Part III

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17
Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States; Proposed Rule
Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States

AGENCY: Fish and Wildlife Service.

ACTION: Proposed rule, announcement of public hearing, and announcement of availability of draft economic analysis.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose to revise the designation of critical habitat for the bull trout (Salvelinus confluentus) under the Endangered Species Act of 1973, as amended. In total, approximately 36,498 kilometers (km) (22,679 miles (mi)) of streams (which includes 1,585.7 km (985.30 mi)) of marine shoreline area in the Olympic Peninsula and Puget Sound, and 215,870 hectares (ha) (533,426 acres (ac)) of reservoirs or lakes are being proposed for the revised critical habitat designation. The revised proposed critical habitat is located in Adams, Benewah, Blaine, Boise, Bonner, Boundary, Butte, Camas, Canyon, Clearwater, Custer, Elmore, Gem, Idaho, Kootenai, Lemhi, Lewis, Nez Perce, Owyhee, Shoshone, Valley, and Washington counties in Idaho; Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, and Sanders counties in Montana; Baker, Cloatsp, Columbia, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lane, Linn, Malheur, Morrow, Multnomah, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler counties in Oregon; Asotin, Benton, Chelan, Clallam, Clark, Columbia, Cowlitz, Douglas, Franklin, Garfield, Grant, Grays Harbor, Island, Jefferson, King, Kittitas, Klickitat, Mason, Okanogan, Pend Oreille, Pierce, Skagit, Skamania, Snohomish, Thurston, Wahkiakum, Walla Walla, Whatcom, Whitman, and Yakima counties in Washington; and Elko county, Nevada.

DATES: Written Comments: We will accept comments received or postmarked on or before March 15, 2010. Because of the anticipated interest in this proposed designation, we are planning on holding a public hearing and several public meetings.

Public Hearing: We will hold a public hearing in Boise, Idaho on February 25, 2010, from 7 p.m. to 9 p.m.; and public meetings in:
• Bend, Oregon on February 2, 2010, 5:30 p.m. to 7:30 p.m.;
• Chiloquin, Oregon on February 3, 2010, 6 p.m. to 8 p.m.;
• LaGrande, Oregon on February 4, 2010, 5:30 p.m. to 7:30 p.m.;
• Post Falls, Idaho on February 11, 2010, 4 p.m. to 7 p.m.;
• Missoula, Montana on February 16, 2010, 3 p.m. to 8 p.m.;
• Elko, Nevada on February 17, 2010, 5 p.m. to 7 p.m.;
• Wenatchee, Washington on February 23, 2010, 6 p.m. to 8 p.m.; and
• Boise, Idaho on February 25, 2010, 4 p.m. to 6 p.m.

ADDRESSES: You may submit comments by one of the following methods:

We will hold the public hearing at Boise Centre on the Grove, 850 W. Front Street, Boise, Idaho.

Public Meetings: We will hold the public meetings at:
• Hollingshead Barn, 1235 NE Jones Road, Bend, Oregon;
• Chiloquin Community Center, 140 S. 1st Street, Chiloquin, Oregon;
• Blue Mountain Conference Center, 404 12th Street, La Grande, Oregon;
• Red Lion Templins Inn, 414 East 1st Avenue, Post Falls, Idaho;
• Montana Fish, Wildlife, and Parks Headquarters, 3201 Spurgin Road, Missoula, Montana;
• Elko Convention Center, Gold Room, 700 Moren Way, Elko, Nevada;
• Wenatchee-Okanogan National Forest Headquarters, 215 Melody Lane, Wenatchee, Washington; and
• Boise Centre on the Grove, 850 W. Front Street, Boise, Idaho.

We will post all comments on http://www.regulations.gov. This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).


SUPPLEMENTARY INFORMATION:

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned government agencies, the scientific community, industry, or other interested parties concerning this proposed rule. Verbal testimony or written comments may also be presented during the public hearing (see the Public Hearing section below for more information). We will consider information and recommendations from all interested parties. We particularly seek comments concerning:
(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.), including whether there are threats to the species from human activity, the degree to which threats can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation;
(2) Specific information on:
• The amount and distribution of bull trout habitat;
• What areas occupied at the time of listing that contain features essential to the conservation of the species should be included in the designation and why;
• Special management considerations or protections that the features essential to the conservation of the bull trout that have been identified in this proposal may require, including managing for the potential effects of climate change, and
• What areas not occupied at the time of listing are essential to the conservation of the species and why;
(3) Land use designations and current or planned activities in the areas occupied by the species, and their possible impacts on proposed critical habitat;
(4) Any foreseeable economic, national security, or other relevant impacts of designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas that exhibit these impacts;
(5) Whether the benefits of excluding any particular area from critical habitat
outweigh the benefits of including that area as critical habitat under section 4(b)(2) of the Act, after considering the potential impacts and benefits of the proposed critical habitat designation. Under section 4(b)(2) of the Act, we may exclude an area from critical habitat if we determine that the benefits of such exclusion outweigh the benefits of including that particular area as critical habitat, unless failure to designate that specific area as critical habitat will result in the extinction of the species. We request specific information on:

• The benefits of including specific areas in the final designation and supporting rationale,
• The benefits of excluding specific areas from the final designation and supporting rationale, and
• Whether any specific exclusions may result in the extinction of the species and why (see Exclusions section below).

(6) Whether our exemptions under section 4(a)(3)(B) of the Act of the lands on Department of Defense (DOD) land at the Bayview Acoustic Research Detachment (ARD) Naval Surface Warfare Center, Bayview Idaho; Naval Radio Station Jim Creek in western Washington; Naval Station Everett in western Washington; Naval Air Station Whidbey Island in western Washington, and U.S. Army Fort Lewis Installation in western Washington, are or are not appropriate, and why:

(7) Specific information on the following areas considered to be essential to the conservation of the species:

• Mainstem and tributary habitats within the White Salmon River Critical Habitat Subunit (CHSU) that are believed to be unoccupied, but which are considered essential for providing foraging, migration, and overwintering (FMO) habitat or spawning and rearing areas to reestablish a population within this system;
• Unoccupied tributaries within the Lake Pend Oreille, Pend Oreille River, and lower Priest River CHSU that are considered essential for providing spawning and rearing areas to reestablish a population within the Pend Oreille River; and
• Areas of mainstem habitat in the Yakima River (Yakima River Critical Habitat Unit (CHU)) and Touchet River (Walla Walla River Basin CHU) for which we have limited or no documented evidence of occupancy, but which are currently believed to be essential for providing connectivity to the mainstem Columbia River and Walla Walla River, respectively, for the fluvial life-history form;

(8) Specific information on areas of habitat that were historically occupied, or areas for which we have limited evidence of occupancy, which we do not consider to be essential to the conservation of the species in this proposed rule. These areas include Okanogan River; Lake Chelan and Stehekin River; west side tributaries to Hood Canal (e.g., Dosewallips River, Duckabush River, Quilcene River); and Willapa River;

(9) Specific information on areas believed to be unoccupied in the Klamath River basin, but essential for FMO habitat;

(10) Specific information as to whether the six recovery units identified in the “Critical Habitat Background” section accurately reflect the conservation needs of bull trout;

(11) Information on the projected and reasonably likely impacts of climate change on bull trout, and any special management needs or protections that may be needed in the critical habitat areas we are proposing.

(12) Information on the extent to which the description of potential economic impacts in the DEA is complete and accurate, and specifically:

• Whether regulatory protections and conservation activities already being implemented for salmon, steelhead, bull trout , other species, or other concerns (e.g., water quality) in areas proposed as critical habitat are appropriate to include as baseline costs (e.g., costs that would occur regardless of critical habitat designation for bull trout) for purposes of our economic analysis, and if not, why not;

• Whether there are incremental costs of critical habitat designation (e.g., costs attributable solely to critical habitat designation) that have not been appropriately identified or considered in our economic analysis, including costs associated with future administrative costs or project modifications that may be required by Federal agencies related to section 7 consultation under the Act;

• Whether there are incremental economic benefits of critical habitat designation that have not been appropriately identified or considered in our economic analysis.

(13) Information on whether existing special management considerations or protections being implemented in areas designated as critical habitat for salmon by the National Marine Fisheries Service (NOAA Fisheries) are adequate for conserving essential bull trout habitat where proposed bull trout critical habitat overlaps, and if not, why not.

(14) We have organized the Primary Constituent Elements (PCEs) of bull trout critical habitat based on the life-history needs of the species. We are considering reorganizing the PCEs in order to improve clarity, into broad habitat attributes (water bodies and migratory corridors), and identify specific needs of bull trout within these broad categories. This approach would likely require repetition of specific features, but may be more understandable by making clear the relationships between the needs of the species and the specific locations where those needs are provided. We request comments on whether this reorganization would improve clarity of the PCEs.

(15) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments;

(16) Specific information on ways to improve the clarity of this rule as it pertains to completion of consultations under section 7 of the Endangered Species Act.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the ADDRESSES section.

We will post your entire comment—including your personal identifying information—on http://www.regulations.gov. If you provide personal identifying information, in addition to the required items specified in the previous paragraphs, such as your street address, phone number, or e-mail address, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on http://www.regulations.gov, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

We are holding a public hearing on the date listed in the DATES section at the address listed in the ADDRESSES section. We are holding this public hearing to provide interested parties an opportunity to present verbal testimony (formal, oral comments) or written comments regarding the proposed critical habitat designation and the associated Draft Economic Analysis. An informational session will precede the hearing from 4 p.m. to 6 p.m. During
this session. Service biologists will be available to provide information and address questions on the proposed rule in advance of the formal hearing. People needing reasonable accommodations in order to attend and participate in the public hearings should contact Jeff Foss, Idaho Fish and Wildlife Office, at 208-378-5243 as soon as possible (see FOR FURTHER INFORMATION CONTACT section). In order to allow sufficient time to process requests, please call no later than one week before the hearing date.

We are also holding public meetings on the dates listed in the DATES section at the addresses listed in the ADDRESSES section. During the public meetings, Service biologists will be available to provide information and address questions on the proposed rule. However, we will not accept verbal testimony at these public meetings.

Information regarding this notice is available in alternative formats upon request.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this proposed rule. For further information on the bull trout biology and habitat, population abundance and trend, distribution, demographic features, habitat use and conditions, threats, and conservation measures, please see the Bull Trout 5-year Review Summary and Evaluation, completed April 25, 2008. This document is available on the Idaho Fish and Wildlife Office web site at http://ecos.fws.gov/docs/five_year_review/doc1907.pdf.

Description, Distribution, Habitat and Recovery

Bull trout have more specific habitat requirements than most other salmonids (Rieman and McIntyre 1993, p. 4). 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, p. 138; Goetz 1989, p. 19; Watson and Hillman 1997, p. 247). This proposed rule identifies those physical and biological features essential to bull trout conservation.

Bull trout 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, p. 4; Ziller 1992, p. 6; Rieman and McIntyre 1993, p. 3; Light et al. 1996, p. 44; Quigley and Arbelbide 1997, p. 1176). 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 one to four 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, p. 133). Resident and migratory forms may be found together, and either form can produce resident or migratory offspring (Rieman and McIntyre 1993, p. 2).

Bull trout, coastal cutthroat trout (Oncorhynchus clarkii 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, p. 5). The amphidromous life-history form of bull trout is unique to the Coastal–Puget Sound population (64 FR 58921; November 1, 1999). 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). The decline of bull trout is primarily due to habitat degradation and fragmentation, blockage of migratory corridors, poor water quality, past fisheries management practices, impoundments, dams, water diversions, and the introduction of nonnative species (63 FR 31647; June 10, 1998; 64 FR 17112; April 8, 1999). Finalization of the 2002 draft recovery plan was held in abeyance pending completion of the 5-year review process, and was also affected by resource demands associated with the litigation discussed below. The bull trout 5-year review (Service 2008, p. 45) recommended that the recovery units identified in the 2002 draft recovery plan be updated throughout their range based on assemblages of bull trout core areas (metapopulations or interacting populations) that retain genetic and ecological integrity and are significant to the distribution of bull trout throughout the conterminous United States. After consulting with biologists from states, Federal agencies, and Native American tribes, and applying the best scientific information available, we identified six recovery units for bull trout in the conterminous United States. Please refer to the “Critical Habitat” section below for additional information on this topic.

Previous Federal Actions

On November 29, 2002, we proposed to designate critical habitat for the Klamath River and Columbia River bull trout populations (67 FR 71235). On October 6, 2004, we finalized the critical habitat designation for the Klamath River and Columbia River bull trout populations (69 FR 59995). On June 25, 2004, we proposed to designate critical habitat for the Jarbidge, Coastal–Puget Sound, and Saint Mary–Belly River bull trout populations (69 FR 35767). On September 26, 2005, we designated critical habitat for the Klamath River, Columbia River, Jarbidge River, Coastal–Puget Sound, and Saint Mary–Belly River populations of bull trout (70 FR 56212). Please refer to the above-mentioned rules for a detailed summary of previous Federal actions completed prior to publication of this proposed rule.

On January 5, 2006, a complaint was filed in Federal district court by the Alliance for the Wild Rockies, Inc. and Friends of the Wild Swan, alleging the Service failed to designate adequate critical habitat, failed to rely on the best scientific and commercial data available, failed to consider the relevant factors that led to listing, and failed to properly assess the economic benefits and costs of critical habitat designation. Other allegations included an inadequate analysis and the unlawful use of exclusions. On March 23, 2009, the Service provided notice to the U.S. District Court for the District of Oregon that we would seek remand of the final critical habitat rule for bull trout based on the findings of an Investigative Report by the Department of the Interior Inspector General (USDI 2008, pp. 10–38). On July 1, 2009, the court granted our request for a voluntary remand of the 2005 final rule and directed the Service to submit a new proposed rule to the Federal Register by December 31, 2009, and to submit a final decision on that proposed rule to the Federal Register by September 30, 2010 (Alliance for the Wild Rockies v. Allen, 2009 U.S. Dist. LEXIS 63122 (D. Or., July 1, 2009)). The court directed that the existing critical habitat rule shall remain in effect until completion of the remanded decision.
November 29, 2002, proposed designation for the Klamath River and Columbia River bull trout populations (67 FR 71235) and the June 25, 2004, proposed designation for the Jarbidge, Coastal–Puget Sound, and Saint Mary–Belly River bull trout populations (69 FR 35767) are identified in Table 1 below. Based on better occupancy data and refined information on the importance of certain habitats, we are proposing to designate 3 percent more critical habitat in streams (measured on a linear basis) and 10 percent less in lakes and reservoirs (measured by area) than were proposed in the combined 2002 and 2004 proposed rules.

<table>
<thead>
<tr>
<th>Bull Trout Population</th>
<th>Stream length</th>
<th>Lakes, Reservoirs and Marshes</th>
<th>Marine shoreline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klamath DPS</td>
<td>476 km</td>
<td>296 ha</td>
<td>13,735 ha</td>
</tr>
<tr>
<td>Columbia River DPS (CDPS)</td>
<td>14,416 km</td>
<td>8,958 ha</td>
<td>83,219 ha</td>
</tr>
<tr>
<td>CDPS</td>
<td>5,341 km</td>
<td>3,319 ha</td>
<td>88,051 ha</td>
</tr>
<tr>
<td>CDPS</td>
<td>5,460 km</td>
<td>3,391 ha</td>
<td>16,977 ha</td>
</tr>
<tr>
<td>Jarbidge</td>
<td>4,034 km</td>
<td>2,507 ha</td>
<td>12,503 ha</td>
</tr>
<tr>
<td>Coastal–Puget Sound</td>
<td>211 km</td>
<td>131 ha</td>
<td>50,670 ha</td>
</tr>
<tr>
<td>St. Mary–Belly</td>
<td>3,685 km</td>
<td>2,290 ha</td>
<td>21,262 ha</td>
</tr>
<tr>
<td>Total</td>
<td>33,765 km</td>
<td>20,980 ha</td>
<td>239,395 ha</td>
</tr>
</tbody>
</table>

This proposed rule differs from the September 26, 2005, final critical habitat designation for bull trout (70 FR 56212) in the following ways:

In the 2005 final rule, we designated approximately 6,161 km (3,828 mi) of streams and 57,957 ha (143,218 ac) of lakes in Idaho, Montana, Oregon, and Washington; and 1,585 km (985 mi) of shoreline paralleling marine habitat in Washington as critical habitat (70 FR 56212). No critical habitat was designated in the Jarbidge River basin (70 FR 56212). In this rule, we are proposing to designate 36,498 km (22,679 mi) of streams (which includes 1,585.7 km (985.3 mi) of marine shoreline area in the Olympic Peninsula and Puget Sound), and 215,870 ha (533,426 ac) of lakes and reservoirs as critical habitat, which includes 266.9 km (165.9 mi) of streams in the Jarbidge River basin.

In the 2005 final rule, we did not designate any unoccupied critical habitat because the Secretary concluded that it was not possible to make a determination that such lands were essential to the conservation of the species (70 FR 56232). In this rule, we are proposing to designate 1,495 km (929 mi) of streams (four percent of the total) that are outside the geographical area occupied by the species at the time it was listed that have been determined to be essential for the conservation of the species.

In the 2005 rule, a variety of areas were exempted from critical habitat designation under section 4(b)(2) of the Act or excluded from designation as critical habitat under section 4(b)(2) of the Act (70 FR 56232). These areas included several DOD facilities; certain Tribal lands; Nisqually National Wildlife Refuge lands; lands subject to Habitat Conservation Plans (HCPs); lands subject to Federal or State management plans (including PACFISH, INIFISH, Interior Columbia Basin Ecosystem Management Project, Northwest Forest Plan, Southwest Idaho Land and Resource Management Plan, Southeast Oregon Resource Management Plan, Federal Columbia River Power System, Snake River Basin Adjudication); waters impounded behind dams; and all lands that were proposed as critical habitat in the Jarbidge River in Nevada.

Federal agencies have an independent responsibility under section 7(a)(1) of the Act to use their programs in furtherance of the Act and to utilize their authorities to carry out programs for the conservation of endangered and threatened species. We consider the development and implementation of land management plans by Federal agencies to be consistent with this statutory obligation under section 7(a)(1) of the Act. For this reason, Federal land management plans, in and of themselves, are generally not an appropriate basis for excluding essential habitat, thus this rule does not propose to exclude any Federal lands under section 4(b)(2) of the Act. However, in some areas, Federal land management agencies actively manage for bull trout and its habitat and conduct specific conservation actions for the species. Therefore, in this proposed rule, we are asking for specific information regarding whether the effects of these actions are such that the benefits of excluding these particular areas from critical habitat outweigh the benefits of including these area as critical habitat under section 4(b)(2) of the Act (see “Application of Section 4(b)(2) of the Act” below).

In addition, we are exempting several DOD facilities under section 4(a)(3) of the Act based on existing Integrated Natural Resource Management Plans that provide a benefit to bull trout, and we are considering excluding certain non-Federal lands under section 4(b)(2) of the Act based on other conservation management considerations (see “Exemptions under Section 4(a)(3) of the Act” and “Application of Section 4(b)(2) of the Act” below). We are also proposing to designate 266.9 km (165.9 mi) of streams in the Jarbidge River basin.

Two economic analyses related to previous bull trout critical habitat proposed rules were prepared in 2004 and 2005, which followed a co-extensive analytical approach, consistent with recent court rulings. Those analyses considered conservation and protection activities for bull trout, without distinguishing between impacts associated with listing the species and those associated with the designation of critical habitat. The economic analysis prepared for this proposed rule does not follow the coextensive analytical approach, and differentiates between...
baseline and incremental economic impacts. Under this approach, because of the conservation measures already in place for salmon, steelhead, the Klamath suckers, and other protected fish species, our analysis indicates that the incremental economic impact in areas occupied by bull trout will be small, and the most significant incremental effect will be in those areas not currently occupied (less than four percent of the areas being proposed as critical habitat). The majority of forecast incremental costs are associated with unoccupied critical habitat in the Upper Willamette River Basin and are associated with conservation efforts undertaken at flood control facilities. The discussion under “Draft Economic Analysis” below provides additional information in this regard.

The PCEs in this rule are similar to those described in the 2005 final designation (70 FR 56236); however, we are proposing an additional PCE related to the presence of nonnative fish that may prey on, compete with, or inbreed with, bull trout. In addition, we are considering reorganizing the PCEs, as noted above, into broad habitat attributes (water bodies and migratory corridors), and identify specific needs of bull trout within these broad categories. This reorganization would keep all of the PCEs presented in this proposal intact, but organizing them in such a way as to show the most important broad categories first, and then breaking them down into specific descriptions.

A small proportion of critical habitat designated in the 2005 final rule is not being proposed as critical habitat in this revision. These areas include streams and lakes determined either not to include bull trout or any of their PCEs, or not to be essential to their conservation. For example, Sycan Marsh in the Klamath River basin no longer holds enough water to support bull trout, so we propose the stream channels through the marsh as critical habitat, allowing connectivity among populations, instead of the entire marsh.

The remainder of the areas designated in the 2005 final rule would remain designated as critical habitat if this proposed revision is finalized. A similarly small proportion of habitat proposed in this rule was not designated in the 2005 final rule. These areas include streams and lakes since determined to be occupied by bull trout, to provide one or more PCEs, or as essential to their conservation. For example, the mainstem Columbia River and the lower portions of connecting tributaries such as the John Day River have been found to be more important for FMO habitat for bull trout than was previously understood. All areas known to contain the most important bull trout habitat and PCEs, or that may be unoccupied but essential to their conservation, are proposed in this rule.

Copies of the previous proposed and final bull trout critical habitat rules and a map showing the relationship of the 2005 final rule and this proposed rule are available on the Idaho Fish and Wildlife Office web site at http://www.fws.gov/pacific/bulltrout.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (a) essential to the conservation of the species, and
(b) which may require special management considerations or protection; and
(2) specific areas outside the geographical area occupied by the 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 the use of all methods and procedures that are necessary to bring an endangered 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 Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7(a)(2) of the Act requires consultation on Federal actions that may affect 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 the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by the landowner. Where a landowner seeks or requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply but even in the event of a destruction or adverse modification finding, the Federal action agency’s and the applicant’s obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must contain the physical and biological features that are essential to the conservation of the species, and be included only if those features may require special management considerations or protection. Critical habitat designations identify areas that provide essential life cycle needs of the species (areas on which are found the physical and biological features [PBFs] laid out in the appropriate quantity and spatial arrangement for the conservation of the species), based on the best scientific data available. Under the regulation at 50 CFR 424.12(e), we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed only when we determine that those areas are essential for the conservation of the species and that designation is related to those areas occupied at the time of listing would be inadequate to ensure the conservation of the species. When the best available scientific data do not demonstrate that the conservation needs of the species require such additional areas, 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 that was not occupied at the time of listing may, however, be essential to the conservation of the species and may be included in the critical habitat designation.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the Federal Register on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria,
establish procedures, and provide
guidance to ensure that our decisions
are based on the best scientific data
available. They require our biologists,
to the extent consistent with the Act and
with the use of the best scientific data
available, to use primary and original
sources of information as the basis for
recommendations to designate critical
habitat.

When we are determining which areas
should be proposed as critical habitat,
our primary source of information is
generally the information developed
during the listing process for the
species. Additional information sources
may 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.

Habitat is often dynamic, and species
may move from one area to another over
time. Furthermore, we recognize that
critical habitat designated at a particular
point in time may not include all of the
habitat areas that we may later
determine are necessary for the recovery
of the species, based on scientific data
not now available to the Service. For
these reasons, a critical habitat
designation does not signal that habitat
outside the designated area is
unimportant or may not be required for
recovery of the species.

Areas that are important to the
conservation of the species, but are
outside the critical habitat designation,
will continue to be subject to
conservation actions Federal agencies
implement under section 7(a)(1) of the
Act. Areas that support populations are
also subject to the regulatory protections
afforded by the section 7(a)(2) jeopardy
standard, as determined on the basis of
the best available scientific information
at the time of the agency action.

Federa lly 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 (HCPs), or other species
conservation planning efforts if new
information available at the time of
these planning efforts calls for a
different outcome.

Relationship of Critical Habitat to
Recovery Planning

In developing this proposed rule, we
considered the conservation
relationship between the proposed
critical habitat designation and recovery
planning. Although recovery plans
formulate the recovery strategy for a
species, they are not regulatory
documents, and there are no specific
protections, prohibitions, or
requirements afforded a species based
solely on a recovery plan. Furthermore,
although critical habitat designation can
contribute to the overall recovery
strategy for a species, it does not, by
itself, achieve recovery plan goals. The
Act states in section 3(5)(C), “except in
those circumstances determined by the
Secretary, critical habitat shall not
include the entire geographical area
which can be occupied by the
threatened or endangered species.” In
most cases, it is not the intent of the Act
to designate critical habitat for every
population and every documented
historical location of a species. Instead,
the focus of critical habitat designation
is on habitat that contains the physical
and biological features essential to
conservation of the species.

The 5-year review (Service 2008, p.
45) recommended, in part, that we
update recovery units from the 2002
draft recovery plan for bull trout
throughout their range (Service 2002),
based on assemblages of bull trout core
areas (metapopulations or interacting
breeding populations) that retain genetic
and ecological integrity and are
significant to the distribution of bull
trout throughout the conterminous
United States. To complete the recovery
unit update, we consulted with
biologists from States, Federal agencies,
and Native American tribes, using the
best scientific information available.
Factors that were considered in
determining the geographic arrangement
of the updated recovery units included
ensuring (1) resiliency by protecting
large areas of high-quality habitat; (2)
redundancy by protecting multiple
populations; and (3) representation by
protecting diverse genetic and
life-history aspects of bull trout populations
distributed throughout the range of the
listed entity (Tear et al. 2005, p. 841).

Bull trout are listed under the Act as
“Threatened” throughout the
coterminous United States primarily
due to habitat threats. In 2008 the
Service completed a 5–year review of
bull trout status and concluded in part
that it should reevaluate the number of
bull trout Distinct Population Segments
(DPSs), and consider reclassifying bull
trounto separate DPSs. The Service
subsequently recommended not
immediately pursuing reclassification
due to time and cost constraints, but
applied relevant factors in its 1996 DPS
policy. As a result, six draft recovery
units (RUs) were identified. Subsequent
to identifying these six RUs, we
evaluated each RU and determined that
they were needed to ensure a resilient,
redundant, and representative
distribution of bull trout populations
throughout the range of the listed entity.
To accomplish these goals, we need to
protect large areas of high-quality
habitat, protect multiple populations,
and protect diverse genetic and
life-history aspects.

The six draft recovery units identified
for bull trout in the conterminous
United States include: Mid-Columbia
recovery unit; Saint Mary recovery unit;
Columbia Headwaters recovery unit;
Coastal recovery unit; Klamath recovery
unit; and Upper Snake recovery unit
(Figure 1). Conserving each RU is
essential to conserving the listed entity
as a whole. These six new biologically
based recovery units will be proposed to
replace the 27 recovery units previously
identified in the bull trout draft
recovery plan (Service 2002, Chapter 1,
p. 3).

Figure 1. Map of bull trout draft
recovery units

![Figure 1. Map of bull trout draft recovery units](image-url)
Areas that support populations, but are outside the critical habitat designation, may continue to be subject to conservation actions we implement under section 7(a)(1) of the Act. They are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available scientific information at the time of the agency 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, HCPs, 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)(2) of the Act, we use the best scientific data available in determining areas that contain the features that are essential to the conservation of bull trout. Data sources include research published in peer-reviewed journals and previous Service documents on the species, including the final listing determination (FR 64 58909–58933; November 1, 1999), the bull trout draft recovery plan (Service 2002), and the bull trout 5-year review (Service 2008). Additionally, we utilized regional Geographic Information System (GIS) shape files for area calculations and mapping.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas occupied at the time of listing to propose as critical habitat, we consider the physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. These features are the PCEs laid out in the appropriate quantity and spatial arrangement for conservation of the species. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;
(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
(3) Cover or shelter;
(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
(5) Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

As discussed in greater detail below, we derived nine specific PCEs required for bull trout from the biological needs of the species as described or referred to in the Background section of this proposed rule and the following information. The nine PCEs relate to (1) water quality; (2) migration corridors; (3) food availability; (4) instream habitat; (5) water temperature; (6) substrate characteristics; (7) stream flow; (8) water quantity; and (9) nonnative species.

Space for Individual and Population Growth and for Normal Behavior

Streams and groundwater sources with high water quality and cold temperatures, complex habitat, and migratory corridors provide space for individual and population growth and for normal behavior for bull trout.

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 one to four years before migrating to either a larger river (fluvial form) or lake (adfluvial form) where they spend their adult life, returning to the tributary stream to spawn (Fraley and Shepard 1989, p. 133). 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, p. 646). Resident and migratory forms may be found together, and either form can produce resident or migratory offspring (Rieman and McIntyre 1993, p. 2). Where ocean environments are accessible to bull trout they may also migrate to and from salt water (amphidromy).

The ability to migrate is important to the persistence of bull trout local populations (Rieman and McIntyre 1993, p. 2; Gilpin 1997, p. 4; Rieman and Clayton 1997, p 6; Rieman et al. 1997, p. 1121). 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. Stream resident populations are associated with headwater streams in mountainous regions where cold water and velocity barriers are common. Typically, these streams are smaller and have higher gradients than those occupied by adfluvial and fluvial populations. In these headwater streams, resident bull trout are associated with deep pools and in-stream cover, and most stream-resident populations are dwarfed (McPhail and Baxter 1996, p. 12). The use of migratory corridors by bull trout also results in increased dispersion, facilitating gene flow among local populations (interbreeding groups) when individuals from different local populations interbreed, stray, or return to non-natal streams. Also, local populations that have been extirpated by catastrophic events may become reestablished because of movements by bull trout through migratory corridors (Rieman and McIntyre 1993, p. 7; MBTSG 1998, p. 45).

Lakes and reservoirs also figure prominently in meeting the life-cycle requirements of bull trout. For adfluvial (migrating between lakes and rivers or streams) bull trout populations, lakes and reservoirs provide an important component of the core FMO 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 its headwaters, they enter a more productive lentic (still or slow-moving water) environment that allows them to achieve rapid growth and energy storage.

Some reservoirs may have adversely affected bull trout, while others have provided benefits. For example, the basin of Hungry Horse Reservoir has functioned adequately for 50 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 served an important, albeit unintended, function in restricting the proliferation of nonnative Salvelinus species (including brook trout (Salvelinus fontinalis) and lake trout (Salvelinus namaycush)) from downstream areas upstream above the dam.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Bull trout are opportunistic feeders that prey upon other organisms. Prey selection is primarily a function of size
and life-history strategy. Resident and juvenile migratory bull trout prey on terrestrial and aquatic insects, macrozooplankton, and small fish (Donald and Alger 1993, p. 244; McPhail and Baxter 1996, p. 15). Adult migratory bull trout feed almost exclusively on other fish (Rieman and McIntyre 1993, p. 3). Habitats must provide the necessary aquatic and adjacent terrestrial conditions to harbor prey species in sufficient quantity and diversity to meet the physiological requirements necessary to maintain bull trout populations. An abundant food base, including a broad array of terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish, supports individual and population growth and allows for normal bull trout behavior.

