

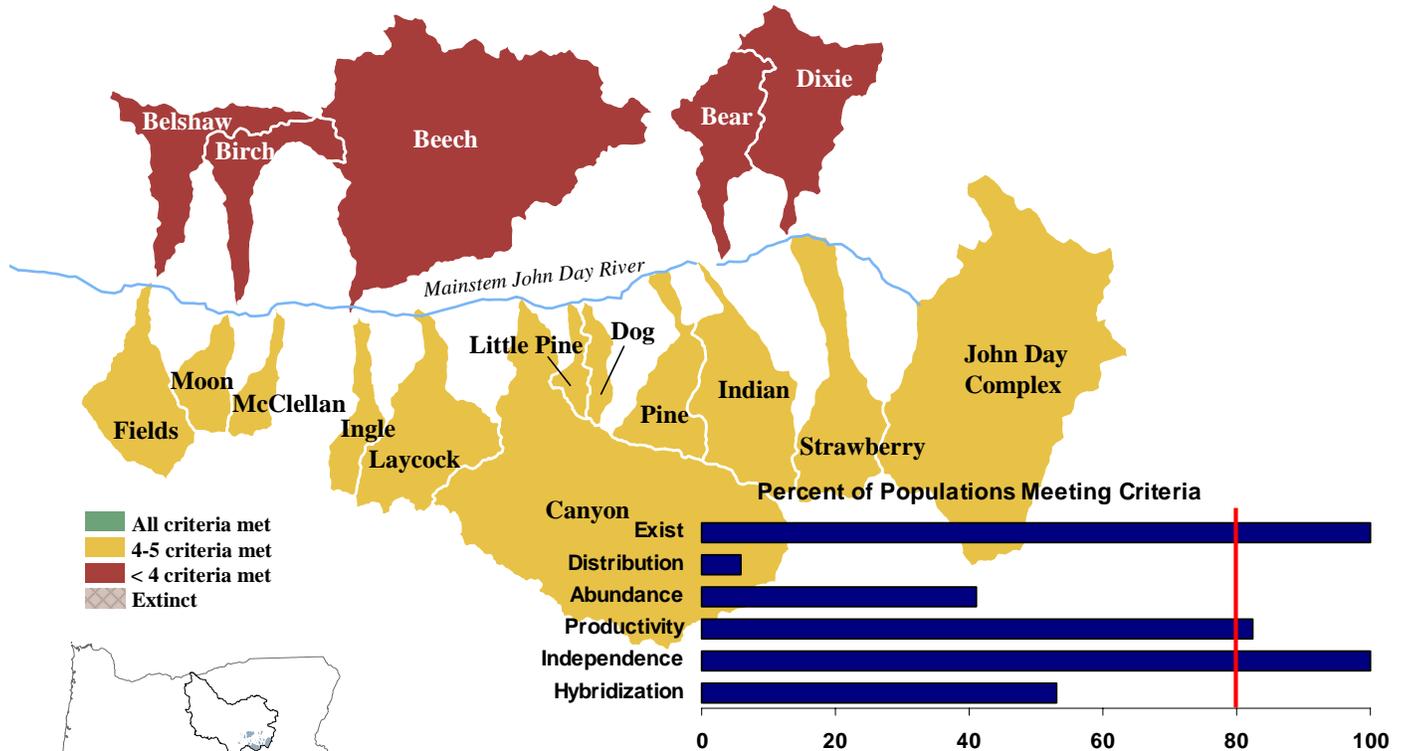
# Westslope Cutthroat Trout SMU

ESA Designation:  
**Not Listed**

State Status:  
**Vulnerable**

Interim Assessment:  
**At Risk**

All westslope cutthroat trout in Oregon exist in the John Day River Basin. These populations are disjunct from the greater contiguous distribution in the Upper Missouri and Columbia basins of Montana and Idaho. The Westslope Cutthroat Trout SMU consists of 17 population in the upper mainstem John Day River Basin. Three naturalized populations also exist in the North Fork John Day Basin; however these were established through stocking activities and are not evaluated in this review. The SMU meets three of the six interim criteria, and is classified as ‘at risk’. Limited data sets and inferences from other information for populations in this SMU provide a qualified level of confidence in the assessment of the interim criteria.

