Cutthroat Trout

Oregon Coast Coastal Cutthroat SMU

ESA Designation:	State Status:	Interim Assessment:
None	*Vulnerable*	*Not At Risk*

Basins along the Oregon Coast support all life history types of coastal cutthroat trout; resident, fluvial, adfluvial, and anadromous. The Oregon Coast SMU is comprised of twenty-four populations, all of which meet all of the six interim criteria. Since quantitative data are limited, the assessment was based on available data, as well as anecdotal evidence and professional opinion. Coastal cutthroat trout are distributed widely throughout the basins and abundance is thought to be relatively high. The populations appear to be very resilient and able to respond to events that reduce abundance. The sustainability of this SMU is not 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.

Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Necanicum	Pass	Pass	Pass*	Pass*	Pass	Pass
Nehalem	Pass	Pass	Pass*	Pass*	Pass	Pass
Rockaway	Pass	Pass	Pass*	Pass*	Pass	Pass
Tillamook	Pass	Pass	Pass*	Pass*	Pass	Pass
Netarts	Pass	Pass	Pass*	Pass*	Pass	Pass
Nestucca	Pass	Pass	Pass*	Pass*	Pass	Pass
Neskowin	Pass	Pass	Pass*	Pass*	Pass	Pass
Salmon	Pass	Pass	Pass*	Pass*	Pass	Pass
Devils Lake	Pass	Pass	Pass*	Pass*	Pass	Pass
Siletz	Pass	Pass	Pass*	Pass*	Pass	Pass
Depoe Bay	Pass	Pass	Pass*	Pass*	Pass	Pass
Yaquina	Pass	Pass	Pass*	Pass*	Pass	Pass
Beaver	Pass	Pass	Pass*	Pass*	Pass	Pass
Alsea	Pass	Pass	Pass*	Pass*	Pass	Pass
Yachats	Pass	Pass	Pass*	Pass*	Pass	Pass
Siuslaw	Pass	Pass	Pass*	Pass*	Pass	Pass
Siltcoos	Pass	Pass	Pass*	Pass*	Pass	Pass
Lower Umpqua	Pass	Pass	Pass*	Pass*	Pass	Pass
Upper Umpqua	Pass	Pass	Pass*	Pass*	Pass	Pass
Tenmile	Pass	Pass	Pass*	Pass*	Pass	Pass
Coos	Pass	Pass	Pass*	Pass*	Pass	Pass
Coquille	Pass	Pass	Pass*	Pass*	Pass	Pass
Floras	Pass	Pass	Pass*	Pass*	Pass	Pass
Sixes	Pass	Pass	Pass*	Pass*	Pass	Pass

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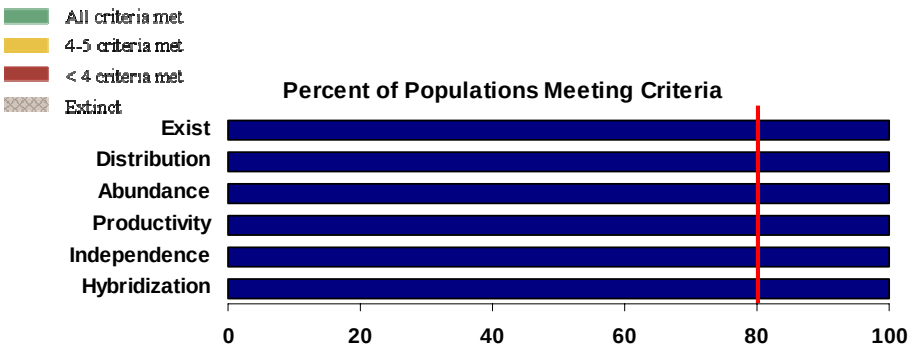

Distribution - Pass

- All life history types are present and distributed widely.
- Empirical and anecdotal evidence suggests that coastal cutthroat trout are distributed widely in each population within the SMU.

Abundance - Pass

- All life history forms of coastal cutthroat trout (resident, fluvial, adfluvial, anadromous) were considered part of the same population for this assessment.
- Quantitative data are not available at a population level. However, the existing data, along with professional opinion and anecdotal observations suggest that coastal cutthroat trout are relatively abundant throughout the SMU.
- Data on the anadromous form of cutthroat trout in several populations have been collected on a regular basis. Most of this data showed a decreasing trend in anadromous adults in the late 1980s and 1990s. A favorable change in the ocean environment over the last several years appears to have had a positive impact on anadromous coastal cutthroat trout. Reports from anglers tend to suggest that the number of large cutthroat, presumably anadromous, has increased over the last several years.

Productivity – Pass

- No spawning data are available for coastal cutthroat trout.
- For this criterion, coastal cutthroat trout populations were assessed on their ability to rebuild after periods of low abundance.
- The majority of professional opinion within ODFW is that the universal distribution of coastal cutthroat trout in significant numbers, despite natural and human-caused disturbances, suggests the SMU is productive.

Independence - Pass

- All stocking of coastal cutthroat trout in moving waters was ceased by 1994. The effects of historical breeding between hatchery cutthroat trout and wild coastal cutthroat trout have not been determined.

Additional Information

- Most coastal cutthroat trout data in the Oregon Coast SMU come from occasional sampling by ODFW Watershed Districts or from sampling targeted at other species. These various datasets are difficult to compare to each other when the sampling procedures are not consistent. During the development of a conservation plan for the Oregon Coast coastal cutthroat trout SMU, ODFW will consider ways to compare these datasets and develop protocols for future data collection to make datasets more compatible.

Southern Oregon Coastal Cutthroat SMU

ESA Designation:	State Status:	Interim Assessment:
Not Listed	*Vulnerable*	*Not At Risk*

The Southern Oregon Coastal Cutthroat trout SMU supports the resident, fluvial, adfluvial, and anadromous life histories of cutthroat trout. The SMU is comprised of twelve populations, all of which meet all six of the interim criteria. Since quantitative data are limited, the assessment was based on available data, as well as anecdotal evidence and professional opinion. Coastal cutthroat trout are distributed widely throughout the basins and abundance is thought to be relatively high. The populations appear to be very resilient and able to respond to events that reduce abundance. The sustainability of this SMU is not 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.

Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Elk	Pass	Pass	Pass*	Pass*	Pass	Pass
Euchre	Pass	Pass	Pass*	Pass*	Pass	Pass
Lower Rogue	Pass	Pass	Pass*	Pass*	Pass	Pass
Illinois	Pass	Pass	Pass*	Pass*	Pass	Pass
Middle Rogue	Pass	Pass	Pass*	Pass*	Pass	Pass
Applegate	Pass	Pass	Pass*	Pass*	Pass	Pass
Upper Rogue	Pass	Pass	Pass*	Pass*	Pass	Pass
Hunter	Pass	Pass	Pass*	Pass*	Pass	Pass
Coastal Creeks	Pass	Pass	Pass*	Pass*	Pass	Pass
Pistol	Pass	Pass	Pass*	Pass*	Pass	Pass
Chetco	Pass	Pass	Pass*	Pass*	Pass	Pass
Winchuck	Pass	Pass	Pass*	Pass*	Pass	Pass

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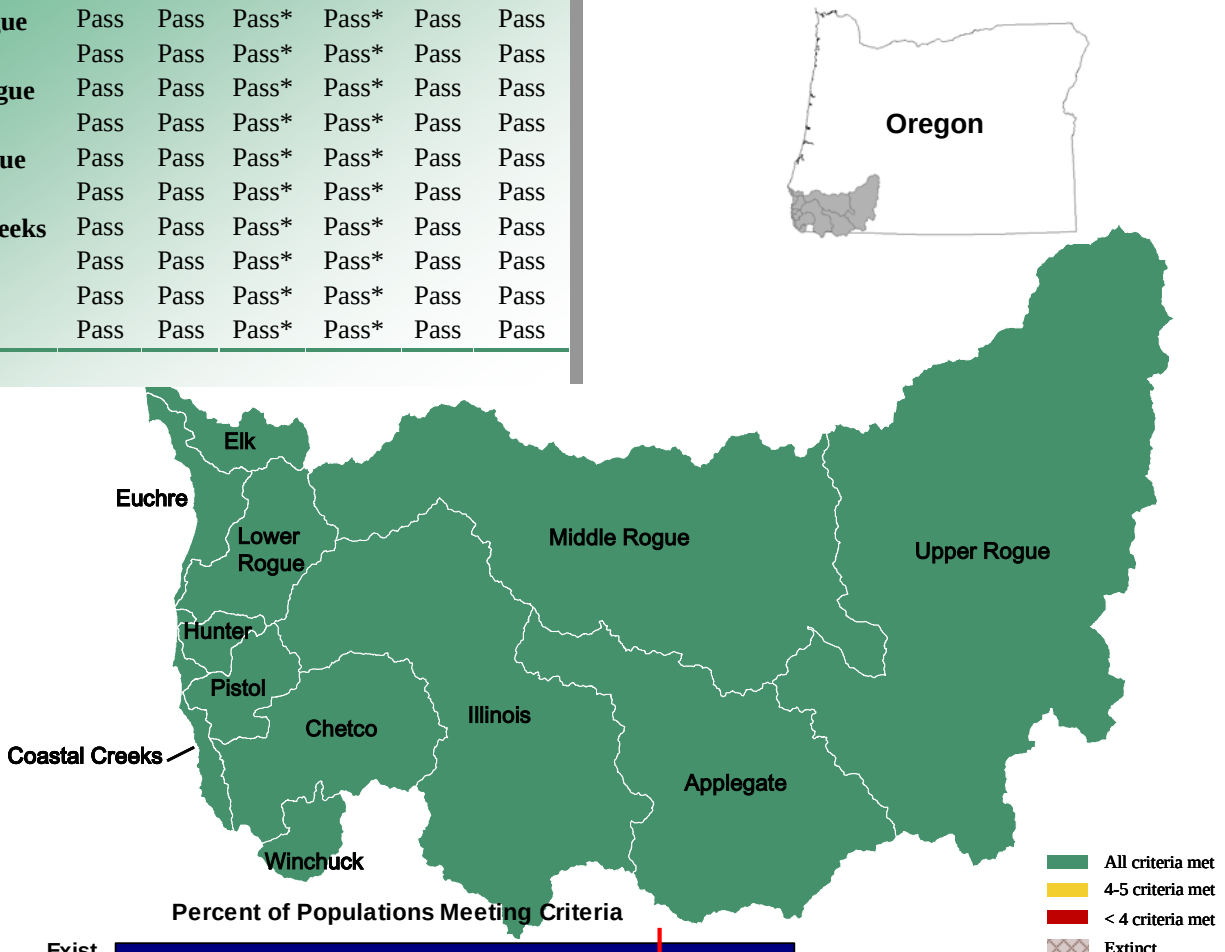

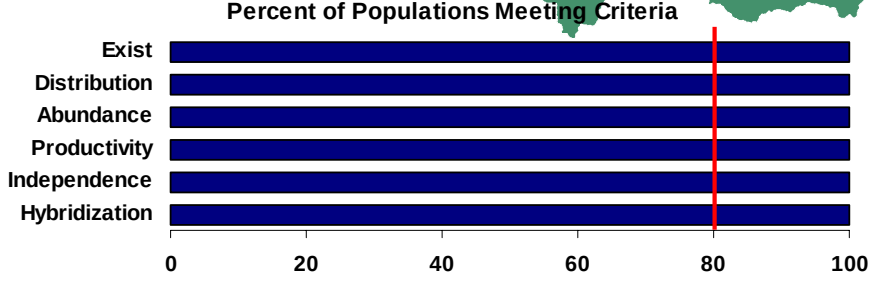

Distribution - Pass

- Empirical and anecdotal evidence suggests that coastal cutthroat trout are distributed widely in each major watershed within the SMU.
- All life history types are present and distributed widely.

Abundance - Pass

- All life history forms of coastal cutthroat trout (resident, fluvial, adfluvial, anadromous) were considered part of the same population for this assessment.
- Quantitative data are not available at a population level. However, the existing data, along with professional opinion and anecdotal observations, suggest that coastal cutthroat trout are relatively abundant throughout the SMU.

Productivity – Pass

- For this criterion, coastal cutthroat trout populations were assessed on their ability to rebuild after periods of low abundance.
- The majority of professional opinion within ODFW is that the universal distribution of coastal cutthroat trout in significant numbers, despite natural and human-caused disturbances, suggests the SMU is productive.