Cover or Shelter
At all life stages, bull trout require complex forms of cover, including large woody debris, undercut banks, boulders (Fraleys and Shepard 1989, pp. 137-138; Watson and Hillman 1997, p. 249). Juveniles and adults frequently inhabit side channels, stream margins, and pools with suitable cover (Sexauer and James 1997, p. 368). McPhail and Baxter (1996, p. 11) reported that newly emerged fry are secretive and hide in gravel along stream edges and side channels. They also reported that juveniles are found mainly in pools but also in riffles and runs, maintain focal sites near the bottom, and are strongly associated with instream cover, particularly overhead cover such as woody debris or riparian vegetation. Bull trout have been observed overwintering in deep beaver ponds or pools containing large woody debris (Jakober 1995, p. 90). 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 logs or cover debris (Fraleys and Shepard 1989, p. 137). Bull trout may also use lotic (swift-flowing water) and in some cases saltwater environments seasonally for reasons that include use as cover. Riparian vegetation; large wood; variable stream channel morphology including deep pools, side-channels, undercut banks and substrates; and in some cases access to downstream environments provide cover and shelter, which support individual and population growth and allow for normal bull trout behavior.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring
Bull trout have more specific habitat requirements than most other salmonids (Rieman and McIntyre 1993, p. 4). 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 (Fraleys and Shepard 1989, p. 138; Goetz 1989, p. 19; Watson and Hillman 1997, p. 247).

Waston and Hillman (1997, p. 248) concluded 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 (Fraleys and Shepard 1989, p. 133). Bull trout typically spawn from August to November during periods of decreasing water temperatures (Swanberg 1997, p. 735). 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 (Fraleys and Shepard 1989 p. 138; Swanberg 1997, p. 735).

Fraleys and Shepard (1989, p. 137) 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 10 °Celsius (°C) [50 °Fahrenheit (°F)]. Goetz (1989, pp. 22–32) reported a temperature range from 4 to 10 °C (39 to 50 °F). Such areas often are associated with cold-water springs or groundwater upwelling (Rieman et al. 1997, p. 1121; Baxter et al. 1999, p. 137). Fraley and Shepard (1989, p. 137) also found that groundwater influence and proximity to cover are important factors influencing spawning site selection. They reported 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, p. 5). Water temperatures of 1.2 to 5.4 °C [34.2 to 41.7 °F] have been reported for incubation, with an optimum (best embryo survivorship) temperature reported to be from 2 to 4 °C (36 to 39 °F) [Fraleys and Shepard 1989, p. 138; McPhail and Baxter 1996, p. 10]. 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 in gravel, bull trout eggs are especially vulnerable to fine sediments and water quality degradation (Fraleys and Shepard 1989, p. 141). Increases in fine sediment appear to reduce egg survival and emergence (Pratt 1992, p. 6). Juveniles are likely also 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, p. 6). Habitats with cold water temperature, appropriately-sized stream substrate, and stream substrate with a low level of fine material (i.e., less than 12 percent of fine substrate less than 0.85 millimeter (mm) (0.03 inch (in.)) in diameter) are necessary factors for egg incubation and juvenile rearing that supports individual and population growth (WFPB 1997, pp. 98, F-25).

Habitats Protected from Disturbance or Representative of the Historic, Geographical, and Ecological Distributions of the Species
There are some habitats throughout the range of the species that are well protected from disturbance and representative of ideal ecological conditions of the species. These areas mainly include wilderness, national parks, and other public lands specifically protected from human disturbance (e.g., State parks), and often constitute bull trout “strongholds” with robust, well-distributed populations. Some populations outside of these areas may still be well protected for other reasons (e.g., conservation easements, Habitat Conservation Plans, Safe Harbor Agreements), but many other populations are threatened by human actions.

Water diversion and reservoir development can reduce stream flow, reduce the amount of water available in a stream channel, change water quality, and alter groundwater regimes. These changes may collectively impact habitat and passage for bull trout and can cause increases in water temperatures.

Impoundments may also increase nonnative species predation and competition, which can significantly affect bull trout populations. Some nonnative fish species that prey on bull trout include lake trout, walleye (Sander vitreum), northern pike (Esox lucius), smallmouth bass (Micropterus dolomieu), and brown trout (Salmo trutta). Brown trout or other introduced salmonids such as rainbow trout (Oncorhynchus mykiss), as well as smallmouth bass, northern pike, walleye, and other species also compete with bull trout for limited resources.

Brook trout (Salvelinus fontinalis) may hybridize with bull trout (Ratliff and Howell 1992, p. 16; Leary et al. 1993, p. 857).
The stability of stream channels and stream flows are important habitat characteristics for bull trout populations (Rieman and McIntyre 1993, p. 5). 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. For example, altered stream flow in the fall may disrupt bull trout during the spawning period, and channel instability may decrease survival of eggs and young juveniles in the gravel during winter through spring (Fraleigh and Shepard 1989, p. 141; Pratt 1992, p. 6; Pratt and Huston 1993, p. 70). Streams with a natural hydrograph (those with normal discharge variations over time as a response to seasonal precipitation); permanent water; and an absence of nonnative species are representative of the highest quality ecological habitat of the species. Streams with these characteristics provide space for individual and population growth.

We propose bull trout habitats of two primary use types: spawning and rearing (SR), and foraging, migration, and overwintering (FMO). All nine PCEs listed below may be found in, or be essential to, bull trout in each of these two habitat use types. This proposed rule identifies over 3,500 water body segments as either SR or FMO habitat. Due to a lack of sufficiently detailed data, we do not identify the specific PCEs present for each water body segment. Future consultations with the Service on specific agency actions will help identify those PCEs that are most important in a specific water body segment. Factors such as time of year, seasonal precipitation, drought conditions, and other phenomenon can influence the essential physical and biological features present at any particular location at any particular time across its range given the variability of habitats used by bull trout. In addition, attributes such as stream flow and substrate size and composition are influenced by stream order and gradient. Accordingly, establishing an upper and lower range of conditions for specific attributes in some cases may be impracticable.

Primary Constituent Elements for Bull Trout

Based on the above needs and our current knowledge of the life-history, biology, and ecology of the species and the characteristics of the habitat necessary to sustain the essential life-history functions of the species, we have identified the following PCEs for bull trout critical habitat:

1. Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia.

2. Migratory habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.

3. An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.

4. Complex river, stream, lake, reservoir, and marine shoreline aquatic environments and processes with features such as large wood, side channels, pools, undercut banks and substrates, to provide a variety of depths, gradients, velocities, and structure.

5. Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures at the upper end of this range. Specific temperatures within this range will 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.

6. 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. A minimal amount (e.g., less than 12 percent) of fine substrates less than 35 mm (0.03 in.) in diameter and minimal embeddedness of these fines in larger substrates are characteristic of these conditions.

7. A natural hydrograph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, they minimize departures from a natural hydrograph.

8. Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited.

9. Few or no nonnative predatory species (e.g., lake trout, walleye, northern pike, smallmouth bass; inbreeding (e.g., brook trout); or competitive (e.g., brown trout) species present.

Criteria Used To Identify Critical Habitat

As required by section 4(b) of the Act, we used the best scientific and commercial data available in determining areas that contain the physical and biological features essential to the conservation of bull trout that may require special management considerations or protection, and areas outside of the geographical area occupied at the time of listing that are essential for bull trout conservation (Service 2009; also see “Previous Federal Actions” section). The steps we followed in identifying critical habitat were:

1. Our initial step in identifying critical habitat was to determine, in accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, the physical and biological habitat features essential to the conservation of the species, as explained in the previous section. We reviewed the best available scientific data pertaining to the habitat requirements of this species, including consulting with biologists from partner agencies and entities including Federal, State, tribal, and private biologists; 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 and recovery. We also reviewed available data concerning bull trout habitat use and preferences, habitat conditions, threats, limiting factors, population demographics, and known locations, distribution, and abundances of bull trout.

2. We then identified the geographical areas occupied by bull trout at the time of listing and areas not occupied that may be essential for the conservation of bull trout. We used data gathered during the bull trout recovery planning process and the bull trout draft recovery plan (Service 2002), and supplemented that data with recent data developed by State agencies, tribes, the U.S. Forest Service (USFS), and other entities. This data was used to update bull trout status and distribution data for purposes of the proposed critical habitat designation. For areas where we had data gaps, we solicited expert opinions from knowledgeable fisheries biologists in the local area. Material reviewed included data in reports submitted during section 7 consultations, reports from biologists holding section 10(a)(1)(A) recovery permits, research published in peer-reviewed scientific journals, academic theses, State and Federal government agency reports, and regional GIS overlays.

3. We identified specific areas within each of the six new draft recovery units described above that contain the physical and biological features essential to bull trout conservation, considering distribution, abundance, trend, and connectivity needs. The objective was to ensure the areas proposed for designation as critical habitat...
habitat would effectively serve the goals we believe are important for recovery: (a) conserve the opportunity for diverse life-history expression; (b) conserve the opportunity for genetic diversity; (c) ensure that bull trout are distributed across representative habitats; (d) ensure sufficient connectivity among populations; (e) ensure sufficient habitat to support population viability (e.g., abundance, trend indices); (f) address threats (see “Special Management Considerations or Protection” below), including climate change (see below); and (g) ensure sufficient redundancy in conserving population units. The above recovery goals take into account the threats and physical and biological needs of the species throughout its range, and focus on its range-wide recovery needs.

All critical habitat areas being proposed occur within the six new draft recovery units described above. Some areas contained the physical and biological features, but did not meet one or more of the above recovery goals because those features were not present in an appropriate quantity and spatial arrangement. Accordingly, we determined that such areas are not essential to bull trout conservation. For example, some areas contained spawning habitat (PCEs 5 and 6), but are disconnected from other populations and not large enough to support viable bull trout populations. Other areas were not included in this proposal because of limited habitat, marginal habitat, low bull trout density, or only sporadic presence of bull trout recorded.

Predicted global climate change appears likely to pose additional threats to bull trout in many parts of their range in the coterminous United States; downscaled regional climate models for the Columbia River basin predict a general air temperature warming of 1.0 to 2.5 °C (33.8 to 36.5 °F) or more by 2050 (Reiman et al. 2007, p. 1,552). This predicted temperature trend will have important effects on the regional distribution and local extent of habitats available to salmonids (Rieman et al. 2007, p. 1,552). The optimal water temperatures for bull trout appear to be substantially lower than those for other salmonids (Rieman et al. 2007, p. 1,553). Coldwater fish do not physically adapt well to thermal increases (McCullough et al. 2009, pp. 96–101). Instead, they are more likely to change their behavior, alter the timing of certain behaviors, experience increased physical and biochemical stress, and exhibit reduced growth and survival (McCullough et al. 2009, pp. 98–100). Bull trout spawning and initial rearing areas are currently largely constrained by low fall and winter water temperatures, and existing thermally suitable habitat patches are often isolated from one another (Rieman et al. 2007, p. 1,553). With a warming climate, thermally suitable bull trout spawning and rearing areas are predicted to shrink during warm seasons, in some cases very dramatically, becoming even more isolated from one another under moderate climate change scenarios (Rieman et al. 2007, pp. 1,558–1,562; Porter and Neltiz 2009, pp. 5–7).

Climate change will likely interact with other stressors, such as habitat loss and fragmentation (Rieman et al. 2007, pp. 1,558–1,560; Porter and Neltiz 2009, p. 3); invasions of nonnative fish (Rahel et al. 2008, pp. 552–553); diseases and parasites (McCullough et al. 2009, p. 104); predators and competitors (McMahon et al. 2007, pp. 1,313–1,323; Rahel et al. 2008, pp. 552–553); and flow alteration (McCullough et al. 2009, pp. 106–108), to render some current spawning, rearing, and migratory habitats marginal or wholly unsuitable.

For example, introduced conspecific populations of brook trout are widely distributed throughout the range of bull trout. McMahon et al. (2007, p. 1,320) demonstrated the presence of brook trout has a marked negative effect on bull trout, an effect that is magnified at higher water temperatures (16–20 °C (60–68 °F)). Changes and complex interactions are difficult to predict at a spatial scale relevant to bull trout conservation efforts, and key gaps exist in our understanding of whether bull trout (and other coldwater fishes) can behaviorally adapt to climate change.

We considered probable effects of climate change on bull trout by first qualitatively screening core areas to assess those which might be most vulnerable to climate change effects, and highlighting them in our 2008 update of status and threats data in the core area template documents (Service 2008, p. 15). For example, in many locations we prioritized cold water spring habitats for conservation because they may be among the most resistant habitats to climate change effects. In other locations we deemphasized protection of some already low-elevation, warmer, marginal bull trout habitats, anticipating that they would become even less valuable for the future conservation of bull trout. Over a period of decades, climate change may directly threaten the integrity of the essential physical and biological features described in PCEs 1, 2, 3, 5, 7, 8 and 9. Protecting bull trout strongholds and cold water refugia from disturbance and ensuring connectivity among populations were important considerations in addressing this potential impact.

Over 30 years of research into wildlife population sizes required for long-term viability (avoiding extinction) suggests that a minimum number of 5,000 individuals may be needed in light of rapidly changing environmental conditions such as accelerated climate change (Traill et al. 2009, p. 3).

Although the minimum number of individuals may vary depending on the species involved, for bull trout, we have included additional unoccupied habitats in those areas where occupied habitats currently support far less than this number of individuals, so there are adequate PCEs for those small populations to recover. For example, in the Klamath basin where bull trout status is weak and threats are high (that is, where there are low number of individuals or populations, and poor habitat quality), we are proposing to designate all occupied habitat and some unoccupied habitat to ensure sufficient connectivity among existing bull trout populations. Unoccupied habitat proposed for protection is in FMO habitat, and is intended to ensure connectivity among existing, currently isolated bull trout populations.

Conversely, examples of occupied areas that are not proposed as critical habitat include those where bull trout occur in low densities in very isolated or tenuous populations, areas where bull trout are heavily compromised by nonnative species, or areas where available habitat is restricted.

(4) In selecting areas to propose as critical habitat, we considered factors specific to each river system, such as size (i.e., stream order), gradient, channel morphology, connectivity to other aquatic habitats, and habitat complexity and diversity, as well as range-wide recovery considerations. We took into account the fact that bull trout habitat preference ranges from small headwater streams used largely for spawning and rearing, to downstream mainstem portions of river networks used for rearing, foraging, migration, or overwintering.

To help determine which of these specific areas are essential to bull trout conservation, we considered the species’ status in each recovery unit by evaluating whether: (a) bull trout are rare and exposed to threats, such that recovery needs include removing threats from essentially all existing occurrences and restoring bull trout to portions of their historic range, or (b) bull trout are declining and exposed to threats, such that recovery needs include stopping the decline and eliminating threats
across key portions of their range, such as currently occupied strongholds.

NatureServe is a nonprofit conservation organization whose mission is to provide the scientific basis for effective conservation action. The NatureServe database is sometimes used as one of several factors in identifying species which may warrant listing under the Act, but in other cases the information in the NatureServe database is limited in its usefulness for that purpose. Additionally, NatureServe has developed a computer spreadsheet tool used world-wide for evaluating a suite of factors related to rarity, trends, and threats to assess the extinction or extirpation risk of species and ecosystems. We did use this spreadsheet tool in analyzing the data we have for the bull trout. The protocol for assigning a conservation status rank to a species or population of a species is based on using biological data to derive a score for each of ten conservation status factors, which are grouped into three categories based on the characteristic of the factors: rarity (six factors such as population size or habitat area), trends (two factors), and threats (two factors) (Master et al. 2007, pp. 6–11). By inserting extensive biological data for bull trout collected by the Service and its partners through 2007 into the NatureServe status assessment ranking tool spreadsheet for each of 118 bull trout core areas or watersheds throughout their range, we were able to determine the relative status and threats within each of the 118 bull trout core areas or watersheds and each of the 6 draft recovery units.

The proposed critical habitat designation identifies specific areas essential to the conservation of the bull trout local populations and spawning and rearing streams of highest conservation value. Factors taken into account at the smaller local population scale included the largest areas or populations, most highly connected populations, and areas with the highest conservation potential (i.e., the quantity and quality of physical and biological features present). At the larger core area scale, the proposed designation also focuses on areas having the highest conservation value by applying the factors that were applied at the local population scale. At both the local population and core area scales, the proposed designation emphasizes essential FMO habitats of highest conservation value, such as habitats that connect local populations and core areas and provide required space for life-history functions. In some areas, specific areas outside the geographical area occupied by bull trout at the time of listing have been determined to be essential for the conservation of the species and are being proposed as critical habitat. In those areas, bull trout habitat and population loss over time necessitates reestablishing bull trout in currently unoccupied habitat areas to achieve recovery.

Based on the considerations described above, we propose a greater proportion of occupied habitat and more unoccupied habitat for protection in areas where bull trout demonstrate less resiliency, redundancy, and representation, and less critical habitat elsewhere. We find that areas occupied at the time of listing are inadequate to ensure the conservation of the species. Therefore, we are proposing additional areas outside the geographical area occupied by the species at the time it is listed. For example, in the Klamath Basin Recovery Unit where threats to bull trout are greatest, we are proposing to designate all habitat known to be occupied at the time of listing that contains the physical and biological features essential to the conservation of the species and which may require special management considerations or protection, and we propose designating a substantial proportion of unoccupied habitat outside of the geographical area occupied by the species at the time of listing that has been determined to be essential for bull trout conservation. Our primary consideration in proposing critical habitat for occupied areas is to protect species strongholds for spawning and rearing and FMO habitats. Our primary consideration for most unoccupied areas is restoring connectivity among populations by protecting FMO habitats.

When determining proposed critical habitat boundaries within this proposed rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical and biological features essential for bull trout. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with the species and the requirement of no adverse modification unless the specific action would affect the physical and biological features in the adjacent critical habitat.

We are proposing for designation of critical habitat lands that we have determined were occupied at the time of listing and contain sufficient PCEs to support life-history functions essential for the conservation of the species and lands outside of the geographical area occupied at the time of listing that we have determined are essential for the conservation of bull trout.

We are proposing to designate 32 critical habitat units (CHUs) within the geographical area occupied by the species at the time of listing. These units have an appropriate quantity and spatial arrangement of physical and biological features present that supports bull trout metapopulations, life processes, and overall species conservation. Twenty-nine of the units contain all of the physical and biological features identified in this proposed rule, supporting multiple life-history requirements. Three of the mainstem river units in the Columbia and Snake River basins contain most of the physical and biological features necessary to support the bull trout’s particular use of that habitat, other than those associated with PCEs 5 and 6, which relate to breeding habitat. Lakes and reservoirs within these units also contain most of the physical and biological features necessary to support bull trout, other than those associated with PCEs 1, 4, and 6. Marine nearshore habitats within the Olympic Peninsula and Puget Sound CHUs contain only a subset of the identified physical and biological features for bull trout (PCEs 2, 3, 5, and 8). However, these habitats are important to conserving a diverse life-history expression and representative habitats.

Special Management Considerations or Protection

The term critical habitat is defined in section 3(5)(A) of the Act, in part, as geographical areas on which are found those physical and biological features essential to the conservation of the species and which may require special management considerations or protections. Accordingly, when designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. Although the determination that special management considerations or protection may be required is not a prerequisite to designating critical
habitat in areas essential to the conservation of the species that were unoccupied at the time of listing, all areas being proposed as critical habitat require some level of management to address current and future threats to bull trout, to maintain or enhance the physical and biological features essential to its conservation, and to ensure the recovery of the species.

The primary land and water management activities impacting the physical and biological features essential to the conservation of bull trout which may require special management considerations within the proposed critical habitat units include timber harvest and road building (forest management practices), agriculture and agricultural diversions, livestock grazing, dams, mining, and nonnative species presence or introduction (Beschta et al. 1987, p. 194; Chamberlin et al. 1991, p. 194; Furriss et al. 1991, p. 297; Meehan 1991, pp. 6–10; Nehlsen et al. 1991, p. 4; Sedell and Everest 1991, p. 6; Craig and Wissmar 1993, p. 18; Frissell 1993, p. 350; Henjum et al. 1994, p. 6; McIntosh et al. 1994, p. 37; Wissmar et al. 1994, p. 28; MBTSG 1995a, p. i; MBTSG 1995b, p. i; MBTSG 1995c, p. i; MBTSG 1995d, p. 1; USDA and USDI 1995, p. 8, 1997, pp. 132–144; Light et al. 1996, p. 6; MBTSG 1996a, p. ii; MBTSG 1996b, p. 1; MBTSG 1996c, p. i; MBTSG 1996d, p. i; MBTSG 1996e, p. i; MBTSG 1996f, p. 1; MBTSG 1996g, p. 7; MBTSG 1996h, p. 7). Urbanization and residential development may also impact the physical and biological features described in PCEs 1, 6, 7, and 9. Special management considerations or protections that may be needed for these essential features include the implementation of best management practices that could result in project modifications specifically designed to reduce these impacts in streams with bull trout, particularly in spawning and rearing habitat. Such best management practices could result in project modifications that require measures to ensure that road stream crossings do not impede fish migration or occur in or near spawning/rearing areas, or increase road surface drainage.

Agricultural practices and associated activities adjacent to streams and in upland portions of watersheds also can adversely affect the physical and biological features essential to bull trout conservation. Irrigation withdrawals, including diversions, can dewater spawning and rearing streams, impede fish passage and migration, and entrain fish into the irrigation ditch from the river. Discharging pollutants such as nutrients, agricultural chemicals, animal waste, and sediment into spawning and rearing waters is also detrimental (Spence et al. 1996, p. 128). Agricultural practices regularly include stream channelization and diking, large woody debris and riparian vegetation removal, and bank armoring (Spence et al. 1996, p. 127). Improper livestock grazing can promote streambank erosion and sedimentation and limit the growth of riparian vegetation important for temperature control, streambank stability, fish cover, and detrital input (Platts 1991, pp. 397–399). In addition, grazing often results in increased organic nutrient input into streams (Platts 1991, p. 423). These activities can directly and immediately threaten the integrity of the essential physical and biological features described in PCEs 1–8. Special management for the essential features could include best management practices that could include project modifications specifically designed to reduce these types of impacts in streams with bull trout, such as fencing livestock from streamside, moving animal feeding operations away from surface waters, using riparian buffer strips near crop fields, minimizing water withdrawal from streams, avoiding stream channel and spring head manipulation, and avoiding stream dewatering.

Dams constructed without fish passage features, or with poorly designed fish passage features, create barriers to migratory bull trout, precluding access to suitable spawning, rearing, and migration habitats. Dams disrupt the connectivity within and between watersheds essential for maintaining aquatic ecosystem function (Naiman et al. 1992, p. 127; Spence et al. 1996, p. 141) and bull trout subpopulation interaction (Rieman and McIntyre 1993, p. 15). Natural recolonization of historically occupied sites can be precluded by migration barriers (e.g., McCloud Dam in California). These activities can directly and immediately threaten the integrity of the essential physical and biological features described in PCEs 2–7 and 9. Special management considerations that may be needed for the essential features include the implementation of best management practices that could result in project modifications specifically designed to reduce these impacts in streams with bull trout.

Mining can degrade aquatic systems by generating sediment and heavy metals pollution, altering water pH levels, and changing stream channels and flow (Martin and Platts 1981, p. 2). These activities can directly and immediately threaten the integrity of the essential physical and biological features described in PCEs 1, 6, 7, and 8, even if they occur some distance upstream from critical habitat. Special management for these essential features could require best management practices that could result in project modifications specifically designed to reduce these impacts in streams with bull trout, such as avoiding surface water impacts from mining activities and neutralizing or containing toxic materials generated.

Introductions of nonnative species by the Federal Government, State fish and game departments, and unauthorized private parties across the range of bull trout have resulted in predation,
declines in abundance, local extirpations, and hybridization of bull trout (Bond 1992, p. 3; Howell and Buchanan 1992, p. viii; Donald and Alger 1993, p. 245; Leary et al. 1993, p. 857; Pratt and Huston 1993, p. 75; MBTSG 1995b, p. 10; MBTSG 1995d, p. 21; Platts et al. 1995, p. 9; MBTSG 1996, p. 7; Palmisano and Kaczynski, in litt. 1997, p. 29). Nonnative species may exacerbate stresses on bull trout from habitat degradation, fragmentation, isolation, and species interactions (Rieman and McIntyre 1993, p. 3). These activities can, over time, directly threaten the integrity of the essential physical and biological features described in PCE 9. Special management needs and considerations for this essential feature could require the implementation of best management practices that could result in project modifications specifically designed to reduce these impacts in streams with bull trout, such as avoiding future introductions, eradicating or controlling introduced species, and managing habitat to favor bull trout over other species.

Urbanization and residential development in watersheds has led to decreased habitat complexity (uniform stream channels and simple nonfunctional riparian areas), impediments and blockages to fish passage, increased surface runoff (more frequent and severe flooding), and decreased water quality and quantity (Spence et al. 1996, pp. 130–134). In nearshore marine areas, urbanization and residential development has led to significant loss or physical alteration of intertidal and shoreline habitats, as well as to the contamination of many estuarine and nearshore areas (PSEWQAT 2000, p. 47; BMSL et al. 2001, ch. 10, pp. 1–27; Fresh et al. 2004, p. 1). Activities associated with urbanization and residential development can incrementally threaten the integrity of the essential physical and biological features described in PCEs 1–5, 7, and 8. Special management for these essential features could require best management practices that could result in project modifications specifically designed to reduce these impacts in streams with bull trout, such as setting back developments from riparian areas, minimizing water runoff from urban areas directly to streams, minimizing hard surfaces such as pavement in watersheds, and minimizing impacts related to fertilizer application.

**Proposed Critical Habitat Designation**

We are proposing 32 critical habitat units in 6 recovery units for bull trout. Each CHU is comprised of a number of specific streams or reservoir/lake areas, which are identified as subunits in this proposed rule.

In freshwater areas, critical habitat includes the stream channels within the designated stream reaches and a lateral extent as defined by the bankfull elevation on one bank to the bankfull elevation on the opposite bank. If bankfull elevation is not evident on either bank, the ordinary high-water line determines the lateral extent of critical habitat. The lateral extent of critical habitat in lakes is defined by the perimeter of the water body as mapped on standard 1:24,000 scale topographic maps. In marine nearshore areas, the inshore extent of critical habitat is the mean higher high-water (MHHW) line, including tidally influenced freshwater heads of estuaries. Critical habitat extends offshore to the depth of 10 meters (33 feet (ft)) relative to the mean low-water (MLLW) line.

The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for bull trout. A total of 36,497.70 km (22,678.5 mi) of streams (which includes 1,587.7 km (985.3 mi) of marine shoreline area (Table 2), and 215,870.1 ha (533,426.4 ac) of reservoir and lake surface area (Table 3) are proposed as bull trout critical habitat. A total of 1,495 km (929 mi; four percent) of stream and marine shoreline distance was unoccupied at the time of listing, with the remainder occupied. A total of 17,422 km (10,825 mi; 48 percent) of stream habitat is used for spawning and rearing, with the remainder—and all reservoirs and lakes—used for FMO. Tables 4 and 5 present total stream shoreline distance and reservoir and lake surface area proposed in each state. Table 6 presents the ownership for all stream shoreline distances proposed as critical habitat.
### Table 2. Stream/Shoreline Distance Proposed for Designation as Bull Trout Critical Habitat by Critical Habitat Unit and Referencing Recovery Unit—Continued

<table>
<thead>
<tr>
<th>Recovery Unit</th>
<th>Critical habitat unit</th>
<th>Kilometers</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Snake</td>
<td>24. Malheur River Basin</td>
<td>250.7</td>
<td>155.8</td>
</tr>
<tr>
<td></td>
<td>25. Jarbridge River</td>
<td>266.9</td>
<td>165.9</td>
</tr>
<tr>
<td></td>
<td>26. Southwest Idaho River Basins</td>
<td>2,716.7</td>
<td>1,688.1</td>
</tr>
<tr>
<td></td>
<td>27. Salmon River Basin</td>
<td>8,119.4</td>
<td>5,045.1</td>
</tr>
<tr>
<td></td>
<td>28. Little Lost River</td>
<td>206.5</td>
<td>128.4</td>
</tr>
<tr>
<td>Columbia Headwaters</td>
<td>29. Coeur d'Alene River Basin</td>
<td>819.6</td>
<td>509.3</td>
</tr>
<tr>
<td></td>
<td>30. Kootenai River Basin</td>
<td>587.0</td>
<td>364.7</td>
</tr>
<tr>
<td></td>
<td>31. Clark Fork River Basin</td>
<td>5,332.1</td>
<td>3,313.2</td>
</tr>
<tr>
<td></td>
<td>32. Saint Mary River Basin</td>
<td>116.8</td>
<td>72.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>36,497.7</td>
<td>22,678.5</td>
</tr>
</tbody>
</table>

### Table 3. Area of Reservoirs or Lakes Proposed for Designation as Bull Trout Critical Habitat by Critical Habitat Unit

<table>
<thead>
<tr>
<th>Critical habitat unit</th>
<th>Hectares</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Olympic Peninsula</td>
<td>3,366.2</td>
<td>8,318.1</td>
</tr>
<tr>
<td>2. Puget Sound</td>
<td>17,890.5</td>
<td>44,208.3</td>
</tr>
<tr>
<td>3. Lower Columbia River Basins</td>
<td>4,856.1</td>
<td>11,999.7</td>
</tr>
<tr>
<td>4. Upper Willamette River</td>
<td>3,601.5</td>
<td>8,899.6</td>
</tr>
<tr>
<td>5. Hood River</td>
<td>36.9</td>
<td>91.1</td>
</tr>
<tr>
<td>6. Lower Deschutes River</td>
<td>1,670.2</td>
<td>4,127.3</td>
</tr>
<tr>
<td>7. Odell Lake</td>
<td>1,387.1</td>
<td>3,427.6</td>
</tr>
<tr>
<td>9. Klamath River Basin</td>
<td>3,775.5</td>
<td>9,329.5</td>
</tr>
<tr>
<td>10. Upper Columbia River Basins</td>
<td>1,033.2</td>
<td>2,553.1</td>
</tr>
<tr>
<td>11. Yakima River</td>
<td>6,285.2</td>
<td>15,531.0</td>
</tr>
<tr>
<td>16. Grande Ronde River</td>
<td>605.2</td>
<td>1,495.5</td>
</tr>
<tr>
<td>21. Clearwater River</td>
<td>6,721.9</td>
<td>16,610.2</td>
</tr>
<tr>
<td>24. Malheur River Basin</td>
<td>715.9</td>
<td>1,769.9</td>
</tr>
<tr>
<td>26. Southwest Idaho River Basins</td>
<td>15,540.2</td>
<td>38,400.6</td>
</tr>
<tr>
<td>27. Salmon River Basin</td>
<td>1,659.5</td>
<td>4,100.6</td>
</tr>
<tr>
<td>29. Coeur d' Alene River Basin</td>
<td>12,606.9</td>
<td>31,152.2</td>
</tr>
<tr>
<td>30. Kootenai River Basin</td>
<td>12,089.2</td>
<td>29,873.1</td>
</tr>
<tr>
<td>31. Clark Fork River Basin</td>
<td>119,473.5</td>
<td>295,225.5</td>
</tr>
<tr>
<td>32. Saint Mary River Basin</td>
<td>2,555.4</td>
<td>6,314.5</td>
</tr>
<tr>
<td>Total</td>
<td>215,870.1</td>
<td>533,426.4</td>
</tr>
</tbody>
</table>

### Table 4. Stream/Shoreline Distance Proposed for Designation as Bull Trout Critical Habitat by State

<table>
<thead>
<tr>
<th>State</th>
<th>Kilometers</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>15,563.4</td>
<td>9,670.6</td>
</tr>
<tr>
<td>Montana</td>
<td>4,978.8</td>
<td>3,093.7</td>
</tr>
<tr>
<td>Nevada</td>
<td>137.3</td>
<td>85.3</td>
</tr>
<tr>
<td>Oregon</td>
<td>4,988.3</td>
<td>3,099.6</td>
</tr>
<tr>
<td>Oregon/Idaho</td>
<td>273.8</td>
<td>170.1</td>
</tr>
<tr>
<td>Washington</td>
<td>8,421.1</td>
<td>5,232.6</td>
</tr>
<tr>
<td>Washington Marine</td>
<td>1,585.7</td>
<td>985.3</td>
</tr>
<tr>
<td>Washington/Idaho</td>
<td>59.9</td>
<td>37.2</td>
</tr>
<tr>
<td>Washington/Oregon</td>
<td>489.0</td>
<td>303.9</td>
</tr>
<tr>
<td>Total</td>
<td>36,497.30</td>
<td>22,678.30</td>
</tr>
</tbody>
</table>

### Table 5. Area of Reservoirs or Lakes Proposed for Designation as Bull Trout Critical Habitat by State

<table>
<thead>
<tr>
<th>State</th>
<th>Hectares</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>80,093.2</td>
<td>19,791.47</td>
</tr>
<tr>
<td>Montana</td>
<td>90,553.3</td>
<td>22,376.22</td>
</tr>
<tr>
<td>Oregon</td>
<td>11,792.3</td>
<td>29,139.5</td>
</tr>
<tr>
<td>Washington</td>
<td>33,431.2</td>
<td>82,610.3</td>
</tr>
<tr>
<td>Total</td>
<td>215,870.1</td>
<td>533,426.40</td>
</tr>
</tbody>
</table>
We present a brief description of all critical habitat designated in each of 32 units below, organized by recovery unit. Maps depicting the units and subunits are included with the proposed amendatory language below. For a more detailed textual and graphic description of all units and subunits, please see our website at http://www.fws.gov/pacific/bulltrot, or contact the Idaho Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT above). The areas being proposed as critical habitat below satisfy each of the above “Criteria Used to Identify Critical Habitat” considerations, and will conserve the opportunity for diverse life-history expression and genetic diversity; ensure that bull trout are distributed across representative habitats; ensure sufficient connectivity among populations; ensure sufficient habitat to support population viability; address threats; and ensure sufficient redundancy in conserving population units. The characteristics of each Critical Habitat Unit, Subunit, and in some cases water body segment that establish why a specific area is essential to the conservation of bull trout are identified in the reference (Service 2009). Examples of attributes that were considered include habitat use (FMO, spawning and rearing), occupancy data, geographic limits, accessibility, presence or absence of barriers, genetic analysis (used in metapopulation context), population data, habitat condition, and presence of anadromous salmonids.

