

Chapter: 21

State(s): Washington

Recovery Unit Name: Middle Columbia Recovery Unit

**Region 1
U.S. Fish and Wildlife Service
Portland, Oregon**

DISCLAIMER

Recovery plans delineate reasonable actions that are believed necessary to recover and protect listed species. Recovery plans are prepared by the U.S. Fish and Wildlife Service, in this case, with the assistance of recovery unit teams, State and Tribal agencies, contractors, and others. Objectives will be attained and any necessary funds made available subject to budgetary and other constraints affecting the parties involved, as well as the need to address other priorities. Recovery plans do not necessarily represent the views nor the official positions or approval of any individuals or agencies involved in plan formulation, other than the U.S. Fish and Wildlife Service. Recovery plans represent the official position of the U.S. Fish and Wildlife Service *only* after they have been signed by the Director or Regional Director as approved. Approved recovery plans are subject to modification as dictated by new findings, changes in species status, and the completion of recovery tasks.

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EXECUTIVE SUMMARY

CURRENT SPECIES STATUS

The U. S. Fish and Wildlife service issued a final rule listing the Columbia River population of bull trout as a threatened species on June 10, 1998 (63 FR 31647). The Middle Columbia Recovery Unit encompasses the Yakima River basin to the confluence with the Columbia River. The Yakima River basin is located in south central Washington, draining approximately 6,155 square miles. It is bounded on the west by the Cascade Range, on the north by the Wenatchee Mountains, on the east by the Rattlesnake Hills, and on the south by the Horse Heaven Hills. The entire basin lies within areas either ceded to the United States by the Yakama Nation or areas reserved for their use.

The Middle Columbia Recovery Unit Team identified a single core area encompassing the Yakima River basin and includes 13 extant local populations. The Middle Columbia Recovery Team considers the mainstem Columbia River to contain core habitat which may be important for full recovery to occur. Studies designed to verify bull trout abundance, spatial distribution, and temporal use of the lower Yakima River and mainstem Columbia River are considered a primary research need. In Washington, to facilitate the recovery planning process and avoid duplication of effort, the recovery team has adopted, in part, the logistical framework proposed in the 1999 draft Statewide strategy to recover salmon, “Extinction Is Not An Option.” Based on this draft strategy, bull trout recovery units overlap the State’s salmon recovery regions and allows for better coordination between salmon and bull trout recovery planning efforts and implementation.

HABITAT REQUIREMENTS AND LIMITING FACTORS

A detailed discussion of bull trout biology and habitat requirements is provided in Chapter 1 of this recovery plan. The limiting factors discussed here are specific to the Middle Columbia Recovery Unit. Bull trout in the Middle Columbia Recovery Unit may have been extirpated from former habitat, and remaining groups are fragmented, and isolated by a variety of factors. The U.S.

Fish and Wildlife Service considers isolation by dams to be a major threat to bull trout in this recovery unit, and agricultural practices and associated water withdrawal as a threat to each subpopulation. Additional threats facing bull trout subpopulations in the basin included, forestry practices, grazing, roads, mining, harvest, nonnative species, and residential development.

RECOVERY GOALS AND OBJECTIVES

The goal of the bull trout recovery plan is to **ensure the long-term persistence of self-sustaining, complex interacting groups of bull trout across the species' native range, so that the species can be delisted.** To achieve this goal the following objectives have been identified for bull trout in the Middle Columbia Recovery Unit:

- Maintain current distribution of bull trout and restore distribution in previously occupied areas within the Middle Columbia Recovery Unit .
- Maintain stable or increasing trends in abundance of adult bull trout.
- Restore and maintain suitable habitat conditions for all bull trout life history stages and strategies.
- Conserve genetic diversity and provide opportunity for genetic exchange.