Independence - Pass

- All stocking of coastal cutthroat trout in moving waters was ceased by 1985. The effects of historical breeding between hatchery cutthroat trout and wild coastal cutthroat trout have not been determined.

Additional Information

- Most coastal cutthroat trout data in the Southern Oregon SMU come from occasional sampling by ODFW Watershed Districts or from sampling targeted at other species. These various datasets are difficult to compare to each other when the sampling procedures are not consistent. During the development of a conservation plan for the Southern Oregon coastal cutthroat trout SMU, ODFW will consider ways to compare these datasets and develop protocols for future data collection to make datasets more compatible.

Lower Columbia Coastal Cutthroat SMU

ESA Designation:	State Status:	Interim Assessment:
None	*Critical*	*Potentially at Risk*

The Lower Columbia River basin supports the resident, fluvial, adfluvial and anadromous life histories of coastal cutthroat trout. The Lower Columbia River Coastal Cutthroat SMU is comprised of eight populations. All populations passed all six of the interim criteria except the Hood and Fifteenmile populations, which failed the productivity criterion due to the extremely depressed anadromous life-history. Since quantitative data are limited, the assessment was based on available data, as well as anecdotal evidence and professional opinion. This SMU was assessed as 'potentially at risk' due to the failure of the productivity criterion. 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
Youngs	Pass	Pass	Pass*	Pass*	Pass	Pass
Clatskanie	Pass	Pass	Pass*	Pass*	Pass	Pass
Scappoose	Pass	Pass	Pass*	Pass*	Pass	Pass
Clackamas	Pass	Pass	Pass*	Pass*	Pass	Pass
Sandy	Pass	Pass	Pass*	Pass*	Pass	Pass
Columbia Gorge	Pass	Pass	Pass*	Pass*	Pass	Pass
Hood	Pass	Pass	Pass*	***Fail****	Pass	Pass
Fifteenmile	Pass	Pass	Pass*	***Fail****	Pass	Pass

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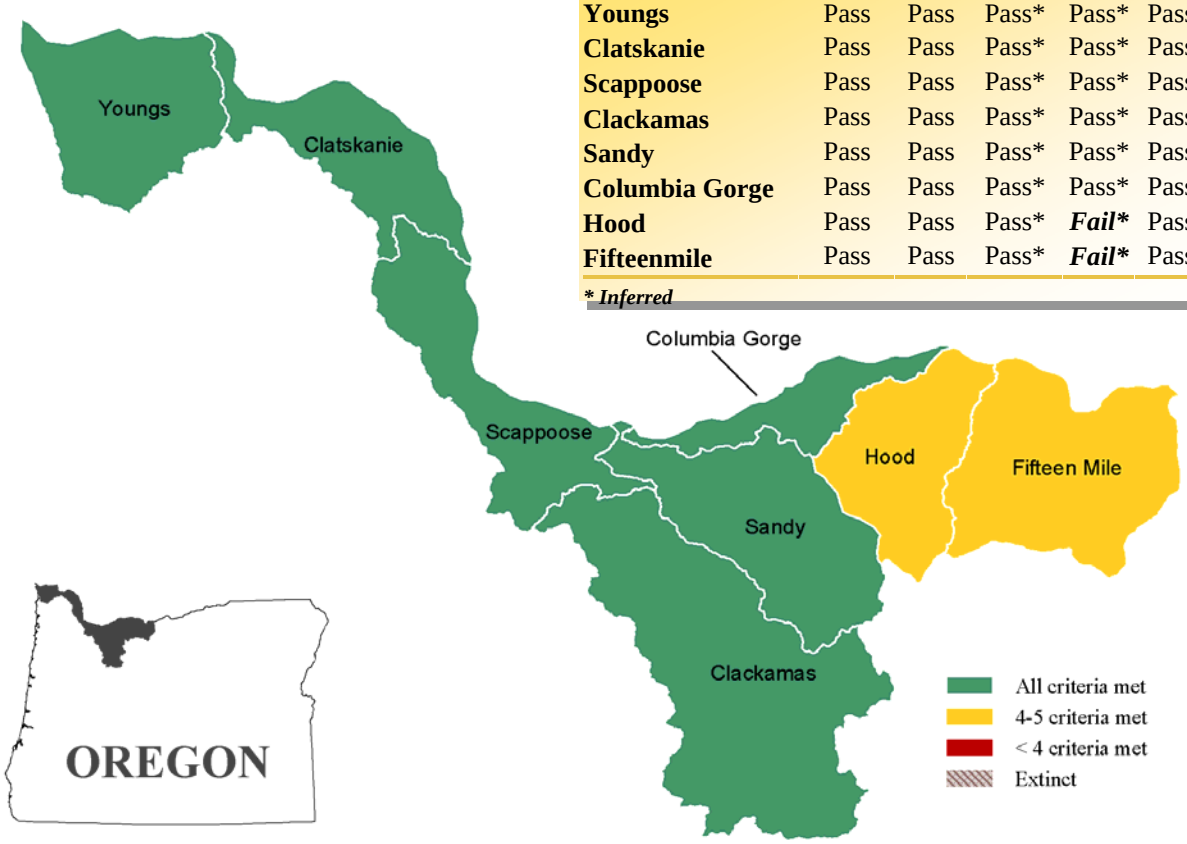

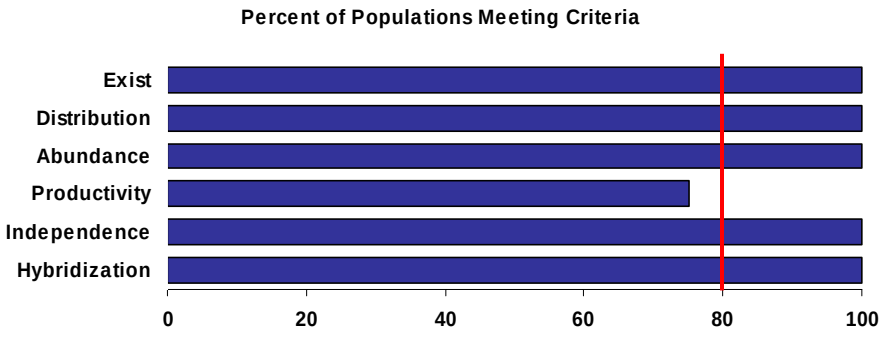

Distribution - Pass

- All life history types (resident, fluvial, adfluvial, anadromous) are present and distributed widely.
- Empirical and anecdotal evidence suggests that coastal cutthroat trout are distributed widely in each population within the SMU.