### Coastal Recovery Unit

#### Unit 1: Olympic Peninsula Unit

The Olympic Peninsula CHU is located in northwestern Washington. Bull trout populations inhabiting the Olympic Peninsula comprise the coastal component of the Coastal–Puget Sound population. The unit includes approximately 1,292.9 km (803.4 mi) of stream, 3,366.2 ha (8,318.1 ac) of lake surface area, and 673.8 km (418.7 mi) of marine shoreline proposed as critical habitat. This CHU is bordered by Hood Canal to the east, Strait of Juan de Fuca to the north, the Pacific Ocean to the west, and the Lower Columbia River Basins and Puget Sound CHUs to the south. It extends across portions of Grays Harbor, Clallam, Mason, Pacific, and Jefferson Counties. All of the major river basins initiate from the Olympic Mountains: The Olympic Peninsula CHU is divided into 10 CHSUs. Although delta areas and small islands are difficult to map and may not be specifically identified by name, included within the critical habitat proposal are delta areas where streams form sloughs and braids and the nearshore of small islands found within the proposed marine areas. The State of Washington has assigned most streams a stream catalog number. Typically, if an unnamed stream or stream with no official U.S. Geological Survey name is proposed for critical habitat within the Puget Sound CHU, the stream catalog number is provided for reference. In those cases where tributary streams do not have a catalog number, they are referred to as “unnamed” or a locally accepted name is used. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 9–11), or http://www.fws.gov/pacific/bulltrot.

#### Unit 2: Puget Sound Unit

The Puget Sound CHU includes approximately 2,737.3 km (1,700.8 mi) of streams; 17,890.5 ha (44,208.3 ac) of lake surface area; and 911.9 km (566.6 mi) of marine shoreline proposed as critical habitat. The CHU is bordered by the Cascade Range to the east, Puget Sound to the west, Lower Columbia River Basins and Olympic Peninsula CHUs to the south, and the U.S.–Canada border to the north. The CHU extends across Whatcom, Skagit, Snohomish, King, Pierce, Thurston, and Island Counties in Washington. The major river basins initiate from the Cascade Range and flow west, discharging into Puget Sound, with the exception of the Chilliwack River system, which flows northwest into British Columbia, discharging into the Fraser River. The Puget Sound CHU is divided into 13 CHSUs. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 11–13), or http://www.fws.gov/pacific/bulltrot.

#### Unit 3: Lower Columbia River Basins Unit

The Lower Columbia River Basins CHU consists of portions of the Lewis, White Salmon, and Klickitat Rivers and associated tributaries in southwestern and south-central Washington. The CHU extends across Clark, Cowlitz, Klickitat, Skamania, and Yakima Counties. Approximately 360.9 km (224.3 mi) of stream and 4,856.1 ha (11,999.7 ac) of reservoir surface area are proposed as critical habitat. There are three bull trout local populations in the Lewis River watershed and one in the Klickitat River watershed. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 14), or http://www.fws.gov/pacific/bulltrot.

#### Unit 4: Upper Willamette River Unit

The Upper Willamette River CHU includes 304.9 km (189.5 mi) of streams and 3,601.5 ha (8,899.6 ac) of lake surface area is proposed as critical habitat.
habitat in the McKenzie River and Middle Fork Willamette River subbasins of western Oregon. This unit is located primarily within Lane County, but also extends into Linn County.

There are three known bull trout local populations in the McKenzie River subbasin and one bull trout local population in the Middle Fork Willamette River subbasin. With the exception of a short reach of the mainstem Willamette River and the mainstem Middle Fork Willamette River (including reservoirs) below Hills Creek Dam, segments proposed as critical habitat are occupied by bull trout. The stream segments that make up the Willamette River Unit are described below. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 14–15), or http://www.fws.gov/pacific/bulltrout.

Unit 5: Hood River Unit

The Hood River CHU includes the mainstem Hood River and three major tributaries: Clear Branch Hood River, West Fork Hood River, and East Fork Hood River. A total of 113.1 km (70.3 mi) of stream and 36.9 ha (91.1 ac) of lake surface is proposed as critical habitat. Portions of the mainstem Columbia River utilized as FMO by Hood River bull trout are discussed in the Lower Mainstem Columbia River section of this document.

The Hood River CHU, located on the western slopes of the Cascades Mountains in northwest Oregon, lies entirely within Hood River County, Oregon. There are two local populations identified as essential: (1) Clear Branch Hood River above Clear Branch Dam and (2) Hood River and tributaries below Clear Branch Dam. This unit provides spawning and rearing habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 15), or http://www.fws.gov/pacific/bulltrout.

Unit 6: Lower Deschutes River Unit

The Lower Deschutes River CHU is located in Wasco, Sherman, Jefferson, Deschutes, and Crook Counties in central Oregon. There are five known local population in the lower Deschutes River basin: (1) Warm Springs River; (2) Shiitake Creek; (3) Jefferson Creek–Candle Creek Complex; (4) Jefferson Creek–Canyon Creek Complex; and (5) Jack Creek–Canyon Creek–Heising Spring Complex.

The Lower Deschutes River CHU includes (1) the Metolius River basin, consisting of Canyon Creek, Jack Creek, Heising Spring, Candle Creek, Jefferson Creek, Whitewater River, the mainstem Metolius River, and Lake Billy Chinook; (2) the mainstem Deschutes River from Lake Billy Chinook to Big Falls; (3) Whychus Creek upstream to the USFS 6360 Road crossing; (4) Crooked River from its confluence with Lake Billy Chinook upstream to Highway 97; (5) Shitake Creek; (6) Warm Springs River; and (7) mainstem Deschutes River from the Pelton Regulating Dam downstream to the Columbia River.

Approximately 463.2 km (287.8 mi) of streams and 1,670.2 ha (4,127.3 ac) of lake and reservoir surface area in the lower Deschutes River basin are proposed as critical habitat. A portion of the reaches occur on the Confederated Tribes of Warm Springs lands. The following stream segments are included in the Lower Deschutes River CHU. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 15), or http://www.fws.gov/pacific/bulltrout.

Unit 7: Odell Lake Unit

The Odell Lake CHU lies entirely within the Deschutes National Forest in Deschutes and Klamath Counties, Oregon. Total proposed critical habitat in this unit includes 27.4 km (17.0 mi) of streams and 1,387.1 ha (3,427.6 ac) of lake surface area. The single Odell Lake bull trout population has been isolated from the Deschutes River population by a lava flow that impounded Odell Creek and formed Davis Lake approximately 5,500 years ago. Odell Lake is the only remaining natural adfluvial population of bull trout in Oregon. The following lake area and stream segments are included in this CHU. This unit provides spawning and rearing habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 16), or http://www.fws.gov/pacific/bulltrout.

Unit 8: Mainstem Lower Columbia River Unit

The Mainstem Lower Columbia River CHU extends from the mouth of the Columbia River to John Day Dam and is located in the states of Oregon and Washington. It includes Clatsop, Columbia, MULTnomah, Hood River, Wasco, and Sherman Counties in Oregon and Pacific, Wahkiakum, Cowlitz, Clark, Skamania, and Klickitat Counties in Washington. A total of 342.2 km (212.6 mi) of stream are being proposed as critical habitat. This unit provides connecting habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 16), or http://www.fws.gov/pacific/bulltrout.

Unit 9: Klamath River Basin Unit
(Klamath Recovery Unit)

The Klamath River Basin CHU is located in south-central Oregon and includes three CHSUs: (1) Upper Klamath Lake CHSU; (2) Sycan River CHSU; and (3) Upper Sprague River CHSU. It includes portions of Klamath and Lake Counties in Oregon. Total proposed critical habitat in this unit includes 440.0 km (273.4 mi) of streams and 3,775.5 ha (9,329.5 ac) of lake surface area. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 16–18), or http://www.fws.gov/pacific/bulltrout.

Unit 10: Upper Columbia River Basins Unit (Mid-Columbia Recovery Unit)

The Upper Columbia River Basins CHU includes the entire drainages of three CHSUs in central and north-central Washington on the east slopes of the Cascade Range and east of the Columbia River between Wenatchee, Washington, and the Okanogan River drainage: (1) Wenatchee River CHSU in Chelan County; (2) Entiat River CHSU in Chelan County; and (3) Methow River CHSU in Okanogan County. The Upper Columbia River Basins CHU also includes the Lake Chelan basin (with some proposed critical habitat and Okanogan River basin) which historically provided spawning and rearing and FMO habitat. But it is unclear what role these drainages may play in recovery. A total of 1,125.9 km
includes portions of the mainstem John Day River, North Fork John Day River, Middle Fork John Day River, and their tributary streams within Wheeler, Grant, and Umatilla Counties in Oregon. A total of 1,176.4 km (731.0 mi) of streams are proposed as critical habitat.

Four CHSUs are defined for the John Day River CHU: Lower Mainstem John Day River, Upper Mainstem John Day River, North Fork John Day River, and Middle Fork John Day River. The latter three generally correspond to core areas. All proposed critical habitat designations are essential to the long-term conservation of the species. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 21), or http://www.fws.gov/pacific/bulltrout.

Unit 14: Walla Walla River Basin Unit

The Walla Walla River Basin CHU straddles the Oregon—Washington State line in the eastern part of both States and includes two CHSUs. The unit includes 452.7 km (281.3 mi) of stream, extending across portions of Umatilla and Wallowa Counties in Oregon and Walla Walla and Columbia Counties in Washington. There are five known bull trout local populations in this unit: two in the Walla Walla River basin and three in the Touchet River basin. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 21), or http://www.fws.gov/pacific/bulltrout.

Unit 15: Lower Snake River Basins Unit

The Lower Snake River Basins CHU is located in southeast Washington and contains two CHSUs: (1) Tucannon River basin CHSU located in Columbia and Garfield Counties and (2) Asotin Creek basin CHSU within Garfield and Asotin Counties. Approximately 284.2 km (176.6 mi) of stream are proposed as critical habitat for bull trout within this unit. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 21–22), or http://www.fws.gov/pacific/bulltrout.

Unit 16: Grande Ronde River Unit

The Grande Ronde River CHU is located in northeast Oregon and southeast Washington and includes the Grande Ronde core area and the Little Minam core area. The Grande Ronde core area includes large portions of Union and Wallowa Counties and a small portion of Umatilla County in Oregon and about one-third of Asotin County and small portions of Columbia and Garfield Counties in Washington. The Little Minam core area is located entirely within the Eagle Cap Wilderness on the western edge of the Wallowa subbasin in both Union and Wallowa Counties in Oregon. The Grande Ronde River CHU contains at least ten local populations in the Grande Ronde River basin: (1) Upper Grande Ronde; (2) Catherine; (3) Indian; (4) Minam/Deer; (5) Lostine/Bear; (6) Upper Hurricane; (7) North Fork Wenaha; (8) South Fork Wenaha; (9) Butte and West Fork Butte; and (10) Lookügglass. The Little Minam River, a separate core area and a tributary to the Minam River, encompasses tributaries containing one local population located above a barrier falls at approximately
9.0 km (5.6 mi) upstream, as well as the Little Minam River below the barrier to its confluence with the Minam River. The Grande Ronde River CHU includes 1,057.7 km (657.2 mi) of streams and 605.2 ha (1,495.5 ac) of lakes and reservoirs proposed as critical habitat. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 22–23), or http://www.fws.gov/pacific/bulltrout.

Unit 20: Powder River Basin Unit

The Powder River Basin CHU provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. This unit contains approximately 404.3 km (251.2 mi) of stream proposed as critical habitat and is located within Baker, Union, and Wallowa Counties in northeastern Oregon. This unit is thought to contain 10 local populations of bull trout and 1 potential local population. Several unoccupied sections of the Powder River mainstem have been proposed to provide connectivity and recovery opportunities for local populations. The stream segments that make up the Powder River Basin CHU are described below. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 24), or http://www.fws.gov/pacific/bulltrout.

Unit 21: Clearwater River Unit

The Clearwater River CHU is located east of Lewiston, Idaho, and extends from the Snake River confluence at Lewiston on the west to headwaters in the Bitterroot Mountains along the Idaho–Montana border on the east in Nez Perce, Latah, Lewis, Clearwater, Idaho, and Shoshone Counties. This unit includes five CHSUs: Lower/Middle Fork Clearwater River; North Fork Clearwater River (and Fish Lake); South Fork Clearwater River; Lochsa River (and Fish Lake); and the Selway River. In the Clearwater River CHU, 2,702.1 km (1,679.0 mi) of streams and 6,721.9 ha (16,610.2 ac) of lake and reservoir surface area are proposed as critical habitat. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 24–26), or http://www.fws.gov/pacific/bulltrout.

Unit 22: Mainstem Upper Columbia River Unit

The Mainstem Upper Columbia River CHU includes the Columbia River from John Day Dam upstream 522.7 km (324.8 mi) to Chief Joseph Dam. The Columbia River generally flows south from Canada, southwest through Washington, and west through Oregon. The Columbia River contains from headwaters in Alberta, Canada, and the west slopes of the Rocky Mountains in Montana. This reach of river is heavily influenced by Grand Coulee Dam operations, which provide hydroelectricity and irrigation water. The Mainstem Upper Columbia River CHU supports FMO habitat for fluvial bull trout; several accounts exist of bull trout in the Columbia River between the Yakima and John Day Rivers. The Mainstem Upper Columbia River CHU provides connectivity to the Mainstem Lower Columbia River CHU and 13 additional CHUs (Clearwater River, Powder River Basin, Imnaha River, Grande Ronde River, Walla Walla River Basin, Umatilla River, John Day River, Yakima River, Mainstem Snake River, Lower Snake River Basins, Hells Canyon Complex, Sheep and Granite Creeks, and Upper Columbia River Basins). The Mainstem Upper Columbia River CHU is located in north-central, central, and south-central Washington and north-central and northeast Oregon. This CHU is within Klickitat, Franklin, Benton, Grant, Yakima, Kittitas, Chelan, Douglas, and Okanogan Counties in Washington and Sherman, Gilliam, Morrow, and Umatilla Counties in Oregon. Several dams, all of which have reports of bull trout using their ladders, are located throughout this portion of the Columbia River, including John Day, McNary, Priest Rapids, Wanapum, Rock Island, Rocky Reach, and Wells Dams. For a justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 26), or http://www.fws.gov/pacific/bulltrout.

Unit 23: Mainstem Snake River Unit

The Mainstem Snake River CHU is located from the confluence with the Columbia River upstream to the head of Brownlee Reservoir. The Snake River is the largest tributary to the Columbia River and forms the border between Washington and Idaho from Clarkson/ Lewiston upstream. Oregon. The Snake River also forms the boundary between Idaho and Oregon, and at that
point upstream to the upper limit of Brownlee Reservoir, forms this CHU. The Snake River is within Franklin, Walla Walla, Columbia, Whitman, and Asotin Counties in Washington; Wallowa, Whitman, Baker, and Malheur Counties in Oregon; and Nez Perce, Idaho, Adams, and Washington Counties in Idaho.

In the lower section of the Snake River are a series of dams and locks built by the U.S. Army Corps of Engineers (COE). The Lower Granite, Little Goose, Lower Monumental, and Ice Harbor Dams generate hydroelectric power and provide large traffic navigation to Lewiston, Idaho. The major features in the Hells Canyon Hydroelectric Complex reach of the Snake River are Hells Canyon, Oxbow, and Brownlee Dams and their reservoirs. These projects are owned and operated by the Idaho Power Company to produce electrical power. The Mainstem Snake River CHU includes 552.2 km (343.1 mi) of streams proposed as critical habitat. This unit provides foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 27), or http://www.fws.gov/pacific/bulltrout.

Unit 24: Malheur River Basin Unit (Upper Snake Recovery Unit)

The Malheur River Basin CHU is in eastern Oregon within Grant, Baker, Harney, and Malheur Counties. A total of 250.7 km (155.8 mi) of streams and 715.9 ha (1,768.9 ac) of reservoir surface area are proposed as critical habitat. There are two local bull trout populations (Upper Malheur and North Fork Malheur Rivers (Service 2002, pp. 34–35)). The Bull Trout Draft Recovery Plan also identified several streams, including Bosonberg Creek, McCoy Creek, and Corral Basin Creek, for expansion of bull trout range within the upper Malheur River local population (Service 2002, pp. 34–35). Summit Creek is considered potential suitable bull trout habitat and is included in the proposed designation. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 27), or http://www.fws.gov/pacific/bulltrout.

Unit 25: Jarbidge River Unit

The Jarbidge River CHU encompasses the Jarbidge and Bruneau River basins, which drain into the Snake River within C.J. Strike Reservoir upstream of Grand View, Idaho. The Jarbidge River CHU is located approximately 70 miles north of Elko within Owyhee County in southwestern Idaho and Elko County in northeastern Nevada.

The Jarbidge River CHU includes 266.9 km (165.9 mi) of streams proposed as critical habitat. The Jarbidge River CHU contains six local populations of resident and migratory bull trout and the stream segments in the Jarbidge River CHU provide either FMO or spawning and rearing habitat. These habitats maintain the population and the migratory life-history form essential to the species’ long-term conservation and provide habitat necessary for the recovered distribution of bull trout (Service 2004b, pp. 7–9). The stream segments that make up the Jarbidge Unit are described below. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 27), or http://www.fws.gov/pacific/bulltrout.

Unit 26: Southwest Idaho River Basins Unit

The Southwest Idaho River Basins CHU is located in southwestern Idaho in the following counties: Adams, Boise, Camas, Canyon, Elmore, Gem, Valley, and Washington. This unit includes eight CHSUs: Anderson Ranch, Arrowrock Reservoir, South Fork Payette River, Deadwood River, Middle Fork Payette River, North Fork Payette River, Squaw Creek, and Weiser River. The Southwest Idaho River Basins CHU includes approximately 2,716.7 km (1,688.1 mi) of streams and 15,540.2 ha (38,400.6 ac) of lake and reservoir surface area proposed as critical habitat. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 27), or http://www.fws.gov/pacific/bulltrout.

Unit 27: Salmon River Basin Unit

The Salmon River basin extends across central Idaho from the Snake River to the Montana–Idaho border. The Salmon River Basin CHU extends across portions of Adams, Blaine, Custer, Idaho, Lemhi, Nez Perce, and Valley Counties in Idaho. There are 10 CHSUs: Little-Lower Salmon River, Opal Lake, Lake Creek, South Fork Salmon River, Middle Salmon–Panther River, Middle Fork Salmon River, Middle Salmon Chamberlain River, Upper Salmon River, Lemhi River, and Pahsimeroi River. The Salmon River Basin CHU includes 8,119.4 km (5,045.1 mi) of stream and 1,659.5 ha (4,100.6 ac) of lake and reservoir surface area proposed as critical habitat. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 29–30), or http://www.fws.gov/pacific/bulltrout.

Unit 28: Little Lost River Unit

Located within Butte, Custer, and Lemhi Counties in east-central Idaho, near the town of Arco, Idaho, designated critical habitat in the Little Lost River CHU includes 206.6 km (128.4 mi) of streams proposed as critical habitat. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 p. 30), or http://www.fws.gov/pacific/bulltrout.

Unit 29: Coeur d’Alene River Basin Unit (Columbia Headwaters Recovery Unit)

Located in Kootenai, Shoshone, Benewah, Bonner, and Latah Counties in Idaho, the Coeur d’Alene River Basin CHU includes the entire Coeur d’Alene Lake basin in northern Idaho. A total of 819.6 km (509.3 mi) of streams and 12,606.9 ha (31,152.2 ac) of lake surface area are proposed as critical habitat. There are no subunits within the Coeur d’Alene River Basin CHU.

For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 27–28), or http://www.fws.gov/pacific/bulltrout.
of streams and 119,473.5 ha (29,873.1 ac) of lakes and reservoirs proposed as critical habitat. The subunits within this unit provide spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit and subunits, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 32–36), or http://www.fws.gov/pacific/bulltrout.

Unit 32: Saint Mary River Basin Unit (Saint Mary Recovery Unit)

We are proposing to designate critical habitat for bull trout in identified stream segments and lakes in the Saint Mary River Basin CHU in Montana. The entire U.S. portion of the Saint Mary River drainage, which forms the Saint Mary River Basin CHU, is located in Glacier National Park. The total stream distance proposed for designation as critical habitat in Montana is about 116.8 km (72.6 mi), and the five lakes have a surface area of about 2,555.4 ha (6,314.5 ac).

Most high-elevation waters in Glacier National Park were historically fishless. Due to natural migration barriers, bull trout occupancy in the headwaters of the Belly River drainage (directly west of and adjacent to the Saint Mary River drainage) was confined to only a very minor portion of the U.S. habitat near the international border. Due to this restricted U.S. distribution and the fact that all FMO habitat for these populations is in Alberta, Canada, the Belly River headwaters in unroaded backcountry of Glacier National Park are not included in this proposed critical habitat designation. This unit provides spawning, rearing, foraging, migratory, connecting, and overwintering habitat. For a detailed description of this unit, for justification of why this CHU, included CHSUs, or in some cases individual water bodies are proposed as critical habitat, and for documentation of occupancy by bull trout, see Service (2009 pp. 36), or http://www.fws.gov/pacific/bulltrout.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) 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. Decisions by the U.S. Courts of Appeal for the Fifth and Ninth Circuits have invalidated our definition of “destruction or adverse modification” (50 CFR 402.02) (see Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service, 378 F.3d 1059 (9th Cir. 2004) and Sierra Club v. U.S. Fish and Wildlife Service et al., 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain those physical or biological features that relate to the ability of the area to periodically support the species) to serve its intended conservation role for the species.

Federal activities that may affect bull trout or its designated critical habitat 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 U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.) or a permit from us under section 10 of the Act) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) are 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 consultation.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure the activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or 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, we document compliance with the requirements of section 7(a)(2) through our 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, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely
modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "reasonable and prudent alternatives" 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;
- Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction;
- Are economically and technologically feasible; and
- Would, in the Director’s opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying 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 we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency’s discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the “Jeopardy” and “Adverse Modification” Standards

Jeopardy Standard

Currently, the Service applies an analytical framework for bull trout jeopardy analysis that relies heavily on the importance of known core area populations to the survival and recovery of bull trout. The section 7(a)(2) of the Act analysis is focused not only on these populations, but also on the habitat conditions that support them.

The jeopardy analysis usually expresses the survival and recovery needs of bull trout in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, the jeopardy analysis focuses on the range-wide status of bull trout, the factors responsible for that condition, and what is necessary for this species to survive and recover. An emphasis is also placed on characterizing the condition of bull trout in the area affected by the proposed Federal action and the role of affected populations in the survival and recovery of bull trout. That context is then used to determine the significance of adverse and beneficial effects of the proposed Federal action and any cumulative effects for purposes of making the jeopardy determination.

Core areas form the building blocks that provide for conserving the bull trout’s evolutionary legacy as represented by major genetic groups. The jeopardy analysis also considers any conservation measures that may be proposed by a Federal action agency to minimize or compensate for adverse project effects to the bull trout or to promote its recovery.

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 may be warranted, because of the relationship of each core area population to 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 proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or retain those physical and biological features that relate to the ability of the area to periodically support the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for bull trout. As discussed above, the role of critical habitat is to support the life-history needs of the species and provide for the conservation of the species. Generally, the conservation role of bull trout critical habitat units is to support viable core area populations.

Since the primary threat to bull trout is habitat loss or degradation, the jeopardy analysis under section 7 of the Act for a project with a Federal nexus will most likely evaluate the effects of the action on the conservation or functionality of the habitat for the bull trout. In many cases the analysis of the project to address designated critical habitat will be comparable. As such, we do not anticipate, for many circumstances, that the outcome of the consultation to address critical habitat will result in any significant additional project modifications or measures.

When consulting under section 7(a)(2) in designated critical habitat, independent analyses are conducted for jeopardy to the species and adverse modification of critical habitat. In occupied bull trout habitat, any adverse modification determination would likely also result in a jeopardy determination for the same action. As such, project modifications that may be needed to minimize impacts to the species would coincidentally minimize impacts to critical habitat. Accordingly, in occupied critical habitat it is unlikely that an analysis would identify a difference between measures needed to avoid the destruction or adverse modification of critical habitat from measures needed to avoid jeopardizing the species. Alternatively, in unoccupied critical habitat, we would not conduct a jeopardy analysis, however, measures to avoid the destruction or adverse modification may be necessary to ensure that the affected critical habitat area can continue to serve its intended conservation role for the species, or retain the physical and biological features related to the ability of the area to periodically support the species.

The adverse modification analysis focuses on the range-wide status of critical habitat, the factors responsible for that condition, and what is necessary for critical habitat to provide the necessary conservation value to the bull trout. An emphasis is placed on characterizing the functional condition of critical habitat PCEs in the area affected by the proposed Federal action. This analysis then addresses how the critical habitat PCEs will be affected, and in turn, how this will influence the conservation role of critical habitat units in support of viable core area populations. The context is then used to determine the significance of adverse and beneficial effects of the proposed Federal action and any cumulative effects for purposes of making the adverse modification determination at the range-wide scale. If a proposed Federal action would alter the physical or biological features of critical habitat to an extent that appreciably reduces the conservation function of critical habitat for the bull trout, an adverse modification finding for the proposed action is considered to be warranted.

The intended purpose of critical habitat to support viable core areas establishes a sensitive scale for relating effects of an
action on CHUs or subunits to the conservation function of the entire designated critical habitat.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. 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 alteration 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.

(3) Detrimental alteration 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; and 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 releases (nonpoint).

(5) Proposed activities that are likely to result in the introduction, spread, or augmentation of nonnative 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.

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

We consider all 32 CHUs to contain features essential to the conservation of the bull trout. All units are within the geographic range of the species, and portions of all units were occupied by the species at the time of listing (based on observations made within the last 20 years). All units are likely to be used by the bull trout for foraging, migrating, overwintering, spawning, or rearing.

Federal agencies already consult with us on activities in areas currently occupied by the bull trout to ensure that their actions do not jeopardize the continued existence of the bull trout. These agencies may need to request reinitiation on some of their existing activities if the agency has continued discretionary involvement or control and if the activity may affect designated critical habitat. However, we anticipate the burden of reinitiation will be minor because of the aforementioned similarity between measures needed to avoid the destruction or adverse modification of critical habitat and measures needed to avoid jeopardizing the species. In addition, consultation tools such as streamlining and programmatic consultations are commonly implemented to minimize the administrative costs associated with consultation within the range of the bull trout. We expect these tools will continue to be used for any reinitiations of consultation for bull trout critical habitat, thereby minimizing any additional administrative costs associated with designating the critical habitat.

Exemptions

Application of Section 4(a)(3) of the Act

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 an Integrated Natural Resources Management Plan (INRMP) by November 17, 2001. 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 (Publ. L. 108–136) amended the Act to limit areas eligible for designation of critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (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. We analyzed INRMPs developed by military installations located within the range of the Columbia and Coastal-Puget Sound populations of bull trout and which contain those features essential to the species’ conservation, to determine if these installations may warrant consideration for exemption under section 4(a)(3) of the Act. Each of the
Department of Defense (DOD) installations identified below has been conducting surveys and habitat management to benefit the bull trout, and reporting the results of their efforts to the Service. Cooperation between the DOD installations and the Service on specific conservation measures continues.

**Approved Integrated Natural Resources Management Plans**

We have examined the INRMPs for each of these military installations to determine whether they provide benefits to bull trout.

- **Acoustic Research Detachment (ARD) Naval Surface Warfare Center**
  - The Bayview Acoustic Research Detachment (ARD) Naval Surface Warfare Center, Bayview, Idaho, has an approved INRMP. This property includes approximately 9.0 ha (22.0 ac) of developed land on the shore of Lake Pend Oreille and 7.0 ha (17.3 ac) 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.

- **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 Bayview ARD property in Scenic Bay hosts from 40 to 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 region’s natural resources, threatened or endangered species (including bull trout), and geological history. The INRMP requires the natural resource manager to provide ARD INRMP awareness training to facilitate INRMP implementation.**

Based on the above considerations and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Bayview ARD INRMP and that conservation efforts identified in the INRMP will provide a benefit to bull trout occurring in habitats within or adjacent to each ARD. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 7 ha (16 ac) of habitat in this proposed critical habitat designation because of this exemption.

- **Naval Radio Station Jim Creek, Naval Station Everett, Naval Air Station Whidbey Island, and U.S. Army Fort Lewis Installation**
  - Naval Radio Station Jim Creek in western Washington has an approved INRMP. 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 Radio Station Jim Creek INRMP provides benefits to bull trout through (1) restoration of riparian buffers along Jim Creek, (2) protection of Jim Creek from erosion and sedimentation, and (3) protection of Jim Creek from contaminants and herbicides.

