ANALYSIS

Department of Fish and Wildlife

Umpqua Basin Fish Hatchery

Analyst: Travis Miller

Request: Acknowledge receipt of a report on options for fish hatchery operations within the Umpqua Basin.

Analysis: The Oregon Department of Fish and Wildlife (ODFW) submitted a report in response to the following budget note in HB 5006 (2025):

> The Oregon Department of Fish and Wildlife is directed to provide a report, in consultation with the Cow Creek Band of Umpqua Tribe of Indians, to the Joint Committee on Ways and Means prior to the 2026 session regarding potential hatchery operations in the Umpqua Basin. The report shall include recommendations for overall hatchery operations in the Umpqua Basin, based on the Hatchery Resiliency Assessment, including but not limited to:
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> - An evaluation of returning Rock Creek Hatchery to operability and in what capacity, including estimated initial and ongoing costs, and timeline for implementation.
> - An assessment of other hatchery location options in the Umpqua Basin, including estimated initial and ongoing costs, and timeline for implementation.
> - An assessment of available revenue streams and financial partnerships to support the recommendations.

Prior to 2020, the Rock Creek Hatchery (RCH) was the primary hub for hatchery production in the Umpqua Basin. Since its destruction in the Archie Creek Fire, ODFW has engaged in a government-to-government partnership with the Cow Creek Band of Umpqua Tribe of Indians (Cow Creek Umpqua People) to identify opportunities to restore fish production within the Umpqua Basin.

ODFW evaluated the feasibility of restoring RCH to pre-Archie Creek Fire production ("Full RCH Capacity Option") versus a combination of actions including the partial restoration of RCH, establishment of a new South Umpqua Facility (SUF), and reliance on out-of-basin regional hatcheries ("Resilient Umpqua Basin Hatchery Option"). However, ODFW was unable to provide cost estimates for design and construction for either option because design details are not yet finalized; a location for a new SUF has not been finalized; the construction timeline is several

years out; and prices for materials, supplies, and labor are susceptible to volatile inflationary factors.

In evaluating the feasibility of the Full RCH Capacity Option, ODFW considered the relative cost, regulatory compliance, mechanical reliance, and overall production risk. The Full RCH Capacity Option was considered cost prohibitive ("at least 50% more that the cost of other options"), less likely to meet temperature requirements by the U.S. Environmental Protection Agency for water discharge, overly reliant on costly and complex mechanical systems (e.g., water treatment, recirculation, chilling, and filtration), and more vulnerable to future natural disasters. Additionally, ODFW noted that fire had exacerbated pre-existing water temperature challenges and introduced sediment concerns, increasing the likelihood of disease and fish loss. Water quality conditions are expected to worsen until significant watershed restoration activities have occurred and matured over decades.

In evaluating the feasibility of the Resilient Umpqua Basin Hatchery Option, ODFW considered the same factors. The Resilient Umpqua Basin Hatchery Option was considered significantly less expensive, more likely to meet regulatory compliance standards, less reliant on mechanical systems, and less vulnerable to natural disasters given the use of multiple locations. Additionally, ODFW discussed the potential for partnering with the Cow Creek Umpqua People in terms of shared ownership, operations, and funding models.

With respect to available revenue streams and partnerships, ODFW evaluated resources for both initial design and construction as well as ongoing operations and maintenance. For initial design and construction, ODFW identified $16.9 million in insurance funds that remain available, as well as an opportunity to apply to the Federal Emergency Management Agency Public Assistance Program (FEMA PAP). If approved, FEMA PAP would cover up to 90% of the construction costs not covered by insurance, leaving a gap of 10% of construction costs not covered by insurance. Again, however, ODFW was unable to provide a specific cost estimate or timeline for design and construction.

As for funding the cost of ongoing operations and maintenance, ODFW estimates that the current biennial funding gap is approximately $2.5 million. Additionally, the Cow Creek Umpqua People continue to explore the extent to which they can fund long-term operations. Lastly, ODFW estimates that its local partners can provide additional annual funding, including Douglas County at $39,000 per year for coho salmon production and PacifiCorp at $24,000 per year for trout production.

Recommendation: The Legislative Fiscal Office recommends that the Joint Committee on Ways and Means acknowledge receipt of the report.

Request: Report on the recommendations for potential fish hatchery operations in the Umpqua Basin by the Department of Fish and Wildlife.

Recommendation: Acknowledge receipt of the report.