Abundance – Pass

- All life history forms of coastal cutthroat trout (resident, fluvial, adfluvial, anadromous) were considered part of the same population for this assessment.
- Quantitative data are not available at a population level. However, the existing data, along with professional opinion and anecdotal observations suggest that coastal cutthroat trout are relatively abundant throughout the SMU.

Productivity – Fail

- No spawning data are available for coastal cutthroat trout.
- For this criterion, coastal cutthroat trout populations were assessed on their ability to rebuild after periods of low abundance.
- The Hood and Fifteenmile populations of coastal cutthroat trout failed the productivity criterion due to the extremely low levels of anadromous adults seen over the last twenty years. Populations that have lost a life-history strategy may become less productive. The SMU also failed this criterion.

Independence - Pass

- All stocking of coastal cutthroat trout in moving waters was ceased by 1994. The effects of historical breeding between hatchery cutthroat trout and wild coastal cutthroat trout have not been determined.

Additional Information

- Most coastal cutthroat trout data in the Lower Columbia River SMU come from occasional sampling by ODFW Watershed Districts or from sampling targeted at other species. These various datasets are difficult to compare to each other when the sampling procedures are not consistent. During the development of a conservation plan for the Lower Columbia River coastal cutthroat trout SMU, ODFW will consider ways to compare these datasets and develop protocols for future data collection to make datasets more compatible.
- During development of a conservation plan, the historical presence of the anadromous life-history in the Hood and Fifteenmile will be investigated. The significance of losing that life-history will also be examined

Willamette Coastal Cutthroat SMU

ESA Designation:	State Status:	Interim Assessment:
Not Listed	*No Status*	*Not At Risk*

The Willamette Coastal Cutthroat Trout SMU supports the resident, fluvial, and adfluvial life histories of cutthroat trout. The entire SMU is located upstream of Willamette Falls, above which no anadromous coastal cutthroat trout are found. The SMU is comprised of fourteen populations, all of which meet all six of the interim criteria. Since quantitative data are limited, the assessment was based on available data, as well as anecdotal evidence and professional opinion. Coastal cutthroat trout are distributed widely throughout the Willamette Basin and abundance is thought to be relatively high. The populations appear to be very resilient and able to respond to events that reduce abundance. This SMU was assessed as 'not at risk' and does not currently face a conservation risk. Suitable data and other information on populations in this SMU provide a moderate level of confidence in the assessment of the interim criteria.

Population	Exixt	Dist.	Abund.	Prod.	Ind.	Hybrid
Lower Willamette	Pass	Pass	Pass*	Pass*	Pass	Pass
Tualatin	Pass	Pass	Pass*	Pass*	Pass	Pass
Yamhill	Pass	Pass	Pass*	Pass*	Pass	Pass
Molalla	Pass	Pass	Pass*	Pass*	Pass	Pass
Luckiamute	Pass	Pass	Pass*	Pass*	Pass	Pass
North Santiam	Pass	Pass	Pass*	Pass*	Pass	Pass
South Santiam	Pass	Pass	Pass*	Pass*	Pass	Pass
Mid Willamette	Pass	Pass	Pass*	Pass*	Pass	Pass
Marys	Pass	Pass	Pass*	Pass*	Pass	Pass
Calapooia	Pass	Pass	Pass*	Pass*	Pass	Pass
Long Tom	Pass	Pass	Pass*	Pass*	Pass	Pass
McKenzie	Pass	Pass	Pass*	Pass*	Pass	Pass
Middle Fork Willamette	Pass	Pass	Pass*	Pass*	Pass	Pass
Coast Fork Willamette	Pass	Pass	Pass*	Pass*	Pass	Pass

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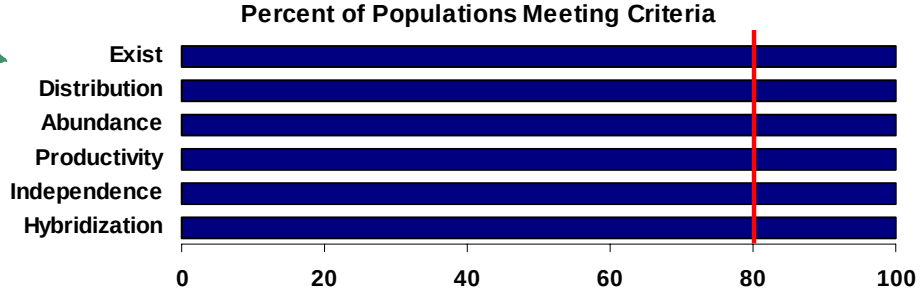
All criteria met
4-5 criteria met
< 4 criteria met
Extinct



Distribution - Pass

- Empirical and anecdotal evidence suggests that coastal cutthroat trout are distributed widely in each major watershed within the SMU.
- All life history types, with the exception of the anadromous form, are present and distributed widely.

Abundance - Pass

- All life history forms of coastal cutthroat trout (resident, fluvial, adfluvial) were considered part of the same population for this assessment.
- Anadromous coastal cutthroat trout are not found in the Willamette SMU. There are no anadromous trout upstream of Willamette Falls, the downstream border of this SMU.
- Abundance estimates could not be made for any population. However, the existing data, along with professional opinion, suggest that coastal cutthroat trout are relatively abundant throughout the SMU.

Productivity - Pass

- No spawning data are available for coastal cutthroat trout.
- For this criterion, coastal cutthroat trout populations were assessed on their ability to rebuild after periods of low abundance.
- The majority of professional opinion within ODFW is that the universal distribution of coastal cutthroat trout in significant numbers, despite natural and human-caused disturbances, suggests the SMU is productive.

Independence - Pass

- All stocking of coastal cutthroat trout in moving waters was ceased by 1980. The effects of historical breeding between hatchery cutthroat trout and wild coastal cutthroat trout have not been determined.

