

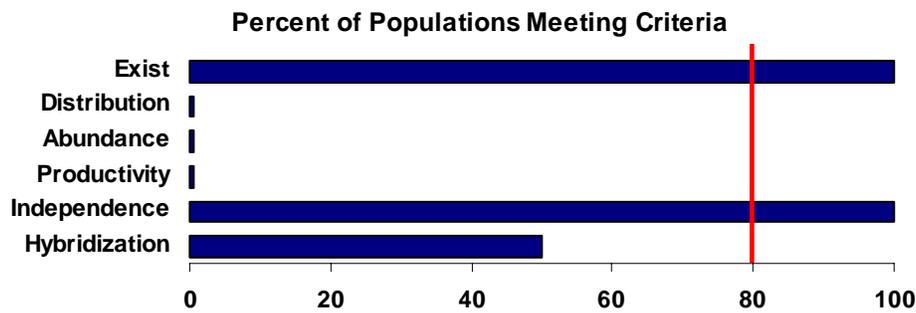
Malheur River Bull Trout SMU

ESA Designation:
Threatened 1998

State Status:
Critical

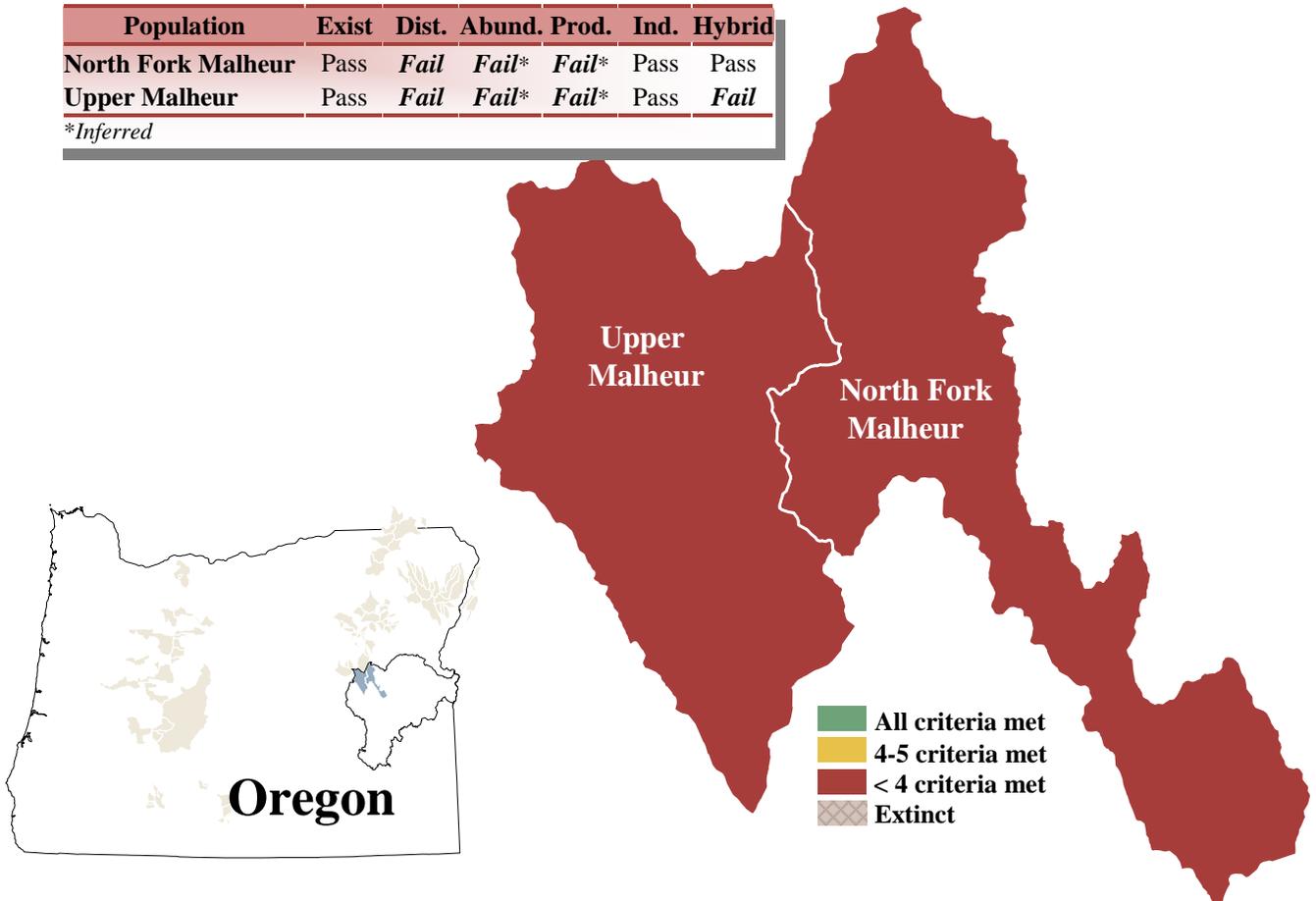
Interim Assessment:
At Risk

The Malheur River Bull Trout SMU consists of two populations, North Fork Malheur and Upper Malheur. Current spawning distribution is widespread, though fragmented, in headwater streams, and both populations are isolated from each other and other Snake River populations by impassable dams on the Malheur and North Fork Malheur Rivers. Brook trout are present and abundant in the Upper Malheur population and likely diminish the productivity of bull trout. The SMU met two 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.

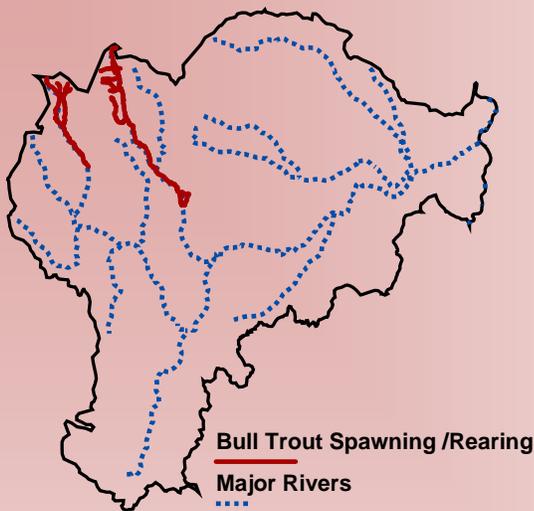


Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
North Fork Malheur	Pass	<i>Fail</i>	<i>Fail*</i>	<i>Fail*</i>	Pass	Pass
Upper Malheur	Pass	<i>Fail</i>	<i>Fail*</i>	<i>Fail*</i>	Pass	<i>Fail</i>

**Inferred*



Distribution - Fail



- Historically, bull trout were present throughout the entire Malheur River, downstream to the Snake River.
- Current spawning, juvenile rearing, and adult resident habitat is widely distributed in the upper basins. The North Fork Malheur distribution remains similar to when bull trout were first documented in 1955. Upper Malheur distribution is thought to be 54% of what it was historically.
- Current bull trout distribution is disjunct. Populations are isolated above Agency and Warm Springs dams and gene flow between populations is not possible. Given the lack of connectivity to other populations, both populations fail the distribution criterion.
- Migratory bull trout in the North Fork population rear and over winter in Beulah Reservoir and large river reaches upstream of the reservoir.

