) *Comment:* Critical habitat should be designated as it was in the proposed rule because there is no assurance that within the next 10 years or beyond that funding will be available for implementation. Therefore, the state suggested that critical habitat in Oregon should be re-designated as proposed where these directives have been identified as a reason for excluding.

Our Response: We have evaluated the FCRPS, the Northwest Forest Plan and PACFISH/INFISH, as well as other individual Federal and State programs and directives to determine their benefit for exclusion versus the benefit of designating as critical habitat. Many of these plans provide some level of conservation benefit to bull trout and the habitat they are known to currently occupy. The final rule considers the contribution of each individual plan, considers whether the lands meet the definition of critical habitat, and weighs the benefits of inclusion versus the benefits of exclusion when determining the final critical habitat designation.

Summary of Revisions From the Previous Rules

(1) Unoccupied lands were removed from the designation. Under the Act the Secretary of the Interior may only include unoccupied lands if she finds that those lands are essential to the conservation of the species. In the case of the bull trout, and based on the best scientific data available, it was not possible for the Secretary to make such a determination at this time.

(2) A variety of areas were found to not meet the definition of critical habitat and lands were excluded under section 4(b)(2) of the Act (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section below).

(3) Lands that did not contain sufficient PCEs to support at least one of the species essential biological activities were removed. For example, the Clark Fork River between Missoula and Butte was proposed for designation. Upon further review, it was determined that this site is a superfund site subject to contamination by leaching from mine wastes. Another example is the middle fork of the Boise River, also proposed for designation and also subject to leaching of mining wastes. Proposed critical habitat that did not contain sufficient PCEs to support the species was removed, as was critical habitat where the presence of PCEs was speculative. The Act does not provide for designation based on speculative or prospective presence of PCEs.

(4) The proposed critical habitat designation included a number of reaches to increase connectivity between populations. We received multiple comments that some of the barrier removal proposed to accomplish the connectivity could be detrimental to bull trout populations by providing access to competitor species such as lake trout, brook trout, and rainbow trout. We are removing those reaches pending a site by site determination as to which are appropriate for barrier removal. If necessary, additional critical habitat can be designated once those determinations are made.

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(5) Segments were designated based on the contributions to bull trout life processes. Some segments contained all PCEs and supported multiple life processes. Some segments contained only a portion of the PCEs necessary to support the bull trout's particular use of that habitat. Where a subset of the PCEs were present (*e.g.*, water temperature during migration flows) it has been noted that only PCEs present at designation will be protected. In addition, some of the PCEs were present only at particular times of year, and not present at others. This led to a concern that by designating the area as critical habitat subsequent biological opinions would assume that the PCEs were constantly present, particularly in areas where active management (such as a dam) was present. Two examples of this are temperature and flows. We have designated some streams where appropriate temperatures occur only at specific times of year which coincide with bull trout use; but at other times the stream temperatures are outside the optimal range or may even be fatal to bull trout. We are concerned that our designation may be misinterpreted to require these temperatures be available year round as a result of the designation, particularly when the stream is controlled by upstream structures. Another example is flows. There are streams which are designated as critical habitat that are dry for portions of the year. These streams are designated because they are used by bull trout during portions of the year when the PCEs are present, perhaps for migration or foraging. Again, the assumption that the PCEs are present during the entire year is not appropriate, and could have serious consequences for other parties. Our goal is to ensure that the PCEs are protected when they are present as a result of federal actions but also to avoid inadvertently requiring creation of PCEs where they do not now occur. As a result, we have determined that explicitly placing current ongoing federal actions that create the PCEs in the baseline for the purposes of section 7 consultations under the Act, will protect existing PCEs and require any changes in those federal actions to undergo consultation in order to determine the effect of the changes on critical habitat.

Public comments in general, and particularly technical comments from local, State, and Federal agencies and Native American Tribes, were very useful in focusing the proposal to those areas with the features most essential to the conservation of the species. We held numerous public hearings and public meetings where we received specific technical comments that prompted further internal critical review of the proposal. The peer review process provided constructive criticism from fisheries scientists regarding our approach to developing the critical habitat proposal, as well as technical comments regarding specific proposed critical habitat areas. Through our working relationships with State and Federal agencies, we also received some new information after the proposal was issued, such as new records of bull trout occurrence, evidence of reproduction in some streams, or the lack of such positive survey results, as well as information on conservation actions underway within States.

We revised the stream miles and lake and reservoir acreages for designated critical habitat for those areas not containing features essential to bull trout conservation, based on information supplied by comments received as well as information gained from field visits to some of the sites.

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical 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 geographical 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, as defined under section 3 of the Act means 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 the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

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. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands. Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

To be included in a critical habitat designation, the habitat within the area occupied by the species must first have features that are 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)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2).) 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 geographical area occupied by the species at the time of listing. An area currently occupied by the species but was not known to be occupied at the time of listing will likely but not always be essential to the conservation of the species and, therefore, included in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific and commercial data available. They require Service 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

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recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information is generally the listing package for the species. Additional information sources include the recovery plan for the species, 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. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted 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 the bull trout. In designating critical habitat, we reviewed the approaches to the conservation of the species undertaken by local, State, and Federal agencies; tribal governments; and private individuals and organizations since the species was listed in 1998. We relied on information collected by the bull trout Recovery Unit Teams, which were comprised of Federal, State, tribal, and private biologists, as well as experts from other scientific disciplines such as hydrology and forestry, resource users, and other stakeholders with an interest in bull trout and the habitats they depend on for survival. We reviewed available information concerning bull trout habitat use and preferences, habitat conditions, threats, limiting factors, population demographics, and the known locations, distribution, and abundances of bull trout. We designated no areas outside the geographical area presently occupied by the species.

During our evaluation of information, we also took into account the relatively low probability of detection of bull trout in traditional fish sampling and survey efforts, as well as the limited extent of such efforts across the range of bull trout. Because of their varied life history strategies, nocturnal habits, and low population densities in many areas, the detectability of bull trout in a given area is highly variable (Rieman and McIntyre 1993). In some areas, adult and subadult bull trout make extensive migrations both within and outside their core areas, which makes surveying difficult. Much of the current information on bull trout presence is the product of informal surveys or sampling conducted for other species or other purposes. The primary limitations of informal surveys are that they provide no estimate of certainty (*i.e.*, a measure of the probability of detection), and that they may be inadequate for determining population parameters such as the densities and distribution of the population. The need for a statistically sound bull trout survey protocol has been addressed only recently through the development, by the American Fisheries Society, of a peer-reviewed protocol for determining presence/absence, and potential habitat suitability for juvenile and resident bull trout (Peterson *et al.* 2002). Consequently, we considered all documented occurrences of bull trout in the past 20 years as evidence of occupancy.

We used information gathered during the bull trout recovery planning process, as supplemented by even more recent information developed by State agencies, tribes, U.S. Forest Service, and other entities, in developing this final critical habitat designation. We used data concerning habitat conditions or status of PCEs when available. To address areas where data gaps exist, we solicited expert opinions from knowledgeable fisheries biologists in the local area.

We also reviewed available information pertaining to the habitat requirements of this species. Important considerations in selecting areas for designated critical habitat include factors specific to each river system, such as size (*e.g.*, stream order), gradient, channel morphology, connectivity to other aquatic habitats, and habitat complexity and diversity, as well as rangewide recovery considerations. We took into account that preferred habitat for bull trout ranges from small headwater streams used largely for spawning and rearing, to downstream mainstem portions of river networks used for rearing and FMO habitat.

Our methods included consideration of information regarding habitat essential to maintaining the migratory life history forms of bull trout, in light of the repeated emphasis about the importance of such habitat in the scientific literature (Rieman and McIntyre 1993; Hard 1995; Healey and Prince 1995; Rieman *et al.* 1995; Montana Bull Trout Scientific Group (MBTSG) 1998; Dunham and Rieman 1999; Nelson *et al.* 2002). Material reviewed included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed academic theses and agency reports; and regional GIS overlays. Habitat for movement upstream, downstream and, in some cases, through marine waters is essential for migratory life history forms for spawning, foraging, growth, access to rearing and overwintering areas or thermal refugia (*e.g.*, spring-fed streams in late summer), avoidance of extreme environmental conditions, and other normal behavior. Successful migration requires biologically, physically, and chemically unobstructed routes for movement of individuals. Therefore, our methods included considering information regarding habitat that is essential for movement into and out of larger rivers, because of the importance of such areas to the fluvial form of bull trout. We similarly identified habitat essential for movement between streams and lakes by adfluvial forms and habitat essential for movement into and through marine waters by amphidromous forms.

Migratory corridors also are essential for movement between populations (Fraley and Shepard 1989; Rieman and McIntyre 1993; Rieman *et al.* 1995; Dunham and Rieman 1999). Thus, in addition to considering areas important for migration within populations, our method also included considering

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information regarding migration corridors necessary to allow genetic exchange between local populations. Corridors that allow such movements can support eventual recolonization of unoccupied areas or otherwise play a significant role in maintaining genetic diversity and metapopulation viability (see the June 25, 2004 proposed rule; 69 FR 35767). Because these factors are important in identifying the features and areas that are essential to bull trout conservation, our method included consideration of the various roles that migratory corridors have for bull trout.

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 designate as critical habitat, we consider those physical and biological features (PCEs) that are essential to the conservation of the species, and within areas occupied by the species at the time of listing, 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.

Pursuant to our regulations, we are required to identify the known physical and biological features (PCEs) essential to the conservation of the bull trout. All areas designated as critical habitat for bull trout are occupied, within the species' historic geographic range, and contain sufficient PCEs to support at least one life history function.

Bull trout exhibit a number of life-history strategies. Stream-resident bull trout complete their entire life cycle in the tributary streams where they spawn and rear. Some bull trout are migratory, spawning in tributary streams where juvenile fish usually rear from 1 to 4 years before migrating to either a larger river (fluvial) or lake (adfluvial) where they spend their adult life, returning to the tributary stream to spawn (Fraley and Shepard 1989). These migratory forms occur in areas where conditions allow for movement from upper watershed spawning streams to larger downstream waters that contain greater foraging opportunities (Dunham and Rieman 1999). Resident and migratory forms may be found together, and either form can produce resident or migratory offspring (Rieman and McIntyre 1993). Bull trout in the Coastal-Puget Sound area are believed to include an anadromous form which migrates to saltwater to mature, returning to streams to spawn (64 FR 58912).

Bull trout are opportunistic feeders, with food habits that primarily are a function of size and life history strategy. Resident and juvenile migratory bull trout prey on terrestrial and aquatic insects, macro-zooplankton, and small fish (Donald and Alger 1993; McPhail and Baxter 1996). Adult migratory bull trout feed almost exclusively on other fish (Rieman and McIntyre 1993).

Bull trout have more specific habitat requirements than most other salmonids (Rieman and McIntyre 1993). Habitat components that particularly influence their distribution and abundance include water temperature, cover, channel form and stability, spawning and rearing substrate conditions, and migratory corridors (Fraley and Shepard 1989; Goetz 1989; Watson and Hillman 1997).

Relatively cold water temperatures are characteristic of bull trout habitat. Water temperatures above 15 °Celsius (C) (59 °Fahrenheit (F)) while not lethal are believed to limit their distribution (Fraley and Shepard 1989; Rieman and McIntyre 1996). Although adults have been observed in large rivers throughout the Columbia River basin in water temperatures up to 20 °C (68 °F), Gamett (1999) documented steady and substantial declines in abundance in stream reaches where water temperature ranged from 15 to 20 °C (59 to 68 °F). Thus, water temperature may partially explain the generally patchy distribution of bull trout in a watershed. In large rivers, bull trout are often observed "dipping" into the lower reaches of tributary streams, and it is suspected that cooler waters in these tributary mouths may provide important thermal refugia, allowing them to forage, migrate, and overwinter in waters that would otherwise be, at least seasonally, too warm. Spawning areas often are associated with cold-water springs, groundwater infiltration, and the coldest streams in a given watershed (Pratt 1992; Rieman and McIntyre 1993; Rieman *et al.* 1997).

Throughout their lives, bull trout require complex forms of cover, including large woody debris, undercut banks, boulders, and pools (Fraley and Shepard 1989; Watson and Hillman 1997). Juveniles and adults frequently inhabit side channels, stream margins, and pools with suitable cover (Sexauer and James 1997). McPhail and Baxter (1996) reported that newly emerged fry are secretive and hide in gravel along stream edges and in side channels. They also reported that juveniles are found mainly in pools but also in riffles and runs that they maintain focal sites near the bottom, and that they are strongly associated with instream cover, particularly overhead cover. Bull trout have been observed overwintering in deep beaver ponds or pools containing large woody debris (Jakober 1995). Adult bull trout migrating to spawning areas have been recorded as staying two to four weeks at the mouths of spawning tributaries in deeper holes or near log or cover debris (Fraley and Shepard (1989)).

The stability of stream channels and stream flows are important habitat characteristics for bull trout populations (Rieman and McIntyre 1993). The side channels, stream margins, and pools with suitable cover for bull trout are sensitive to activities that directly or indirectly affect stream channel stability and alter natural flow patterns.

Watson and Hillman (1997) concluded that watersheds must have specific physical characteristics to provide the necessary habitat requirements for bull trout spawning and rearing, and that the characteristics are not necessarily ubiquitous throughout the watersheds in which bull trout occur. The preferred spawning habitat of bull trout consists of low-gradient stream reaches with loose, clean gravel (Fraley and Shepard 1989). Bull trout typically spawn from August to November during periods of decreasing water temperatures (Swanberg 1997). However, migratory forms are known to begin spawning migrations as early as April, and to move upstream as much as 250 km (155 mi) to spawning areas (Fraley and Shepard 1989; Swanberg 1997). Fraley and Shepard (1989) reported that initiation of spawning by bull trout in the Flathead River system appeared to be related largely to water temperature, with spawning initiated when water temperatures dropped below 9–10 °C (48 to 50 °F). Goetz (1989) reported a temperature range from 4 to 10 °C (39 to 50 °F) (Goetz 1989). Such areas often are associated with cold-water springs or groundwater upwelling (Rieman *et al.* 1997; Baxter *et al.* 1999). Fraley and Shepard (1989) also found that groundwater influence and proximity to cover are important factors influencing spawning site selection. They reported that the combination of relatively specific requirements resulted in a restricted spawning distribution in relation to available stream habitat.

Depending on water temperature, egg incubation is normally 100 to 145 days (Pratt 1992). Water temperatures of 1.2 to 5.4 °C (34.2 to 41.7 °F) have been

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reported for incubation, with an optimum (best embryo survivorship) temperature reported to be from 2 to 4 °C (36 to 39 °F) (Fraley and Shepard 1989; McPhail and Baxter 1996). Juveniles remain in the substrate after hatching, such that the time from egg deposition to emergence of fry can exceed 200 days. During the relatively long incubation period in the gravel, bull trout eggs are especially vulnerable to fine sediments and water quality degradation (Fraley and Shepard 1989). Increases in fine sediment appear to reduce egg survival and emergence (Pratt 1992). Juveniles are likely similarly affected. High juvenile densities have been reported in areas characterized by a diverse cobble substrate and a low percent of fine sediments (Shepard *et al.* 1984).

The ability to migrate is important to the persistence of local bull trout subpopulations (Rieman and McIntyre 1993; Gilpin 1997; Rieman and Clayton 1997; Rieman *et al.* 1997). Bull trout rely on migratory corridors to move from spawning and rearing habitats to foraging and overwintering habitats and back. Migratory bull trout become much larger than resident fish in the more productive waters of larger streams and lakes, leading to increased reproductive potential (McPhail and Baxter 1996). The use of migratory corridors by bull trout also results in increased dispersion, facilitating gene flow among local populations when individuals from different local populations interbreed, stray, or return to nonnatal streams. Also, local populations that have been extirpated by catastrophic events may become reestablished as a result of movements by bull trout through migratory corridors (Rieman and McIntyre 1993, Montana Bull Trout Scientific Group (MBTSG) 1998).

While stream habitats have received more attention, lakes and reservoirs also figure prominently in meeting the life cycle requirements of bull trout. For adfluvial bull trout populations, lakes and reservoirs provide an important component of the core foraging, migrating, and overwintering habitat, and are integral to maintaining the adfluvial life history strategy that is commonly exhibited by bull trout. When juvenile bull trout emigrate downstream to a lake or reservoir from the spawning and rearing streams in the headwaters, they enter a more productive lentic environment that allows them to achieve rapid growth and energy storage. Typically, juvenile bull trout are at least two years old and 100 mm (4 inches) or longer upon entry to the lake environment. For the next 2–4 years they grow rapidly. At a typical age of five years or older, when total length normally exceeds 400 mm (16 inches), they reach sexual maturity. The lake environment provides the necessary attributes of food, space, and shelter for the subadult fish to prepare for the rigors of migratory passage upstream to the natal spawning area, a migration that may last as long as six months and cover distances as much as 250 km (155 mi) upriver.

In comparison to streams, lake and reservoir environments are relatively more secure from catastrophic natural events. They provide a sanctuary for bull trout, allowing them to quickly rebound from temporary adverse conditions in the spawning and rearing habitat. For example, if a major wildfire burns a drainage and eliminates most or all aquatic life (a rare occurrence), bull trout subadults and adults that survive in the lake may return the following year to repopulate the system. In this way, lakes and reservoirs provide an important adaptive element of the adfluvial life history strategy.

The construction of reservoirs may have had adverse effects to bull trout, but some reservoirs also have provided benefits. For example, the basin of Hungry Horse Reservoir has functioned adequately for fifty years as a surrogate home for stranded Flathead Lake bull trout trapped upstream of the dam when it was completed. While this is an artificial impoundment, the habitat the reservoir provides and the presence of an enhanced prey base of native minnows, suckers, and whitefish within the reservoir sustain a large adfluvial bull trout population. Additionally, while barriers to migration are often viewed as a negative consequence of dams, the connectivity barrier at Hungry Horse Dam has also served an important, albeit unintended, function in restricting the proliferation of nonnative *Salvelinus* species (brook trout and lake trout) from downstream areas upstream above the dam. Additional information related to bull trout biology can be found in our administrative record.

Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that the bull trout's PCEs are:

(1) Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72 °F (0 to 22 °C) but are found more frequently in temperatures ranging from 36 to 59 °F (2 to 15 °C). These temperature ranges may vary depending on bull trout life history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence. Stream reaches with temperatures that preclude any bull trout use are specifically excluded from designation;

(2) Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures;

(3) Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch (0.63 centimeter) in diameter.

(4) A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, currently operate under a biological opinion that addresses bull trout, or a hydrograph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation;

(5) Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source;

(6) Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows;

(7) An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish;

(8) Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited.

This designation protects PCEs necessary to support the life history functions which were the basis for the designation. Because not all life history functions require all the PCEs, not all habitat will contain all the PCEs.

Each of the areas designated in this rule have been determined to contain sufficient PCEs to provide for one or more of the life history functions of the bull trout. In some cases, the PCEs exist as a result of ongoing federal actions. As a result, ongoing federal actions at the time of designation will be included in the baseline in any consultation conducted subsequent to this designation.

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Criteria Used To Identify Critical Habitat

We are designating critical habitat on lands that we have determined are occupied at the time of listing and contain sufficient primary constituent elements to support life history functions essential for the conservation of the species. We reevaluated the proposed designations based on public comment, peer review of the proposed rules and the draft Recovery Plans, the economic analyses of the proposed rules, and the public comments on those analyses, and other available information, to ensure that the designation accurately reflects habitat with the PCEs that is essential to the conservation of the species.

This critical habitat designation focuses primarily on the maintenance of populations by (1) protecting sufficient amounts of spawning and rearing habitat in upper watershed areas; (2) providing suitable habitat conditions in downstream rivers and lakes to provide foraging and overwintering habitat for fluvial and adfluvial fish; and (3) maintaining migratory routes and the potential for gene flow between populations by maintaining habitat conditions that allow for fish passage.

To be included as critical habitat, a critical habitat unit (CHU) had to be occupied by the species and contain sufficient PCEs to provide for one or more of the following three functions: (1) Spawning, rearing, foraging, or overwintering habitat to support existing bull trout local populations; (2) movement corridors necessary for maintaining migratory life-history forms; and/or (3) suitable occupied habitat that is essential for recovering the species.

A brief discussion of each area designated as critical habitat is provided in the unit descriptions below. Additional detailed documentation concerning the essential nature of these areas is contained in our administrative record for this rulemaking.

Non-Inclusions Under Section 4(a)(3)

The Sikes Act Improvement 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 on the base. 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 National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 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."

We consult with the military on the development and implementation of INRMPs for installations with listed species. INRMPs developed by military installations located within the range of critical habitat designated for the Columbia and Coastal-Puget Sound populations of bull trout were analyzed for non-inclusion under the authority of 4(a)(3) of the Act.

The Bayview Acoustic Research Detachment (ARD) Naval Surface Warfare Center, Bayview, ID, has an approved INRMP. This property includes approximately 22 ac (9 ha) of developed land on the shore of Lake Pend Oreille and 16 ac (7 ha) of lake area. There are no tributary streams within this area utilized by bull trout for spawning or early life rearing, but the lake area does contain important FMO habitat for bull trout.

Designating critical habitat on Bayview ARD could impact their role in supporting ongoing U.S. Navy research, development, test, and evaluation programs in underwater acoustics. These efforts include the use of large scale models to simulate the characteristics of current and future Navy submarines in order to develop and evaluate advances in submarine silencing technology. Performing acoustic testing on large scale models provides the same accuracy as testing on actual submarines at a significantly lower cost. Bayview ARD is the only Navy facility capable of testing large scale models for hull-induced flow noise and propulsor noise, and the knowledge gained from these tests are directly applied to reducing the detectability of Navy submarines (Department of the Navy 2003). Bayview ARD's INRMP outlines protection and management strategies for natural resources on the center, including fish species and their habitats.

The plan benefits bull trout through the protection of kokanee salmon spawning habitat, a primary food source for bull trout. The ARD Bayview property in Scenic Bay hosts from 40–70 percent of the kokanee spawning activity in Lake Pend Oreille, depending on the year. The INRMP includes measures to minimize impacts to kokanee habitat by limiting facility boat traffic during spawning periods (November-December), and implementing sediment control measures. Furthermore, interpretive signs have been placed throughout the property to educate employees and the public regarding various aspects of the regions natural resources, threatened or endangered species (including bull trout), and geological history. The INRMP requires the natural resource manager to provide an all hands ARD INRMP awareness training to facilitate INRMP implementation.

Eurasian watermilfoil was identified in the northern part of Lake Pend Oreille during the winter of 2002. Following identification and mapping of invasive species at ARD Bayview, a plan will be developed under the INRMP to control invasive species at the facility and to limit their spread to adjacent lands. Eurasian watermilfoil chokes waterways and near shore environments used by bull trout and their prey species.

Based on the above considerations, and consistent with the direction provided in section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the final INRMP will provide benefits to the bull trout occurring in the lake area within or adjacent to the Bayview ARD. Approximately 16 ac (7 ha) of essential habitat is not included in this critical habitat designation. Therefore, we are not including critical habitat for bull trout on this installation pursuant to section 4(a)(3) of the Act.

The Naval Radio Station Jim Creek, Naval Station Everett, Naval Air Station Whidbey Island, and the Army's Fort Lewis Installation (Fort Lewis) are all located in western Washington and all have approved INRMPs. We have

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examined the INRMPs for these military installations to determine coverage for the bull trout. The Naval Radio Station Jim Creek INRMP provides for (1) restoration of riparian buffers along Jim Creek, (2) protection to Jim Creek from erosion and sedimentation, and (3) protection to Jim Creek from contaminants and herbicides. The Naval Station Everett's INRMP benefits bull trout by providing (1) protection to bull trout in the marine environment from oil spills around the berthing naval vessels, (2) bioswales to prevent the release of toxins, contaminants and oils from reaching the water column through storm drains, and (3) the restoration of riparian habitat on Navy lands located along the Middle Fork Quilceda Creek. Naval Aviation Station Whidbey Island's INRMP benefits bull trout through (1) monitoring and managing livestock grazing, (2) managing road building and maintenance to prevent erosion and sedimentation of bull trout habitat, (3) assuring proper disposal of hazardous materials, and (4) implementation of the Integrated Pest Management plan's best management practices to protect aquatic environments. The INRMP for the U.S. Army, Fort Lewis, benefits bull trout through (1) the protection and enhancement of wetlands, which include marshes, lakes, rivers and streams; all wetlands are protected with 300 foot-wide riparian buffers to maintain cold water temperatures, prevent sediment from entering the streams and provide for woody debris, (2) control of invasive plant species which often diminishes water quality and impacts native plants and animals, and (3) restoring salmon spawning habitat and access to increase salmon productivity which contributes to and enhances the bull trout prey base. In addition, the Navy conducts essential training and testing within the marine waters of Crescent Harbor and Dabob Bay. These activities are conducted in open marine waters not controlled by the military, and are not included in adjacent military INRMPs. However, because these training and testing activities are essential for national security, they have been excluded from the final designation of critical habitat under section 4(b)(2) of the Act.

These military installations with INRMPs do not have streams that are utilized by bull trout for spawning and rearing. The Naval Radio Station Jim Creek occurs in the Jim Creek watershed. The lower reaches of Jim Creek provide foraging habitat for subadult and adult bull trout. The Naval Station Everett and Naval Air Station Whidbey Island property includes land on or near the shores of Puget Sound that contains important foraging and migration habitat for amphidromous bull trout. Fort Lewis borders the Nisqually River and Puget Sound where the mainstem Nisqually River and Puget Sound nearshore bordering this property contain important foraging and migration habitat for amphidromous bull trout.

Habitat features essential to bull trout conservation exists within or immediately adjacent to these military installations. Designating critical habitat on these military installations may impact their role in supporting ongoing military exercises and operations that occur at these locations. These military installations all have approved INRMPs, and activities occurring on these properties are currently being conducted in a manner that minimizes impacts to bull trout habitat. In addition, these installations already consult with us on their actions (including those occurring in the open water training and testing areas) that may have adverse affects to bull trout and their habitat under section 7 requirements.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the INRMPs will provide benefits to the bull trout occurring in streams within or adjacent to Naval Radio Station Jim Creek, Naval Air Station Whidbey Island, and Fort Lewis. Approximately 25 mi (40 km) of essential habitat is not included in this critical habitat designation. Therefore, we are not including critical habitat for bull trout on these installations pursuant to section 4(a)(3) of the Act.

Section 3(5)(A) and Exclusions Under Section 4(b)(2)

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (i) essential to the conservation of the species, and (ii) which may require special management considerations or protection. Therefore, areas within the geographic area occupied by the species that do not contain the features essential to the conservation of the species are not, by definition, critical habitat. Similarly, areas within the geographic area occupied by the species that require no special management or protection also are not, by definition, critical habitat.

There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent, overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

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. The Secretary may exclude an area from critical habitat if [s]he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [s]he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Secretary is afforded broad discretion and the Congressional record is clear that in making a determination under the section the Secretary has discretion as to which factors and how much weight will be given to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine

whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we considered.

Relationship Between Adverse Modification and Jeopardy in Bull Trout and Bull Trout Critical Habitat Consultations

In *Gifford Pinchot Task Force* v. *United States Fish and Wildlife Service*, the Ninth Circuit held that the Service's regulatory definition of "destruction or adverse modification" was contrary to the ESA because it required an affect on the survival of the species, in addition to an effect on recovery. In response, on December 9, 2004, the Acting Director of the Service issued guidance on conducting section 7 consultations with respect to critical habitat until a new regulatory definition could be put in place. The analytical framework presented in this memo directs us to consider whether, with implementation of the proposed action, critical habitat would remain functional to serve the intended conservation role for the species.

Although *Gifford Pinchot* provides guidance regarding the interpretation of the statutory phrase "destruction or adverse modification," it does not directly speak to the meaning of "jeopardy." In order to determine the benefits of including or excluding an area as critical habitat, we must consider the application of both of these terms, and how they will be affect the outcomes of future section 7 consultations regarding bull trout.

In its jeopardy determinations under bull trout Section 7 consultations, the Service uses an analytical framework that relies heavily on the importance of core area populations to the survival and recovery of the bull trout. This has been the case for all jeopardy consultations on the bull trout. These analyses have focused not only on the core area populations but also on the habitat conditions necessary to support them; they have addressed the survival and recovery needs of the bull trout in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted. This approach is predicated on the Service's regulatory definitions of "harm" and "take" which explicitly require a consideration of an agency action's effects on habitat, whether or not it is designated as critical.

Subsequent to the 9th circuit's decision in *Gifford Pinchot* the Service has conducted both a jeopardy and adverse modification analysis for consultations involving critical habitat. In conducting the adverse modification analysis, the Service has applied the analytical framework described in the Director's December 9, 2004, memorandum. The ultimate question in this analysis is whether, with implementation of the proposed Federal action, the primary constituent elements of affected critical habitat would remain functional to serve the intended conservation role for the bull trout. Generally, the conservation role of bull trout critical habitat units is to support viable core area populations, as a result, adverse modification to that habitat would result in both a jeopardy determination or an adverse modification determination. This leads to the conclusion, in the particular case of bull trout that very few examples of adverse modification can occur without also triggering a jeopardy finding.

Some consultations (14 informals, 8 formals) on bull trout critical habitat have been conducted in the 9 months since the original designation. These consultations have not resulted in outcomes for Federal action agencies different than those that would have resulted in consultations purely under the jeopardy standard. As stated earlier, this result is due in particular to the manner in which the Service conducts jeopardy analyses for the bull trout (by focusing on protection of core area populations and their habitats, without making a distinction between effects on survival versus recovery. The approach is consistent with the *Gifford Pinchot* court's guidance with respect to adverse modification, because it is based on a standard that gauges the action's effect on conservation rather than survival which is consistent with the court's direction that the Agency go beyond merely a requirement that the Federal action cause an effect on bull trout survival in order to constitute adverse modification.

We also note that in the 200 or so formal consultations completed since the bull trout was listed, most of the anticipated effects of proposed Federal actions on the species have not been biologically significant from a core-area perspective, and if these actions had been subject to the adverse modification standard described above, they would not likely have violated it. Based on our analysis of 137 formal consultations conducted during the period 1998–2003, the following types of projects were proposed in bull trout-occupied habitat, in order of frequency (most to least): Multiple project actions, grazing, road work, bridge work, habitat restoration, land and resource management plans, mining, hydropower, timber harvest, recreation, water diversion/irrigation, research, land exchange, flood control, erosion control, pipeline construction, predator control, landslide remediation, instream crossings, weed management, dredging, and levee repair.

However, at least one major Federal action involving significant modifications to natural flow patterns in designated critical habitat is currently in formal consultation, and it is likely (based on recent litigation patterns and outcomes) that the number of diversion-related Federal actions consulted on, some of which may occur in critical habitat, will increase in the future. Water quality and quantity are significant factors (and primary constituent elements) influencing the viability of bull trout core areas. Given that context, it seems reasonable to predict that a few Federal actions will be found to adversely modify bull trout critical habitat; most of these actions would probably also constitute jeopardy.

This analysis would be different in the case of critical habitat designated in unoccupied areas or if currently occupied areas subsequently become unoccupied. In such cases, different outcomes/requirements of consultation on critical habitat are much more likely. In the first case, designated unoccupied habitat, there would not necessarily be a requirement for a Section 7 consultation in the absence of a critical habitat designation. This is consistent with the 9th Circuit's decision in *Defenders of Wildlife* v. *Flowers et al. 2005*, 414 F.3d 1066 (2005), which upheld a "no effect" determination by the U.S. Army Corps of Engineers in circumstances in which "no pygmy-owls had been found to live within either project area. This designation only designates critical habitat in areas we have defined to be occupied, and so the benefits attributable to unoccupied habitat designation will not accrue. The second situation identified, whereby current populations disappear, theoretically provides a similar benefit. However, as a practical matter, it is unlikely that such a benefit would accrue in the foreseeable future as this rule defines occupied habitat as habitat that has documented occupancy within the past 20 years (see the previous discussion for the basis of the definition). Based on the FWS definition of occupied habitat, it would be at least

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20 years until the protections of a jeopardy consultation, with its appurtenant habitat considerations, were removed. Accordingly, we do have a basis for believing that in the particular case of this bull trout critical habitat, designation in the particular case of the bull trout would not result in significantly different protections to the species.

Benefits of Designating Critical Habitat in the Absence of Other Conservation Efforts

The designation of critical habitat provides some benefits all the time and may in certain circumstances provide conservation benefits that would not otherwise be provided. We have identified three types of possible benefits. First, there are educational benefits. Second, there are circumstances where additional protections under other regulatory mechanisms are triggered by a designation. For example PACFISH/INFISH has particular protections triggered by a designation and some states have regulatory regimes that employ the existence of designated critical habitat as a trigger for protection. Third, in the instance that a future Federal action would be likely to adversely modify critical habitat but not likely to jeopardize the continued existence of the species, the designation would provide a benefit.

The benefit of including lands in critical habitat is that the designation of critical habitat serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. This helps focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for bull trout. In general the educational benefit of a critical habitat designation always exists although in some cases it may be redundant with other educational effects (for example habitat conservation plans have significant public input and may largely duplicate the educational benefit of a critical habitat designation). This benefit is closely related to a second, more indirect benefit; in that designation of critical habitat would inform State agencies and local governments about areas that could be conserved under State laws or local ordinances, such as the Washington State Growth Management Act or Washington State Shoreline Management Act which encourage the protection of "critical areas" including fish and wildlife habitat conservation areas based on the best available science. Designating critical habitat could lead to additional State or local restrictions for the landowner, on-top of conservation measures already in place. The benefit could accrue as a result of an automatic "triggering" based on existing law, or through specific, subsequent actions designed to protect the species. However, to the extent that local and state governments wish to provide additional protection for listed species' habitats, there are numerous alternative approaches to achieve that end. For example, recovery plans or proposed critical habitat can form the basis for such additional protections. State and local agencies have independent authority to adopt such protections and do not require Federal authorization or direction to do so. Because of that, we view this benefit as indirect as it is not required to achieve the additional protection.

The most direct, and potentially largest regulatory benefit of critical habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they are not likely to destroy or adversely modify critical habitat. There are two limitations to this regulatory effect. First, it only applies where there is a Federal nexus—if there is no Federal nexus, designation itself does not restrict actions that destroy or adversely modify critical habitat. Second, it only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to unsure those areas that contain the physical and biological features essential to the conservation of the species or unoccupied areas that are essential to the conservation are not eroded. Critical habitat designation alone, however, does not require specific steps toward recovery. When consultation does take place, the analysis of whether the Federal action destroys or adversely modifies critical habitat makes a determination regarding the effect of the action on the species conservation, consistent with the holding of *Gifford Pinchot*, discussed above. It is important to note that even though, consistent with *Gifford Pinchot*, the prohibition on adverse modification can be triggered without a showing of an effect on survival (in other words, a negative effect on the conservation of the species can trigger the prohibition), designation of critical habitat does not require actions to recover the species beyond what may be necessary to address potential adverse modification impacts on critical habitat that supports recovery. There are tools (*e.g.*, HCPs) that can encourage or require habitat restoration or improvement and other positive steps to help move species closer to being recovered.

Another significant limitation on the benefits of designating critical habitat is the fact that as long as the area in question is occupied, consultation would in any case be required to ensure that the action was not likely to jeopardize the species. The areas that were proposed for designation are all currently occupied by bull trout. Therefore, designation of these areas could have a substantive regulatory effect in two circumstances: (1) The Service consults on a future Federal action, does both jeopardy and adverse modification analyses, and concludes that the action would likely adversely modify critical habitat but not jeopardize the species, or (2) the range of the bull trout contracts prior consultation, such that the area is no longer subject to jeopardy consultation, but the action would be likely to adversely modify critical habitat.

Regarding the first of these circumstances, and in a discussion specific to bull trout, as discussed above, in analyzing whether Federal actions might jeopardize the continued existence of the bull trout, the Service has focused on the viability of core area populations, without making distinctions between what is necessary for survival versus recovery. Because with respect to the bull trout the Service views the conservation role of critical habitat units as supporting viable core area populations, the Service anticipates that few Federal actions (but not necessarily none) would adversely modify critical habitat but not jeopardize the species.

