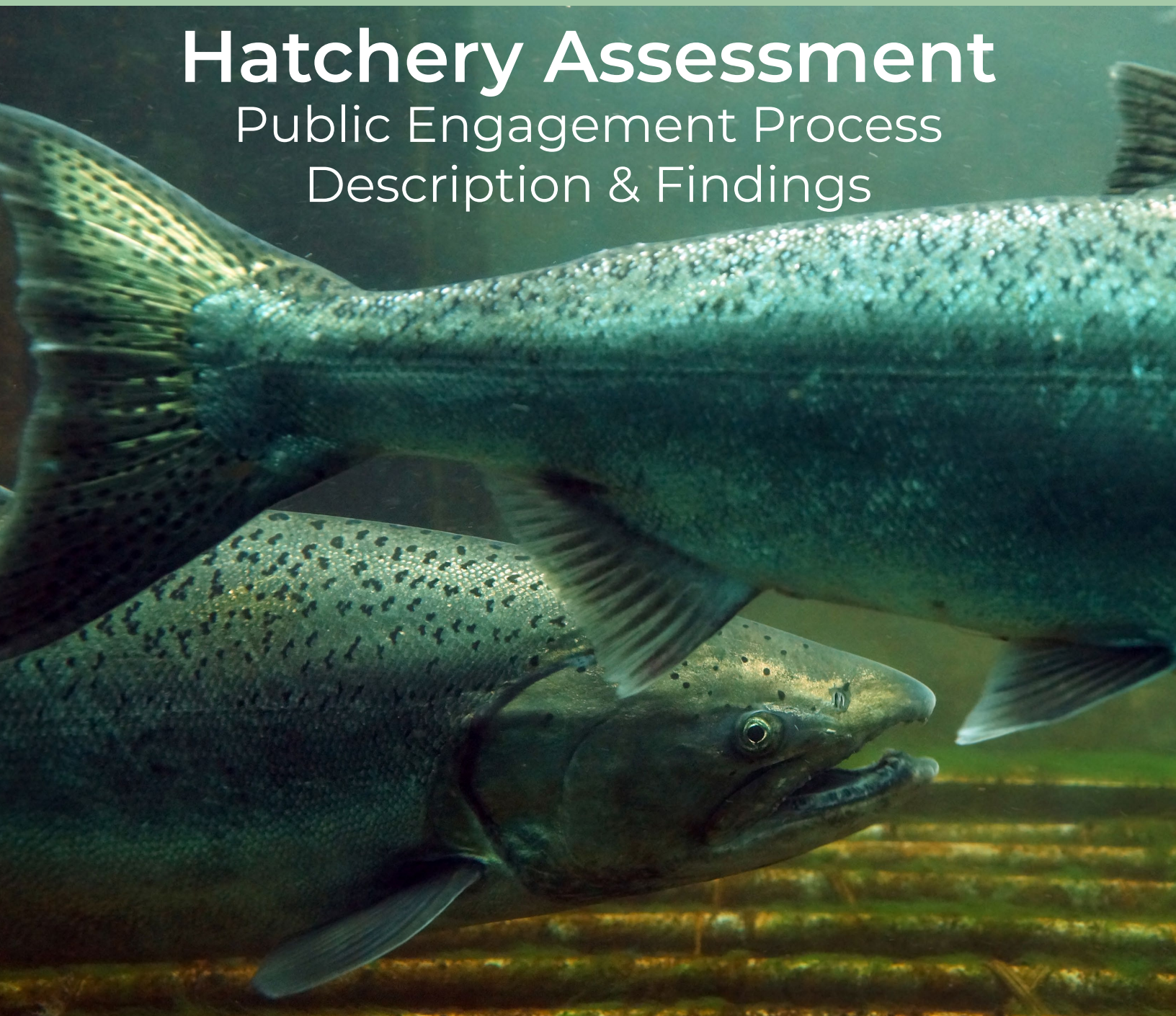




OREGON DEPARTMENT OF FISH & WILDLIFE

# Hatchery Assessment

Public Engagement Process  
Description & Findings



This document was prepared by Willamette Partnership based on information obtained from a series of interviews, meetings, and conversations with the Oregon Department of Fish and Wildlife, state-wide advocacy organizations, and members of the public.