Discussion: A budget note included in the budget report for House Bill 5006 (2025) includes the following instructions to the Oregon Department of Fish and Wildlife (ODFW):

> **Budget Note**:
> The Oregon Department of Fish and Wildlife is directed to provide a report, in consultation with the Cow Creek Band of Umpqua Tribe of Indians, to the Joint Committee on Ways and Means prior to the 2026 session regarding potential hatchery operations in the Umpqua Basin. The report shall include recommendations for overall hatchery operations in the Umpqua Basin, based on the Hatchery Resiliency Assessment, including but not limited to:
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> - An evaluation of returning Rock Creek Hatchery to operability and in what capacity, including estimated initial and ongoing costs, and timeline for implementation.
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> - An assessment of available revenue streams and financial partnerships to support the recommendations.

To comply with the requirements of the budget note, ODFW is appearing before the committee to present recommendations on potential operations of a fish hatchery in the Umpqua Basin.

The Rock Creek Hatchery in the North Umpqua River basin was severely damaged in the 2020 Archie Creek Fire. The Rock Creek facility provided central hatchery production in the Umpqua Basin prior to the fire. Without the full operation of the Rock Creek facility, fish hatchery production is severely diminished in the Umpqua Basin from the pre-fire production of approximately 798,000 total fish.

ODFW and the Cow Creek Umpqua People (CCUP) have evaluated the expected outcomes of both a Full Restoration of the Rock Creek facility option (Full Restoration) and a Resilient Umpqua Basin option (Resilient Umpqua). The Full Restoration option includes restoring the Rock Creek facility to the pre-fire capacity. Resilient Umpqua Basin option includes a partial restoration of the Rock Creek hatchery, the construction of a new South Umpqua facility, and additional capacities added at other regional hatcheries. Primarily due to new water temperature requirements adopted by the Environmental Protection Agency, and water quality challenges facing the Rock Creek facility, the Full Restoration option includes the downsides of being more expensive,

regulatorily complex, and requiring mechanical and technological solutions to maintain fish production. In contrast, the Resilient Umpqua option counters each of the downsides presented by the Full Restoration option, is expected to maintain pre-fire levels of fish production, increase production resilience, and provide a path to shared ownership and partnership between ODFW and CCUP. ODFW and CCUP are recommending the pursuit of the Resilient Umpqua Basin scenario and are investigating design, construction, operations, and maintenance plans associated with the scenario.

Oregon
Tina Kotek, Governor

Department of Fish and Wildlife
Office of the Director
4034 Fairview Industrial Drive SE
Salem, OR 97302
(503) 947-6044
FAX (503) 947-6042
odfw.com

January 21, 2026

Senator Kate Lieber, Co-Chair
Representative Tawna Sanchez, Co-Chair
Joint Committee on Ways and Means
900 Court Street NE
H-178 State Capitol
Salem, OR 97301

Dear Co-Chairs Lieber and Sanchez:

The Oregon Department of Fish and Wildlife (ODFW) requests an opportunity to provide a progress report to the Joint Committee on Ways and Means regarding recommendations for potential fish hatchery operations in the Umpqua Basin.

Agency Action

House Bill 5006 from the 2025 Legislative Session included the following budget note instructions to ODFW:

The Oregon Department of Fish and Wildlife is directed to provide a report, in consultation with the Cow Creek Band of Umpqua Tribe of Indians, to the Joint Committee on Ways and Means prior to the 2026 session regarding potential hatchery operations in the Umpqua Basin. The report shall include recommendations for overall hatchery operations in the Umpqua Basin, based on the Hatchery Resiliency Assessment, including but not limited to:

- *An evaluation of returning Rock Creek Hatchery to operability and in what capacity, including estimated initial and ongoing costs, and timeline for implementation.*
- *An assessment of other hatchery location options in the Umpqua Basin, including estimated initial and ongoing costs, and timeline for implementation.*
- *An assessment of available revenue streams and financial partnerships to support the recommendations.*

Overview

Rock Creek Hatchery (RCH) is located on Rock Creek in the North Umpqua River basin. Prior to 2020, the facility was the hub for hatchery production in the Umpqua Basin. The Archie Creek Fire in 2020 destroyed much of the hatchery infrastructure. Since that time, the Department has been utilizing the remaining infrastructure as well as several other southwest facilities to maintain hatchery releases in the basin. Restoration of hatchery infrastructure in the Umpqua Basin following the impacts of the 2020 Archie Creek Fire requires a multi-stakeholder approach to ensure the region's needs and resources are met. In a government-to-government partnership, ODFW and the Cow Creek Band of Umpqua Tribe of Indians (Cow Creek Umpqua People) began meeting after the fire to identify opportunities for our two governments to

collaborate in the immediate response and long-term sustainability of fish production and management throughout the Umpqua Basin.