Regarding the second of these circumstances, for each exclusion, the Service considered the possibility of local bull trout extirpation in the affected stream reaches given the data available. In general, the Service does not anticipate significant extirpations in the areas excluded, although such an event cannot be completely ruled as stochastic events such as a conflagration have in the past completely destroyed populations. If such an event was to occur, and an entire population was extirpated, the designation of critical habitat could provide important protection to the habitat to preserve it for eventual recolonization or reintroduction. However, as noted earlier, as a practical matter, the Service would consider the habitat occupied for 20 years subsequent to the temporal extirpation, providing ample opportunity for restoration of the population.

Notwithstanding the limitations discussed above, in those instances in

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which the jeopardy prohibition and other applicable protections would not adequately conserve bull trout habitat from the effects of Federal actions, designation of critical habitat could help ensure the integrity of bull trout habitat is maintained. For example, if a federally funded road project was proposed to go across lands that were designated as critical habitat, a consultation would need to be conducted to ensure the designated critical habitat was not destroyed or adversely modified to the point of appreciably diminishing its habitat features essential to bull trout recovery. The designation could therefore result in modifications to the Federal project to protect bull trout habitat.

To the extent that designation results in changes to actions that have a negative effect on bull trout habitat, minimizing or mitigating that effect, or results in additional actions to benefit bull trout habitat (*e.g.*, as a result of disseminating information), designation could benefit bull trout conservation. If the designation provided additional conservation, it could have direct benefits, such as those typically captured in an economic analysis which include, increased tourism or recreational activity. In addition, there could be intangible benefits that accrue to society in general and individuals in direct proportion to the value that society and individuals place on such intrinsic values as existence values and environmental goods.

Conservation Partnerships on Non-Federal Lands

Most federally listed species in the United States will not recover without the cooperation of non-federal landowners. More than 60% of the United States is privately owned (National Wilderness Institute 1995) and at least 80% of endangered or threatened occur either partially or solely on private lands (Crouse *et al.* 2002). Stein *et al.* (1995) found that only about 12% of listed species were found almost exclusively on Federal lands (*i.e.*, 90–100% of their known occurrences restricted to Federal lands) and that 50% of federally listed species are not known to occur on Federal lands at all.

Given the distribution of listed species with respect to land ownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-federal landowners (Wilcove and Chen 1998, Crouse *et al.* 2002; James 2002). Building partnerships and promoting voluntary cooperation of landowners is essential to understanding the status of species on non-federal lands and is necessary to implement recovery actions such as reintroducing listed species, habitat restoration, and habitat protection.

Many non-Federal landowners derive satisfaction in contributing to endangered species recovery. The Service promotes these private-sector efforts through the Four Cs philosophy—conservation through communication, consultation, and cooperation. This philosophy is evident in Service programs such as HCPs, Safe Harbors, CCAs, CCAAs, and conservation challenge cost-share. Many private landowners, however, are wary of the possible consequences of encouraging endangered species to their property, and there is mounting evidence that some regulatory actions by the Federal government, while well-intentioned and required by law, can under certain circumstances have unintended negative consequences for the conservation of species on private lands (Wilcove *et al.* 1996, Bean 2002, Conner and Mathews 2002, James 2002, Koch 2002, Brook *et al.* 2003). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability, resulting in anti-conservation incentives because maintaining habitats that harbor endangered species represents a risk to future economic opportunities (Main *et al.* 1999, Brook *et al.* 2003).

The purpose of designating critical habitat is to contribute to the conservation of threatened and endangered species and the ecosystems upon which they depend. The outcome of the designation, triggering regulatory requirements for actions funded, authorized, or carried out by Federal agencies under section 7 of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main *et al.* 1999, Bean 2002, Brook *et al.* 2003). The magnitude of this negative outcome is greatly amplified in situations where active management measures (*e.g.*, reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002).

The Service believes that the judicious use of excluding specific areas of non-federally owned lands from critical habitat designations can contribute to species recovery and provide a superior level of conservation than critical habitat alone. For example, less than 17% of Hawaii is federally owned, but the state is home to more than 24% of all federally listed species, most of which will not recover without State and private landowner cooperation. On the island of Lanai, Castle and Cooke Resorts, LLC, which owns 99% of the island, entered into a conservation agreement with the Service. The conservation agreement provides conservation benefits to target species through management actions that remove threats (*e.g.* axis deer, mouflon sheep, rats, invasive nonnative plants) from the Lanaihale and East Lanai Regions. Specific management actions include fire control measures, nursery propagation of native flora (including the target species) and planting of such flora. These actions will significantly improve the habitat for all currently occurring species. Due to the low likelihood of a Federal nexus on the island we believe that the benefits of excluding the lands covered by the MOA exceeded the benefits of including them. As stated in the final critical habitat rule for endangered plants on the Island of Lanai:

> On Lanai, simply preventing "harmful activities" will not slow the extinction of listed plant species. Where consistent with the discretion provided by the Act, the Service believes it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation. While the impact of providing these incentives may be modest in economic terms, they can be significant in terms of conservation benefits that can stem from the cooperation of the landowner. The continued participation of Castle and Cooke Resorts, LLC, in the existing Lanai Forest and Watershed Partnership and other voluntary conservation agreements will greatly enhance the Service's ability to further the recovery of these endangered plants.

Secretary Norton's Four Cs philosophy—conservation through communication, consultation, and cooperation—is the foundation for developing the tools of conservation. These tools include conservation grants, funding for Partners for Fish and Wildlife Program, the Coastal Program, and cooperative-conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program provide assistance to private land owners in their voluntary efforts to protect threatened, imperiled, and endangered

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species, including the development and implementation of HCPs.

Conservation agreements with non-Federal landowners (*e.g.*, Habitat Conservation Plans (HCPs), contractual conservation agreements, easements, and stakeholder-negotiated State regulations) enhance species conservation by extending species protections beyond those available through section 7 consultations. In the past decade we have encouraged non-Federal landowners to enter into conservation agreements, based on a view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through coercive methods (61 FR 63854; December 2, 1996).

Conservation Efforts for Aquatic Systems in the Pacific Northwest

As discussed below, much of the area that contains the physical and biological features essential for the conservation of bull trout have not been included within this final critical habitat designation. In large part, this is a result of existing management and conservation regimes that apply to watersheds in the Pacific Northwest. These and other state and local conservation planning efforts provide an exceptional level of cooperative conservation for bull trout and other salmonids.

Analysis of Particular Plans and Areas Under Sections 3(5)(A) and 4(b)(2) (For a complete documentation of our 3(5)(a) comparison of the protections of a critical habitat designation and the provisions of the management plans, please refer to the administrative record. For a complete documentation of our and 4(b)(2) analyses, please refer to our supporting document.)

Nisqually National Wildlife Refuge

The Comprehensive Conservation Plan (CCP) for the Nisqually National Wildlife Refuge (Refuge) was finalized in August 2004 and the ROD was signed on November 1, 2004. The Refuge encompasses the lower Nisqually River and delta, one of the few undeveloped large estuaries remaining within Puget Sound in Washington, and provides important FMO habitat for amphidromous bull trout. The CCP will guide management of Refuge operations, habitat restoration, and visitor services for the next 15 years. The preferred alternative maximizes estuarine restoration by increasing the current amount of FMO habitat for amphidromous bull trout in south Puget Sound, while still providing freshwater wetlands and riparian habitat on the Refuge. Restoration of the estuary is expected to result in increased primary production and thus increased food availability for nearly all fish species which depend upon estuarine and shallow marine habitats for survival, including prey fish species preferred by bull trout. We believe the CCP provides the appropriate special management required for the conservation of bull trout PCEs in this area and is, therefore, not appropriate for designating as critical habitat.

Tribal Lands

The longstanding and distinctive relationship between 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.

We identified tribal lands within proposed critical habitat where there was a tribal management or conservation plan, or the commitment to establish such a plan, that provided benefits to bull trout and considered whether or not to exclude these lands from critical habitat under subsection 4(b)(2) of the Act. Tribal lands meeting these criteria are: Confederated Tribes of Warm Springs (CTWS) in the Columbia River population; Blackfeet Nation in the Saint Mary/Belly River population; and Swinomish Tribe, Quinault Indian Nation, Muckleshoot Tribe, Jamestown S'Klallam Tribe, Hoh Tribe, and Skokomish Tribe Reservations and tribal lands within the Puget Sound-Coastal population. These tribes have played a significant role in the development of HCPs, local watershed plans, other habitat plans, or have conducted numerous habitat restoration and research projects designed to protect or improve habitat for listed species.

The CTWS has a long history of carrying out proactive conservation actions on their lands. Our dialog with CTWS has led us to believe that their resource management strategy is largely compatible with bull trout conservation. The CTWS have cooperated with Federal and State agencies, and private organizations to implement voluntary proactive conservation activities on their lands that have resulted in tangible conservation benefits for bull trout. We expect this cooperation, and the fruit that it bears (*i.e.*, bull trout conservation), to continue.

The Blackfeet Nation has demonstrated a commitment to conservation, protection, and enhancement of the fishery resource on the Blackfeet Reservation. The tribe has supported and participated in Service studies to gather data for assessing effects of the Milk River Irrigation System on bull trout within the Saint Mary River drainage. They have changed angling regulations on their reservation to maximize bull trout protection since the species was listed. The tribe has also participated in the bull trout recovery planning process and has recently made a commitment to complete a tribal bull trout management plan (W.A. Talks About, Blackfeet Tribal Business Council, in litt. 2005).

The Swinomish Tribe has a management plan that addresses surface water resources of the Swinomish Reservation, including marine tidelands, an artificial marine channel, estuarine wetlands, small streams, and freshwater wetlands. The management plan is based on existing knowledge and ongoing studies, active conservation practices, ordinances, and current management plans. It will be updated with new information obtained from ongoing surveys, habitat assessments, and other planning processes. The plan consists of regulation and implementation of updated tribal laws to protect habitat, control development, reduce pollution within the boundaries of the Reservation, restore habitat and remove fish passage barriers to contribute proactively to species recovery.

The Quinault Indian Nation and the Bureau of Indian Affairs (BIA) recently developed a forest management plan (FMP) for the entire Quinault Indian Reservation. The FMP covers all forestland (about 173,000 ac (70,011 ha)) under tribal and BIA timber management, including individual Indian-owned trust and tribally owned land. Included in the area of the FMP are the lower Quinault River, the tributaries of the lower Quinault River, the lower Queets River, the Salmon River (including the Middle and South Fork Salmon Rivers), portions of the Raft River, and portions of the Moclips River. The FMP is a 10-year plan covering the period from October 2002 through September 2012. The FMP is being implemented by the Quinault Department of Natural Resources and the BIA Taholah Field Office. Although some adverse effects to the bull trout are expected during implementation of the

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plan, it is expected to provide for bull trout conservation needs.

The Skokomish Tribe has provided aquatic resource protection and restoration through a number of collaborative efforts on their reservation and other trust lands. The tribe has been working regularly with landowners, local governments, and others to implement and fund voluntary efforts that provide conservation benefits to salmonids, including bull trout. These cooperative efforts include a variety of investigative assessments, restoration and enhancement projects, property acquisitions, and floodplain/river reach analysis.

The Muckleshoot Tribe has demonstrated a commitment to conservation, protection, and enhancement of fish resources both on and off the Muckleshoot Reservation. For example, the tribe has designated all areas of the White River within its reservation, from "bluff to bluff," as a conservation zone. The tribe has also been a leading participant in gathering data for Lake Washington and preparing a Lake Washington Recovery Plan.

The Jamestown S'Klallam Tribe has a record and reputation as a participant and leader in the planning and implementation of salmonid habitat protection and restoration efforts. The tribe is dedicated to coordinating with NOAA Fisheries, the Service, and with the State of Washington in the spirit of co-management, and is also involved in active consultation and in multiple programs to protect listed salmonid species.

The Hoh Tribe has an FMP that demonstrates a commitment to protect bull trout habitat on or adjacent to its reservation. This forestry plan designates major portions of the floodplain and riparian zones adjacent to streams on the current reservation landscape for conservancy, and is filed with the BIA.

(1) Benefits of Inclusion

The principal benefit of any designated critical habitat is that Federal activities will require section 7 consultations to ensure that adequate protection is provided to avoid adverse modification or destruction of critical habitat. This would provide an additional benefit beyond that provided under the jeopardy standard. In evaluating project effects on critical habitat, the Service must be satisfied that the primary constituent elements (PCEs) of the critical habitat likely will not be altered or destroyed by proposed activities to the extent that the conservation of the affected species would be appreciably reduced. If critical habitat were designated in areas of unoccupied habitat or currently occupied areas subsequently become unoccupied, different outcomes/requirements are also likely since effects to unoccupied areas of critical habitat are not likely to trigger the need for a jeopardy analysis.

In *Sierra Club* v. *Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001), the Fifth Circuit Court of Appeals stated that the identification of habitat essential to the conservation of the species can provide informational benefits to the public, State and local governments, scientific organizations, and Federal agencies. The court also noted that critical habitat designation may focus and heighten public awareness of the plight of listed species and their habitats. Designation of critical habitat may contribute to conservation efforts by other parties by delineating areas of high conservation value for the bull trout.

(2) Benefits of Exclusion

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 bull trout; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species; (4) continued respect for tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs; (5) to the extent designation would provide any additional protection of bull trout habitat, costs associated with that protection would be avoided; (6) exclusion would reduce administrative costs of section 7 consultation (as discussed above, these costs are unlikely to lead to additional actual protection for bull trout habitat).

We believe that excluding these tribal lands from critical habitat will help maintain and improve our partnership relationship by recognizing their positive contribution to bull trout conservation. It will also reduce the cost and logistical burden of regulatory oversight. We believe this recognition will provide other landowners with a positive incentive to undertake voluntary conservation activities on their lands, especially where there is no regulatory requirement to implement such actions.

Tribal cooperation and support is required to prevent extinction and promote the recovery of the bull trout due to the need to implement proactive conservation actions. Future conservation efforts will require the cooperation of these tribes. Exclusion of their lands from this critical habitat designation will help us maintain and improve our partnership with them by formally recognizing the positive contributions these tribes have made to bull trout recovery, and by streamlining or reducing unnecessary regulatory oversight.

These tribes have cooperated with us to implement proactive conservation measures. They have cooperated with Federal and State agencies, and private organizations to implement voluntary conservation activities on their lands that have resulted in tangible conservation benefits.

Where consistent with the discretion provided by the Act, we believe it is necessary to implement policies that provide positive incentives to voluntarily conserve natural resources and remove or reduce disincentives to conservation. Thus, we believe it is essential for the recovery of bull trout to build on continued conservation activities with these tribes, to provide positive incentives implementing voluntary conservation activities, and to respect tribal concerns about incurring incidental regulatory or economic impacts.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

It is possible, although unlikely, that Federal actions will be proposed that would be likely to destroy or adversely modify the habitat proposed as critical within the area governed by the above tribes. If such a project was proposed, due to the specific way in which jeopardy and adverse modification are analyzed for bull trout, discussed in detail above, it would likely also jeopardize the continued existence of the species. Few additional benefits are provided by including these tribal lands in this critical habitat designation beyond what will be achieved through the implementation of the existing tribal management/conservation plans. In addition, we expect that the benefit of informing the public of the importance of this area to bull trout conservation would be slight. Therefore, we assign relatively little weight to the benefits of designating this area as critical habitat.

In contrast, although the benefits of encouraging participation in tribal management plans, and, more broadly, helping to foster cooperative conservation are indirect, enthusiastic

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tribal participation and an atmosphere of cooperation are crucial to the long-term effectiveness of the endangered species program. Therefore, we assign great weight to these benefits of exclusion. To the extent that there are regulatory benefits of including, there would be associated costs that could be avoided by excluding the area from designation. However, as we expect the regulatory benefits to be slight, we likewise give little weight to avoidance of those associated costs, as well as the additional transaction costs related to section 7 compliance. Finally, we recognize the importance of the trust and sovereignty of the tribes, and therefore assign great weight to these benefits of exclusion.

Therefore, we have determined that the benefits of inclusion for the tribes mentioned above are small, while the benefits of exclusion are more significant. Therefore, the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of the bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation.

Military Lands

The Navy conducts essential open water training and testing within the marine waters of Crescent Harbor and Dabob Bay, located within Puget Sound on the eastside of Whidbey Island and within the Hood Canal fiord, respectively. These areas encompass important marine nearshore habitat used by amphidromous bull trout for foraging and migration. NUWC Keyport provides state-of-the-art infrastructure and capabilities in the Pacific Northwest that have been essential to the Navy's comprehensive underwater test and evaluation programs for undersea weapons, unmanned undersea vehicles, and related combat systems, as well as to the training of Fleet personnel at the NUWC Keyport facilities. NUWC Keyport testing and training activities to support military readiness requires precision underwater tracking capabilities, underwater range sites that offer diverse environments, and varied water depths to meet their mission of test and evaluation of underwater systems. Because these activities are conducted in open marine waters, they are not included in the military's INRMP. Limitations on access to, the use of, or the enhancement of, the existing capabilities and capacities of these ranges would limit or curtail both testing and mission critical Fleet Support functions performed by NUWC Keyport for undersea warfare. These areas have been defined on NOAA charts for over 50 years and operating areas have been further delineated in recent public environmental documentation. A NEPA analysis for these areas has been conducted within the past 5 years, and includes biological assessments evaluating effects on endangered species, which were reviewed and approved by NOAA-Fisheries and the Service. These biological assessments, and associated environmental assessments, addressed bull trout and interactions with military range operations.

(1) Benefits of Inclusion

Habitat containing features essential to bull trout conservation exists within or immediately adjacent to these military open water training and testing grounds. The primary benefit of designating critical habitat on, or adjacent to, these open water training and testing grounds would result from the requirement under section 7 of the Act that Federal agencies consult with us to ensure that any proposed action authorized, funded, or carried out by a Federal agency would not destroy or adversely modify critical habitat. In addition, the designation can educate the public regarding the potential conservation value of an area. This may contribute to conservation efforts by other parties by delineating areas that have conservation value for the bull trout.

(2) Benefits of Exclusion

Designating critical habitat on these open water training and testing areas may impact their role in supporting ongoing military exercises and operations that occur at these locations. The military activities occurring at these sites are currently being conducted in a manner that minimizes impacts to bull trout habitat. In addition, the Navy already consults with us on their actions occurring in the open water training and testing areas that may have potential impacts to bull trout and their habitat under section 7 requirements.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

Because of the relatively limited benefits arising from the designation of critical habitat, we believe the role played in supporting Navy operations, and the related importance to national security of ensuring their ability to maintain a high level of military readiness, we have determined that the national security benefits of excluding areas within or adjacent to the Crescent Harbor and Dabob Bay open water training and testing areas as critical habitat, outweigh the benefits of including them in the designation. Because these marine waters are occupied by the species, and the Navy has a statutory duty under section 7 to ensure that its activities do not jeopardize the continued existence of the bull trout, we find that the exclusion of these marine waters will not lead to the extinction of the bull trout.

Habitat Conservation Plans

Section 10(a)(1)(B) of the ESA authorizes us to issue to non-Federal entities a permit for the incidental take of endangered and threatened species. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species (*i.e.*, take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity). The ESA specifies that an application for an incidental take permit must be accompanied by a conservation plan, and specifies the content of such a plan. The purpose of conservation agreements is to describe and ensure that the effects of the permitted action on covered species are adequately minimized and mitigated, and that the action does not appreciably reduce the survival and recovery of the species.

In our assessment of conservation agreements associated with this final rulemaking the analysis required for these types of exclusions requires careful consideration of the benefits of designation versus the benefits of exclusion to determine whether benefits of exclusion outweigh benefits of designation. The benefits of designation typically arise from additional section 7 protections as well as enhanced public awareness once specific areas are identified as critical habitat. The benefits of exclusion generally relate to relieving regulatory burdens on existing conservation partners, maintaining good working relationships with them, and encouraging the development of new partnerships.

Based on comments received on our proposed rule, we could not conclude that all landowners view designation of critical habitat as imposing a burden, and exclusion from designation as removing that burden and thereby strengthening the ongoing relationship. While no conservation agreement partner affirmatively requested designation, we would have viewed the exclusion as likely to harm rather than benefit the relationship. Where a conservation agreement partner has

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remained silent on the benefit of exclusion of its land, we do not believe the record supports a presumption that exclusion will enhance the relationship. Similarly, we do not believe it provides an incentive to other landowners to seek a conservation agreement if our exclusions are not in response to an expressed landowner preference. We anticipate further rulemaking in the future to refine these designations, for example, in response to developments in recovery planning. As part of future revisions, we will consider information we receive from those with approved conservation agreements regarding the effect of designation on our ongoing partnership. While we have done so in the past, in this rulemaking we did not consider any pending HCPs for exclusion, primarily because none of the pending HCPs were at a point we could do so without prejudging the outcome of the ongoing HCP process and because we expect further changes to the developing HCPs. In addition, we expect to have future opportunities to refine this designation to provide credit for future activities on private lands as well as currently-ongoing activities for which there was insufficient time to adequately review and make a benefits determination. When we review this designation in the future, we will consider whether any exclusion will outweigh the benefit of designation in any particular case.

During the comment period we received comments from five landowners with current HCPs that they would consider exclusion as a benefit to our ongoing relationship—Washington Department of Natural Resources (WDNR), Green Diamond Resources Company, City of Seattle Cedar River Watershed, Tacoma Water Green River, and Plum Creek/Stimson Lumber Company Native Fish HCPs.

WDNR

The Washington Department of Natural Resources HCP covers about 1.6 million acres of State forest trust lands within the range of the northern spotted owl in the state of Washington. The majority of the HCP (approximately 1.3 million acres) occurs west of the Cascade Crest and includes the Olympic Peninsula and Southwest Washington. The remainder of the HCP occurs on the east side of the Cascade Mountains within the range of the northern spotted owl. The HCP covers activities primarily associated with commercial forest management. It is an "all-species" HCP west of the Cascade Crest, which includes bull trout and other salmonids. On the east side of the Cascade Crest, bull trout and other aquatic species are not covered under the HCP and DNR is therefore required to follow State Forest Practice Rules for riparian management and other forestry activities. The DNR HCP lands on the west side of the Olympic Peninsula are managed as the Olympic Experimental State Forest. The multi-species portion of the HCP depends upon several broad-scale conservation approaches: Spotted owl conservation, marbled murrelet conservation, riparian conservation, certain species-specific protection measures, protection of uncommon habitats, and provisions to maintain a range of forest types across the HCP landscape.

Green Diamond HCP

In October 2000, an HCP (formerly referred to as the Simpson Timber HCP and currently referred to as the Green Diamond HCP) was completed and an incidental take permit was issued for forestry operations on over 261,000 acres of the company's Washington timberlands located on or adjacent to the Olympic Peninsula in Mason, Thurston, and Grays Harbor Counties. The HCP is designed to conserve riparian forests, improve water quality, prevent management-related hill-slope instability, and address hydrological maturity of small sub-basins. The plan addresses five listed species including bull trout and 46 other species. The HCP covers the land owned by Green Diamond along the lower reaches of the North Fork and South Fork Skokomish Rivers, the upper South Fork Skokomish River, West Fork Satsop River, and Canyon River. The HCP is designed to conserve riparian forests, improve water quality, prevent management-related hill-slope instability, and address hydrological maturity of small sub-basins.

City of Seattle Cedar River Watershed HCP

In April 2000, The Cedar River Watershed HCP was completed and an incidental take permit was issued to the City of Seattle for water withdrawal and water supply activities affecting flows in the lower Cedar River and reservoir levels in Chester Morse Lake. In addition, the plan provides for forestry restoration activities including riparian thinning, road abandonment, and timber stand improvement on over 91,000 acres in the upper Cedar River Watershed in King County. The HCP is designed to provide adequate fish flows in the lower Cedar River for the spawning and rearing of several salmonid species, to manage water levels in Chester Morse Lake and Masonry Dam Reservoir to benefit instream flows in the lower river and bull trout spawning access to lake tributaries, and to manage 91,000 acres in the upper Cedar River as an ecological reserve. Several research actions are directed at understanding how all life stages of bull trout use Chester Morse Lake and Masonry Pool and how adult bull trout use tributaries to the lake for spawning. The HCP covers 83 species of fish and wildlife including bull trout and six other listed species.

Tacoma Water Green River HCP

The Tacoma Water Green River Water Supply Operations and Watershed Protection HCP was completed in July of 2001 and addresses upstream and downstream fish-passage issues, flows in the middle and lower Green River, and timber- and watershed-management activities on about 15,000 acres of Tacoma-owned land in the upper Green River Watershed. The HCP covers 32 species including bull trout. This HCP required close coordination with the U.S. Army Corps of Engineers (COE) because of their facility at Howard Hanson Dam. Tacoma's HCP includes the following features: An upstream fish-passage facility which will open up 220 square miles of previously blocked fish habitat; sponsorship and funding for a downstream fish-passage facility at the Corps of Engineers Howard Hanson Dam; water-flow improvements; improved riparian forest management on Tacoma's lands; and several major habitat restoration projects.

Plum Creek/Stimson Lumber Company Native Fish HCPs

Plum Creek Timber Company initiated an effort in 1997 to develop a conservation strategy for native salmonids (including bull trout), occurring on 1.6 million acres of Plum Creek's Timberlands in Montana, Idaho, and Washington. The stated purpose of the Plum Creek Native Fish Habitat Conservation Plan (NFHCP) was to help conserve native salmonids and their ecosystems while allowing Plum Creek to continue to conduct commercial timber harvest within a framework of long term regulatory certainty and flexibility. The Stimson Lumber NFHCP was created when the Stimson Lumber Company acquired certain lands previously owned by Plum Creek and assumed all of the Plum Creek NFHCP commitments. Because of the commonality, for purposes of this discussion, the Plum Creek and Stimson NFHCP are considered one and the same. The Plum Creek NFHCP covers approximately 1.4 million acres, all within the range of the Columbia River basin. NFHCP actions should maintain

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a high-level of water quality. They are expected to maintain the thermal regime of streams within the range of normal variation, and contribute to the maintenance of complex stream channels, appropriate substrates, a natural hydrologic regime, ground-water sources and subsurface connectivity, migratory corridors, and an abundant food base. NFHCP actions are not expected to introduce or favor nonnative competitors or predators. In short, the NFHCP is expected to benefit the aquatic environment by providing a gradual improvement in the cold and clean water as well as complex and connected habitat necessary for protection and restoration of bull trout.

(1) Benefits of Inclusion of the WDNR, Green Diamond, City of Seattle Cedar River Watershed, Tacoma Water Green River, and Plum Creek/Stimson Lumber Company Native Fish HCPs

The principal regulatory benefit of critical habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they will not destroy or adversely modify critical habitat. In the recent *Gifford Pinchot* decision, the 9th Circuit Court of Appeals has ruled that adverse modification evaluations require consideration of impacts on the recovery of species. Conducting section 7 consultations would provide benefits on HCP lands with a Federal nexus by helping ensure the integrity of these lands is maintained. For example, if a federally funded road project was proposed to go across respective HCP lands that were designated as critical habitat, a consultation would need to be conducted to ensure the designated critical habitat was not destroyed or adversely modified to the point of appreciably diminishing its habitat features essential to bull trout recovery.

Designation of critical habitat facilitates state and local regulatory agencies in taking further protective measures where critical habitat is designated resulting in potential additional changes in operations at the aforementioned hydroelectric projects. In fact, State law requires consideration of additional rules and areas for protection upon designation of critical habitat.

To the extent that critical habitat would result in environmental protection (*e.g.*, changes to Federal projects that otherwise would have resulted in destruction or adverse modification) that would exceed the protection garnered from other environmental regulations (*e.g.*, Clean Water Act), there would be some benefit associated with maintaining fish passage survival standards, fish production through hatcheries to compensate for population losses, and tributary habitat loss compensation that would translate into economic benefits such as those that may result from increased recreational fishing opportunities for other species that would benefit from such management.

Another recognized benefit of including lands or sections of rivers in critical habitat is that the designation of critical habitat serves to educate landowners, hydroelectric operators, state and local governments, and the public regarding the potential conservation value of an area. This helps focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for bull trout. Designation of critical habitat would inform state agencies and local governments about areas that could be conserved under state laws or local ordinances, such as the Washington State Growth Management Act or Washington State Shoreline Management Act which encourage the protection of "critical areas" including fish and wildlife habitat conservation areas based on the best available science.

(2) Benefits of Exclusion of the WDNR, Green Diamond, City of Seattle Cedar River Watershed, Tacoma Water Green River, and Plum Creek/Stimson Lumber Company Native Fish HCPs

We identified a number of possible benefits of excluding the area covered by these HCPs from critical habitat designation. First, to the extent designation would provide any additional protection of bull trout habitat, costs associated with that protection would be avoided. Second, exclusion would reduce largely redundant administrative costs of section 7 consultation; as discussed above, these costs are unlikely to lead to additional actual protection for bull trout habitat. Third, exclusion would provide an incentive for participation in the development of new HCPs. Fourth, exclusion would help to foster an atmosphere of cooperation in the conservation of endangered species.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion for the WDNR, Green Diamond, City of Seattle Cedar River Watershed, Tacoma Water Green River, and Plum Creek/Stimson Lumber Company Native Fish HCPs

As discussed above, it is possible, although unlikely, that any Federal action will be proposed that would be likely to destroy or adversely modify the habitat proposed as critical within the area governed by these HCPs. If such a project was proposed, due to the specific way in which jeopardy and adverse modification are analyzed for bull trout, discussed in detail in the preamble, it would likely also jeopardize the continued existence of the species. In addition, as discussed above, we expect that the benefit of informing the public of the importance of this area to bull trout conservation would be slight. Therefore, we assign relatively little weight to the benefits of designating this area as critical habitat.

In contrast, although the benefits of encouraging participation in HCPs, particularly large-scale HCPs, and, more broadly, helping to foster cooperative conservation are indirect, enthusiastic HCP participation and an atmosphere of cooperation are crucial to the long-term effectiveness of the endangered species program. Therefore, we assign great weight to these benefits of exclusion. To the extent that there are regulatory benefits of including, there would be associated costs that could be avoided by excluding the area from designation. However, as we expect the regulatory benefits to be slight, we likewise give little weight to avoidance of those associated costs, as well as the additional transaction costs related to section 7 compliance.

Therefore, we have determined that the benefits of inclusion of the areas covered by these HCPs are small, while the benefits of exclusion are more significant. Therefore, the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of the bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation (see comprehensive exclusion language in the preamble).

For those conservation agreements, we analyzed the activities covered by the agreement, the protections afforded by the agreement, and the Federal activities that are likely to occur on the affected lands. We considered the number of stream miles within these lands and the number of expected section 7 consultations in those areas. From this information we determined the benefit of designation, which we then weighed against the benefit of exclusion. We concluded that the benefits of exclusion species outweigh the benefits of designation and therefore have excluded lands covered by these agreements in this final designation.

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The analysis is described in further detail in the FWS Administrative Record. We have determined that these exclusions, together with the other exclusions described in this rule, will not result in extinction of the species (for a complete documentation of our 3(5)(a) and 4(b)(2) analyses, please refer to our supporting document, *Bull Trout Critical Habitat 3(5)(a) and 4(b)(2) Analyses).*

Lewis River Hydroelectric Projects Conservation Easements

There are four projects and three dams that impound over 30 miles of river habitat on the Lewis River in Washington. They are located in portions of Clark, Cowlitz, and Skamania Counties. Bull trout are present in all of the reservoirs; the upper two reservoirs have the most significant populations and also support spawning populations. A Settlement Agreement (Agreement) for the relicensing of the Yale, Merwin, Swift No. 1, and Swift No. 2 hydroelectric projects was signed on November 30, 2004. Conservation measures are incorporated in the Agreement to minimize or compensate for the effects of the projects on listed species, including bull trout. Conservation measures for bull trout include perpetual conservation covenants on PacifiCorp's lands in the Cougar/Panamaker Creek area and PacifiCorp's and Cowlitz PUD's lands along the Swift Creek arm of Swift Creek Reservoir, upstream and downstream fish passage improvements at all reservoirs, limiting-factors analysis for bull trout to determine additional enhancement measures, public information program to protect bull trout, and monitoring and evaluation efforts for bull trout conservation measures. This agreement will also restore anadromous salmon to the upper Lewis River system, restoring a significant part of the historic forage base for bull trout.

(1) Benefits of Inclusion

Designation of critical habitat for bull trout on lands managed under Lewis River Hydroelectric Projects Conservation Easements would provide protection from "destruction or adverse modification" of designated critical habitat under section 7 of the Act. However, without designation, a certain amount of habitat protection would be provided through the jeopardy standard. As noted earlier, based on our review of previous bull trout consultations under this standard, we have found little to indicate that there would be additional habitat protections generated by the designation beyond those provided through the jeopardy standard.

If critical habitat was designated in areas of unoccupied habitat or currently occupied areas that subsequently become unoccupied, there would not be a jeopardy analysis for the species. The adverse effect to critical habitat would have to rise to the level of destruction/adverse modification to effect changes in the proposed action via a Reasonable and Prudent Alternative. Since the destruction/adverse modification determination is made in the context of an entire critical habitat designation, this would be a rare occurrence.

Designating critical habitat can educate the public and management agencies about the distribution of areas containing features essential to the conservation of a species. In areas lacking a bull trout-specific management plan, designation can guide projects to avoid impacts to listed species and can help focus recovery efforts. However, we believe little additional informational benefit will be gained by including Swift and Cougar Creeks in designated critical habitat for bull trout. PacifiCorp has begun implementing conservation recommendations, provided in our 2002 biological opinion, that include posting interpretive signs to educate anglers on identifying and conserving native char, and techniques for catch and release to minimize incidental hooking mortality of bull trout. While we believe educational benefits are important for the conservation of bull trout, we believe it has already been achieved through PacifiCorp's conservation easement, publication of the proposed critical habitat rule, the many public and interagency meetings that have been held to discuss the proposal, and discussion contained in this final rule.

(2) Benefits of Exclusion

The complex process of negotiating relicensing for the Lewis River hydroelectric projects has been ongoing for 9 years. We have established valuable working relationships with the PacifiCorp, Cowlitz County PUD, and the other participants during these complex negotiations. Through the relicensing negotiations, we have built trust and encouraged open dialogue regarding aquatic and riparian management issues among the participants.

By excluding lands included in the two conservation easements from designated critical habitat we will: (1) Maintain and enhance our ability to continue working with PacifiCorp, Cowlitz County PUD, other relicensing applicants, and FERC; and (2) other jurisdictions, private landowners, and other entities will likely continue to see the benefit of working cooperatively with us. This will provide incentives to develop other conservation agreements, or other conservation actions such as HCPs, to provide the bases for future opportunities to conserve species and their habitats. Negotiating conservation measures under conditions of mutual trust can result in greater conservation benefits to the species than would result from including Swift and Cougar Creeks in designated critical habitat.

Exclusion would also reduce administrative costs of conducting section 7 consultations on bull trout critical habitat (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section above).

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

It is possible, although unlikely, that any Federal action will be proposed that would be likely to destroy or adversely modify the habitat proposed as critical within the area governed by the Lewis River Conservation Easement. If such a project was proposed, due to the specific way in which jeopardy and adverse modification are analyzed for bull trout, discussed in detail above, it would likely also jeopardize the continued existence of the species. In addition, as discussed above, we expect that the benefit of informing the public of the importance of this area to bull trout conservation would be slight. Therefore, we assign relatively little weight to the benefits of designating this area as critical habitat.

In contrast, although the benefits of encouraging participation in conservation partnerships, particularly large-scale conservation projects, and, more broadly, helping to foster cooperative conservation are indirect, enthusiastic conservation project participation and an atmosphere of cooperation are crucial to the long-term effectiveness of the endangered species program. Therefore, we assign great weight to these benefits of exclusion. To the extent that there are regulatory benefits of including, there would be associated costs that could be avoided by excluding the area from designation. However, as we expect the regulatory benefits to be slight, we likewise give little weight to avoidance of those associated costs, as well as the additional transaction costs related to section 7 compliance.

Therefore, we have determined that the benefits of inclusion of the areas covered by this conservation easement are small, while the benefits of exclusion are more significant.