Willamette Partnership is an Oregon-based conservation nonprofit with a deep commitment to helping people and nature thrive. We work with strong values, including our belief in partnership, finding common ground, respecting community leadership, and leading with integrity. To learn more about Willamette Partnership, visit [www.willamettepartnership.org](http://www.willamettepartnership.org).

Thank you to the individuals and staff from the following agencies and organizations that informed this report through many hours of conversation:

- Oregon Department of Fish and Wildlife (ODFW)
- American Sportfishing Association (ASA)
- Native Fish Society (NFS)
- Association of NW Steelheaders (ANWS)
- Trout Unlimited (TU)
- Coastal Conservation Association (CCA)
- Wild Salmon Center (WSC)
- The Conservation Angler (TCA)
- Northwest Guides & Anglers Association (NWGAA)
- Oregon Anglers Alliance (OAA)
- Northwest Sportfishing Industry Association (NSIA)

## IN MEMORIAM

During the public engagement phase of the hatchery assessment, halfway through the series of integral small group meetings, we lost a strong community leader and advocate in Leonard Krug of Oregon Anglers Alliance. Leonard was passionate about his work and was very committed to this process. He was always engaged, worked collaboratively, and brought a great sense of humor to our discussions. His loss was felt by the entire project team, the small group, and the broader South Coast angling community that he represented so well. It was an honor to have worked with him on this project.

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Drew Farwell

US Fish and Wildlife Service

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# I. HATCHERY ASSESSMENT PROCESS SUMMARY

Climate change, aging hatchery infrastructure, and increasing costs are making it more difficult for Oregon’s hatchery system to meet Oregon Department of Fish and Wildlife (ODFW or Department) fishery and conservation goals. These challenges are anticipated to increase in the future. ODFW is working to proactively manage these issues by assessing the hatchery system and examining how to adapt and invest for the future.

While ODFW has been engaged in assessment of its hatchery system since 2020, ODFW’s most recent work was directed and funded by a budget note included in Senate Bill 5506 (2023). The budget note required ODFW to procure third-party assessments of the operations, sustainability, and climate vulnerability of state-owned fish hatcheries. Contracts for these assessments were entered in spring 2024. In the summer of 2024, ODFW compiled preliminary findings from the third-party analyses for public presentation and discussion. ODFW delivered this content in a webinar series.

In addition to work required by the budget note, from May to November 2024, ODFW contracted with Willamette Partnership to facilitate large and small group meetings with interested members of the public. These meetings allowed the public to continue to discuss implications of the third-party assessments conducted by ODFW’s contractors and to expand beyond these assessments to consider experiences and perspectives of interested parties from around the state.

Throughout 2024, ODFW also engaged directly with Oregon’s nine federally recognized Tribes to ensure their perspectives are heard and incorporated. Government-to-government consultation with Tribes on the Department’s hatchery assessment and investments at state and federal hatcheries will continue into 2025 and beyond.

Input gathered from the third-party assessments, public engagement, and Tribes will be used to inform the Department’s thinking about investing in a sustainable hatchery system. The Department plans to present both the third-party assessment results and next steps for investing in a sustainable system to the Joint Ways and Means Committee during the 2025 legislative session.

The figure below depicts ODFW’s entire assessment process, and the subsections following this introduction offer more details about each phase of the assessment work.