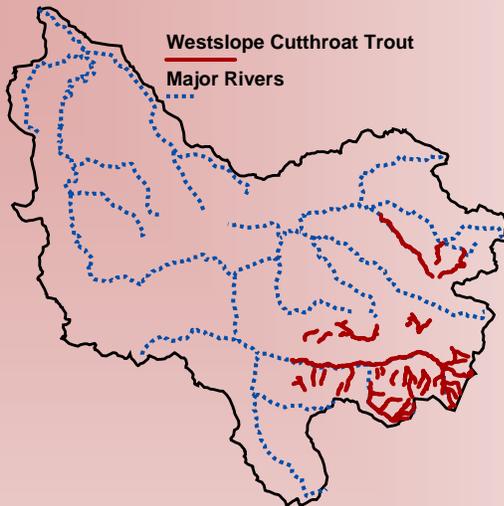


Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Upper John Day Complex	Pass	Pass*	Pass*	Pass*	Pass	Fail*
Strawberry	Pass	Fail*	Pass*	Pass*	Pass	Fail*
Dixie	Pass	Fail*	Fail*	Pass*	Pass	Fail*
Indian	Pass	Fail*	Pass*	Pass*	Pass	Pass*
Bear	Pass	Fail*	Fail*	Fail*	Pass	Fail*
Pine	Pass	Fail*	Fail*	Pass*	Pass	Pass*
Dog	Pass	Fail*	Fail*	Pass*	Pass	Pass*
Little Pine	Pass	Fail*	Fail*	Pass*	Pass	Pass*
Canyon Complex	Pass	Fail*	Pass*	Pass*	Pass	Fail*
Laycock	Pass	Fail*	Fail*	Pass*	Pass	Pass*
Ingle	Pass	Fail*	Fail*	Pass*	Pass	Pass*
Beech	Pass	Fail*	Fail*	Pass*	Pass	Fail*
McClellan	Pass	Fail*	Pass*	Pass*	Pass	Pass*
Birch	Pass	Fail*	Fail*	Fail*	Pass	Pass*
Moon	Pass	Fail*	Pass*	Pass*	Pass	Pass*
Belshaw	Pass	Fail*	Fail*	Fail*	Pass	Fail*
Fields	Pass	Fail*	Pass*	Pass*	Pass	Fail*

*Inferred*

## ***Distribution - Fail***

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- Distribution is highly fragmented and limited to headwater streams and the upper mainstem of the John Day River.
- The John Day Complex is the only population to pass the distribution criterion. This population occupies over 50% of the historical distribution, is distributed over 90 km, and is suspected to express a migratory life history strategy. The remaining populations fail the distribution criterion either because they occupy less than ten km of stream distance or 50% of the historical distribution.
- Apart from the John Day Complex, most populations are isolated from others during the summer months due to elevated water temperatures and low flows. Functionally these populations are isolated from each other due to the lack of movement, seasonal connectivity, and distance between populations.

## ***Productivity - Pass***

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- Bear, Birch, and Belshaw populations are reduced and declining in abundance. These populations fail the productivity criterion.
- All other populations are considered to be depressed relative to historical levels of abundance, but appear to be maintaining stable levels of abundance. Degraded habitat, presence of non-native fish, and limited expression of a migratory life history are factors that influence productivity of westslope cutthroat trout.

## ***Additional Information***

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- Populations of westslope cutthroat trout in the upper John Day basin are native. Only two documented stocking events are known; one in Deardorff Creek (Upper John Day Complex) and one in Strawberry Lake, both prior to 1935. Neither of these events likely impacted westslope cutthroat trout, thus all populations pass the reproductive independence criterion.
- ODFW is conducting research to obtain a genetic description of the populations, and to determine the extent of hybridization between cutthroat trout and rainbow trout.

## ***Abundance - Fail***

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- Only the upper John Day and Canyon complexes, and the Moon populations are estimated to exceed 500 adults and pass the abundance criterion.
- Bear, Dog, Little Pine, Ingle, and Birch populations are estimated to be less than 50 reproductive adults and fail the abundance criterion.
- Dixie, Pine, Beech and Belshaw populations are thought to occupy the available habitat at abundances significantly below the habitat's potential capacity. These populations also fail the abundance criterion.

## ***Hybridization - Fail***

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- Hybridization with introduced hatchery rainbow trout can be detrimental to westslope cutthroat trout populations and is considered one of the greatest risks of extinction.
- 500,000 hatchery rainbow trout were planted in the John Day River and one million in Canyon Creek before stocking programs ceased in 1997.
- Westslope cutthroat trout x hatchery rainbow trout hybrids may be extensive in the John Day basin where both species are sympatric. Populations fail the hybridization criterion if hatchery rainbow trout were either planted on top of westslope cutthroat trout or had access from other stocking locations in nearby streams. Populations located above barriers to passage and that have no records of stocking pass the criterion.