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Therefore, the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of the bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation (see comprehensive exclusion language in the preamble).

Washington State Forest Practices Rules and Forest Practices Regulations for Bull Trout (FFR)

Beginning in late 1996, faced with the imminent listing of several salmonid species, including bull trout, under the Endangered Species Act (ESA), a diverse group of stakeholders in Washington State agreed to address emerging riparian habitat issues. After almost 2 years of negotiations, representatives of environmental interests and some Tribes withdrew from negotiations. The remaining participants continued negotiating and eventually agreed to the Forests and Fish Report in April 1999. Later that year the Washington State Legislature passed the Forest Practices Salmon Recovery Act (Engrossed Substitute House Bill 2091), which directed the Washington Forest Practices Board to adopt new rules, encouraging the Forest Practices Board to follow the recommendations of the Forests and Fish Report (FFR). To further the purpose of regulatory stability, the Forest Practices Salmon Recovery Act also limited future changes to the new rules so that outside of a court order or legislative directive, new rules could be adopted by the Forest Practices Board "only if the changes or new rules are consistent with the recommendations resulting from the scientifically based adaptive management process" included in the Forests and Fish Report. The language further solidified the adaptive management process as a key component of the conservation program.

Following the passage in 1999 of emergency forest practices rules based on the Forests and Fish Report, the Washington Forest Practices Board adopted new permanent rules in May 2001. Effective July 2001, these rules cover a wide variety of forest practices and include: (1) A new, more functional, classification of rivers and streams on non-federal and non-tribal forestland; (2) improved plans for properly designing, maintaining, and upgrading existing and new forest roads; (3) additional protections for unstable slopes; and (4) greater protections for riparian areas intended to restore or maintain properly functioning aquatic and riparian habitat conditions. In addition to these substantive provisions, the rules adopted the procedural recommendations of the Forests and Fish Report that address adaptive management, training, and other features. The Washington State Legislature and U.S. Congress continued to support the collaboration with significant funding for the research, monitoring, and adaptive management activities called for in the Forests and Fish Report.

(1) Benefits of Inclusion

Designation of critical habitat for bull trout on lands managed under Washington State Forest Practices Rules would provide protection from "destruction or adverse modification" of designated critical habitat under section 7 of the Act. However, without designation, a certain amount of habitat protection would be provided through the jeopardy standard. As noted earlier, based on our review of previous bull trout consultations under this standard, we have found little to indicate that there would be additional habitat protections generated by the designation beyond those provided through the jeopardy standard.

If critical habitat was designated in areas of unoccupied habitat or currently occupied areas that subsequently become unoccupied, there would not necessarily be a jeopardy analysis for the species. The adverse effect to critical habitat would have to rise to the level of destruction/adverse modification to effect changes in the proposed action via a Reasonable and Prudent Alternative. Since the destruction/adverse modification determination is made in the context of an entire critical habitat designation, this would be a rare occurrence.

In addition to the prescriptions in the Rules for protecting riparian and aquatic habitat that benefits the broad range of aquatic species, the Rules include specific provisions for protecting bull trout habitat in eastern Washington. Beyond this, there is adaptive management research and monitoring required under the Washington Forest Practices Rules that specifically addresses the effectiveness and validity of the Rules in protecting bull trout habitat.

Designating critical habitat can educate the public and management agencies about the distribution of areas containing features essential to the conservation of a species. In areas lacking a bull trout-specific management plan, designation can guide projects to avoid impacts to listed species and can help focus recovery efforts. Many landowners subject to Washington State Forest Practices Rules are likely aware of the concerns for bull trout conservation. We expect that designated critical habitat in these areas would provide some additional context, protection, or benefit that would enhance existing, or future, bull trout conservation efforts.

(2) Benefits of Exclusion

The Washington Forest Practices Rules require a large-scale, comprehensive adaptive management program that is supported by in-kind participation by the stakeholders that authored the Forests and Fish Report. The basis for the Washington Forest Practices Rules is the Forests and Fish Report. The Forests and Fish Report was created in a collaborative effort by multi-stakeholders to identify goals and prescriptions to protect riparian and aquatic-dependent species, including bull trout. This cooperative conservation is crucial to the long-term recovery of listed species.

Exclusion of areas covered by the Washington Forest Practices Rules from critical habitat designation would be viewed as honoring the assurances made during the negotiations of the Forests and Fish Report by most Washington forestland stakeholders. The assurances being that the Rules provide adequate minimization and mitigation measures to address bull trout conservation. Failure to exclude the Rules could be viewed as an attempt to extract additional and "unfair" mitigation in violation of the principles behind the Washington Forest Practices Rules and Forests and Fish Report negotiations. Cooperation between the Service and the State to develop and update the Washington Forest Practices Rules for terrestrial, threatened and endangered species would be enhanced through continued cooperative relationships.

In addition, failure to exclude the Rules could be a disincentive for other entities contemplating collaborative rule-making as it would imply that the Service intends to impose additional regulatory burdens once conservation measures have been agreed upon and could undermine the progress made by generating perceptions that we might erode those assurances.

Exclusion would also reduce administrative costs of conducting section 7 consultations on bull trout-critical habitat (see Section 3(5)(A) and Exclusions Under Section 4(b)(2)—Generally section above).

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(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

It is possible, although very unlikely, that any Federal action would be proposed that would be likely to destroy or adversely modify the habitat proposed as critical within the lands regulated by the Washington Forest Practices Rules. If such a project was proposed, due to the specific way in which jeopardy and adverse modification are analyzed for bull trout, discussed in detail in the preamble, it would likely also jeopardize the continued existence of the species.

The forest landowners regulated by the Washington Forest Practices Rules, as well as those organizations that are directly or indirectly affected by the Rules, are already aware of the need for protecting and conserving bull trout and their habitat.

Based on the above discussion, we assign relatively little weight to the benefits of designating the lands regulated by the Washington Forest Practices Rules as critical habitat for bull trout. In contrast, because exclusions of these areas from critical habitat will be very beneficial to our relationships with stakeholders in the FFR process, and those relationships area crucial to the long-term recovery of bull trout and other listed species, we assign great weight to the benefits of excluding these lands from designation. Therefore, the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little, if any, conservation benefit to bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation (see comprehensive exclusion language in the preamble).

Jarbidge River Bull Trout Critical Habitat Unit

During the last decade, the Jarbidge River watershed has been the site of substantial conflicts between Federal officials and local interests concerning the conservation and management of bull trout, the Jarbidge River, and associated uplands (Williams 2001). These conflicts, which involved anti-government protests and demonstrations, have had an overall negative impact on the Federal government's ability to work cooperatively with local officials and private landowners to conserve and recover the bull trout and other listed species on Federal and non-federal lands in northern Nevada (Sonner 2001, Williams 2001, Robert 2002). This cooperative relationship is particularly important in relation to achieving voluntary actions to improve bull trout populations and habitat which are identified in the recovery plan.

During the last year, however, both the Service and the U.S. Forest Service have dedicated significant resources and have made encouraging progress in restoring cooperative relationships with the local community. For example, both agencies have received a "Certificate of Appreciation" from Elko County on September 7, 2005, for providing support for the installation of a temporary bridge over the Jarbidge River. Maintenance and improvement of such relationships is key to recovering listed species and is a cornerstone of the Secretary's "4 C's" policy. The active support of local officials and landowners for the conservation of bull trout increases the species likelihood of recovery. In contrast, local opposition to bull trout conservation efforts could be a significant impediment to the species' recovery, especially on non-federal lands, where the voluntary efforts will achieve actions identified in the recovery plan.

Given this history, we considered whether to exclude non-federal lands in the Jarbidge River Bull Trout Critical Habitat Unit (CHU) from the final critical habitat designation. Pursuant to section 4(b)(2) we analyzed whether the benefits of designating these lands were outweighed by the benefits of excluding these lands from a final designation. In the following section, we evaluate a "without critical habitat" scenario and compare it to a "with critical habitat" scenario. The difference between the two scenarios measured the net negative or positive impacts attributable to the designation of critical habitat. We paid particular attention to the following issues:

- The degree to which a critical habitat designation would confer regulatory conservation benefits on these species (*e.g.*, high, medium, low);
- Whether the designation would educate members of the public such that conservation efforts would be enhanced;
- Whether a critical habitat designation would have a positive, neutral, or negative impact on local support for bull trout conservation, including current cooperative efforts on privately-owned lands; and
- To what extent a critical habitat designation is likely to encourage or discourage future cooperative efforts with local landowners and officials.

If a critical habitat designation results in a quantifiable reduction in the likelihood that existing or future voluntary, cooperative conservation activities will be carried out on non-federal lands, and at the same time fails to confer a counter-balancing positive regulatory or educational benefit to the species, then the benefits of excluding such areas from critical habitat outweigh the benefits of including them.

(1) Benefits of Including the Jarbidge River Bull Trout Critical Habitat Unit

The principal benefit of designating critical habitat on non-federal lands is that Federal activities that may affect such habitat are subject to consultation pursuant to section 7 of the Act. 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 requirement complements the section 7 provision that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species.

The Jarbidge River is currently occupied by bull trout. Any Federal activity adversely affecting bull trout will require section 7 consultations with the Service, and any non-federal action that may take a bull trout will require a Section 10 permit. Although there are potentially a small number of federally-funded, authorized, or implemented activities on private and State lands that may trigger section 7 consultation, the subject lands comprise only a minor portion (8 percent) of the total habitat (131 mi, 211 km) under consideration for this CHU. Specifically, there are eight stream reaches crossing private lands and four reaches crossing Idaho State school land sections within occupied bull trout habitat in this CHU. Only three of these isolated reaches are 1 mi (1.6 km) or more in length, and all are surrounded by vast expanses of public lands. One of the private reaches is within the town of Jarbidge, Nevada, and another is within the town of Murphy Hot Springs, Idaho.

In analyzing whether Federal actions might jeopardize the continued existence of the bull trout, the Service has focused on the viability of core area populations without making distinctions between what is necessary for survival versus recovery. Because the Service views the conservation role of critical habitat units as supporting viable bull trout core area populations, the Service anticipates that few Federal actions would adversely modify critical habitat but not jeopardize the species.

The Service considered the possibility of local bull trout extirpation in the Jarbidge River (which might reduce the protection afforded bull trout by the

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jeopardy prohibition) given the data available. In general, the Service does not anticipate significant extirpations in this area, although such an event cannot be completely ruled out as stochastic events such as conflagrations have in the past eliminated populations elsewhere within the species' range. If such an event was to occur, and the entire population was extirpated, the designation of critical habitat could provide important protection to the habitat to preserve it for eventual recolonization or reintroduction. However, the Service would consider the habitat occupied for 20 years subsequent to the temporal extirpation, providing ample opportunity for restoration of the population. In addition, the benefit would be moderated to the extent that protections other than the prohibition on jeopardizing bull trout would remain in place. For instance, State angling regulations would remain in place to manage bull trout habitat.

In sum, the designation of critical habitat on non-federal lands in the Jarbidge River CHU would confer a relatively low level of additional regulatory benefits beyond the status quo.

Another potential 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. Such a benefit could be substantial in geographic areas where the presence of bull trout was a relatively new or unknown phenomenon, and there was a need to educate the local community to the species' presence and conservation needs. However, such a situation does not exist anywhere in the Jarbidge River CHU. Due in large part to the extensive media attention applied to the high-profile conflicts that accompanied the listing of the species and previous critical habitat proposals; there is widespread knowledge of the species' local status and conservation needs. State fish and game officials have also worked hard to educate the local populace, publishing information on the species and posting signs at public access points along the river. Therefore, it is unlikely that a final critical habitat designation would provide any significant new or additional educational benefit beyond the status quo.

(2) Benefits of Excluding the Jarbidge River Bull Trout Critical Habitat Unit

The designation of critical habitat on non-federal lands can have both negative and positive impacts on the conservation of listed species (Bean 2002). There is a growing body of documentation that some regulatory actions by the Federal government, while well-intentioned and required by law, can under certain circumstances have unintended negative consequences for the conservation of species on non-federal lands (Brook *et al.* 2003, Bean 2002, James 2002, Koch 2002, Wilcove *et al.* 1996). Some landowners fear a decline in value of their properties because of their belief that the Act may restrict future land-use options where threatened or endangered species are found. Consequently, endangered species are perceived by many landowners as a financial liability, which sometimes results in anti-conservation incentives to these landowners (Brook *et al.* 2003, Main *et al.* 1999).

There are reasonable concerns that a critical habitat designation in the Jarbidge River may negatively affect cooperative relationships between Federal and local officials and discourage voluntary, cooperative conservation efforts. The watershed has been the site of substantial conflicts between Federal government agencies, local government entities (Elko County, Nevada), organized private groups (Jarbidge Shovel Brigade), and private individuals. These conflicts primarily have been over roads and public access issues with the U.S. Forest Service, but they have resulted in activities with adverse environmental impacts to bull trout and their habitat. Substantial damage to stream channel and riparian habitats within bull trout occupied reaches occurred due to local actions while bull trout were proposed for listing. Anti-government demonstrations and on-the-ground activities (road construction, stream diversions, channel alterations, tree cutting, and driving in streams) by other groups and individuals escalated when the Service emergency-listed the Jarbidge River bull trout in 1998. The demonstrations and protests continued for several years.

According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that many landowners will support and carry out conservation actions (Bean 2002, Brook *et al.* 2003, Main *et al.* 1999). The magnitude of this negative outcome is greatly amplified in conservation situations, such as on privately-owned lowlands in California and Nevada, where it is insufficient simply to prohibit harmful activities. Instead, it is necessary in most cases to encourage and carry out active management measures to prevent extinctions and promote recovery (Bean 2002). Consideration of this concern is especially important in areas where recovery efforts require access and permission for survey and restoration efforts. Simply preventing "harmful activities" will not slow the extinction of listed species or promote their recovery. Proactive, voluntary conservation efforts are necessary to prevent the extinction and promote the recovery of these species (Wilcove and Lee 2004, Shogren *et al.* 1999).

The Service is working to promote cooperative activities in the Jarbidge area. Federal and local government entities working in the Jarbidge River watershed have spent considerable time improving communications and developing personal working relationships to resolve differences and move forward in a positive manner on watershed issues. In particular, the agencies have come to an agreement resolving future road construction and maintenance issues within bull trout occupied areas on public and private lands in the watershed, as presented in the U.S. Forest Service's Jarbidge Canyon Final Environmental Impact Statement issued in April, 2005.

In addition, the Federal agencies and local county government officials recently collaborated on a project to provide access to the town of Jarbidge on an emergency basis using volunteer labor by the Jarbidge Shovel Brigade and other local individuals to help install a temporary bridge donated by the county on private land after a flood destroyed two U.S. Forest Service bridges. On September 7, 2005, the Elko County Board of County Commissioners presented the Service, U.S. Forest Service, and Jarbidge Shovel Brigade each with a Certificate of Appreciation for assistance in completing this project.

The Service is also currently working with a private landowner (Mr. Bert Brackett) and the Nevada Department of Wildlife to acquire the single largest reach of bull trout habitat on private land in the entire watershed (nearly 4 mi, 6.4 km) through a Service Recovery Lands Acquisition Program grant. The State would then manage this habitat specifically for the purpose of bull trout conservation and recovery. The Service is concerned that acquisition negotiations could be adversely affected by designation of critical habitat at this time due to a resurgence of local anti-federal sentiment following a possible designation on non-federal lands.

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The Service is also preparing to finalize the May 2004 draft recovery plan for the Jarbidge River bull trout population and to hold stakeholder meetings in FY06. Public and local government participation at these meetings is vital in obtaining local input during the recovery planning process. Participation at these meetings by private landowners—and support for conservation on their lands—may be adversely affected by designation of critical habitat on their non-federal lands.

In sum, we conclude that the designation of critical habitat on non-federal lands in the Jarbidge River CHU would have significant negative impacts on the improving cooperative relationship between Federal agencies and local officials and landowners. This negative impact would in turn adversely affect bull trout conservation because local support and participation is necessary for bull trout recovery actions, all of which are voluntary on non-federal lands. Avoiding these negative impacts is a benefit of excluding these lands from the final critical habitat designation.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion for the Jarbidge River Critical Habitat Unit

As discussed above, it is possible although unlikely that a Federal action will be proposed that would be likely to destroy or adversely modify the habitat proposed as critical in the Jarbidge River CHU. If such a project was proposed, due to the specific way in which jeopardy and adverse modification are analyzed for bull trout and as discussed in detail in the preamble, it would likely also jeopardize the continued existence of the species and thus be restricted by the Act. In addition, we expect that the benefit of informing the public of the importance of this area to bull trout conservation would be slight. Therefore, we assign relatively little weight to the benefits of designating this area as critical habitat.

In contrast, the need to maintain and expand recent gains in cooperative conservation efforts in the Jarbidge watershed is crucial to the long-term effectiveness of bull trout recovery. Therefore, we assign great weight to these benefits of exclusion. To the extent that there are regulatory benefits of including, there would be associated costs that could be avoided by excluding the area from designation. However, as we expect the regulatory benefits to be slight, we likewise give little weight to avoidance of those associated costs, as well as the additional transaction costs related to section 7 compliance.

The continuation of cooperative efforts in the watershed, as well as implementation of bull trout recovery actions on non-federal lands, is dependent on maintaining effective working relationships with local entities. We believe that designation of critical habitat on non-federal lands within the Jarbidge River CHU would adversely affect our improved working relationships with landowners and other governmental entities, as well as the benefits to bull trout resulting from these relationships. In addition, we believe that such designation may also impair the long-term working relationships of other Federal agencies with land management responsibilities in the Jarbidge River watershed.

Therefore, we have determined that the benefits of inclusion of the non-federal areas within the Jarbidge River CHU are small, while the benefits of exclusion are more significant. Thus the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, and the species and much of its habitat is still protected under section 7 as described above, the exclusion will not result in the extinction of the bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation.

Federal Land Management Plans

We have determined that PACFISH, INFISH, the Interior Columbia Basin Ecosystem Management Project (ICBMP) strategy, and the Northwest Forest Plan (NWFP) Aquatic Conservation Strategy (ACS) provide a level of conservation and adequate protection and special management for the PCEs essential to the conservation of bull trout at least comparable to that achieved by designating critical habitat. As a result, those lands are not being designated critical habitat as they do not meet the statutory definition. In many specific ways these plans are superior to a designation in that they require enhancement and restoration of habitat, acts not required by the designation.

PACFISH is the Interim Strategy for Managing Anadromous Fish-Producing Watersheds and includes Federal lands in Western Oregon and Washington, Idaho, and Portions of California. INFISH is the Interim Strategy for Managing Fish-Producing Watersheds in Eastern Oregon and Washington, Idaho, Western Montana, and Portions of Nevada. Each strategy amended Forest Service Land and Resource Management Plans and BLM Resource Management Plans. Together PACFISH and INFISH cover thousands of miles of waterways within 16 million acres and provide a system for reducing effects from land management activities to aquatic resources through riparian management goals, landscape scale interim riparian management objectives, riparian habitat conservation areas, riparian standards, watershed analysis, and the designation of Key and Priority watersheds. These interim strategies have been in place since 1992 and are part of the management plans for the BLM and USFS lands. In addition to protecting and managing the PCEs associated with critical habitat, the strategies include restoration and enhancement of all existing habitat. The BLM and USFS are currently in the process of updating their management plans, few have been completed, but those that have, are discussed below. The new plans are more protective, more complete, and more outcome based than the former plans. In addition, they are recovery based, as opposed to simply maintaining the status quo.

The ICBMP is the strategy that replaces the PACFISH and INFISH interim strategies. The Southwest Idaho Land and Resource Management Plan (LRMP) is the first LRMP under the strategy and provides measures that protect and restore soil, water, riparian and aquatic resources during project implementation while providing flexibility to address both short- and long-term social and economic goals on 6.6 million acres of National Forest lands. This plan includes a long-term Aquatic Conservation Strategy that focuses restoration dollars in priority subwatersheds identified as important to achieving ESA, Tribal, and CWA goals. The Southwest Idaho LRMP replaces the interim PACFISH/INFISH strategies and adds additional conservation elements, specifically, providing an ecosystem management foundation, a prioritization for restoration integrated across multiple scales, and adaptable active, passive and conservation management strategies that address both protection and restoration of habitat and 303(d) stream segments, all of which are far beyond any protection provided by a critical habitat designation.

The Southeast Oregon Resource Management Plan (SEORMP) and Record of Decision is the second LRMP under the ICBMP strategy which describes the long-term (20+ years) plan for managing the public lands within the Malheur and Jordan Resource Areas of the Vale District. The SEORMP is a general resource management plan for

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4.6 million acres of BLM administered public lands primarily in Malheur County with some acreage in Grant and Harney Counties, Oregon. The SEORMP contains resource objectives, land use allocations, management actions and direction needed to achieve program goals. Under the plan riparian areas, floodplains, and wetlands will be managed to restore, protect, or improve their natural functions relating to water storage, groundwater recharge, water quality, and fish and wildlife values.

The Northwest Forest Plan covers 24.5 million acres in Washington, Oregon, and northern California. The ACS is a component of the Northwest Forest Plan. It was developed to restore and maintain the ecological health of watersheds and the aquatic ecosystems. The four main components of the ACS (Riparian Reserves, Watershed Analysis, Key Watersheds, and Watershed Restoration) are designed to operate together to maintain and restore the productivity and resiliency of riparian and aquatic ecosystems.

These plans establish watershed and riparian goals to maintain or restore all fish habitat;

- Establish aquatic and riparian habitat management objectives;
- Delineate riparian management areas;
- Provide specific standards and guidelines for management activities (timber harvesting, grazing, fire suppression, and mining) in riparian areas;
- Provide a system of key watersheds to protect and restore important fish habitats;
- Call for watershed analyses and subbasin reviews to set priorities and provide guidance on priorities for watershed restoration; and,
- Provide general guidance on implementation and effectiveness monitoring.

It is the objective of the Forest Service and the Bureau of Land Management to manage and maintain habitat and where feasible, and restore habitats that are degraded. These plans provide for the protection of areas that could contribute to the recovery of fish and, overall, improve riparian habitat and water quality throughout the basin. These objectives are accomplished through such activities as closing and rehabilitating roads, replacing culverts, changing grazing and logging practices, and re-planting native vegetation along streams and rivers.

The Forest Service, Natural Resources Conservation Service, and the Bureau of Land Management also provide funds and technical expertise for restoration projects on private lands. Field offices work with local watershed councils and groups to plan and carry out priority restoration projects on both Federal and non-federal lands.

These and other state and local conservation planning efforts provide an exceptional level of cooperative conservation for bull trout and other salmonids and for this reason we have determined that the PCEs in the areas covered by the plans are not in need of special management or protection. These lands have also been excluded using the Secretary's discretion under section 4(b)(2). The following outlines our 3(5)(a) and 4(b)(2) analyses related to exclusions (for a complete documentation of our 3(5)(a) and 4(b)(2) analyses, please refer to our supporting documentation in the administrative record and the comparison of protections provided by a critical habitat designation and the various management plans.

(1) Benefits of Including Lands Managed Under PACFISH, INFISH, the Southwest Idaho Land and Resource Management Plans, the Southeast Oregon Resource Management Plan, and ACS

Designation of critical habitat for bull trout on lands managed under these Federal plans would provide protection from "destruction or adverse modification" of designated critical habitat under section 7 of the Act. However, without designation, a certain amount of habitat protection would be provided through the jeopardy standard. As noted earlier, based on our review of previous bull trout consultations under this standard, we have found little to indicate that there would be additional habitat protections generated by the designation beyond those provided through the jeopardy standard.

If critical habitat was designated in areas of unoccupied habitat or currently occupied areas that subsequently become unoccupied, there would not necessarily be a jeopardy analysis for the species. The adverse effect to critical habitat would have to rise to the level of destruction/adverse modification to effect changes in the proposed action via a Reasonable and Prudent Alternative. Since the destruction/adverse modification determination is made in the context of an entire critical habitat designation, this would be a rare occurrence.

Designating critical habitat helps educate the public and management agencies about the distribution of areas containing features essential to the conservation of a species. In areas lacking a bull trout-specific management plan designation can guide projects to avoid impacts to listed species and can help focus recovery efforts. Most agencies, applicants, and partners operating under the existing strategies on Federal lands are aware of the concerns for bull trout conservation. We expect that designated critical habitat in these areas would provide relatively little additional context, protection, or benefit that would enhance existing, or future, bull trout conservation efforts.

(2) Benefits of Excluding Lands Managed Under PACFISH, INFISH, the Southwest Idaho Land and Resource Management Plans, the Southeast Oregon Resource Management Plan, and ACS

The primary benefits of excluding these Federal lands from critical habitat are the avoidance of administrative costs associated with reinitiation of section 7 consultations for ongoing actions and the reduced administrative costs of consultation on new actions. Based on a review of consultations on bull trout critical habitat, some incremental consultation costs, all in the form of administrative costs (i.e., more time spent preparing and reviewing language in our biological opinions or concurrence letters), have been documented. Cost estimates for informal consultations (n = 15) ranged from "not measurable" ($0) to a little over one biologist-hour (approx $550). Estimates for formal consultations (n = 9) ranged from one biologist-hour (approx $550) to 10–20 biologist-days ($6,230–$12,460) with a median of 1.5 biologist-days (approx $935). The 10–20 biologist-day estimates represented one forest-wide programmatic formal consultation covering all routine and anticipated activities (potentially hundreds of actions) for a 5-year period.

We expect that the action agencies would also have costs associated with reinitiation of consultation or new consultations because they would need to prepare or revise requests for concurrence or biological assessments. These costs are likely to mirror Service costs because the type and specificity of information required for these documents is comparable to Service documents.

(3) Benefits of Exclusion outweigh the Benefits of Inclusion of the Lands Managed Under PACFISH, INFISH, the Southwest Idaho Land and Resource Management Plans, the Southeast Oregon Resource Management Plan, and ACS

While the administrative costs associated with additional consultation activities which result from designation are not significant, the associated

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benefits are also minor. In considering the benefits from a designation related to education the Secretary has determined those benefits are largely redundant with the education that takes place through the NEPA process for developing new management plans, as well as the ongoing management documents used by the BLM and USFS in making decisions on those lands. Because the lands being excluded are Federal lands, no additional state or local protections would be triggered by the critical habitat designation, so in this circumstance, there would be no additional benefit. The remaining benefits, those due to additional protection beyond those provided through the jeopardy consultation are likely very small (see our earlier discussion particular to bull trout jeopardy consultations). The benefit from not designating these Federal lands would be largely in the form of avoided costs (staff time and money). These costs, while not significant are avoidable, create no additional benefit to the species and could be better used to effectuate conservation measures on the ground. As a result, the Secretary has determined that the benefit of excluding these Federal lands exceeds the benefits of including them as critical habitat.

Federal Columbia River Power System (FCRPS)

The FCRPS is composed of 14 dams and reservoirs on the Columbia and Snake Rivers. Power production is coordinated under the Pacific Northwest Coordination Agreement. The dams and reservoirs also provide flood protection and irrigation flows.

The U.S. Department of the Army, Corps of Engineers operates and maintains 12 of the 14 projects in the FCRPS. These projects control the lower Snake and Columbia Rivers and provide storage in the upper reaches of both rivers. The Corps has a major role in coordinating multiple uses of the system. It is responsible for managing flood control storage at all major reservoirs in the Columbia River Basin; maintaining navigation locks and channels to accommodate river transportation; and operating fish passage, power plant and recreation facilities.

U.S. Department of the Interior, Bureau of Reclamation operates Grand Coulee and Hungry Horse Dams, the remaining two projects. Because of its size and location, Grand Coulee Dam plays a prominent role in the coordinated operation of the Columbia River system. Storage at Hungry Horse is also valuable because of its headwaters location; water released from Hungry Horse passes through many downstream projects and produces additional energy.

The FCRPS is subject to the operation of federal laws and the authorities of 9 federal agencies. These authorities require every activity from mitigation to recovery. In addition, the Federal government has responsibility to the 13 tribes residing in the Columbia River Basin. There are 13 nationwide laws and 3 basin-specific laws as well as several mission specific laws, treaties and executive orders, all of which speak to requirements for restoring, enhancing, and recovering ecosystems and fish and wildlife in the Columbia River Basin. All of these laws affect the operation of the FCRPS. The myriad federal and state laws result in no less than 33 federal programs, 3 state programs, and 2 tribal programs to manage and recover ecosystems and wildlife in the basin. As a result of efforts to recover salmon populations, there are at least 65 groups formed to coordinate recovery efforts between the federal agencies, states, tribes, local governments and other interested parties.

(1) Benefits of Inclusion

Designation of critical habitat for bull trout on lands covered under FCRPS would provide protection from "destruction or adverse modification" of designated critical habitat under section 7 of the Act. Without designation, a certain amount of habitat protection would be provided through the jeopardy standard. However, as noted earlier, based on our review of previous bull trout consultations under this standard, we have found little to indicate that there would be additional habitat protections generated by the designation beyond those provided through the jeopardy standard.

If critical habitat was designated in areas of unoccupied habitat or currently occupied areas that subsequently become unoccupied, there would not be a jeopardy analysis for the species. The adverse effect to critical habitat would have to rise to the level of destruction/adverse modification to effect changes in the proposed action via a Reasonable and Prudent Alternative. We believe that this will be a rare occurrence.

While one of the benefits of a critical habitat designation can be educating the public, we have determined that there is very little benefit related to educational benefit from a designation for bull trout due to the recent subbasin planning effort completed for the Northwest Power Council, which would largely have duplicated any educational benefit accruing from a critical habitat designation.

(2) Benefits of Exclusion

The major benefit to excluding the FCRPS from critical habitat will be to avoid yet another layer of regulation to a system with a multitude of competing efforts to not only protect but to restore anadromous fish populations as well as enhance and restore terrestrial habitats. The potential inefficiencies are enormous, and have been identified. It is unlikely that a system with so many ongoing efforts to restore habitat and fish populations will knowingly contemplate activities that will reduce populations or habitat values. However, it is very likely that biological opinions related to adverse modification, with their focus on narrow project-by-project effects rather than ecosystem based approaches could force actions contrary to larger efforts, force actions that are redundant or counterproductive, or simply require yet another layer of administrative process without measurably improving the outcome. It is difficult to measure just how much cost such inefficiencies represent. But in a system with 4 states, 13 tribes, 11 federal agencies, and a multiplicity of laws, executive orders, programs, and court orders governing it; yet another process to ensure habitat protection is unlikely to achieve measurable results.

Another benefit of excluding the proposed reaches would be avoiding transactions costs related to reinitiating of consultation for all ongoing projects and the cost of an adverse modification analysis for new projects. The number of circumstances where a bull trout adverse modification finding diverges from a jeopardy opinion are likely to be small and the benefits of requiring all ongoing federal actions to reinitiate consultation will be small when compared to the benefit of avoiding the transactions costs related to the actual completion of the consultation (this assumes that there will be few changes in operations and actions as a result of the reinitiations—consistent with our determinations that the standards will not diverge significantly). While individually these avoided costs are small, the sheer scope of the federal actions outlined in the records that we reviewed indicated that purely ministerial actions associated with the reinitiated consultations would represent significant time and effort.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

The Secretary weighed the risk of some federal project from proceeding in a manner that destroyed or adversely

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modified critical habitat and considered the potential benefit if a designation prevented the project from proceeding. She considered the risk of a critical habitat designation causing multiple reinitiations of consultation and what costs and delays those consultations might generate. She considered the consequences of delays related to reinitiations and the risk that would occur to the species as well as to local planning processes associated with the subbasin plans.

Finally, the Secretary considered what additional benefit a consultation on the effect of any project on critical habitat would provide beyond the protection provided by a jeopardy determination that would be made whether or not critical habitat was designated.

Based on the information in the record, the Secretary determined that the benefits of including those reaches of the designation that are within the FCRPS and subject to a consultation under section 7 of the ESA are outweighed by the benefits of excluding them and avoiding one increased costs and inefficiency. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of the bull trout. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation.

Snake River Basin Adjudication

The lands subject to this adjudication comprise approximately 46 million acres and approximately 142,000 miles of streams in the Snake River Basin. The stream-flows in the basin have been subject to litigation for 21 years. Litigants are the Federal government, the Nez Perce Tribe, and the State of Idaho. In 2004 a settlement was reached by the parties in the proceeding. A Mediator's Term Sheet was developed to guide the settlement of the case, which identifies the responsibilities of the parties over the 30-year term of the agreement. The settlement was announced on May 15, 2004, by the Secretary of the Interior, the Nez Perce Tribal Executive Committee Chairman, and the Governor of Idaho.

As part of the settlement, the parties agreed to establish a habitat fund under two separate accounts, one for the Tribe and one for the State. The State account would be managed through Section 6 cooperative agreements, and would address off-reservation stream-flow and forestry programs. The funds would be used to conduct habitat protection and restoration projects in the Salmon and Clearwater basins (tributaries to the Snake River), including programs intended to protect and restore listed fish and their habitat. The United States would contribute $38 million to these accounts according to a schedule determined by Congress in the enacting legislation. On December 8, 2004, the Snake River Water Rights Act of 2004 was enacted to resolve outstanding issues; reach a final settlement of Tribal claims; authorize, ratify and confirm the Agreement among the parties; direct Federal agencies to execute and perform necessary actions to carry out the agreement; and, to authorize actions and appropriations under the SRBA and the Act for the United States to meet their obligations. On March 31, 2005, a Memorandum of Agreement was signed between the State of Idaho, Nez Perce Tribe, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to establish a process for using the habitat trust fund accounts for habitat protection and restoration projects in the Salmon and Clearwater basins in Idaho. In a March 2005 letter, in response to a request from the State of Idaho, the FWS and NMFS provided specific information as to the standard that would be the basis for the cooperative agreement under Section 6 to implement the term sheet. In that letter, the two agencies indicated that meeting the express statutory requirements in section 6 of the ESA for an adequate and active program for the conservation of the species, in this case, bull trout and salmon, would be required.

At the time the negotiations on the adjudication were completed, the bull trout was a listed species, but critical habitat had not been designated. The negotiations culminating in the final Term sheet were completed prior to designation of critical habitat.

(1) Benefits of Inclusion

Designation of critical habitat for bull trout in the Snake River Basin Adjudication area would provide for protection from "destruction or adverse modification" of designated critical habitat under section 7 of the Act. Without designation, a certain amount of habitat protection would be provided through the jeopardy standard. However, as noted earlier, based on our review of previous bull trout consultations under this standard, we have found little to indicate that there would be additional habitat protections generated by the designation beyond those provided through the jeopardy standard. There would be some educational benefits that would accrue from the designation. However, because of the conservation standard that will be the basis for the Section 6 agreement and the ensuing special management provisions which will be the result of that agreement, it is likely that any educational benefit would overlap with the incidental education that would occur as a result of the Section 6 agreement negotiation and the associated NEPA process. Finally, the Section 6 agreement, with its basis of conservation would likely require more, not less, protection of bull trout habitat, even including restoration and enhancement, both of which provide benefits in excess of those provide, by a critical habitat designation.

(2) Benefits of Exclusion

The primary benefit of exclusion is it preserves the Federal government's commitments to the parties to the adjudication. The Term sheet addressed many of the issues related to stream-flow and land management that would also be addressed by a critical habitat designation. The Section 6 agreement also provided the standard that the government would adhere to in their development of implementing agreements. Discretionary superimposition of requirements, in addition to those spelled out in the agreement, could be viewed as an act of bad faith, would undermine confidence in the government's commitments, and negatively impact future negotiations.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

In considering the benefit of a critical habitat designation, and despite any factual circumstance related to meeting the conditions, the Secretary considered that benefits would accrue from a designation. She did this notwithstanding the general premise that in the case of bull trout, our actual consultation records demonstrated the jeopardy standard provided similar results to protection provided by critical habitat designation under the *Gifford Pinchot* definition. These protected conservation benefits, were weighed against the benefit of the Federal government avoiding even the appearance of bad faith in the Snake River Basin adjudication agreements. The Secretary determined that the consequences of the Federal government appearing to unilaterally add additional terms and conditions to an agreement after it was completed were significant and could negatively affect other ongoing and potential future negotiations. The benefit of avoiding even the appearance of bad faith was determined to greatly outweigh any real or speculative benefit conferred by the

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regulatory protections of a critical habitat designation.

