

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

**Chapter 19 Mid-Columbia Recovery Unit—Hells Canyon
Complex Critical Habitat Unit**

Chapter 19. Hells Canyon Complex Critical Habitat Unit

The Hells Canyon Complex CHU is essential for maintaining bull trout distribution within this unique geographic region of the Mid-Columbia RU. This CHU occurs above Hells Canyon Dam and below Brownlee Reservoir. There are three drainages that occur within this CHU: Pine Creek in Oregon and Indian Creek and Wildhorse River in Idaho. This CHU contains both fluvial and resident populations of bull trout that have access to the Snake River, which assists in promoting the migratory life history expression within the Upper Snake RU. Migratory life history expression is needed for the long-term conservation of the species. This CHU also represents the southeastern most extent of the Middle Columbia RU (see Appendix 1 for more detailed information).

The Hells Canyon Complex is located in Adams County, Idaho, and Baker County, Oregon. This CHU contains 377.6.3 km (234.6 mi) of streams designated as critical habitat.

The following water bodies are included in this CHU (see Table 52):

(A) Indian Creek from its confluence with the east bank of the Snake River within the Oxbow Bypass upstream 26.3 km (16.3 mi) to its confluence with Camp Creek contains FMO habitat; Indian Creek from its confluence with Camp Creek upstream 3.3 km (2.1 mi) to its headwaters provides spawning and rearing habitat; and Camp Creek from its confluence with Indian Creek upstream 3.7 km (2.3 mi) to its headwaters provides spawning and rearing habitat.

(B) Pine Creek from its confluence with the west bank of Hells Canyon Reservoir upstream 50.4 km (31.3 mi) to East Fork Pine Creek contains FMO habitat; Pine Creek from its confluence with East Fork Pine Creek upstream 2.3 km (1.4 mi) to its confluence with Middle Fork Pine Creek and West Fork Pine Creek provides spawning and rearing habitat; North Fork Pine Creek from its confluence with Pine Creek upstream 22.3 km (13.8 mi) contains FMO habitat; Little Elk Creek from its confluence with North Pine Creek upstream 9.9 km (6.2 mi) to its headwaters contains FMO habitat; and Fall Creek from its confluence with North Pine Creek upstream 7.1 km (4.4 mi) to its headwaters contains FMO habitat.

(C) Elk Creek from its confluence with North Pine Creek upstream 3.1 km (1.9 mi) to its confluence with Lake Fork (also termed Lake Fork of Elk Creek or Lake Creek) contains FMO habitat. Elk Creek from its confluence with Lake Fork upstream 12.2 km (7.6 mi) to its headwaters; Lake Fork from its confluence with Elk Creek upstream 16.7 km (10.4 mi) to its headwaters; Aspen Creek from its confluence with Elk Creek upstream 2.5 km (1.6 mi) to its headwaters; Cabin Creek from its confluence with Elk Creek upstream 2.0 km (1.2 mi) to its headwaters; and Big Elk Creek from its confluence with Elk Creek upstream 3.3 km (2.1 mi) to its headwaters all provide spawning and rearing habitat.

(D) Duck Creek from its confluence with North Pine Creek upstream 9.7 km (6.0 mi) to its headwaters provides spawning and rearing habitat. Fish Creek from its confluence with Pine Creek upstream 20.5 km (12.8 mi) to its headwaters contains FMO habitat.

(E) East Pine Creek from its confluence with Pine Creek upstream 19.7 km (12.2 mi) to its confluence with Okanogan Creek contains FMO habitat; East Pine Creek from its confluence with Okanogan Creek upstream 10.3 km (6.4 mi) to its headwaters provides spawning and rearing habitat; Okanogan Creek from its confluence with East Pine Creek upstream 4.0 km (2.5 mi) to its headwaters contains FMO habitat. Trinity Creek from its confluence with East

Pine Creek upstream 4.8 km (3.0 mi) to its headwaters; an unnamed creek from its confluence with East Pine Creek (located between Trinity Creek and the east fork of East Pine Creek) upstream 2.5 km (1.6 mi) to its headwaters and the east fork of East Pine Creek from its confluence with East Pine Creek upstream 2.5 km (1.6 mi) to its headwaters all provide spawning and rearing habitat.

