

Willamette Winter Steelhead SMU

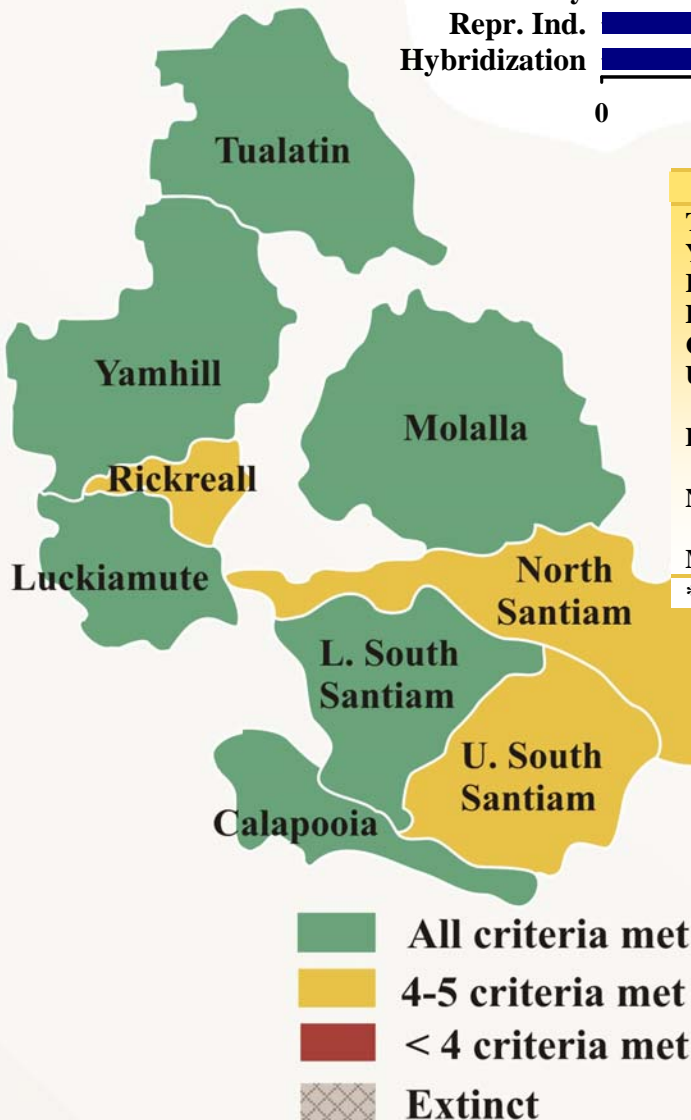
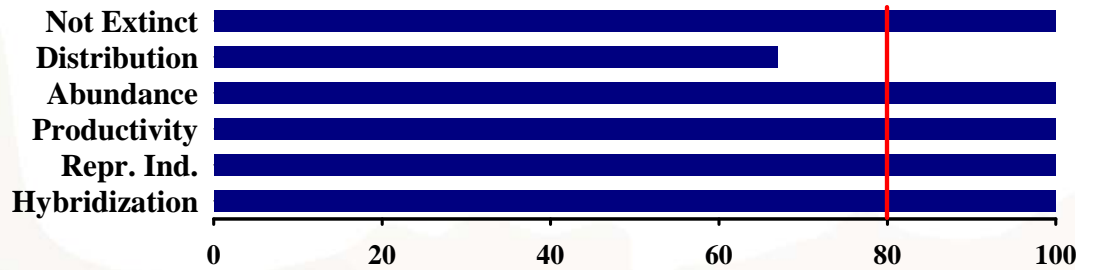
ESA Designation:
Threatened 1999

State Status:
Critical

Interim Assessment:
Potentially at Risk

This SMU includes nine populations in tributaries to the Willamette River above Willamette Falls. None of the populations are extinct, but the status of four populations (Tualatin, Yamhill, Rickreall, and Luckiamute) is unclear because data are scarce. Each of the populations met five or six criteria, and the SMU as a whole met five of six criteria indicating the near-term sustainability of the SMU is potentially at risk. Suitable data and other information on populations in this SMU provide a moderate level of confidence in the assessment of the interim criteria.

Percent of Existing Populations Meeting Criteria



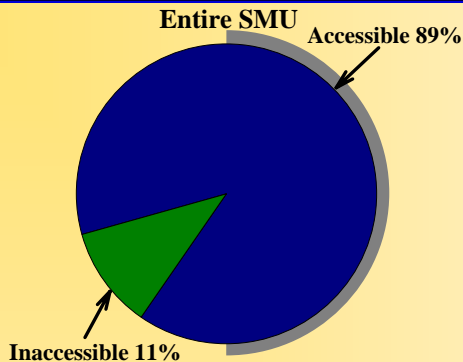
Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Tualatin	Pass	Pass*	Pass*	Pass*	Pass*	Pass
Yamhill	Pass	Pass*	Pass*	Pass*	Pass*	Pass
Rickreall	Pass	Fail*	Pass*	Pass*	Pass*	Pass
Luckiamute	Pass	Pass*	Pass*	Pass*	Pass*	Pass
Calapooia	Pass	Pass*	Pass	Pass	Pass*	Pass
Upper South Santiam	Pass	Fail	Pass	Pass	Pass	Pass
Lower South Santiam	Pass	Pass*	Pass	Pass	Pass	Pass
North Santiam	Pass	Fail*	Pass	Pass	Pass	Pass
Molalla	Pass	Pass*	Pass	Pass	Pass	Pass

