

# Imnaha Bull Trout SMU

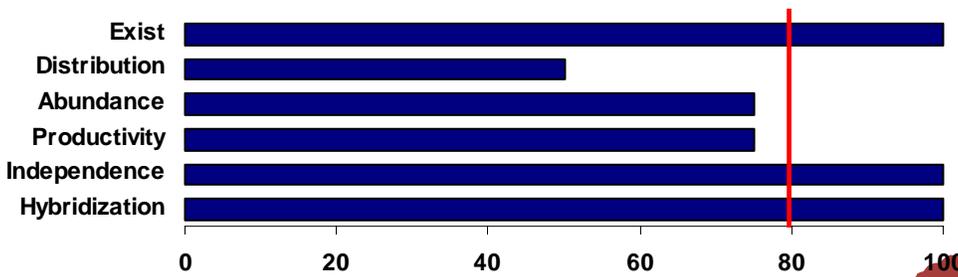
ESA Designation:  
**Threatened 1998**

State Status:  
**Critical**

Interim Assessment:  
**At Risk**

The Imnaha Bull Trout SMU includes four populations in the Imnaha River Basin. Two additional populations occur in close proximity on the Idaho side of the Snake River. Potential of intermixing between all populations exists, but has not been documented. Distribution of McCully, Little Sheep, and Big Sheep populations is negatively impacted by irrigation diversions and barriers to movement. Even though the SMU is classified as ‘at risk’, passing only three of the six criteria, the Imnaha population is considered one of the most abundant and viable in Oregon. 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.