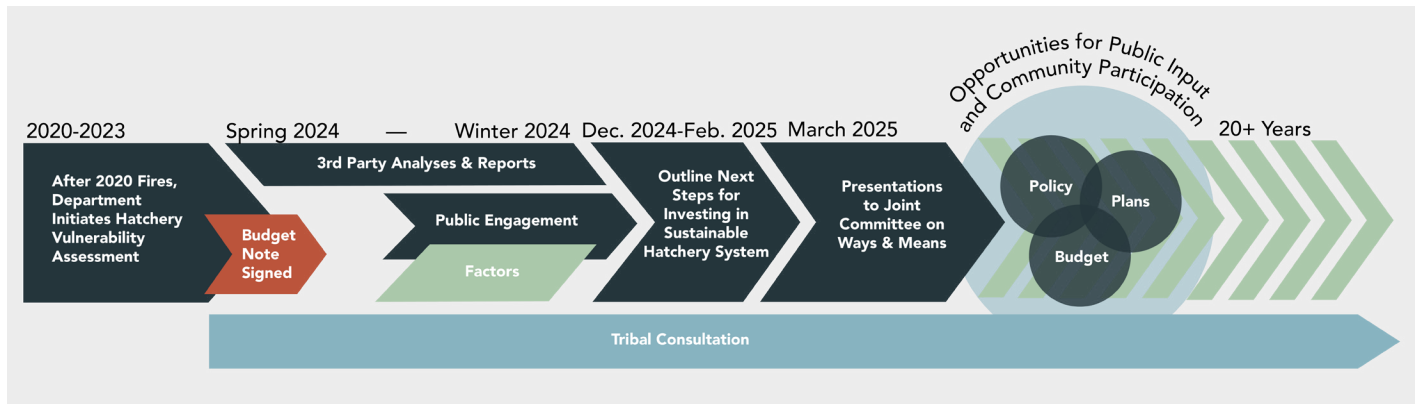


Figure 1: ODFW Assessment Process and Timeline

## PHASE 1: INFORMATION DEVELOPMENT

Throughout the winter of 2023 and into the spring and summer of 2024, ODFW worked internally and with third-party contractors to develop a greater understanding of its hatchery system. This work is foundational to the Department’s ability to evaluate where it should invest in future hatchery infrastructure. The following three bodies of work comprised ODFW’s information development phase of the assessment.

### 1. Contract with third parties for assessments and facilitation

The Department entered contracts with third-party contractors with specialized knowledge to conduct different components of the hatchery system assessment. In total, ODFW entered into seven contracts for the following components:



Topic	Firm	Report
Hatchery Economic Analysis	The Research Group, LLC	<a href="#">State Owned Hatchery Economic Analysis Technical Report</a>
Hatchery Climate Vulnerability and Infrastructure Alternatives	Lynker Technologies, LLC	<a href="#">Assessment of ODFW State Hatchery Infrastructure Alternatives</a>
Hatchery Cooling Systems	Solarc Engineering, LLC	<a href="#">Rock Creek Hatchery Reconstruction – Preliminary Hatchery Cooling Systems Evaluation</a>
Deferred Maintenance Costs	QRS Consulting, LLC	<a href="#">Technical Memorandum – Deferred Hatchery Maintenance</a>
Climate Vulnerability of Hatchery Programs	Oregon State University	<a href="#">Climate Vulnerability Assessment of Oregon Hatchery Programs</a>
Future Need for Hatchery Programs	Four Peaks Environmental Science & Data Solutions	<a href="#">Oregon Department of Fish and Wildlife Future Hatchery Needs Assessment</a>
Hatchery Planning and Policy	Four Peaks Environmental Science & Data Solutions	<a href="#">Review of Regulatory Approval Process and Management Requirements for Hatchery Programs in Oregon</a>

## 2. Continue ODFW assessments

ODFW concurrently continued work on internal assessments of hatchery climate vulnerability and infrastructure needs. Information from these assessments informed and supported the work of contractors conducting third-party assessments.

## 3. Develop materials for public engagement

Alongside the assessment work being conducted by its contractors and internally at the Department, in the spring of 2024, ODFW contracted with Willamette Partnership to help facilitate public engagement. As part of this early work, the Department and Willamette Partnership worked together to create a public engagement process and materials designed to increase understanding of the Department's efforts and to solicit input and ideas from interested parties on the future of Oregon's hatchery system.

Notably, while ODFW was not required by the 2023 budget note to launch a public process, the Department determined that it would be beneficial to create a space for interested members of the public with a diversity of perspectives on hatcheries to share their experiences, understand and learn from each other, and provide insight to ODFW's hatchery resilience leads.

To support this work, ODFW with the help of Willamette Partnership, created an informational website, agendas and notes for all public meetings, meeting materials including slides and recordings, and other communication materials. The intent of these materials was to enhance public awareness and understanding of the third-party assessment findings, the need for a hatchery assessment, and considerations relevant to the Department's work. The materials also identified methods for public input and engagement.

