

**Bull Trout Final Critical Habitat Justification: Rationale for Why Habitat is
Essential, and Documentation of Occupancy**

**Chapter 23. Mid-Columbia Recovery Unit—Mainstem
Snake River Critical Habitat Unit**

Chapter 23. Mainstem Snake River Critical Habitat Unit

The Mainstem Snake River CHU is maintaining bull trout distribution within this unique geographic region of the Mid-Columbia RU. The Snake River, from the mouth at the Columbia River to the upper end of Brownlee Reservoir, is occupied in several reaches and is essential to the long-term conservation of the species because it helps conserve the opportunity for migratory life history expression, facilitates genetic exchange, and ensures connectivity between populations and core areas. The mainstem Snake River plays an important role in the recovery of bull trout populations by providing essential FMO habitat necessary for populations found in the Tucannon River, Asotin Creek, Grande Ronde River, Imnaha River, Clearwater River, Salmon River, Sheep Creek, Granite Creek, Powder River, Pine Creek, Indian Creek, and Wildhorse Creek core areas. Brownlee Reservoir contains potential FMO habitat for fluvial bull trout in the Powder River and Eagle Creek.

The entire reach, from the mouth to the upper end of Brownlee Reservoir, is considered essential and included in designated critical habitat because: (1) it is presently or could potentially be used as FMO habitat by bull trout from tributaries; (2) quality habitat containing several primary constituent elements exists during the FMO period for bull trout; and (3) including this area in critical habitat reflects two recovery objectives: maintaining stable or increasing trends in abundance (indirectly by providing for the needs of migratory forms) and restoring and maintaining suitable habitat conditions for all bull trout life history stages (see Appendix 1 for more detailed information).

The Snake River Mainstem CHU is located from the confluence with the Columbia River upstream to Brownlee Dam. The Snake River is the largest tributary to the Columbia River and forms the border between Washington and Idaho from Clarkston/Lewiston upstream to the Oregon border and the boundary between Idaho and Oregon. 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. The Snake River mainstem presently or could potentially be used as FMO habitat and connectivity for at least ten bull trout core areas and between two recovery units (Middle Columbia River and Upper Snake River). Critical habitat includes the free flowing reaches of the Snake River and the reservoirs to the ordinary high water elevations and normal operating pool elevations, respectively.

In the lower section of the Snake River are a series of dams and locks built by the U.S. Army Corps of Engineers. The Lower Granite, Little Goose, Lower Monumental, and Ice Harbor Dams serve as hydroelectric power sources and provide barge 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.

Downstream from Hells Canyon Dam to the Oregon–Washington border, the Snake River is designated a Wild and Scenic River. It is also within the Hells Canyon National Recreation Area (NRA) and the Hells Canyon Wilderness, which are administered by the U.S. Forest Service.

The Snake River from the mouth to Brownlee Dam is occupied in most of the reaches and is essential to the long-term conservation of the species by conserving the opportunity for life history expression, facilitating genetic exchange, and ensuring connectivity among populations and core areas. The mainstem Snake River plays an important role in the recovery of bull trout

populations by maintaining multiple life history strategies and providing essential FMO habitat necessary for populations found in the Tucannon River, Asotin Creek, Grande Ronde River, Imnaha River, Clearwater River, Salmon River, Sheep Creek, Granite Creek, Pine Creek, Indian Creek, and Wildhorse Creek core areas.

Historically, bull trout utilized the Snake River more extensively for foraging, overwintering, and as a migratory corridor. The Snake River plays an important role in providing a corridor for exchange of bull trout between populations in its tributaries. It will become increasingly important as recovery plans are implemented in tributaries and their local populations increase.

The Snake River and its reservoirs provide an abundant food source for migratory bull trout during the fall, winter, and spring. Thirty-four different species of resident fishes have been collected from the Lower Snake River reservoirs during fisheries studies conducted from 1979 through 1993 (Service 2002a). Forage fish such as juvenile salmon and steelhead, whitefish, sculpins (family Cottidae), suckers (family Catostomidae), and minnows (family Cyprinidae) are present throughout the Lower Snake River.

The following water bodies are included in this CHU (see Table 60).

Snake River mainstem from the confluence with the Columbia River upstream 451.7 km (280.6 mi) to Brownlee Dam provides essential FMO habitat and connectivity for at least ten bull trout core areas and the Middle Columbia River and Upper Snake River Recovery Units. Critical habitat includes the free-flowing reaches of the Snake River and the reservoirs to the ordinary high water elevations and normal operating pool elevations, respectively. Observations of bull trout at anadromous fish passage and monitoring facilities in the Snake River indicate their presence in the Snake River. Bull trout have been observed at all of the lower Snake River dams, smolt monitoring traps, juvenile fish facilities, and fish ladders; although they are anecdotal to salmon monitoring and are generally not targeted for observation and collection. Radio-telemetry studies in the Snake, Imnaha, and Grande Ronde rivers have shown that bull trout migrate between the foraging, overwintering, and migration habitat in the Snake River and spawning and rearing habitat in its tributaries (Hemmingsen, Bellerud, Gunckel, et al. 2001).

Table 60. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Mainstem Snake River CHU/CHSU

| CHU—CHSU | Water Body Name | State | Information Documenting Bull Trout Occupancy | Essential Habitat Rationale | LLID |
|---------------------------|-----------------|-------|---|-----------------------------|-------------------|
| Mainstem Snake River—None | Snake River | OR | Snake River mainstem from the confluence with the Columbia River upstream 451.7 km (280.6 mi) to Brownlee Dam provides essential FMO habitat and connectivity for at least ten bull trout core areas and the Middle Columbia River and Upper Snake River Recovery Units. Critical habitat includes the free-flowing reaches of the Snake River and the reservoirs to the ordinary high water elevations and normal operating pool elevations, respectively. Observations of bull trout at anadromous fish passage and monitoring facilities in the Snake River indicate their presence in the Snake River. Bull trout have been observed at all of the lower Snake River dams, smolt monitoring traps, juvenile fish facilities, and fish ladders; although they are anecdotal to salmon monitoring and are generally not targeted for observation and collection. Radio-telemetry studies in the Snake, Imnaha, and Grande Ronde rivers have shown that bull trout migrate between the foraging, overwintering, and migration habitat in the Snake River and spawning and rearing habitat in its tributaries (Hemmingsen, Bellerud, Gunckel, et al. 2001). | See CHU text | 1190296 461886 |