

MEMORANDUM

Date: March 31, 2021
To: Chehalis Basin Board
From: Andrea McNamara Doyle, Director, OCB
Re: Integration of Habitat, Harvest, Hatcheries, Hydropower and Predation

Summary

At the April 1, 2021 Board meeting, staff will request Board direction on whether to pursue discussions with the Washington Department of Fish and Wildlife (WDFW), the Chehalis Tribe, and the Quinault Indian Nation to develop a scope of work and budget for the 2021-2023 budget to initiate the development of an integrated fisheries plan for the Chehalis Basin. Such an effort, described in the attached concept paper, would enable the Board to provide the fisheries co-managers more support where needed, as well as enabling the Board to better understand and communicate the actions of the co-managers and build support amongst interested parties, especially landowners, for voluntary habitat restoration.

Background

In December 2020, the Chehalis Basin Board, at the request of Board member Jay Gordon, discussed the importance of the Aquatic Species Restoration Plan (ASRP) and the relationship of other factors that can influence the success of the ASRP, specifically the need for integration of actions for habitat, harvest, hatcheries and predation. The Board concurred with the importance of this need for integrating and reinforcing actions and sent a letter to WDFW, the Quinault Indian Nation, and the Chehalis Tribe, requesting a briefing regarding the need and efforts underway on integration.

At the January 2021 Board meeting, Ron Warren, WDFW's Director of Fish Policy, provided an overview of the work by the department and the tribes for management of salmon, including harvest and hatcheries. The briefing underscored the value of integrating and reinforcing actions, and Ron offered to provide more information in response to additional interest by the Board. After the briefing, Board members acknowledged the potential benefit of providing more support to the co-managers where needed. Board members also acknowledged the benefits of being able to better understand and communicate the actions of the co-managers on issues related to harvest, hatcheries, predation, etc., which would assist Board members in building support amongst interested parties – and especially landowners – for voluntary habitat restoration.

Following the meeting, OCB and WDFW staff developed a proposed concept paper for integration ([Attachment A](#)). The concept paper was reviewed with Quinault and Chehalis Tribal staff. Tribal staff could not speak to the policy issues raised by the concept paper but supported presentation of the concept paper to the Board.

This draft concept is intended to stimulate a dialogue between the Chehalis Basin Board, WDFW and the Tribes to identify an approach over the 2021-2023 biennium for the important actions needed to integrate management actions for the benefit of the basin salmonids. DFW and the Tribes are the leads on hatchery, harvest, and predation actions, and have an independent authorities and obligations in these areas. OCB acknowledges and respects their legal responsibilities and expertise for fisheries management, and seeks to assist the Board in better understanding and supporting actions that will affect the success of the ASRP conclusion.

At this week's Board meeting, OCB and WDFW staff will request the Board's direction on whether to pursue discussions with the WDFW and the Tribes to develop a scope of work and budget for the 2021-2023 budget to initiate development of an integrated fisheries plan for the Chehalis Basin. The Board scope and budget could include providing more support where needed by the co-managers, as well as producing information to enable the Board to better understand and communicate the actions of the co-managers and build support amongst interested parties, especially landowners, for voluntary habitat restoration.

Attachment A

Integration of Habitat, Hatcheries, Harvest, Hydro, and Predation Management for Chehalis Basin Salmonids

Draft Concept

Developed by Office of Chehalis Basin and Department of Fish and Wildlife
March 2021

Integration of habitat, harvest, hatcheries and predation management Restoration of salmon populations requires a coordinated management effort. The major factors that affect the abundance, productivity, spatial structure and diversity of salmon populations are often lumped into the “Four Hs” of harvest, hatcheries, hydropower, and habitat (predation is also a significant factor in the Chehalis Basin). Each of these factors independently affects the status of salmon populations, but they also have cumulative and synergistic effects throughout the salmon life cycle. The achievement of more robust salmon populations depends on the concerted effort of all four factors working together, not canceling each other out, and adjusting over time as population conditions change. For the Chehalis Strategy’s aquatic species restoration goals to be successful, there needs to be a coordinated, integrated, and funded set of actions for habitat, harvest, hydropower, hatcheries, and predation with clear measures to determine success for each factor and their integration.