Waters Impounded Behind Dams (Reservoirs and Pools)

We are excluding those reservoirs, or pools impounded behind dams whose primary purpose is for flood control, energy production, or water supply for human consumption. Disruption of these functions could potentially compromise human health and safety in the case of reservoir where the reservoir provides flood control or drinking water, and in the case of energy production, would be consistent with the President's energy policy.

(1) Benefits of Inclusion

We identified two benefits of including reservoirs in the critical habitat designation: The additional protection afforded by the prohibition against adverse modification and the benefits associated with clearly delineating areas containing features essential to a species' conservation.

The principal benefit of any designated critical habitat is the requirement for consultation under section 7 of the Act for any activities having a Federal nexus that may affect critical habitat. Section 7 of the Act requires action agencies to avoid the destruction or adverse modification of critical habitat. Given the unique analytical framework for conducting section 7 consultations on the bull trout (*i.e.*, an analytical approach whereby the continued survival of the species is dependent upon maintaining functioning core habitat), the likelihood that a Federal action would result in adverse modification, without also jeopardizing the continued existence of the species, is low. Therefore we give this benefit little weight.

Designating critical habitat can educate the public and management agencies about the distribution of areas containing features essential to the conservation of a species. In areas lacking a bull trout-specific management plan (*e.g.*, many reservoirs) this can guide projects to avoid impacts to listed species and can help focus recovery efforts. We assign this benefit moderate weight.

(2) Benefits of Exclusion

We identified a number of possible benefits of excluding reservoirs from the critical habitat designation. First, to the extent designation would provide any additional protection of bull trout habitat, costs associated with that protection would be avoided. Since it is unlikely that a Federal action would result in adverse modification (which we have assumed to be small), without also jeopardizing the continued existence of the species, we believe the benefits of critical habitat are low, so it follows that by excluding these areas the benefits of exclusion are also low. However, those reservoirs that provide flood protection; even where there is a very small probability of flood control operations, increasing the risk of loss of human lives due to flooding is unacceptable. The benefit of avoiding the risk exceeds the benefit of the conservation values generated through reservoir operation changes. Equally, where a reservoir provides drinking water for people, the benefit of avoiding the risk, however small, of losing that water supply in terms of human health and safety is significant. And finally, where a reservoir provides for energy production the benefit of avoiding the risk, however small, of a reduction in energy is inconsistent with the President's energy policies. Therefore, we believe that the benefits of exclusion, given the risk, however small, to human health, safety, and energy are large, as we give this benefit a significant amount of weight.

Second, exclusion would reduce administrative costs of conducting section 7 consultations on bull trout critical habitat (see Section 3(5)(A) and Exclusions Under Section 4(b)(2) section above). We assign this benefit moderate weight.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

The benefits of including reservoirs in the critical habitat designation consist of the prohibition against adverse modification and the educational benefits of wider knowledge among the public and management agencies about the distribution of areas containing features essential to the conservation of a species. Based on our analysis above we assign these benefits little to moderate weight.

The benefits of excluding reservoirs from the critical habitat designation include avoiding project modifications that would change existing flood protection, water delivery services, and energy production, and avoiding costs associated with preparing regulatory documents on critical habitat. Modification of reservoir operations as a result of critical habitat designation may result in an increased risk to the primary purpose of those reservoirs. For example, should a reservoir alter its capacity for floodwater storage due to an adverse modification determination, this may increase the risk of flooding. We have determined even a minor increase in the risk of flooding has consequences to human health and safety which outweigh the minor benefits of critical habitat. We assign an overriding benefit to the avoidance of increased flood risk. Avoiding diminishment or interruptions of a reservoir's ability to deliver drinking water also outweighs the benefit to the species of critical habitat designation, since the benefit to the species is small and the removing even a small risk to the disruption of drinking water drinking water supplies is a significant benefit. Furthermore, avoiding possible modifications to reservoir operations that reduces energy production is also a benefit in that it supports the President's energy policy through which we assign great weight.

Therefore, we have determined that the benefits of inclusion of the areas covered by reservoirs are small to moderate, while the benefits of exclusion are more significant. In short, the benefits of exclusion outweigh the benefits of inclusion. Because we anticipate that little if any conservation benefit to the bull trout will be foregone as a result of excluding these lands, the exclusion will not result in the extinction of the bull trout. Where waters impounded are used for energy production, this exclusion is consistent with the President's energy policy. The Secretary exercises her discretion under section 4(b)(2) to exclude these areas from the designation.

Summary of Exclusions

We have reviewed the overall effect of the exclusion of the above-mentioned approved Conservation agreements with non-Federal landowners, Tribal lands, military installations, and the Nisqually National Wildlife Refuge, and other lands that we have excluded as described above, for bull trout and their essential habitat. We have determined that the benefits of excluding these areas outweigh the benefits of including them in this critical habitat designation. Designation of critical habitat in these areas would most likely have a negative effect on the recovery and conservation of bull trout. The removal of these lands from critical habitat designation, as a result of these exclusions, will not lead to the species' extinction.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing and contain the PCEs may require special management considerations or protections. As we undertake the process of designating critical habitat for a species, we first evaluate lands

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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. Within each area designated as critical habitat, the physical and biological features essential for the conservation of the bull trout may require some level of management and/or protection to avoid destruction or adverse modification of habitat essential to its conservation.

Critical Habitat Designation

We are designating critical habitat in 20 units. Critical habitat includes bull trout habitat in Idaho, Montana, Oregon, and Washington. Lands adjacent to designated critical habitat are under private, local government, State, Tribal, and Federal ownership. The areas we are designating as critical habitat constitute our best assessment of areas that: (1) Have documented occupancy within the last 20 years, (2) contain features essential to the conservation of the bull trout, and (3) are in need of special management, and (4) were not excluded under section 4(b)(2) of the Act. Military lands with an approved INRMP that provides benefits to the bull trout were not included in the designation per section 4(a)(3) of the Act.

Tables 1–5 summarize the distance (stream miles) and area (acres) of designated critical habitat by critical habitat unit, State, and land ownership.

TABLE 1.—STREAM/SHORELINE DISTANCE (MI/KM) DESIGNATED AS BULL TROUT CRITICAL HABITAT BY CRITICAL HABITAT UNIT

CH unit	Stream/shoreline miles	Stream/shoreline kilometers
1. Klamath River Basin	50	80
2. Clark Fork River Basin	1,136	1,828
3. Kootenai River Basin	56	91
4. Willamette River Basin	111	178
5. Hood River Basin	30	48
6. Deschutes River Basin	78	126
9. Umatilla-Walla Walla River Basins	218	350
10. Grande Ronde River Basin	308	496
11. Imnaha-Snake River Basins	92	148
12. Hells Canyon Complex	125	202
13. Malheur River Basin	38	60
14. Coeur d'Alene Lake Basin	124	199
19. Lower Columbia River Basin	94	152
20. Middle Columbia River Basin	188	302
22. Northeast Washington River Basins	25	40
23. Snake River Basin in Washington	68	109
25. Snake River	17	27
27. Olympic Peninsula	388	624
27. Olympic Peninsula (Marine)	419	674
28. Puget Sound	646	1,039
28. Puget Sound (Marine)	566	912
29. Saint Mary-Belly	37	59
Total	4,813	7,745

TABLE 2.—ACRES OF RESERVOIRS OR LAKES DESIGNATED AS BULL TROUT CRITICAL HABITAT BY CRITICAL HABITAT UNIT.

CH unit	Acres	Hectares
1. Klamath River Basin	24,610	9,959
2. Clark Fork River Basin	49,755	20,135
3. Kootenai River Basin	1,384	560
6. Deschutes River Basin	2,713	1,098
14. Coeur d'Alene Lake Basin	27,296	11,046
27. Olympic Peninsula	8,318	3,366
28. Puget Sound	25,035	10,131
29. Saint Mary-Belly	4,107	1,662
Total	143,218	57,958

TABLE 3.—STREAM/SHORELINE DISTANCE (MI/KM) DESIGNATED AS BULL TROUT CRITICAL HABITAT BY STATE

State	Stream/shoreline miles	Stream/shoreline kilometers
Idaho	294	474
Montana	1,058	1,703
Oregon	939	1,511
Oregon/Idaho	17	27
Washington	1,519	2,445
Washington (Marine)	985	1,585

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TABLE 3.—STREAM/SHORELINE DISTANCE (MI/KM) DESIGNATED AS BULL TROUT CRITICAL HABITAT BY STATE—Continued

State	Stream/shoreline miles	Stream/shoreline kilometers
Total	4,812	7,745

TABLE 4.—ACRES OF RESERVOIRS OR LAKES DESIGNATED AS BULL TROUT CRITICAL HABITAT BY STATE

State	Acres	Hectares
Idaho	50,627	20,488
Montana	31,916	12,916
Oregon	27,322	11,057
Washington	33,353	13,497
Total	143,218	57,958

TABLE 5.—STREAM/SHORELINE DISTANCE (MI/KM) DESIGNATED AS BULL TROUT CRITICAL HABITAT BY OWNERSHIP

Land ownership	Stream/shoreline miles	Stream/shoreline kilometers
Federal	538	865
Federal/Private Mixed	24	38
Federal/State Mixed	6	10
Federal/Tribal Mixed	1	1
Private	3,587	5,773
State/Local Government Mixed	347	559
State/Private Mixed	69	111
Tribal	209	336
Tribal/Private Mixed	31	50
Tribal/State Mixed	1	2
Total	4,813	7,745

The lateral extent of critical habitat, for each designated stream reach, is the width of the stream channel as defined by its ordinary high-water line as defined by the U.S. Army Corps of Engineers (COE) in 33 CFR 329.11. This approach is consistent with the specific mapping requirements described in agency regulations at 50 CFR 424.12(c). 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 steelhead ESUs. Therefore, it is reasonable to conclude 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). Critical habitat extends from the ordinary high-water line as defined by the Corps in 33 CFR 329.11 and shall be used to determine the lateral extent of critical habitat. Adjacent floodplains are not designated as critical habitat. However, it should be recognized that the quality of aquatic habitat within stream channels is intrinsically related to the character of the floodplains and associated riparian zones, and human activities that occur outside the river channels can have demonstrable effects on physical and biological features of the aquatic environment (*i.e.*, critical habitat). In addition, human activities that occur within or adjacent to streams or stream reaches that flow into critical habitat can also have demonstrable effects on physical and biological features of designated reaches. The lateral extent of lakes and reservoirs is defined by the perimeter of the water body as mapped on standard 1:24,000 scale maps (comparable to the scale of a 7.5 minute USGS Quadrangle topographic map).

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. In our 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, recent decisions by the 5th and 9th Circuit Court of Appeals have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for 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

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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. This is a procedural requirement only. However, once proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing their proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report; while the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion 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)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act 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. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's issuance of: (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or (2) a biological opinion for Federal actions that may affect, but are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or 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 jeopardy to the listed species or 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 a new species is listed or critical habitat is subsequently designated that may be affected 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 with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the bull trout or its designated critical habitat will require section 7 consultation under the Act. Activities on State, tribal, local or private lands requiring a Federal permit (such as a permit from the Corps under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local or private lands that are not federally-funded, authorized, or permitted, do not require section 7 consultations.

Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the Bull Trout and Its Critical Habitat

Jeopardy Standard

Prior to and following designation of critical habitat, the Service has applied an analytical framework for bull trout jeopardy analyses that relies heavily on the importance of core area populations to the survival and recovery of the bull trout.[1] The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of the bull trout at the DPS scale in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population ot the survival and recovery of the species as a whole.

Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting bull trout critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the

[1] (Core areas form the building blocks that provide for conserving the bull trout's evolutionary legacy as represented by major genetic groups. The draft *Bull Trout Recovery Plan* recognizes core areas as the population units that are necessary to provide for bull trout biological needs in relation to genetic and phenotypic diversity, and spreading the risk of extinction caused by stochastic events. Peer review of the draft *Bull Trout Recovery Plan* did not reveal deficiencies with this approach. A panel of scientists invited to participate in the bull trout 5-year review process concluded that core areas are appropriate units of analysis by which threats to the bull trout and recovery standards should be measured.)

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proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species. Generally, the conservation role of bull trout critical habitat units is to support viable core area populations.

It should be noted that in the 200 or so formal consultations completed since the bull trout was listed, most of the anticipated effects of proposed Federal actions on the species have not been biologically significant from a core area perspective, and if these actions were subject to the adverse modification standard described above, they would not likely violate it. Based on an analysis of 137 formal consultations conducted during the period 1998–2003, the following types of projects were proposed in bull trout-occupied habitat, in order of frequency (most to least): multiple project actions, grazing, road work, bridge work, habitat restoration, land and resource management plans, mining, hydropower, timber harvest, recreation, water diversion/irrigation, research, land exchange, flood control, erosion control, pipeline construction, predator control, landslide remediation, instream crossings, weed management, dredging, and levee repair.

However, at least one major Federal action involving significant modifications to natural flow patterns in designated critical habitat is currently in formal consultation, and it is likely (based on recent litigation patterns and outcomes) that the number of diversion-related Federal actions consulted on, some of which may occur in critical habitat, will increase substantially in the future. Water quality and quantity are significant factors (and primary constituent elements of bull trout critical habitat) influencing the viability of bull trout core areas. Given that context, it seems reasonable to predict that a few Federal actions will be found to adversely modify bull trout critical habitat; most of these actions would also probably constitute jeopardy.

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. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the species. All areas designated as critical habitat are determined to be essential to the conservation of the bull trout.

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for the bull trout is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the bull trout include, but are not limited to:

(1) Detrimental altering of the minimum flow or the natural flow regime of any of the designated stream segments. Possible actions would include groundwater pumping, impoundment, water diversion, and hydropower generation. We note that such flow alterations resulting from actions affecting tributaries of the designated stream reaches may also destroy or adversely modify critical habitat;

(2) Alterations to the designated stream segments that could indirectly cause significant and detrimental effects to bull trout habitat. Possible actions include vegetation manipulation, timber harvest, road construction and maintenance, prescribed fire, livestock grazing, off-road vehicle use, powerline or pipeline construction and repair, mining, and development. Riparian vegetation profoundly influences instream habitat conditions by providing shade, organic matter, root strength, bank stability, and large woody debris inputs to streams. These characteristics influence water temperature, structure and physical attributes (useable habitat space, depth, width, channel roughness, cover complexity), and food supply (Gregory *et al.* 1991; Sullivan *et al.* 2000). The importance of riparian vegetation and channel bank condition for providing rearing habitat for salmonids in general is well documented (*e.g.*, Bossu 1954 and Hunt 1969, cited in Beschta and Platts 1987; MBTSG 1998);

(3) Detrimental altering of the channel morphology of any of the designated stream segments. Possible actions would include channelization, impoundment, road and bridge construction, deprivation of substrate source, destruction and alteration of aquatic or riparian vegetation, reduction of available floodplain, removal of gravel or floodplain terrace materials, excessive sedimentation from mining, livestock grazing, road construction, timber harvest, off-road vehicle use, and other watershed and floodplain disturbances. We note that such actions in the upper watershed (beyond the riparian area) may also destroy or adversely modify critical habitat. For example, timber harvest activities and associated road construction in upland areas can lead to changes in channel morphology by altering sediment production, debris loading, and peak flows;

(4) Detrimental alterations to the water chemistry in any of the designated stream segments. Possible actions would include release of chemical or biological pollutants into the surface water or connected groundwater at a point source or by dispersed release (non-point);

(5) Proposed activities that are likely to result in the introduction, spread, or augmentation of nonnative aquatic species in any of the designated stream segments. Possible actions would include fish stocking; use of live bait fish; aquaculture; improper construction and operation of canals; and interbasin water transfers; and

(6) Proposed activities that are likely to create significant instream barriers to bull trout movement. Possible actions would include new water diversions, impoundments, and hydropower generation where effective fish passage facilities, mechanisms, or procedures are not provided.

We consider all of the units designated as critical habitat, as well as those that have been excluded or not included, to contain features essential to the conservation of the bull trout. All units are within the geographic range of the species, all were occupied by the species at the time of listing (based on observations made within the last 20 years), and are likely to be used by the bull trout, whether for foraging, migrating, overwintering, spawning, or rearing. Federal agencies already consult with us on activities in areas currently occupied by the bull trout, or if the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the bull trout.

If you have questions regarding whether specific activities will likely constitute destruction or adverse modification of critical habitat, contact the Field Supervisor of the nearest Fish and Wildlife Ecological Services Office. Requests for copies of the regulations on listed wildlife, and inquiries about prohibitions and permits may be addressed to the Division of Endangered Species, U.S. Fish and Wildlife Service, 911 NE 11th Avenue, Portland, OR 97232–4181 (telephone 503/231–6158; facsimile 503/231–6243).

Economic Analysis

Section 4(b)(2)of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant

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impacts of designating a particular area as critical habitat. We exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude areas from critical habitat when exclusion will result in the extinction of the species concerned.

Analysis of the Klamath River and Columbia River Populations

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on April 5, 2004 (69 FR 17634). We accepted comments on the draft analysis until May 5, 2004.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the bull trout. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic impacts that result from these types of protections are not included in the analysis as they are considered to be part of the regulatory and policy baseline.

The analysis examines activities taking place both within and adjacent to the designation. It estimates impacts based on activities that are "reasonably foreseeable" including, but not limited to, activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public. Accordingly, the analysis bases estimates on activities that are likely to occur within a 10-year time frame, from when the proposed rule became available to the public (November 30, 2002, 67 FR 71235). The 10-year time frame was chosen for the analysis because, as the time horizon for an economic analysis is expanded, the assumptions on which the projected number of projects and cost impacts associated with those projects become increasingly speculative. An exception to the 10-year analysis time horizon used in this analysis is for FERC licenses, which are renewed for up to 50 years. Accordingly, this analysis estimates the annualized costs of the expected impacts associated with section 7 bull trout consultations involving FERC re-licensing over a 50-year time horizon.

Costs can be expressed in terms of unit or river mile; both of these metrics are useful in describing economic impacts. On a cost per unit basis, the largest portion of forecast costs is expected to occur in Unit 4, the Willamette River Basin (18 percent). These costs are attributable to fish passage and temperature control projects and annual operating and maintenance and fish study costs at the Corp's facilities in the Upper Willamette River System (Dexter, Lookout Point, Hills Creek, and Blue River Dams). The next most costly unit is Unit 16, the Salmon River Basin (12 percent). Because this is the largest unit in terms of river miles and proportion of USFS-managed land, and because future USFS activities are expected to generate approximately 70 percent of the consultation activity, this unit bears the greatest number of future bull trout-related consultations. Therefore, the administrative costs account for a large portion of the costs in this unit. Together, these two units account for 30 percent (approximately $8.2 million) of forecast costs. The next three most costly units, Hells Canyon complex (Unit 12), and the Clark Fork River (Unit 2), and Malheur River (Unit 13) Basins, each account for 8 percent (a unit cost range of approximately $2.1 million to $2.3 million) of forecast costs. In total, these five units account for almost 55 percent of forecast costs (approximately $14.8 million).

Based on our analysis, we concluded that the designation of critical habitat for the Klamath River and Columbia River population segments would not result in a significant economic impact, and estimated the potential economic effects over a 10-year period would range from $200 to $260 million ($20 to $26 million per year) for bull trout. It is expected that Federal agencies will bear 70 percent of these costs. The total estimated costs associated with bull trout consultation is expected be $9.8 million annually, and total project modification costs are expected to range from $19.5 to $26.1 million annually. Although we do not find the economic costs to be significant, they were considered in balancing the benefits of including and excluding areas from critical habitat.

Analysis of the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River Populations

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The DEA was made available for public review on May 3, 2005 (70 FR 22835). We accepted comments on the DEA until June 2, 2005.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the conservation of bull trout. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. The economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs related to bull trout, and the analysis considers how small entities, including small businesses, organizations, and governments, may be affected by future bull trout conservation activities. In addition, this analysis considers the impacts of conservation activities on the energy industry and its customers. However, economic impacts to land-use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies.

The analysis examines activities taking place both within and adjacent to the designation. It estimates impacts based on activities that are "reasonably foreseeable" including, but not limited

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to, activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public. The analysis estimates economic effects of activities from 1998 (year of the proposed rule for listing) through 2024 (20 years from the year of final critical habitat designation). The time frame for analysis was selected to emulate a reasonable future period for recovery of the species.

The time frame associated with each activity is important because as the time horizon for an economic analysis is expanded, the forecast of future projects becomes increasingly speculative. As a result, with the exception of hydroelectric and non-hydroelectric projects where some capital costs are spread over 50 years, this analysis relies primarily on a time frame of 20 years. The time frame for hydroelectric and non-hydroelectric projects is longer relative to other activities analyzed based on the nature of the activity. Whereas geographic and total projections of population and housing densities within a region become increasingly speculative over time, the known location and inevitability of hydroelectric dam re-licensing or other permitting provides sufficient information to estimate future costs associated with conservation measures at these facilities.

The Coastal-Puget Sound population represents about 99 percent of the costs, and these costs are co-extensive with listed salmon. The reason for this is that listed salmon species overlap with the geographic area of the Coastal-Puget Sound population of bull trout. There are no listed species of salmon or steelhead in the Jarbidge River or Saint Mary-Belly River populations. Also, in cases where there is an overlap of range between salmon and bull trout, no separation is made of these joint costs, and they are presented as "impacts associated with co-extensive of salmon and bull trout conservation activities."

For this critical habitat designation, the majority of the cost burden (about 75 percent) falls on the commercial sector. Based on the projected development from 2005 to 2024, bull trout conservation activities are anticipated to increase the total cost of commercial, residential, and mixed development by $26.2 million annually. Total prospective costs are $277.2 million applying a 7 percent discount rate. Other cost leading activities include Federal land management (13 percent), non-hydroelectric projects (11 percent), and hydroelectric projects (10 percent). In the Puget Sound Unit (Unit 28), costs associated with residential and commercial development are among the highest category of costs.

There are 83 watersheds in the Coastal-Puget Sound region that contain designated critical habitat. Of the 10 watersheds with the highest costs associated with co-extensive salmon and bull trout conservation activities, nine are within Unit 28, between the Skagit River in the north and the Puyallup River in the south, and seven of these contain significant development costs; not surprisingly, they encompass highly urbanized areas of Puget Sound. Together, these seven watersheds represent 48 percent of the total economic impact within designated critical habitat. Costs in the Middle Green River watershed are primarily attributable to conservation activities at the Howard Hansen Dam and the City of Tacoma's water diversion. High costs in the Baker River watershed are due primarily to the upper and lower Baker Dam, where significant capitals costs are expected associated with a fish passage project beginning in 2006. Together, these 10 watersheds in Coastal-Puget Sound represent 70 percent of the annualized economic impacts associated with lands designated as critical habitat.

Based on our analysis, we concluded that the designation of critical habitat for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River population segments would not result in a significant economic impact, and estimated the potential economic effects over a 20-year period would range from approximately $684 million, assuming a 7 percent discount rate, to approximately $1 billion, assuming a 3 percent discount rate. Costs are estimated to be $61.3 million per year.

Copies of the two final economic analyses with supporting documents are included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Branch of Endangered Species (see **ADDRESSES** section), or by downloading from the Internet at *http://www.fws.gov/pacific/bulltrout/*.

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 final rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the final rule clearly stated? (2) Does the final rule contain technical jargon that interferes with the clarity? (3) Does the format of the final 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 final rule? (5) What else could we do to make this final rule easier to understand?

Send a copy of any comments on how we could make this final 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 will not 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. As explained above, we prepared an economic analysis of this action. We used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also used it to help determine whether to exclude any area from critical habitat, as provided for under section 4(b)(2), if we determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless we determine, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA) (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 effect 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 an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the RFA to

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require Federal agencies to provide a statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement.

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting). We apply the "substantial number" test individually to each industry to determine if certification is appropriate. However, SBREFA does not explicitly define "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect bull trout. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities.

The Columbia River and Klamath River populations of bull trout were federally-listed as threatened in June 1998. In fiscal years 1998 through 2002, we conducted 152 formal section 7 consultations and several hundred informal consultations with other Federal agencies, mainly the USFS, to ensure that their actions will not jeopardize the continued existence of the bull trout. Our economic analysis found that timber management, grazing, dam and reservoir operations, stream habitat improvement and fisheries restoration, road construction and maintenance, and flood control projects are the primary activities anticipated to take place within the area designated as critical habitat for the bull trout. To be conservative (*i.e.*, more likely to overstate impacts than understate them), we assumed in our economic analysis that a unique business entity would undertake each of the projected consultations in a given year. Therefore, the number of businesses affected annually is equal to the total annual number of consultations (both formal and informal).

Based on the economic analysis which looked at the critical habitat for bull trout, and including consultations on FERC relicensing of hydroelectric facilities, we estimated that in each year, there could be approximately 52 formal consultations involving bull trout, and it is expected that the USFS will constitute about 70 percent of the total number of formal consultations.

The Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations were federally listed as threatened in April 1999 (Jarbidge River) and November 1999 (Coastal-Puget Sound and St. Mary-Belly River), respectively. In fiscal years 1998 through 2004, we conducted 176 formal section 7 consultations and several hundred informal consultations with other Federal agencies to ensure that their actions will not jeopardize the continued existence of the bull trout. Approximately 77 percent of the past consultations have involved the Corps and FHA. The Corps regulates flood control and damage reduction efforts, as well as permits dredging and construction activities affecting waterways under authority provided by the Clean Water Act. Federal Highway Administration provides funding to many of the road and bridge projects administered by State departments of transportation. Projects that may impact streams with listed bull trout can result in a section 7 consultation with FHA as the action agency.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for small businesses that may be required to consult with us each year regarding their project's impact on bull trout and its habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy, or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

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Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects—including those in their initial proposed form, would result in jeopardy, or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and this critical habitat designation. Within the final CHUs, the types of Federal actions or authorized activities that we have identified as potential concerns are:

(1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;

(2) Regulation of water flows, damming, diversion, and channelization implemented or licensed by Federal agencies;

(3) Regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM;

(4) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;

(5) Hazard mitigation and post-disaster repairs funded by the FEMA; and

(6) Activities funded by the Environmental Protection Agency, U.S. Department of Energy, or any other Federal agency.

It is likely that a developer or other project proponent could modify a project or implement measures to protect bull trout. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing nonnative species, restoration of degraded habitat, and monitoring. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and proposed critical habitat designation. These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include Corps permits, permits we may issue under section 10(a)(1)(B) of the Act, FHA funding for road improvements, hydropower licenses issued by the Federal Energy Regulatory Commission, and regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM. A regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 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 final rule to designate critical habitat for the bull trout 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 *et seq.*), we make 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," and it 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; Aid to Families with Dependent Children 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 that receive Federal funding, assistance, permits or that 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 because it will not produce a Federal mandate of $100 million or greater in any year that is, it is not a "significant regulatory action"

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under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. As such, Small Government Agency Plan is not required.

Takings

In accordance with Executive Order 12630, this rule does not have significant takings implications. Therefore, a takings implication assessment is not required. The designation of critical habitat affects only Federal agency actions. The rule will not increase or decrease the current restrictions on private property concerning take of the bull trout. Due to current public knowledge of the species' protection as a result of it being listed under the Act, the prohibition against take of the species both within and outside of the designated areas, and the fact that critical habitat provides no incremental restrictions, we do not anticipate that property values will be affected by the critical habitat designation. 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. Additionally, critical habitat designation does not preclude development of HCPs and issuances of incidental take permits. Owners of areas that are included in the designated critical habitat will continue to have opportunity to use their property in ways consistent with the survival and conservation of the bull trout.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this critical habitat designation with appropriate State resource agencies in Washington, Idaho, Montana, Oregon, and Nevada. The designation of critical habitat in areas currently occupied by the bull trout 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 PCEs 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 encouraging these governments to simply wait 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 this rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have designated critical habitat in accordance with the provisions of the Endangered Species Act. This final rule uses standard property descriptions and identifies the PCEs within the designated areas to assist the public in understanding the habitat needs of the bull trout.

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

Outside the Tenth Circuit Court, we do not need to prepare environmental analyses as defined by 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 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.

During our development of this critical habitat designation for the Columbia River and Klamath River populations of bull trout, we evaluated tribal lands to determine if they contain features are essential to the conservation of the species. We have designated critical habitat for portions of Ahtanum Creek, North Fork Ahtanum Creek, South Fork Ahtanum Creek, Yakima River, Clearwater Creek, Fish Lake Stream, unnamed tributary to Fish Lake Stream, Little Muddy Creek, Trappers Creek, Two Lakes Stream, West Fork Klickitat River, and Klickitat River within or adjacent to the Yakama Indian Reservation; the Umatilla River, Meacham Creek, and Squaw Creek within the Umatilla Reservation; Lake Coeur d'Alene within the Coeur d'Alene Reservation; a portion of the Columbia River adjacent to the Colville Indian Reservation; the Pend Oreille River and Calispell Creek within the Kalispell Indian Reservation; portions of Clearwater River, Middle Fork Clearwater River, North Fork Clearwater River, and South Fork Clearwater River, Lolo Creek, Clear Creek, and Dworshak Reservoir within or adjacent to the Nez Perce Indian Reservation; and portions of Dry Creek, Flathead Lake, the lower Flathead River, Jocko River, McDonald Lake, Middle Fork Jocko River, Mission Creek, Mission Reservoir, North Fork Jocko River, Post Creek, Saint Mary's Lake, and South Fork Jocko River on the Confederated Salish and Kootenai Tribes (CSKT) lands on the Flathead Indian Reservation.

Currently, the Yakama Nation, Coeur d'Alene, Kalispell, Nez Perce, CSKT, and Umatilla Tribes do not have resource management plans that provide protection or conservation for the bull trout and its habitat. The CSKT have a resource management plan addressing bull trout conservation that is being applied in the Jocko River watershed. However, as a result of our meetings with the Tribes on September 26, 2002, we mutually agreed to include habitat within the Jocko River watershed in this rule designating critical habitat.

We held government-to-government consultations with the Confederated Tribes of Warm Springs Reservation of Oregon (CTWS) to discuss their policy and position regarding the proposal. At these meetings, the CTWS provided us with documents pertaining to the Tribe's conservation activities which benefit the bull trout. These documents include their IRMP I and II, Water Code, Water Quality Standards, Implementation Plan for Water Quality, Water Resources Inventory, Streamside Management Plan, Field Guide to IRMP Standards and Best Management

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Practices. They also provided us with information on specific actions they have taken that benefit the bull trout.

During our development of this critical habitat designation for the Jarbidge River, Coastal-Puget Sound, and Saint Mary-Belly River bull trout populations, we evaluated tribal lands to determine if they contain features that are essential to the conservation of the species. There are no tribal lands designated as critical habitat within the Jarbidge River population area. Within the Saint Mary-Belly River population, there are no tribal lands designated as critical habitat. Within the Coastal-Puget Sound population, we have designated critical habitat for portions of the Nooksack River and Puget Sound nearshore adjacent to the Lummi Indian Reservation; portion of the Nooksack River adjacent to the Nooksack Indian Reservation; portion of the Sauk River adjacent to the Sauk-Suiattle Indian Reservation; portions of the Snohomish River, and Puget Sound nearshore within or adjacent to the Tulalip Indian Reservation; portions of the Puyallup River and Puget Sound nearshore within or adjacent to the Puyallup Indian Reservation; portions of the Nisqually River within or adjacent to the Nisqually Indian Reservation; portions of the Elwha River and the Strait of Juan de Fuca nearshore within or adjacent to the Lower Elwha S'Klallam Indian Reservation; and a portion of the Chehalis River within or adjacent to the Chehalis Indian Reservation. Approximately 18 mi (29 km) of stream segments, 60 mi (96 km) of marine shoreline, and 962 ac (389 ha) on or adjacent to tribal lands are included in our critical habitat designation, and approximately 79 mi (127 km) of stream segments and 56 mi (90 km) of marine shoreline on or adjacent to tribal lands are excluded.

We will continue to work closely with tribes to manage essential features of bull trout habitat. We are committed to maintaining a positive working relationship with all of the tribes, and will work with them on developing resource management plans for tribal lands that include conservation measures for bull trout. We were required to prepare this critical habitat designation based on our analysis of whether habitat within these tribal reservation lands contain features essential to the conservation of the species and may require special management considerations or protection. Please refer to the Tribal Lands section under the Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act for a more detailed discussion.

References Cited

A complete list of all references cited in this final rule is available on request from the U.S. Fish and Wildlife Service, Branch of Endangered Species Office, Portland, OR (see **ADDRESSES** section).

Authors

The primary authors of this rule are the staff of the U.S. Fish and Wildlife Service.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

■ Accordingly, we 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. Amend § 17.95(e) by revising the entry for Bull Trout (*Salvelinus confluentus*) to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(e) *Fishes.*

* * * * *

Bull Trout (*Salvelinus confluentus*)

(1) *Locations of the designated critical habitat.* Critical habitat is designated in the following States and counties on the maps and as described below:

State	Counties
(i) Idaho	Adams, Benewah, Bonner, Boundary, Kootenai, Nez Perce, Shoshone, Washington.
(ii) Montana	Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders.
(iii) Oregon	Baker, Deschutes, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lane, Sherman, Umatilla, Union, Wallowa, Wasco.
(iv) Washington	Asotin, Benton, Clallam, Clark, Columbia, Cowlitz, Garfield, Grays Harbor, Island, Jefferson, King, Kittitas, Klickitat, Mason, Pend Oreille, Pierce, Skagit, Skamania, Snohomish, Stevens, Thurston, Walla Walla, Whatcom, Whitman, Yakima.

(2) *Topographic features included in the critical habitat designation.* Critical habitat includes the stream channels within the designated stream reaches and inshore extent of critical habitat for marine nearshore areas (the mean high high-water (MHHW) line), including tidally influenced freshwater heads of estuaries indicated on the maps below.

(i) Critical habitat includes the stream channels within the designated stream reaches, and includes a lateral extent as defined by the ordinary high-water line. 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 that generally has a recurrence interval of 1 to 2 years on the annual flood series. Critical habitat includes the stream channels within the designated stream reaches, and includes a lateral extent from the bankfull elevation on one bank to the bankfull elevation on the opposite bank. Bankfull elevation is the level at which water begins to leave the channel and move into the floodplain and is reached at a discharge that generally has a recurrence interval of 1 to 2 years on the annual flood series. If bankfull elevation is not evident on either bank, the ordinary high-water line must be used to determine the lateral extent of critical habitat. The lateral extent of designated lakes is defined by the perimeter of the water body as mapped on standard 1:24,000 scale topographic maps.

(ii) Critical habitat includes the inshore extent of critical habitat for marine nearshore areas (the MHHW line), including tidally influenced freshwater heads of estuaries. This refers to the average of all the higher high-water heights of the two daily tidal levels. Adjacent shoreline riparian areas, bluffs, and uplands are not designated as critical habitat. However, it should be recognized that the quality of marine habitat along shorelines is intrinsically related to the character of these adjacent features, and human activities that occur outside of the MHHW line can have major effects on physical and biological features of the marine environment. The offshore

extent of critical habitat for marine nearshore areas is based on the extent of the photic zone, which is the layer of water in which organisms are exposed to light. Critical habitat extends offshore to the depth of 33 ft (10 m) relative to the mean low low-water line (MLLW) (average of all the lower low-water heights of the two daily tidal levels). This equates to the average depth of the photic zone and is consistent with the offshore extent of the nearshore habitat identified under the "Notice of Change to the Nation's Tidal Datums With the Adoption of a New National Tidal Datum Epoch Period of 1983 Through 2001". This area between MHHW and minus 10 MLLW is considered the habitat most consistently used by bull trout in marine waters based on known use, forage fish availability, and ongoing migration studies, and captures geological and ecological processes important to maintaining these habitats. This area contains essential foraging habitat and migration corridors such as estuaries, bays, inlets, shallow subtidal areas, and intertidal flats.