- **Naval Station Everett in western Washington has an approved INRMP. The Naval Station Everett property includes land on or near the shores of Puget Sound that contain important foraging and migration habitat for amphidromous (fish that move between fresh and salt water but not to breed) bull trout. The Naval Station Everett’s INRMP benefits bull trout by providing (1) protection to bull trout in the marine environment from oil spills around berthing naval vessels; (2) bioswales to prevent the release of toxins, contaminants, and oils from reaching the water column through storm drains; and (3) restoration of riparian habitat on Navy lands located along the Middle Fork Quilceda Creek.**

- **Naval Air Station Whidbey Island in western Washington has an approved INRMP. The Naval Station Whidbey Island property includes land on or near the shores of Puget Sound that contain important foraging and migration habitat for amphidromous bull trout. 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 their Integrated Pest Management Plan’s best management practices to protect aquatic environments.**

The U.S. Army Fort Lewis Installation (Fort Lewis) located in western Washington has an approved INRMP. Fort Lewis borders the Nisqually River and Puget Sound near important habitat for amphibromous bull trout. The INRMP for Fort Lewis benefits bull trout through (1) protecting and enhancing wetlands (e.g., all wetlands–marshes, lakes, rivers, and streams are protected with 300-foot-wide riparian buffers to maintain cold water temperatures, prevent sediment from entering the streams, and to provide for woody debris); (2) controlling invasive plant species that often diminish water quality and impact 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. Habitat features essential to bull trout conservation are present within or immediately adjacent to each of these DOD installations, and each installation has an approved INRMP. Activities occurring on these installations are being conducted in a manner that provides a benefit to bull trout. In addition, these installations already consult with us under section 7 of the Act on their actions (including those occurring in the open water training and testing areas) that may adversely affect bull trout and their habitat.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Naval Radio Station Jim Creek, Naval Station Everett, Naval Air Station Whidbey Island, and U.S. Army Fort Lewis Installation INRMPs and that conservation efforts identified in the INRMPs will provide a benefit to bull trout occurring in habitats within or adjacent to DOD installations.

Therefore, lands within these installations are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately a total of 40 km (24.9 mi) of habitat determined to contain features essential to the conservation of the bull trout in this proposed critical habitat designation because of these exemptions.

**Exclusions**

**Application of Section 4(b)(2) of the Act**

Section 4(b)(2) of the Act states that the Secretary must designate or make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impacts of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific...
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 legislative history is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor. Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts to national security, or any other relevant impacts. 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, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If based on this analysis, we make this determination, then we can exclude the area only if such exclusion would not result in the extinction of the species.

When considering the benefits of inclusion, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in the overall conservation of the bull trout through the continuation, strengthening, or encouragement of partnerships and the implementation of management plans or programs that provide equal to or more conservation for the bull trout than could be achieved through a designation of critical habitat.

In the case of bull trout, where there may be little additional regulatory effects in areas occupied by the species resulting from the designation, the benefits of critical habitat include educational benefits resulting from identification of the features essential to the conservation of bull trout and the delineation of the areas important for its recovery. Further, there may be additional benefits realized by providing landowners, stakeholders, and project proponents greater certainty about which specific areas are important for bull trout that should be effectively addressed through coordination and consultation of activities that may affect those areas and features contained therein. Thus, critical habitat designation increases public awareness of bull trout presence and the importance of habitat protection and, in cases where a Federal nexus exists, increases habitat protection for bull trout due to the protection from adverse modification or destruction of critical habitat.

When we evaluate the existence of a conservation plan when considering the benefits of exclusion, we consider a variety of factors including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical and biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

The Secretary can consider the existence of conservation agreements and other land management plans with Federal, private, State, and Tribal entities when making decisions under section 4(b)(2) of the Act. The Secretary may also consider voluntary partnerships and conservation plans, and weigh the implementation and effectiveness of these against that of designation. Consideration of relevant impacts of designation or exclusion under section 4(b)(2) may include, but is not limited to, any of the following factors: (1) whether the plan provides specific information on how it protects the species and the physical and biological features, and whether the plan is at a geographic scope commensurate with the species; (2) whether the plan is complete and will be effective at conserving and protecting of the physical and biological features; (3) whether a reasonable expectation exists that conservation management strategies and actions will be implemented, that those responsible for implementing the plan are capable of achieving the objectives, that an implementation schedule exists, and that adequate funding exists; (4) whether the plan provides assurances that the conservation strategies and measures will be effective (i.e., identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan); (5) whether the plan has a monitoring program or adaptive management to ensure that the conservation strategies are effective; (6) the degree to which the record supports a conclusion that a critical habitat designation would impair the benefits of the plan; (7) the extent of public participation; (8) demonstrated track record of implementation success; (9) level of public benefits derived from encouraging collaborative efforts and encouraging private and local conservation efforts; and (10) the effect designation would have on partnerships.

After evaluating the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to determine whether the benefits of excluding a particular area outweigh the benefits of its inclusion in critical habitat. If we determine that the benefits of excluding a particular area outweigh the benefits of its inclusion, then the Secretary may exercise his discretion to exclude the area, provided that the exclusion will not result in the extinction of the species.

Based on the information provided by entities seeking exclusion, as well as any additional public comments received, we will evaluate whether certain lands in proposed critical habitat may be appropriate for exclusion from the final designation. If our analysis results in a determination that the benefits of excluding particular areas from the final designation outweigh the benefits of designating those areas as critical habitat, then the Secretary may exercise his discretion to exclude the particular areas from the final designation.

Under section 4(b)(2) of the Act, we must consider all relevant impacts, including economic impacts. In addition to economic impacts (discussed in Economics Analysis section below), we consider a number of factors in a section 4(b)(2) analysis. For example, we consider whether there are lands owned by the DOD where a national security impact might exist. We also consider whether Federal or private landowners or other public agencies have developed management plans or HCPs for the area or whether there are conservation partnerships that would be encouraged or discouraged by designation of, or exclusion from, critical habitat in an area. In addition, we look at the presence of tribal lands or Tribal trust resources that might be affected, and consider the government-to-government relationship of the United States with the tribal entities. We also consider any social impacts that might occur because of the designation. To ensure that our final determination is based on the best available information, we are inviting comments on considerations such as national security, or other potential impacts resulting from this proposed designation.
of critical habitat from governmental, business, or private interests and, in particular, any potential impacts on small businesses.

**Exclusions Based on National Security Impacts**

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. The Navy conducts essential training and testing within the marine waters of Crescent Harbor and Dabob Bay in western Washington. 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 may be essential for national security, we are evaluating whether it may be appropriate to consider the particular areas where these activities occur for exclusion from the final designation of critical habitat under section 4(b)(2) of the Act.

**Exclusions Based on Other Relevant Factors**

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts to national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any Tribal issues, and consider the government-to-government relationship of the United States with Tribal entities. We also consider any social impacts that might occur because of the designation.

Most federally-listed species in the United States will not recover without cooperation of non-Federal landowners. More than 60 percent of the United States is privately owned (Lubowski et al. 2003, pp. 1644–1648). The purpose of designating critical habitat on private lands (Wilcove et al. 1996, pp. 5–6; Bean 2002, pp. 2–3; Conner and Mathews 2002, pp. 1–2; James 2002, pp. 270–271; Koch 2002, pp. 2–3; Brook et al. 2003, pp. 1639–1643). 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. This perception results in anti-conservation incentives because maintaining habitat that harboring endangered species represents a risk to future economic opportunities (Main et al. 1999, pp. 1264–1265; Brook et al. 2003, pp. 1644–1648).

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, p. 1263; Bean 2002, p. 2; Brook et al. 2003, pp. 1644–1648). The magnitude of this negative outcome is greatly amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 2002, pp. 3–4). We believe the judicious exclusion of 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.

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(a)(2) of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. Thus, the benefits of excluding areas that are covered by partnerships or voluntary conservation efforts can, in specific circumstances, be high.

**Benefits of Excluding Lands with Habitat Conservation Plans**

The benefits of excluding lands with approved HCPs from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed as a result of the critical habitat designation. Many HCPs take years to develop and, upon completion, are consistent with the recovery objectives for listed species covered within the plan area. Many conservation plans also provide conservation benefits to unlisted sensitive species.

A related benefit of excluding lands covered by approved HCPs from critical habitat designation is that it can make it easier for us to seek new partnerships with future plan participants, including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. HCPs often cover a wide range of species, including species that are not State and federally-listed and would otherwise receive little protection from development. By excluding these lands, we preserve our current partnerships and encourage additional future conservation actions.

We also note that permit issuance in association with HCP applications requires consultation under section 7(a)(2) of the Act, which would include the review of the effects of all HCP-covered activities that might adversely impact the species under a jeopardy standard, including possibly significant habitat modification (see definition of...
develop a conservation strategy for Kootenai and Clark Fork CHUs in the Fish Habitat Conservation Plan in the managed under the Plum Creek Native Conservation Plan.

For the reasons discussed under the “Application of Section 4(b)(2) of the Act” section of this rule, if the Secretary decides to exercise his discretion under section 4(b)(2) of the Act, we have identified certain areas that we are considering excluding from the final revised critical habitat designation for bull trout. However, we solicit comments on the inclusion or exclusion of such particular areas (see Public Comments section). During the development of the final revised designation, we will consider economic impacts, public comments, and other new information. As a result, additional particular areas, in addition to those identified below for potential exclusion in this proposed rule, may be excluded from the final critical habitat designation under section 4(b)(2) of the Act.

We consider a current plan to be appropriate for consideration for exclusion from a final critical habitat designation under section 4(b)(2) of the Act if:

1. It provides for the conservation of the essential physical and biological features;
2. there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; and
3. the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

Below is a brief description of each plan and the lands proposed as critical habitat covered by each plan that we are considering for exclusion from critical habitat designation under section 4(b)(2) of the Act.

Plum Creek Native Fish Habitat Conservation Plan

The Service is considering excluding bull trout habitat occurring on lands managed under the Plum Creek Native Fish Habitat Conservation Plan in the Kootenai and Clark Fork CHUs in the Columbia Headwaters draft recovery unit in Montana. Plum Creek Timber Company initiated an effort in 1997 to develop a conservation strategy for native salmonids (including bull trout) occurring on 647,500 ha (1.6 million ac) 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 NFHCP was permitted in 2000; Plum Creek no longer owns any of the lands that were covered under that HCP in the States of Idaho and Washington.

Currently, there are 392,393 ha (969,624 ac) of remaining Plum Creek land in Montana that are still covered by the original permit under the NFHCP. The NFHCP provisions cover approximately 550,700 ha (1.4 million ac) in western Montana and within its headwaters of the Columbia River basin (Clark Fork and Kootenai River watersheds). In 2003–2004, when the Stimson Lumber Company (Stimson) acquired about 33,650 ha (80,681 ac) of lands previously owned by Plum Creek, Stimson legally assumed all of the Plum Creek NFHCP commitments in that area by executing an assignment and assumption agreement. In 2008, the Montana Working Forests Project was initiated, which will result in the transfer of over 125,580 ha (310,312 ac) of Plum Creek NFHCP lands to The Nature Conservancy (TNC). Funds for the acquisition were obtained through a provision within the 2008 Farm Bill, and most of these lands are destined to eventually be transferred to either the Service or the Montana Department of Natural Resources and Conservation (DNRC) and Montana Fish, Wildlife, and Parks (FWP). Phase III of the Montana Working Forests Project is expected to close at the end of 2010 and will include an additional 28,135 ha (69,522 ac). Similar to Stimson, and through an agreement, TNC assumed the NFHCP commitments on previously owned Plum Creek lands for the first two phases of the Montana Working Forests Project and is anticipated to do the same for Phase III.

Montana Department of Natural Resources and Conservation Habitat Conservation Plan

The Service is considering excluding bull trout habitat occurring on 175,263 ha (433,084 ac) of lakes managed under the proposed DNRC Habitat Conservation Plan in the Kootenai, Clark Fork and Saint Mary CHUs in the Columbia Headwaters draft recovery unit, contingent on the compatibility of timing between the final HCP and the final bull trout revised critical habitat rule. The DNRC is developing an HCP for forest management activities on its forested State trust lands in Montana, which are managed by the Trust Lands Management Division (TLMD). The mission of the TLMD is to manage trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land. Under its forest management program, the TLMD generates revenues for trust beneficiaries through timber harvest on classified forest trust lands. DNRC manages its forested trust lands in accordance with the State Forest Land Management Plan (SFLMP) (DNRC 1996) and the Administrative Rules of Montana (ARMs) for Forest Management (ARMs 36.11.401–456) (Forest Management ARMs). DNRC’s forested trust lands also support Federally-listed threatened species. The ARMs direct DNRC to confer with the Service to develop habitat mitigation measures to address the needs of listed species.

This proposed HCP is a programmatic plan that identifies DNRC’s proposal for managing federally-listed species on DNRC’s forested trust lands. Species covered under the HCP include bull trout, westslope cutthroat trout, Columbia redband trout, grizzly bear (Ursus arctos), and Canada lynx (Lynx canadensis). DNRC has proposed that a permit be issued under section 10(a)(1)(B) of the Act by the Service for a period of 50 years, and views the HCP as a long-term program for addressing and improving habitat needs across the landscape. DNRC evaluated which trust lands to include in the HCP by assessing where species overlapped with trust lands containing appreciable amounts of manageable forest area. This approach was adopted to ensure those lands facing the greatest risk of impacts from forest management actions were included in the plan so risks could be mitigated.

The HCP project area includes primarily forested trust lands, but it contains other non-forested trust lands that are portions of, or are needed to access, forested parcels included in the HCP project area. The DNRC HCP would cover forest management activities on forested trust lands that provide habitat for the HCP species and include timber harvest (commercial timber, salvage harvest, and silvicultural treatments such as thinning); other forest management activities (slash disposal, prescribed burning, site preparation, reforestation, fertilization, forest inventory, and access to forested lands for weed control); roads (forest management road construction).
reconstruction, maintenance, use, and associated gravel quarrying for forest road surface materials, as well as installation, removal, and replacement of stream crossing structures); and livestock grazing (grazing licenses on classified forest trust lands).

The public comment period for the DNRC HCP closed October 6, 2009; the current schedule calls for publishing the Final Environmental Impact Statement (FEIS) in October 2010. The Record of Decision (ROD) would be finalized 30 days after publication of the FEIS, and a section 10(a)(1)(B) permit could be issued at that time, if the Service determines that issuance of a permit is appropriate. To be considered for exclusion from the final designation of critical habitat for the bull trout, the DNRC HCP will need to be completed and finalized prior to the finalization of critical habitat, which is due by September 30, 2010.

Washington Department of Natural Resources Habitat Conservation Plan

The Service is considering excluding lands managed under the Washington Department of Natural Resources (WDNR) HCP in the Coastal Recovery Unit: Puget Sound, Olympic Peninsula, and Lower Columbia CHUs. The WDNR HCP covers State forest trust lands within the range of the northern spotted owl (Strix occidentalis caurina) in the State of Washington. The majority of the lands covered by the HCP (approximately 526,100 ha (1.3 million ac) is west of the Cascade Crest and includes the Olympic Peninsula and southwest Washington. The remainder of the lands are on the east side of the Cascade Range within the range of the northern spotted owl. The HCP covers activities primarily associated with commercial forest management. West of the Cascade Crest, the HCP covers all species, including 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 follows 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 multispecies portion of the HCP depends upon several broad-scale conservation approaches: spotted owl conservation, marbled murrelet (Brachyramphus marmoratus) 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 Habitat Conservation Plan

The Service is considering excluding bull trout habitat on lands managed under the Green Diamond Habitat Conservation Plan in Coastal Recovery Unit, Olympic Peninsula CHU. In October 2000, Simpson Timber Company (now Green Diamond), completed an HCP, and we issued a permit authorizing incidental take associated with forestry operations on the company’s 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 subbasins. The HCP addresses five listed species, including bull trout, and 46 non-listed species. The HCP covers the lands owned by Green Diamond along the lower reaches of the North and South Fork Skokomish Rivers, the upper South Fork Skokomish River, West Fork Satsop River, and Canyon River.

City of Seattle Cedar River Watershed Habitat Conservation Plan

The Service is considering excluding bull trout habitat on lands managed under the City of Seattle Cedar River Watershed HCP in the Coastal Recovery Unit, Puget Sound CHU. In April 2000, the City of Seattle completed an HCP, and we issued an incidental take permit authorizing water withdrawal and water supply activities affecting flows in the lower Cedar River and reservoir levels in Chester Morse Lake. The plan provides for forestry restoration activities, including riparian thinning, road abandonment, and timber stand improvement 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, manage water levels in Chester Morse Lake and Masonry Dam Reservoir to benefit instream flows in the lower Cedar River and bull trout spawning access to lake tributaries, and manage these lands 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 6 other listed species.

Tacoma Water Green River Water Supply Operations and Watershed Protection Habitat Conservation Plan

The Service is considering excluding bull trout habitat on lands managed under the Tacoma Green River Water Supply Operations and Watershed Protection HCP in the Coastal Recovery Unit, Puget Sound CHU. The Tacoma Water Green River Water Supply Operations and Watershed Protection HCP was completed in July 2001, addressing upstream and downstream fish passage issues, flows in the Middle and lower Green River, and timber and watershed management activities on Tacoma-owned land in the upper Green River Watershed. The HCP covers 32 species (including bull trout), and includes an upstream fish passage facility that will open up 57,000 ha (140,800 ac) 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.


The Service is considering excluding all public and private lands in the State of Washington that would be managed under the Washington forest practice rules. These lands occur in the Coastal Recovery Unit (Puget Sound, Olympic Peninsula, and Lower Columbia CHUs), Mid-Columbia Recovery Unit (Snake River Basin, Walla Walla River Basins, Yakima River, and Upper Columbia River CHUs), and the Columbia Headwaters Recovery Unit (Clark Fork River Basin CHU). Beginning in late 1996, faced with the imminent listing of several salmonid species under the Act, including bull trout, a diverse group of stakeholders in Washington State agreed to address emerging riparian habitat issues. The effort resulted in the Forests and Fish Report (FFR) 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 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 FFR. The language further solidified the adaptive management process as a key component of the FFR conservation program.

Following the passage in 1999 of emergency forest practices rules based on the FFR, 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 FFR that address adaptive management, training, and other features. The Washington State Legislature and the U.S. Congress continued to support the collaboration with significant funding for the research, monitoring, and adaptive management activities called for in the FFR. In May 2006, the State forest practice rules were formally incorporated into the Washington State Forest Practices HCP.

Conservation Partnerships on Non-Federal Lands

Lewis River Hydroelectric Project Conservation Easements

The Service is considering excluding 48 km (30 mi) of bull trout habitat associated with the Lewis River Hydroelectric Project Conservation Easements in the Coastal Recovery Unit, Columbia River Basin. PacificCorp manages four projects and three dams impounding river habitat on the Lewis River in Washington, located in portions of Clark, Cowlitz, and Skamania Counties. Bull trout are present in all of the reservoirs; the upper two reservoirs are used by the majority of individuals within the 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 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.

Snake River Basin Adjudication

The Service is considering excluding bull trout habitat on 18,615,000 ha (46 million ac) of lands managed under the Snake River Basin Adjudication agreement in central Idaho. The stream flows in the basin were subject to litigation for 21 years. Litigants were the Federal Government, Nez Perce Tribe, and 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, Nez Perce Tribal Executive Committee Chairman, and Governor of Idaho.

As part of the settlement, the parties agreed to establish a habitat fund under two separate accounts, one for the Nez Perce Tribe and one for the State. The State account is managed through cooperative agreements under section 6 of the Act, and addresses off-reservation stream flow and forestry programs. The funds will be used to conduct habitat protection and restoration projects in the Salmon and Clearwater River basins (tributaries to the Snake River), including programs intended to protect and restore listed fish and their habitats. The United States will contribute $38 million to these accounts according to a schedule determined by Congress in the enacting legislation. To date, the State has received $5 million per year for 3 years and is expected to receive an additional $5 million for the next 2 years. Most of the funds have been used to acquire conservation easements on lands with anadromous habitat and some limited habitat restoration.

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 authorize actions and appropriations under the Snake River Basin Adjudication (SRBA) and the Act for the United States to meet its obligations. On March 31, 2005, a Memorandum of Agreement was signed between the State of Idaho, Nez Perce Tribe, Service, and National Marine Fisheries Service (NMFS) to establish a process for using the habitat trust fund accounts for habitat protection and restoration projects in the Salmon and Clearwater River basins in Idaho.

In a March 2005 letter, in response to a request from the State of Idaho, the Service and NMFS provided specific information as to the standard that would be the basis for the cooperative agreement under section 6 of the Act to implement the term sheet. In that letter, the two agencies indicated that meeting the express statutory requirements in section 6 of the Act for an adequate and active program for the conservation of the species, in this case, bull trout and salmon, would be the basis.

The Service, the National Marine Fisheries Service (NMFS), and the State are in the process of developing a Draft EIS for entering into a Cooperative Agreement on the Idaho Forestry Program. This Program would apply to private and State lands in the Clearwater and Salmon River basins. The Service will evaluate whether the Idaho Forestry Program will meet the requirements of section 6 and section 7 of the Act.

Tribe Lands–Exclusions under Section 4(B)(2) of the Act

In accordance with the Secretarial Order 3206, “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” (June 5, 1997); the President’s memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments” (59 FR 22951); Executive Order 13175; and the relevant provision of the Departmental Manual of the Department of the Interior, (512 DM 2), we believe that fish, wildlife, and other natural resources on tribal lands may be better managed under tribal authorities, policies, and programs than through Federal regulation where tribal management addresses the conservation needs of listed species. Based on this
philosophy, we believe that, in many cases, designation of tribal lands as critical habitat may provide little additional benefit to threatened and endangered species. In addition, such designation may be viewed by tribes as unwarranted and an unwanted intrusion into tribal self-governance, thus compromising the government-to-government relationship essential to achieving our mutual goals of managing for healthy ecosystems upon which the viability of threatened and endangered species populations depend.

We will take into consideration our partnerships and existing conservation actions that tribes have or are currently implementing when conducting our exclusion analysis in the final critical habitat designation. If the Secretary decides to exercise his discretion under section 4(b)(2) of the Act, we are considering lands covered by the tribes identified below for possible exclusion from final critical habitat. We are requesting comments regarding these areas and will continue to investigate whether any Indian lands overlap, and may warrant exclusion from, critical habitat for bull trout. We also request comments and information concerning other tribal activities that may be affected in areas proposed as critical habitat on lands other than tribal lands.

For this proposed critical habitat designation for bull trout, we reviewed maps indicating that some areas under consideration as critical habitat overlap with Indian lands. Indian lands are those defined in the Secretarial Order “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” (June 5, 1997), including: (1) lands held in trust by the United States for the benefit of any Indian tribe; (2) lands held in trust by the United States for any Indian Tribe or individual subject to restrictions by the United States against alienation; (3) fee lands, either within or outside the reservation boundaries, owned by the tribal government; and (4) fee lands within the reservation boundaries owned by individual Indians.

Our preliminary assessment indicates that the federally-recognized tribes in Table 7 have lands that may include or be adjacent to waterbodies under consideration for designation as critical habitat for bull trout. Based on the best available information, there are approximately 683 kilometers (424 miles) of streams and shoreline areas in or adjacent to Tribal lands being proposed as critical habitat for bull trout (Table 6).

Tribes have played a significant role in the development of HCPs, local watershed plans, or other habitat plans and have conducted numerous habitat restoration and research projects designed to protect or improve habitat for listed species. If such lands are identified, the benefits of exclusion could include: (1) the furtherance of established national policies, our Federal trust obligations and our deference to management of natural resources on their lands; (2) the maintenance of effective long-term working relationships to promote species conservation on an ecosystem-wide basis; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species on an ecosystem-wide basis; and (4) continued respect for tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs. A list of tribal lands meeting the criteria of a tribal management or conservation plan, with proposed critical habitat unit and water body name, follows in Table 7.

<table>
<thead>
<tr>
<th>Tribal Nation</th>
<th>Critical habitat unit</th>
<th>Stream/water body name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confederated Tribes of Warm Springs</td>
<td>Deschutes River Basin</td>
<td>Deschutes River, Shitike Creek, Jefferson Creek, Warm Springs River, Metolius River</td>
</tr>
<tr>
<td>Confederated Tribes of the Umatilla</td>
<td>Umatilla River and Walla Walla River Basin</td>
<td>Umatilla River, South Fork Touchet River, Meacham Creek, Squaw Creek</td>
</tr>
<tr>
<td>Burns Paiute Tribe</td>
<td>Malheur River Basin</td>
<td>Malheur River</td>
</tr>
<tr>
<td>Nez Perce Tribe</td>
<td>Clearwater River</td>
<td>Mainstem, North Fork, Middle Fork, and South Fork Clearwater River, Lolo Creek, Clear Creek, and Dworshak Reservoir</td>
</tr>
<tr>
<td>Coeur d’Alene Tribe</td>
<td>Coeur d’Alene River Basin</td>
<td>Lake Coeur d’Alene and tributaries</td>
</tr>
<tr>
<td>Blackfeet Nation</td>
<td>Saint Mary River Basin</td>
<td>Saint Mary River</td>
</tr>
<tr>
<td>Confederated Salish and Kootenai Tribes</td>
<td>Clark Fork River Basin</td>
<td>Flathead Lake, Lower Flathead River, Jocko River, Mission Creek, Post Creek</td>
</tr>
<tr>
<td>Kalispel Tribe</td>
<td>Clark Fork River Basin</td>
<td>Pend Oreille River</td>
</tr>
<tr>
<td>Yakama Nation</td>
<td>Yakima and Lower Columbia River Basins</td>
<td>Yakima River, Ahtanum Creek, and South Fork Ahtanum Creek, West Fork Klinit River, Little Muddy Creek, Crawford Creek, Clearwater Creek, Trappers Creek, Fish Lake Stream, unnamed tributary that meets Fish Lake Stream, and Two Lakes Stream</td>
</tr>
<tr>
<td>Confederated Tribes of the Chehalis</td>
<td>Olympic Peninsula</td>
<td>Chehalis River</td>
</tr>
<tr>
<td>Hoh Tribe</td>
<td>Olympic Peninsula</td>
<td>Hoh River and Pacific Coast nearshore</td>
</tr>
<tr>
<td>Jamestown S’Klallam Tribe</td>
<td>Olympic Peninsula</td>
<td>Dungeness River</td>
</tr>
<tr>
<td>Lower Elwha Klallam Tribe</td>
<td>Olympic Peninsula</td>
<td>Elwha River and Strait of Juan De Fuca Nearshore</td>
</tr>
</tbody>
</table>
**TABLE 7.—TRIBAL LANDS MEETING THE CRITERIA OF A TRIBAL MANAGEMENT OR CONSERVATION PLAN AND THE PROPOSED CRITICAL HABITAT UNIT AND WATER BODY AFFECTED—Continued**

<table>
<thead>
<tr>
<th>Tribal Nation</th>
<th>Critical habitat unit</th>
<th>Stream/water body name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quileute Tribe</td>
<td>Olympic Peninsula</td>
<td>Pacific Coast Nearshore</td>
</tr>
<tr>
<td>Quinault Nation</td>
<td>Olympic Peninsula</td>
<td>Quinault River, Lake Quinault, Pacific Coast</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nearshore, Raft River, Queets River, Salmon River</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moclips River, and Cook Creek</td>
</tr>
<tr>
<td>Skokomish Tribe</td>
<td>Olympic Peninsula</td>
<td>Skokomish River, Nalley Slough, Skobob Creek, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hood Canal nearshore</td>
</tr>
<tr>
<td>Lummi Nation</td>
<td>Puget Sound</td>
<td>Nooksack River and Puget Sound nearshore</td>
</tr>
<tr>
<td>Muckleshoot Tribe</td>
<td>Puget Sound</td>
<td>White River</td>
</tr>
<tr>
<td>Nisqually Tribe</td>
<td>Puget Sound</td>
<td>Nisqually River</td>
</tr>
<tr>
<td>Nooksack Tribe</td>
<td>Puget Sound</td>
<td>Nooksack River</td>
</tr>
<tr>
<td>Puyallup Tribe</td>
<td>Puget Sound</td>
<td>Puyallup River and Puget Sound nearshore</td>
</tr>
<tr>
<td>Sauk-Suiattle Tribe</td>
<td>Puget Sound</td>
<td>Sauk River</td>
</tr>
<tr>
<td>Swinomish Tribe</td>
<td>Puget Sound</td>
<td>Swinomish Channel and Puget Sound nearshore</td>
</tr>
<tr>
<td>Tulalip Tribes</td>
<td>Puget Sound</td>
<td>Puget Sound nearshore</td>
</tr>
</tbody>
</table>

**Federal Lands-Exclusions under Section 4(b)(2) of the Act**

As noted above, Federal agencies have an independent responsibility under section 7(a)(1) of the Act to use their programs in furtherance of the Act and to utilize their authorities to carry out programs for the conservation of endangered and threatened species. We consider the development and implementation of land management plans by Federal agencies to be consistent with this statutory obligation under section 7(a)(1) of the Act. Therefore, Federal land management plans, in and of themselves, are generally not an appropriate basis for excluding essential habitat. Some broad-scale Federal resource management plans (e.g., INFISH, PACFISH, and the Northwest Forest Plan) may provide conservation benefits to bull trout as well as all other aquatic species within the plan boundaries. In addition, in some places, Federal land management agencies may actively manage for bull trout and conduct specific conservation actions for the species. We are therefore requesting comments regarding existing specific conservation actions that Federal land management agencies have or are currently implementing on their lands, and will take this information into account when conducting our exclusion analysis in the final critical habitat designation.

**Draft Economic Analysis**

Section 4(b)(2) of the Act requires that we designate or revise critical habitat based upon the best scientific data available, after taking into consideration the economic impact, impact on national security, or any other relevant impact of specifying any particular area as critical habitat. We have prepared a Draft Economic Analysis (DEA), which identifies and analyzes the potential economic impacts associated with the proposed designation of critical habitat for bull trout. The DEA quantifies the economic impacts of all potential conservation efforts for bull trout; some of these costs would likely be incurred regardless of whether or not we designate critical habitat. The economic impact of the proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we may consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur if we finalize the proposed critical habitat designation.

The DEA 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. The DEA provides estimated costs of the foreseeable potential economic impacts of the proposed critical habitat designation for bull trout over the next 20 years, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to reasonably forecast activity levels for projects beyond a 20-year timeframe. The DEA identifies potential incremental costs as a result of the proposed critical habitat designation; these are those costs attributed to critical habitat over and above those baseline costs attributed to listing. The DEA quantifies economic impacts of conservation efforts for bull trout associated with the following categories of activity: (1) forest management practices (timber sales, fuel reduction, salvage logging); (2) residential and commercial development; (3) dams (hydropower and others); (4) agriculture
and agricultural diversions; (5) roads; (6) mining; (7) livestock grazing; and (8) other activities (utilities, restoration, nonnative species management, recreation, other instream activities).

Of the currently proposed critical habitat areas, nearly 31,865 km (19,800 mi), or 87 percent, were previously proposed as bull trout critical habitat. Two detailed economic analyses of those past proposals were conducted in 2004 and 2005. Both of these analyses were made available for, and received, public comment. Due to extensive overlap between the current proposed critical habitat and the past proposals, the economic analysis prepared for this proposal draws heavily on still-valid data contained within the two prior economic analyses. Costs associated with bull trout conservation efforts estimated in the earlier economic analyses have been updated to current dollars, adjusted to reflect the currently proposed unit boundaries, and reported to provide context for the reported incremental costs associated with the currently proposed critical habitat designation.

Total future (2012-2032) baseline impacts are estimated to be $96.3 million to $103.0 million annually (assuming a 7 percent discount rate); discount rates express future costs and benefits at today’s equivalent value. This estimate includes not only conservation activity costs resulting from the bull trout being listed under the Act, but also estimated costs of related conservation activities for salmon, steelhead, and other fish species, along with water quality and habitat protection, in overlapping areas where other protected species occur with bull trout. Under the baseline scenario, nearly half of all estimated costs are due to conservation efforts imposed on forest management activities. Costs imposed on development activities and dam operations make up most of the remaining estimated costs. Costs associated with project modifications to forest management activities account for nearly 44 percent of estimated baseline impacts. These costs are expected to be associated with conservation measures imposed on timber harvest activities, including efforts to reduce sedimentation timing restrictions, elimination of fish barriers, and changes to harvest methods. Under the high cost scenario, costs associated with project modifications imposed on development activities account for 25 percent of projected baseline impacts. These costs result from implementation of stormwater control requirements. Costs associated with project modifications imposed on dam operations account for 18 percent of estimated baseline impacts under the high cost scenario. These costs result from projected conservation efforts, including providing fish passage (fish ladder or trap and haul operations), temperature control projects, habitat acquisition, and seasonal adjustments of flow.