Plans for integration of habitat, hatcheries, hydropower, and harvest has been created in the Puget Sound Chinook Recovery Plan and the Lower Columbia Conservation and Sustainable Fisheries Plan. These could serve as a model for the type and detail of integration needed in the Chehalis Basin.

The components of an integrated strategy could include:

Habitat

Healthy habitat provides the greatest biological certainty, as it contains the core functions that sustain salmon populations over the long term. When habitat strategies are designed to protect existing intact ecological functions, they have a greater certainty of maintaining or restoring viable salmon populations than strategies that rely on artificial substitutions. The completion of the Aquatic Species Restoration Plan (ASRP) is needed to set the goals, actions and measures for assessing success for salmonid populations as the plan is implemented.

Harvest

Throughout the state, fisheries co-managers prioritize the conservation of fishery resources first. Prior to promulgating annual fisheries, co-managers determine harvestable surplus. Consistent with this, in the Chehalis Basin, fishery-related mortality should not impede rebuilding of naturally reproducing salmon and steelhead populations to levels that will sustain fisheries, protect and restore ecological function, and be consistent with treaty-reserved fishing rights. The harvest strategy includes allowing recovery of weak stocks like spring Chinook in the Chehalis Basin. The strategy also allows for escapement goals to be adjusted as more habitat becomes useable and/or more productive. Harvest practices and annual catch limits are reviewed and set by the co-managers. It would be helpful to communicate the annual decisions and rationale to interested parties involved in the Chehalis Basin

Strategy so there is confidence that harvest is not limiting the recovery of salmon populations as habitat is restored. Additional funding may be needed by the co-managers if the information requested by the Chehalis Basin Board necessitates analyses beyond routine reviews by the co-managers.

Hatcheries:

Restoring and protecting habitat to the extent necessary to achieve population restoration and harvest may take several decades. While natural populations are recovering, hatchery programs provide important opportunities for rebuilding and harvest. Hatchery programs operate under the legal framework defined by U.S. v Washington. Providing harvest opportunities consistent with treaty fishing rights and conservation is an important, legally defined role for hatcheries. Implementation of hatchery management recommendations is periodically reviewed and updated to ensure implementation in a manner that is consistent with the goals of habitat recovery plans like the ASRP, natural production, and the long-term viability of natural spawning populations. Consistent with this, hatcheries in the Chehalis basin will be managed to ensure consistency with the habitat and naturally spawning salmon and steelhead protection and restoration goals of the Chehalis Strategy. It would be helpful to communicate to interested parties involved in the Chehalis Basin Strategy about periodic reviews and updates to hatchery management recommendations so there is confidence in the consistency with the goals of the ASRP. It may also be appropriate to consider a conservation/supplemental hatchery for weak stocks, e.g., spring Chinook. Additional funding may be needed to fully implement changes needed for hatcheries in the Chehalis basin.

Hydropower/dams:

The Chehalis Basin Board and Office of the Chehalis Basin should consult with owners of hydropower facilities and other dams and explore ways to better manage, mitigate, or otherwise reduce impacts from existing dam projects in the basin for the benefit of salmon and steelhead. Dam owners should ensure that they are meeting all obligations to mitigate for the impact of their facilities in a manner consistent with basin-wide recovery of naturally spawning fish populations.

Predation

Non-native fish species are abundant in the Chehalis River mainstem and prey on juvenile salmon potentially in significant numbers. Restoration of habitat needs to be done in a manner that decreases, or is compatible with decreasing, the risk of predation from non-native species. Subject to funding, there should be an assessment of current impact of predation from non-native fish and impact of new “no bag limit” policies and other potential actions.

The level of predation by pinnipeds is unknown but may be significant. Subject to funding, there should be an assessment pinniped predation impacts and trends on juvenile and adult salmon and steelhead. If there is a problem relative to a healthy natural baseline, options should be developed to reduce predation.

H-Integrated Plan

Preparation of an H-Integration plan similar to the Lower Columbia Conservation and Sustainable Fisheries Plan would require additional discussion amongst the co-managers and with the Chehalis Basin Board to determine the potential benefits and resources needed.