(F) Clear Creek from its confluence with Pine Creek upstream 14.6 km (9.1 mi) contains FMO habitat. Clear Creek from 14.6 km (9.1 mi) upstream of the mouth of Clear Creek for 11.4 km (7.1 mi) to East Fork Clear Creek; Meadow Creek from its confluence with Clear Creek upstream 5.3 km (3.3 mi) to its headwaters; and Trail Creek from its confluence with Clear Creek upstream 6.8 km (4.2 mi) to its headwaters all provide spawning and rearing habitat.

(G) East Fork Pine Creek from its confluence with Pine Creek upstream 7.2 km (4.5 mi) to its headwaters; Middle Fork Pine Creek from its confluence with Pine Creek upstream 3.7 km (2.3 mi) to its headwaters; and West Fork Pine Creek from its confluence with Pine Creek upstream 3.8 km (2.4 mi) to its headwaters all provide spawning and rearing habitat.

(H) Wildhorse River from its confluence with the east bank of Oxbow Reservoir upstream 22.4 km (13.9 mi) to its confluence with Bear Creek and Crooked River contains FMO habitat.

(I) Bear Creek from its confluence with Crooked River upstream 20.4 km (12.7 mi) to its confluence with Little Bear Creek contains FMO habitat. Bear Creek from its confluence with Little Bear Creek upstream 9.6 km (6.0 mi) to its headwaters. The following tributaries contain FMO habitat: Mickey Creek from its confluence with Bear Creek upstream 2.5 km (1.6 mi) to its headwaters; Wesley Creek from its confluence with Bear Creek upstream 3.6 km (2.2 mi) to its headwaters; an unnamed tributary to Bear Creek (entering Bear Creek approximately 1.6 km (1.0 mi) upstream from Wesley Creek) from its confluence with Bear Creek upstream 1.8 km (1.1 mi) to its headwaters; and an unnamed tributary to Bear Creek (entering Bear Creek approximately 2.4 km (1.5 mi) upstream from Wesley Creek) from its confluence with Bear Creek upstream 1.7 km (1.0 mi) to its headwaters.

(J) Crooked River from its confluence with Bear Creek upstream 9.6 km (6.0 mi) to its confluence with Dick Ross Creek contains FMO habitat. Crooked River from its confluence with Dick Ross Creek upstream 14.1 km (8.7 mi) to its headwaters provides spawning and rearing habitat.

Table 52. Water body segments designated as critical habitat for bull trout, including documentation of occupancy and site-specific rationale in the Hells Canyon Complex–Indian Creek–Pine Creek-Wildhorse River CHU/CHSU

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Hells Canyon Complex–Indian-Pine-Wildhorse	UNNAMED-trib to Bear Creek	ID	(StreamNet 2009, pg. 37)	Rationale provided in Hells Canyon Complex CHU justification text	1165450451242
Hells Canyon Complex–Indian-Pine-Wildhorse	UNNAMED-trib to Bear Creek	ID	(StreamNet 2009, pg. 38)	Rationale provided in Hells Canyon Complex CHU justification text	1165543451244
Hells Canyon Complex–Indian-Pine-Wildhorse	Wesley Creek	ID	(StreamNet 2009, pg. 3)	Rationale provided in Hells Canyon Complex CHU justification text	1165621451123
Hells Canyon Complex–Indian-Pine-Wildhorse	Mickey Creek	ID	(StreamNet 2009, pg. 3)	Rationale provided in Hells Canyon Complex CHU justification text	1165647451091
Hells Canyon Complex–Indian-Pine-Wildhorse	Camp Creek	ID	(Nelson 1998, pg. 20)	Rationale provided in Hells Canyon Complex CHU justification text	1166226451316
Hells Canyon Complex–Indian-Pine-Wildhorse	Crooked River	ID	(Nelson 1998, pg. 17)	Rationale provided in Hells Canyon Complex CHU justification text	1167248449591.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Crooked River	ID	(Nelson 1998, pg. 17; Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1167248449591.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Bear Creek	ID	(Nelson 1998, pg. 34; Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1167248449592.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Bear Creek	ID	(Nelson 1998, pg. 34; Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1167248449592.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Indian Creek	ID	(Nelson 1998, pg. 25; Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1168289449843.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Indian Creek	ID	(Nelson 1998, pg. 20; Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1168289449843.2