We have been engaging with a range of local community and statewide stakeholders to evaluate and recommend hatchery options for the Umpqua Basin that will lead to lasting, meaningful outcomes for the region's people and other natural resources. The first step in this work was supported by the Legislature through HB 5006, which invested $1.4 million into RCH and the Umpqua Basin in order to continue current production and perform new research throughout the 2025-27 biennium while options continue to be developed. ODFW and the Cow Creek Umpqua People are committed to devoting the time it takes to get the best outcomes, especially given:

- the environmental challenges the fire and increasing temperatures have caused for hatchery production,
- the critical economic and social resource that hatchery production provides for the region,
- the essential cultural resource hatchery production provides for the Cow Creek Umpqua People and other tribes,
- the process to identify, request, and secure from multiple sources the amount of funding necessary for construction and operation of hatchery facilities, and
- the unprecedented partnership and associated inter-governmental legal details under consideration between the State of Oregon (through ODFW) and the Cow Creek Umpqua People.

Although not complete, significant progress has been made to develop options and details. This report describes progress to date. The details of a final design, funding, and recommendations for hatchery facilities in the Umpqua Basin will continue to evolve, although our shared vision and principles will remain the same and guide every step of this process.

Evaluation of Restoring Rock Creek Hatchery to Full Capacity

Restoring the pre-Archie Creek Fire production capacity at RCH was evaluated as a potential option for hatchery production in the Umpqua Basin ("Full RCH Capacity Option"). Details of hatchery production for the *Full RCH Capacity Option* are in Table 1. The fire exacerbated pre-existing water temperature challenges for RCH and introduced new sediment concerns for hatching operations during periods of elevated runoff. High water temperatures and sediment levels are not conducive to the hatchery production of salmon, steelhead, and trout as they greatly increase disease and fish loss. These water quality challenges, which are expected to worsen in the future until significant watershed forest restoration occurs and then matures over many decades, strongly influence the following key findings from the evaluation of the *Full RCH Capacity Option*.

- Cost Prohibitive: Restoring RCH to full pre-fire capacity with a stable and acceptable water supply would be very expensive. Preliminary design and construction cost estimates indicate that this option would be at least *50% more* than the cost of other options that would restore a similar level of production[1]. Preliminary estimates of ongoing operations and maintenance costs are expected to exceed *$4.12 million* per biennium.
- Regulatory Compliance: New water temperature requirements were recently adopted by the U.S. Environmental Protection Agency (EPA) for the Umpqua Basin. These will result in RCH having to meet stricter discharge requirements at some point in the near future when the facility's operating permit is revised by the Oregon Department of Environmental Quality (ODEQ). The amount of hatchery production at RCH will determine how difficult and costly it is to meet the new requirements.
- Mechanically-Reliant: Given the water quality challenges, fish production at pre-fire levels would be reliant on mechanical and technological solutions, including comprehensive water treatment, recirculation, chilling, filtration systems, substantial back-up power supply, and solar electric power to defray long-term electrical operating costs. These systems are complex and dynamic, require special training and staffing, and are subject to greater rates of failure than systems without water quality and quantity challenges. A new full-time mechanical systems maintenance specialist would need to be added at RCH with the responsibility of keeping numerous, complex, new mechanical and electrical systems operational (e.g., advanced outdoor rearing pond chilling, a solar array capable of generating up to two megawatts of electricity, pumps to properly distribute water throughout the facility, battery power storage, and diesel generator-supplied electricity for back-up power)[2].

    - *Ongoing maintenance costs* – Estimated costs to replace 'normal wear' components for the new mechanical systems needed to offset elevated water temperatures and sediment loads to restore full production, over a thirty-year timeline, could exceed $19 million, or an average of $1.27 million per biennium. These 'normal wear' costs are greater than 30% of the total biennial operating costs[3].

- Concentrated Production Risk: Relying solely on RCH for production would concentrate the risk of a catastrophic hatchery production loss into a single facility that is vulnerable to future disasters, has water quality challenges, and is dependent on a suite of mechanically complex equipment that could fail.

[1] Specific cost estimates for design and construction are not included because design details upon which to base estimates are not final, the pricing for materials, supplies, and labor are highly susceptible to rapidly changing inflationary factors, and the construction timeline is up to several years in the future.
[2] This expense is included in the previously-described $4.12 million per biennium operations and maintenance cost.
[3] This expense is included in the previously-described $4.12 million per biennium operations and maintenance cost.

