

Forest Plan Revision Appendix J. Bull trout Strongholds

Bull trout strongholds were identified on each forest per direction in the regional Aquatic Sustainability Model used for the Blue Mountains Forest Plan Revision EIS. The model provided a protocol for selection of Key Watersheds for protection and/or restoration, based in part on the strength of local populations of select species of conservation concern. Bull trout were one of the four species selected for this analysis in the Blue Mountains Plan Revision NEPA process. Population strength for each species was assessed separately for purposes of identifying Key watersheds per the Sustainability Model protocol. No strong populations for ESA-listed steelhead or Chinook salmon were identified at subwatershed-scale within the Plan Revision analysis area. Strong populations for bull trout were identified. The subwatersheds supporting those strong populations are listed in Table 1 below. The Aquatic Sustainability Model protocol for determining species use and population strength at subwatershed scale provided the following criteria for identification of Stronghold populations.

Strong population—HUC6 has ALL of the following conditions:

All major life-histories (e.g., stream resident or migratory) that historically occurred in the subwatershed are still present; AND

Numbers are stable or increasing, and the local population is likely to be half or more of its historic size or density; AND

The population or metapopulation in the subwatershed, or in the larger region of which it is a part, likely is at least 5,000 individuals or 500 adults.

The HUC6 was selected as the base unit of analysis for several reasons. Hydrologic units (Seaber et al. 1987) are established consistent units of area on which to base an analysis. HUC6s were considered the best surrogate for local fish population analysis in the Interior Columbia Basin project (Rieman et al. 2001). Subwatersheds (HUC6's) are also considered the "basic building block for salmonid populations" in salmon recovery planning (ICNTRT 2007).

Each HUC6 was evaluated to determine presence and status of the fish focal species. The following information was collected for each fish focal species within each HUC6 subwatershed: species is present with strong numbers (greater than 500 adult fish); species is present with depressed numbers (less than 500 adult fish); species is present with small stable population; species is present with no population information; species is present but population is migratory or rearing; species is absent (verified via sampling); species was historically absent; species presence is unknown but suitable habitat is present and connected and species presence is unknown but suitable habitat is present and not connected. Other information was obtained regarding the presence of barriers and non-native fish species.

Information was gleaned from a variety of information sources to assist with the evaluation of each HUC6 subwatershed. These sources include the following: ICEBMP, Oregon Department of Fish and Wildlife Native Fish Conservation Policy, draft recovery plan for bull trout, draft five-year listing update for bull trout, subbasin plans, Buchanan et al. 1997, draft recovery plan for Chinook salmon, draft recovery plan for steelhead trout, Lee et al. 1997, Benke 1992 and Streamnet. After all these information sources were reviewed and an initial stronghold determination was made for each HUC6 subwatershed for each fish focal species.

After the initial determinations were made a series of meetings were held with the Malheur, Umatilla and Wallowa-Whitman National Forests. The local Forest Service fisheries biologists reviewed the initial determinations and supporting information. Changes in both the initial determinations and supporting documentation were made based on this validation step. A second validation step was undertaken with various State and federal agencies, as well as native American tribes.

Table 1 below lists stronghold populations for bull trout. Subwatersheds identified as strongholds for bull trout were based on best available information and professional judgement, using the strong-population criteria described above from the Regional Aquatic Sustainability Model.

Table 1. Bull trout strongholds¹ in the Blue Mountains Plan Revision analysis area

Subbasin/Watershed	Subwatershed Name	HUC6 Code
Wallowa/Minam	Little Minam	170601050505
Tucannon/Upper Tucannon	Headwaters Tucannon River	170601070601
Tucannon/Upper Tucannon	Panjab Creek	170601070602
Walla Walla/Upper WW River	Upper SF Walla Walla River	170701020201
Walla Walla/Upper WW River	Middle SF Walla Walla River	170701020202
Walla Walla/Upper Touchet	Wolf Fork Touchet River	170701020303
Lower Grande Ronde/Wenaha River	Upper SF Wenaha River	170601060301
Lower Grande Ronde/Wenaha River	Lower SF Wenaha River	170601060302
Lower Grande Ronde/Wenaha River	NF Wenaha River	170601060303
Lower Grande Ronde/Wenaha River	Beaver Creek	170601060304
Lower Grande Ronde/Wenaha River	Wenaha River/Rock Creek	170601060305
Lower Grande Ronde/Wenaha River	WF Butte Creek	170601060306
Lower Grande Ronde/Wenaha River	Butte Creek	170601060307
Lower Grande Ronde/Wenaha River	Upper Crooked Creek	170601060309
Lower Grande Ronde/Wenaha River	First Creek	170601060310
Lower Grande Ronde/Wenaha River	Lower Crooked Creek	170601060311
Umatilla/Upper Umatilla River	NF Umatilla River	170701030104