

**Appendix C: Oregon Chub Recovery Criteria**

**Oregon Chub—Willamette Basin Wide Goals**

**USFWS:**

The ultimate object of the U.S. Fish and Wildlife Service is to delist Oregon chub.

Current known or suspected threats to existing populations of Oregon chub include:

- Nonnative fish
- Threat of nonnative fish introduction
- Bullfrogs present
- Possible agricultural chemical runoff
- Possible logging/siltation and the watershed
- Other water quality issues, including threat of spills
- Low summer water levels
- Spillway operations

Populations of Oregon chub should be monitored and adaptively managed to ameliorate threats. Removal of threats and enhancement activities at occupied sites include:

- Prevent or minimize biotic threats by preventing introduction of non-native fish and amphibians that may act as predators or competitors, removing non-native species (if practical), and isolating Oregon chub populations from introduced fish pathogens.
- Enhance conditions and maintain optimal physical parameters of Oregon chub habitats by preventing inappropriate water diversions, fill or removal of material, water temperature change, excessive sedimentation or removal of cover.
- Prevent chemical impacts by prohibiting use of pesticides and herbicides and reducing the risk of accidental spills of toxicants near Oregon chub populations.
- Identify suitable stream reaches within each subbasin and where possible, restore floodplain habitats within the natural dispersal range of existing Oregon chub populations. This should result in increased abundance of populations limited by lack of suitable habitat.

Agency	Adult Productivity and Abundance	Population Diversity	Habitat	Within Population Spatial Structure
ODFW	20 populations, with at least 500 adults in each population with a stable or increasing trend for 7 years.	At least 4 populations must be located in each of the three subbasins (Willamette River mainstem, Middle Fork Willamette River, Santiam River)		
USFWS	20 populations, with at least 500 adults in each population with a stable or increasing trend for 7 years.	At least 4 populations must be located in each of the three subbasins (Willamette River mainstem, Middle Fork Willamette River, Santiam River)		