

**Appendix B: Draft Bull Trout Recovery Criteria**

**Bull Trout—Willamette Basin Wide Goals**

**USFWS Recovery Goals 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 throughout the species native range so that the species can be delisted. To achieve this goal the following objectives and been identified for bull trout in the Willamette Recovery unit:

- Maintain current distribution of bull trout and restore distribution in previously occupied areas within the Willamette Recovery unit
- Maintain stable or increasing trends in abundance adult bull trout
- Restore in maintain suitable habitat conditions for all bull trout life history stages and forms
- Conserve genetic diversity and provide opportunity for genetic exchange

Agency	Adult Productivity and Abundance	Population Diversity	Habitat	Within Population Spatial Structure
ODFW	At least 5 local populations with at least 1000 adults in each population with stable or increasing trends for not less than 10 years	Populations in core areas of Willamette Recovery Unit (McKenzie;/Middle Fork, Clackamas)		
USFWS	900 to 1500 or more individuals in the recovery unit, distributed in each core area as follows: 600 to 1000 in the upper Willamette River core area and 300 to 500 in the Clackamas River core habitat with stable or increasing trends for minimum of 10 years	Distribution criteria will be met when Bull trout are distributed among five or more local populations in the recovery unit: four in the Upper Willamette core area and one in the Clackamas River core habitat. In a recovered condition, the Upper Willamette core area would include local populations in the mainstem McKenzie River (connectivity with the Trail Bridge local population would need to be established), South Fork McKenzie River, upper Middle Fork Willamette River, and Salt Creek/Salmon Creek/North Fork Middle Fork Willamette River complex.	The construction of impassable dams and culverts is considered a major factor in the decline of bull trout, blocking migratory corridors and altering temperature and flow régimes. Habitat degradation, passage barriers, over harvest, chemical treatment projects, and hybridization and competition with non-native brook trout are possible suppressing factors for bull trout populations in the Willamette River Basin. Alteration and degradation of in stream habitat resulting in loss of in stream structure, pools, and side channel habitats are identified as limiting bull trout populations in the McKenzie and Middle Fork Willamette River basins. Causal mechanisms can be both man-made in natural and are difficult to quantify due to lack of data on historic population abundance and habitat condition.	Connectivity criteria will be met when migratory forms are present in all local populations and with intact migratory corridors among all local populations in core areas provide opportunity for genetic exchange and diversity. For the upper Willamette River core area, meeting connectivity criteria would require in establishing fish passage at Cougar, Trail Bridge, Dexter, Lookout, and Hills Creek dams. In the future, establishing fish passage at dams in the Clackamas and Santiam River Basin may be necessary, but currently there is insufficient information to make that determination.