Pelton Round Butte Fish Committee

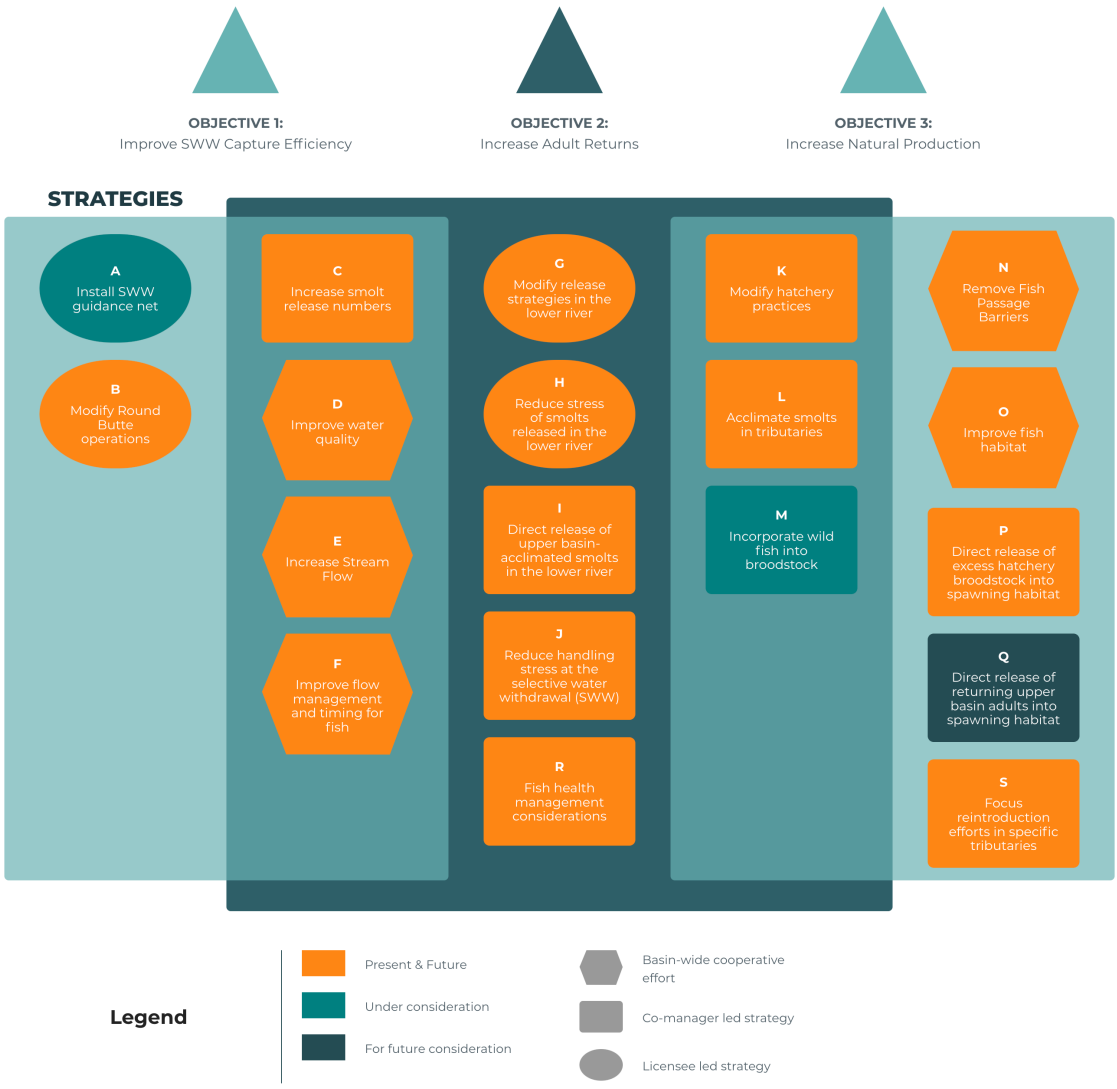
Reintroduction Road Map

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.



M
Incorporate Wild Fish into Broodstock

STRATEGY

M: Incorporate Wild Fish into Broodstock

Description: The Reintroduction and Conservation Plan for Anadromous Fish in the Upper Deschutes River Subbasin identifies wild Deschutes River summer steelhead and Warm Springs wild spring Chinook as preferred broodstock. Currently, the Round Butte Hatchery (RBH) summer steelhead broodstock and RBH Chinook broodstock are being used for the upper Deschutes Basin reintroduction program. Wild steelhead and Chinook have not been incorporated into RBH broodstock since the 1990s. Research has shown wild fish are more disease resistant, have higher survival and fecundity, and increased smolt-to-adult returns in comparison to hatchery fish. In 2017, the Oregon Department of Fish and Wildlife (ODFW) recommended that the National Marine Fisheries Service (NOAA Fisheries) consider allowing ODFW to incorporate wild steelhead into the RBH broodstock. Wild steelhead would be prioritized for use in the reintroduction program, prior to any use by RBH for non-reintroduction purposes. NOAA Fisheries is currently reviewing the draft Hatchery Genetic Management Plan submitted by ODFW. Prior to any take of wild steelhead at the Pelton adult trap, escapement goals for the lower Deschutes River must be met. At this time, Chinook are not being considered for incorporation into the broodstock because the trend in annual adult returns to tributaries of the lower Deschutes River has been declining since the early 2000s.

Anticipated Outcome: Improved smolt product for use in the reintroduction program that will increase survival and outmigration of smolts through the reservoir, thereby increasing upper basin adult returns to Pelton adult trap.

Evaluation Method: Evaluation of wild fish incorporation into the RBH broodstock used for the upper Deschutes Basin will occur at multiple levels. First, at the hatchery level for disease rates and survival of egg to smolt. Second, for smolt releases above the reservoir evaluating: smolt outmigration, residence time in the reservoir, capture efficiency at the Selective Water Withdrawal (SWW), and outmigration below the Re-Regulation Dam to Bonneville Dam. Third, through evaluation of smolt to adult returns, adult stray rates once passed above the reservoir, and spawning. Progeny from natural origin (wild) broodstock will be differentially marked to facilitate evaluation of performance in comparison to original RBH stock.

Timeline: Discussion regarding steelhead started in 2017 and is ongoing. There are no plans to incorporate Chinook into the broodstock at this time.

Lead Organization/Agency: Fish Co-Managers (ODFW and Confederated Tribes of Warm Springs Oregon (CTWSRO) and NOAA Fisheries.

Fish Committee Role: The Fish Committee will be provided with information.

Related Studies/Actions/Decisions:

2017 – Hatchery Genetic Management Plan (HGMP) documents were presented by ODFW to NOAA Fisheries for review. ODFW, NOAA Fisheries, and the CTWSRO plan to revisit wild steelhead incorporation into hatchery broodstock.

2008 – Oregon Department of Fish and Wildlife and Confederated Tribes of the Warm Springs Reservation of Oregon. 2008. Reintroduction and Conservation Plan for Anadromous Fish in the Upper Deschutes Subbasin identifies wild fish as the preferred source of broodstock to initiate the reintroduction effort.