(3) *Primary constituent elements needed for bull trout survival.* Within the designated critical habitat areas, the primary constituent elements (PCEs) for bull trout are those habitat components that are essential for the primary biological needs of foraging, reproducing, rearing of young, dispersal, genetic exchange, or sheltering. Note that only the PCEs described in paragraphs (e)(3)(i), (vi), (vii), and (viii) apply to marine nearshore waters identified as critical habitat. The PCEs are as follows:

(i) Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72 °F (0 to 22 °C) but are found more frequently in temperatures ranging from 36 to 59 °F (2 to 15 °C). These temperature ranges may vary depending on bull trout life-history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence. Stream reaches with temperatures that preclude bull trout use are specifically excluded from designation;

(ii) Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures;

(iii) Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch (0.63 centimeter) in diameter.

(iv) A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, currently operate under a biological opinion that addresses bull trout, or a hydrograph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation: This rule finds that reservoirs currently operating under a biological opinion that addresses bull trout provides management for PCEs as currently operated;

(v) Springs, seeps, groundwater sources, and subsurface water to contribute to water quality and quantity as a cold water source;

(vi) Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows;

(vii) An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish; and

(viii) Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited.

(4) *Exclusions from the critical habitat designation.* Certain geographic areas are excluded from the critical habitat designation as described below in this paragraph (4).

(i) *3(5)(A) and Exclusions under section 4(b)(2) of the Act.* (A) *Habitat conservation plans.* We are excluding from the critical habitat designation any non-Federal lands covered by an incidental take permit for bull trout issued under section 10(a)(1)(B) of the Act on or before September 26, 2005, as long as such permit, or a conservation easement providing comparable conservation benefits, remains legally operative on such lands. These excluded areas are covered by habitat conservation plans (HCPs). They include lands and waters covered by the Washington Department of Natural Resources HCP, the Plum Creek Native Fish HCP/Stimson Lumber Company HCP, the Tacoma Water Green River HCP, the Green Diamond Resources Company HCP, and the City of Seattle Cedar River Watershed HCP.

(B) *Tribal lands.* The following tribal lands contain stream segments or marine nearshore habitat areas that have been excluded from designated critical habitat pursuant to section 4(b)(2) of the Act: Tribal lands of the Blackfeet Nation, Swinomish Tribe, Quinault Indian Nation, Muckleshoot Tribe, Jamestown S'Klallam Tribe, Hoh Tribe, Skokomish, and Confederated Tribes of Warm Springs Reservation of Oregon.

(C) *Federal lands.* The following Federal lands contain stream segments or marine nearshore habitat areas that have been excluded from designated critical habitat pursuant to section 4(a)(3) of the Act: Lands within the Nisqually National Wildlife Refuge; the Washington State Forest Practices Rules and Forest Practices Regulations for Bull Trout; the Lewis Hydroelectric Project Conservation Easements; the Snake River Basin Adjudication; the Northwest Forest Plan Aquatic Conservation Strategy; the Interim Strategy for Managing Anadromous-Fish-Producing Watersheds; the Federal Columbia River Power System; the Clark Fork River from Missoula to Butte, MT; the Middle Fork of the Boise River; the Interior Columbia Basin Ecosystem Management Project; the Southeast Oregon Resource Management Plan; the Southwest Idaho Land and Resource Management Plan; and waters impounded behind dams whose primary purpose is for flood control or water supply for human consumption (reservoirs and pools).

(ii) *Non-Inclusions under section 4(a)(3) of the Act.* (A) *Military lands.* The following military lands contain stream segments or marine nearshore habitat areas that have been excluded from designated critical habitat pursuant to section 4(a)(3) of the Act: Bayview Acoustic Research Detachment, Naval Surface Warfare Center, ID; Naval Radio Station, Jim Creek, WA; Naval Station, Everett, WA; Naval Air Station, Whidbey Island, WA; the Naval Under Sea Warfare Center Division, Newport, WA (Dabob Bay and Crescent Harbor), Keyport facilities and Fort Lewis, WA.

(B) [Reserved]

(5) The designated critical habitat units for bull trout are set forth in the text and depicted on the maps below.

(6) An index map of designated critical habitat for the Klamath River, Columbia River, Olympic Peninsula, Puget Sound, and Saint Mary-Belly bull trout populations follows:

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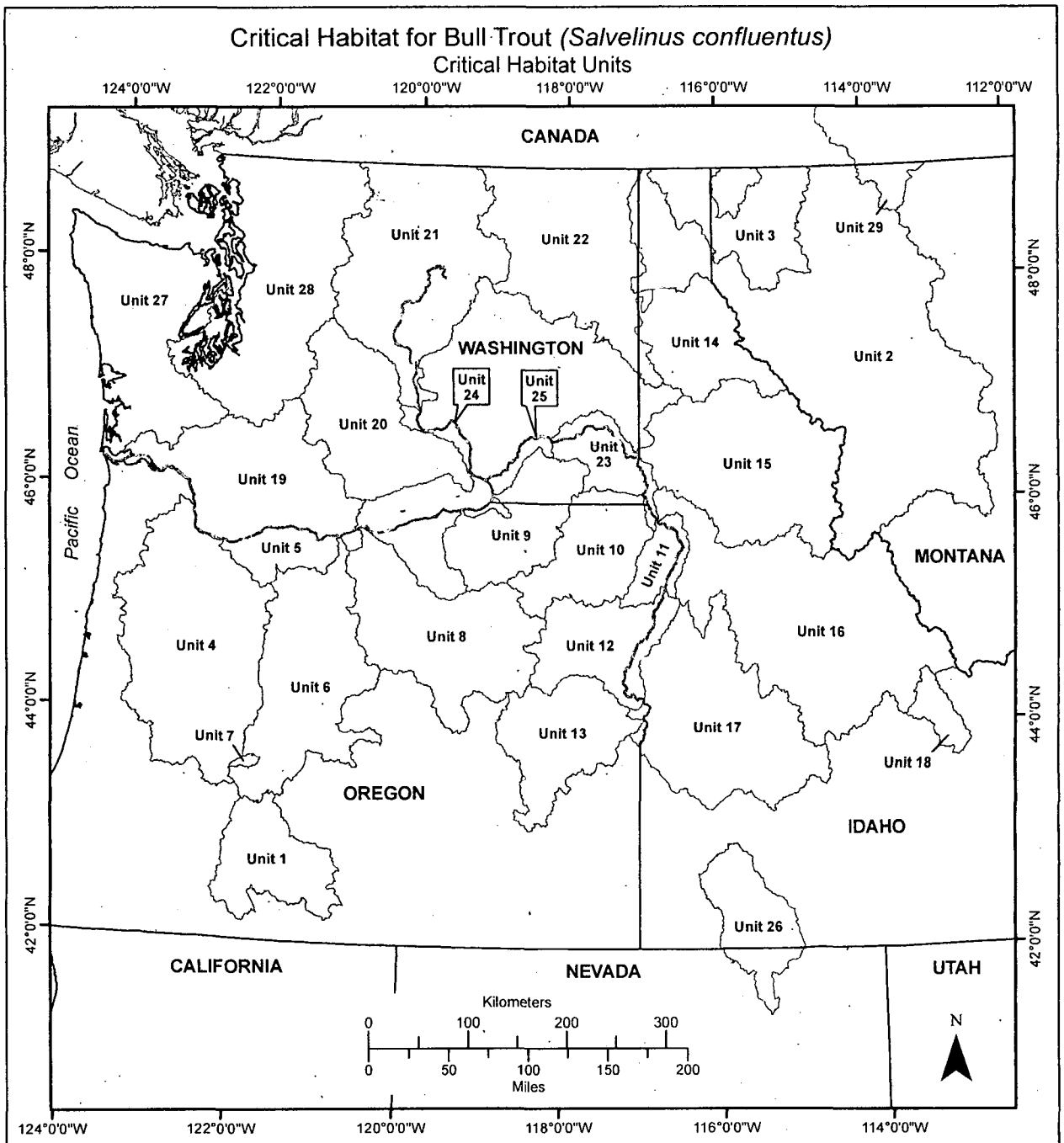

1 - Klamath River Basin
2 - Clark Fork River Basin
3 - Kootenai River Basin
4 - Willamette River Basin
5 - Hood River Basin
6 - Deschutes River Basin
7 - Odell Lake
8 - John Day River Basin
9 - Umatilla-Walla Walla River Basins
10 - Grande Ronde River Basin
11 - Imnaha-Snake River Basins
12 - Hells Canyon Complex
13 - Malheur River Basin
14 - Coeur d'Alene Lake Basin
15 - Clearwater River Basin
16 - Salmon River Basin
17 - Southwest Idaho River Basins
18 - Little Lost River Basin
19 - Lower Columbia River Basin
20 - Middle Columbia River Basin
21 - Upper Columbia River Basin
22 - Northeast Washington River Basins
23 - Snake River Basin in Washington
24 - Columbia River
25 - Snake River
26 - Jarbidge River Basin
27 - Olympic Peninsula River Basins
28 - Puget Sound
29 - St. Mary – Belly Rivers

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(7) Unit 1: Klamath River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Boulder Creek	42.517 N.	120.951 W.	42.495 N.	120.884 W.
Brownsworth Creek	42.392 N.	120.913 W.	42.469 N.	120.854 W.
Coyote Creek	42.854 N.	121.158 W.	42.893 N.	121.246 W.
Deming Creek	42.448 N.	120.953 W.	42.486 N.	120.885 W.
Dixon Creek	42.518 N.	120.937 W.	42.532 N.	120.923 W.
Leonard Creek	42.413 N.	120.867 W.	42.465 N.	120.864 W.
Long Creek	42.826 N.	121.209 W.	42.933 N.	121.338 W.
North Fork Sprague River	42.497 N.	121.008 W.	42.557 N.	120.839 W.
Sheepy Creek	42.534 N.	120.931 W.	42.514 N.	120.890 W.
Sun Creek	42.735 N.	122.008 W.	42.898 N.	122.096 W.
Sycan Marsh	Located at		42.816 N.	121.124 W.
Threemile Creek	42.642 N.	122.065 W.	42.640 N.	122.138 W.

(ii) Map of Unit 1, Klamath River Basin, follows:

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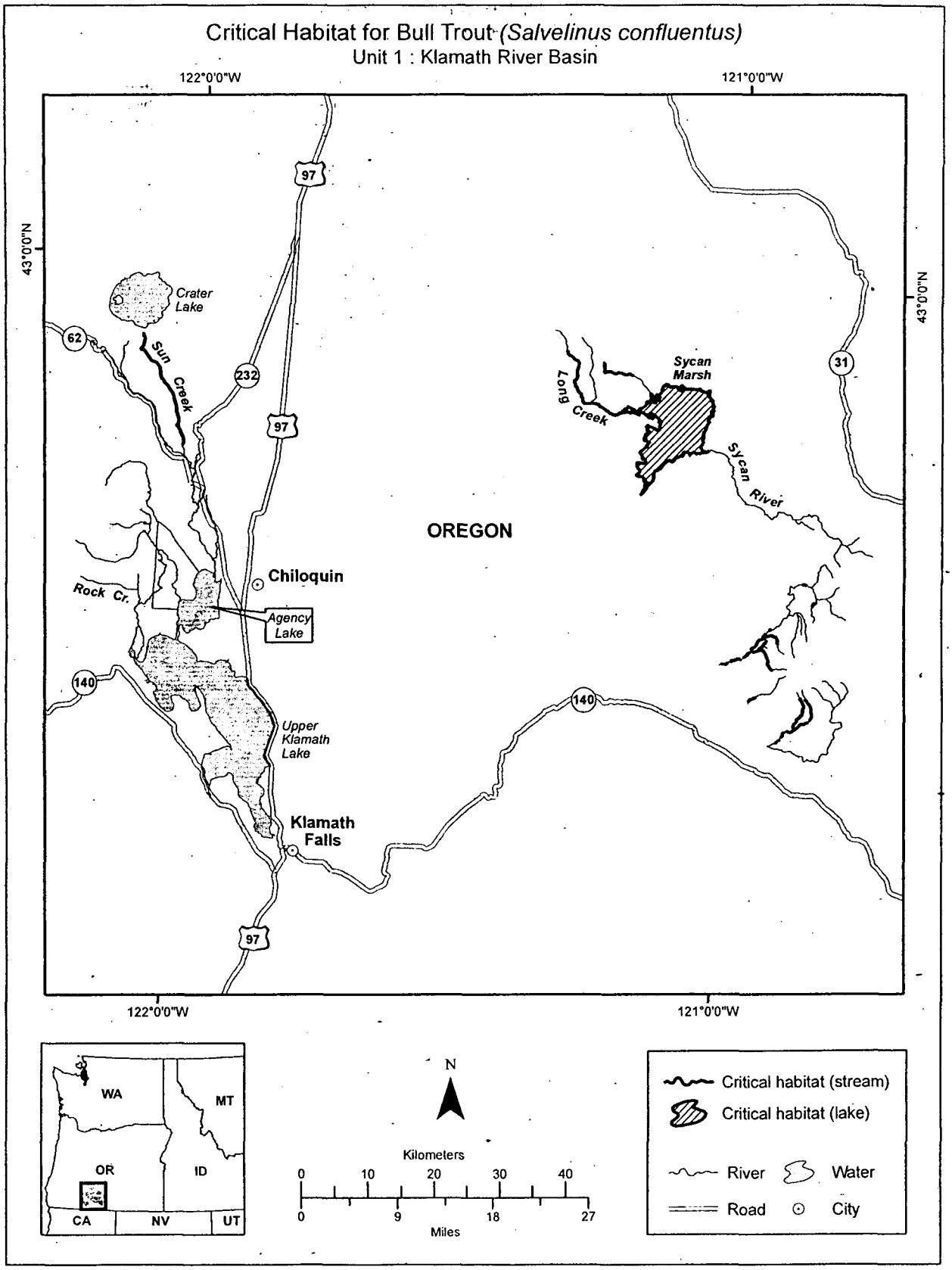

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(8) Unit 2: Clark Fork River Basin.

(ii) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Akokala Cr	48.881 N.	114.198 W.	48.892 N.	114.191 W.
Akokala Lake	Located at		48.879 N.	114.198 W.
Arrow Lake	Located at		48.706 N.	113.884 W.
Barker Cr	46.163 N.	113.115 W.	46.100 N.	113.115 W.
Bear Creek	48.234 N.	113.566 W.	48.296 N.	113.384 W.
Beaver Cr	46.472 N.	113.493 W.	46.468 N.	113.555 W.
Belmont Cr	46.954 N.	113.569 W.	47.061 N.	113.681 W.
Big Cr	47.378 N.	115.384 W.	47.364 N.	115.444 W.
Big Cr, M Fk	47.364 N.	115.444 W.	47.312 N.	115.492 W.
Big Cr, W Fk	47.364 N.	115.444 W.	47.350 N.	115.544 W.
Bitterroot River	46.861 N.	114.118 W.	45.944 N.	114.128 W.
Blackfoot River	46.870 N.	113.889 W.	47.011 N.	112.476 W.
Blodgett Cr	46.312 N.	114.145 W.	46.248 N.	114.453 W.
Boulder Cr	46.478 N.	113.237 W.	46.343 N.	113.076 W.
Bowman Cr	48.906 N.	114.117 W.	48.974 N.	114.063 W.
Bowman Lake	Located at		48.870 N.	114.157 W.
Brewster Cr	46.612 N.	113.653 W.	46.582 N.	113.587 W.
Bull River	48.036 N.	115.844 W.	48.109 N.	115.782 W.
Burnt Fork Creek	46.542 N.	114.099 W.	46.304 N.	113.837 W.
Cable Cr	46.172 N.	113.180 W.	46.196 N.	113.213 W.
Cache Cr	46.814 N.	114.639 W.	46.726 N.	114.758 W.
Camas Cr	48.690 N.	113.901 W.	48.738 N.	113.883 W.
Cedar Cr	47.178 N.	114.862 W.	47.049 N.	115.043 W.
Cedar Creek	48.880 N.	116.959 W.	48.909 N.	116.885 W.
Cerulean Lake	Located at		48.872 N.	114.057 W.
Chicken Cr	45.601 N.	114.313 W.	45.621 N.	114.403 W.
Clark Fork River	47.366 N.	114.776 W.	46.870 N.	113.889 W.
Clearwater Lake	Located at		47.385 N.	113.558 W.
Clearwater R, W Fk	47.256 N.	113.550 W.	47.287 N.	113.744 W.
Clearwater River	47.107 N.	113.427 W.	47.390 N.	113.561 W.
Coal Cr	48.690 N.	114.193 W.	48.698 N.	114.494 W.
Coal Cr, S Fk	48.680 N.	114.345 W.	48.674 N.	114.471 W.
Cold Cr	47.584 N.	113.756 W.	47.562 N.	113.810 W.
Copper Cr	47.007 N.	112.555 W.	47.060 N.	112.752 W.
Cottonwood Cr	47.025 N.	113.281 W.	47.161 N.	113.345 W.
Cyclone Cr	48.665 N.	114.238 W.	48.712 N.	114.391 W.
Cyclone Lake	Located at		48.706 N.	114.297 W.
Deer Cr	45.595 N.	114.321 W.	45.570 N.	114.509 W.
Deer Cr	47.208 N.	113.529 W.	47.249 N.	113.688 W.
Deer Cr	47.377 N.	115.359 W.	47.326 N.	115.389 W.
Doctor Lake	Located at		47.404 N.	113.480 W.
Dry Cr	47.305 N.	114.064 W.	47.259 N.	113.903 W.
Dunham Cr	47.103 N.	113.155 W.	47.238 N.	113.316 W.
East Fork Bitterroot River	45.944 N.	114.128 W.	45.911 N.	113.595 W.
East River	48.353 N.	116.852 W.	48.371 N.	116.819 W.
Elk Cr	47.544 N.	113.741 W.	47.480 N.	113.856 W.
Finley Cr	47.125 N.	113.560 W.	47.120 N.	113.649 W.
Fish Cr	47.004 N.	114.699 W.	46.927 N.	114.696 W.
Fish Cr, S Fk	46.927 N.	114.696 W.	46.753 N.	114.571 W.
Fish Cr, W Fk	46.927 N.	114.696 W.	46.812 N.	114.890 W.
Fishtrap Cr	47.713 N.	115.058 W.	47.817 N.	115.144 W.
Fitzsimmons Cr	48.735 N.	114.733 W.	48.752 N.	114.618 W.
Flathead River	48.061 N.	114.127 W.	48.468 N.	114.069 W.
Flint Cr	46.654 N.	113.145 W.	46.478 N.	113.237 W.
Foster Cr	46.164 N.	113.120 W.	46.283 N.	113.109 W.
Fred Burr Creek	46.365 N.	114.131 W.	46.357 N.	114.315 W.
Gilbert Cr	46.682 N.	113.666 W.	46.648 N.	113.818 W.
Goat Cr	47.749 N.	113.828 W.	47.773 N.	113.694 W.
Gold Creek	47.971 N.	116.454 W.	47.954 N.	116.451 W.
Granite Creek	48.087 N.	116.427 W.	48.060 N.	116.329 W.
Granite Creek	48.639 N.	116.863 W.	48.700 N.	117.029 W.
Graves Cr	47.682 N.	115.409 W.	47.718 N.	115.380 W.
Grouse Creek	48.403 N.	116.477 W.	48.483 N.	116.228 W.
Harrison Cr	48.529 N.	113.750 W.	48.574 N.	113.701 W.
Harrison Lake	Located at		48.516 N.	113.771 W.
Harvey Cr	46.707 N.	113.372 W.	46.581 N.	113.573 W.
Hughes Cr	45.621 N.	114.303 W.	45.667 N.	114.021 W.

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Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Hughes Fork	48.805 N.	116.923 W.	48.946 N.	117.023 W.
Indian Creek	48.610 N.	116.836 W.	48.634 N.	116.789 W.
Jim Cr	47.648 N.	113.792 W.	47.575 N.	113.856 W.
Jocko R	47.322 N.	114.304 W.	47.201 N.	113.924 W.
Jocko R, M Fk	47.201 N.	113.924 W.	47.203 N.	113.761 W.
Jocko R, N Fk	47.201 N.	113.924 W.	47.226 N.	113.816 W.
Jocko R, S Fk	47.195 N.	113.852 W.	47.104 N.	113.766 W.
Johnson Cr	48.139 N.	116.229 W.	48.131 N.	116.225 W.
Kalispell Creek	48.567 N.	116.921 W.	48.626 N.	117.134 W.
Kintla Cr	48.975 N.	114.250 W.	48.986 N.	114.063 W.
Kintla Lake	Located at		48.966 N.	114.297 W.
Lake Alva	Located at		47.314 N.	113.582 W.
Lake Inez	Located at		47.270 N.	113.566 W.
Lake Isabel	Located at		48.422 N.	113.493 W.
Lake McDonald	Located at		48.576 N.	113.932 W.
Landers Fk	46.965 N.	112.562 W.	47.099 N.	112.566 W.
Lightning Creek	48.140 N.	116.191 W.	48.353 N.	116.175 W.
Lincoln Cr	48.592 N.	113.766 W.	48.595 N.	113.758 W.
Lincoln Lake	Located at		48.591 N.	113.770 W.
Lindbergh Lake	Located at		47.359 N.	113.731 W.
Lion Cr	47.681 N.	113.815 W.	47.670 N.	113.710 W.
Lion Creek	48.736 N.	116.831 W.	48.725 N.	116.672 W.
Little Blackfoot R	46.515 N.	112.797 W.	46.341 N.	112.465 W.
Little Joe Cr	47.297 N.	115.120 W.	47.270 N.	115.140 W.
Logging Cr	48.784 N.	114.002 W.	48.776 N.	114.019 W.
Logging Lake	Located at		48.756 N.	114.077 W.
Lost Cr, S Fk	47.873 N.	113.824 W.	47.869 N.	113.736 W.
Lower Quartz Lake	Located at		48.810 N.	114.170 W.
McDonald Cr	48.632 N.	113.868 W.	48.646 N.	113.847 W.
McDonald Lake	Located at		47.421 N.	113.976 W.
Meadow Cr	46.157 N.	113.439 W.	46.092 N.	113.443 W.
Middle Fork East River	48.371 N.	116.819 W.	48.362 N.	116.659 W.
Middle Fork Flathead River	48.468 N.	114.069 W.	47.996 N.	113.057 W.
Middle Quartz Lake	Located at		48.822 N.	114.141 W.
Mill Creek	46.348 N.	114.152 W.	46.312 N.	114.286 W.
Mission Cr	47.354 N.	114.285 W.	47.320 N.	113.988 W.
Mission Reservoir	Located at		47.321 N.	114.005 W.
Monture Cr	47.020 N.	113.235 W.	47.301 N.	113.249 W.
Moose Meadow Cr	46.139 N.	113.591 W.	46.078 N.	113.635 W.
Morrell Cr	47.141 N.	113.460 W.	47.342 N.	113.471 W.
North Fork Blackfoot River	46.985 N.	113.129 W.	47.197 N.	112.886 W.
North Fork Flathead River	48.468 N.	114.069 W.	49.000 N.	114.474 W.
North Fork Grouse Creek	48.452 N.	116.373 W.	48.502 N.	116.265 W.
North Fork Indian Creek	48.634 N.	116.789 W.	48.627 N.	116.691 W.
North Gold Creek	47.974 N.	116.452 W.	47.975 N.	116.426 W.
Nyack Creek	48.458 N.	113.804 W.	48.489 N.	113.700 W.
Ole Cr	48.283 N.	113.598 W.	48.315 N.	113.463 W.
Overwhich Cr	45.675 N.	114.307 W.	45.717 N.	114.080 W.
Owl Cr	47.115 N.	113.441 W.	47.115 N.	113.502 W.
Pack River	48.320 N.	116.382 W.	48.613 N.	116.634 W.
Park Cr	48.310 N.	113.613 W.	48.369 N.	113.490 W.
Park Cr	48.422 N.	113.496 W.	48.421 N.	113.505 W.
Petty Cr	46.992 N.	114.446 W.	46.850 N.	114.438 W.
Piper Cr	47.675 N.	113.815 W.	47.637 N.	113.844 W.
Placid Cr	47.116 N.	113.541 W.	47.187 N.	113.692 W.
Placid Lake	Located at		47.119 N.	113.522 W.
Post Creek	47.360 N.	114.168 W.	47.410 N.	113.935 W.
Priest Lake	Located at		48.481 N.	116.875 W.
Priest River	48.178 N.	116.892 W.	48.353 N.	116.852 W.
Prospect Cr	47.592 N.	115.358 W.	47.569 N.	115.676 W.
Quartz Cr	48.815 N.	114.165 W.	48.839 N.	114.003 W.
Quartz Lake	Located at		48.826 N.	114.100 W.
Racetrack Cr	46.285 N.	112.729 W.	46.279 N.	112.949 W.
Rainbow Cr	48.855 N.	114.053 W.	48.869 N.	114.052 W.
Rainy Lake	Located at		47.340 N.	113.593 W.
Ranch Cr	46.583 N.	113.678 W.	46.468 N.	113.577 W.
Rattlesnake Cr	46.867 N.	113.985 W.	47.098 N.	113.909 W.
Red Meadow Cr	48.805 N.	114.324 W.	48.753 N.	114.565 W.
Rock Cr, E Fk	46.200 N.	113.499 W.	46.021 N.	113.319 W.
Rock Cr, M Fk	46.223 N.	113.521 W.	45.949 N.	113.523 W.
Rock Cr, Ross Fk	46.224 N.	113.525 W.	46.034 N.	113.779 W.

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Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Rock Cr, W Fk	46.223 N.	113.521 W.	46.144 N.	113.721 W.
Rock Creek	46.725 N.	113.682 W.	46.223 N.	113.521 W.
Rock Creek	47.975 N.	115.742 W.	48.040 N.	115.676 W.
Saint Mary's Lake	Located at		47.261 N.	113.919 W.
Salmon Lake	Located at		47.099 N.	113.406 W.
Seeley Lake	Located at		47.187 N.	113.505 W.
Skalkaho Cr	46.220 N.	114.162 W.	46.057 N.	113.807 W.
Sleeping Child Cr	46.162 N.	114.159 W.	46.033 N.	113.814 W.
Soldier Creek	48.503 N.	116.838 W.	48.547 N.	116.698 W.
Soup Cr	47.837 N.	113.843 W.	47.812 N.	113.751 W.
South Boulder Cr	46.441 N.	113.214 W.	46.330 N.	113.219 W.
South Fork Bull River	48.109 N.	115.782 W.	48.152 N.	115.784 W.
South Fork Granite Creek	48.700 N.	117.029 W.	48.761 N.	117.147 W.
South Fork Indian Creek	48.634 N.	116.789 W.	48.624 N.	116.716 W.
South Fork Lion Creek	48.743 N.	116.797 W.	48.716 N.	116.718 W.
Squeezer Cr	47.750 N.	113.815 W.	47.717 N.	113.727 W.
St Regis R	47.297 N.	115.089 W.	47.427 N.	115.741 W.
Stillwater R	48.604 N.	114.655 W.	48.789 N.	114.685 W.
Stony Cr	46.348 N.	113.603 W.	46.283 N.	113.771 W.
Storm Lake Cr	46.169 N.	113.153 W.	46.075 N.	113.267 W.
Sullivan Springs	48.088 N.	116.411 W.	48.084 N.	116.387 W.
Swan Lake	Located at		47.968 N.	113.910 W.
Swan River	47.928 N.	113.880 W.	47.295 N.	113.782 W.
Swift Cr	48.481 N.	114.424 W.	48.654 N.	114.550 W.
Swift Cr, E Fk	48.687 N.	114.582 W.	48.756 N.	114.583 W.
Swift Cr, W Fk	48.654 N.	114.550 W.	48.723 N.	114.667 W.
Tarlac Creek	48.393 N.	116.737 W.	48.349 N.	116.717 W.
The Thorofare	48.740 N.	116.842 W.	48.766 N.	116.864 W.
Thompson R	47.576 N.	115.240 W.	47.713 N.	115.058 W.
Trail Creek	48.924 N.	114.386 W.	48.934 N.	114.534 W.
Trapper Creek	48.796 N.	116.896 W.	48.877 N.	116.846 W.
Trestle Creek	48.283 N.	116.352 W.	48.352 N.	116.234 W.
Trout Cr	47.143 N.	114.829 W.	47.004 N.	114.992 W.
Trout Lake	Located at		48.677 N.	113.912 W.
Twelvemile Cr	47.350 N.	115.291 W.	47.465 N.	115.324 W.
Twin Creek	48.094 N.	116.129 W.	48.063 N.	116.151 W.
Twin Lakes Cr	46.169 N.	113.152 W.	46.056 N.	113.226 W.
Two Mouth Creek	48.688 N.	116.836 W.	48.674 N.	116.676 W.
Uleda Creek	48.388 N.	116.707 W.	48.339 N.	116.694 W.
Upper Kintla Lake	Located at		48.974 N.	114.173 W.
Upper Priest River	48.799 N.	116.911 W.	49.000 N.	116.936 W.
Upper Stillwater Lake	Located at		48.587 N.	114.636 W.
Upper Whitefish Lake	Located at		48.687 N.	114.578 W.
Upper Willow Cr	46.331 N.	113.542 W.	46.566 N.	113.522 W.
Vermilion R	47.833 N.	115.535 W.	47.869 N.	115.409 W.
Wahlquist Cr	46.501 N.	113.776 W.	46.531 N.	113.843 W.
Warm Springs Cr	45.860 N.	114.025 W.	45.726 N.	114.057 W.
Warm Springs Cr	46.210 N.	112.767 W.	46.261 N.	113.137 W.
West Fork Bitterroot River	45.944 N.	114.128 W.	45.461 N.	114.341 W.
West Gold Creek	47.954 N.	116.451 W.	47.944 N.	116.477 W.
Whale Cr	48.849 N.	114.352 W.	48.851 N.	114.593 W.
Whitefish Lake	Located at		48.455 N.	114.387 W.
Woodward Cr	47.777 N.	113.845 W.	47.767 N.	113.879 W.
Woodward Cr, S Fk	47.754 N.	113.857 W.	47.717 N.	113.857 W.

(ii) Map of Unit 2, Clark Fork River Basin, follows:

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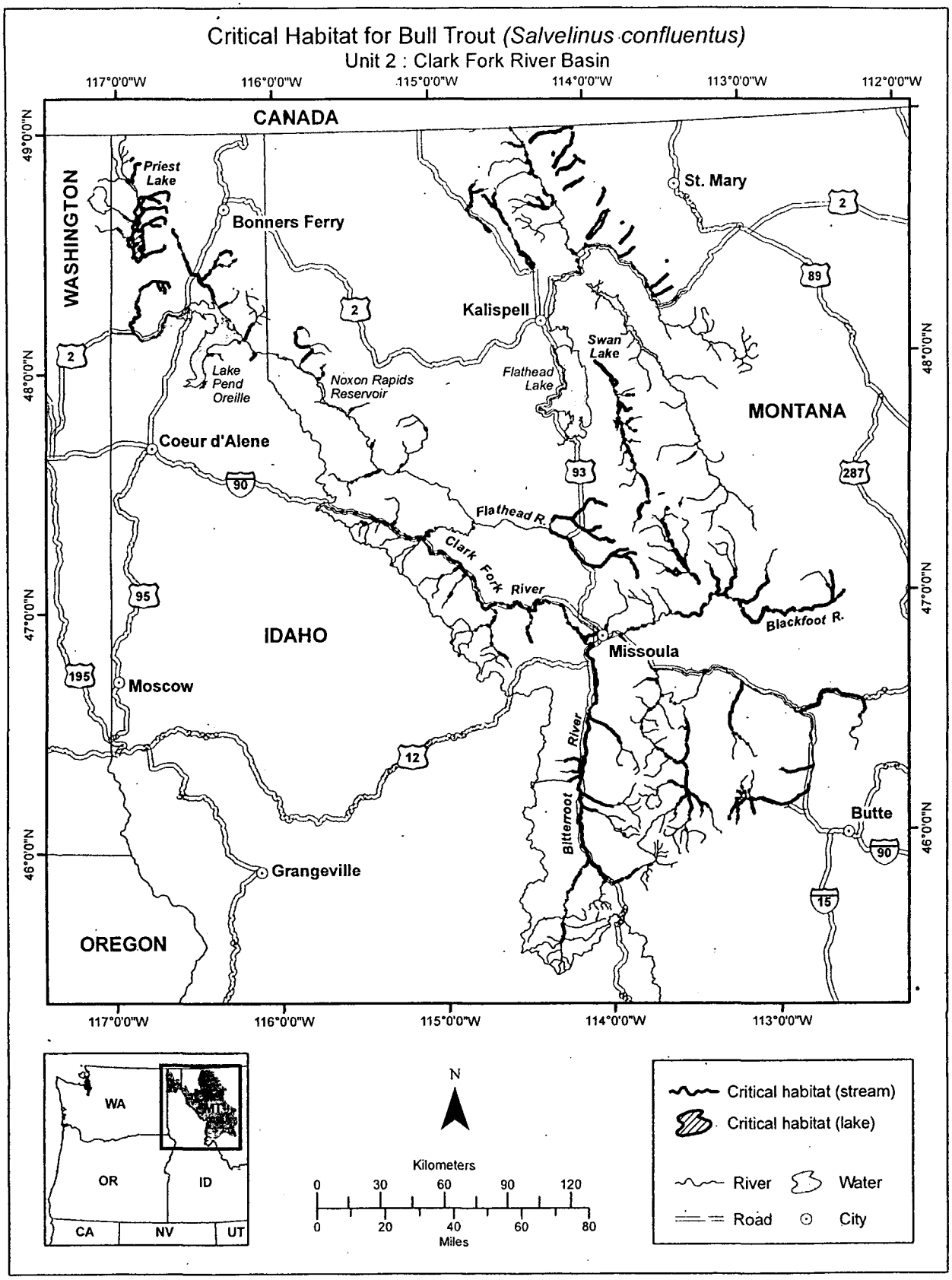

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 2 : Clark Fork River Basin
117°0'0"W
116°0'0"W
115°0'0"W
114°0'0"W
113°0'0"W
112°0'0"W
49°0'0"N
48°0'0"N
47°0'0"N
46°0'0"N
CANADA
WASHINGTON
IDAHO
MONTANA
OREGON
Priest Lake
Bonners Ferry
St. Mary
Kalispell
Swan Lake
Lake Pend Oreille
Noxon Rapids Reservoir
Flathead Lake
Coeur d'Alene
Flathead R.
Clark Fork River
Blackfoot R.
Missoula
Moscow
Bitterroot River
Butte
Grangeville
2
89
90
93
287
95
195
12
15
WA
OR
ID
CA
NV
UT
N
Kilometers
0
30
60
90
120
0
20
40
60
80
Miles
Critical habitat (stream)
Critical habitat (lake)
River
Water
Road
City

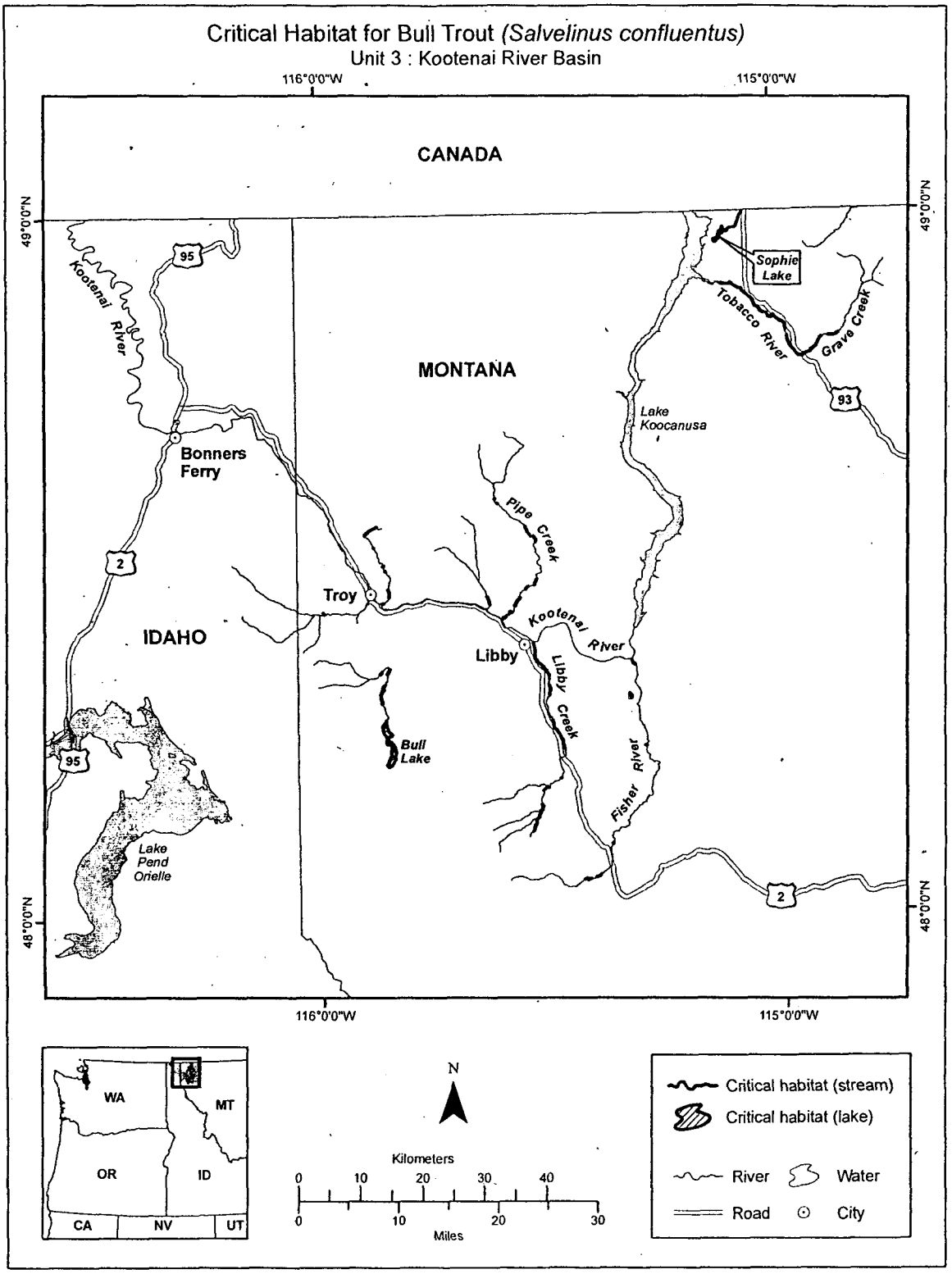
(9) Unit 3: Kootenai River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Bull Lake	Located at		48.218 N.	115.853 W.
Callahan Cr	48.435 N.	116.012 W.	48.458 N.	115.881 W.
Fisher R	48.366 N.	115.323 W.	48.070 N.	115.374 W.
Grave Cr	48.798 N.	114.952 W.	48.927 N.	114.750 W.
Keeler Cr	48.360 N.	115.851 W.	48.331 N.	116.006 W.
Lake Creek	48.360 N.	115.851 W.	48.283 N.	115.858 W.
Libby Creek	48.393 N.	115.537 W.	48.112 N.	115.552 W.
O'Brien Cr	48.448 N.	115.866 W.	48.557 N.	115.862 W.
Phillips Cr	48.971 N.	115.104 W.	49.000 N.	115.062 W.
Pipe Cr	48.424 N.	115.606 W.	48.674 N.	115.647 W.
Poorman Creek	48.149 N.	115.526 W.	48.123 N.	115.631 W.
Quartz Cr	48.438 N.	115.638 W.	48.573 N.	115.689 W.
Sophie Lake	Located at		48.962 N.	115.116 W.
Tobacco R	48.897 N.	115.126 W.	48.798 N.	114.952 W.
West Fisher Creek	48.070 N.	115.374 W.	48.050 N.	115.594 W.

