

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

**Chapter 22 Mid-Columbia Recovery Unit—Mainstem
Upper Columbia River Critical Habitat Unit**

Chapter 22. Mainstem Upper Columbia River Critical Habitat Unit

The Mainstem Upper Columbia River CHU is essential for maintaining bull trout distribution within this unique geographic region of the Mid-Columbia RU and conserving the fluvial migratory life history types exhibited by many of the populations from adjacent core areas. It is essential for conservation by maintaining broad distribution within the Mid-Columbia RU across Washington, Idaho, and Oregon. Its location between Chief Joseph Dam in the most northern geographical area and John Day Dam in the most southern area provides key connectivity for the Mid-Columbia River RU. It is essential for maintaining distribution and genetic contributions to the Lower Columbia and Snake River Mainstems and 13 CHUs. Bull trout are known to reside year-round as sub-adults and adults, but spawning adults may utilize the mainstem Columbia River for up to at least 9 months as well. Several studies in the upper Columbia and lower Snake Rivers indicate migration between the Mainstem Upper Columbia River CHU and core areas, generally during periods of cooler water temperatures. FMO habitat provided by the mainstem Columbia River is essential for conservation because it supports the expression of the fluvial migratory life history forms for multiple core areas. In addition, there are several accounts of amphidromous life history forms present between Yakima and John Day Rivers that may still have the potential to express anadromy (see Appendix 1 for more detailed information). The water bodies included in this CHU are listed in Table 59.

Table 59. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Mainstem Upper Columbia River CHU/CHSU

| CHU—CHSU | Water Body Name | State | Information Documenting Bull Trout Occupancy | Essential Habitat Rationale | LLID |
|------------------------------------|-----------------|-------|--|---|-------------------|
| Mainstem Upper Columbia River—None | Columbia River | WA | The Middle Columbia River mainstem is currently occupied FMO for several Core Areas. FMO habitat is within free flowing and reservoir reaches. It is the main FMO for the Entiat River Core Area (BioAnalysts 2004 p. 17-22, 35-42, 49-51, 57-70; Stevenson et al. 2006 p. 13-21; Stevenson et al. 2007 p. 14-24; Nelson and Nelle 2007 p. 11; Nelson et al. 2007 p. 29; Nelson and Nelle 2008 p. 75, 80; Stevenson et al. 2008 p. 13-21; Kelly Ringel and DeLaVergne 2010 draft p. 13, 17-19, 71; Service 2002a; Service 2008k, 2009c (Priest R/Rocky R Relicensing Project BOs). | The Columbia River is essential and in some cases provides the primary FMO. It provides connectivity between many Core Areas/CHUs/CHSUs. For example most of the Entiat River Core Area local populations depend on the Columbia for FMO (See text for Mainstem Mid-Columbia River CHU above) | 1240483 462464 |