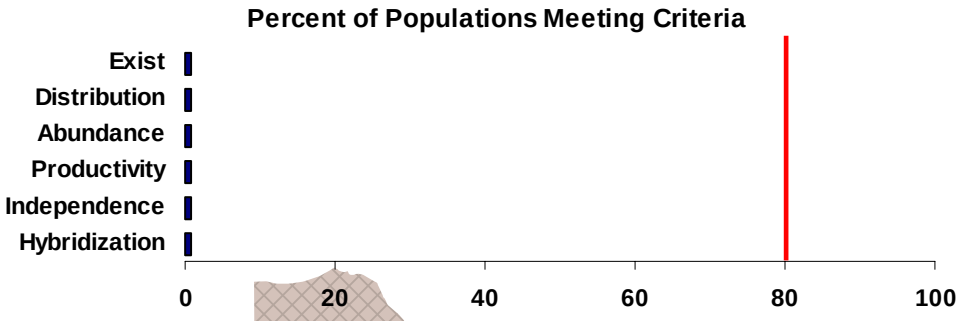
Additional Information

- Most coastal cutthroat trout data in the Willamette SMU come from occasional sampling by ODFW Watershed Districts or from sampling targeted at other species. These various datasets are difficult to compare to each other when the sampling procedures are not consistent. During the development of a conservation plan for the Willamette coastal cutthroat trout SMU, ODFW will consider ways to compare these datasets and develop protocols for future data collection to make datasets more compatible.

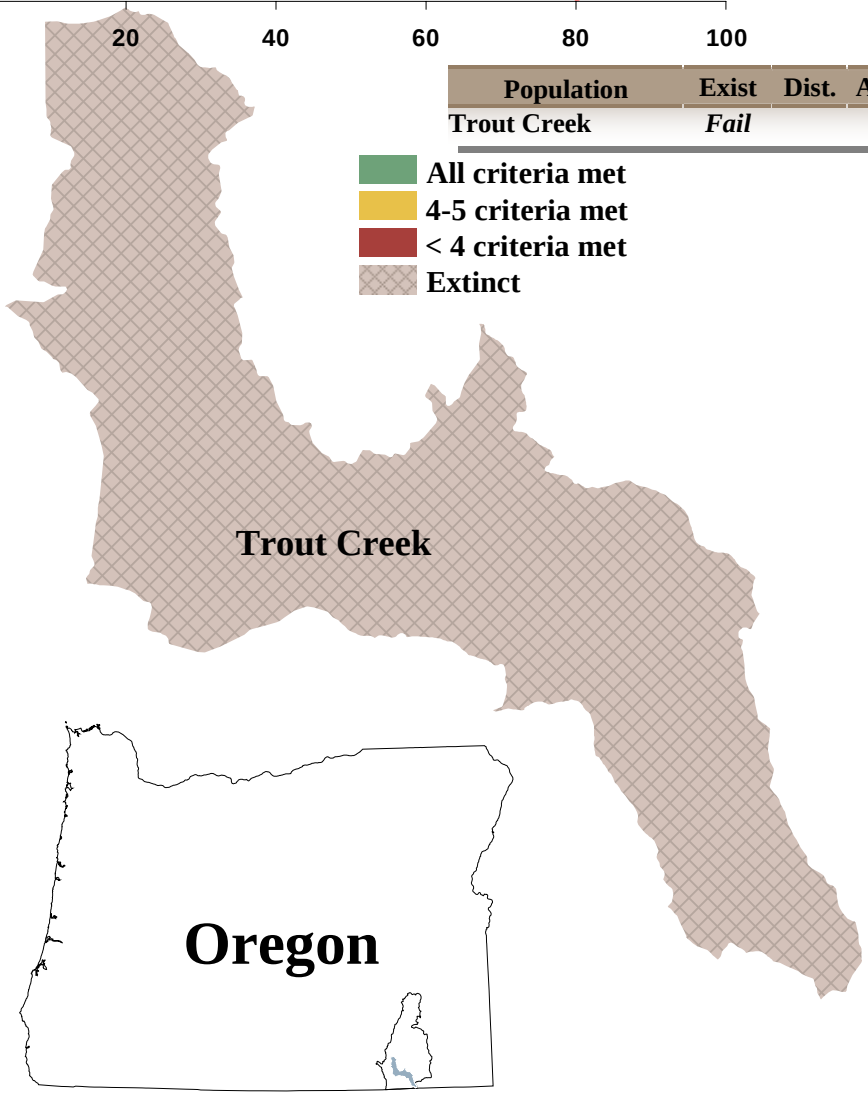
Alvord Cutthroat Trout SMU

ESA Designation:	State Status:	Interim Assessment:
No Designation	*No Designation*	*Extinct*

The Alvord Cutthroat Trout SMU is comprised of one population in Trout Creek, a tributary to ancient Lake Alvord. After the desiccation of Alvord Lake, approximately 10,000 years ago, native cutthroat trout were restricted to a few perennial streams in the Trout Creek basin, Oregon and the Virgin – Thousand Creek drainage, Nevada. Extinction of Alvord cutthroat trout rapidly followed the introduction of rainbow trout in 1929. The Alvord Cutthroat SMU is classified as 'extinct'.



Population	Exist	Dist.	Abund.	Prod.	Ind.	Hybrid
Trout Creek	*Fail*	*Extinct Population*				



Coyote Lake Lahontan Cutthroat Trout

ESA Designation:	State Status:	Interim Assessment:
Threatened 1975	*Threatened*	*At Risk*

Lahontan cutthroat trout in the Coyote Lake basin are likely descendants of populations inhabiting pluvial Lake Lahontan during the Pleistocene era. The Coyote Lake SMU is comprised of five native cutthroat trout populations. Distribution is naturally fragmented, restricted by barrier falls and a discontinuous stream network. Three populations have low abundance and limited productivity. Ten naturalized populations were established during the 1970s in Alvord Lake basin and Catlow Valley for conservation purposes. These populations were not evaluated in this review. The SMU passes 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
Willow	Pass	***Fail***	Pass	Pass*	Pass	Pass
Whitehorse Complex	Pass	Pass	Pass	Pass*	Pass	Pass
Doolittle	Pass	***Fail***	***Fail***	***Fail****	Pass	Pass
Cottonwood	Pass	***Fail***	***Fail****	***Fail****	Pass	Pass
Antelope	Pass	***Fail****	***Fail****	***Fail****	Pass	Pass