(ii) Map of Unit 3, Kootenai River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56274 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 3 : Kootenai River Basin
116°0'0"W
115°0'0"W
49°0'0"N
48°0'0"N
CANADA
MONTANA
IDAHO
Kootenai River
Bonners Ferry
Troy
Libby
Pipe Creek
Libby Creek
Fisher River
Bull Lake
Lake Pend Oreille
Lake Koocanusa
Sophie Lake
Tobacco River
Grave Creek
95
2
93
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30 40
0 10 20 30
Miles
Critical habitat (stream)
Critical habitat (lake)
River
Water
Road
City

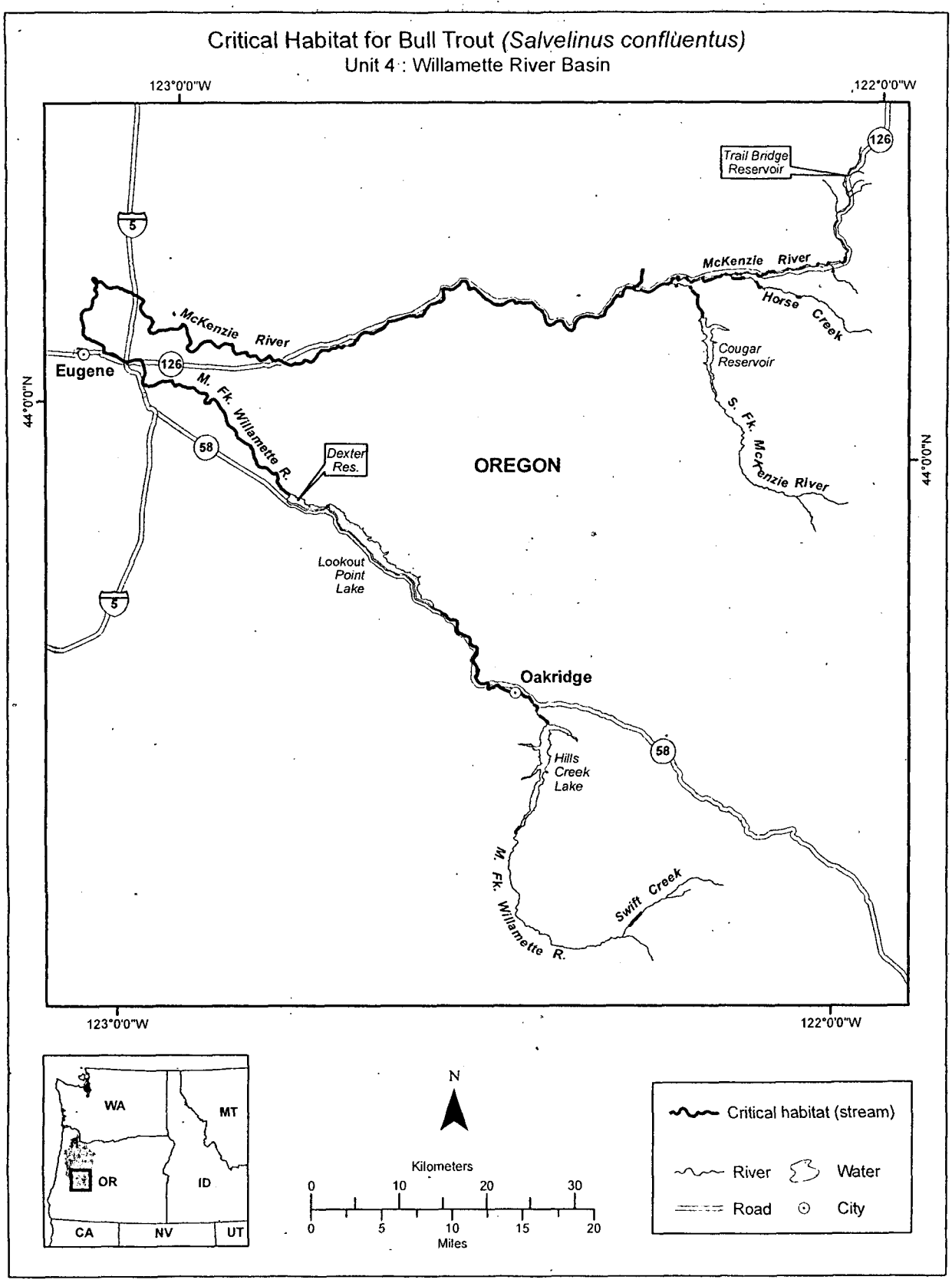
(10) Unit 4: Willamette River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Blue River	44.153 N.	122.342 W.	44.172 N.	122.328 W.
Horse Creek	44.170 N.	122.174 W.	44.125 N.	122.036 W.
Lost Creek	44.190 N.	122.066 W.	44.162 N.	122.022 W.
Mckenzie River	44.126 N.	123.106 W.	44.309 N.	122.028 W.
Middle Fork Willamette River	44.023 N.	123.017 W.	43.481 N.	122.254 W.
South Fork Mckenzie River	44.159 N.	122.295 W.	43.953 N.	122.017 W.
Swift Creek	43.502 N.	122.299 W.	43.560 N.	122.162 W.
West Fork Horse Creek	44.172 N.	122.206 W.	44.170 N.	122.174 W.
Willamette River	44.126 N.	123.106 W.	44.023 N.	123.017 W.

(ii) Map of Unit 4, Willamette River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56276 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 4 : Willamette River Basin
123°0'0"W
122°0'0"W
44°0'0"N
Trail Bridge Reservoir
126
5
McKenzie River
Horse Creek
Cougar Reservoir
Eugene
M. Fk. Willamette R.
58
Dexter Res.
OREGON
S. Fk. McKenzie River
Lookout Point Lake
Oakridge
Hills Creek Lake
Swift Creek
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30
0 5 10 15 20
Miles
Critical habitat (stream)
River
Water
Road
City

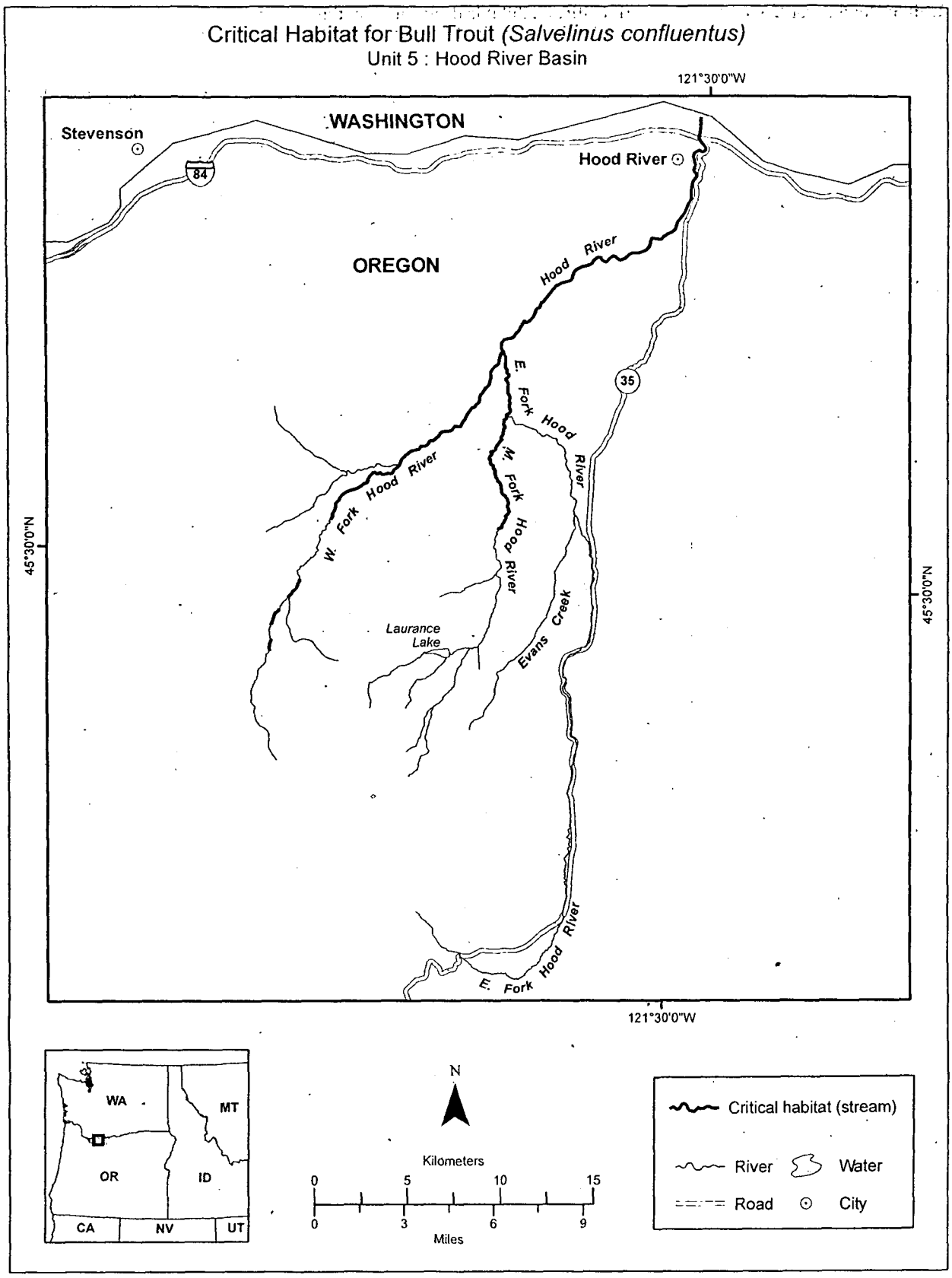
(11) Unit 5: Hood River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
East Fork Hood River	45.605 N.	121.632 W.	45.575 N.	121.626 W.
Hood River	45.721 N.	121.506 W.	45.605 N.	121.632 W.
Middle Fork Hood River	45.575 N.	121.626 W.	45.463 N.	121.645 W.
West Fork Hood River	45.605 N.	121.632 W.	45.456 N.	121.781 W.

(ii) Map of Unit 5, Hood River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56278 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 5 : Hood River Basin
121°30'0"W
WASHINGTON
Stevenson
84
Hood River
OREGON
Hood River
E. Fork Hood River
35
W. Fork Hood River
M. Fork Hood River
Laurance Lake
Evans Creek
E. Fork Hood River
45°30'0"N
45°30'0"N
121°30'0"W
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 5 10 15
0 3 6 9
Miles
Critical habitat (stream)
River
Water
Road
City

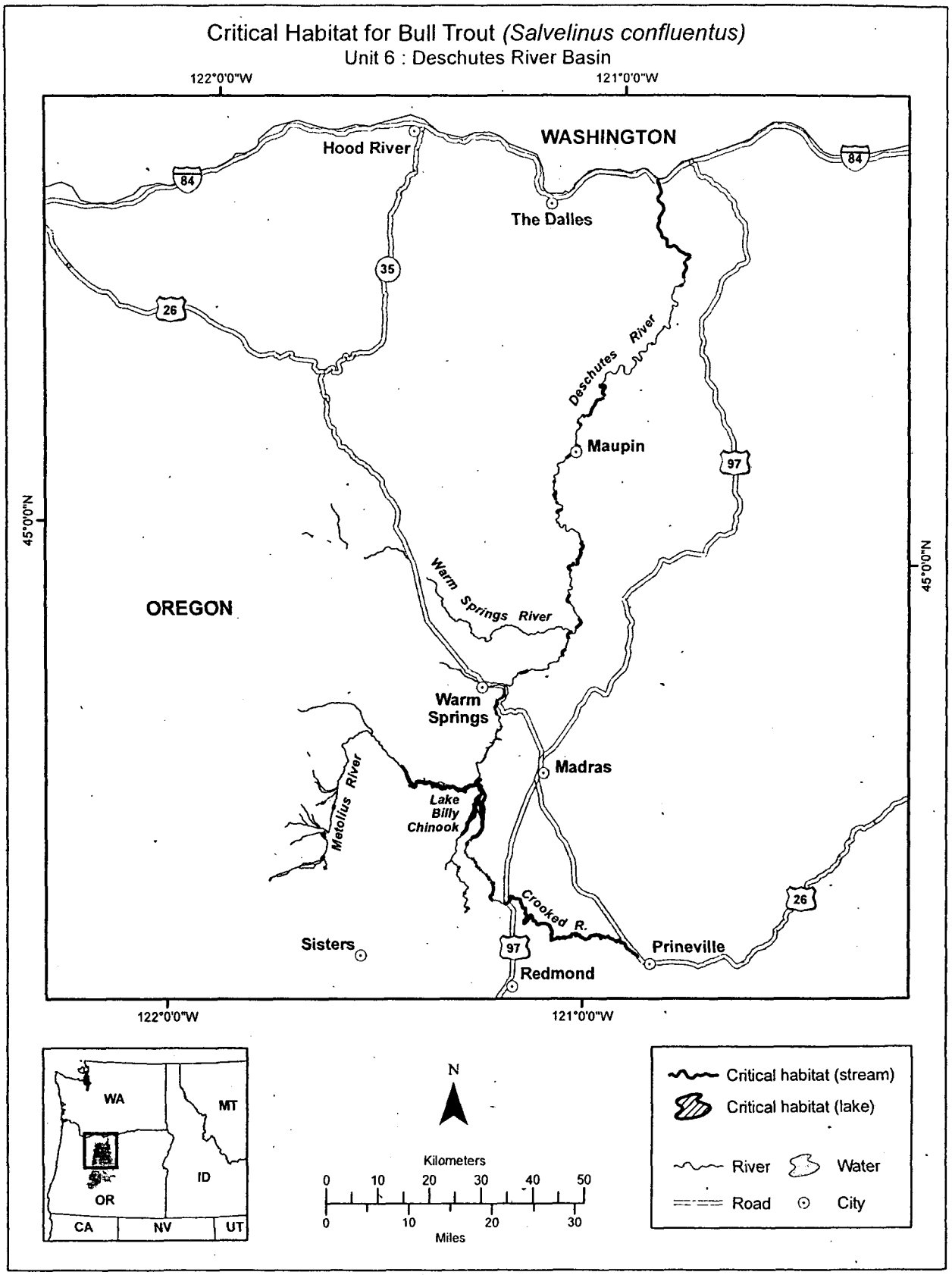
(12) Unit 6: Deschutes River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Abbot Creek	44.570 N.	121.619 W.	44.544 N.	121.670 W.
Deschutes River	45.639 N.	120.914 W.	44.373 N.	121.291 W.
Heising Spring	44.494 N.	121.648 W.	44.491 N.	121.651 W.
Jack Creek	44.493 N.	121.647 W.	44.472 N.	121.725 W.
Lake Billy Chinook	Located at		44.584 N.	121.363 W.
Metolius River	44.577 N.	121.619 W.	44.434 N.	121.637 W.
Spring Creek	44.457 N.	121.642 W.	44.451 N.	121.650 W.

(ii) Map of Unit 6, Deschutes River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56280 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 6 : Deschutes River Basin
122°0'0"W
121°0'0"W
45°0'0"N
WASHINGTON
OREGON
Hood River
The Dalles
Maupin
Warm Springs
Madras
Sisters
Redmond
Prineville
Deschutes River
Warm Springs River
Metolius River
Lake Billy Chinook
Crooked R.
84
35
26
97
WA
MT
ID
OR
CA
NV
UT
N
Kilometers
0 10 20 30 40 50
0 10 20 30
Miles
Critical habitat (stream)
Critical habitat (lake)
River
Water
Road
City

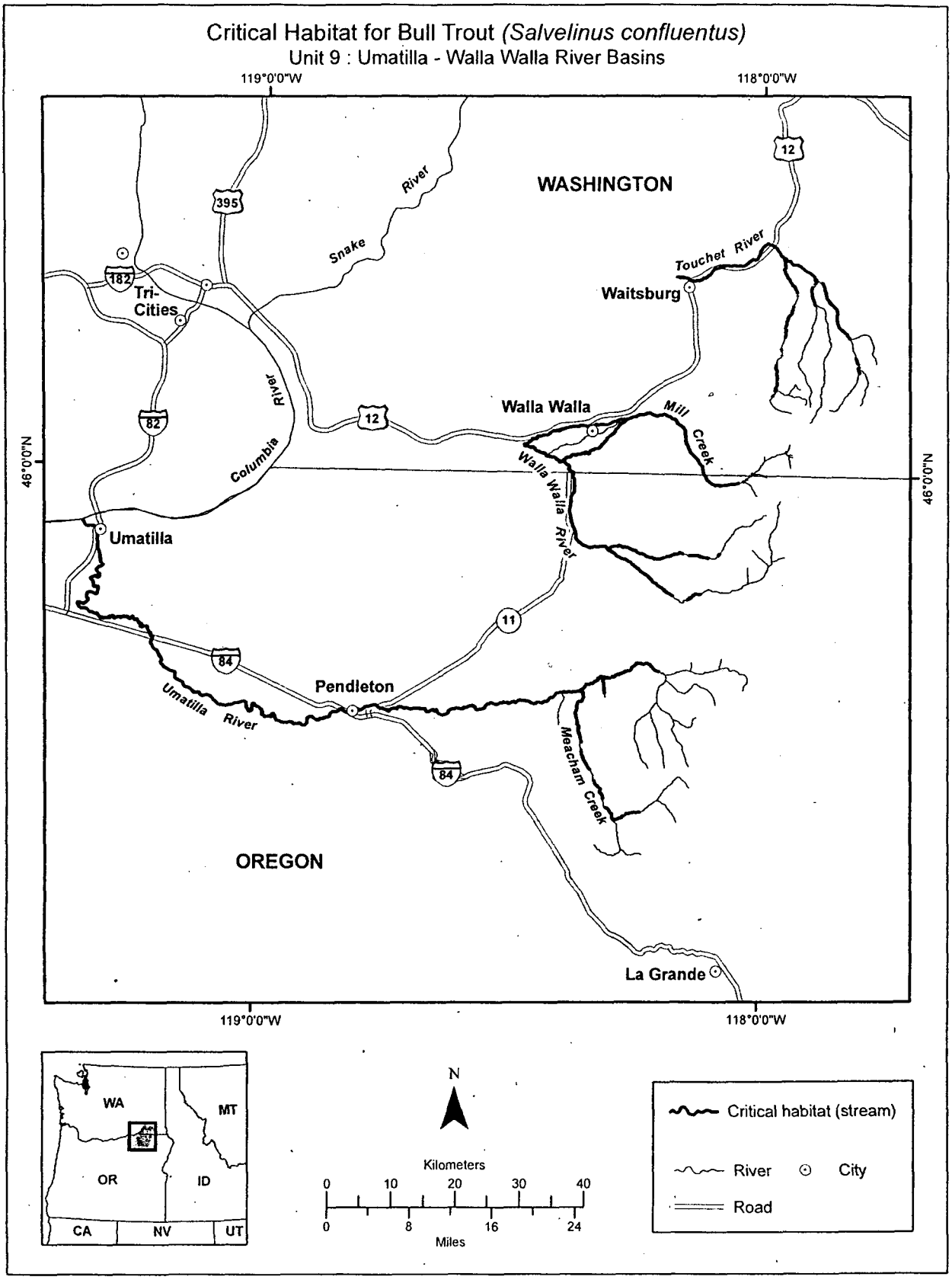
(13) Unit 9: Umatilla-Walla Walla River Basins.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Griffin Fork	46.121 N.	117.973 W.	46.099 N.	117.913 W.
Lewis Creek	46.191 N.	117.824 W.	46.156 N.	117.771 W.
Low Creek	45.993 N.	118.035 W.	45.973 N.	118.009 W.
Meacham Creek	45.702 N.	118.359 W.	45.527 N.	118.290 W.
Mill Creek	46.039 N.	118.478 W.	46.011 N.	117.941 W.
North Fork Meacham Creek	45.527 N.	118.290 W.	45.575 N.	118.174 W.
North Fork Touchet River	46.302 N.	117.959 W.	46.093 N.	117.864 W.
North Fork Walla Walla River	45.899 N.	118.307 W.	45.947 N.	117.990 W.
Paradise Creek	46.004 N.	118.017 W.	46.001 N.	117.990 W.
Ryan Creek	45.723 N.	118.314 W.	45.694 N.	118.308 W.
South Fork Touchet River	46.302 N.	117.959 W.	46.105 N.	117.985 W.
South Fork Walla Walla River	45.899 N.	118.307 W.	45.966 N.	117.963 W.
Spangler Creek	46.149 N.	117.806 W.	46.099 N.	117.802 W.
Touchet River	46.272 N.	118.174 W.	46.302 N.	117.959 W.
Umatilla River	45.923 N.	119.356 W.	45.726 N.	118.187 W.
Walla Walla River	46.039 N.	118.478 W.	45.899 N.	118.307 W.
Wolf Fork Touchet River	46.274 N.	117.895 W.	46.075 N.	117.903 W.
Yellowhawk Creek	46.017 N.	118.400 W.	46.077 N.	118.272 W.

(ii) Map of Unit 9, Umatilla-Walla Walla River Basins, follows:

HeinOnline -- 70 Fed. Reg. 56282 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 9 : Umatilla - Walla Walla River Basins
119°0'0"W
118°0'0"W
46°0'0"N
WASHINGTON
OREGON
Snake River
Columbia River
Touchet River
Waitsburg
Tri-Cities
Walla Walla
Mill Creek
Walla Walla River
Umatilla
Umatilla River
Pendleton
Meacham Creek
La Grande
395
182
82
12
11
84
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30 40
0 8 16 24
Miles
Critical habitat (stream)
River
City
Road

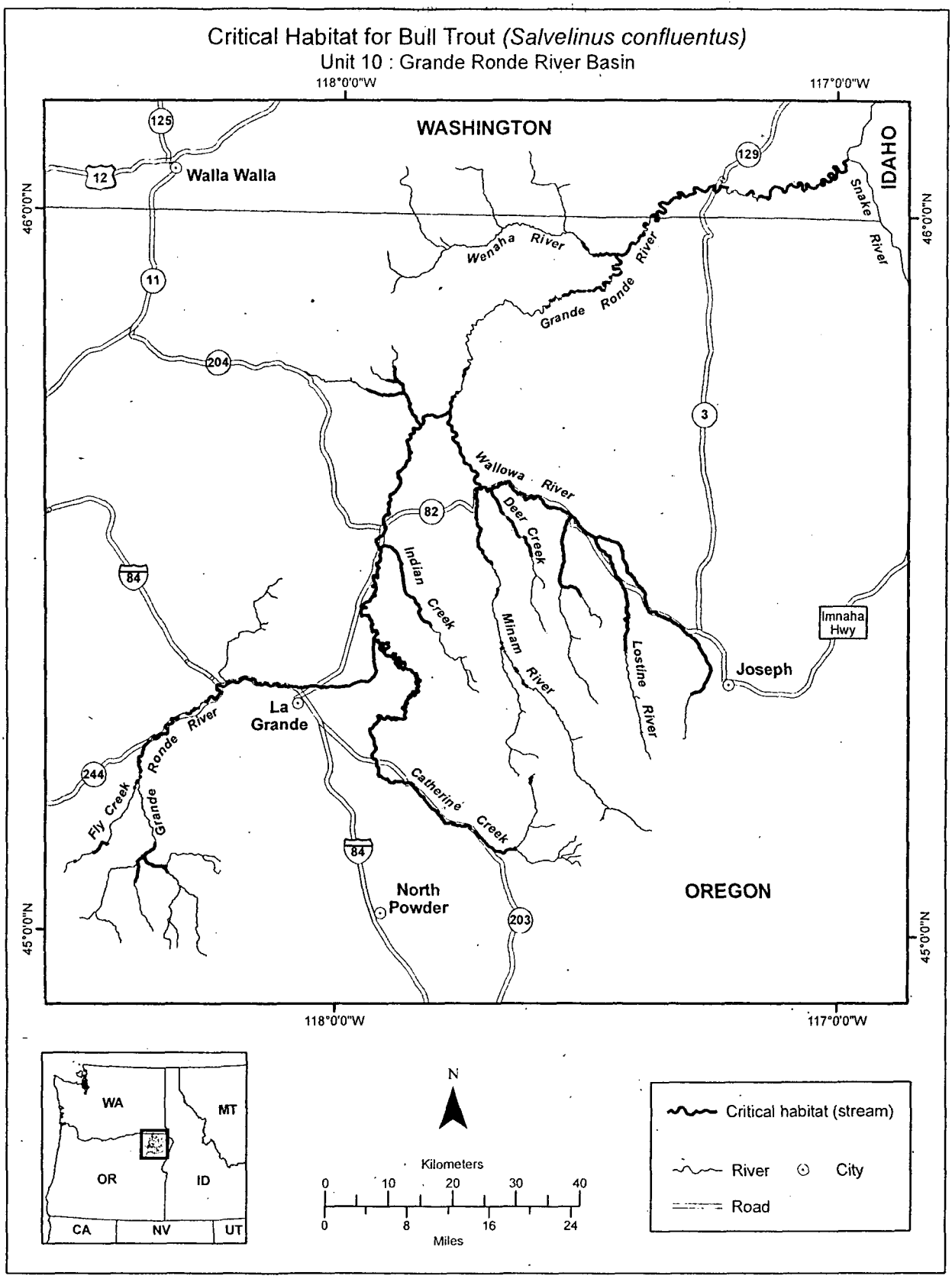
(14) Unit 10: Grande Ronde River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Bear Creek	45.584 N.	117.540 W.	45.323 N.	117.480 W.
Catherine Creek	45.408 N.	117.930 W.	45.120 N.	117.646 W.
Chicken Creek	45.095 N.	118.394 W.	45.024 N.	118.385 W.
Deer Creek	45.620 N.	117.699 W.	45.423 N.	117.587 W.
Fly Creek	45.210 N.	118.394 W.	45.121 N.	118.465 W.
Grande Ronde River	46.080 N.	116.978 W.	44.967 N.	118.254 W.
Hurricane Creek	45.420 N.	117.301 W.	45.274 N.	117.310 W.
Indian Creek	45.534 N.	117.919 W.	45.337 N.	117.721 W.
Limber Jim Creek	45.089 N.	118.343 W.	45.085 N.	118.229 W.
Little Bear Creek	45.485 N.	117.554 W.	45.428 N.	117.479 W.
Little Fly Creek	45.121 N.	118.465 W.	45.110 N.	118.475 W.
Little Lookingglass Creek	45.750 N.	117.874 W.	45.817 N.	117.901 W.
Little Minam River	45.401 N.	117.671 W.	45.246 N.	117.599 W.
Lookingglass Creek	45.707 N.	117.841 W.	45.779 N.	118.078 W.
Lookout Creek	45.110 N.	118.475 W.	45.078 N.	118.540 W.
Lostine River	45.552 N.	117.489 W.	45.246 N.	117.374 W.
Minam River	45.621 N.	117.720 W.	45.148 N.	117.371 W.
Mottet Creek	45.767 N.	117.886 W.	45.788 N.	117.942 W.
North Fork Catherine Creek	45.120 N.	117.646 W.	45.225 N.	117.604 W.
Sheep Creek	45.105 N.	118.381 W.	45.016 N.	118.507 W.
South Fork Catherine Creek	45.120 N.	117.646 W.	45.112 N.	117.513 W.
Wallowa River	45.726 N.	117.784 W.	45.420 N.	117.301 W.
Wenaha River	45.946 N.	117.450 W.	45.951 N.	117.794 W.

(ii) Map of Unit 10, Grande Ronde River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56284 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 10 : Grande Ronde River Basin
118°0'0"W
117°0'0"W
46°0'0"N
45°0'0"N
WASHINGTON
IDAHO
OREGON
Walla Walla
La Grande
Joseph
North Powder
Imnaha Hwy
Wenaha River
Grande Ronde River
Snake River
Wallowa River
Deer Creek
Indian Creek
Minam River
Lostine River
Catherine Creek
Fly Creek
125
12
11
204
129
3
82
84
244
203
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30 40
0 8 16 24
Miles
Critical habitat (stream)
River
City
Road

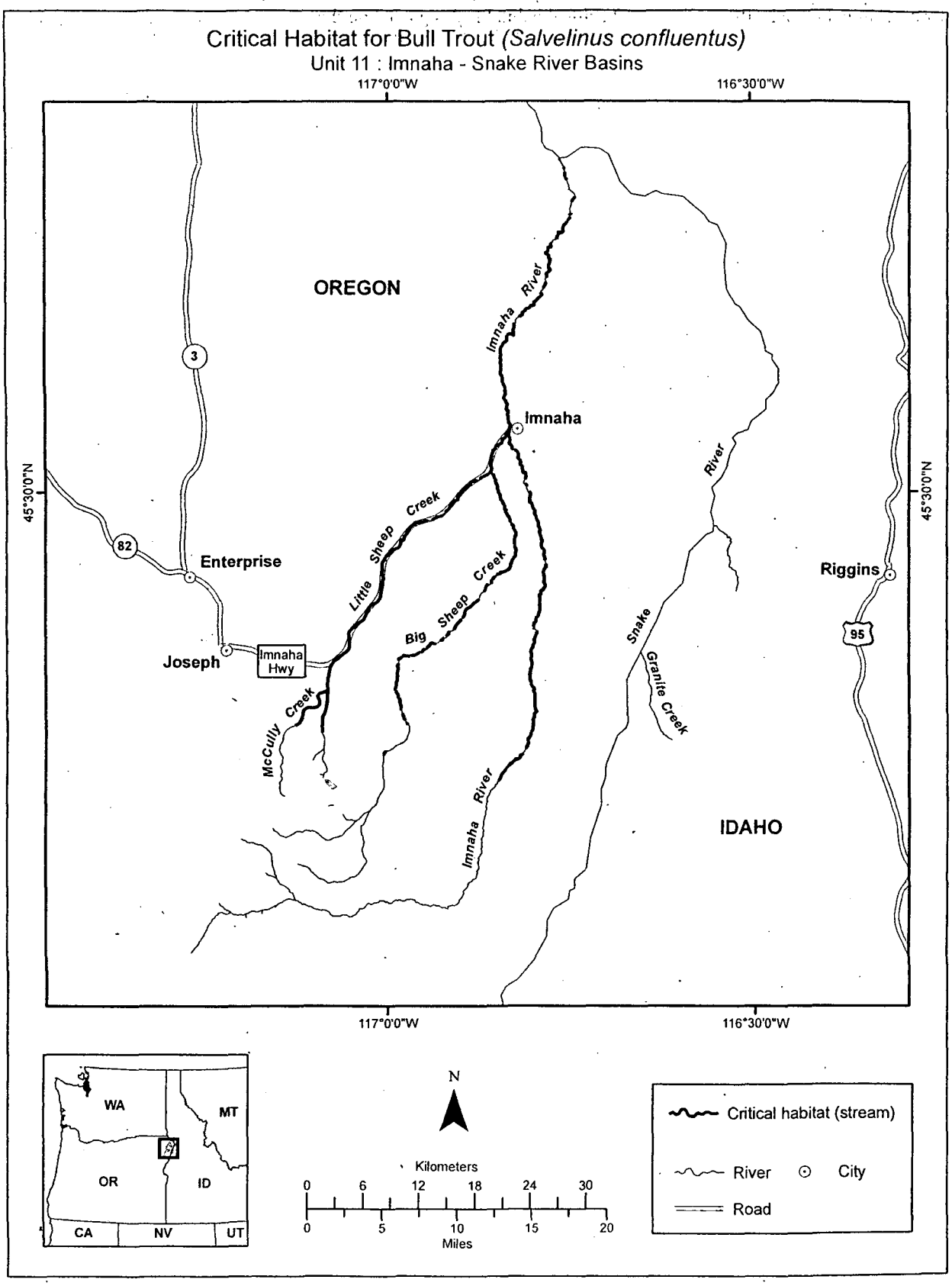
(15) Unit 11: Imnaha-Snake River Basins.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Big Sheep Creek	45.557 N.	116.834 W.	45.178 N.	117.119 W.
Imnaha River	45.817 N.	116.764 W.	45.113 N.	117.125 W.
Little Sheep Creek	45.520 N.	116.859 W.	45.232 N.	117.093 W.
McCully Creek	45.311 N.	117.082 W.	45.211 N.	117.140 W.