Hybridization - Fail

- Stocking of brook trout in the Malheur River basin was first recorded in the late 1920s and 1930s (ODFW stocking records). Some of the brook trout releases resulted in self-sustaining populations.
- Brook trout are present and abundant in the Upper Malheur population. Bull trout x brook trout hybrids are common. This population fails the hybridization criterion.
- Brook trout are not present in the North Fork Malheur population and the population passes the hybridization criterion.

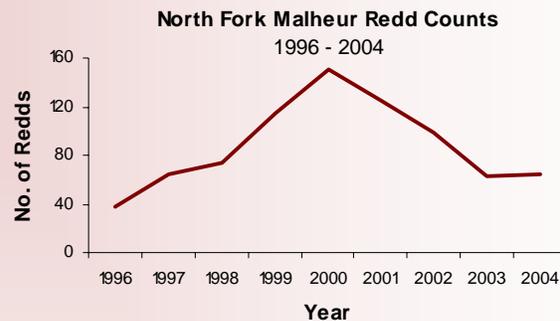
Additional Information

- Both populations in the Malheur River SMU are native fish sustained by natural production and pass the reproductive independence criterion.

Abundance - Fail

- Abundance of bull trout in the North Fork Malheur population exceeds that necessary to avoid the negative effects of inbreeding.
- Methods used to evaluate abundance of bull trout in the Upper Malheur population are confounded by the presence of brook trout. Field observations suggest densities are relatively low in this population, except in Meadow Fork of Big Creek, where densities appear highest.
- The total number of adults in the SMU is estimated to be fewer than 1,000. Given the lack of connectivity and the low estimate of abundance, the SMU is at risk of the deleterious effects of genetic drift. Both populations and the SMU fail the abundance criterion.

Productivity - Fail



- Annual redd counts in the North Fork Malheur population reflect a recent decreasing trend in abundance over the past five years.
- Data adequate to assess productivity of the Upper Malheur are not available. The population is considered to fail the criterion due to low abundance, an isolated and fragmented spawning distribution, and the presence of a large population of brook trout.