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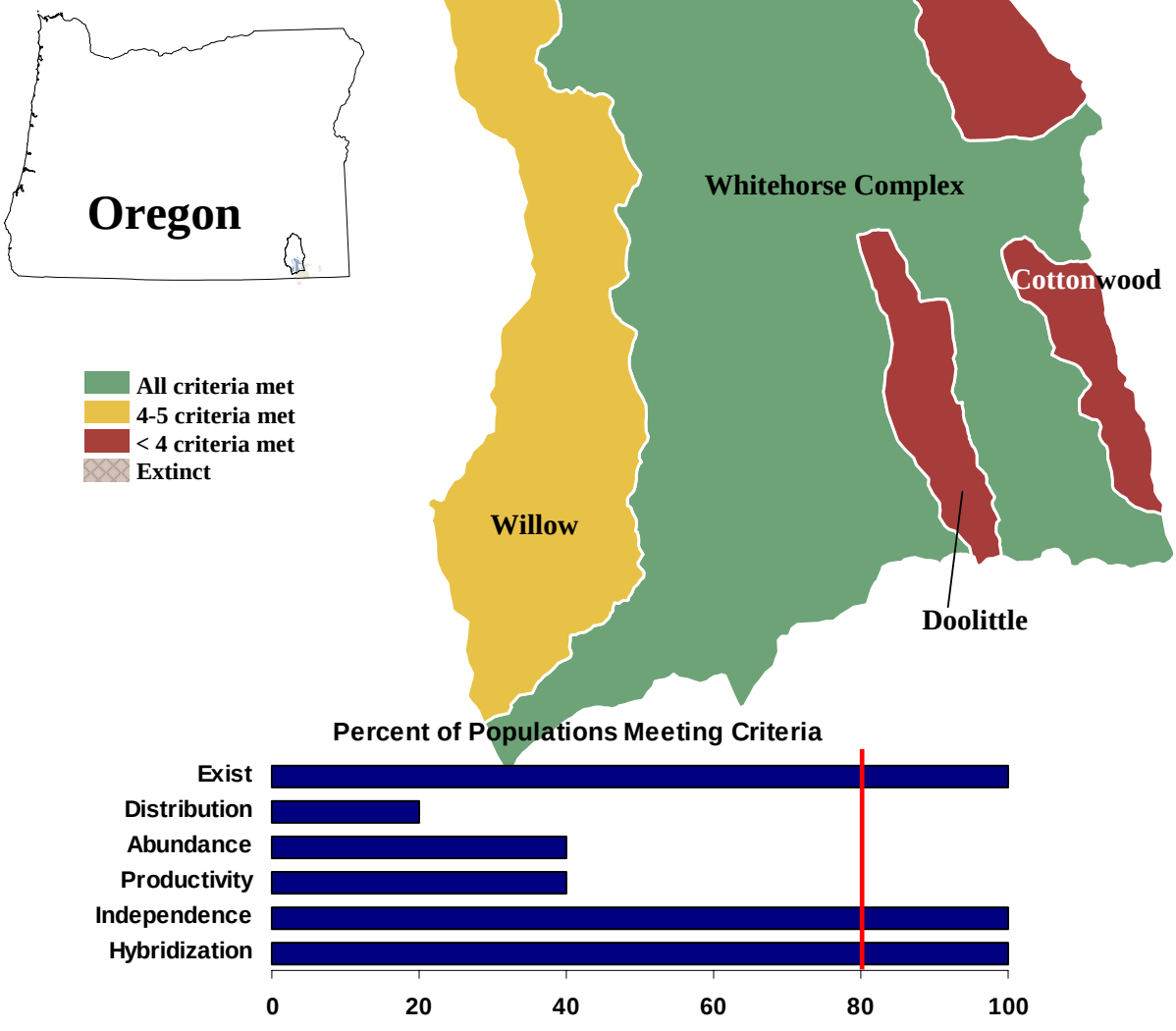
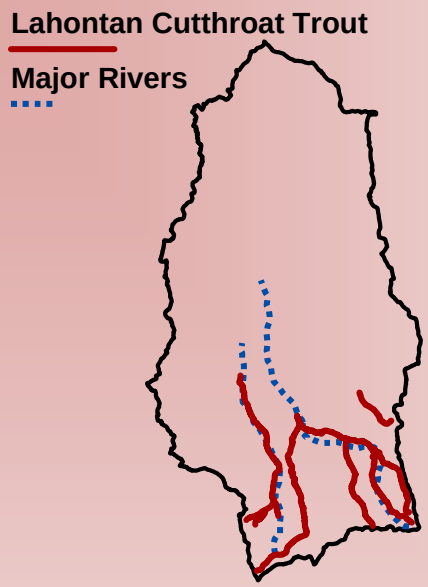


Distribution - Fail



- Populations in the SMU are naturally isolated. Historically streams flowed into pluvial Coyote Lake. These streams are no longer connected due to desiccation of Coyote Lake, a drier climate, and irrigation diversions and withdrawal.
- Distribution varies according to water year and annual fluctuation of instream flows.
- Willow, Antelope, Doolittle, and Cottonwood populations are isolated from other populations and fail the criterion. Distribution in Antelope and Cottonwood creeks is extremely limited, less than ten km.

Abundance - Fail

- Population estimates for Coyote Lakes populations have occurred every five years since 1985. ODFW last evaluated abundance in 1999.
- Willow and Whitehorse complex populations both exceeded 500 adults and pass the abundance criterion. Doolittle and Cottonwood populations were estimated to contain less than 120 adults and fail the criterion.
- Data are not available for the Antelope population.
- Abundance fluctuates with habitat quality and water year.