(ii) Map of Unit 11, Imnaha-Snake River Basins, follows:

HeinOnline -- 70 Fed. Reg. 56286 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 11 : Imnaha - Snake River Basins
117°0'0"W
116°30'0"W
45°30'0"N
OREGON
IDAHO
Imnaha River
Imnaha
Little Sheep Creek
Big Sheep Creek
McCully Creek
Snake River
Granite Creek
Enterprise
Joseph
Imnaha Hwy
Riggins
3
82
95
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 6 12 18 24 30
0 5 10 15 20
Miles
Critical habitat (stream)
River
City
Road

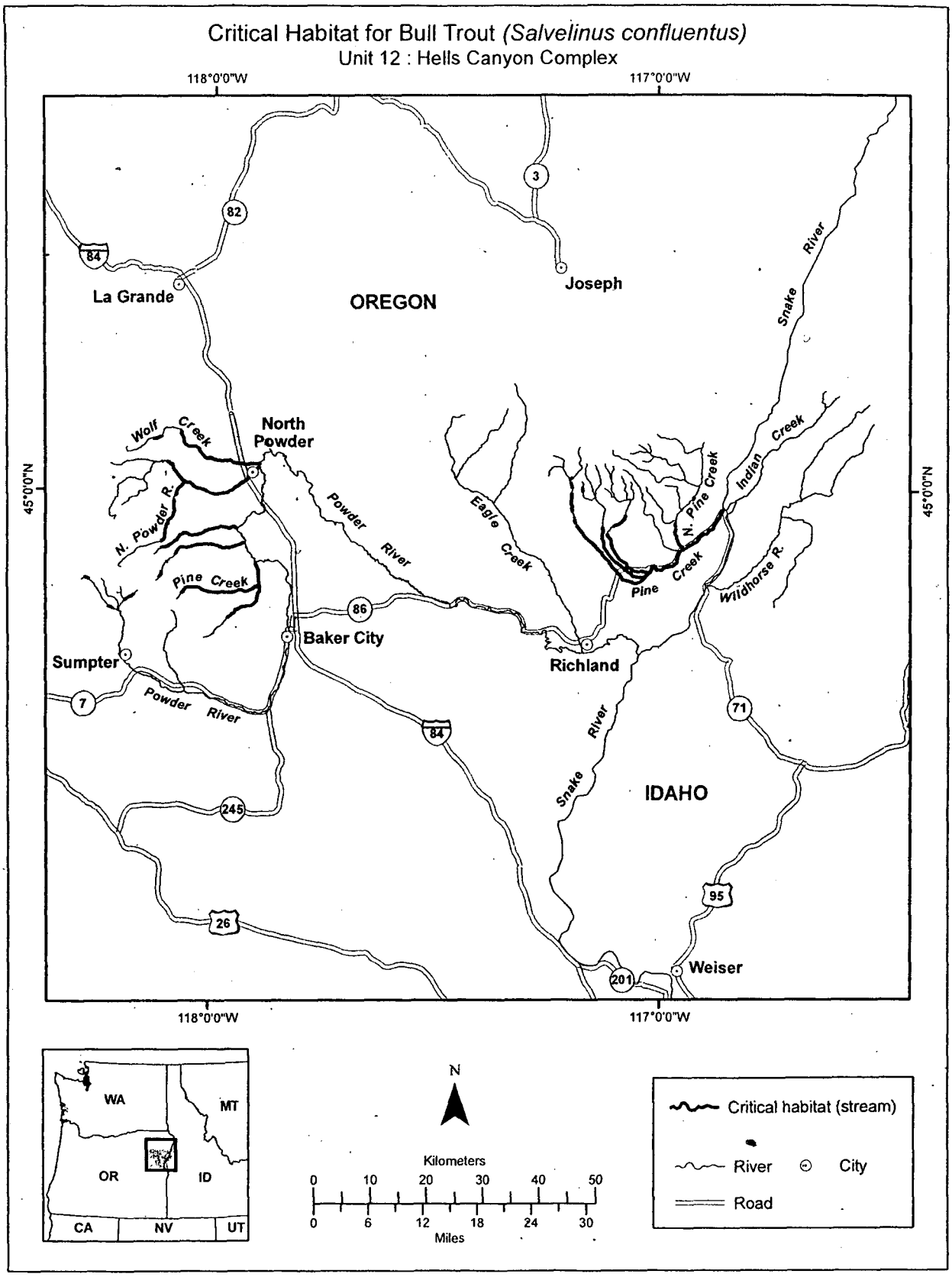
(16) Unit 12: Hells Canyon Complex.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Anthony Creek	45.013 N.	118.059 W.	44.953 N.	118.220 W.
Big Muddy Creek	44.940 N.	117.945 W.	44.899 N.	118.131 W.
Clear Creek	44.866 N.	117.029 W.	45.043 N.	117.143 W.
East Fork Pine Creek	45.022 N.	117.200 W.	45.072 N.	117.176 W.
East Pine Creek	44.872 N.	117.020 W.	45.046 N.	117.119 W.
Little Cracker Creek	44.826 N.	118.196 W.	44.840 N.	118.166 W.
Meadow Creek	44.990 N.	117.142 W.	45.017 N.	117.171 W.
North Pine Creek	44.910 N.	116.948 W.	45.079 N.	116.897 W.
North Powder River	45.039 N.	117.895 W.	44.878 N.	118.203 W.
Pine Creek	44.849 N.	117.893 W.	44.826 N.	118.078 W.
Pine Creek	44.974 N.	116.853 W.	45.039 N.	117.215 W.
Rock Creek	44.918 N.	117.929 W.	44.856 N.	118.124 W.
Salmon Creek	44.888 N.	117.902 W.	44.767 N.	118.019 W.
Silver Creek	44.809 N.	118.207 W.	44.857 N.	118.291 W.
Wolf Creek	45.044 N.	117.893 W.	45.068 N.	118.193 W.

(ii) Map of Unit 12, Hells Canyon Complex, follows:

HeinOnline -- 70 Fed. Reg. 56288 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 12 : Hells Canyon Complex
118°0'0"W
117°0'0"W
45°0'0"N
OREGON
IDAHO
La Grande
Joseph
North Powder
Baker City
Sumpter
Richland
Weiser
Wolf Creek
N. Powder R.
Pine Creek
Powder River
Eagle Creek
N. Pine Creek
Indian Creek
Wildhorse R.
Snake River
82
84
3
86
7
245
26
71
95
201
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30 40 50
0 6 12 18 24 30
Miles
Critical habitat (stream)
River
City
Road

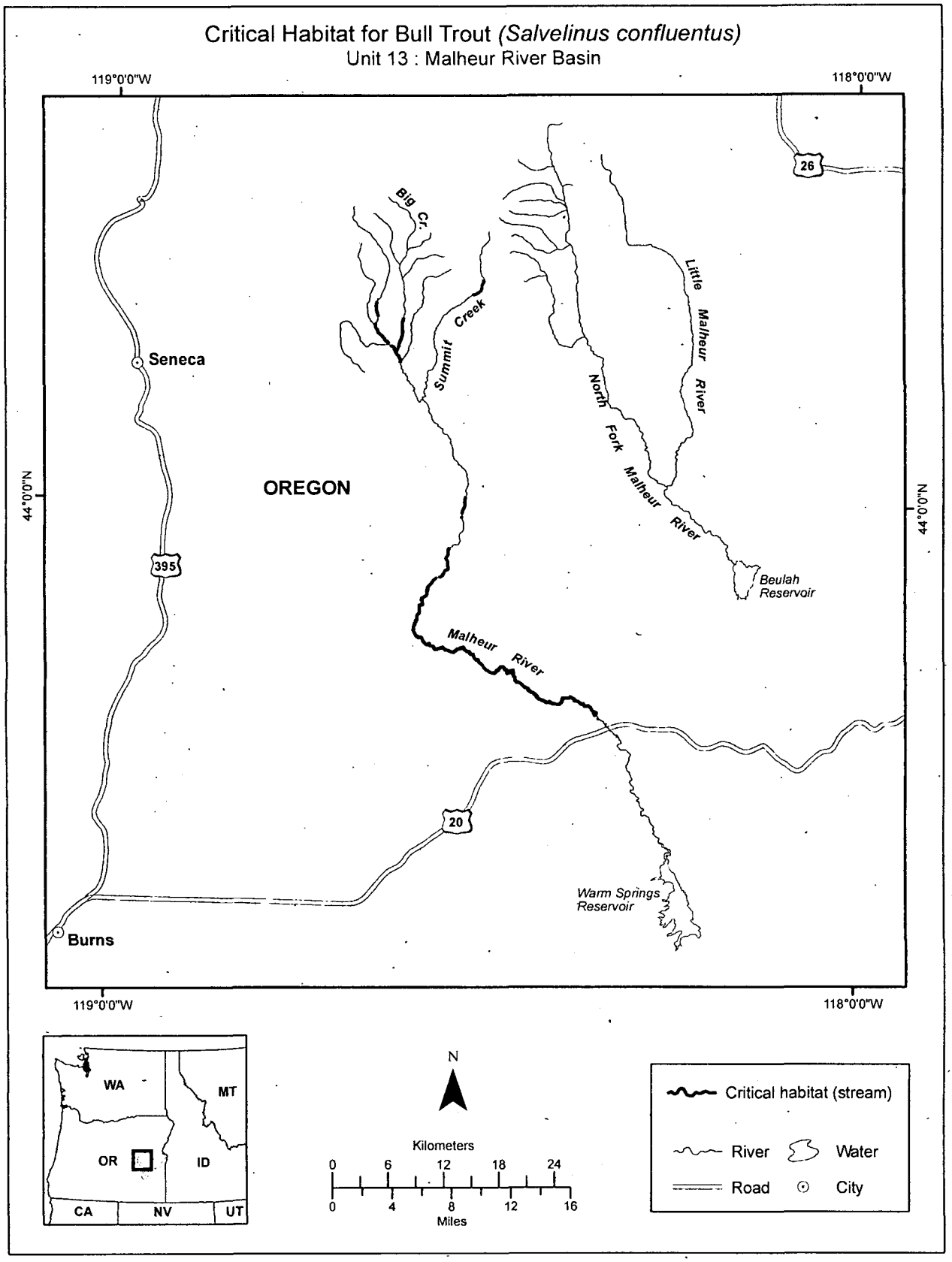
(17) Unit 13: Malheur River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Big Creek	44.145 N.	118.624 W.	44.292 N.	118.638 W.
Lake Creek	44.145 N.	118.624 W.	44.283 N.	118.683 W.
Malheur River	43.686 N.	118.270 W.	44.145 N.	118.624 W.
Summit Creek	44.099 N.	118.587 W.	44.261 N.	118.501 W.

(ii) Map of Unit 13, Malheur River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56290 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 13 : Malheur River Basin
119°0'0"W
118°0'0"W
44°0'0"N
Seneca
OREGON
395
26
20
Big Cr.
Summit Creek
Little Malheur River
North Fork Malheur River
Beulah Reservoir
Malheur River
Warm Springs Reservoir
Burns
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 6 12 18 24
0 4 8 12 16
Miles
Critical habitat (stream)
River
Water
Road
City

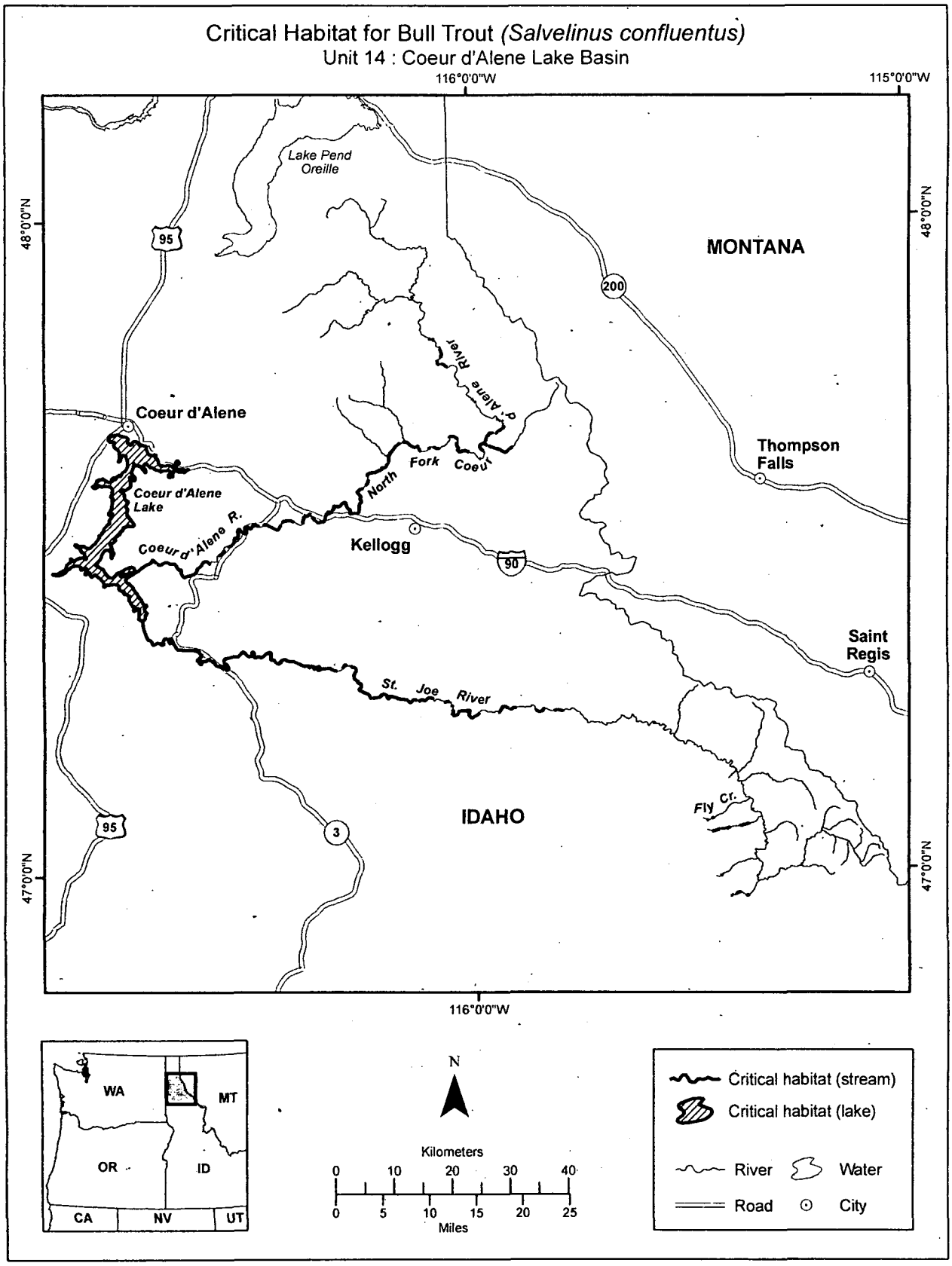
(18) Unit 14: Coeur d'Alene Lake Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Beaver Creek	47.083 N.	115.355 W.	47.064 N.	115.480 W.
Coeur d'Alene Lake	Located at		47.449 N.	116.798 W.
Coeur d'Alene River	47.460 N.	116.798 W.	47.558 N.	116.257 W.
Eagle Creek	47.644 N.	115.921 W.	47.652 N.	115.903 W.
Fly Creek	47.113 N.	115.385 W.	47.081 N.	115.489 W.
North Fork Coeur d'Alene River	47.558 N.	116.257 W.	48.006 N.	116.321 W.
Prichard Creek	47.658 N.	115.976 W.	47.644 N.	115.921 W.
Ruby Creek	46.983 N.	115.367 W.	46.961 N.	115.430 W.
St. Joe River	47.393 N.	116.749 W.	47.017 N.	115.078 W.
Steamboat Creek	47.662 N.	116.154 W.	47.716 N.	116.199 W.
Timber Creek	47.018 N.	115.368 W.	46.992 N.	115.462 W.

(ii) Map of Unit 14, Coeur d'Alene Lake Basin, follows:

HeinOnline -- 70 Fed. Reg. 56292 2005



HeinOnline -- 70 Fed. Reg. 56293 2005

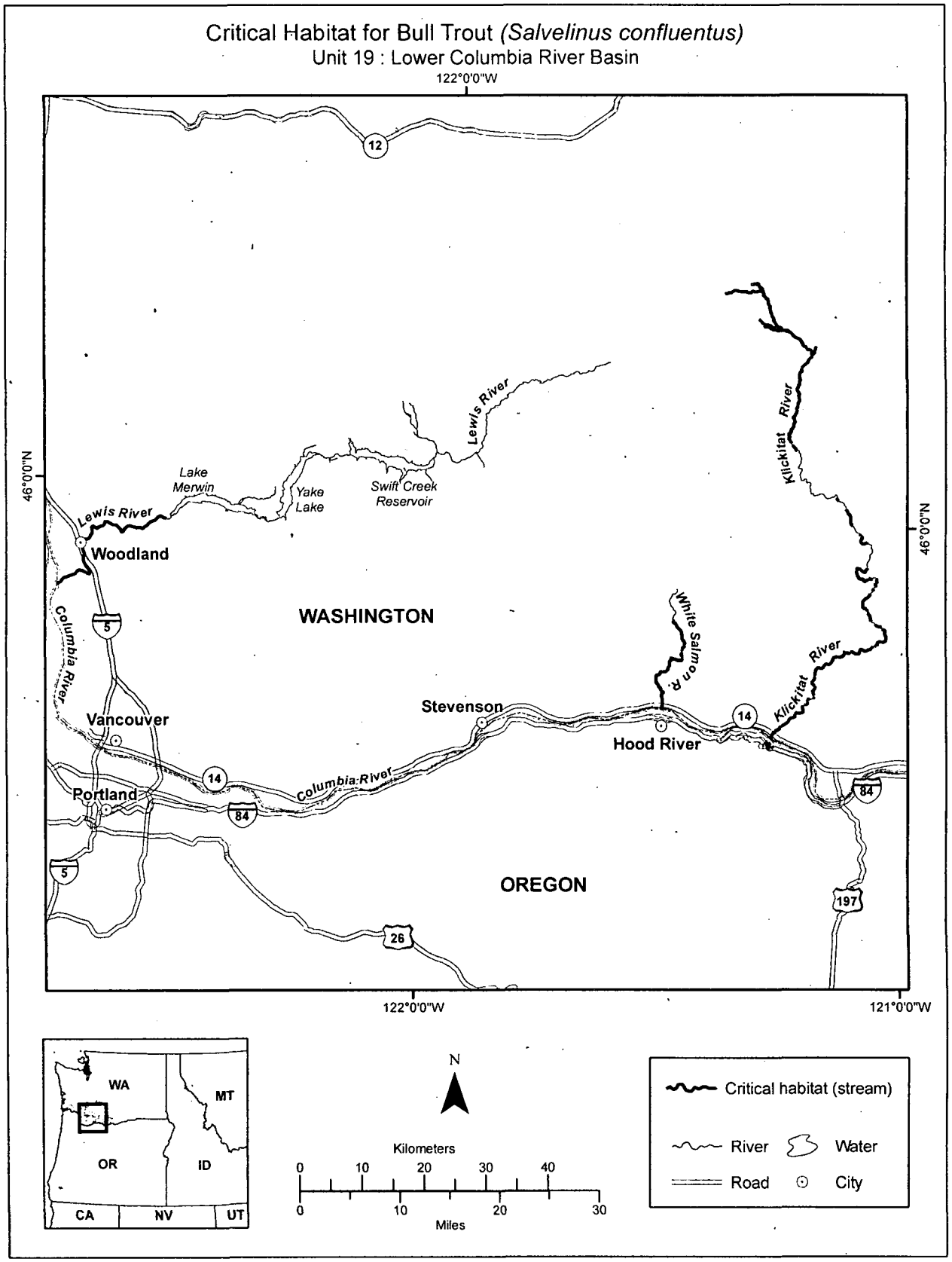
(19) Unit 19: Lower Columbia River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Clearwater Creek	46.276 N.	121.327 W.	46.278 N.	121.330 W.
Fish Lake Stream	46.275 N.	121.312 W.	46.342 N.	121.368 W.
Klickitat River	45.691 N.	121.293 W.	46.255 N.	121.239 W.
Lewis River (Lower)	45.850 N.	122.782 W.	45.957 N.	122.555 W.
Little Muddy Creek	46.275 N.	121.312 W.	46.278 N.	121.352 W.
Trappers Creek	46.275 N.	121.330 W.	46.290 N.	121.362 W.
Two Lakes Stream	46.342 N.	121.368 W.	46.340 N.	121.384 W.
UNNAMED—off Fish Lake Stream	46.331 N.	121.359 W.	46.323 N.	121.437 W.
West Fork Klickitat River	46.242 N.	121.246 W.	46.275 N.	121.312 W.
White Salmon River	45.723 N.	121.521 W.	45.897 N.	121.503 W.

(ii) Map of Unit 19, Lower Columbia River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56294 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 19 : Lower Columbia River Basin
122°0'0"W
46°0'0"N
121°0'0"W
WASHINGTON
OREGON
Lewis River
Lake Merwin
Yake Lake
Swift Creek Reservoir
Woodland
Columbia River
Vancouver
Portland
Stevenson
Hood River
White Salmon R.
Klickitat River
12
5
14
84
197
26
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 10 20 30 40
0 10 20 30
Miles
Critical habitat (stream)
River
Water
Road
City

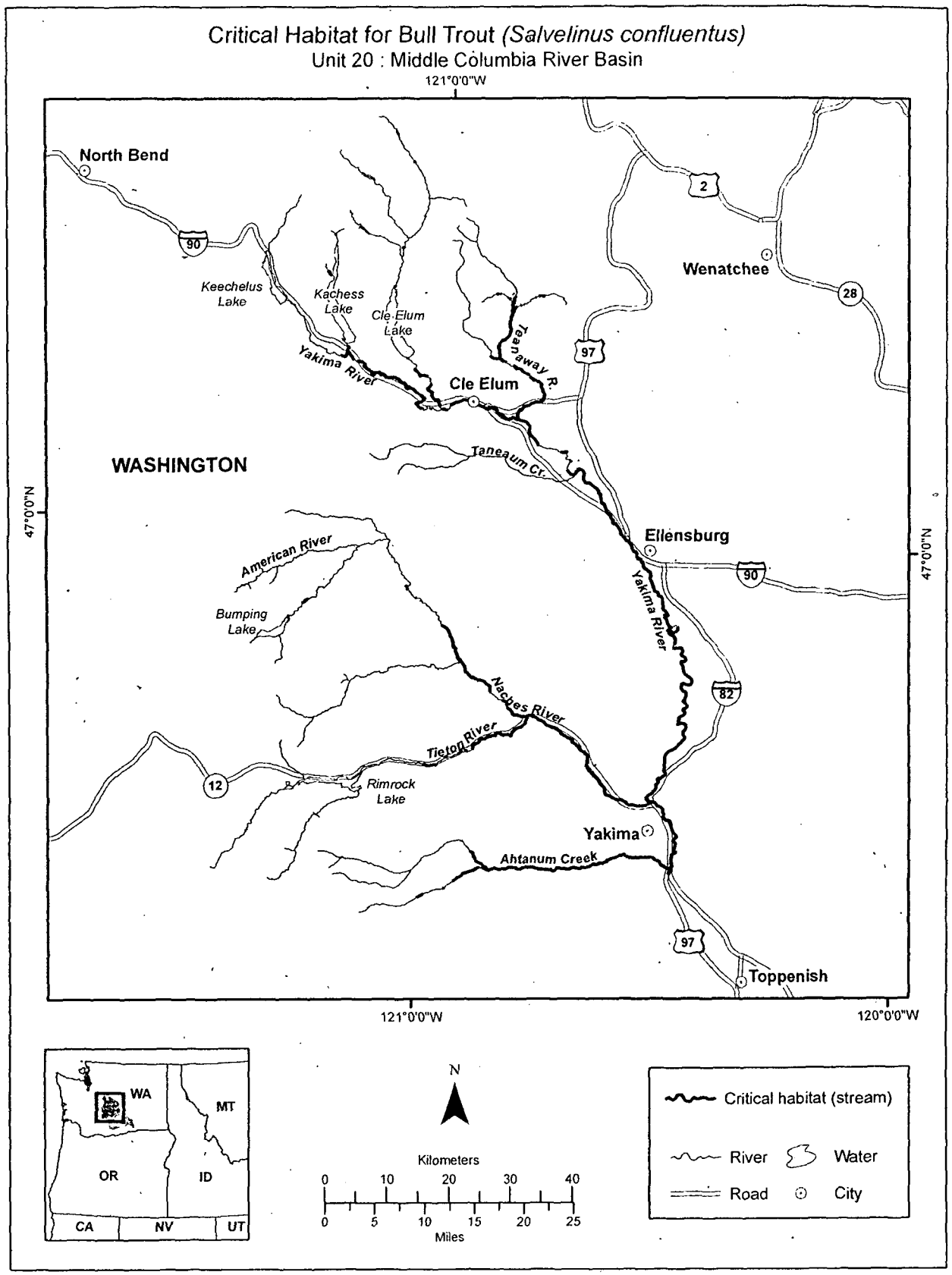
(20) Unit 20: Middle Columbia River Basin.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Ahtanum Creek	46.529 N.	120.472 W.	46.523 N.	120.853 W.
Box Canyon Creek	47.361 N.	121.243 W.	47.377 N.	121.257 W.
Bumping River	46.989 N.	121.094 W.	46.831 N.	121.377 W.
Cle Elum River	47.177 N.	120.990 W.	47.589 N.	121.161 W.
Cooper River	47.391 N.	121.098 W.	47.455 N.	121.213 W.
Gold Creek	47.390 N.	121.382 W.	47.475 N.	121.316 W.
Jack Creek	47.319 N.	120.855 W.	47.334 N.	120.742 W.
Jungle Creek	47.333 N.	120.855 W.	47.333 N.	120.923 W.
Kachess River	47.251 N.	121.200 W.	47.429 N.	121.222 W.
Naches River	46.630 N.	120.514 W.	46.989 N.	121.094 W.
North Fork Ahtanum Creek	46.523 N.	120.853 W.	46.538 N.	121.211 W.
North Fork Teanaway River	47.251 N.	120.877 W.	47.454 N.	120.965 W.
North Fork Tieton River	46.635 N.	121.261 W.	46.508 N.	121.435 W.
Rattlesnake Creek	46.820 N.	120.929 W.	46.760 N.	121.315 W.
South Fork Ahtanum Creek	46.523 N.	120.853 W.	46.454 N.	121.118 W.
Teanaway River	47.167 N.	120.834 W.	47.257 N.	120.897 W.
Tieton River	46.746 N.	120.786 W.	46.656 N.	121.129 W.
Yakima River	46.529 N.	120.472 W.	47.322 N.	121.339 W.

(ii) Map of Unit 20, Middle Columbia River Basin, follows:

HeinOnline -- 70 Fed. Reg. 56296 2005



HeinOnline -- 70 Fed. Reg. 56297 2005

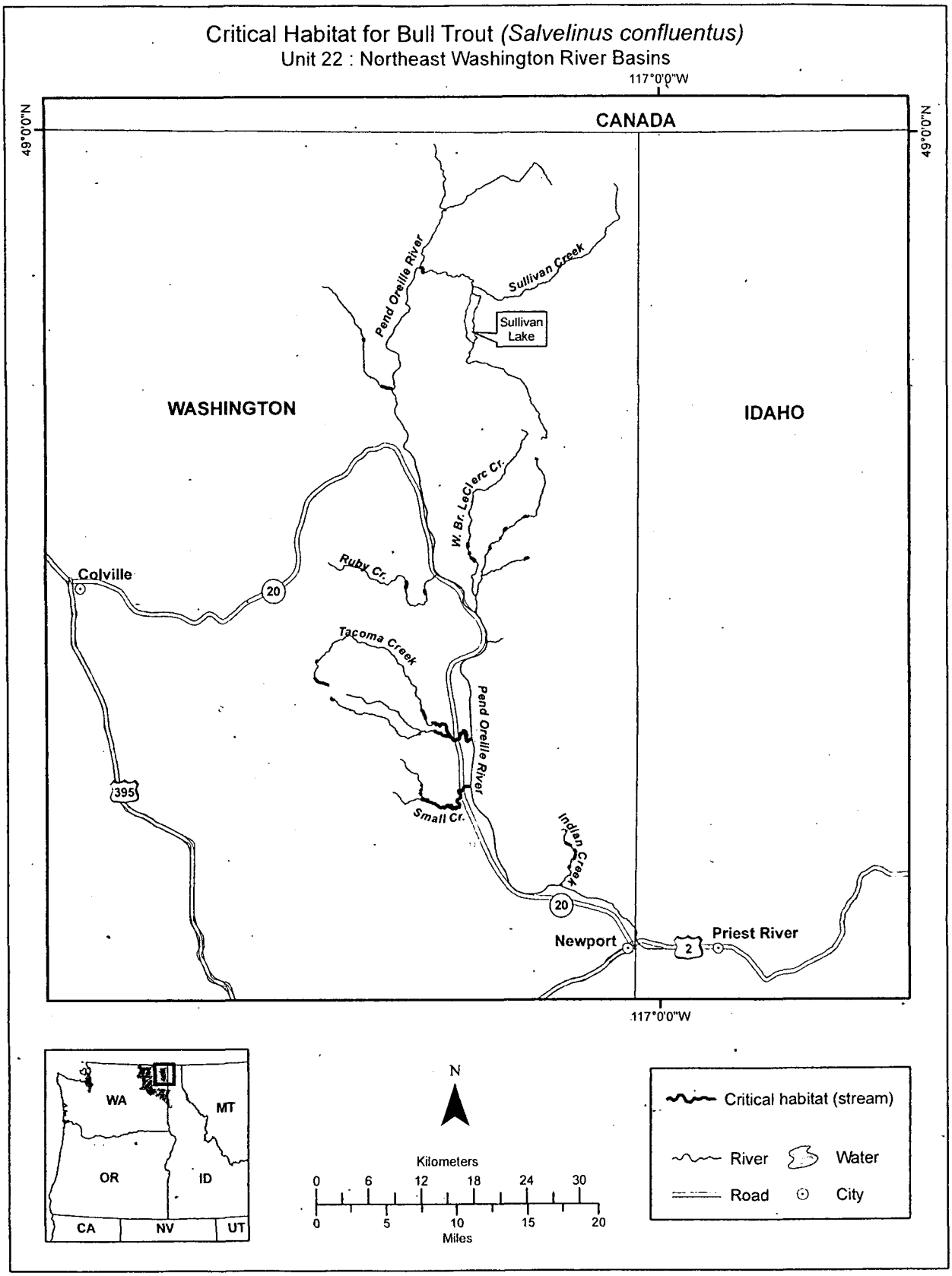
(21) Unit 22: Northeast Washington River Basins.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point Latitude	Stream end-point latitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Calispell	48.344 N	117.289 W	48.321 N	117.307 W.
Cedar Creek	48.742 N.	117.411 W	48.846 N	117.521 W.
E. Fork Small Creek	48.328 N	117.354 W	48.371 N	117.398 W.
East Branch LeClerc Creek	48.534 N	117.282 W	48.673 N	117.188 W.
Fourth of July Creek	48.556 N	117.272 W	48.573 N	117.200 W.
Indian Creek	48.243 N	117.151 W	48.299 N	117.151 W.
LeClerc Creek	48.518 N	117.283 W	48.534 N	117.282 W.
Mill Creek	48.489 N	117.265 W	48.493 N	117.239 W.
Ruby Creek	48.556 N	117.342 W	48.568 N	117.509 W.
S. Fork Tacoma Creek	48.394 N	117.323 W	48.432 N	117.506 W.
Slate Creek	48.923 N	117.332 W	48.948 N	117.165 W.
Small Creek	48.321 N	117.307 W	48.337 N	117.409 W.
Sullivan Creek	48.865 N	117.370 W	48.950 N	117.070 W.
Tacoma Creek	48.392 N	117.288 W	48.445 N	117.507 W.
West Branch LeClerc Creek	48.534 N	117.282 W	48.701 N	117.211 W.

