

Pelton Round Butte Fish Committee

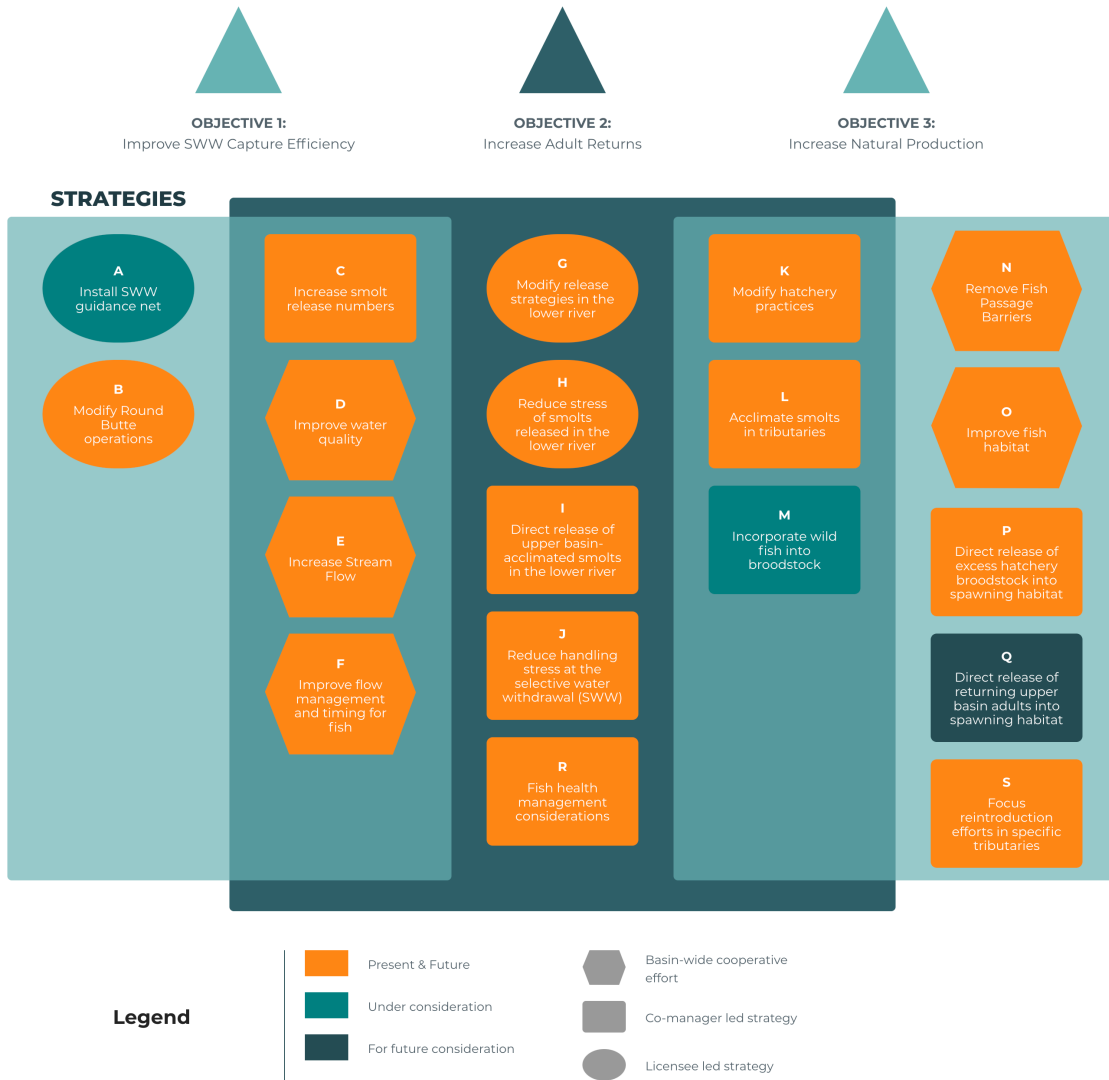
Reintroduction Road Map

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

F: Improve Flow Management and Timing for Fish

Description: The U.S. Bureau of Reclamation’s (Reclamation) Bowman Dam, located on the Crooked River at about river mile 70, was initially authorized by Congress in 1956 to store and release water for irrigation, flood control and a minimum flow of 10 cubic feet per second (cfs) for fish and wildlife. The reservoir’s full storage capacity is 148,640 acre-feet (AF). The Crooked River Collaborative Water Security and Jobs Act of 2014 (Crooked River Act) amended the 1956 authorization to include specific storage volumes for authorized purposes and a process by which these specific volumes are released. The annual storage volumes include: 1) a first fill storage priority of 81,013 AF for irrigation and 5,100 AF for the City of Prineville’s groundwater mitigation requirements, and 2) up to 62,527 AF, after first fill is satisfied, may be stored and released to benefit fish and wildlife. The City of Prineville’s 5,100 AF is released for instream benefits and is additive to the volume stored for fish and wildlife, thus the total volume of storage available each year for fish and wildlife when the reservoir fills is 67,627 AF.

The Crooked River Act requires Reclamation to annually provide instream flow, to the maximum extent practicable, for the benefit of fish and wildlife. It also requires Reclamation to consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services) to determine the release volumes and timing of fish and wildlife storage. The Services, in turn, consult with the Oregon Department of Fish and Wildlife and The Confederated Tribes of the Warm Springs Reservation of Oregon (Co-managers) in development of the annual water budget for fish and wildlife and for in-season adjustments.

Anticipated Outcome: Provide adequate flow volumes at appropriate times to help reintroduced steelhead and spring Chinook become re-established in the Crooked River basin and support important resident salmonid populations. Collaborate with federal, state, and tribal partners to legally protect fish and wildlife water released from Bowman Dam, downstream to Lake Billy Chinook; in 2021, Reclamation applied for a secondary water right from the state to protect fish and wildlife water from diversion.

