Chapter: 16

State(s): Idaho

Recovery Unit Name: Clearwater River

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 the 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 or the official positions or indicate the approval of any individuals or agencies involved in the 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.

Literature Citation: U.S. Fish and Wildlife Service. 2002. Chapter 16, Clearwater River Recovery Unit, Idaho. 196 p. *In:* U.S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Draft Recovery Plan. Portland, Oregon.

ACKNOWLEDGMENTS

This recovery unit chapter was developed with the assistance of the Clearwater River Bull Trout Recovery Unit Team, which include:

Lew Brown, Bureau of Land Management
Tim Burton, Bureau of Land Management
Chip Corsi, Idaho Department of Fish and Game
Terry Cundy, Potlatch Corporation
Joe Dupont, Idaho Department of Lands
Al Espinosa
Mike Faler, U.S. Fish and Wildlife Service
Frank Fink, Natural Resources Conservation Service
Jerome Hansen, Idaho Department of Fish and Game
Bruce Hanson, Natural Resources Conservation Service
Mike Hoffman, Idaho Soil Conservation Commission
Mike Jakober, U.S. Forest Service
Craig Johnson, Bureau of Land Management
Dave Johnson, Nez Perce Tribe
Dave Mays, U.S. Forest Service
Paul Moroz, U.S. Fish and Wildlife Service
Pat Murphy, U.S. Forest Service
Bob Ries, National Marine Fisheries Service
Ralph Roseberg, U.S. Fish and Wildlife Service
Scott Russell, U.S. Forest Service
Danielle Schiff, Idaho Department of Fish and Game
Gregg Servheen, Idaho Department of Fish and Game
Richard Spencer, Natural Resources Conservation Service
Kathy Stangl, Bureau of Land Management
Dave Statler, Nez Perce Tribe
Daniel Stewart, Idaho Department of Environmental Quality

Four problem assessments prepared under the Idaho Bull Trout Conservation Plan by the Clearwater Basin Bull Trout Technical Advisory Team (CBBTTAT) contributed to this chapter. The four problem assessments include the North Fork Clearwater River basin (CBBTTAT 1998a); the Lochsa River and Selway River basins, including the Middle Fork Clearwater River upstream of the confluence with the South Fork Clearwater River (CBBTTAT 1998b); the lower Clearwater River, downstream of the confluence with the South Fork Clearwater River (CBBTTAT 1998c); and the South Fork Clearwater River (CBBTTAT 1998d). The Service acknowledges the technical groups for the Clearwater River basin and numerous individuals who participated in various meetings and discussions in developing the problem assessments, who are acknowledged in each assessment.

CLEARWATER RIVER RECOVERY UNIT CHAPTER OF THE BULL TROUT RECOVERY PLAN

EXECUTIVE SUMMARY

CURRENT SPECIES STATUS

The U.S. Fish and Wildlife Service issued a final rule listing the Columbia River and Klamath River populations of bull trout as threatened species on June 10, 1998 (63 FR 31647). The Clearwater River Recovery Unit forms part of the range of the Columbia River distinct population segment. The Clearwater River Recovery Unit includes the entire Clearwater River basin upstream from the confluence with the Snake River. Bull trout are distributed throughout most of the large rivers and associated tributary systems within the Clearwater River Recovery Unit, and they exhibit adfluvial, fluvial and resident life history patterns (CSS 2001). The Clearwater River Recovery Unit consists of 7 core areas, with a total of 45 local populations and 27 potential local populations distributed among the core areas (Table 2).

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 Clearwater River Recovery Unit chapter. 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, forest management practices, livestock grazing, agriculture, agricultural diversions, road construction and maintenance, mining, and introduction of nonnative species. Impassable dams and diversion structures isolate and fragment bull trout local populations. Forestry activities impact bull trout through decreased recruitable large woody debris, increased water temperatures from reduced shading, and lack of pools and habitat complexity. Livestock grazing degrades aquatic habitat by removing riparian vegetation, destabilizing streambanks, widening stream channels, promoting incised channels and lowering water tables, reducing pool frequency, increasing soil erosion, and

altering water quality. Agriculture practices impact bull trout through added inputs of nutrients, pesticides, herbicides, and sediment, and reduced riparian vegetation. 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 across the species native range, so that the species can be delisted**. To accomplish this goal, the following recovery objectives addressing distribution, abundance, habitat and genetics were identified.

- Maintain the current distribution of bull trout and restore their distribution in previously occupied areas within the Clearwater River Recovery Unit.

- Maintain stable or increasing trends in abundance of bull trout in the Clearwater River Recovery Unit.

- 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 Coeur d'Alene Recovery Unit were established to assess whether recovery actions result in the recovery of bull trout in the basin. The criteria developed for bull trout recovery address quantitative measurements of bull trout distribution and population characteristics on a recovery unit basis.

