

Pelton Round Butte Fish Committee

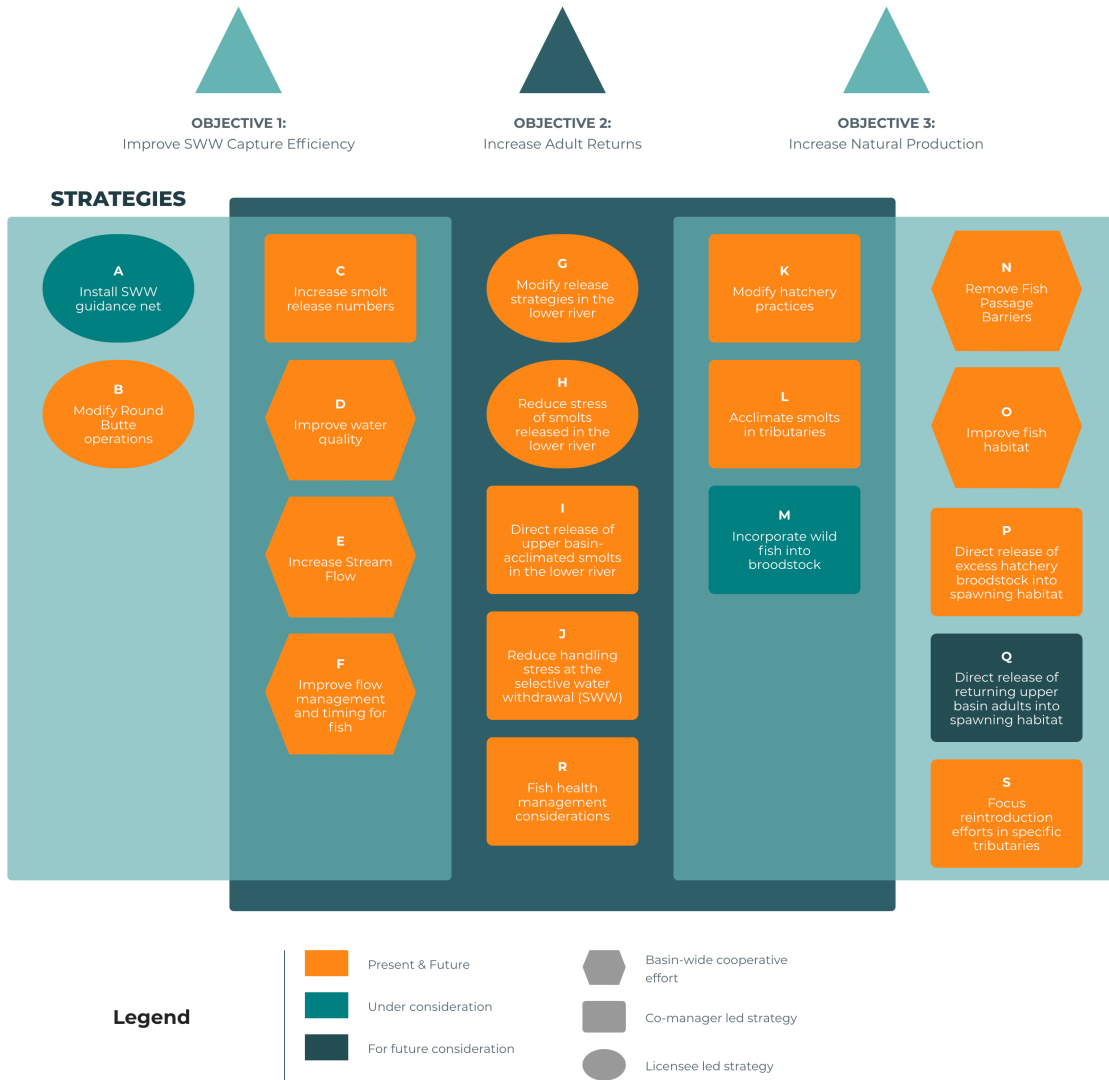
Reintroduction Road Map

The reintroduction road map is a high level guide to strategies current and future, to impact the goal of returning self-sustaining and harvestable runs of spring Chinook, sockeye and summer steelhead to the Upper Deschutes Basin. Learn more about the history and purpose of our work in the [Executive Summary](#).

The road map is organized by objectives with each strategy represented by a shape that indicates who is responsible and a color to illustrate whether strategies are current or planned.

Overview of Reintroduction Road Map

Goal: self-sustaining and harvestable runs of Chinook, sockeye, and steelhead.





STRATEGY

L: Acclimate Smolts in Tributaries

Description: Acclimation has been used throughout the Pacific Northwest to imprint anadromous hatchery fish on water sources, prior to release. Studies have shown that acclimation helps imprint smolts, decrease smolt outmigration time, increase smolt-to-adult return rates, and decrease straying of adult fish. Oregon Department of Fish and Wildlife (ODFW) conducted experimental acclimation on reintroduction smolts in 2018. Results found that a significantly higher number of acclimated smolts, 30 - 60% higher, depending on release group and site, were captured at the Selective Water Withdrawal (SWW), compared to a non-acclimated direct-release group. As a result of this finding, permanent modular tank acclimation facilities have been completed on the Metolius River and Whychus Creek. The long-term plan, as funding and permitting allow, is to develop permanent facilities, on all three upper basin tributaries, capable of acclimating all spring Chinook and summer steelhead prior to release. In the interim, a variety of temporary sites and methods will be used to acclimate smolts.

Anticipated Outcome: Increased smolt outmigration, survival, and number of fish captured at the SWW. This should facilitate an increase in the number of upper basin adults returning and a decrease in straying that occurs in the tributaries above the reservoir.

Evaluation Method: A percentage of each individual release group will be PIT-tagged prior to release, for both spring Chinook and summer steelhead, in each acclimation facility. Fish will then be released and monitored to determine the percentage of fish from each group that are captured at the SWW. These numbers can then be compared to the percentages prior to acclimation. Returning adults will be monitored for

PIT tags to look at the numbers of adults returning pre- and post-acclimation. In addition, stray rates of acclimated adults that return can be studied by comparing straying of adults before and after acclimation.

Timeline: Present and Future – Practices started in 2017.

Lead Organization/Agency: ODFW.

Fish Committee Role: Information is brought to the Fish Committee for input.

Related Studies/Actions/Decisions:

2019 – ongoing - ODFW begins development of smolt acclimation program using temporary facilities in 2019. Permanent Modutank facilities are completed at the Deschutes Land Trust - Camp Polk property in 2020 and at ODFW's Wizard Falls Hatchery in 2021. Percentage of smolts acclimated in permanent and temporary facilities increases until 2021 when 100% of smolts are acclimated prior to release.

2018 – ODFW experiments with acclimation of reintroduction smolts at Camp Sherman pond and Opal Springs. Results found a significantly higher number of acclimated smolts, 30 – 60% higher, depending on release group and site, were captured at the SWW compared to a non-acclimated direct-release group.

2017 – ODFW conducted a study looking at acclimating fish at Opal Springs facility.