Because of all conservation measures in place for salmon, steelhead, the Klamath suckers, and other protected fish species, we believe the incremental regulatory and economic effect of critical habitat designation in areas occupied by bull trout will be small, and the most significant incremental effect will be in those areas not currently occupied (less than 4 percent of the proposed critical habitat) by the species. As a result, the DEA estimates that total potential incremental economic impacts in areas proposed as critical habitat over the next 20 years will be $4.97 million to $7.13 million annually (assuming a 7 percent discount rate); the range of costs represents uncertainty in the types and costs of project modifications. The majority of forecast incremental costs are associated with unoccupied critical habitat in the Upper Willamette River Basin, and are associated with conservation efforts undertaken at flood control facilities. For unoccupied areas overlapping with previous bull trout critical habitat proposals, cost estimates are drawn from the previous economic analyses and assigned to the critical habitat units proposed in this rule. For newly proposed unoccupied areas, the analysis focuses on identifying additional conservation efforts that may be expected as a result of critical habitat designation for bull trout. The 116 km (72 mi) of newly proposed unoccupied critical habitat that is already designated as critical habitat for listed salmon were not included in the incremental analysis. Existing (baseline) conservation efforts required in designated salmon critical habitat areas would generally be adequate to address bull trout conservation needs, and no significant additional conservation efforts are expected to be necessary. Dam operations are expected to incur the greatest incremental economic impacts, followed by forest management and administrative costs. Estimated incremental costs associated with dam project modifications range from $2.12 million to $2.52 million annually, and are primarily related to conservation efforts in the Upper Willamette River Basin. Proposed unoccupied dams could include fish passage (such as fish ladders and trap and haul operations), temperature control projects, and seasonal changes to flow. Estimated incremental costs associated with forest management projects range from $0.41 million to $1.65 million annually, associated with efforts to reduce sedimentation, timing restrictions, elimination of fish barriers (e.g., culverts), and changes to harvest methods.

Estimated incremental costs associated with additional section 7 administrative efforts (Federal agency consultations) are expected to be $1.99 million annually. Absent reasonably foreseeable economic impacts that are distinctly attributable to the critical habitat portion of the analysis, economic impacts from conservation efforts that avoid adverse modification of critical habitat coincidental to avoiding jeopardizing the species would be coextensive with the impacts of bull trout listing and within the regulatory baseline.

Benefits, as well as costs, can result from critical habitat designation. Bull trout conservation efforts for critical habitat may lead to improved water quality, increased open space, flood control, or aesthetic benefits. Indirect use benefits may also result (e.g., increased hiking or wildlife-viewing activities). Conservation efforts for bull trout critical habitat have the potential to result in increased bull trout populations, which in turn could result in increases in recreational fishing opportunities over the long term. In addition, increased bull trout population size could result in enhanced non-use value by the public (e.g., existence value). Existing studies support the conclusion that preservation of fish species in general is likely to generate substantial benefits to the public. However, absent information on the long term biological or physical changes expected to occur in bull trout critical habitat areas as a result of critical habitat designation, the DEA does not quantify these benefits.

The DEA is available for review at http://www.regulations.gov. We are seeking data and comments from the public on the DEA, as well as all aspects of the proposed rule and our amended required determinations. We may revise the proposed rule or supporting documents to incorporate or address information we receive during the public comment period, including information received during, or in response to, the public hearing.

Peer Review

In accordance with our joint policy published in the Federal Register on July 1, 1994 (59 FR 34270), we will seek
the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information we receive during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the Federal Register. Such requests must be sent to the address shown in the ADDRESSES section. In anticipation of the interest in this proposed rule, we have already scheduled the public hearing and several public meetings. See the DATES and ADDRESSES section of this proposed rule for information regarding the scheduled public hearing and public meetings.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is significant and has reviewed this proposed rule under Executive Order 12866 (E.O. 12866). OMB based its determination upon the following four criteria:

1. Whether the rule will have an annual effect of $100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government;
2. Whether the rule will create inconsistencies with other Federal agencies’ actions;
3. Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients; or
4. Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended RFA to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

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; as well as 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 whether 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 whether a designation of critical habitat 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, the 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.

Under the Act, designation of critical habitat only affects activities carried out, funded, or permitted by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so would not result in any additional effects under the Act. However, there are some state laws that limit activities in designated critical habitat even where there is no federal nexus. If there is a Federal nexus, Federal agencies will be required to consult with us under section 7 of the Act on activities they fund, permit, or carry out that may affect critical habitat. If we conclude, in a biological opinion, that a proposed action is likely to destroy or adversely modify 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 destroying or adversely modifying 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 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. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Within the proposed critical habitat designation, the types of actions or authorized activities that we have identified as potential concerns and that may be subject to consultation under section 7 if there is a Federal nexus are: construction practices; livestock grazing; agriculture and irrigation diversions; management
of roads; mining; and management of nonnative species.

Any existing and planned projects, land uses, and activities that could affect the proposed critical habitat but have no Federal involvement would not require section 7 consultation with the Service, so they are not restricted by the requirements of the Act. Federal agencies may need to reinitiate a previous consultation if discretionary involvement or control over the Federal action has been retained or is authorized by law and the activities may affect critical habitat.

The DEA and its associated Initial Regulatory Flexibility Analysis (IRFA) estimate that total potential incremental economic impacts in areas proposed as critical habitat over the next 20 years will be $4.97 to $7.13 million annually, assuming a 7 percent discount rate. Incremental impacts are expected to consist of: (1) project modifications occurring within newly proposed unoccupied areas; and (2) administrative costs associated with consultations under section 7 of the Act. In total, third parties (some of which may be small entities) may bear a total annual impact of up to $5.6 million in incremental impacts. In unoccupied areas, project modifications may be associated with dam modifications, bridge replacement, grazing lease modification, road maintenance, and changes to timber harvest. In total, annual incremental costs associated with project modifications are forecast at $5.1 million (discounted at 7 percent). The DEA also forecasts the number of additional section 7 consultations that may take place as a result of critical habitat. Based on this forecast, annual incremental consultation costs that may be borne by third parties are forecast at $441,000 in total (discounted at 7 percent). Of the potentially affected entities in the proposed critical habitat areas, 97 percent are small entities, and depending on the unit, small entities may bear between 93 and 100 percent of the estimated impacts. The Small Business Size Standard for the industry sectors that could potentially be affected by the proposed critical habitat designation are as follows:

• Dams and Water Diversions Category: Electric Power Generation, Transmission and Distribution—4 million megawatts for the preceding year, and Water supply and Irrigation Systems—$7.0 million average annual receipts.

• Agriculture Category: Crop Production (Oilsseed and Grain Farming; Vegetable and Melon Farming; and Fruit and Tree Nut Farming—$750,000 average annual receipts; and Food Manufacturing—500 employees.

• Grazing Category: Beef Cattle Ranching and Farming—$750,000 average annual receipts.

• Roads Category: Highway, Street and Bridge Construction—$33.5 million average annual receipts.

• Development Category: New Single–Family Housing Construction (except Operative Builders); New Multifamily Housing Construction (except Operative Builders); New Housing Operative Builders—$33.5 million average annual receipts; and Land Subdivision—$7.0 million.

• Forest Manageant Category: Logging—500 employees; Timber Tract Operations, and Support Activities for Forestry—$7.0 million average annual receipts.

• Mining Category: Mining (except Oil and Gas), and Construction Sand and Gravel Mining—500 employees.

• Other Activities Category: Oil and Gas Pipeline and Related Structures Construction; Power and Communication Line and Related Structures Construction; and Other Heavy and Civil Engineering Construction—$33.5 million average annual receipts; Marinas—$7.0 million average annual receipts; Water and Sewer Line and Related Structures Construction—$33.5 million average annual receipts; and Sewage Treatment Facilities—$7.0 million average annual receipts.

If each of the 23,800 small entities located within the study area were to share the annualized costs, they could bear from $0 up to $60,300 per entity, depending on the affected industry. This would translate into an annual average cost of $234 per entity. This in turn translates into a projected range of impacts from 0.0007 to 0.03 percent, or in other words, less than 1 percent impact for all sectors. The expected annual impacts to the affected industries are significantly less than the annual revenues that could be garnered by a single small operator in those industries, and as such, impacts are low relative to potential revenues. We are seeking public comments regarding the estimated incremental impacts of this critical habitat designation on small entities. Specifically, we are interested in whether there is evidence suggesting that the economic impact of section 7(a)(2) consultations in areas currently occupied by the species is expected to be larger or smaller than estimated in this analysis.

Unfunded Mandates Reform Act

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, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)-(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or Tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; 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, or 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 onto State governments.

(b) As discussed in the DEA of the proposed designation of critical habitat for bull trout, we do not believe that this rule would significantly or uniquely affect small governments because it would not produce a Federal mandate of $100 million or greater in any year; that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The DEA concludes that incremental impacts may occur due to project modifications occurring within newly proposed, unoccupied areas and administrative costs associated with section 7 consultations. The DEA estimates that total potential incremental economic impacts in areas proposed as critical habitat over the next 20 years will be $4.97 to $7.13 million annually, assuming a 7 percent discount rate. Based on the range of potential incremental costs that have been identified, we do not believe that this rule will significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings

In accordance with Executive Order (E.O.) 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for bull trout in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for bull trout does not pose significant takings implications for lands within or affected by the designation.

Federalism

In accordance with E.O. 13132 (Federalism), this proposed 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 proposed critical habitat designation with appropriate State resource agencies in Washington, Oregon, Idaho, Montana, and Nevada. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or 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.

Civil Justice Reform

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Executive Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the physical and biological features within the designated areas to assist the public in understanding the habitat needs of the bull trout.

Paperwork Reduction Act of 1995

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the Federal Register on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. court of Appeals for the Ninth Circuit (Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:
(a) Be logically organized;
(b) Use the active voice to address readers directly;
(c) Use clear language rather than jargon;
(d) Be divided into short sections and sentences; and
(e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the "Addresses" section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the names of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Government-to-Government Relationship with Tribes

Our preliminary assessment indicates that 24 Federally-recognized Tribes in Table 7 have lands that may include or be adjacent to waterbodies under consideration for designation as critical habitat for bull trout. Based on the best available information, there are approximately 683 kilometers (424 miles) of streams and shoreline areas in or adjacent to Tribal lands being proposed as critical habitat for bull trout (Table 6).

In accordance with the President’s memorandum of April 29, 1994, Government-to-Government Relations with Native American Tribal Governments (59 FR 22951), E.O. 13175, and the Department of the Interior’s manual in 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act”, we readily acknowledge our responsibilities to work directly with Tribes in developing programs for
healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

Maintaining an effective trust relationship between the Federal government and Tribes promotes (1) the furtherance of established national policies, our Federal trust obligations and our deference to management of natural resources on their lands; (2) the maintenance of effective long-term working relationships to promote species conservation on an ecosystem-wide basis; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species on an ecosystem-wide basis; and (4) continued respect for Tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs. We have engaged in preliminary discussions and coordination with our Tribal partners during development of the proposed rule, and are soliciting specific comments and information from tribes on areas being proposed as critical habitat on tribal land and on lands other than Tribal lands. The final rule will fully consider the Federal government’s obligations to Federally-recognized Tribes, and comments and information received from the Tribes regarding the actions being implemented to conserve bull trout on Tribal lands and lands other than Tribal lands.

Energy Supply, Distribution, or Use

Executive Order E.O. 13211 pertains to regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The Office of Management and Budget (OMB) provides guidance for implementing this Executive Order, outlining nine outcomes (criteria) that may constitute “a significant adverse effect” when compared with the regulatory action under consideration. Two of these criteria are relevant to the bull trout economic analysis: (1) reduction in electricity production in excess of one billion kilowatts-hours per year or in excess of 500 megawatts of installed capacity and (2) increases in the cost of energy production in excess of one percent. The two primary activities that might lead to reduced energy generation are operation of the Federal Columbia River Power System (FCRPS) and operation of FERC-licensed hydroelectric dams. Incremental impacts to dam operations are expected to consist largely of the costs of installing fish passage capabilities. Some dam operators may also undertake relatively minor movements of peak energy production during the year. This practice does not reduce average energy production, but rather changes the temporal distribution of that power. Therefore, no impacts to electricity production or installed capacity are forecast. Given the high thresholds defined in the OMB guidance (i.e., reduction in electricity production in excess of one billion kilowatts-hours per year, increases in the cost of energy production in excess of one percent) and the fact that bull trout is unlikely to be the primary species leading to changes in flow regimes (because of the presence of listed salmon), it is unlikely the electricity industry will experience a “significant adverse effect” as a result of critical habitat designation for bull trout. The protection of bull trout stream and lake habitats should not require significant changes to energy management, and because bull trout have been listed under the Endangered Species Act for the past 10 years, with critical habitat designated over parts of its range for the past four years, and there have been no actions that have significantly affected energy supply, distribution or use over that time. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

References Cited

A complete list of references cited is available on the Internet at http://www.regulations.gov and upon request from the Idaho Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

Author(s)

The primary authors of this package are the staff members of the following Fish and Wildlife Offices: Idaho, Montana, Washington, Oregon, Nevada, and Klamath Falls.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17; subchapter B of Chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:


2. Amend §17.95 by revising critical habitat for “Bull Trout (Salvelinus confluentus)” as follows:

§17.95 Critical habitat—fish and wildlife.

* * * * *

(e) Fishes.

* * * * *

Bull trout (Salvelinus confluentus)

(1) Locations of critical habitat:

Critical habitat units are depicted in the following States and counties on the maps and as described below:

<table>
<thead>
<tr>
<th>State</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Idaho</td>
<td>Adams, Benefah, Blaine, Boise, Bonner, Boundary, Butte, Camas, Canyon, Clearwater, Custer, Elmore, Gem, Idaho, Kootenai, Lemhi, Lewis, Nez Perce, Owyhee, Shoshone, Valley, Washington</td>
</tr>
<tr>
<td>(ii) Montana</td>
<td>Deer, Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders</td>
</tr>
<tr>
<td>(iii) Nevada</td>
<td>Elko</td>
</tr>
</tbody>
</table>
Critical habitat includes the stream channels within the designated stream reaches; designated lakes and reservoirs; and inshore portions of marine nearshore areas, including tidally influenced freshwater heads of estuaries indicated on the maps beginning with paragraph (e)(6) of this section.

(i) Critical habitat includes the stream channels within the designated stream reaches and a lateral extent as defined by 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 mean higher high-water (MHHW) line), including tidally influenced freshwater heads of estuaries. The MHHW line refers to the average of all the higher high-water levels 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 10 meters (m) (33 feet (ft)) relative to the mean low low-water (MLLW) line (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 National Oceanic and Atmospheric Administration in the National Tidal Datum 1983 Through 2001. This area between the MHHW line and minus 10 MLLW line 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) The Primary Constituent Elements (PCEs) of critical habitat. Within the critical habitat, the 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. The PCEs are as follows:

(i) Springs, seeps, groundwater sources, and subsurface water connectivity (hyporehic flows) to contribute to water quality and quantity and provide thermal refugia.

(ii) Migratory habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.

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

(iv) Complex river, stream, lake, reservoir, and marine shoreline aquatic environments and processes with features such as large wood, side channels, pools, undercut banks and substrates, to provide a variety of depths, gradients, velocities, and structure.

(v) Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures at the upper end of this range. Specific temperatures within this range will 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.

(vi) 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. A minimal amount (e.g., less than 12 percent) of fine substrate less than 0.85 mm (0.03 in.) in diameter and minimal embeddedness of these fines in larger substrates are characteristic of these conditions.

(vii) A natural hydrograph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, they minimize departures from a natural hydrograph.

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

(ix) Few or no nonnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass; inbreeding (e.g., brook trout); or competitive (e.g., brown trout) species present.

(4) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(5) Critical habitat map units. Data layers defining map units were created using U.S. Geological Survey (USGS) Hydrologic Unit Code maps (HUCs) at a scale of 1:250,000 down to the 4th level cataloging unit. In some cases, 5th and 6th level HUCs were also used and some finer scale watersheds developed using United States Geological Survey 10-meter Digital Elevation Model and 1:24,000 scale hydrography layers. The marine boundaries for the Puget Sound and Olympic Peninsula critical habitat unit (CHU) were based on Washington Department of Natural Resources 1:24,000 scale county boundaries and HUCs.

(6) Index map of critical habitat units for bull trout follows:
(7) Unit 1: Olympic Peninsula Unit, Washington. (i) Dungeness River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Dungeness River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 1, Olympic Peninsula
Sub-unit: Dungeness River

Legend
- Critical Habitat
- Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 1, Olympic Peninsula
Sub-unit: Elwha River

(ii) Elwha River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Elwha River Subunit, follows:
(iii) Hoh River Subunit.
(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Hoh River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 1, Olympic Peninsula
Sub-unit: Hoh River

Legend
- Critical Habitat
- Counties
(iv) Queets River Subunit.  

(A) [Reserved for textual description of unit.]  

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus).  
Queets River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)  
Unit: 1, Olympic Peninsula  
Sub-unit: Queets River

Legend

- Critical Habitat
- Counties

1 - Alta Creek  
2 - Bob Creek  
3 - Clearwater River  
4 - Harlow Creek  
5 - Hee Haw Creek  
6 - Hee Hee Creek  
7 - Matheny Creek  
8 - Paradise Creek  
9 - Queets River  
10 - Salmon River  
11 - Sams River  
12 - Tahlechsy Creek
Critical Habitat for Bull Trout (*Salvelinus confluentus*)
Unit: 1, Olympic Peninsula
Sub-unit: Quinault River

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Quinault River Subunit, follows:
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 1, Olympic Peninsula
Sub-unit: Skokomish River

Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Skokomish River Subunit, follows:

Map showing the critical habitat areas along the Skokomish River, including creeks and tributaries.

Legend:
- Critical Habitat
- Counties

**Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Skokomish River Subunit, follows.
(vii) Hood Canal Subunit.
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Hood Canal Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 1, Olympic Peninsula
Sub-unit: Hood Canal Marine

![Map of Critical Habitat for Bull Trout](image)
(viii) Strait of Juan de Fuca Subunit.  
(A) [Reserved for textual description of unit.]  
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Juan de Fuca Subunit, follows:

---

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

Unit: 1, Olympic Peninsula  
Sub-unit: Strait of Juan de Fuca

---

[Map of Critical Habitat showing locations 1-5, with inset map of Washington state with scale and legend.]

---

Legend:

- Critical Habitat
- Counties
(ix) Pacific Coast Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Pacific Coast Subunit, follows:

Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 1, Olympic Peninsula
Sub-unit: Pacific Coast

Legend

- Critical Habitat
- Counties

Map of Critical Habitat for Bull Trout (Salvelinus confluens)
(x) Chehalis River/Grays Harbor Subunit. [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Chehalis River/Grays Harbor Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 1, Olympic Peninsula
Sub-unit: Chehalis River / Grays Harbor

Legend
- Critical Habitat
- Counties
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 2, Puget Sound
Sub-unit: Chilliwack River

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Chilliwack River Subunit, follows:
(ii) Nooksack River Subunit.

[A] [Reserved for textual description of unit.]

(B) **Note**: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Nooksack River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

*Unit: 2, Puget Sound*

*Sub-unit: Nooksack River*
Unit 2: Puget Sound
Sub-Unit: Nooksack River

1 - Aldrich Creek (#0423)  47 - N. F. Nooksack River
2 - Anderson Creek  48 - Peat Bog Creek (#0352)
3 - Bear Creek  49 - Plumbago Creek
4 - Bear Creek (#0353)  50 - Porter Creek
5 - Bear Lake Outlet (#0317)  51 - Powerhouse Creek
6 - Bell Creek  52 - Racehorse Creek
7 - Bertrand Creek  53 - Rankin Creek
8 - Boulder Creek  54 - Ridley Creek
9 - Boyd Creek  55 - Rocky Creek
10 - Canyon Creek  56 - Saxson Creek
11 - Canyon Creek (Canyon Lake Ck)  57 - Seymour Creek
12 - Cascade Creek  58 - Sister Creek
13 - Cavannah Creek  59 - Skookum Creek
14 - Chainup Creek  60 - Smith Creek
15 - Clearwater Creek  61 - Son of Gallop
16 - Coal Creek  62 - S. F. Nooksack River
17 - Coal Creek (Upper)  63 - Thompson Creek
18 - Cornell Creek  64 - Three Lakes Outlet (#0319)
19 - Davis Creek  65 - Unnamed trib. (#0265)
20 - Deadhorse Creek  66 - Unnamed trib. (#0284)
21 - Deep Creek  67 - Unnamed trib. (#0290)
22 - Deer Creek  68 - Unnamed trib. (#0291)
23 - Deerhorn Creek  69 - Unnamed trib. (#0315)
24 - Ditch Creek  70 - Unnamed trib. (#0316)
25 - Edfro Creek  71 - Unnamed trib. (#0320)
26 - Elbow Creek / Lake Doreen Outlet (#0331)
27 - Falls Creek  72 - Unnamed trib. (#0321)
28 - Fishtrap Creek  73 - Unnamed trib. (#0323)
29 - Fobes Creek  74 - Unnamed trib. (#0332)
30 - Fossil Creek  75 - Unnamed trib. (#0347)
31 - Galbraith Creek  76 - Unnamed trib. (#0349)
32 - Gallop Creek  77 - Unnamed trib. (#0367)
33 - Glacier Creek  78 - Unnamed trib. (#0371)
34 - Green Creek  79 - Unnamed trib. (#0374)
35 - Hedrick Creek  80 - Unnamed trib. (#0425)
36 - Howard Creek  81 - Unnamed trib. (#0476)
37 - Hutchinson Creek  82 - Unnamed trib. downstream Boulder Ck
38 - Kendall Creek  83 - Unnamed trib. downstream Wanlick Ck
39 - Little Creek  84 - Unnamed trib. upstream Wallace Ck
40 - Loomis Creek  85 - Wallace Creek
41 - Maple Creek  86 - Wanlick Creek
42 - McDonald Creek (#0435)  87 - Warm Creek
43 - McGinnis Creek  88 - Wells Creek
44 - M. F. Nooksack River  89 - West Cornell Creek
45 - Monument Creek (#0324)  90 - West Slide Creek (#0422)
46 - Nooksack River  91 - Wildcat Creek
(iii) Skagit River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Skagit River Subunit, follows:

**Critical Habitat for Bull Trout** (*Salvelinus confluentus*)

**Unit: 2, Puget Sound**

**Sub-unit: Lower Skagit River**
<table>
<thead>
<tr>
<th>1. Alder Creek</th>
<th>47. Martin Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Alma Creek</td>
<td>48. Merry Brook Creek</td>
</tr>
<tr>
<td>3. Arrow Creek</td>
<td>49. Milk Creek</td>
</tr>
<tr>
<td>4. Bacon Creek</td>
<td>50. Mill Creek</td>
</tr>
<tr>
<td>5. Baker River</td>
<td>51. Miners Creek</td>
</tr>
<tr>
<td>6. Bald Eagle Creek</td>
<td>52. Newhalem Creek</td>
</tr>
<tr>
<td>7. Bedal Creek</td>
<td>53. Nookachamps Creek</td>
</tr>
<tr>
<td>8. Big Creek</td>
<td>54. North Fork Sauk River</td>
</tr>
<tr>
<td>9. Black Creek</td>
<td>55. North Fork Skagit River</td>
</tr>
<tr>
<td>10. Black Oak Creek</td>
<td>56. O'Toole Creek</td>
</tr>
<tr>
<td>11. Boulder Creek</td>
<td>57. Otter Creek</td>
</tr>
<tr>
<td>12. Buck Creek</td>
<td>58. Owl Creek</td>
</tr>
<tr>
<td>13. Camp Creek</td>
<td>59. Park Creek</td>
</tr>
<tr>
<td>14. Canyon Creek</td>
<td>60. Pass Creek</td>
</tr>
<tr>
<td>15. Cascade River</td>
<td>61. Pressentin Creek</td>
</tr>
<tr>
<td>16. Chocwick Creek</td>
<td>62. Pugh Creek</td>
</tr>
<tr>
<td>17. Corkindale Creek</td>
<td>63. Pumice Creek</td>
</tr>
<tr>
<td>18. Crystal Creek</td>
<td>64. Rocky Creek</td>
</tr>
<tr>
<td>19. Crystal Creek</td>
<td>65. Sauk River</td>
</tr>
<tr>
<td>20. Cumberland Creek</td>
<td>66. Seventysix Gulch</td>
</tr>
<tr>
<td>21. Dan Creek</td>
<td>67. Sibley Creek</td>
</tr>
<tr>
<td>22. Day Creek</td>
<td>68. Skagit River</td>
</tr>
<tr>
<td>23. Diobsd Creek</td>
<td>69. Small Creek</td>
</tr>
<tr>
<td>24. Downey Creek</td>
<td>70. Sonny Boy Creek</td>
</tr>
<tr>
<td>25. Dusty Creek</td>
<td>71. South Fork Cascade River</td>
</tr>
<tr>
<td>26. East Fork Bacon Creek</td>
<td>72. South Fork Sauk River</td>
</tr>
<tr>
<td>27. Elliott Creek</td>
<td>73. South Fork Skagit River</td>
</tr>
<tr>
<td>28. Falls Creek</td>
<td>74. Stetattle Creek</td>
</tr>
<tr>
<td>29. Finney Creek</td>
<td>75. Straight Creek</td>
</tr>
<tr>
<td>30. Fire Creek</td>
<td>76. Suiattle River</td>
</tr>
<tr>
<td>31. Fourteenmile Creek</td>
<td>77. Sulphide Creek</td>
</tr>
<tr>
<td>32. Gilligan Creek</td>
<td>78. Sulphur Creek</td>
</tr>
<tr>
<td>33. Glacier Creek</td>
<td>79. Sulphur Creek (Lake Shannon)</td>
</tr>
<tr>
<td>34. Glacier Creek</td>
<td>80. Swift Creek</td>
</tr>
<tr>
<td>35. Goat Creek</td>
<td>81. Tenas Creek</td>
</tr>
<tr>
<td>36. Goodell Creek</td>
<td>82. Unnamed trib. (#1119)</td>
</tr>
<tr>
<td>37. Grandy Creek</td>
<td>83. Vista Creek</td>
</tr>
<tr>
<td>38. Horse Creek</td>
<td>84. Weden Creek</td>
</tr>
<tr>
<td>39. Illabot Creek</td>
<td>85. White Chuck River</td>
</tr>
<tr>
<td>40. Jackman Creek</td>
<td>86. White Creek</td>
</tr>
<tr>
<td>41. Jones Creek</td>
<td>87. Wiseman Creek</td>
</tr>
<tr>
<td>42. Jordan Creek</td>
<td>88. Baker Lake</td>
</tr>
<tr>
<td>43. Kindy Creek</td>
<td>89. Gorge Lake</td>
</tr>
<tr>
<td>44. Lake Creek</td>
<td>90. Lake Shannon</td>
</tr>
<tr>
<td>45. Lime Creek</td>
<td>46. Marble Creek</td>
</tr>
</tbody>
</table>
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 2, Puget Sound
Sub-unit: Upper Skagit River

(iv) Upper Skagit River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper Skagit River Subunit, follows:

[Map of Critical Habitat for Bull Trout (*Salvelinus confluentus*) showing the Upper Skagit River Subunit with specific streams and features such as Ross Lake and Diablo Lake.]
(v) Stillaguamish River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Stillaguamish River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 2, Puget Sound
Sub-unit: Stillaguamish River
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 2, Puget Sound
Sub-unit: Samish River Subunit

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Samish River Subunit, follows:
(vii) Snohomish–Skykomish River Subunit. 

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Snohomish–Skykomish River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

**Unit: 2, Puget Sound**

**Sub-unit: Snohomish & Skykomish Rivers**

![Map of Critical Habitat for Bull Trout](image_url)

**Legend**

- Critical Habitat
- Counties
(viii) Lake Washington Subunit.
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Lake Washington Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 2, Puget Sound
Sub-unit: Lake Washington

Legend
- Critical Habitat
- Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 2, Puget Sound
Sub-unit: Lower Green River

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Lower Green River Subunit, follows:
Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 2, Puget Sound
Sub-unit: Lower Nisqually River

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lower Nisqually River Subunit, follows:
Critical Habitat for Bull Trout (*Salvelinus confluens*)
Unit: 2, Puget Sound
Sub-unit: Chester Morse Lake

Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Chester Morse Lake Subunit, follows:

Legend
- Critical Habitat
- Counties

Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Chester Morse Lake Subunit, follows:

1 - Boulder Creek
2 - Cabin Creek
3 - Cedar River
4 - Lindsay Creek
5 - North Fork Cedar River
6 - Rack Creek
7 - Rex River
8 - Shotgun Creek
9 - South Fork Cedar River
10 - Unnamed trib. (#0439)
11 - Chester Morse Lake
12 - Masonry Pool
(xii) Puyallup River Subunit.
(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Puyallup River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 2, Puget Sound
Sub-unit: Puyallup River
<table>
<thead>
<tr>
<th>Unit 2: Puget Sound</th>
<th>Sub-Unit: Puyallup River</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Buck Creek</td>
<td>29 - Silver Creek</td>
</tr>
<tr>
<td>2 - Carbon River</td>
<td>30 - Silver Springs</td>
</tr>
<tr>
<td>3 - Chenuis Creek</td>
<td>31 - South Mowich River</td>
</tr>
<tr>
<td>4 - Clearwater River</td>
<td>32 - South Prairie Creek</td>
</tr>
<tr>
<td>5 - Cripple Creek</td>
<td>33 - South Puyallup River</td>
</tr>
<tr>
<td>6 - Crystal Creek</td>
<td>34 - St. Andrews Creek</td>
</tr>
<tr>
<td>7 - Deer Creek</td>
<td>35 - Sunrise Creek</td>
</tr>
<tr>
<td>8 - Discovery Creek</td>
<td>36 - Swift Creek</td>
</tr>
<tr>
<td>9 - Doe Creek</td>
<td>37 - Tolmie Creek</td>
</tr>
<tr>
<td>10 - Falls Creek</td>
<td>38 - Unnamed trib. (#0194)</td>
</tr>
<tr>
<td>11 - Fryingpan Creek</td>
<td>39 - Unnamed trib. (#0217)</td>
</tr>
<tr>
<td>12 - Greenwater River</td>
<td>40 - Unnamed trib. (#0219)</td>
</tr>
<tr>
<td>13 - Hazzard Creek</td>
<td>41 - Unnamed trib. (#0226)</td>
</tr>
<tr>
<td>14 - Huckleberry Creek</td>
<td>42 - Unnamed trib. (#0234)</td>
</tr>
<tr>
<td>15 - Ipsut Creek</td>
<td>43 - Unnamed trib. (#0336)</td>
</tr>
<tr>
<td>16 - June Creek</td>
<td>44 - Unnamed trib. (#0364)</td>
</tr>
<tr>
<td>17 - Kapowsin Creek</td>
<td>45 - Unnamed trib. (#0565)</td>
</tr>
<tr>
<td>18 - Klickitat Creek</td>
<td>46 - Unnamed trib. (LB1) upstream of Crystal Ck</td>
</tr>
<tr>
<td>19 - Lodi Creek</td>
<td>47 - Unnamed trib. (LB2) upstream of Crystal Ck</td>
</tr>
<tr>
<td>20 - Mowich River</td>
<td>48 - Unnamed trib. (RB) upstream of Crystal Ck</td>
</tr>
<tr>
<td>21 - Niesson Creek</td>
<td>49 - Unnamed trib. upstream Chenius Ck</td>
</tr>
<tr>
<td>22 - North Mowich River</td>
<td>50 - Unnamed trib. upstream of (#0214)</td>
</tr>
<tr>
<td>23 - North Puyallup River</td>
<td>51 - Van Horn Creek</td>
</tr>
<tr>
<td>24 - Parallel Creek</td>
<td>52 - Viola Creek</td>
</tr>
<tr>
<td>25 - Poch Creek</td>
<td>53 - West Fork White River</td>
</tr>
<tr>
<td>26 - Puyallup River</td>
<td>54 - White River</td>
</tr>
<tr>
<td>27 - Ranger Creek</td>
<td>55 - Wright Creek</td>
</tr>
<tr>
<td>28 - Shaw Creek</td>
<td>56 - Wrong Creek</td>
</tr>
</tbody>
</table>
(xiii) Puget Sound Marine Subunit.  
(A) [Reserved for textual description of unit.]  