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Hells Canyon Complex–Indian-Pine-Wildhorse	Pine Creek	OR	(PBWC 2000, pg. 36)	Rationale provided in Hells Canyon Complex CHU justification text	1168539 449735.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Pine Creek	OR	(PBWC 2000, pg. 36)	Rationale provided in Hells Canyon Complex CHU justification text	1168539 449735.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Wildhorse River	ID	(Grunder 1999, pg. 3-7)	Rationale provided in Hells Canyon Complex CHU justification text	1168973 448511
Hells Canyon Complex–Indian-Pine-Wildhorse	Duck Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169057 450685
Hells Canyon Complex–Indian-Pine-Wildhorse	Elk Creek	OR	(BLM 1998a, pg. 19)	Rationale provided in Hells Canyon Complex CHU justification text	1169095 450086.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Elk Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169095 450086.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Lake Fork	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169416 450198
Hells Canyon Complex–Indian-Pine-Wildhorse	North Pine Creek	OR	(Chandler, <i>in litt.</i> 2000)	Rationale provided in Hells Canyon Complex CHU justification text	1169488 449099.1
Hells Canyon Complex–Indian-Pine-Wildhorse	North Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169488 449099.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Fall Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169492 449700
Hells Canyon Complex–Indian-Pine-Wildhorse	Fish Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169532 449081
Hells Canyon Complex–Indian-Pine-Wildhorse	Little Elk Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1169618 449545

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Hells Canyon Complex–Indian-Pine-Wildhorse	Aspen Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170117 450568
Hells Canyon Complex–Indian-Pine-Wildhorse	East Pine Creek	OR	(PBWC 2000, pg. 36)	Rationale provided in Hells Canyon Complex CHU justification text	1170207 448719.1
Hells Canyon Complex–Indian-Pine-Wildhorse	East Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170207 448719.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Cabin Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170208 450612
Hells Canyon Complex–Indian-Pine-Wildhorse	Big Elk Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170244 450629
Hells Canyon Complex–Indian-Pine-Wildhorse	Clear Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170299 448659.1
Hells Canyon Complex–Indian-Pine-Wildhorse	Clear Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1170299 448659.2
Hells Canyon Complex–Indian-Pine-Wildhorse	Okanogan Creek	OR	(Buchanan et al. 1997, pg. 129; PBWC 2000, p. H-2)	Rationale provided in Hells Canyon Complex CHU justification text	1170647 449871
Hells Canyon Complex–Indian-Pine-Wildhorse	Trinity Creek	OR	(Buchanan et al. 1997, pg. 129; PBWC 2000, p. H-2)	Rationale provided in Hells Canyon Complex CHU justification text	1170720 449880
Hells Canyon Complex–Indian-Pine-Wildhorse	UNNAMED - off East Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1171019 449931
Hells Canyon Complex–Indian-Pine-Wildhorse	East Fork Of East Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1171074 450207
Hells Canyon Complex–Indian-Pine-Wildhorse	Meadow Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1171430 449898

CHU—CHSU	Water Body Name	State	Information Documenting Bull Trout Occupancy	Essential Habitat Rationale	LLID
Hells Canyon Complex–Indian-Pine-Wildhorse	Trail Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1171432 449911
Hells Canyon Complex–Indian-Pine-Wildhorse	East Fork Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1172008 450217
Hells Canyon Complex–Indian-Pine-Wildhorse	West Fork Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1172158 450387
Hells Canyon Complex–Indian-Pine-Wildhorse	Middle Fork Pine Creek	OR	(Buchanan et al. 1997, pg. 129)	Rationale provided in Hells Canyon Complex CHU justification text	1172158 450388