1. **Maintain the current distribution of bull trout in the 45 currently identified local populations, restore or confirm distribution in the 18 potential local populations that are essential to recovery, and determine the feasibility of establishing 8 additional potential local**

populations. Eighteen potential local populations were assigned a higher priority and determined to be essential to bull trout recovery because they will assist with attainment of the recovery objectives and criteria for distribution and abundance and will improve connectivity within and between core areas. These potential local populations include Rock, Cold Springs, Post Office, Weir, Hungery, Fish, Indian Grave, Lake, Boulder, Old Man, Split, Marten, Mink, Gedney, O'Hara, Clear, and Mill Creeks, and American River. Eight potential local populations, although still important to recovery, were assigned a lower priority because they currently either have degraded habitat or threats present such that support of bull trout may not be currently possible. The second priority potential local populations include Beaver, Orogrande, Deadman, Canyon, Coolwater, Fire, Pete King, Meadow, and Three Links creeks (Clearwater Recovery Unit Team, *in litt.* 2000; Clearwater Recovery Unit Team, *in litt.* 2002).

2. **Achieve estimated abundance of adult bull trout of at least 21,500 individuals in the Clearwater River Recovery Unit including at least 500 individuals in each of the Fish Lake (North Fork Clearwater River), the Fish Lake (Lochsa River), and the Lower/Middle Fork Clearwater River core areas; and at least 5,000 individuals in each of the North Fork Clearwater River, the Lochsa River, the Selway River, and the South Fork Clearwater River core areas**. Abundance of adult bull trout for the recovery unit was estimated based on professional judgement using surveyed fish densities, consideration of current habitat conditions and potential conditions after threats have been addressed (Clearwater Recovery Unit Team, *in litt*. 2000).

3. **Restore adult bull trout local populations to exhibit stable or increasing trends in abundance in the Clearwater River Recovery Unit, based on at least 15 years of monitoring data.** The intent of this criterion is that adult bull trout in core areas presently below their recovered abundance exhibit increasing trends, whereas bull trout in core areas that may be at their recovered abundance exhibit stable trends.

4. **Address specific known barriers to bull trout migration in the Clearwater River Recovery Unit, and identify and address additional barriers. Known passage barriers that must be addressed include: culvert on Forest Service Road 222 (T26N, R8E, S3) in South Fork Red River; private road culvert at confluence of East Fork American River with American River; culvert on county road crossing in Big Elk Creek approximately 0.65 miles upstream from Little Elk Creek confluence; culvert on Forest Service Road 108 in the West Fork Fishing (Squaw) Creek; culverts on Highway 12 at Badger, Cold Storage, and Noseeum creeks; culvert on Forest Service Road 223 at the mouth of Boyd Creek. Other passage barriers that must be addressed are those that have been identified within a general location and need further investigation on the specific location, including: Little North Fork Clearwater River (two culverts between Butte and Culdesac creeks); Beaver Creek below Sheep Mountain sub-watershed (two culverts); North Fork Clearwater River above Isabella Creek sub-watershed (three culverts); Death/Fisher/Trail sub-watershed (two culverts); Cold Springs sub-watershed (one culvert), Long/Short/Slate sub-watershed (two culverts); Moose Creek sub-watershed (one culvert); Cayuse Creek watershed (culvert barrier in Mae Creek).** Substantial gains in reconnecting fragmented habitat may be achieved in all core areas by restoring passage over or around many of the barriers that are typically located on smaller streams, including road crossings, culverts, and water diversions. The priority for addressing passage barriers and re-establishing of connectivity by core area is the South Fork Clearwater, Lochsa, North Fork Clearwater, Lower/Middle Fork Clearwater, and Selway River core areas. Within the core areas, priority should be placed on watersheds currently occupied by bull trout.

Known barriers are listed above and in the Recovery Measures Narrative (section 1.2) portion of this plan, but many others have not yet been identified. However, they are collectively very important to recovery. Tasks to identify and assess barriers to bull trout passage are recommended in this recovery plan. A list of all such artificial barriers should be prepared in the first five years of

implementation. Surveys to identify passage barriers should be prioritized by core area as follows: South Fork Clearwater, Lochsa, North Fork Clearwater, Lower/Middle Fork Clearwater, and Selway River core areas. Substantial progress must be made in providing passage over the majority of these sites, consistent with the protection of upstream populations of westslope cutthroat trout (*Oncorhynchus clarki*) and other native fishes, to meet the bull trout recovery criteria for connectivity.

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 access and habitat conditions that allow for the expression of various life history forms. Specific tasks falling within seven categories 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 this recovery unit is $10.9 million spread over a 25-year recovery timeframe, or an average of $434,000 per year. If the timeframe for recovery can be reduced, lower estimated costs would occur. Total cost includes estimates of expenditures by local, Tribal, State, and Federal governments and by private business and individuals. These costs are attributed to bull trout conservation but other aquatic species will also benefit. Cost estimates are not provided for tasks which are normal agency responsibilities under existing authorities Successful recovery of bull trout in the Clearwater River Recovery Unit is contingent on improving habitat conditions, removing barriers, and removal of nonnative species.

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. A tremendous amount of work will be required to

restore impaired habitat, reconnect habitat, and eliminate threats from nonnative species. Three to five bull trout generations (15 to 25 years), or possibly longer, may be necessary before identified threats to the species can be significantly reduced and bull trout can be considered eligible for delisting.