Assessment of Other Hatchery Options

ODFW and the Cow Creek Umpqua People have been discussing and are continuing to assess an alternative to restoring full RCH capacity. As with the option of restoring RCH to full capacity, this *Resilient Umpqua Basin Hatchery Option* maintains all existing fish production while reducing the risk of fish loss at the environmentally-challenged RCH site by utilizing multiple hatchery facilities that are operated in partnership. Details of the *Resilient Umpqua Basin Hatchery Option* production are in Table 1.

The *Resilient Umpqua Basin Hatchery Option* entails:

- Partial Restoration of RCH: RCH would be restored to allow it to produce at least half of the spring Chinook and all of the rainbow trout that were produced by RCH before the fire. The significant water temperature issues facing RCH are greatly diminished with less production.
- New South Umpqua Facility (SUF): The Cow Creek Umpqua People are exploring tribally-owned sites on which to build a new facility that would be constructed by ODFW with disaster-related (i.e., resulting from the Archie Creek Fire) fund sources. This site would produce hatchery coho and winter steelhead that were previously produced by RCH before the fire.
- Other Regional Hatcheries: Other regional hatcheries would continue to support hatchery programs in the Umpqua Basin to some degree, as they have been doing after the Archie Creek Fire. Both the spring Chinook and fall Chinook programs would continue to be supported by out-of-basin regional hatcheries.

Table 1 Pre-Archie Creek Fire production and acclimation at RCH as well as proposed post-Archie Creek Fire production and acclimation at RCH, SUF and other regional hatcheries. Note that summer steelhead were produced at RCH pre-fire, but that program was subsequently discontinued for unrelated reasons and is not included in either option.

Program	Pre-Fire Production (Full RCH Capacity Option)	Post-Fire Production (Resilient Umpqua Basin Hatchery Option)
Spring Chinook	· 342,000 smolts (full term at **RCH**)	· 342,000 smolts* (½ reared at **RCH**; ½ reared at a **Regional** hatchery and acclimated at **RCH**; spawning and egg incubation location at **RCH** and/or the other **Regional** hatchery)
Fall Chinook	· 170,000 smolts and pre-smolts (70,000 smolts full-term at **RCH**; 100,000 pre-smolts reared at another site in the Umpqua Basin)	· 170,000 smolts and pre-smolts (rearing split between a **Regional** hatchery and another site in the Umpqua Basin)
Coho	· 60,000 smolts (full term at **RCH**)	· 60,000 smolts* (full term at **SUF**)
Winter Steelhead	· 150,000 smolts (full term at **RCH**)	· 150,000 smolts* (full term at **SUF**)

Rainbow Trout	· 8,000 trophy size · 68,000 legal size (received at **RCH** in fall from other hatcheries and released in following spring/summer)	· *same as pre-fire*
TOTAL	798,000 fish	798,000 fish

*All or most rearing currently occurs at an out-of-basin hatchery.

The *Resilient Umpqua Basin Hatchery Option* provides the following financial and logistical benefits over restoring RCH to full capacity:

- Significantly Less Expensive: Initial facility design and construction cost estimates are significantly less than the costs to recover full, pre-fire production at RCH[4]. Ongoing operational and facility maintenance costs at RCH, SUF, and other regional hatcheries are only about 60% of the cost to restore pre-fire production exclusively at RCH ($2.58 vs $4.12 million per biennium). Under the *Resilient Umpqua Basin Hatchery Option*, operation and maintenance costs would also likely be shared among several entities participating in hatchery production.
- Easier Regulatory Compliance: Reducing production levels at RCH increases the ability of the facility to adhere to existing and future effluent water quality regulatory parameters, set by ODEQ, from the hatchery into Rock Creek.
- Reduced Mechanical Reliance: Although details are still under development, this option will utilize fewer mechanical and electrical systems at RCH and entail a similar level of these systems at the new SUF hatchery. Doing so maximizes the ability of hatchery operators to leverage existing institutional knowledge to troubleshoot issues while simultaneously reducing hatchery production reliance on complex, numerous systems at one facility. Unlike the *Full RCH Capacity Option* described above, a full-time mechanical systems maintenance specialist is not expected to be needed for this option.
- Reduced Production Risk: Hatchery production risk from future natural- or human-caused incidents would be spread across multiple sites thereby providing more hatchery resilience for the Umpqua Basin than existed pre-Archie Creek Fire.
- Partnership: ODFW and the Cow Creek Umpqua People are exploring ownership, operational, and funding partnerships for RCH and SUF that include both entities and other local partners. These partnerships will strengthen relationships among state, tribal, and local stakeholders to assure sustainable and resilient hatchery production into the future.