RECOVERY CRITERIA

Recovery criteria for the Middle Columbia Recovery Unit are established to assess whether actions are resulting in the recovery of bull trout in the unit. The criteria developed for bull trout recovery address quantitative measurements of bull trout distribution and population characteristics on a recovery unit basis. Recovery criteria for the Middle Columbia Recovery Unit reflect the stated objectives and consideration of population and habitat characteristics within the recovery unit. Recovery criteria identified for the Middle Columbia Recovery Unit are:

- 1) Bull trout are distributed among 16 local populations in the Middle Columbia Recovery Unit .** Local populations that are considered essential for recovery include: Ahtanum (including North, South, and Middle forks), Upper Yakima mainstem (Keechelus to Easton), Rattlesnake Creek, North Fork Teanaway River, Upper Cle Elum River, American River, Crow Creek, South Fork Tieton River, Indian Creek, Deep Creek, Box Canyon Creek, Upper Kachess River (including Mineral Creek), and Gold Creek. In addition to the aforementioned local populations, bull trout should be established in the Middle Fork Teanaway River, Taneum Creek, and the North Fork Tieton River. For recovery to occur, the distribution of these migratory local populations should be maintained, while abundance is increased. Designation of local populations is based on survey data and the professional judgement of Middle Columbia Recovery Unit Team members. The Middle Columbia Recovery Unit Team recommends that further studies be conducted in the Yakima Core Area to better define the current and recovered distribution of resident bull trout in the recovery unit. Geographic distribution of resident local populations should be identified within 3 years and actions needed to implement reintroduction efforts will be incorporated in the 5 year review of the Middle Columbia Recovery Unit plan.

- 2) Estimated abundance of bull trout among all local populations in the Yakima Core Area is between 2,550 to 3,050 migratory adults.** Recovered abundance was derived using the professional judgement of the Middle Columbia Recovery Unit Team and estimation of productive capacity of identified local populations. Estimates for the resident life history component is considered a research need. Recovered abundance levels do not include estimates for the Upper Yakima River mainstem (Keechelus to Easton), North Fork Teanaway River, Middle Fork Teanaway River, North Fork Tieton River, Taneum Creek, and the Upper Cle Elum River local populations. Estimates for these local populations are considered a research need. As more data is collected, recovered population estimates may be revised to more accurately reflect both the migratory and resident life history components.

- 3) **Adult bull trout exhibit a stable or increasing trend for at least two generations, at or above, the recovered abundance level within the Yakima Core Area.** The development of a standardized monitoring and evaluation program which would accurately describe trends in bull trout abundance is identified as a priority research need. As part of the overall recovery effort, the U.S. Fish and Wildlife Service will take the lead in addressing this research need by forming a multi-agency technical team to develop protocols necessary to evaluate trends in bull trout populations.

- 4) **Specific barriers to bull trout migration in the Middle Columbia Recovery Unit have been addressed.** The barriers that are identified as primary impediments to recovery and which must be addressed are Tieton Dam (Rimrock Lake), Bumping Lake Dam, Keechelus Dam, Cle Elum Dam, and Kachess Dam. Identification of these barriers does not imply that other actions associated with passage (*e.g.*, culverts), habitat degradation, or nonnative species control are not crucial for recovery to occur.

ACTIONS NEEDED

Recovery for bull trout will entail reducing threats to the long-term persistence of populations and their habitats, ensuring the security of multiple interacting groups of bull trout, and providing habitat conditions and access to them that allow for the expression of various life-history forms. The seven categories of actions needed are discussed in Chapter 1; tasks specific to this recovery unit are provided in this chapter.

ESTIMATED COST OF RECOVERY

Total estimated cost of bull trout recovery in the Middle Columbia Recovery Unit (Yakima Core Area) is \$35 million. This estimate does not include costs associated with capital improvements for fish passage construction at Tieton Dam (Rimrock Lake), Bumping Lake Dam, Keechelus Dam, Cle Elum Dam, and/or Kachess Dam, nor are cost estimates for tasks that are normal agency responsibilities under existing authorities. Total costs include estimates of expenditures by local, Tribal, State, and Federal governments and by private business and individuals. The estimate includes recovery actions associated with the Yakima Core Area and identified research needs (*e.g.*, Columbia River). These costs are attributed to bull trout conservation but other aquatic species will also benefit.

ESTIMATED DATE OF RECOVERY

Time required to achieve recovery depends on bull trout status, factors affecting bull trout, implementation and effectiveness of recovery tasks, and responses to recovery actions. A tremendous amount of work will be required to restore and reconnect impaired habitat, and eliminate threats from nonnative species. In the Middle Columbia Recovery Unit bull trout currently exist in isolated populations and some populations are at high risk of extirpation. Three to five bull trout generations (15 to 25 years), or possibly longer, may be necessary before threats to the species can be significantly reduced and bull trout can be considered eligible for delisting.