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Puget Sound Marine Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**  
Unit: 2, Puget Sound  
Sub-unit: Puget Sound Marine
(9) Unit 3: Lower Columbia River Basins Unit, Washington. (i) Lewis River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Lewis River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 3, Lower Columbia River Basins

Sub-unit: Lewis River

- 1 - Cougar Creek
- 2 - Drift Creek
- 3 - Lewis River (Lower)
- 4 - Lewis River (Upper)
- 5 - Muddy River
- 6 - Pine Creek
- 7 - Rush Creek
- 8 - Swift Creek
- 9 - Unnamed trib. (‘P10’)
- 10 - Unnamed trib. (‘P7’)
- 11 - Unnamed trib. (‘P8’)
- 12 - Lake Merwin
- 13 - Yale Lake
- 14 - Swift Reservoir

Legend

- Critical Habitat
- Counties
(ii) Klickitat River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Klickitat River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

*Unit: 3, Lower Columbia River Basins  
Sub-unit: Klickitat River*

1 - Clearwater Creek  
2 - Fish Lake Stream  
3 - Klickitat River  
4 - Little Muddy Creek  
5 - Trappers Creek  
6 - Two Lakes Stream  
7 - Unnamed trib. - off Fish Lake Stream  
8 - West Fork Klickitat River

---

**Legend**

- Critical Habitat
- Counties
(iii) White Salmon River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), White Salmon River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 3, Lower Columbia River Basins
Sub-unit: White Salmon River

Legend

Critical Habitat

Counties
(10) Unit 4: Upper Willamette River

(i) [Reserved for textual description of unit.]

(ii) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper Willamette Unit, follows:

**Critical Habitat for Bull Trout** (*Salvelinus confluentus*)

**Unit: 4, Upper Willamette River**
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 5, Hood River
(12) Unit 6: Lower Deschutes River

(i) [Reserved for textual description of unit.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lower Deschutes River Unit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 6, Lower Deschutes River

Legend

Critical Habitat

Counties
(13) Unit 7: Odell Lake Unit, Oregon. (i) [Reserved for textual description of unit.] (ii) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Odell Lake Unit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit: 7, Odell Lake**

![Map of Critical Habitat for Bull Trout](image-url)
(14) Unit 8: Mainstem Lower Columbia River Unit, Oregon and Washington.

(i) [Reserved for textual description of unit.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Mainstem Lower Columbia River Unit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 8, Mainstem Lower Columbia River

Legend
- - - Critical Habitat
--- Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)
Unit: 9, Klamath River Basin
Sub-unit: Upper Klamath Lake

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Klamath Lake Subunit, follows:
(ii) Sycan River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Sycan River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 9, Klamath River Basin
Sub-unit: Sycan River
(iii) Upper Sprague River Subunit. 

Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Upper Sprague River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 9, Klamath River Basin
Sub-unit: Upper Sprague River

Legend

Critical Habitat

Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 10, Upper Columbia River Basins

Sub-unit: Methow River

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Methow River Subunit, follows:

1 - Beaver Creek
2 - Blue Buck Creek
3 - Buttermilk Creek
4 - Cedar Creek
5 - Chewuch River
6 - Crater Creek
7 - Diamond Creek
8 - Drake Creek
9 - E. Fork Buttermilk Creek
10 - Early Winters Creek
11 - Eightmile Creek
12 - Eureka Creek
13 - Foggy Dew Creek
14 - Goat Creek
15 - Gold Creek
16 - Huckleberry Creek
17 - Lake Creek
18 - Lightning Creek
19 - Little Bridge Creek
20 - Lost River
21 - Methow River
22 - Monument Creek
23 - North Fork Gold Creek
24 - North Creek
25 - North Fork Wolf Creek
26 - Pfarmigan Creek
27 - Rattlesnake Creek
28 - Reynolds Creek
29 - Robinson Creek
30 - South Creek
31 - Trout Creek
32 - Twisp River
33 - W. Fork Buttermilk Creek
34 - War Creek
35 - Wolf Creek
36 - Black Lake
37 - Cougar Lake
38 - First Hidden Lake
39 - Middle Hidden Lake

[Map of Critical Habitat]
(ii) Chelan River Subunit. (A) [Reserved for textual description of unit.] (B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Chelan River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 10, Upper Columbia River Basins
Sub-unit: Chelan River

[Map of Critical Habitat for Bull Trout]
(iii) Entiat River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Entiat River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluens)**

Unit: 10, Upper Columbia River Basins

Sub-unit: Entiat River

1 - Entiat River
2 - Mad River
3 - Stormy Creek
4 - Tillicum Creek

Legend
- Critical Habitat
- Counties
(iv) Wenatchee River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Wenatchee River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

Unit: 10, Upper Columbia River Basins

Sub-unit: Wenatchee River

- Alder Creek
- Alpine Creek
- Buck Creek
- Canyon Creek
- Chikamin Creek
- Chiwaukum Creek
- Chiwawa River
- French Creek
- Henry Creek
- Icicle Creek
- Ingalls Creek
- Jack Creek
- James Creek
- Leland Creek
- Little Wenatchee River
- Mill Creek
- Napesqua River
- Nason Creek
- Negro Creek
- Panther Creek
- Peshastin Creek
- Phelps Creek
- Rainy Creek
- Rock Creek
- Wenatchee River
- White River
- Lake Wenatchee

Legend

- Critical Habitat
- Counties
(17) Unit 11: Yakima River Unit. (i) [Reserved for textual description of unit.] (ii) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Yakima River Unit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 11, Yakima River

![Map of Critical Habitat for Bull Trout](image_url)

**Legend**
- Critical Habitat
- Counties

*The index to the numbered waterbodies is included on the next page.*
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ahtanum Creek</td>
</tr>
<tr>
<td>2</td>
<td>American River</td>
</tr>
<tr>
<td>3</td>
<td>Bear Creek</td>
</tr>
<tr>
<td>4</td>
<td>Box Canyon Creek</td>
</tr>
<tr>
<td>5</td>
<td>Bumping River</td>
</tr>
<tr>
<td>6</td>
<td>Camp Creek</td>
</tr>
<tr>
<td>7</td>
<td>Cle Elum River</td>
</tr>
<tr>
<td>8</td>
<td>Cold Creek</td>
</tr>
<tr>
<td>9</td>
<td>Cooper River</td>
</tr>
<tr>
<td>10</td>
<td>Cowiche Creek</td>
</tr>
<tr>
<td>11</td>
<td>Crow Creek</td>
</tr>
<tr>
<td>12</td>
<td>Deep Creek</td>
</tr>
<tr>
<td>13</td>
<td>DeRoux Creek</td>
</tr>
<tr>
<td>14</td>
<td>Dog Creek</td>
</tr>
<tr>
<td>15</td>
<td>Fall Creek</td>
</tr>
<tr>
<td>16</td>
<td>Fortune Creek</td>
</tr>
<tr>
<td>17</td>
<td>Gold Creek</td>
</tr>
<tr>
<td>18</td>
<td>Grey Creek</td>
</tr>
<tr>
<td>19</td>
<td>Hindoo Creek</td>
</tr>
<tr>
<td>20</td>
<td>Indian Creek</td>
</tr>
<tr>
<td>21</td>
<td>Jack Creek</td>
</tr>
<tr>
<td>22</td>
<td>Jungle Creek</td>
</tr>
<tr>
<td>23</td>
<td>Kachess River</td>
</tr>
<tr>
<td>24</td>
<td>Kettle Creek</td>
</tr>
<tr>
<td>25</td>
<td>Little Naches River</td>
</tr>
<tr>
<td>26</td>
<td>Little Rattlesnake Creek</td>
</tr>
<tr>
<td>27</td>
<td>Little Wildcat Creek</td>
</tr>
<tr>
<td>28</td>
<td>M.F. Ahtanum Creek</td>
</tr>
<tr>
<td>29</td>
<td>Middle Fork Teanaway River</td>
</tr>
<tr>
<td>30</td>
<td>Mineral Creek</td>
</tr>
<tr>
<td>31</td>
<td>N. Fork Taneaum Creek</td>
</tr>
<tr>
<td>32</td>
<td>Naches River</td>
</tr>
<tr>
<td>33</td>
<td>North Fork Ahtanum Creek</td>
</tr>
<tr>
<td>34</td>
<td>North Fork Little Naches River</td>
</tr>
<tr>
<td>35</td>
<td>North Fork Rattlesnake Creek</td>
</tr>
<tr>
<td>36</td>
<td>North Fork Teanaway River</td>
</tr>
<tr>
<td>37</td>
<td>North Fork Tieton River</td>
</tr>
<tr>
<td>38</td>
<td>Oak Creek</td>
</tr>
<tr>
<td>39</td>
<td>Pileup Creek</td>
</tr>
<tr>
<td>40</td>
<td>Quartz Creek</td>
</tr>
<tr>
<td>41</td>
<td>Rattlesnake Creek</td>
</tr>
<tr>
<td>42</td>
<td>Reynolds Creek</td>
</tr>
<tr>
<td>43</td>
<td>Rock Creek</td>
</tr>
<tr>
<td>44</td>
<td>S. Fork Taneaum Creek</td>
</tr>
<tr>
<td>45</td>
<td>Shellneck Creek</td>
</tr>
<tr>
<td>46</td>
<td>Short And Dirty Creek</td>
</tr>
<tr>
<td>47</td>
<td>South Fork Ahtanum Creek</td>
</tr>
<tr>
<td>48</td>
<td>South Fork Cowiche Creek</td>
</tr>
<tr>
<td>49</td>
<td>South Fork Little Naches River</td>
</tr>
<tr>
<td>50</td>
<td>South Fork Tieton River</td>
</tr>
<tr>
<td>51</td>
<td>Spruce Creek</td>
</tr>
<tr>
<td>52</td>
<td>Stafford Creek</td>
</tr>
<tr>
<td>53</td>
<td>Swauk Creek</td>
</tr>
<tr>
<td>54</td>
<td>Taneaum Creek</td>
</tr>
<tr>
<td>55</td>
<td>Teanaway River</td>
</tr>
<tr>
<td>56</td>
<td>Tieton River</td>
</tr>
<tr>
<td>57</td>
<td>Timber Creek</td>
</tr>
<tr>
<td>58</td>
<td>Union Creek</td>
</tr>
<tr>
<td>59</td>
<td>Unnamed stream</td>
</tr>
<tr>
<td>60</td>
<td>Waptus River</td>
</tr>
<tr>
<td>61</td>
<td>Yakima River</td>
</tr>
<tr>
<td>62</td>
<td>Bumping Lake</td>
</tr>
<tr>
<td>63</td>
<td>Cle Elum Lake</td>
</tr>
<tr>
<td>64</td>
<td>Clear Lake</td>
</tr>
<tr>
<td>65</td>
<td>Cooper Lake</td>
</tr>
<tr>
<td>66</td>
<td>Easten Lake</td>
</tr>
<tr>
<td>67</td>
<td>Hyas Lake</td>
</tr>
<tr>
<td>68</td>
<td>Kachess Lake</td>
</tr>
<tr>
<td>69</td>
<td>Keechelus Lake</td>
</tr>
<tr>
<td>70</td>
<td>Waptus Lake</td>
</tr>
<tr>
<td>71</td>
<td>Rimrock Lake</td>
</tr>
</tbody>
</table>
Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 12, John Day River
Sub-unit: Lower Mainstem John Day River

(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lower Mainstem John Day River Subunit follows:
(ii) Middle Fork John Day River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Middle Fork John Day River Subunit follows:

![Map of Critical Habitat for Bull Trout (*Salvelinus confluentus*)](image)

- Map shows critical habitat units along the Middle Fork John Day River, with specific areas marked for protection.
- Legend includes symbols for critical habitat and counties, aiding in the identification of protected areas.

---

Legend:
- **Critical Habitat**
- **Counties**

1. Big Creek
2. Butte Creek
3. Clear Creek
4. Deadwood Creek
5. Granite Boulder Creek
6. Middle Fork John Day River
7. Vinegar Creek
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 12, John Day River

Sub-unit: North Fork John Day River

(iii) North Fork John Day River Subunit

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), North Fork John Day River Subunit, follows
(iv) Upper Mainstem John Day River Subunit.  
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper Mainstem John Day River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 12, John Day River

Sub-unit: Upper Mainstem John Day River
(19) Unit 13: Umatilla River Unit, Oregon. (i) [Reserved for textual description of unit.] (ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Umatilla River Unit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 13, Umatilla River

Legend

Critical Habitat

Counties

MAP OF CRITICAL HABITAT FOR BULL TROUT (Salvelinus confluentus), UNIT 13, UMATILLA RIVER, OREGON

1 - Coyote Creek
2 - Meacham Creek
3 - North Fork Meacham Creek
4 - North Fork Umatilla River
5 - Pot Creek
6 - Ryan Creek
7 - Umatilla River
8 - Woodward Creek
(20) Unit 14: Walla Walla River Basin Critical Habitat Unit, Oregon and Washington. (i) Walla Walla River Subunit. (A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Walla Walla River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 14, Walla Walla River Basin

Sub-unit: Walla Walla River
(ii) Touchet River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Touchet River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 14, Walla Walla River Basin
Sub-unit: Touchet River

Legend

- Critical Habitat
- Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 15, Lower Snake River Basins
Sub-unit: Tucannon River
Critical Habitat for Bull Trout (*Salvelinus confluens*)
Unit: 15, Lower Snake River Basins
Sub-unit: Asotin Creek

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Asotin Creek Subunit, follows:
(22) Unit 16: Grande Ronde River (i) [Reserved for textual description of Unit, Oregon and Washington.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Grande Ronde River Unit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

Unit: 16, Grande Ronde River

Map showing critical habitat for bull trout on the Grande Ronde River in Oregon and Washington. The map includes labeled streams and rivers such as Bear Creek, Beaver Creek, Boulder Creek, Butte Creek, Camp Creek, Catherine Creek, Chicken Creek, Clear Creek, Collins Creek, Crooked Creek, Deer Creek, Dobbin Creek, East Fork Butte Creek, East Fork Elk Creek, East Fork Indian Creek, East Fork Wallowa River, East Sheep Creek, Elk Creek, Fiddlers Hell Creek, First Creek, Five Points Creek, Fly Creek, Goat Creek, Grande Ronde River, Hurricane Creek, Indian Creek, Indiana Creek, Lake Creek, Limber Jim Creek, Little Bear Creek, Little Fly Creek, Little Lookingglass Creek, Little Minam River, Lookingglass Creek, Lookout Creek, Lostine River, Marion Creek, Menathee Creek, Middle Fork Catherine Creek, Middle Fork Five Points Creek, Milk Creek, Minam River, Mt Emily Creek, North Fork Catherine Creek, North Fork Indian Creek, North Fork Wallowa River, North Minam River, Pole Creek, Sage Creek, Sand Pass Creek, Sheep Creek, Silver Creek, South Fork Catherine Creek, South Fork Wallowa River, Summer Creek, Third Creek, Tie Creek, Trout Creek, UNNAMED - off Clear Creek, Wallowa River, Wenaha River, West Fork Butte Creek, West Fork Wallowa River, Wallowa Lake.
Critical Habitat for Bull Trout (*Salvelinus confluens*
*)

Unit: 17, Imnaha River Basin

1 - Bear Creek
2 - Big Sheep Creek
3 - Blue Creek
4 - Cabin Creek
5 - Cliff Creek
6 - Imnaha River
7 - Lick Creek
8 - Little Sheep Creek
9 - McCully Creek
10 - Middle Fork Big Sheep Creek
11 - Middle Fork Imnaha River
12 - North Fork Imnaha River
13 - Redmont Creek
14 - Salt Creek
15 - Soldier Creek
16 - South Fork Imnaha River
17 - UNNAMED - off Lick Creek

Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Imnaha River Unit, follows:
Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 18, Sheep / Granite Creeks
Critical Habitat for Bull Trout \textit{(Salvelinus confluentus)}

Unit: 19, Hells Canyon
Sub-unit: Indian Creek

\textbf{Map of Critical Habitat for Unit, Oregon.}

\textbf{Note:} Map of Critical Habitat for the bull trout \textit{(Salvelinus confluentus)}, Indian Creek Subunit, follows:
(ii) Pine Creek Subunit.

[A] [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Pine Creek Subunit, follows:

---

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 19, Hells Canyon
Sub-unit: Pine Creek

---

**Legend**

- Critical Habitat
- Counties

---

1 - Aspen Creek
2 - Big Elk Creek
3 - Cabin Creek
4 - Clear Creek
5 - Duck Creek
6 - East Fork Of East Pine Creek
7 - East Fork Pine Creek
8 - East Pine Creek
9 - Elk Creek
10 - Fall Creek
11 - Fish Creek
12 - Lake Fork
13 - Little Elk Creek
14 - Meadow Creek
15 - Middle Fork Pine Creek
16 - North Pine Creek
17 - Okanogan Creek
18 - Pine Creek
19 - Trail Creek
20 - Trinity Creek
21 - UNNAMED - off East Pine Creek
22 - West Fork Pine Creek
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 19, Hells Canyon
Sub-unit: Wildhorse River

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Wildhorse River Subunit, follows:

Legend
- Critical Habitat
- Counties
(26) Unit 20: Powder River Basin

(i) [Reserved for textual description of Unit, Oregon.]

(ii) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Powder River Basin Unit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit: 20, Powder River Basin**

![Map of Critical Habitat for Bull Trout](image-url)
(27) Unit 21: Clearwater River Unit, Idaho. Middle–Lower Fork Clearwater River Subunit, follows:  

(A) [Reserved for textual description of unit.]  

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*),
(ii) South Fork Clearwater River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), South Fork Clearwater River Subunit, follows:

---

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit:** 21, Clearwater River

**Sub-unit:** South Fork Clearwater River

---

*The index to the numbered waterbodies*
### Unit: 21, Clearwater River

#### Sub-unit: South Fork Cleanwater River

<table>
<thead>
<tr>
<th>Creek Name</th>
<th>Creek Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - American River</td>
<td>28 - Newsome Creek</td>
</tr>
<tr>
<td>2 - Baldy Creek</td>
<td>29 - Open Creek</td>
</tr>
<tr>
<td>3 - Baston Creek</td>
<td>30 - Otterson Creek</td>
</tr>
<tr>
<td>4 - Bear Creek</td>
<td>31 - Pilot Creek</td>
</tr>
<tr>
<td>5 - Beaver Creek</td>
<td>32 - Red Horse Creek</td>
</tr>
<tr>
<td>6 - Bridge Creek</td>
<td>33 - Red River</td>
</tr>
<tr>
<td>7 - Crooked River</td>
<td>34 - Relief Creek</td>
</tr>
<tr>
<td>8 - Dawson Creek</td>
<td>35 - Sawmill Creek</td>
</tr>
<tr>
<td>9 - Ditch Creek</td>
<td>36 - Siegel Creek</td>
</tr>
<tr>
<td>10 - E.Fk. American River</td>
<td>37 - Silver Creek</td>
</tr>
<tr>
<td>11 - East Fork Crooked River</td>
<td>38 - Sixmile Creek</td>
</tr>
<tr>
<td>12 - Elk Creek</td>
<td>39 - Soda Creek</td>
</tr>
<tr>
<td>13 - Flint Creek</td>
<td>40 - South Fork Cleanwater River</td>
</tr>
<tr>
<td>14 - Gospel Creek</td>
<td>41 - South Fork Red River</td>
</tr>
<tr>
<td>15 - Hagen Creek</td>
<td>42 - Taylor Creek</td>
</tr>
<tr>
<td>16 - Johns Creek</td>
<td>43 - Tenmile Creek</td>
</tr>
<tr>
<td>17 - Kirks Fk. American River</td>
<td>44 - Trapper Creek</td>
</tr>
<tr>
<td>18 - Lick Creek</td>
<td>45 - Twin Lakes Creek</td>
</tr>
<tr>
<td>19 - Little Elk Creek</td>
<td>46 - UNNAMED - off West Fork Crooked River</td>
</tr>
<tr>
<td>20 - Little Moose Creek</td>
<td>47 - UNNAMED 1 - off Pilot Creek</td>
</tr>
<tr>
<td>21 - Melton Creek</td>
<td>48 - UNNAMED 2 - off Pilot Creek</td>
</tr>
<tr>
<td>22 - Middle Fork Red River</td>
<td>49 - W.Fk. American River</td>
</tr>
<tr>
<td>23 - Mill Creek</td>
<td>50 - West Fork Crooked River</td>
</tr>
<tr>
<td>24 - Moores Creek</td>
<td>51 - West Fork Newsome Creek</td>
</tr>
<tr>
<td>25 - Moores Lake Creek</td>
<td>52 - West Fork Red River</td>
</tr>
<tr>
<td>26 - Moose Butte Creek</td>
<td>53 - Williams Creek</td>
</tr>
<tr>
<td>27 - Mule Creek</td>
<td>54 - Wiseboy Creek</td>
</tr>
</tbody>
</table>
(iii) Selway River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Selway River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 21, Clearwater River
Sub-unit: Selway River

![Map of Critical Habitat for Bull Trout (*Salvelinus confluentus*)](image)
<table>
<thead>
<tr>
<th></th>
<th>Creek Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bear Creek</td>
</tr>
<tr>
<td>2</td>
<td>Brushy Fork Creek</td>
</tr>
<tr>
<td>3</td>
<td>Burnt Knob Creek</td>
</tr>
<tr>
<td>4</td>
<td>Burnt Strip Creek</td>
</tr>
<tr>
<td>5</td>
<td>Canyon Creek</td>
</tr>
<tr>
<td>6</td>
<td>Cayuse Creek</td>
</tr>
<tr>
<td>7</td>
<td>Cedar Creek</td>
</tr>
<tr>
<td>8</td>
<td>Cub Creek</td>
</tr>
<tr>
<td>9</td>
<td>Deep Creek</td>
</tr>
<tr>
<td>10</td>
<td>E.Fk. Meadow Creek</td>
</tr>
<tr>
<td>11</td>
<td>E.Fk. O'Hara Creek</td>
</tr>
<tr>
<td>12</td>
<td>Eagle Creek</td>
</tr>
<tr>
<td>13</td>
<td>East Fork Moose Creek</td>
</tr>
<tr>
<td>14</td>
<td>Flat Creek</td>
</tr>
<tr>
<td>15</td>
<td>French Creek</td>
</tr>
<tr>
<td>16</td>
<td>Gabe Creek</td>
</tr>
<tr>
<td>17</td>
<td>Gedney Creek</td>
</tr>
<tr>
<td>18</td>
<td>Gold Pan Creek</td>
</tr>
<tr>
<td>19</td>
<td>Hells Half Acre Creek</td>
</tr>
<tr>
<td>20</td>
<td>Indian Creek</td>
</tr>
<tr>
<td>21</td>
<td>Jack Creek</td>
</tr>
<tr>
<td>22</td>
<td>Kim Creek</td>
</tr>
<tr>
<td>23</td>
<td>Lazy Creek</td>
</tr>
<tr>
<td>24</td>
<td>Little Clearwater River</td>
</tr>
<tr>
<td>25</td>
<td>Lynx Creek</td>
</tr>
<tr>
<td>26</td>
<td>Magruder Creek</td>
</tr>
<tr>
<td>27</td>
<td>Marten Creek</td>
</tr>
<tr>
<td>28</td>
<td>Meadow Creek</td>
</tr>
<tr>
<td>29</td>
<td>Mist Creek</td>
</tr>
<tr>
<td>30</td>
<td>Moose Creek</td>
</tr>
<tr>
<td>31</td>
<td>North Fork Moose Creek</td>
</tr>
<tr>
<td>32</td>
<td>O'Hara Creek</td>
</tr>
<tr>
<td>33</td>
<td>Paradise Creek</td>
</tr>
<tr>
<td>34</td>
<td>Pete Creek</td>
</tr>
<tr>
<td>35</td>
<td>Rhoda Creek</td>
</tr>
<tr>
<td>36</td>
<td>Running Creek</td>
</tr>
<tr>
<td>37</td>
<td>S.Fk. Running Creek</td>
</tr>
<tr>
<td>38</td>
<td>S.Fk. Surprise Creek</td>
</tr>
<tr>
<td>39</td>
<td>Saddle Gulch</td>
</tr>
<tr>
<td>40</td>
<td>Salamander Creek</td>
</tr>
<tr>
<td>41</td>
<td>Schofield Creek</td>
</tr>
<tr>
<td>42</td>
<td>Schwar Creek</td>
</tr>
<tr>
<td>43</td>
<td>Selway River</td>
</tr>
<tr>
<td>44</td>
<td>Slow Gulch Creek</td>
</tr>
<tr>
<td>45</td>
<td>Storm Creek</td>
</tr>
<tr>
<td>46</td>
<td>Stripe Creek</td>
</tr>
<tr>
<td>47</td>
<td>Surprise Creek</td>
</tr>
<tr>
<td>48</td>
<td>Swet Creek</td>
</tr>
<tr>
<td>49</td>
<td>Three Lakes Creek</td>
</tr>
<tr>
<td>50</td>
<td>Tom Creek</td>
</tr>
<tr>
<td>51</td>
<td>Vance Creek</td>
</tr>
<tr>
<td>52</td>
<td>W.Fk. Gedney Creek</td>
</tr>
<tr>
<td>53</td>
<td>W.Fk. O'Hara Creek</td>
</tr>
<tr>
<td>54</td>
<td>White Cap Creek</td>
</tr>
<tr>
<td>55</td>
<td>Wilkerson Creek</td>
</tr>
<tr>
<td>56</td>
<td>Wounded Doe Creek</td>
</tr>
</tbody>
</table>
(iv) Lochsa River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lochsa River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 21, Clearwater River
Sub-unit: Lochsa River

Legend

- Critical Habitat

- Counties

* The index to the numbered waterbodies
Unit: 21, Clearwater River
Sub-unit: Lochsa River

1 - Beaver Creek
2 - Big Flat Creek
3 - Boulder Creek
4 - Brushy Fork
5 - Colt Creek
6 - Colt Killed Creek
7 - Cooperation Creek
8 - Crooked Fork
9 - Doe Creek
10 - E.Fk. Fishing Creek
11 - East Fork Legendary Bear Creek
12 - Fish Creek
13 - Fish Lake Creek
14 - Fishing Creek
15 - Fox Creek
16 - Haskell Creek
17 - Hopeful Creek
18 - Hungery Creek
19 - Indian Grave Creek
20 - Legendary Bear Creek
21 - Lochsa River
22 - Maud Creek
23 - N.Fk. Spruce Creek
24 - Parachute Creek
25 - Postoffice Creek
26 - Rock Creek
27 - S.Fk. Spruce Creek
28 - Shoot Creek
29 - Shotgun Creek
30 - Spring Creek
31 - Spruce Creek
32 - Storm Creek
33 - Twin Creek
34 - UNNAMED - off Hopeful Creek
35 - W.Fk. Fishing Creek
36 - Walton Creek
37 - Warm Springs Creek
38 - Weir Creek
39 - West Fork Legendary Bear Creek
40 - Williams Lake Creek
41 - Fish Lake (Lochsa)
(v) North Fork Clearwater River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), North Fork Clearwater Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluens*)**

Unit: 21, Clearwater River

Sub-unit: North Fork Clearwater River

![Map of Critical Habitat for Bull Trout](image_url)

**Legend**

- Critical Habitat
- Counties

*The index to the numbered waterbodies is included on the next page.*
Unit: 21, Clearwater River
Sub-unit: North Fork Clearwater River

1 - Adair Creek
2 - Bear Creek
3 - Beaver Creek
4 - Bill Creek
5 - Bostonian Creek
6 - Boundary Creek
7 - Breakfast Creek
8 - Buck Creek
9 - Butte Creek (North Fork Clearwater)
10 - Canyon Creek
11 - Cayuse Creek
12 - Chamberlain Creek
13 - Collins Creek
14 - Corral Creek
15 - Floodwood Creek
16 - Foehl Creek
17 - Fourth of July Creek
18 - Fro Creek
19 - Frost Creek
20 - Glover Creek
21 - Goose Creek
22 - Graves Creek
23 - Isabella Creek
24 - Johnagan Creek
25 - Johnny Creek
26 - Jungle Creek
27 - Kelly Creek
28 - Kid Lake Creek
29 - Lake Creek
30 - Little Lost Lake Creek
31 - Little Moose Creek
32 - Little North Fork Clearwater River
33 - Little Weitas Creek
34 - Liz Creek
35 - Long Creek
36 - Lost Lake Creek
37 - Lund Creek
38 - Meadow Creek
39 - Middle Fork Kelly Creek
40 - Mink Creek
41 - Montana Cr
42 - Moose Creek
43 - Niagra Gulch
44 - North Fork Clearwater River
45 - North Fork Kelly Creek
46 - Orogrande Creek
47 - Osier Creek
48 - Placer Creek
49 - Pollock Creek
50 - Quartz Creek
51 - Rawhide Creek
52 - Roaring Creek
53 - Rocky Run
54 - Ruby Creek
55 - Rutledge Creek
56 - Short Creek
57 - Shot Creek
58 - Silver Creek
59 - Skull Creek
60 - Slate Creek
61 - South Fork Kelly Creek
62 - Stoney Creek
63 - Sugar Creek
64 - Swamp Creek
65 - UNNAMED - off Long Creek
66 - Vanderbilt Gulch
67 - Weasel Creek
68 - Weitas Creek
69 - West Fork Floodwood Creek
70 - Windy Creek
71 - Dworshak Reservoir
72 - Fish Lake
(28) Unit 22: Mainstem Upper Columbia River Unit, Oregon and Washington. (i) [Reserved for textual description of unit.] (ii) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper Columbia River Unit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**  
Unit: 22, Mainstem Upper Columbia River
(29) Unit 23: Mainstem Snake River

(i) [Reserved for textual description of Unit, Idaho, Oregon, and Washington.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Mainstem Snake River Unit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 23, Mainstem Snake River

Map of Critical Habitat for Bull Trout (Salvelinus confluentus), Mainstem Snake River Unit.
Critical Habitat for Bull Trout \textit{(Salvelinus confluens)}

Unit: 24, Malheur River Basin

Note: Map of Critical Habitat for the bull trout \textit{(Salvelinus confluens)}, Malheur River Basin Unit, follows:
(31) Unit 25: Jarbridge River Unit, Idaho and Nevada.

