

Chapter: 7

State(s): Oregon

Recovery Unit Name: Deschutes 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/or protect listed species. Recovery plans are prepared by the U.S. Fish and Wildlife Service and, in this case, with the assistance of recovery unit teams, State and Tribal agencies, 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 indicate the 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 (*Salvelinus confluentus*) as a threatened species under the Endangered Species Act on June 10, 1998 (63 FR 31647). The Deschutes Recovery Unit forms part of the range of the Columbia River population. The Deschutes River basin is located in central Oregon. The Deschutes Recovery Unit encompasses the Deschutes River and its tributaries. The Deschutes River drains an area of approximately 26,936 square kilometers (10,937 square miles) and is approximately 405 kilometers (251 miles) from its headwaters to the confluence with the Columbia River.

The Deschutes Recovery Unit Team identified one core area, and one core habitat which could become a core area if bull trout are reestablished there. The lower Deschutes Core Area and upper Deschutes core habitat are separated by Big Falls on the mainstem Deschutes River at about River kilometer 212 (River Mile 132). Thus, the lower Deschutes Core Area is generally described as the mainstem Deschutes River and its tributaries from Big Falls downstream to the Columbia River. Current bull trout distribution is limited to the lower Deschutes Core Area, which includes five local populations in Shitike Creek, the Warm Springs River, and the three Metolius River population complexes. The upper Deschutes core habitat is generally described as the upper Deschutes River, Little Deschutes River, and other tributaries upstream from Big Falls at about River Kilometer 212 (River Mile 132). The upper Deschutes core habitat does not currently support bull trout populations, but had bull trout historically. The Recovery Unit Team believes it has the necessary elements to support reestablishment of bull trout. Verification of its potential to support bull trout is identified as a Priority 1 research need.

HABITAT REQUIREMENTS AND LIMITING FACTORS

A detailed discussion of bull trout biology and habitat requirements is provided in Chapter 1 of this recovery plan. Little data exists on the historical or

current use of the mainstem Columbia River by bull trout in this recovery unit. Subsequent to the collection of additional information the Deschutes Recovery Unit may be expanded to include portions of the mainstem Columbia River. There is much more information on historic and current use of both the upper Deschutes River, lower Deschutes River, and its' tributaries. Primary land and water management activities that depress bull trout populations and degrade habitat in this recovery unit include operation and maintenance of dams and other diversion structures, and the introduction of nonnative species. Impassable dams and diversion structures isolate and fragment bull trout local populations and adversely impact water quality and quantity. Introduced brook trout threaten bull trout through hybridization, competition, and possible predation.

RECOVERY GOAL 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 distributed throughout 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 Deschutes Recovery Unit:

- ▶ Maintain current distribution of bull trout within the lower Deschutes Core Area and restore distribution in previously occupied areas within the Deschutes 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 Deschutes Recovery Unit reflect the stated objectives, evaluation of population status, and recovery actions necessary to achieve the overall goal.

- 1) **Bull Trout are distributed among five or more local populations in the Deschutes Recovery Unit, with five or more local populations in the lower Deschutes Core Area.** In a recovered condition the lower Deschutes Core Area would have spawning and rearing populations in the Whitewater River, Jefferson/Candle/Abbot river complex, Canyon/Jack/Heising/mainstem Metolius river complex, Warm Springs River, and Shitike Creek. Core habitat in the upper Deschutes core habitat would also contain one or more local populations as yet to be identified. Feasibility analyses are needed to assess the potential for reintroducing bull trout into historic habitat in the upper Deschutes River basin. Additional population studies and a better understanding of bull trout fidelity to their natal streams is needed to better define local populations in the recovery unit.
- 2) **Estimated abundance of adult bull trout is 1,500 to 3,000 or more individuals in the recovery unit, distributed in the lower Deschutes Core Area.**
- 3) **Adult bull trout exhibit stable or increasing trends in abundance in the recovery unit; based on a minimum of 10 years of monitoring data.**
- 4) **Connectivity criteria will be met when migratory forms are present in all local populations, with intact migratory corridors among all local populations in core areas providing opportunity for genetic exchange and diversity.** In the lower Deschutes Core Area this means addressing upstream and downstream passage at Pelton Round-Butte's three dams. Passage barriers at Opal Springs Dam, Link Creek, and upper Squaw Creek must also be addressed. Additional barriers may also be identified. If reestablishment is undertaken in the upper Deschutes core habitat, upstream and downstream passage at Wickiup, Crane Prairie, and several privately owned-hydropower and irrigation diversion dams must be addressed.

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 conditions that allow for the expression of various life-history forms. 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 Deschutes Recovery Unit is estimated at \$2.1 million spread over a 25-year recovery period. Total cost includes estimates of expenditures by local, Tribal, State, and Federal governments and by private businesses and individuals. Cost estimates are not provided for tasks which are normal agency responsibilities under existing authorities.

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 tasks. Three to five bull trout generations (15 to 25 years), or possible longer, may be necessary before identified threats to the species can be significantly reduced and bull trout can be considered eligible for delisting.