The Deschutes Basin Habitat Conservation Plan (HCP), completed in 2020, provides for higher winter flows in the Deschutes River during the winter months and a guaranteed minimum flow of 50 cubic feet per second (cfs) in the Crooked River during very dry years (i.e., Prineville Reservoir only fills to 100,000 AF or less.)

Evaluation Method: Continued use of Portland General Electric's trapping and tag recovery data to help inform both flow volume and timing of release each year. Use Oregon Department of Fish and Wildlife's annual sampling data to evaluate impacts of interannual flow management on anadromous and resident salmonid populations.

Timeline: Present and Future.

Lead Organization/Agency: Bureau of Reclamation and the Services

Fish Committee Role: No role, but the Services and Co-managers are seated on the Fish Committee.

Related Studies/Actions/Decisions:

2021 – Completion of the [Deschutes River Basin Habitat Conservation Plan \(HCP\)](#), a collaborative strategy to share water resources in the Deschutes Basin through a variety of irrigation and related water management programs and projects, while enhancing fish and wildlife habitat. It's also recognized that additional work will be needed outside of the HCP process to meet stream flows necessary to promote

anadromous life cycles, especially for Chinook, which were not a focal species of the final HCP.

2020 – USFWS, NOAA, and PGE tested how a “flow pulse” – a release from uncontracted storage at Prineville Reservoir – would impact downstream steelhead smolt outmigration in the Crooked River and through Lake Billy Chinook. The pulse appeared to move steelhead smolts down the Crooked River, however, it could not be determined if it ultimately resulted in an increase in the number of steelhead smolts that outmigrated to the SWW.

2014 – Crooked River Collaborative Water Security and Jobs Act of 2014. Available at: <https://www.congress.gov/bill/113th-congress/house-bill/2640>.

2005 – Northwest Power and Conservation Council. 2005. Deschutes Subbasin plan. NPCC, Portland, Oregon. Available at: <https://www.nwcouncil.org/subbasin-plans/deschutes-subbasin-plan>.

2001 – Hardin, Tim. 2001. Physical habitat for anadromous species in the Crooked River below Bowman Dam. Prepared for U.S. Bureau of Reclamation, Boise, Idaho.

1993 – Hardin, Tim. 1993. Summary report, Crooked River instream flow study. Prepared for Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management and U.S. Bureau of Reclamation. Strategy