* Inferred



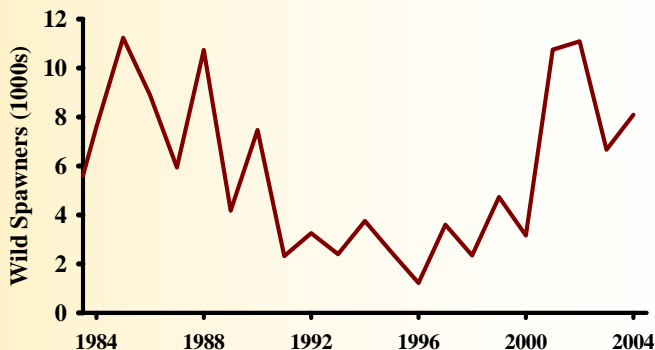
Oregon

Distribution - Fail



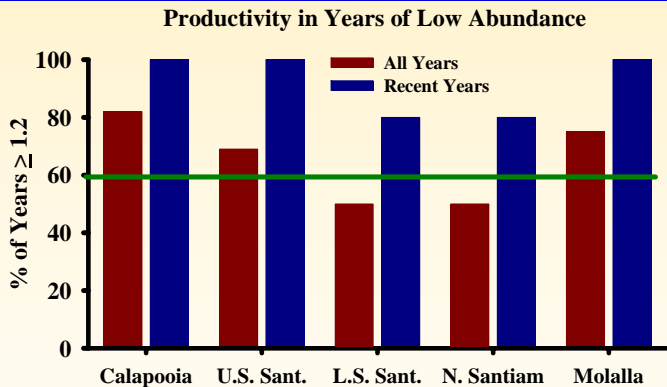
- Six of nine population passed the criterion.
- 87% of the habitat remains accessible today.
- Detroit Dam in the North Santiam, Foster Dam in the Upper South Santiam, and Mercer Dam in Rickreall Creek have blocked passage to part of these basins, and have reduced downstream habitat quality to the point that usage of historical habitat is likely less than 50%.

Abundance - Pass



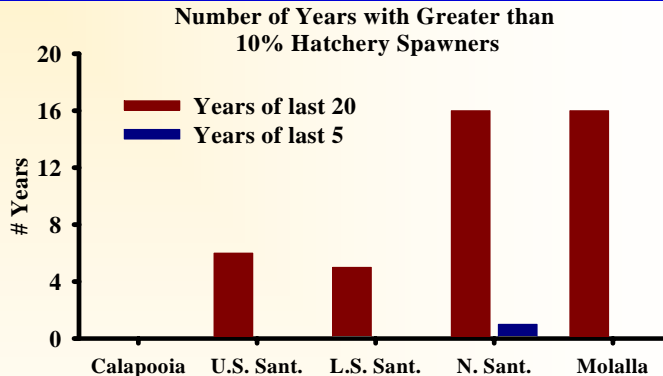
- Abundance trends were available for the East-side populations (Santiam, Calapooia and Molalla) but not for the west-side populations (Tualatin, Yamhill, Rickreall and Luckiamute).
- The abundance trend above is based on wild returns to the east-side basins. Returns have been improving since 1996.
- All of the East-side populations exceeded the criterion in each of the last five years.
- The West-side tributaries each passed based on observations of moderate juvenile and adult abundance levels during occasional surveys.

Productivity – Pass



- Each of the five populations with data, passed the criterion.
- Productivity in all years of low abundance has not been as high as in the recent five years.
- Productivity in each of the populations with monitoring data tends to be greater than 1.2 in years of low abundance. Of all years when abundance was below the 30-year average, productivity was higher than 1.2 in at least 50% of those years.
- The Tualatin, Yamhill, Rickreall, and Luckiamute passed based on increasing returns seen in limited spawner survey data, and reports that juvenile densities are at moderate levels across these populations.

Independence - Pass



- Each of the populations passed the criterion.
- Until recently, hatchery winter steelhead made up a significant portion of spawners in the Santiam and Molalla basins.
- Data were not available for the West-side tributaries, but no hatchery fish are released there.
- Termination of hatchery winter steelhead releases in the late 1990s has virtually eliminated hatchery numbers passing Willamette Falls.
- Hatchery summer steelhead return to some Willamette tributaries but winter run and summer-run spawn timing is largely segregated.