(i) [Reserved for textual description of unit.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Jarbridge River Unit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 25, Jarbridge River

Legend

~ Critical Habitat

- - - Counties
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 26, Southwest Idaho River Basins

Sub-unit: Weiser River

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Weiser River Subunit, follows:

![Map of Critical Habitat for Bull Trout (Salvelinus confluentus)](image-url)
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 26, Southwest Idaho River Basins

Sub-unit: Squaw Creek

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Squaw Creek Subunit, follows:

![Critical Habitat Map](image-url)
(iii) North Fork Payette River Subunit. 

(A) [Reserved for textual description of unit.]

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), North Fork Payette River Subunit, follows:

---

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit:** 26, Southwest Idaho River Basins

**Sub-unit:** North Fork Payette River

---

[Map of Critical Habitat for North Fork Payette River Subunit]
(iv) Middle Fork Payette River Subunit.
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Middle Fork Payette River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**
Unit: 26, Southwest Idaho River Basins
Sub-unit: Middle Fork Payette River

![Map of Critical Habitat for Bull Trout (Salvelinus confluentus)](image)

Legend
- Critical Habitat
- Counties

1 - Bull Creek
2 - Lightning Creek
3 - Long Fork Silver Creek
4 - Middle Fork Payette River
5 - Onion Creek
6 - Oxtail Creek
7 - Peace Creek
8 - Silver Creek
9 - Sixteen-to-one Creek
10 - Ucon Creek
11 - UNNAMED
12 - UNNAMED
13 - Valley Creek
(v) Upper South Fork Payette River Subunit. [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper South Fork Payette River Subunit, follows:

---

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit:** 26, Southwest Idaho River Basins

**Sub-unit:** Upper South Fork Payette River

---

*The index to the numbered waterbodies is included on the next page.*
### Unit: 26, Southwest Idaho River Basins
### Sub-Unit: Upper South Fork Payette River Unit

<table>
<thead>
<tr>
<th>Creek Name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baron Creek</td>
<td>1</td>
</tr>
<tr>
<td>Canyon Creek</td>
<td>2</td>
</tr>
<tr>
<td>Chapman Creek</td>
<td>3</td>
</tr>
<tr>
<td>Clear Creek</td>
<td>4</td>
</tr>
<tr>
<td>Deadwood River</td>
<td>5</td>
</tr>
<tr>
<td>East Fork Eightmile Creek</td>
<td>6</td>
</tr>
<tr>
<td>East Fork Warm Springs Creek</td>
<td>7</td>
</tr>
<tr>
<td>Eightmile Creek</td>
<td>8</td>
</tr>
<tr>
<td>Garney Creek</td>
<td>9</td>
</tr>
<tr>
<td>Gates Creek</td>
<td>10</td>
</tr>
<tr>
<td>Horseshoe Creek</td>
<td>11</td>
</tr>
<tr>
<td>Kettle Creek</td>
<td>12</td>
</tr>
<tr>
<td>Long Creek</td>
<td>13</td>
</tr>
<tr>
<td>Middle Fork Warm Springs Creek</td>
<td>14</td>
</tr>
<tr>
<td>Ninemile Creek</td>
<td>15</td>
</tr>
<tr>
<td>No Man Creek</td>
<td>16</td>
</tr>
<tr>
<td>North Fork Baron Creek</td>
<td>17</td>
</tr>
<tr>
<td>North Fork Canyon Creek</td>
<td>18</td>
</tr>
<tr>
<td>North Fork Whitehawk Creek</td>
<td>19</td>
</tr>
<tr>
<td>Packsaddle Creek</td>
<td>20</td>
</tr>
<tr>
<td>Scott Creek</td>
<td>21</td>
</tr>
<tr>
<td>Smith Creek</td>
<td>22</td>
</tr>
<tr>
<td>South Fork Canyon Creek</td>
<td>23</td>
</tr>
<tr>
<td>South Fork Clear Creek</td>
<td>24</td>
</tr>
<tr>
<td>South Fork Payette River</td>
<td>25</td>
</tr>
<tr>
<td>South Fork Scott Creek</td>
<td>26</td>
</tr>
<tr>
<td>Tenmile Creek</td>
<td>27</td>
</tr>
<tr>
<td>Trail Creek</td>
<td>28</td>
</tr>
<tr>
<td>Unnamed - off East Fork Warm Springs Creek</td>
<td>30</td>
</tr>
<tr>
<td>Unnamed - off Long Creek</td>
<td>31</td>
</tr>
<tr>
<td>Unnamed - off Middle Fork Warm Springs Creek</td>
<td>32</td>
</tr>
<tr>
<td>Unnamed - off North Fork Canyon Creek</td>
<td>33</td>
</tr>
<tr>
<td>Unnamed 1 - off Deadwood River</td>
<td>34</td>
</tr>
<tr>
<td>Unnamed 1 - off Eightmile Creek</td>
<td>35</td>
</tr>
<tr>
<td>Unnamed 1 - off Tenmile Creek</td>
<td>36</td>
</tr>
<tr>
<td>Unnamed 1a - off Eightmile Creek</td>
<td>37</td>
</tr>
<tr>
<td>Unnamed 2 - off Deadwood River</td>
<td>38</td>
</tr>
<tr>
<td>Unnamed 2 - off Eightmile Creek</td>
<td>39</td>
</tr>
<tr>
<td>Unnamed 2 - off Tenmile Creek</td>
<td>40</td>
</tr>
<tr>
<td>Unnamed 3 - off Tenmile Creek</td>
<td>41</td>
</tr>
<tr>
<td>Wapiti Creek</td>
<td>42</td>
</tr>
<tr>
<td>Warm Spring Creek</td>
<td>43</td>
</tr>
<tr>
<td>Warm Springs Creek</td>
<td>44</td>
</tr>
<tr>
<td>Whitehawk Creek</td>
<td>45</td>
</tr>
<tr>
<td>Wilson Creek</td>
<td>46</td>
</tr>
</tbody>
</table>
(vi) Deadwood River Subunit.  
(A) [Reserved for textual description of unit.]  

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Deadwood River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)  
Unit: 26, Southwest Idaho River Basins  
Sub-unit: Deadwood River  

Legend  
- - Critical Habitat  
- - - Counties  

1 - Basin Creek  
2 - Beaver Creek  
3 - Bitter Creek  
4 - Daisy Creek  
5 - Deadwood River  
6 - Deer Creek  
7 - East Fork Deadwood River  
8 - Goat Creek  
9 - Habitat Creek  
10 - North Fork Deer Creek  
11 - South Fork Beaver Creek  
12 - Stratton Creek  
13 - Trail Creek  
14 - UNNAMED - off Beaver Creek  
15 - UNNAMED - off South Fork Beaver Creek  
16 - UNNAMED 1 - off Deer Creek  
17 - UNNAMED 2 - off Deer Creek  
18 - UNNAMED 3 - off Deer Creek  
19 - Wild Buck Creek  
20 - Deadwood Reservoir  

Map of Critical Habitat for the bull trout (Salvelinus confluentus), Deadwood River Subunit.
(vii) Arrowrock Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Arrowrock Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluens)**

Unit: 26, Southwest Idaho River Basins

Sub-unit: Arrowrock Reservoir

---

* The index to the numbered waterbodies

Legend

- - - - - - Critical Habitat
----- - - Counties

10 Miles

10 Kilometers
Unit: 26, Southwest Idaho River Basins
Sub-unit: Arrowrock Reservoir

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bald Mountain Creek</td>
</tr>
<tr>
<td>2</td>
<td>Ballentyne Creek</td>
</tr>
<tr>
<td>3</td>
<td>Banner Creek</td>
</tr>
<tr>
<td>4</td>
<td>Bear Creek</td>
</tr>
<tr>
<td>5</td>
<td>Bear River</td>
</tr>
<tr>
<td>6</td>
<td>Big Silver Creek</td>
</tr>
<tr>
<td>7</td>
<td>Black Warrior Creek</td>
</tr>
<tr>
<td>8</td>
<td>Boise River</td>
</tr>
<tr>
<td>9</td>
<td>Buck Creek</td>
</tr>
<tr>
<td>10</td>
<td>Corbus Creek</td>
</tr>
<tr>
<td>11</td>
<td>Cow Creek</td>
</tr>
<tr>
<td>12</td>
<td>Crooked River</td>
</tr>
<tr>
<td>13</td>
<td>Cub Creek</td>
</tr>
<tr>
<td>14</td>
<td>Decker Creek</td>
</tr>
<tr>
<td>15</td>
<td>Devils Creek</td>
</tr>
<tr>
<td>16</td>
<td>East Fork Roaring River</td>
</tr>
<tr>
<td>17</td>
<td>East Fork Sheep Creek</td>
</tr>
<tr>
<td>18</td>
<td>East Fork Yuba River</td>
</tr>
<tr>
<td>19</td>
<td>Flytrip Creek</td>
</tr>
<tr>
<td>20</td>
<td>French Creek</td>
</tr>
<tr>
<td>21</td>
<td>Grouse Creek</td>
</tr>
<tr>
<td>22</td>
<td>Hungarian Creek</td>
</tr>
<tr>
<td>23</td>
<td>Johnson Creek</td>
</tr>
<tr>
<td>24</td>
<td>Little Queens River</td>
</tr>
<tr>
<td>25</td>
<td>Little Rattlesnake Creek</td>
</tr>
<tr>
<td>26</td>
<td>Little Silver Creek</td>
</tr>
<tr>
<td>27</td>
<td>Lodgepole Creek</td>
</tr>
<tr>
<td>28</td>
<td>Louise Creek</td>
</tr>
<tr>
<td>29</td>
<td>Mattingly Creek</td>
</tr>
<tr>
<td>30</td>
<td>McLeod Creek</td>
</tr>
<tr>
<td>31</td>
<td>McPhearson Creek</td>
</tr>
<tr>
<td>32</td>
<td>Meadow Creek</td>
</tr>
<tr>
<td>33</td>
<td>Middle Fork Boise River</td>
</tr>
<tr>
<td>34</td>
<td>Middle Fork Roaring River</td>
</tr>
<tr>
<td>35</td>
<td>North Fork Boise River</td>
</tr>
<tr>
<td>36</td>
<td>Pikes Fork</td>
</tr>
</tbody>
</table>

37 - Queens River
38 - Rabbit Creek
39 - Rattlesnake Creek
40 - Right Creek
41 - Roaring River
42 - Rock Creek
43 - Rockey Creek
44 - Russel Gulch
45 - Sawmill Creek
46 - Scenic Creek
47 - Scotch Creek
48 - Scott Creek
49 - Sheep Creek
50 - South Fork Boise River
51 - South Fork Cub Creek
52 - Trail Creek
53 - Trail Creek-Yuba
54 - Tripod Creek
55 - UNNAMED
56 - Unnamed
57 - Unnamed
58 - Unnamed
59 - Unnamed
60 - UNNAMED
61 - UNNAMED
62 - UNNAMED
63 - Unnamed
64 - Unnamed
65 - UNNAMED
66 - UNNAMED - off Black Warrior Creek
67 - West Fork Creek
68 - West Warrior Creek
69 - Willow Creek
70 - Yuba River
71 - Arrowrock Reservoir
(viii) Anderson Ranch Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Anderson Ranch Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluens)**

Unit: 26, Southwest Idaho River Basins
Sub-unit: Anderson Ranch Reservoir

[Map of Critical Habitat for Bull Trout (Salvelinus confluens)]
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 27, Salmon River Basin
Sub-unit: Little-Lower Salmon River

(A) [Reserved for textual description of unit.]

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Little-Lower Salmon Subunit, follows:

[Map of Critical Habitat for Bull Trout]
Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit 27 - Salmon River Basin
Sub-unit - South Fork Salmon River

(ii) South Fork Salmon River Subunit.

(A) [Reserved for textual description of unit.]

(B) **Note:** Map of Critical Habitat for South Fork Salmon River Subunit, follows:

*The index to the numbered waterbodies is included on the next page.*

**Legend**

- Critical Habitat
- Counties
Unit 27 - Salmon River Basin
Sub-unit – South Fork Salmon River

1 - Alez Creek 86 - Oompaul Creek
2 - Back Creek 87 - Paradise Creek
3 - Bear Creek 88 - Park Creek
4 - Bear Creek 89 - Parks Creek
5 - Bear Creek 90 - Peanut Creek
6 - Big Buck Creek 91 - Pepper Creek
7 - Big Flat Creek 92 - Piah Creek
8 - Bishop Creek 93 - Pony Creek
9 - Blackmare Creek 94 - Porcupine Creek
10 - Blue Lake Creek 95 - Profile Creek
11 - Boulder Creek 96 - Quartz Creek
12 - Buck Creek 97 - Raines Creek
13 - Buckhorn Creek 98 - Rattlesnake Creek
14 - Bum Creek 99 - Reeves Creek
15 - Burgdorf Creek 100 - Rice Creek
16 - Burntlog Creek 101 - Riordan Creek
17 - Cabin Creek 102 - Rock Creek
18 - Camp Creek 103 - Rooster Creek
19 - Camp Creek 104 - Ruby Creek
20 - Camp Creek 105 - Rustic Creek
21 - Cane Creek 106 - Ryan Creek
22 - Carlson Creek 107 - Salt Creek
23 - Caton Creek 108 - Sand Creek
24 - Chicken Creek 109 - Sand Creek
25 - Cinnabar Creek 110 - Secosh River
26 - Cliff Creek 111 - Sheep Creek
27 - Cougar Creek 112 - Sheep Creek
28 - Curtis Creek 113 - Six-Bit Creek
29 - Deep Creek 114 - Smith Creek
30 - Dollar Creek 115 - South Fork Bear Creek
31 - Dutch Creek 116 - South Fork Blackmare Creek
32 - East Fork Burntlog Creek 117 - South Fork Buckhorn Creek
33 - East Fork South Fork Salmon River 118 - South Fork Elk Creek
34 - Elk Creek 119 - South Fork Fitsum Creek
35 - Enos Creek 120 - South Fork Fourmile Creek
36 - Falls Creek 121 - South Fork Salmon River
37 - Fernan Creek 122 - South Fork Sheep Creek
38 - Fiddle Creek 123 - South Fork Threemile Creek
39 - Fitsum Creek 124 - Split Creek
40 - Flat Creek 125 - Station Creek
41 - Fourmile Creek 126 - Sugar Creek
42 - Fritser Creek 127 - Summit Creek
43 - Grimmet Creek 128 - Tamarack Creek
44 - Grouse Creek 129 - Threemile Creek
45 - Grouse Creek 130 - Tie Creek
46 - Halfway Creek 131 - Trail Creek
47 - Hanson Creek 132 - Trapper Creek
| 48 - Holdover Creek | 133 - Trout Creek |
| 49 - Hum Creek | 134 - Two-bit Creek |
| 50 - Indian Creek | 135 - Tyndall Creek |
| 51 - Jeanette Creek | 136 - UNNAMED - Off Rice Creek |
| 52 - Johnson Creek | 137 - UNNAMED - Off South Fork Salmon River |
| 53 - Josephine Creek | 138 - UNNAMED - Off Trail Creek |
| 54 - Jungle Creek | 139 - UNNAMED 1 - Off Curtis Creek |
| 55 - Knee Creek | 140 - UNNAMED 2 - Off Curtis Creek |
| 56 - Krassel Creek | 141 - Unnamed Trib 1-Off Trapper Creek |
| 57 - Lake Creek | 142 - Unnamed Trib 2-Off Trapper Creek |
| 58 - Landmark Creek | 143 - UNNAMED Trib 3- Off Trapper Creek |
| 59 - Lick Creek | 144 - Unnamed Tributary to West Fork Elk Creek |
| 60 - Little Buck Creek | 145 - Unnamed-Off Buck Creek |
| 61 - Little Buckhorn Creek | 146 - Unnamed-Off Burntlog Creek |
| 62 - Little Indian Creek | 147 - Unnamed-Off Mormon Creek |
| 63 - Lodgepole Creek | 148 - Unnamed-Off Unnamed to Buck Creek |
| 64 - Loon Creek | 149 - Unnamed-Off Unnamed to Burntlog Creek |
| 65 - Loosum Creek | 150 - Vein Creek |
| 66 - Meadow Creek | 151 - Victor Creek |
| 67 - Mill Creek | 152 - Wardenhoff Creek |
| 68 - Missouri Creek | 153 - Warm Lake Creek |
| 69 - Moose Creek | 154 - Warm Spring Creek |
| 70 - Mormon Creek | 155 - West Fork Buckhorn Creek |
| 71 - Nasty Creek | 156 - West Fork Caton Creek |
| 72 - Nethker Creek | 157 - West Fork Elk Creek |
| 73 - Nick Creek | 158 - West Fork Enos Creek |
| 74 - No Mans Creek | 159 - Whangdoodle Creek |
| 75 - North Fork Bear Creek | 160 - Whiskey Creek |
| 76 - North Fork Buckhorn Creek | 161 - Willey Creek |
| 77 - North Fork Camp Creek | 162 - Willow Basket Creek |
| 78 - North Fork Dollar Creek | 163 - Willow Creek |
| 79 - North Fork Fisum Creek | 164 - Zena Creek |
| 80 - North Fork Lick Creek | 165 - Lake Creek Lake |
| 81 - North Fork Riordan Creek | 166 - Loon Lake |
| 82 - North Fork Sand Creek | 167 - Riordan Lake |
| 83 - North Fork Sheep Creek | 168 - Unnamed Lake on Meadow Creek |
| 84 - North Fork Six-bit Creek | 169 - Warm Lake |
| 85 - North Fork Wolf Fang Creek | |
(iii) Middle Salmon River–Chamberlain River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Middle Salmon River–Chamberlain River Subunit, follows:

---

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 27, Salmon River Basin

Sub-unit: Middle Salmon River - Chamberlain River - Map 1 of 2

---

Legend:

- Critical Habitat
- County

---
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 27, Salmon River Basin

Sub-unit: Middle Salmon River - Chamberlain River - Map 2 of 2

Legend

- Critical Habitat
- Counties

*The index to the numbered waterbodies is included on the next page.*
Unit: 27, Salmon River Basin  
Sub-Unit: Middle Salmon River Chamberlain River

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arctic Creek</td>
</tr>
<tr>
<td>2</td>
<td>Bargamin Creek</td>
</tr>
<tr>
<td>3</td>
<td>Basin Creek</td>
</tr>
<tr>
<td>4</td>
<td>Big Bear Creek</td>
</tr>
<tr>
<td>5</td>
<td>Big Harrington Creek</td>
</tr>
<tr>
<td>6</td>
<td>Big Mallard Creek</td>
</tr>
<tr>
<td>7</td>
<td>Bruin Creek</td>
</tr>
<tr>
<td>8</td>
<td>Cache Creek</td>
</tr>
<tr>
<td>9</td>
<td>California Creek</td>
</tr>
<tr>
<td>10</td>
<td>Camp Creek</td>
</tr>
<tr>
<td>11</td>
<td>Chamberlain Creek</td>
</tr>
<tr>
<td>12</td>
<td>Club Creek</td>
</tr>
<tr>
<td>13</td>
<td>Cold Creek</td>
</tr>
<tr>
<td>14</td>
<td>Crooked Creek</td>
</tr>
<tr>
<td>15</td>
<td>Deer Creek</td>
</tr>
<tr>
<td>16</td>
<td>Dillinger Creek</td>
</tr>
<tr>
<td>17</td>
<td>Dog Creek</td>
</tr>
<tr>
<td>18</td>
<td>East Fork Fall Creek</td>
</tr>
<tr>
<td>19</td>
<td>East Fork Whimstick Creek</td>
</tr>
<tr>
<td>20</td>
<td>Fall Creek</td>
</tr>
<tr>
<td>21</td>
<td>Fish Creek</td>
</tr>
<tr>
<td>22</td>
<td>Fivemile Creek</td>
</tr>
<tr>
<td>23</td>
<td>Flossie Creek</td>
</tr>
<tr>
<td>24</td>
<td>Game Creek</td>
</tr>
<tr>
<td>25</td>
<td>Goodman Creek</td>
</tr>
<tr>
<td>26</td>
<td>Green Creek</td>
</tr>
<tr>
<td>27</td>
<td>Guard Creek</td>
</tr>
<tr>
<td>28</td>
<td>Hartan Creek</td>
</tr>
<tr>
<td>29</td>
<td>Hida Creek</td>
</tr>
<tr>
<td>30</td>
<td>Hot Springs Creek</td>
</tr>
<tr>
<td>31</td>
<td>Hot Springs Creek</td>
</tr>
<tr>
<td>32</td>
<td>Hotzel Creek</td>
</tr>
<tr>
<td>33</td>
<td>Lake Creek</td>
</tr>
<tr>
<td>34</td>
<td>Little Lodgepole Creek</td>
</tr>
<tr>
<td>35</td>
<td>Little Mallard Creek</td>
</tr>
<tr>
<td>36</td>
<td>Lodgepole Creek</td>
</tr>
<tr>
<td>37</td>
<td>Magpie Creek</td>
</tr>
</tbody>
</table>

38 - Mayflower Creek  
39 - McCalla Creek  
40 - Moose Creek  
41 - Moose Jaw Creek  
42 - My Creek  
43 - No Name Creek  
44 - Our Creek  
45 - Poet Creek  
46 - Pole Creek  
47 - Pup Creek  
48 - Queen Creek  
49 - Ranch Creek  
50 - Raven Creek  
51 - Red Top Creek  
52 - Rhett Creek  
53 - Richardson Creek  
54 - Rim Creek  
55 - Root Creek  
56 - Sabe Creek  
57 - Salmon River  
58 - Schissler Creek  
59 - Sheep Creek  
60 - Silge Creek  
61 - Slaughter Creek  
62 - South Fork Chamberlain Creek  
63 - South Fork Dillinger Creek  
64 - South Fork Whimstick Creek  
65 - Twist Creek  
66 - Unnamed-North Fork Mayflower Creek  
67 - Wapiti Creek  
68 - Warren Creek  
69 - Webfoot Creek  
70 - West Fork Chamberlain Creek  
71 - West Fork Whimstick Creek  
72 - Whimstick Creek  
73 - Wind River
(iv) Middle Fork Salmon River Subunit.
(A) [Reserved for textual description of unit.]

(B) Note: Maps of Critical Habitat for the bull trout (Salvelinus confluentus), Middle Fork Salmon River Subunit, follows.

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 27, Salmon River Basin
Sub-unit: Middle Fork Salmon River - Map 1 of 4
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 27, Salmon River Basin

Sub-unit: Middle Fork Salmon River - Map 2 of 4
Critical Habitat for Bull Trout (*Salvelinus confluentus*)
Unit: 27, Salmon River Basin
Sub-unit: Middle Fork Salmon River - Map 3 of 4
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 27, Salmon River Basin

Sub-unit: Middle Fork Salmon River - Map 4 of 4

Legend

- Critical Habitat
- Counties

* The index to the numbered waterbodies is included on the next page.
Unit: 27, Salmon River Basin  
Sub-Unit: Middle Fork Salmon River

<table>
<thead>
<tr>
<th>1 - Alpine Creek</th>
<th>45 - Dagger Creek</th>
<th>89 - Marble Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - Arrastra Creek</td>
<td>46 - Deer Creek</td>
<td>90 - Marsh Creek</td>
</tr>
<tr>
<td>3 - Baldwin Creek</td>
<td>47 - Duffield Creek</td>
<td>91 - Martindale Creek</td>
</tr>
<tr>
<td>4 - Banner Creek</td>
<td>48 - Dynamite Creek</td>
<td>92 - Mayfield Creek</td>
</tr>
<tr>
<td>5 - Beagle Creek</td>
<td>49 - East Fork Big Ramey Creek</td>
<td>93 - McHoney Creek</td>
</tr>
<tr>
<td>6 - Bear Creek-Loon</td>
<td>50 - East Fork Cache Creek</td>
<td>94 - McKee Creek</td>
</tr>
<tr>
<td>7 - Bear Creek-Marsh</td>
<td>51 - East Fork Elk Creek</td>
<td>95 - Meadow Creek</td>
</tr>
<tr>
<td>8 - Bear Valley Creek</td>
<td>52 - East Fork Mayfield Creek</td>
<td>96 - Middle Fork Elkhorn Creek</td>
</tr>
<tr>
<td>9 - Bearskin Creek</td>
<td>53 - East Fork Thomas Creek</td>
<td>97 - Middle Fork Indian Creek</td>
</tr>
<tr>
<td>10 - Beaver Creek</td>
<td>54 - Elk Creek</td>
<td>98 - Middle Fork Salmon River</td>
</tr>
<tr>
<td>11 - Beaver Creek</td>
<td>55 - Elkhorn Creek</td>
<td>99 - Middle Fork Smith Creek</td>
</tr>
<tr>
<td>12 - Belvidere Creek</td>
<td>56 - Fir Creek</td>
<td>100 - Monumental Creek</td>
</tr>
<tr>
<td>13 - Bernard Creek</td>
<td>57 - Fir Creek</td>
<td>101 - Mystery Creek</td>
</tr>
<tr>
<td>14 - Big Chief Creek</td>
<td>58 - Float Creek</td>
<td>102 - Nelson Creek</td>
</tr>
<tr>
<td>15 - Big Cottonwood Creek</td>
<td>59 - Fly Creek</td>
<td>103 - North Fork Elk Creek</td>
</tr>
<tr>
<td>16 - Big Creek</td>
<td>60 - Forty-Five Creek</td>
<td>104 - North Fork Elkhorn Creek</td>
</tr>
<tr>
<td>17 - Big Ramey Creek</td>
<td>61 - Furnace Creek</td>
<td>105 - North Fork Sheep Creek</td>
</tr>
<tr>
<td>18 - Birdseye Creek</td>
<td>62 - Greyhound Creek</td>
<td>106 - North Fork Smith Creek</td>
</tr>
<tr>
<td>19 - Blackeagle Creek</td>
<td>63 - Half Moon Creek</td>
<td>107 - North Fork Sulphur Creek</td>
</tr>
<tr>
<td>20 - Blue Fork Silver Creek</td>
<td>64 - Hand Creek</td>
<td>108 - Norton Creek</td>
</tr>
<tr>
<td>21 - Boulder Creek</td>
<td>65 - Honeymoon Creek</td>
<td>109 - Papoose Creek</td>
</tr>
<tr>
<td>22 - Browning Creek</td>
<td>66 - Hoodoo Creek</td>
<td>110 - Papoose Creek</td>
</tr>
<tr>
<td>23 - Brush Creek</td>
<td>67 - Indian Creek</td>
<td>111 - Parker Creek</td>
</tr>
<tr>
<td>24 - Buck Creek</td>
<td>68 - Indian Creek-Loon</td>
<td>112 - Pioneer Creek - Loon</td>
</tr>
<tr>
<td>25 - Cabin Creek</td>
<td>69 - J Fell Creek</td>
<td>113 - Pistol Creek</td>
</tr>
<tr>
<td>26 - Cabin Creek-Loon</td>
<td>70 - Jack Creek</td>
<td>114 - Poker Creek</td>
</tr>
<tr>
<td>27 - Cache Creek</td>
<td>71 - Knapp Creek</td>
<td>115 - Pole Creek</td>
</tr>
<tr>
<td>28 - Cache Creek-Loon</td>
<td>72 - Lake Creek</td>
<td>116 - Pole Creek-Camas</td>
</tr>
<tr>
<td>29 - Camas Creek</td>
<td>73 - Lake Creek</td>
<td>117 - Porter Creek</td>
</tr>
<tr>
<td>30 - Camp Creek</td>
<td>74 - Lake Creek</td>
<td>118 - Rams Creek</td>
</tr>
<tr>
<td>31 - Canyon Creek</td>
<td>75 - Liberty Creek</td>
<td>119 - Rapid River</td>
</tr>
<tr>
<td>32 - Cape Horn Creek</td>
<td>76 - Little Beaver Creek</td>
<td>120 - Rat Creek</td>
</tr>
<tr>
<td>33 - Casner Creek</td>
<td>77 - Little Cottonwood Creek</td>
<td>121 - Roaring Creek</td>
</tr>
<tr>
<td>34 - Castle Creek</td>
<td>78 - Little Creek</td>
<td>122 - Rock Creek-Loon</td>
</tr>
<tr>
<td>35 - Cat Creek</td>
<td>79 - Little East Fork Elk Creek</td>
<td>123 - Rush Creek</td>
</tr>
<tr>
<td>36 - Cave-Big Creek</td>
<td>80 - Little Indian Creek</td>
<td>124 - Rush Creek</td>
</tr>
<tr>
<td>37 - Chip Creek</td>
<td>81 - Little Jacket Creek</td>
<td>125 - Sack Creek</td>
</tr>
<tr>
<td>38 - Cold Creek</td>
<td>82 - Little Loon Creek</td>
<td>126 - Seafoam Creek</td>
</tr>
<tr>
<td>39 - Cold Spring Creek-Loon</td>
<td>83 - Little Pistol Creek</td>
<td>127 - Sheep Creek</td>
</tr>
<tr>
<td>40 - Cook Creek</td>
<td>84 - Logan Creek</td>
<td>128 - Sheep Creek</td>
</tr>
<tr>
<td>41 - Cottonwood Creek</td>
<td>85 - Lola Creek</td>
<td>129 - Sheep Creek-Lmf</td>
</tr>
<tr>
<td>42 - Crooked Creek</td>
<td>86 - Loon Creek</td>
<td>130 - Sheep Trail Creek</td>
</tr>
<tr>
<td>43 - Cub Creek</td>
<td>87 - Lucky Creek</td>
<td>131 - Shell Creek</td>
</tr>
<tr>
<td>44 - Cultus Creek</td>
<td>88 - Luger Creek</td>
<td>132 - Ship Island Creek</td>
</tr>
</tbody>
</table>
Unit: 27, Salmon River Basin  
Sub-Unit: Middle Fork Salmon River

<table>
<thead>
<tr>
<th>Number</th>
<th>Stream Name</th>
<th>Number</th>
<th>Stream Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>133</td>
<td>Shovel Creek</td>
<td>156</td>
<td>Unnamed to Bearskin Creek</td>
</tr>
<tr>
<td>134</td>
<td>Silver Creek</td>
<td>157</td>
<td>Unnamed-to Knapp Creek</td>
</tr>
<tr>
<td>135</td>
<td>Smith Creek</td>
<td>158</td>
<td>Vanity Creek</td>
</tr>
<tr>
<td>136</td>
<td>Snowslide Creek</td>
<td>159</td>
<td>Warm Spring Creek</td>
</tr>
<tr>
<td>137</td>
<td>Soldier Creek</td>
<td>160</td>
<td>West Fork Camas Creek</td>
</tr>
<tr>
<td>138</td>
<td>Soldier Creek</td>
<td>161</td>
<td>West Fork Elk Creek</td>
</tr>
<tr>
<td>139</td>
<td>South Fork Camas Creek</td>
<td>162</td>
<td>West Fork Little Loon Creek</td>
</tr>
<tr>
<td>140</td>
<td>South Fork Cottonwood Creek</td>
<td>163</td>
<td>West Fork Mayfield Creek</td>
</tr>
<tr>
<td>141</td>
<td>South Fork Rush Creek</td>
<td>164</td>
<td>West Fork Monumental Creek</td>
</tr>
<tr>
<td>142</td>
<td>South Fork Sheep Creek</td>
<td>165</td>
<td>West Fork Springfield Creek</td>
</tr>
<tr>
<td>143</td>
<td>South Fork Smith Creek</td>
<td>166</td>
<td>West Fork Thomas Creek</td>
</tr>
<tr>
<td>144</td>
<td>South Fork Warm Spring Creek</td>
<td>167</td>
<td>White Goat Creek</td>
</tr>
<tr>
<td>145</td>
<td>Spider Creek</td>
<td>168</td>
<td>Wickiup Creek-Loon</td>
</tr>
<tr>
<td>146</td>
<td>Springfield Creek</td>
<td>169</td>
<td>Wilson Creek</td>
</tr>
<tr>
<td>147</td>
<td>Stoddard Creek</td>
<td>170</td>
<td>Winnemucca Creek</td>
</tr>
<tr>
<td>148</td>
<td>Sulphur Creek</td>
<td>171</td>
<td>Woodtick Creek</td>
</tr>
<tr>
<td>149</td>
<td>Sulphur Creek-Rapid</td>
<td>172</td>
<td>Wyoming Creek</td>
</tr>
<tr>
<td>150</td>
<td>Thirty-Eight Creek</td>
<td>173</td>
<td>Yellowjacket Creek</td>
</tr>
<tr>
<td>151</td>
<td>Thomas Creek</td>
<td>174</td>
<td>Airplane Lake</td>
</tr>
<tr>
<td>152</td>
<td>Trail Creek</td>
<td>175</td>
<td>Alpine Creek Lake #5</td>
</tr>
<tr>
<td>153</td>
<td>Trail Creek-Leon</td>
<td>176</td>
<td>Big Creek Marsh</td>
</tr>
<tr>
<td>154</td>
<td>Trail Creek-Marble</td>
<td>177</td>
<td>Ship Island Lake #1</td>
</tr>
<tr>
<td>155</td>
<td>Trapper Creek</td>
<td>178</td>
<td>Shoban Lake</td>
</tr>
</tbody>
</table>
(v) Middle Salmon–Panther River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Middle Salmon–Panther River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 27, Salmon River Basin
Sub-unit: Middle Salmon River - Panther River