(ii) Map of Unit 22, Northeast Washington River Basins, follows:

HeinOnline -- 70 Fed. Reg. 56298 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 22 : Northeast Washington River Basins
117°0'0"W
49°0'0"N
CANADA
WASHINGTON
IDAHO
Pend Oreille River
Sullivan Creek
Sullivan Lake
W. Br. LeClerc Cr.
Ruby Cr.
Colville
20
Tacoma Creek
Pend Oreille River
395
Small Cr.
Indian Creek
20
Newport
2
Priest River
117°0'0"W
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 6 12 18 24 30
0 5 10 15 20
Miles
Critical habitat (stream)
River
Water
Road
City

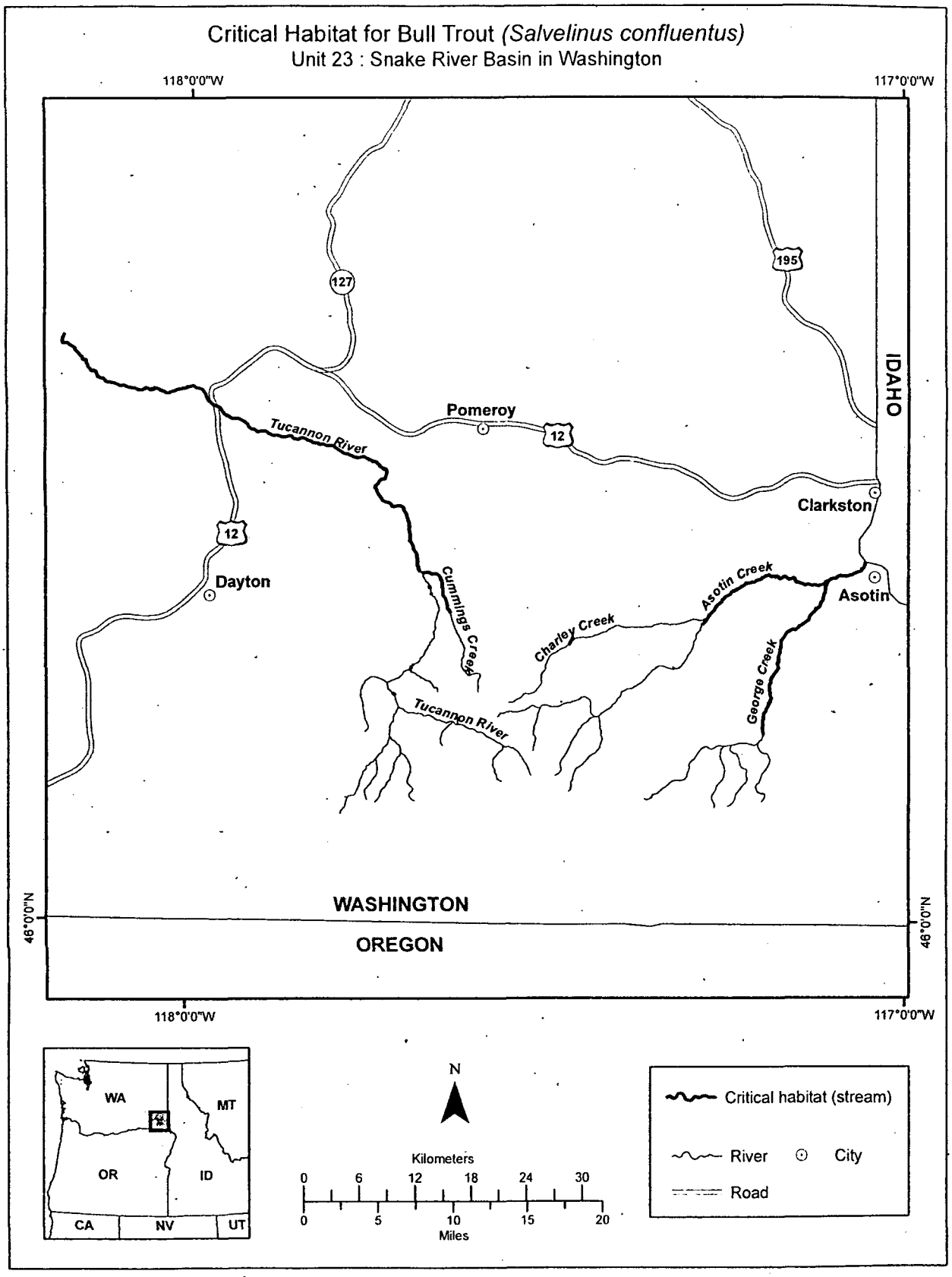
(22) Unit 23: Snake River Basin in Washington.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Asotin Creek	46.345 N	117.053 W	46.272 N	117.291 W.
Charley Creek	46.289 N	117.278 W	46.210 N	117.552 W.
Cummings Creek	46.333 N	117.674 W	46.219 N	117.595 W.
George Creek	46.326 N	117.105 W	46.118 N	117.363 W.
Hixon Creek	46.246 N	117.683 W	46.219 N	117.651 W.
N. Fork Asotin Creek	46.272 N	117.291 W	46.196 N	117.568 W.
Tucannon River	46.558 N	118.174 W	46.139 N	117.520 W

(ii) Map of Unit 23, Snake River Basin in Washington, follows:

HeinOnline -- 70 Fed. Reg. 56300 2005


Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 23 : Snake River Basin in Washington
118°0'0"W
117°0'0"W
46°0'0"N
127
195
12
IDAHO
Pomeroy
Tucannon River
Clarkston
Dayton
Cummings Creek
Asotin Creek
Asotin
Charley Creek
George Creek
Tucannon River
WASHINGTON
OREGON
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0 6 12 18 24 30
0 5 10 15 20
Miles
Critical habitat (stream)
River
City
Road

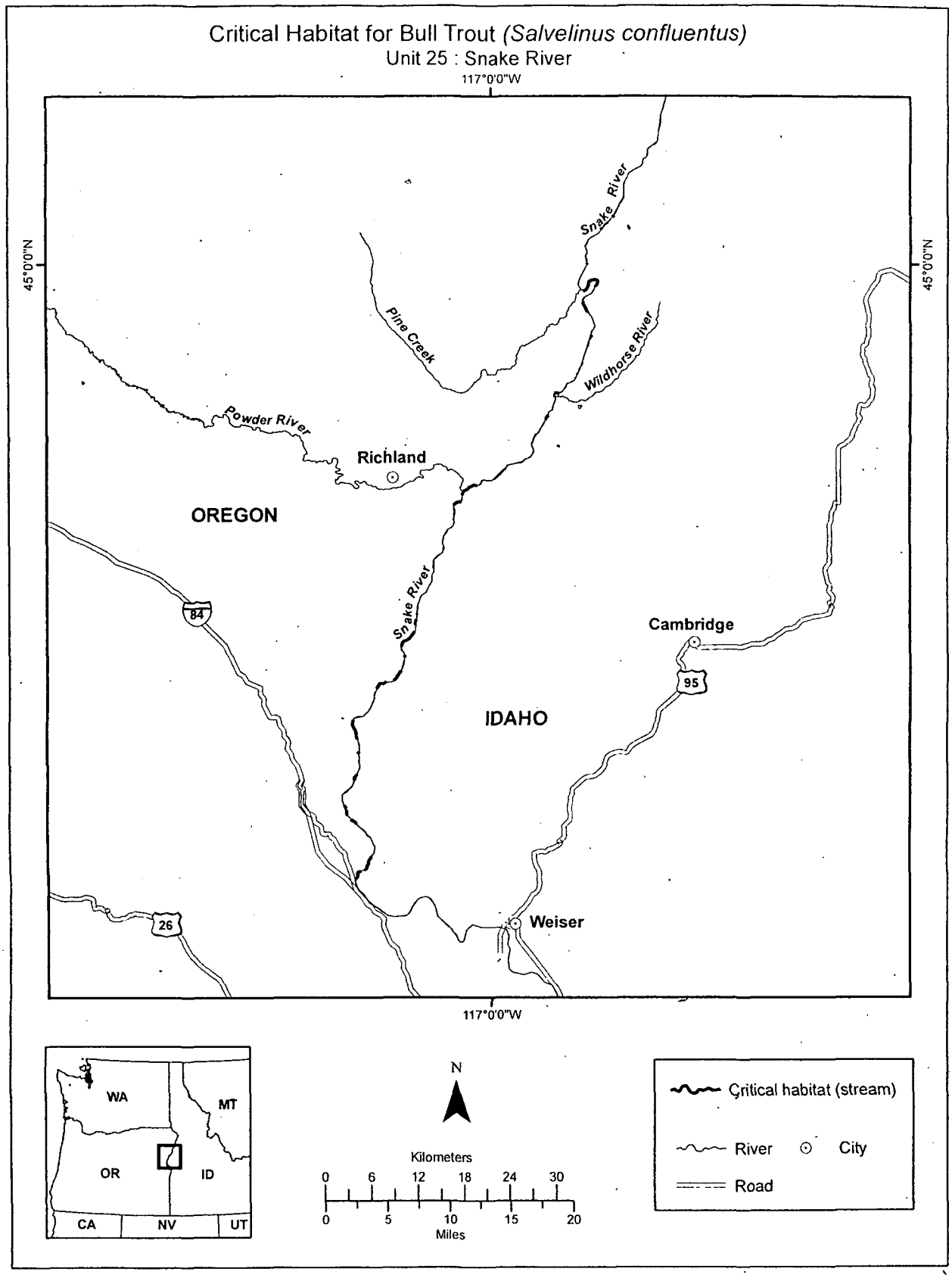
(23) Unit 25: Snake River.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Snake River	46.189 N	119.030 W	44.243 N	117.041 W.

(ii) Map of Unit 25, Snake River, follows:

HeinOnline -- 70 Fed. Reg. 56302 2005



BILLING CODE 4310–55–C

HeinOnline -- 70 Fed. Reg. 56303 2005

(24) Unit 27: Olympic Peninsula.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Bell Creek	48.083 N.	123.052 W.	48.057 N.	123.102 W.
Big Creek	47.518 N.	123.773 W.	47.566 N.	123.680 W.
Boulder Creek	47.982 N.	123.602 W.	47.979 N.	123.612 W.
Buckinghorse Creek	47.747 N.	123.481 W.	47.739 N.	123.484 W.
Canyon River	47.211 N.	123.551 W.	47.338 N.	123.498 W.
Cat Creek	47.971 N.	123.593 W.	47.946 N.	123.642 W.
Cedar Creek	47.712 N.	124.415 W.	47.717 N.	124.335 W.
Chehalis River	46.962 N.	123.823 W.	46.819 N.	123.252 W.
Clearwater River	47.546 N.	124.291 W.	47.730 N.	123.934 W.
Copalis River	47.133 N.	124.180 W.	47.234 N.	124.020 W.
Cougar Creek	47.862 N.	123.859 W.	47.868 N.	123.853 W.
Delabarre Creek	47.735 N.	123.526 W.	47.726 N.	123.527 W.
Dungeness River	48.151 N.	123.133 W.	47.942 N.	123.091 W.
Elk Creek	47.515 N.	123.330 W.	47.510 N.	123.344 W.
Elwha River	48.151 N.	123.558 W.	47.771 N.	123.580 W.
Ennis Creek	48.117 N.	123.404 W.	48.053 N.	123.410 W.
Godkin Creek	47.760 N.	123.464 W.	47.752 N.	123.451 W.
Goodman Creek	47.825 N.	124.512 W.	47.835 N.	124.338 W.
Gray Wolf River	47.977 N.	123.111 W.	47.916 N.	123.242 W.
Grays Harbor Marine	46.927 N.	124.179 W.	46.906 N.	124.138 W.
Griff Creek	48.013 N.	123.591 W.	48.023 N.	123.593 W.
Hayes River	47.808 N.	123.453 W.	47.803 N.	123.428 W.
Hoh Creek	47.877 N.	123.753 W.	47.883 N.	123.750 W.
Hoh River	47.751 N.	124.437 W.	47.878 N.	123.688 W.
Hood Canal Marine	47.685 N.	122.800 W.	47.434 N.	122.841 W.
Hughes Creek	48.025 N.	123.594 W.	48.026 N.	123.598 W.
Humptulips River	47.045 N.	124.048 W.	47.247 N.	123.888 W.
Hurd Creek	48.124 N.	123.142 W.	48.118 N.	123.142 W.
Ignar Creek	47.639 N.	123.432 W.	47.637 N.	123.429 W.
Irely Creek	47.565 N.	123.678 W.	47.567 N.	123.672 W.
Irely Lake	Located at		47.565 N.	123.672 W.
Joe Creek	47.206 N.	124.202 W.	47.217 N.	124.153 W.
Kalaloch Creek	47.607 N.	124.374 W.	47.637 N.	124.360 W.
Little River	48.063 N.	123.576 W.	48.033 N.	123.456 W.
Matheny Creek	47.576 N.	124.113 W.	47.543 N.	123.835 W.
Moclips River	47.248 N.	124.219 W.	47.260 N.	124.122 W.
Morse Creek	48.118 N.	123.350 W.	48.064 N.	123.346 W.
Mosquito Creek	47.799 N.	124.481 W.	47.787 N.	124.382 W.
Mount Tom Creek	47.868 N.	123.887 W.	47.819 N.	123.820 W.
Nolan Creek	47.752 N.	124.343 W.	47.743 N.	124.201 W.
North Fork Quinault River	47.540 N.	123.666 W.	47.654 N.	123.646 W.
North Fork Skokomish River (Lower)	47.315 N.	123.238 W.	47.398 N.	123.200 W.
North Fork Skokomish River (Upper)	47.419 N.	123.224 W.	47.539 N.	123.380 W.
OGS Creek	47.878 N.	123.770 W.	47.879 N.	123.767 W.
O'Neil Creek	47.616 N.	123.470 W.	47.610 N.	123.463 W.
Owl Creek	47.805 N.	124.078 W.	47.780 N.	124.037 W.
Pacific Coast Marine	48.003 N.	124.678 W.	46.927 N.	124.179 W.
Prescott Creek	47.903 N.	123.490 W.	47.904 N.	123.486 W.
Pyrites Creek	47.639 N.	123.432 W.	47.644 N.	123.435 W.
Queets River	47.544 N.	124.354 W.	47.758 N.	123.657 W.
Quinault Lake	Located at		47.471 N.	123.871 W.
Quinault River	47.349 N.	124.299 W.	47.687 N.	123.371 W.
Richert Spring	47.320 N.	123.218 W.	47.320 N.	123.224 W.
Rustler Creek	47.617 N.	123.615 W.	47.629 N.	123.568 W.
Salmon River	47.557 N.	124.219 W.	47.524 N.	124.040 W.
Sams River	47.625 N.	124.012 W.	47.604 N.	123.851 W.
Satsop River	46.979 N.	123.480 W.	47.035 N.	123.524 W.
Skokomish River	47.335 N.	123.116 W.	47.315 N.	123.238 W.
Slate Creek	47.521 N.	123.335 W.	47.529 N.	123.319 W.
Slough off of Elwha	48.145 N.	123.567 W.	48.138 N.	123.558 W.
South Fork Hoh River	47.820 N.	124.022 W.	47.764 N.	123.785 W.
South Fork Skokomish River	47.315 N.	123.238 W.	47.488 N.	123.454 W.
Steamboat Creek	47.679 N.	124.403 W.	47.688 N.	124.349 W.
Strait of Juan de Fuca Marine	48.103 N.	122.884 W.	48.217 N.	124.100 W.
Tshletshy Creek	47.666 N.	123.923 W.	47.606 N.	123.739 W.
West Fork Satsop River	47.035 N.	123.524 W.	47.360 N.	123.565 W.
Winfield Creek	47.810 N.	124.231 W.	47.783 N.	124.142 W.

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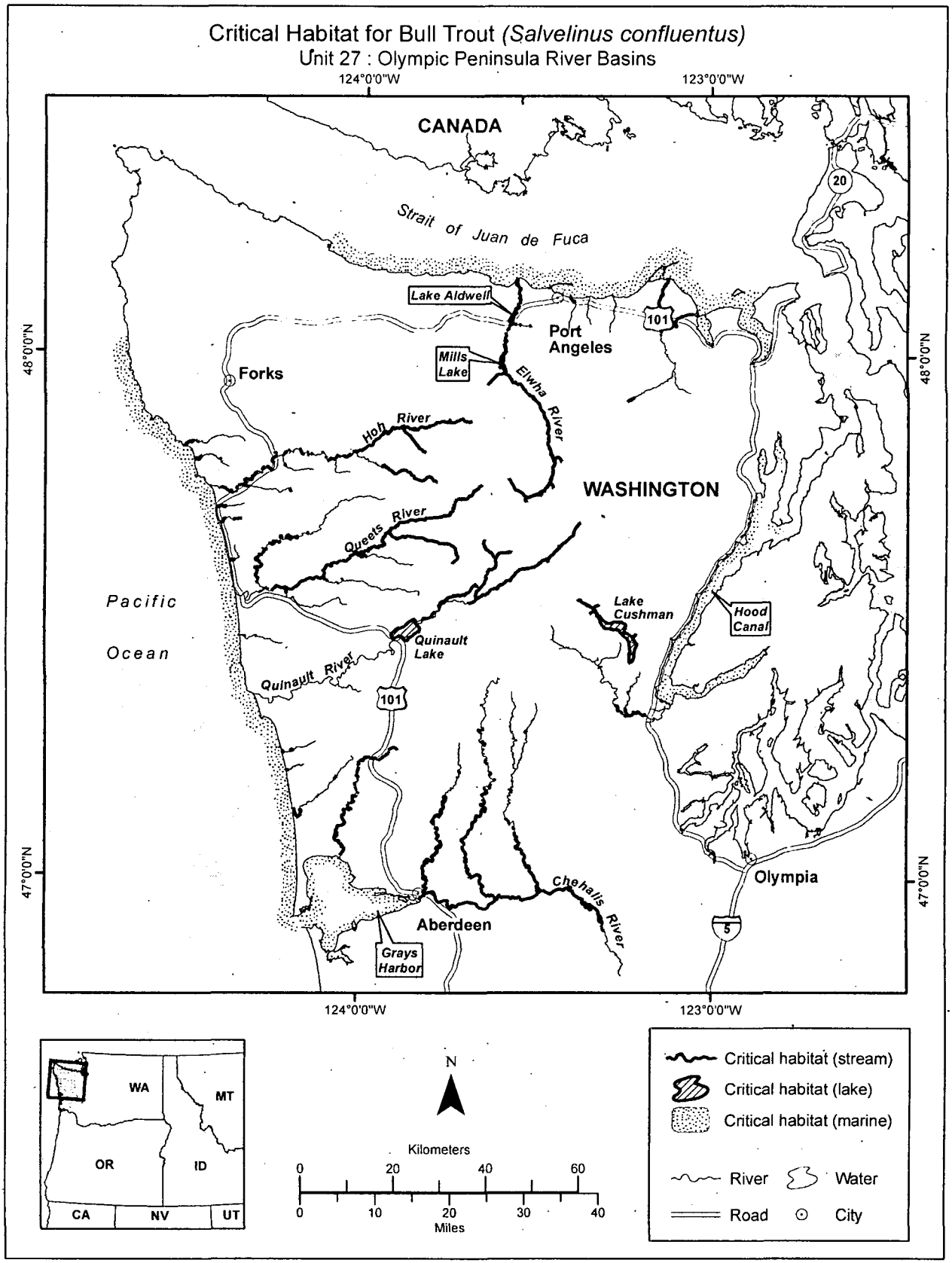
Name	Stream end-point latitude	Stream end-point lon-gitude	Stream end-point latitude or lake cen-ter	Stream end-point lon-gitude or lake center
Wishkah River	46.973 N.	123.806 W.	47.261 N.	123.713 W.
Wynoochee River	46.962 N.	123.606 W.	47.385 N.	123.604 W.

(ii) Map of Unit 27, Olympic Peninsula, follows:

BILLING CODE 4310–55–P

HeinOnline -- 70 Fed. Reg. 56305 2005



BILLING CODE 4310–55–C

HeinOnline -- 70 Fed. Reg. 56306 2005

(25) Unit 28: Puget Sound.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Alma Creek	48.600 N.	121.361 W.	48.590 N.	121.355 W.
Bacon Creek	48.586 N.	121.394 W.	48.681 N.	121.462 W.
Baker River	48.534 N.	121.735 W.	48.821 N.	121.427 W.
Bald Eagle Creek	48.800 N.	121.464 W.	48.797 N.	121.448 W.
Bear Creek	48.965 N.	121.387 W.	48.966 N.	121.382 W.
Bear Lake Outlet (stream catalog #0317)	48.607 N.	121.911 W.	48.610 N.	121.911 W.
Big Beaver Creek	48.773 N.	121.045 W.	48.842 N.	121.210 W.
Boulder River	48.282 N.	121.786 W.	48.245 N.	121.827 W.
Brush Creek	48.913 N.	121.423 W.	48.909 N.	121.422 W.
Canyon Creek	48.098 N.	121.969 W.	48.158 N.	121.816 W.
Canyon Creek (Canyon Lake Creek)	48.832 N.	122.143 W.	48.840 N.	122.110 W.
Carbon River	47.130 N.	122.232 W.	46.964 N.	121.794 W.
Cascade River	48.524 N.	121.429 W.	48.463 N.	121.163 W.
Chenuis Creek	46.992 N.	121.842 W.	46.993 N.	121.841 W.
Chilliwack River	49.000 N.	121.410 W.	48.878 N.	121.486 W.
Clearwater River	47.146 N.	121.833 W.	47.079 N.	121.781 W.
Corkindale Creek	48.505 N.	121.485 W.	48.518 N.	121.482 W.
Crystal Creek	46.929 N.	121.537 W.	46.920 N.	121.525 W.
Crystal Creek	48.787 N.	121.501 W.	48.791 N.	121.509 W.
Dan Creek	48.298 N.	121.550 W.	48.265 N.	121.539 W.
Deer Creek	48.268 N.	121.931 W.	48.365 N.	121.793 W.
Deer Creek	48.715 N.	121.119 W.	48.721 N.	121.104 W.
Depot Creek	48.997 N.	121.323 W.	48.986 N.	121.292 W.
Devils Creek	48.825 N.	121.042 W.	48.819 N.	121.001 W.
Diobsud Creek	48.559 N.	121.411 W.	48.576 N.	121.432 W.
Duwamish River	47.586 N.	122.359 W.	47.474 N.	122.250 W.
East Duwamish Waterway	47.590 N.	122.343 W.	47.567 N.	122.346 W.
East Fork Bacon Creek	48.661 N.	121.433 W.	48.713 N.	121.416 W.
Eastern Shoreline Guemes Island	48.529 N.	122.572 W.	48.589 N.	122.645 W.
Eastern Shoreline Puget Sound (North)	48.511 N.	122.605 W.	49.000 N.	122.755 W.
Eastern Shoreline Puget Sound (South)	47.102 N.	122.727 W.	48.426 N.	122.674 W.
Eastern Shoreline Whidbey Island	47.905 N.	122.387 W.	48.370 N.	122.665 W.
Eastern Shoreline Lummi Island	48.641 N.	122.608 W.	48.717 N.	122.718 W.
Easy Creek	48.889 N.	121.457 W.	48.882 N.	121.455 W.
Ebey Slough	48.022 N.	122.147 W.	47.941 N.	122.169 W.
Finney Creek	48.524 N.	121.846 W.	48.465 N.	121.686 W.
Foss River	47.653 N.	121.293 W.	47.705 N.	121.305 W.
Fryingpan Creek	46.891 N.	121.601 W.	46.869 N.	121.649 W.
Gedney Island	00.000 N.	000.000 W.	48.013 N.	122.319 W.
Glacier Creek	47.987 N.	121.392 W.	47.987 N.	121.367 W.
Goat Island	00.000 N.	000.000 W.	48.363 N.	122.529 W.
Goodell Creek	48.672 N.	121.264 W.	48.778 N.	121.351 W.
Green River	47.474 N.	122.250 W.	47.299 N.	121.839 W.
Greenwater River	47.159 N.	121.659 W.	47.093 N.	121.457 W.
Hat Slough	48.197 N.	122.361 W.	48.209 N.	122.322 W.
Hope Island	00.000 N.	000.000 W.	48.399 N.	122.568 W.
Howard Creek	48.609 N.	121.965 W.	48.619 N.	121.965 W.
Huckleberry Creek	47.079 N.	121.585 W.	46.989 N.	121.622 W.
Hutchinson Creek	48.707 N.	122.178 W.	48.733 N.	122.102 W.
Ika Island	00.000 N.	000.000 W.	48.363 N.	122.501 W.
Illabot Creek	48.496 N.	121.530 W.	48.389 N.	121.318 W.
Indian Creek	48.947 N.	121.397 W.	48.935 N.	121.394 W.
Ipsut Creek	46.980 N.	121.832 W.	46.971 N.	121.831 W.
Jim Creek	48.185 N.	122.076 W.	48.216 N.	121.939 W.
Jones Creek	48.524 N.	122.052 W.	48.542 N.	122.050 W.
Kendall Creek	48.887 N.	122.148 W.	48.922 N.	122.144 W.
Klickitat Creek	46.909 N.	121.548 W.	46.903 N.	121.546 W.
Lake Union	Located at		47.651 N.	122.355 W.
Lake Washington	Located at		47.520 N.	122.236 W.
Lightning Creek	48.871 N.	121.027 W.	49.000 N.	120.978 W.
Little Beaver Creek	48.912 N.	121.064 W.	48.878 N.	121.322 W.
Little Chilliwack River	48.993 N.	121.407 W.	48.962 N.	121.477 W.
Lodi Creek	46.960 N.	121.705 W.	46.940 N.	121.687 W.
Maple Creek	48.912 N.	122.078 W.	48.927 N.	122.076 W.
Marble Creek	48.531 N.	121.281 W.	48.542 N.	121.251 W.
Middle Fork Nooksack River	48.834 N.	122.154 W.	48.725 N.	121.898 W.
Mowich River	46.901 N.	122.030 W.	46.915 N.	121.894 W.

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Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Newhalem Creek	48.671 N.	121.254 W.	48.663 N.	121.251 W.
Nisqually River	47.101 N.	122.691 W.	46.835 N.	122.323 W.
Nookachamps Creek	48.471 N.	122.296 W.	48.346 N.	122.202 W.
Nooksack River	48.771 N.	122.598 W.	48.834 N.	122.154 W.
North Fork Skagit River	48.364 N.	122.472 W.	48.387 N.	122.366 W.
North Fork Stillaguamish River	48.204 N.	122.126 W.	48.328 N.	121.639 W.
Panther Creek	48.708 N.	120.975 W.	48.631 N.	120.977 W.
Pass Creek	48.815 N.	121.462 W.	48.811 N.	121.457 W.
Peat Bog Creek (st. catalog # 0352)	48.790 N.	122.121 W.	48.780 N.	122.116 W.
Pierce Creek	48.774 N.	121.060 W.	48.766 N.	121.072 W.
Pilchuck River	47.904 N.	122.090 W.	47.995 N.	121.745 W.
Portage Island	00.000 N.	000.000 W.	48.701 N.	122.618 W.
Puyallup River	47.269 N.	122.425 W.	46.864 N.	121.949 W.
Ranger Creek	46.995 N.	121.853 W.	46.984 N.	121.854 W.
Rocky Creek	48.501 N.	121.494 W.	48.510 N.	121.501 W.
Roland Creek	48.762 N.	121.027 W.	48.770 N.	120.997 W.
Ruby Creek	48.737 N.	121.046 W.	48.707 N.	120.916 W.
Samish River	48.555 N.	122.456 W.	48.649 N.	122.207 W.
Sauk River	48.482 N.	121.604 W.	48.135 N.	121.422 W.
Silesia Creek	48.999 N.	121.612 W.	48.911 N.	121.484 W.
Silver Creek	48.972 N.	121.092 W.	48.981 N.	121.188 W.
Skagit River	48.387 N.	122.366 W.	49.000 N.	121.078 W.
Skookum Creek	48.671 N.	122.140 W.	48.686 N.	122.105 W.
Skykomish River	47.830 N.	122.045 W.	47.813 N.	121.578 W.
Smith Creek	48.856 N.	122.299 W.	48.841 N.	122.261 W.
Snohomish River	48.020 N.	122.208 W.	47.830 N.	122.045 W.
Snoqualmie River	47.830 N.	122.045 W.	47.541 N.	121.836 W.
South Fork Nooksack River	48.809 N.	122.202 W.	48.675 N.	121.940 W.
South Fork Skagit River	48.292 N.	122.367 W.	48.387 N.	122.366 W.
South Fork Skykomish River	47.813 N.	121.578 W.	47.705 N.	121.305 W.
South Fork Stillaguamish River	48.204 N.	122.126 W.	48.030 N.	121.482 W.
South Fork Tolt River	47.696 N.	121.820 W.	47.693 N.	121.692 W.
South Mowich River	46.915 N.	121.894 W.	46.871 N.	121.845 W.
South Pass	48.226 N.	122.385 W.	48.238 N.	122.377 W.
South Puyallup River	46.864 N.	121.949 W.	46.821 N.	121.846 W.
Southeastern Shoreline Vashon Island	47.331 N.	122.492 W.	47.349 N.	122.450 W.
Squire Creek	48.280 N.	121.684 W.	48.194 N.	121.637 W.
St. Andrews Creek	46.837 N.	121.920 W.	46.833 N.	121.864 W.
Steamboat Slough	48.033 N.	122.203 W.	47.984 N.	122.168 W.
Stetattle Creek	48.717 N.	121.148 W.	48.727 N.	121.154 W.
Stillaguamish River	48.238 N.	122.377 W.	48.204 N.	122.126 W.
Suiattle River	48.330 N.	121.548 W.	48.162 N.	121.005 W.
Sulphide Creek	48.777 N.	121.532 W.	48.789 N.	121.551 W.
Tenas Creek	48.324 N.	121.438 W.	48.335 N.	121.421 W.
Three Fools Creek	48.891 N.	120.973 W.	48.897 N.	120.847 W.
Thunder Creek	48.712 N.	121.105 W.	48.563 N.	121.026 W.
Tolt River	47.641 N.	121.926 W.	47.696 N.	121.820 W.
Union Slough	48.034 N.	122.190 W.	47.984 N.	122.166 W.
unnamed tributary (st. catalog #0217)	46.992 N.	121.704 W.	46.992 N.	121.714 W.
unnamed tributary (st. catalog #0226)	46.962 N.	121.710 W.	46.960 N.	121.717 W.
unnamed tributary (st. catalog #0234)	46.965 N.	121.712 W.	46.959 N.	121.711 W.
unnamed tributary (st. catalog #0364)	46.905 N.	121.559 W.	46.909 N.	121.573 W.
West Fork Foss River	47.653 N.	121.293 W.	47.627 N.	121.310 W.
West Fork White River	47.125 N.	121.618 W.	46.941 N.	121.707 W.
West Pass	48.250 N.	122.396 W.	48.238 N.	122.377 W.
White River	47.200 N.	122.257 W.	46.902 N.	121.636 W.

(ii) Map of Unit 28, Puget Sound, follows:

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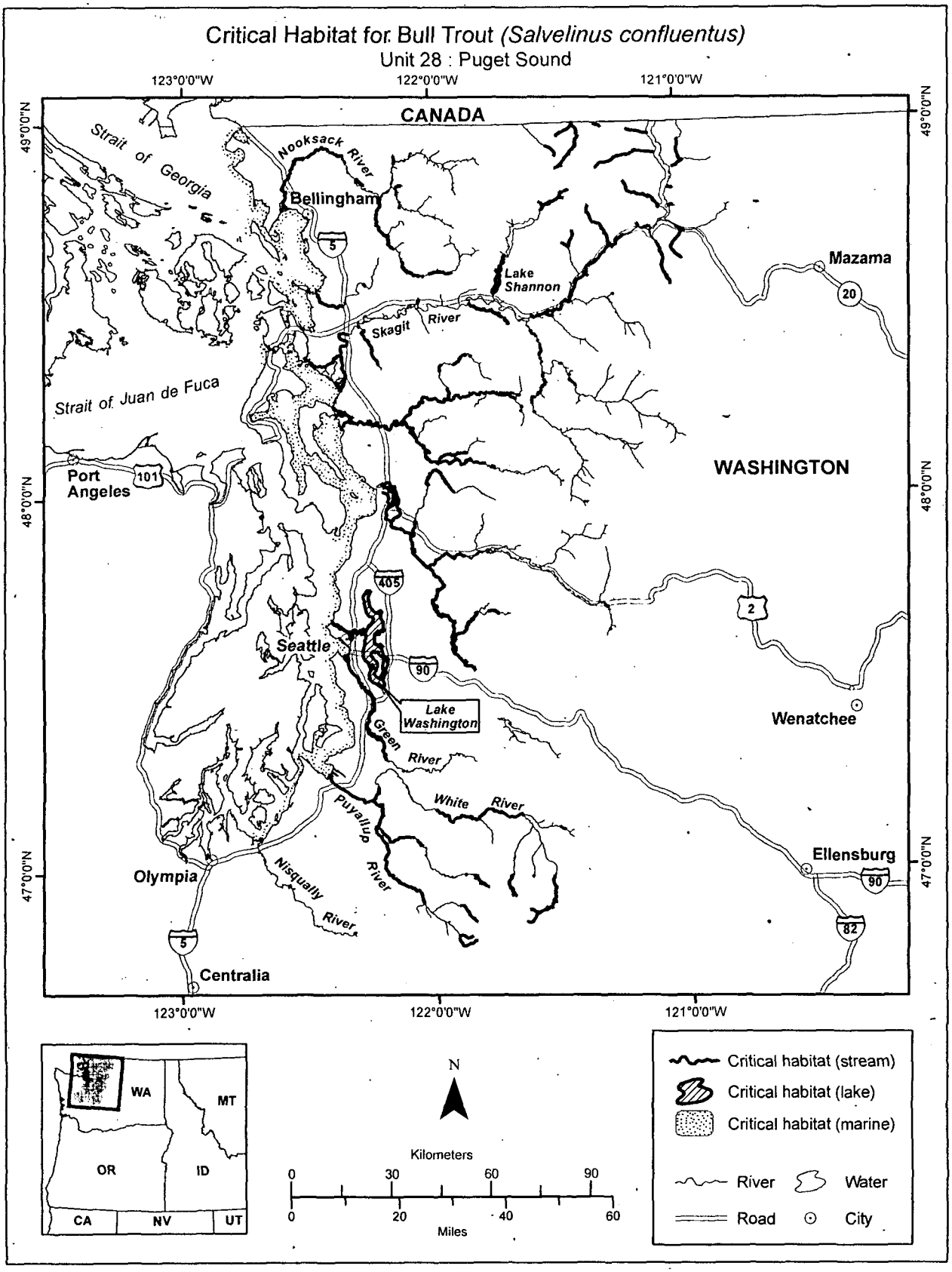
Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit 28 : Puget Sound
123°0'0"W
122°0'0"W
121°0'0"W
49°0'0"N
48°0'0"N
47°0'0"N
CANADA
Strait of Georgia
Nooksack River
Bellingham
Lake Shannon
Skagit River
Mazama
Strait of Juan de Fuca
Port Angeles
WASHINGTON
Seattle
Lake Washington
Green River
White River
Puyallup River
Nisqually River
Olympia
Centralia
Wenatchee
Ellensburg
5
20
101
405
2
90
82
WA
MT
OR
ID
CA
NV
UT
N
Kilometers
0
30
60
90
0
20
40
60
Miles
Critical habitat (stream)
Critical habitat (lake)
Critical habitat (marine)
River
Water
Road
City

(26) Unit 29: Saint Mary-Belly.

(i) Critical habitat is designated on the water bodies listed in the following table:

Name	Stream end-point latitude	Stream end-point longitude	Stream end-point latitude or lake center	Stream end-point longitude or lake center
Boulder Creek	48.839 N.	113.459 W.	48.732 N.	113.608 W.
Cracker Lake	Located at		48.744 N.	113.643 W.
Divide Creek	48.751 N.	113.437 W.	48.634 N.	113.444 W.
Jule Creek	48.988 N.	113.613 W.	48.954 N.	113.617 W.
Kennedy Creek	48.905 N.	113.409 W.	48.851 N.	113.604 W.
Lee Creek	48.998 N.	113.600 W.	48.960 N.	113.644 W.
North Fork Belly River	48.998 N.	113.754 W.	48.981 N.	113.770 W.
Otatso Creek	48.915 N,	113.464 W.	48.892 N.	113.644 W.
Red Eagle Lake	Located at		48.651 N.	113.506 W.
Saint Mary Lake	Located at		48.685 N.	113.525 W.
Saint Mary River	48.998 N.	113.326 W.	48.668 N.	113.615 W.
Slide Lakes—lower pool	Located at		48.905 N.	113.615 W.
Slide Lakes—upper pool	Located at		48.901 N.	113.625 W.
Swiftcurrent Creek	48.836 N.	113.428 W.	48.828 N.	113.521 W.

(ii) Map of Unit 29, Saint Mary-Belly, follows:

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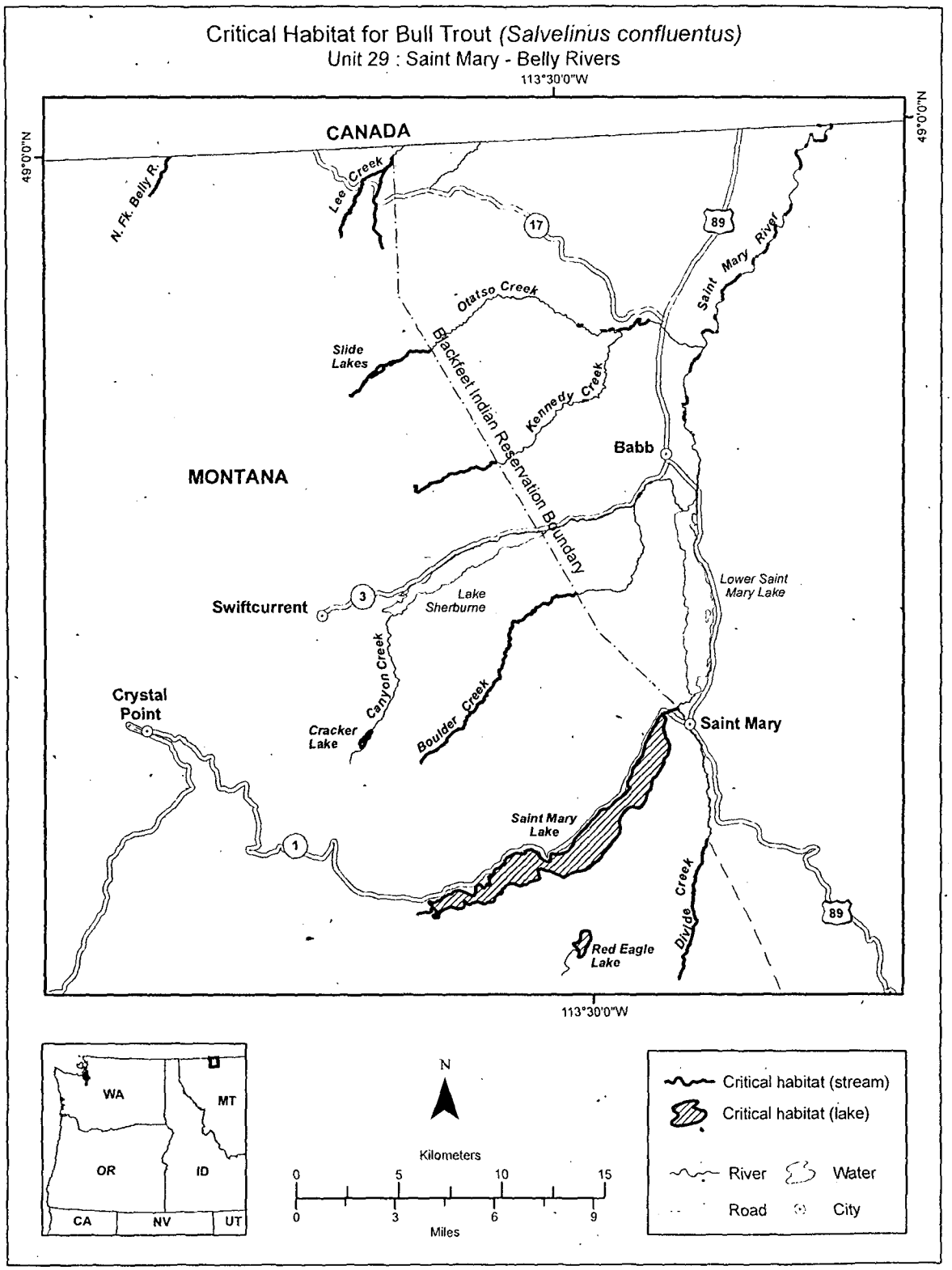

Dated: September 15, 2005.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 05–18880 Filed 9–23–05; 8:45 am]

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