Hybridization - Pass

- Lahontan cutthroat trout are the only fish species present in Willow, Whitehorse, and Antelope basins. Hybridization with non-native species is not a concern. All populations pass the hybridization criterion

Productivity - Fail

- Data available to appropriately evaluate the productivity criterion are insufficient. Instead the criterion is assessed based on the qualitative evaluation of current abundance, distribution, habitat quality, and connectivity.
- Willow and Whitehorse pass the criterion due to evidence of increasing abundance, adequate distribution, and lack of year class failures. Antelope, Cottonwood and Doolittle fail the criterion due to limited distribution and abundance population, isolation, and limited habitat quality.
- Drying in the lower portion of Little Whitehorse Creek due to drought and grazing disrupts connectivity of Little Whitehorse to the greater Whitehorse system, this periodic connection potentially reduces productivity in the Whitehorse Complex

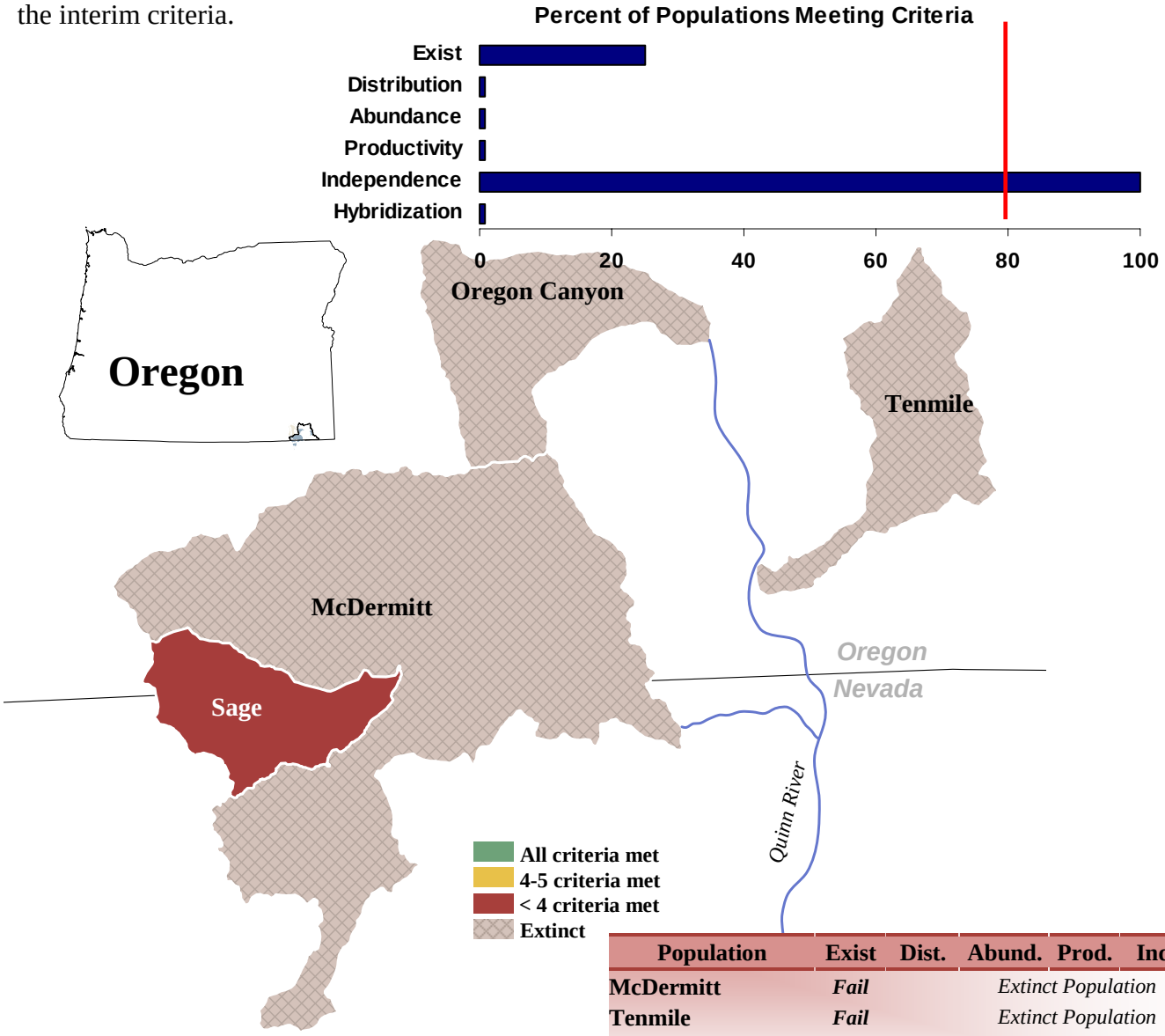
Additional Information

- Coyote Lake Lahontan cutthroat trout are native trout sustained by natural production and pass the reproductive independence criterion.
- Following the implementation of a new grazing regime in 1989 and the establishment of the Trout Creek Mountain Working Group, habitat conditions are significantly improving throughout the SMU.

Quinn River Lahontan Cutthroat Trout

ESA Designation:	State Status:	Interim Assessment:
Threatened 1975	*Threatened*	*At Risk*

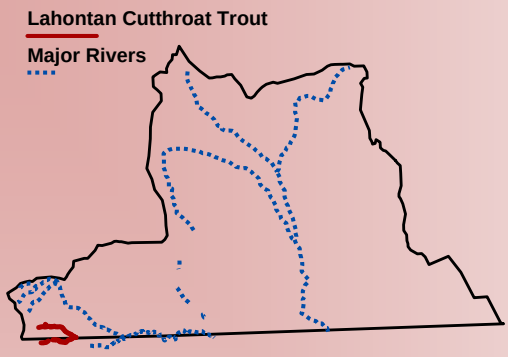
Lahontan cutthroat trout populations in the Quinn River basin are remnants of a larger population inhabiting pluvial Lake Lahontan during the Pleistocene era. The Quinn River Lahontan Cutthroat Trout SMU is comprised of four populations, three of which are now extinct due to hybridization with non-native rainbow trout. Sage Creek is the only population to persist in the SMU, has an extremely limited distribution and abundance, and is vulnerable to hybridization. The population is located above a barrier designed to slow the invasion of rainbow and hybrid trout. Eight populations exist in Nevada and are not evaluated in this review. The SMU meets one 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
McDermitt	***Fail***		*Extinct Population*			
Tenmile	***Fail***		*Extinct Population*			
Sage	Pass	***Fail***	***Fail****	***Fail****	Pass	***Fail***
Oregon Canyon	***Fail***		*Extinct Population*			

**Inferred*

Distribution - Fail



- Distribution of Lahontan cutthroat trout in the Oregon portion of the Quinn River Basin is limited to 15 km in Sage and Line Canyon creeks. Given the short distribution the population is at risk of extinction due to stochastic events.
- The Sage population is isolated above a man-made barrier designed to slow the invasion of introduced rainbow trout and other non-native species.
- Given the isolated nature of the Sage population and its inability to mix with other populations, it fails the distribution criterion.

