AGENDA ITEM SUMMARY

ISSUE 1

Coquille River Fall Chinook Conservation Hatchery Program Modification

BACKGROUND

In 2022 the Commission approved the Oregon Department of Fish and Wildlife (ODFW) to initiate the Coquille River fall Chinook Conservation Hatchery Program using natural origin (NOR) broodstock to supplement naturally spawning populations of Chinook salmon. Due to insufficient returns of NOR adult fall Chinook salmon there has not been the ability to capture, spawn, and release enough smolts to meet program objectives or inform a robust assessment of the program. The current target smolt release number is 47,000 natural origin smolts. In the first four brood years of program implementation (2022-2025), the initial broodstock collection goal has been met in only one year. In the other three years, an insufficient number of returning NOR females were captured, which resulted in less than 10,000 eggs collected. To help achieve our target release number and subsequently assess the program, staff along with the Coquille Indian Tribe (CIT) are proposing to manage both the Coquille Fall Chinook Conservation Hatchery Program and the Coquille Fall Chinook Harvest Augmentation Hatchery Program as a single integrated stock that utilizes NOR and hatchery origin (HOR) broodstock.

PUBLIC INVOLVEMENT

Public involvement included discussions with local angling group leadership during the Coos County Fish Leaders Forum in early January. Additionally, the public has an opportunity to provide comment prior to (in writing) or (orally) during the hearing that occurs at the Commission meeting.

ANALYSIS

To maintain consistency with guidance in the Native Fish Conservation Policy and the Fish Hatchery Management Policy, ODFW and the CIT have established specific objectives and sideboards to guide the initial implementation and evaluation of the conservation hatchery program. The program objectives are:

1. Prevent extirpation of natural origin fall Chinook in the Coquille River Basin while concurrently taking actions to address primary limiting factors for freshwater productivity.
2. Conserve the genetic diversity of natural origin fall Chinook in the Coquille Basin.

3. Increase the abundance of natural origin fall Chinook to a self-sustaining level, defined here as a level at which returns of unmarked fall Chinook spawners exceed the CMP critical abundance threshold of 2,833 fish for four consecutive years.

The program is meant to be adaptively managed to achieve these objectives, and multiple factors influence the scale of production from the conservation hatchery program, including:

- Hatchery capacity - rearing space, water availability, and rearing logistics by facility.
- Broodstock availability - adult return numbers and the ability to capture fish.
- Harvest augmentation program production level - given limited rearing capacity in the hatchery system, the size of the augmentation program affects how space is used at hatcheries.

During the past four years of implementing the conservation hatchery program the brood goal has only been reached once (Table 1). The returns of wild broodstock during the other years have been very low, resulting in less than adequate numbers of eggs to meet the smolt release target of 47,000. Due to low broodstock numbers, the releases for the conservation hatchery program have also been very low (Table 2) and is not allowing us to properly evaluate its effectiveness nor allowing us to meet our goal of increasing natural origin fall Chinook abundance to a self-sustaining level.

To help achieve our target release number and subsequently assess this program, we are proposing managing the Coquille fall Chinook hatchery program as a single integrated stock that utilizes both NOR and HOR broodstock. This approach would: 1) take advantage of genetic diversity that currently exists within the Coquille hatchery stock, while also regularly incorporating genetics from NOR fish; and 2) increase the likelihood that the conservation hatchery program release target is consistently achieved.

Table 1. Coquille CHF Conservation Program Brood Collected and Spawned

	Collected			Spawned		
Brood Year	Wild Males	Wild Female	Wild Jacks	Wild Males	Wild Female	Wild Jack
2022	7	2	0	1	1	0
2023	16	18	3	16	18	0
2024	16	2	1	1	2	0
2025	5	2	1	5	2	0

Table 2. Coquille CHF Conservation Hatchery Program Releases

Release Year	Smolt Release
2023	1,557
2024	45,876
2025	5,667
2026	*5,800

*The 2026 release number is an estimate based on this year's egg take and average loss.

Currently there are two hatchery programs that incorporate smolt releases in the Coquille River system. In addition to the conservation hatchery program, there is also the harvest augmentation program that supports most of the fall Chinook fishery in the lower river and bay. The broodstock collection goal to support smolt releases for the conservation hatchery and harvest augmentation programs would remain at 150 adult Chinook (75 females). Based on recent average fecundity (~3,600 eggs per female), this would yield approximately 270,000 eggs, which would be sufficient to meet the total smolt production target (47,000 + 175,000 = 222,000) based on expected losses during incubation and rearing.

ODFW and the CIT will continue to attempt to collect up to 32 NOR adult fall Chinook (16 females and 16 males) for broodstock annually. These fish would contribute to the broodstock goal of 150 adult Chinook to meet smolt release targets—an integration rate of up to 21% annually. During spawning, NOR:NOR crosses will occur whenever feasible.

If additional rearing space needed to expand the conservation hatchery release becomes available, ODFW will evaluate the feasibility of increasing NOR broodstock collection up to the level described in the program's operational plan (34 brood pairs).

This requested change to the program is part of the ODFW and CIT periodic review as described in 2022 when it was approved. As part of that proposal, ODFW outlined that "The goal of additional monitoring is to assess the performance and contribution of the conservation hatchery program to the natural origin population. It will also inform adaptive management actions for ongoing management in the basin, including hatchery programs, for future consideration by the Commission as necessary."

This action is also consistent with other conservation hatchery programs in Oregon and aligns with the Fish Hatchery Management Policy and associated Oregon Administrative Rule (OAR) 635-007-0545 which states "For conservation hatchery programs, broodstock shall be derived from the wild population targeted for hatchery intervention, or from nearby wild or hatchery populations with desired characteristics if the targeted wild population is extirpated or too depressed to provide brood fish."

OPTIONS

Option 1. Approve ODFW to include hatchery origin broodstock as part of the Coquille Fall Chinook Conservation Hatchery Program.

Option 2. Do not approve ODFW to include hatchery origin broodstock as part of the Coquille Fall Chinook Conservation Hatchery Program.

STAFF RECOMMENDATION: ISSUE 1

1. Option 1

DRAFT MOTION:

Issue 1: I move to approve the Department to include hatchery origin broodstock as part of the Coquille Fall Chinook Conservation Hatchery Program.

EFFECTIVE DATE: January 16, 2026