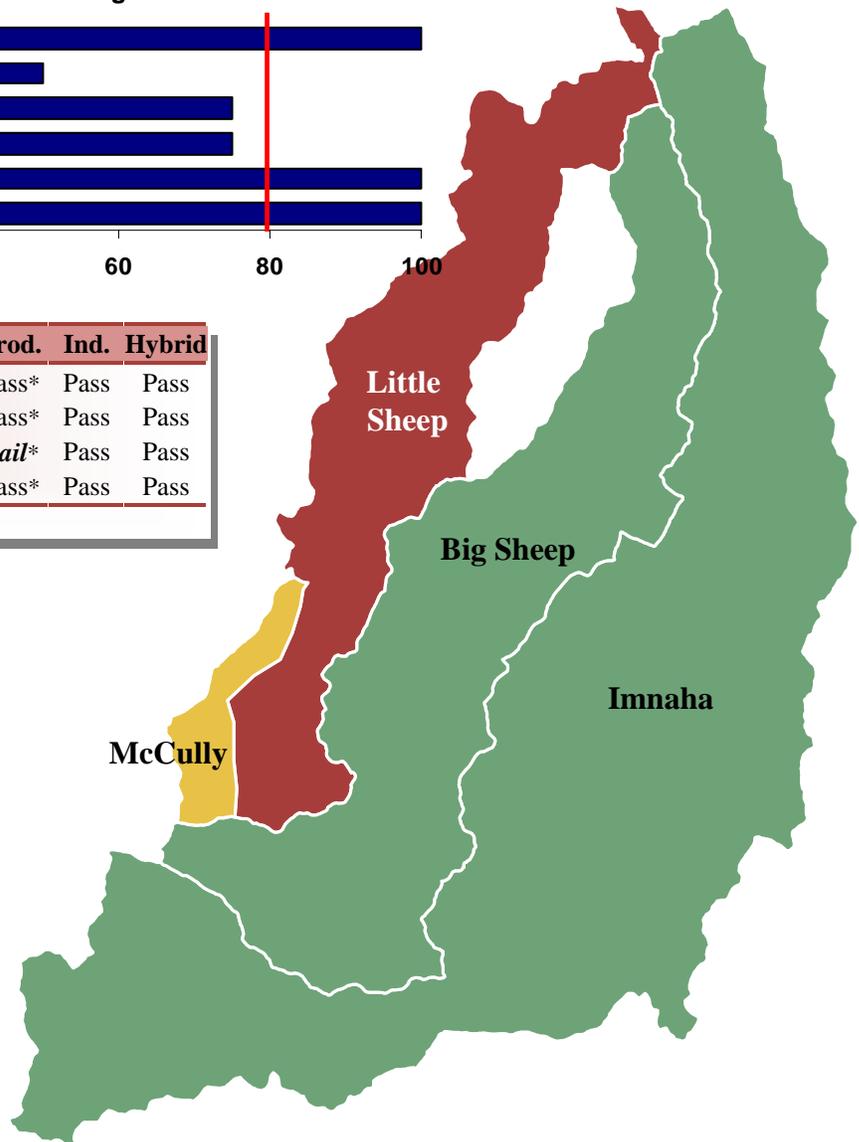
Percent of Populations Meeting Criteria



Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Imnaha	Pass	Pass	Pass*	Pass*	Pass	Pass
Big Sheep	Pass	Pass	Pass*	Pass*	Pass	Pass
Little Sheep	Pass	<b>Fail</b>	<b>Fail*</b>	<b>Fail*</b>	Pass	Pass
McCully	Pass	<b>Fail</b>	Pass*	Pass*	Pass	Pass

\*Inferred

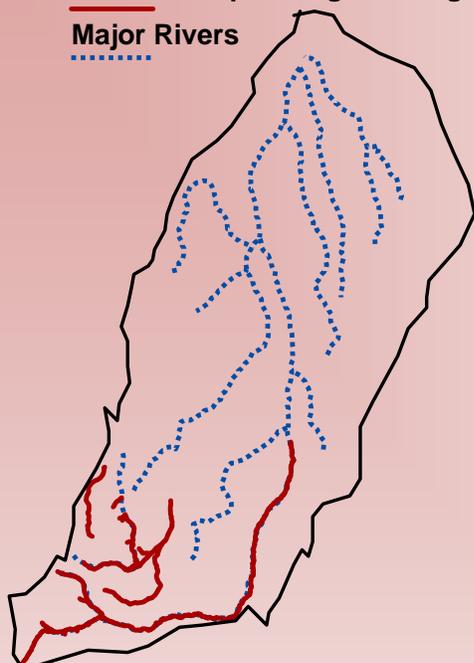
- All criteria met
- 4-5 criteria met
- < 4 criteria met
- Extinct



### ***Distribution - Fail***

#### **Bull Trout Spawning /Rearing**

#### **Major Rivers**



- The Wallowa Valley Improvement (WVI) Canal collects water from streams in the Big Sheep, Little Sheep, and McCully populations and transports it out of basin to the Wallowa River System. Unscreened diversions create barriers to upstream movement and potentially capture bull trout. The McCully population fails the distribution criterion because the entire population is upstream of the canal and isolated from other populations.
- The Little Sheep population fails the criterion due to a restricted and fragmented distribution. The WVI canal bisects the spawning grounds in this creek.
- Migratory bull trout overwinter and rear in the lower reaches of the Imnaha River and in the Snake River.

### ***Additional Information***

- Bull trout in the Imnaha SMU are native fish sustained by natural production. Stocking or hatchery programs do not currently exist.
- The headwaters of the Imnaha, McCully, and Big Sheep populations are partially or completely within designated wilderness areas. Impacts to habitat quality are minimal.

### ***Abundance - Fail***

- Few quantitative abundance data are available to assess each population. Population assessments were based on 1992 estimates, recent field observations, and professional judgment
- Three populations, Imnaha, McCully, and Big Sheep, were estimated to be large enough to avoid effects of inbreeding (>100 adults). The Imnaha population is arguably one of the most abundant bull trout populations in Oregon.
- Sampling efforts in Little Sheep suggest abundance is extremely low. The population is classified as at a 'high risk of extinction' and fails the abundance criterion.

### ***Hybridization - Pass***

- Brook trout are not present in the Imnaha River Basin. All populations pass the criterion.

### ***Productivity – Fail***

- Populations pass the criterion if they are abundant and widely distributed, express a migratory life history, and not sympatric with brook trout.
- Little Sheep population fails the productivity criterion due to an extremely limited distribution and low abundance.
- Even though the McCully population is isolated above an irrigation barrier and is limited to a resident life history, it is relatively abundance and apparently stable.