Abundance - Fail

- A population survey in 1996 estimated less than 200 adult Lahontan cutthroat trout in the Sage population. The population fails the abundance criterion.
- The Sage population does not have access to other populations and has no opportunity for gene flow from other populations. It is at greater risk of extinction due to the deleterious effects of inbreeding depression and genetic drift.

Productivity - Fail

- Data available to appropriately assess the productivity criterion are insufficient, however, productivity in the Sage population is likely limited by poor habitat quality, inbreeding depression, absence of a migratory life history, and isolation.

Hybridization - Fail

- Hybridization and introgression with non-native rainbow trout was the primary cause of extinction of the Indian, McDermitt, and Oregon Canyon populations.
- A man-made barrier on Sage Creek was designed to prevent the invasion of non-native rainbow trout.
- Genetic analysis of fish captured in Sage and Line Canyon creeks documented 20% of the samples in Sage Creek were cutthroat trout x rainbow trout hybrids. Samples from Line Canyon were all pure Lahontan Cutthroat trout. The Sage population fails the hybridization criterion

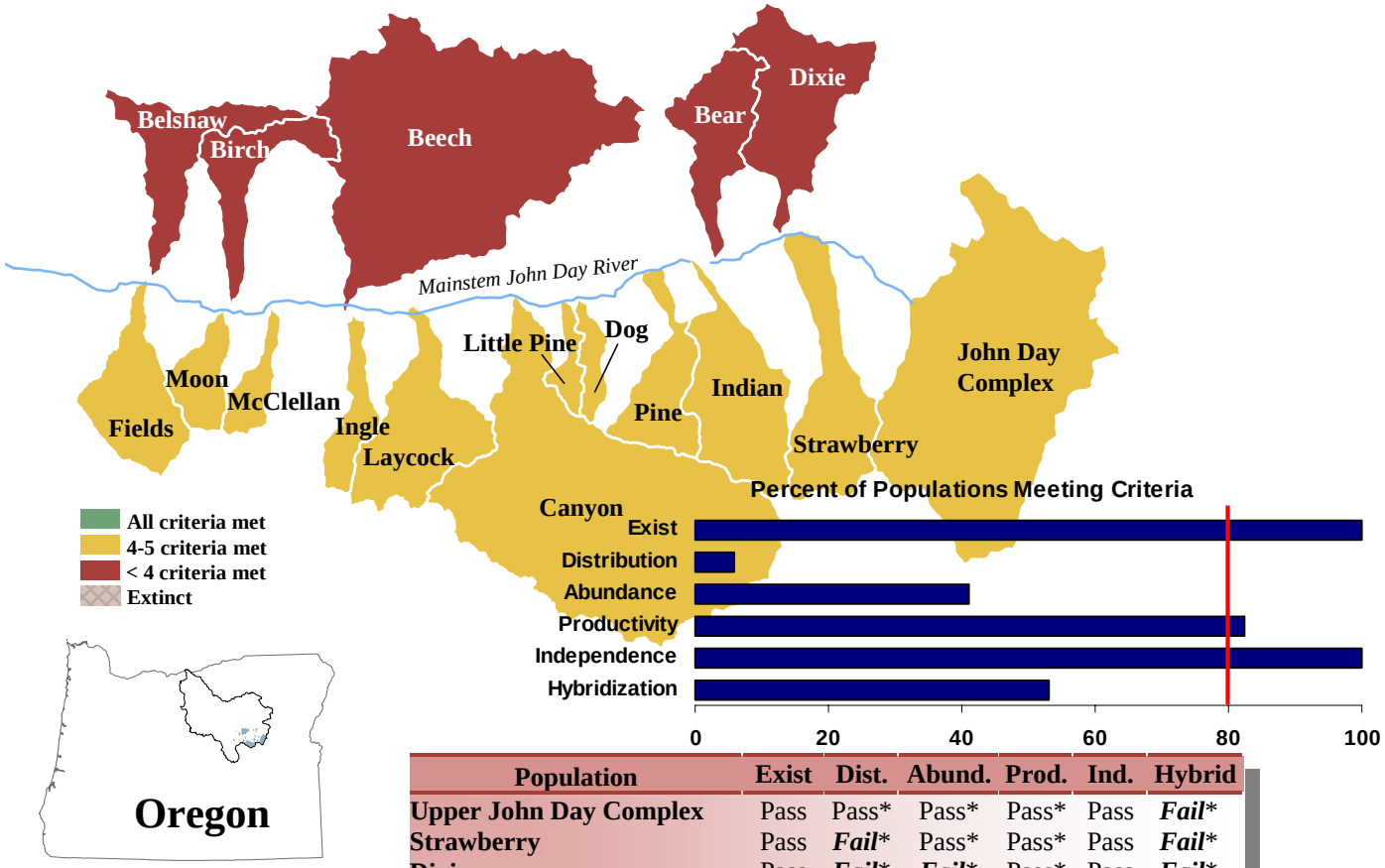
Additional Information

- Lahontan cutthroat trout in the Sage population are native fish sustained by natural production. The Sage population passes the reproductive independence criterion.
- The McDermitt Creek population was also subject to competition with brook trout in the upper reaches and brown trout in the lower reaches.

Westslope Cutthroat Trout SMU

ESA Designation:	State Status:	Interim Assessment:
Not Listed	*Vulnerable*	*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****

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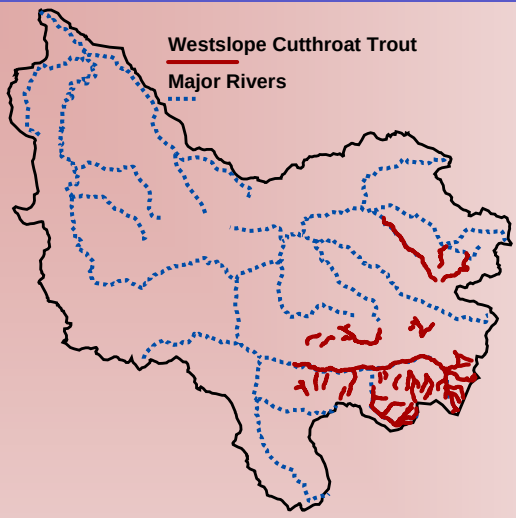
Distribution - Fail



- 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.

Abundance - Fail

- 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

- 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.

Productivity - Pass

- 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

- 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.