[4] Specific cost estimates for design and construction are not included because site location and operational capacity for SUF are not final, design details upon which to base estimates are not final, the pricing for materials, supplies, and labor are highly susceptible to rapidly changing inflationary factors, and the construction timeline is up to several years in the future.

Revenue Streams and Financial Partnerships

ODFW and the Cow Creek Umpqua People have been working to identify funding needs and continue to explore potential funding sources for two phases of this option:

1) Initial Design and Construction

- **Insurance Reimbursement**: There is a balance of $16.9 million in insurance funds available for construction, equipment replacement, and design; Legislative limitation approval will be required
- **Federal Emergency Management Agency Public Assistance Program (FEMA PAP)**: If the State's application for the project is approved and funds are appropriated, FEMA funding would cover up to 90% of construction costs not funded by insurance; application is in progress
- ODFW and Cow Creek Umpqua People staff will provide design and construction consultation
- **Funding Gap**: approximately 10% of construction costs not funded by insurance are required for cost-share with FEMA funds; a source for these funds has not been identified

2) Ongoing Operations and Maintenance

- **ODFW Funding**: operations funding for RCH was eliminated from ODFW's base budget in the 2025-27 biennium due to funding shortfalls, but one-time funding for the 25-27 biennium to maintain production and do research was provided by the Legislature. Long-term operations and maintenance funding is not in ODFW's budget
- **Cow Creek Umpqua People Funding**: the Tribe is exploring the ability and level to fund long-term operations
- **Local Partners**:
  - Douglas County – currently funds coho salmon production at about $39,000/year
  - PacifiCorp – currently funds trout production at about $24,000/year
- **Funding Gap**: The current biennial funding gap for operations is ~$2.45 million

Next Steps and Timeline

The steps to effectively evaluate the recovery of hatchery production in the Umpqua Basin involve numerous processes with complex regulatory, financial, and logistical considerations. Navigating these steps requires coordination among a variety of state, tribal, local, and federal entities to provide clarification around important details for the *Resilient Umpqua Basin Hatchery Option*. It is difficult to provide a detailed timeline for these steps because the specifics around a finalized option are still in development. Additionally, there are outstanding tasks that are reliant on processes outside of ODFW and the Cow Creek Umpqua People's control. The following indicates major steps necessary to achieve implementation of the *Resilient Umpqua Basin Hatchery Option*.

- ODFW and the Cow Creek Umpqua People will continue to develop the long-term vision for a *Resilient Umpqua Basin Hatchery Option* by exploring options for ownership, operations, and maintenance together and with other partners
- The FEMA PAP application will be finalized for submission in the next few months
- FEMA PAP application review, approval, and funding appropriation is expected to take *12-18 months* or more
- Facility construction, leasing, and operational agreements for the SUF need to be developed
- Necessary construction and hatchery operations permits (e.g., US Army Corps, NOAA, ODEQ) need to be secured
- A Legislative package, possibly including options, may be needed for the **2027 Legislative Session** to address any limitation and/or funding needs for ODFW
- Construction could begin following: FEMA project approval, securing the remaining construction cost-share funding, securing operational and maintenance funding, and Legislative approval to expend construction and operations funds
- Construction for each facility is likely to take 2 – 2.5 years; facilities may be able to be constructed concurrently, but more likely will happen sequentially given contractor limitations

Conclusion

The current ODFW – Cow Creek Umpqua People partnership reflects a new approach to state-tribal collaboration in natural resource management. This co-management approach strengthens sovereign relationships and will also include local partners. Expansion of this partnership will further enhance the resilience and sustainability of hatchery operations in the Umpqua Basin by not only distributing hatchery production but also by leveraging knowledge, resources, and commitments across sovereigns.

The next steps to continue the *Resilient Umpqua Basin Hatchery Option* include finalizing the FEMA PAP application, exploring other funding sources with partners to fill gaps, and completing intergovernmental agreements. These efforts are expected to be ongoing through the next 18 months. While significant progress has been made, there remain real challenges associated primarily with lack of long-term funding for operations and shortfalls in capital construction funding.

Action Requested

Oregon Department of Fish and Wildlife requests acknowledgement of receipt of this report to the Joint Committee on Ways and Means in fulfillment of the 2025 HB 5006 budget note.

Legislation Affected

No legislation is affected with this request.

Sincerely,

Debbie Colbert

Director