Legend

- Critical Habitat
- Counties

* The index to the numbered waterbodies is included in the end area.
Unit: 27, Salmon River Basin
Sub-Unit: Middle Salmon River – Panther River

<table>
<thead>
<tr>
<th></th>
<th>Stream Name</th>
<th></th>
<th>Stream Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Allison Creek</td>
<td>46</td>
<td>Napias Creek</td>
</tr>
<tr>
<td>2</td>
<td>Arnett Creek</td>
<td>47</td>
<td>North Fork Cow Creek</td>
</tr>
<tr>
<td>3</td>
<td>Beaver Creek</td>
<td>48</td>
<td>North Fork Hat Creek</td>
</tr>
<tr>
<td>4</td>
<td>Big Hat Creek</td>
<td>49</td>
<td>North Fork Iron Creek</td>
</tr>
<tr>
<td>5</td>
<td>Blackbird Creek</td>
<td>50</td>
<td>North Fork McKim Creek</td>
</tr>
<tr>
<td>6</td>
<td>Boulder Creek</td>
<td>51</td>
<td>North Fork Salmon River</td>
</tr>
<tr>
<td>7</td>
<td>Camp Creek</td>
<td>52</td>
<td>North Fork Sheep Creek</td>
</tr>
<tr>
<td>8</td>
<td>Carmen Creek</td>
<td>53</td>
<td>North Fork Williams Creek</td>
</tr>
<tr>
<td>9</td>
<td>Cayuse Creek</td>
<td>54</td>
<td>Opal Creek</td>
</tr>
<tr>
<td>10</td>
<td>Cleary Creek</td>
<td>55</td>
<td>Otter Creek</td>
</tr>
<tr>
<td>11</td>
<td>Colson Creek</td>
<td>56</td>
<td>Owl Creek</td>
</tr>
<tr>
<td>12</td>
<td>Corn Creek</td>
<td>57</td>
<td>Panther Creek</td>
</tr>
<tr>
<td>13</td>
<td>Corral Creek</td>
<td>58</td>
<td>Phelan Creek</td>
</tr>
<tr>
<td>14</td>
<td>Cow Creek</td>
<td>59</td>
<td>Pierce Creek</td>
</tr>
<tr>
<td>15</td>
<td>Dahlonega Creek</td>
<td>60</td>
<td>Pine Creek</td>
</tr>
<tr>
<td>16</td>
<td>Deep Creek</td>
<td>61</td>
<td>Pony Creek</td>
</tr>
<tr>
<td>17</td>
<td>Devils Toe Creek</td>
<td>62</td>
<td>Porphyry Creek</td>
</tr>
<tr>
<td>18</td>
<td>Disappointment Creek</td>
<td>63</td>
<td>Rapps Creek</td>
</tr>
<tr>
<td>19</td>
<td>Dismal Creek</td>
<td>64</td>
<td>Salmon River</td>
</tr>
<tr>
<td>20</td>
<td>Dump Creek</td>
<td>65</td>
<td>Salt Creek</td>
</tr>
<tr>
<td>21</td>
<td>East Fork Owl Creek</td>
<td>66</td>
<td>Sharkey Creek</td>
</tr>
<tr>
<td>22</td>
<td>Fourth of July Creek</td>
<td>67</td>
<td>Sheep Creek</td>
</tr>
<tr>
<td>23</td>
<td>Fourth of July Creek</td>
<td>68</td>
<td>South Fork Iron Creek</td>
</tr>
<tr>
<td>24</td>
<td>Freeman Creek</td>
<td>69</td>
<td>South Fork Moyer Creek</td>
</tr>
<tr>
<td>25</td>
<td>Hat Creek</td>
<td>70</td>
<td>South Fork Sheep Creek</td>
</tr>
<tr>
<td>26</td>
<td>Horse Creek</td>
<td>71</td>
<td>South Fork Williams Creek</td>
</tr>
<tr>
<td>27</td>
<td>Hughes Creek</td>
<td>72</td>
<td>Spring Creek</td>
</tr>
<tr>
<td>28</td>
<td>Hull Creek</td>
<td>73</td>
<td>Squaw Creek</td>
</tr>
<tr>
<td>29</td>
<td>Hungry Creek</td>
<td>74</td>
<td>Starvation Creek</td>
</tr>
<tr>
<td>30</td>
<td>Indian Creek</td>
<td>75</td>
<td>Trail Creek</td>
</tr>
<tr>
<td>31</td>
<td>Iron Creek</td>
<td>76</td>
<td>Turner Gulch (Trib to Jesse Creek)</td>
</tr>
<tr>
<td>32</td>
<td>Jefferson Creek</td>
<td>77</td>
<td>Twelvemile Creek</td>
</tr>
<tr>
<td>33</td>
<td>Jesse Creek</td>
<td>78</td>
<td>Twin Creek</td>
</tr>
<tr>
<td>34</td>
<td>Lake Creek</td>
<td>79</td>
<td>Unnamed</td>
</tr>
<tr>
<td>35</td>
<td>Little Deep Creek</td>
<td>80</td>
<td>UNNAMED - off Deep Creek</td>
</tr>
<tr>
<td>36</td>
<td>Little Horse Creek</td>
<td>81</td>
<td>Unnamed-Needed bypass channel</td>
</tr>
<tr>
<td>37</td>
<td>McConn Creek</td>
<td>82</td>
<td>Vine Creek</td>
</tr>
<tr>
<td>38</td>
<td>McKim Creek</td>
<td>83</td>
<td>Weasel Creek</td>
</tr>
<tr>
<td>39</td>
<td>Middle Fork Hat Creek</td>
<td>84</td>
<td>West Fork Blackbird Creek</td>
</tr>
<tr>
<td>40</td>
<td>Mink Creek</td>
<td>85</td>
<td>West Fork Indian Creek</td>
</tr>
<tr>
<td>41</td>
<td>Moccasin Creek</td>
<td>86</td>
<td>West Fork Iron Creek</td>
</tr>
<tr>
<td>42</td>
<td>Moose Creek</td>
<td>87</td>
<td>West Fork North Fork Salmon River</td>
</tr>
<tr>
<td>43</td>
<td>Moose Creek</td>
<td>88</td>
<td>Williams Creek</td>
</tr>
<tr>
<td>44</td>
<td>Moyer Creek</td>
<td>89</td>
<td>Woods Creek</td>
</tr>
<tr>
<td>45</td>
<td>Musgrove Creek</td>
<td>90</td>
<td>Woodtick Creek</td>
</tr>
</tbody>
</table>
(vi) Lake Creek Subunit.
(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Lake Creek Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 27, Salmon River Basin
Sub-unit: Lake Creek

![Map of Critical Habitat for Bull Trout](image-url)
(A) [Reserved for textual description of unit.]  

(vii) Opal Lake Subunit.

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Opal Lake Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

Unit: 27, Salmon River Basin
Sub-unit: Opal Lake

Legend

- Critical Habitat
- Counties
(viii) Lemhi River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Lemhi River Subunit, follows:

Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 27, Upper Snake

Sub-unit: Lemhi River
Unit 27: Upper Snake
Sub-Unit: Lemhi River

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agency Creek</td>
</tr>
<tr>
<td>2</td>
<td>Bear Valley Creek</td>
</tr>
<tr>
<td>3</td>
<td>Big Bear Creek</td>
</tr>
<tr>
<td>4</td>
<td>Big Eightmile Creek</td>
</tr>
<tr>
<td>5</td>
<td>Big Springs Creek</td>
</tr>
<tr>
<td>6</td>
<td>Big Timber Creek</td>
</tr>
<tr>
<td>7</td>
<td>Bohannon Creek</td>
</tr>
<tr>
<td>8</td>
<td>Bray Creek</td>
</tr>
<tr>
<td>9</td>
<td>Canyon Creek</td>
</tr>
<tr>
<td>10</td>
<td>Cooper Creek</td>
</tr>
<tr>
<td>11</td>
<td>Cruikshank Creek</td>
</tr>
<tr>
<td>12</td>
<td>Dairy Creek</td>
</tr>
<tr>
<td>13</td>
<td>Deer Creek</td>
</tr>
<tr>
<td>14</td>
<td>Deer Creek</td>
</tr>
<tr>
<td>15</td>
<td>East Fork Hayden Creek</td>
</tr>
<tr>
<td>16</td>
<td>East Fork Kenney Creek</td>
</tr>
<tr>
<td>17</td>
<td>Eighteenmile Creek</td>
</tr>
<tr>
<td>18</td>
<td>Geertson Creek</td>
</tr>
<tr>
<td>19</td>
<td>Hawley Creek</td>
</tr>
<tr>
<td>20</td>
<td>Hayden Creek</td>
</tr>
<tr>
<td>21</td>
<td>Hood Gulch Springs 1</td>
</tr>
<tr>
<td>22</td>
<td>Hood Gulch Springs 2</td>
</tr>
<tr>
<td>23</td>
<td>Hood Gulch Springs 3</td>
</tr>
<tr>
<td>24</td>
<td>Hood Gulch Springs 4</td>
</tr>
<tr>
<td>25</td>
<td>Kadletz Creek</td>
</tr>
<tr>
<td>26</td>
<td>Kenney Creek</td>
</tr>
<tr>
<td>27</td>
<td>Kirtley Creek</td>
</tr>
<tr>
<td>28</td>
<td>Lemhi River</td>
</tr>
<tr>
<td>29</td>
<td>Little Eightmile Creek</td>
</tr>
<tr>
<td>30</td>
<td>Little Timber Creek</td>
</tr>
<tr>
<td>31</td>
<td>Meadow Creek</td>
</tr>
<tr>
<td>32</td>
<td>Middle Fork Little Timber Creek</td>
</tr>
<tr>
<td>33</td>
<td>Mill Creek</td>
</tr>
<tr>
<td>34</td>
<td>Pattee Creek</td>
</tr>
<tr>
<td>35</td>
<td>Reservoir Creek</td>
</tr>
<tr>
<td>36</td>
<td>Sandy Creek</td>
</tr>
<tr>
<td>37</td>
<td>Short Creek</td>
</tr>
<tr>
<td>38</td>
<td>Texas Creek</td>
</tr>
<tr>
<td>39</td>
<td>Unnamed</td>
</tr>
<tr>
<td>40</td>
<td>Unnamed - didgitized</td>
</tr>
<tr>
<td>41</td>
<td>Unnamed - digitized</td>
</tr>
<tr>
<td>42</td>
<td>Unnamed - Diversion between Geertson Creek an</td>
</tr>
<tr>
<td>43</td>
<td>WEST FORK HAYDEN CR</td>
</tr>
<tr>
<td>44</td>
<td>West Fork Hayden Creek</td>
</tr>
<tr>
<td>45</td>
<td>Wright Creek</td>
</tr>
</tbody>
</table>
(ix) Pahsimeroi River Subunit.

(A) [Reserved for textual description of unit.]

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Pahsimeroi River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

Unit: 27, Salmon River Basin

Sub-unit: Pahsimeroi River

![Map of Critical Habitat for Bull Trout](image-url)

**Legend**

- Critical Habitat
- Counties

(Details of the map showing the locations of the critical habitat areas are included.)
(x) Upper Salmon River Subunit.
(A) [Reserved for textual description of unit.]

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Upper Salmon River Subunit, follows:

### Critical Habitat for Bull Trout (*Salvelinus confluentus*)

**Unit 27 - Salmon River Basin**

**Sub-unit - Upper Salmon River**

![Map of Critical Habitat](image)

**Legend**
- Critical Habitat
- Counties

* The index to the numbered waterbodies is included on the next page.
Unit 27 - Salmon River Basin
Sub-unit - Upper Salmon River

1 - Alpine Creek
2 - Alturas Lake Creek (Above Lake)
3 - Alturas Lake Creek (Below Lake)
4 - Basin Creek
5 - Bear Creek
6 - Beaver Creek
7 - Big Boulder Creek
8 - Bowery Creek
9 - Cabin Creek
10 - Cabin Creek
11 - Challis Creek
12 - Corral Creek
13 - Crooked Creek
14 - Deadwood Creek
15 - East Basin Creek
16 - East Fork Herd Creek
17 - East Fork Salmon River
18 - East Fork Valley Creek
19 - East Pass Creek
20 - Eightmile Creek
21 - Elevenmile Creek
22 - Elk Creek
23 - Fishhook Creek
24 - Fivemile Creek
25 - Fourth of July Creek
26 - Frenchman Creek
27 - Garden Creek
28 - Germania Creek
29 - Goat Creek
30 - Herd Creek
31 - Ibex Creek
32 - Iron Creek
33 - Job Creek
34 - Jordan Creek
35 - Kinnikinic Creek
36 - Lick Creek
37 - Lightning Creek
38 - Little Boulder Creek
39 - Livingston Creek
40 - Lodgpole Creek
41 - Long Tom Creek
42 - Martin Creek
43 - Martin Creek
44 - McKay Creek
45 - Meadow Creek - mouth to Trap Cr
46 - Meridian Creek
47 - Mill Creek
48 - Morgan Creek
49 - Ninemile Creek
50 - North Fork Bowery Creek
51 - Pettit Lake Creek
52 - Pigtail Creek
53 - Pole Creek
54 - Prospect Creek
55 - Redfish Lake Creek - inlet to ~ 0.1 km upstream
56 - Redfish Lake Creek - L Redfish Lk to Redfish
57 - Redfish Lake Creek - mouth to L. Redfish Lk
58 - Redfish Lake Creek - mouth to Redfish Lk
59 - Roaring Creek
60 - Salmon River - Alturas Lk Creek to headwater
61 - Salmon River - mouth to Alturas Lk Creek
62 - Short Creek
63 - Silver Rule Creek
64 - Sixmile Creek
65 - Slate Creek
66 - Smiley Creek
67 - South Fork East Fork Salmon River
68 - Squaw Creek - Martin Cr to headwaters
69 - Squaw Creek - mouth to Martin Cr
70 - Sunday Creek
71 - Tenmile Creek
72 - Thompson Creek
73 - Trap Creek
74 - Twelvemile Creek
75 - UNNAMED - off Corral Creek
76 - UNNAMED - off McKay Creek
77 - Unnamed-Garden Creek
78 - Valley Creek
79 - Van Horn Creek
80 - Warm Springs Creek
81 - West Fork East Fork Salmon River
82 - West Fork Herd Creek
83 - West Fork Morgan Creek
84 - West Fork Yankee Fork
85 - West Pass Creek
86 - Willow Creek
87 - Yankee Fork
88 - Yellowbelly Creek - Yellowbelly Lk to Farley
89 - Yellowbelly Lake - Alturas Lk Cr to Yellowbelly Lk
90 - Alturas Lake
91 - Little Redfish Lake
92 - Perkins Lake
93 - Petit Lake
94 - Redfish Lake
95 - Yellowbelly Lake
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 28, Little Lost River

Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Little Lost River Unit, follows:
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 29, Coeur d'Alene River Basin

(35) Unit 29: Coeur d'Alene River Basin Unit, Idaho.  
(i) [Reserved for textual description of unit.]  
(ii) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Coeur d'Alene River Basin Unit follows:
Unit: 29, Coeur d'Alene River Basin

<table>
<thead>
<tr>
<th></th>
<th>Creek Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bad Bear Creek</td>
</tr>
<tr>
<td>2</td>
<td>Bean Creek</td>
</tr>
<tr>
<td>3</td>
<td>Beaver Creek</td>
</tr>
<tr>
<td>4</td>
<td>Big Elk Creek</td>
</tr>
<tr>
<td>5</td>
<td>Bluebells Creek</td>
</tr>
<tr>
<td>6</td>
<td>Boulder Creek</td>
</tr>
<tr>
<td>7</td>
<td>Buckskin Creek</td>
</tr>
<tr>
<td>8</td>
<td>California Creek</td>
</tr>
<tr>
<td>9</td>
<td>Cascade Creek (St. Joe trib)</td>
</tr>
<tr>
<td>10</td>
<td>Coeur d'Alene River</td>
</tr>
<tr>
<td>11</td>
<td>Cougar Creek</td>
</tr>
<tr>
<td>12</td>
<td>Delaney Creek</td>
</tr>
<tr>
<td>13</td>
<td>Dolly Creek</td>
</tr>
<tr>
<td>14</td>
<td>Downey Creek</td>
</tr>
<tr>
<td>15</td>
<td>Eagle Creek</td>
</tr>
<tr>
<td>16</td>
<td>East Fork Downey Creek</td>
</tr>
<tr>
<td>17</td>
<td>East Fork Steamboat Creek</td>
</tr>
<tr>
<td>18</td>
<td>Entente Creek</td>
</tr>
<tr>
<td>19</td>
<td>Falls Creek</td>
</tr>
<tr>
<td>20</td>
<td>Fly Creek</td>
</tr>
<tr>
<td>21</td>
<td>Freezeout Creek</td>
</tr>
<tr>
<td>22</td>
<td>Gold Creek</td>
</tr>
<tr>
<td>23</td>
<td>Heller Creek</td>
</tr>
<tr>
<td>24</td>
<td>Homestead Creek</td>
</tr>
<tr>
<td>25</td>
<td>Independence Creek</td>
</tr>
<tr>
<td>26</td>
<td>Little Lost Fork</td>
</tr>
<tr>
<td>27</td>
<td>Marble Creek</td>
</tr>
<tr>
<td>28</td>
<td>Medicine Creek</td>
</tr>
<tr>
<td>29</td>
<td>Mill Creek</td>
</tr>
<tr>
<td>30</td>
<td>Mosquito Creek</td>
</tr>
<tr>
<td>31</td>
<td>My Creek</td>
</tr>
<tr>
<td>32</td>
<td>North Fork Bean Creek</td>
</tr>
<tr>
<td>33</td>
<td>North Fork Coeur d'Alene River</td>
</tr>
<tr>
<td>34</td>
<td>North Grizzly Creek</td>
</tr>
<tr>
<td>35</td>
<td>Prichard Creek</td>
</tr>
<tr>
<td>36</td>
<td>Quartz Creek</td>
</tr>
<tr>
<td>37</td>
<td>Red Ives Creek</td>
</tr>
<tr>
<td>38</td>
<td>Ruby Creek</td>
</tr>
<tr>
<td>39</td>
<td>Sentinel Creek</td>
</tr>
<tr>
<td>40</td>
<td>Sherlock Creek</td>
</tr>
<tr>
<td>41</td>
<td>Shoshone Creek</td>
</tr>
<tr>
<td>42</td>
<td>Simmons Creek</td>
</tr>
<tr>
<td>43</td>
<td>Spruce Creek</td>
</tr>
<tr>
<td>44</td>
<td>St. Joe River</td>
</tr>
<tr>
<td>45</td>
<td>Steamboat Creek</td>
</tr>
<tr>
<td>46</td>
<td>Tepe Creek</td>
</tr>
<tr>
<td>47</td>
<td>Timber Creek</td>
</tr>
<tr>
<td>48</td>
<td>Tinear Creek</td>
</tr>
<tr>
<td>49</td>
<td>Ulm Creek</td>
</tr>
<tr>
<td>50</td>
<td>West Fork Downey Creek</td>
</tr>
<tr>
<td>51</td>
<td>West Fork Eagle Creek</td>
</tr>
<tr>
<td>52</td>
<td>West Fork Steamboat Creek</td>
</tr>
<tr>
<td>53</td>
<td>Wisdom Creek</td>
</tr>
<tr>
<td>54</td>
<td>Yankee Bar Creek</td>
</tr>
<tr>
<td>55</td>
<td>Yellow Dog Creek</td>
</tr>
<tr>
<td>56</td>
<td>Coeur d'Alene Lake</td>
</tr>
</tbody>
</table>
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 30, Kootenai River Basin
Sub-unit: Kootenai River

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Kootenai River Subunit, follows:
(ii) Lake Koocanusa Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lake Koocanusa Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 30, Kootenai River Basin
Sub-unit: Lake Koocanusa

Legend

---- Critical Habitat
----- Counties

1 - Blue Sky Creek
2 - Clarence Creek
3 - Grave Creek
4 - Tobacco River
5 - Wigwam River
6 - Lake Koocanusa
(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Priest Lakes and Upper Priest River (Priest Lakes) Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 31, Clark Fork River Basin
Sub-unit: Priest Lakes

(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Priest Lakes and Upper Priest River (Priest Lakes) Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 31, Clark Fork River Basin
Sub-unit: Priest Lakes

(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Priest Lakes and Upper Priest River (Priest Lakes) Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 31, Clark Fork River Basin
Sub-unit: Priest Lakes

(A) [Reserved for textual description of unit.]
(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Priest Lakes and Upper Priest River (Priest Lakes) Subunit, follows:
(ii) Lake Pend Oreille, Pend Oreille River, and lower Priest River (Lake Pend Oreille) Subunit

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Lake Pend Oreille, Pend Oreille River, and lower Priest River (Lake Pend Oreille) Subunit, follows:

![Map of Critical Habitat for Bull Trout](image_url)

Legend:
- Critical Habitat
- Counties

* The index to the numbered waterbodies
Unit: 31, Clark Fork River Basin
Sub-unit: Lake Pend Oreille

1 - Calispell Creek
2 - Cedar Creek
3 - Char Cr
4 - Clark Fork River
5 - E. Fork Small Creek
6 - East Branch LeClerc Creek
7 - East Fork Cr
8 - East River
9 - Fourth of July Creek
10 - Gold Creek
11 - Granite Creek
12 - Grouse Creek
13 - Indian Creek
14 - Johnson Cr
15 - Kookee Creek
16 - LeClerc Creek
17 - Lightning Creek
18 - Lunch Creek
19 - Middle Branch Le Clerc Creek
20 - Middle Fork East River
21 - Mill Creek
22 - Morris Creek
23 - N.F. Of S. Fork Tacoma Creek
24 - North Fork East River
25 - North Gold Creek
26 - Pack River
27 - Pend Oreille River
28 - Porcupine Creek
29 - Priest River
30 - Rattle Creek
31 - Ruby Creek
32 - S. Fork Tacoma Creek
33 - Savage Cr
34 - Slate Creek
35 - Small Creek
36 - Strong Creek
37 - Sullivan Creek
38 - Sullivan Springs
39 - Tacoma Creek
40 - Trestle Creek
41 - Uleda Creek
42 - Wellington Creek
43 - West Branch LeClerc Creek
44 - West Gold Creek
45 - Lake Pend Oreille
(iii) Lower Clark Fork River Subunit. (A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Lower Clark Fork River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)

Unit: 31, Clark Fork River Basin
Sub-unit: Lower Clark Fork River

Legend

Critical Habitat
Counties
(iv) Middle Clark Fork River Subunit. (A) [Reserved for textual description of unit.] (B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Middle Clark Fork River Subunit, follows:

**Critical Habitat for Bull Trout (*Salvelinus confluentus*)**

**Unit:** 31, Clark Fork River Basin

**Sub-unit:** Middle Clark Fork River

---

**Legend**

- Critical Habitat
- Counties

---

**Map Description:***

- Detailed topographic map highlighting critical habitat areas for bull trout in the Middle Clark Fork River Subunit.
- Rivers and tributaries are marked with numbers, indicating specific locations and contributing streams to the critical habitat.
- Counties are demarcated with dashed lines, providing geographical context.

---

*Note:* The map should be interpreted with the specific textual information provided in the Federal Register document for an accurate understanding of the critical habitat areas.
(v) Upper Clark Fork River Subunit. (A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Upper Clark Fork River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 31, Clark Fork River Basin
Sub-unit: Upper Clark Fork River

Legend
- Critical Habitat
- Counties
(vi) Bitterroot River Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Bitterroot River Subunit, follows:

**Critical Habitat for Bull Trout (Salvelinus confluentus)**

Unit: 31, Clark Fork River Basin
Sub-unit: Bitterroot River

[Map of Critical Habitat for Bull Trout (Salvelinus confluentus)]
(vii) Rock Creek Subunit
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Rock Creek Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)
Unit: 31, Clark Fork River Basin
Sub-unit: Rock Creek
(viii) Blackfoot River Subunit.  
(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluentus), Blackfoot River Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluentus)  
Unit: 31, Clark Fork River Basin  
Sub-unit: Blackfoot River
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 31, Clark Fork River Basin
Sub-unit: Clearwater River and Lakes

(B) **Note:** Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Clearwater River and Lakes Subunit, follows:

![Map of Critical Habitat for Bull Trout (Salvelinus confluens)](image-url)
Critical Habitat for Bull Trout (*Salvelinus confluentus*)

Unit: 31, Clark Fork River Basin

Sub-unit: Flathead Lake, Flathead River, and Headwater Lakes

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluentus*), Flathead Lake, Flathead River, and Headwater Lakes (Flathead) Subunit follows:

- The index to the numbered waterbodies
Unit: 31, Clark Fork River Basin
Sub-unit: Flathead Lake, Flathead River, and Headwater Lakes

<table>
<thead>
<tr>
<th>Creek/Creek</th>
<th>Creek/Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Akokala Creek</td>
<td>38 - Quartz Creek</td>
</tr>
<tr>
<td>2 - Basin Creek</td>
<td>39 - Rainbow Creek</td>
</tr>
<tr>
<td>3 - Bear Creek</td>
<td>40 - Red Meadow Creek</td>
</tr>
<tr>
<td>4 - Big Creek</td>
<td>41 - Scalp Creek</td>
</tr>
<tr>
<td>5 - Bowl Creek</td>
<td>42 - Schafer Creek</td>
</tr>
<tr>
<td>6 - Bowman Creek</td>
<td>43 - Skookolee Creek</td>
</tr>
<tr>
<td>7 - Camas Creek</td>
<td>44 - South Fork Coal Creek</td>
</tr>
<tr>
<td>8 - Clack Creek</td>
<td>45 - South Fork Flathead River</td>
</tr>
<tr>
<td>9 - Coal Creek</td>
<td>46 - Stillwater River</td>
</tr>
<tr>
<td>10 - Cyclone Creek</td>
<td>47 - Strawberry Creek</td>
</tr>
<tr>
<td>11 - Dead Horse Creek</td>
<td>48 - Swift Creek</td>
</tr>
<tr>
<td>12 - Dolly Varden Creek</td>
<td>49 - Trail Creek</td>
</tr>
<tr>
<td>13 - East Fork Strawberry Creek</td>
<td>50 - Trail Creek</td>
</tr>
<tr>
<td>14 - East Fork Swift Creek</td>
<td>51 - Werner Creek</td>
</tr>
<tr>
<td>15 - Fitzsimmons Creek</td>
<td>52 - West Fork Swift Creek</td>
</tr>
<tr>
<td>16 - Flathead River</td>
<td>53 - Whale Creek</td>
</tr>
<tr>
<td>17 - Frozen Creek</td>
<td>54 - Akokala Lake</td>
</tr>
<tr>
<td>18 - Gateway Creek</td>
<td>55 - Arrow Lake</td>
</tr>
<tr>
<td>19 - Granite Creek</td>
<td>56 - Bowman Lake</td>
</tr>
<tr>
<td>20 - Hallowat Creek</td>
<td>57 - Cerulean Lake</td>
</tr>
<tr>
<td>21 - Harrison Creek</td>
<td>58 - Cyclone Lake</td>
</tr>
<tr>
<td>22 - Kintla Creek</td>
<td>59 - Flathead Lake</td>
</tr>
<tr>
<td>23 - Kishenehn Creek</td>
<td>60 - Frozen Lake</td>
</tr>
<tr>
<td>24 - Kletomus Creek</td>
<td>61 - Harrison Lake</td>
</tr>
<tr>
<td>25 - Lincoln Creek</td>
<td>62 - Kintla Lake</td>
</tr>
<tr>
<td>26 - Lodgepole Creek</td>
<td>63 - Lake Isabel</td>
</tr>
<tr>
<td>27 - Logging Creek</td>
<td>64 - Lake McDonald</td>
</tr>
<tr>
<td>28 - Long Creek</td>
<td>65 - Lincoln Lake</td>
</tr>
<tr>
<td>29 - Mathias Creek</td>
<td>66 - Logging Lake</td>
</tr>
<tr>
<td>30 - McDonald Creek</td>
<td>67 - Lower Quartz Lake</td>
</tr>
<tr>
<td>31 - Middle Fork Flathead River</td>
<td>68 - Middle Quartz Lake</td>
</tr>
<tr>
<td>32 - Morrison Creek</td>
<td>69 - Quartz Lake</td>
</tr>
<tr>
<td>33 - North Fork Flathead River</td>
<td>70 - Trout Lake</td>
</tr>
<tr>
<td>34 - Nyack Creek</td>
<td>71 - Upper Kintla Lake</td>
</tr>
<tr>
<td>35 - Ole Creek</td>
<td>72 - Upper Stillwater Lake</td>
</tr>
<tr>
<td>36 - Park Creek</td>
<td>73 - Upper Whitefish Lake</td>
</tr>
<tr>
<td>37 - Pocket Creek</td>
<td>74 - Whitefish Lake</td>
</tr>
</tbody>
</table>
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 31, Clark Fork River Basin

Sub-unit: Swan River and Lakes

(B) Note: Map of Critical Habitat for the bull trout (*Salvelinus confluens*), Swan River and Lakes (Swan) Subunit, follows:

Legend

- Critical Habitat
- Counties
(xii) Hungry Horse Reservoir, South Fork Flathead River and Headwater Lakes (South Fork Flathead) Subunit.

(A) [Reserved for textual description of unit.]

(B) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Hungry Horse Reservoir, South Fork Flathead River and Headwater Lakes (South Fork Flathead) Subunit, follows:

Critical Habitat for Bull Trout (Salvelinus confluens)
Unit: 31, Clark Fork River Basin
Sub-unit: Hungry Horse Reservoir, South Fork Flathead River

(37) Unit 32: Saint Mary River Basin Unit, Montana.

(i) [Reserved for textual description of unit.]

(ii) Note: Map of Critical Habitat for the bull trout (Salvelinus confluens), Saint Mary River Basin Unit, follows:
Critical Habitat for Bull Trout (*Salvelinus confluens*)

Unit: 32, Saint Mary River Basin

Dated: December 31, 2009

Eileen Sobeck,
Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2010–176 Filed 1–13–10; 8:45 am]