The Phase 2 section below provides a detailed description of the public engagement work.



## PHASE 2: PUBLIC INVOLVEMENT

In Phase 2, ODFW and Willamette Partnership designed a process to engage the public using several different methods. Opportunities for public engagement included:

- Stakeholder Interviews — Willamette Partnership conducted 10 interviews with representatives of groups that have an interest in ODFW's hatchery system, regularly engage statewide or across a broad geography on hatchery issues, and have a diversity of perspectives. These interviews were used to inform messaging, understand perspectives, and guide the engagement process.
- [Technical Information Webinar Series](#) — Three public webinars were conducted to provide an overview and key takeaways from the work of the third-party contractors covering operations, sustainability, climate vulnerability, infrastructure, and economic costs/benefits. All webinars were recorded and posted on ODFW's hatchery resilience website.

<b>August 1, 2024</b> <b>Webinar #1:</b> Looking Ahead: Assessing Future Need for Hatcheries	<b>August 8, 2024</b> <b>Webinar #2:</b> Looking Ahead: Hatchery Economics and Fish Stock Trends	<b>August 15, 2024</b> <b>Webinar #3:</b> Looking Ahead: Infrastructure Challenges and Opportunities
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- [Large Group Meetings](#) — Three hybrid meetings were held at ODFW's headquarters in Salem to keep interested parties up to date on the hatchery assessment. Willamette Partnership facilitated all large group meetings. Meetings were a blend of presenting information and leaving space for public input. All meetings provided time for questions and answers. Meetings were recorded and posted on the ODFW website.

<b>June 27, 2024:</b> Kick off to explain public engagement process within the assessment	<b>August 28, 2024:</b> Contextualizing webinars and assessment process, including small group process	<b>November 13, 2024:</b> Synthesis of information from small group process and public survey announcement
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- [Small Group Meetings](#) — The small group included members that have an interest in ODFW's hatchery system, regularly engage statewide or across a broad geography on hatchery issues, and have a diversity of perspectives. The small group participants were the same group interviewed for stakeholder interviews. Small group participants served as representatives to the broader community. Small group members were included on a contact list that was posted on the ODFW hatchery website. Meeting notes were also drafted after each small group meeting, reviewed by participants, and posted on the ODFW hatchery website so that members of the public could follow the discussion and raise concerns with small group members or ODFW.

Willamette Partnership facilitated all small group meetings. In these meetings, participants engaged in discussions and completed activities designed to highlight the diversity of perspectives in the room and give the Department insight into different community values about the hatchery system. The small group specifically discussed ways that ODFW could achieve its goal of a hatchery system that is flexible to meet changing needs for harvest and conservation, resilient to the impacts of a changing climate, a good neighbor to wild fish, financially sustainable, and provides opportunities for community engagement.

The Department did not seek consensus from the small group, the group did not vote on proposals, nor did the group provide a recommendation to the Department.

<b>September 17, 2024:</b> Kick off process and purpose	<b>October 3, 2024:</b> Define considerations	<b>October 17, 2024:</b> Considerations into factors	<b>October 24, 2024:</b> Factor application	<b>November 4, 2024:</b> Factor application and wrap up
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- Survey — Following large group meeting 3, ODFW posted a nine-question survey for interested members of the public to complete. The survey was posted on the ODFW hatchery website on November 14, 2024, and given 13 days for distribution and completion. The survey questions were related to the information and context presented at the third large group meeting, specifically the factors the small group created.
- Throughout the public engagement process, facilitators from the Willamette Partnership team engaged with members of both large and small groups via phone, email, and Zoom to provide clarity on the process, answer questions, and gather feedback.

## PHASE 3: ROLL-UP

Using the reports developed by third-party contractors, information received during the public engagement process (summarized in this report), and information received during consultation with Tribes, ODFW plans to create two final products for presentation to the Joint Committee on Ways and Means. First, ODFW will create a report detailing the findings of the third-party hatchery assessments. Second, ODFW will develop a document outlining next steps for investing in a sustainable hatchery system.

The figure below depicts sources of data that will be used to inform investments in the hatchery system and future opportunities for public input on decisions.

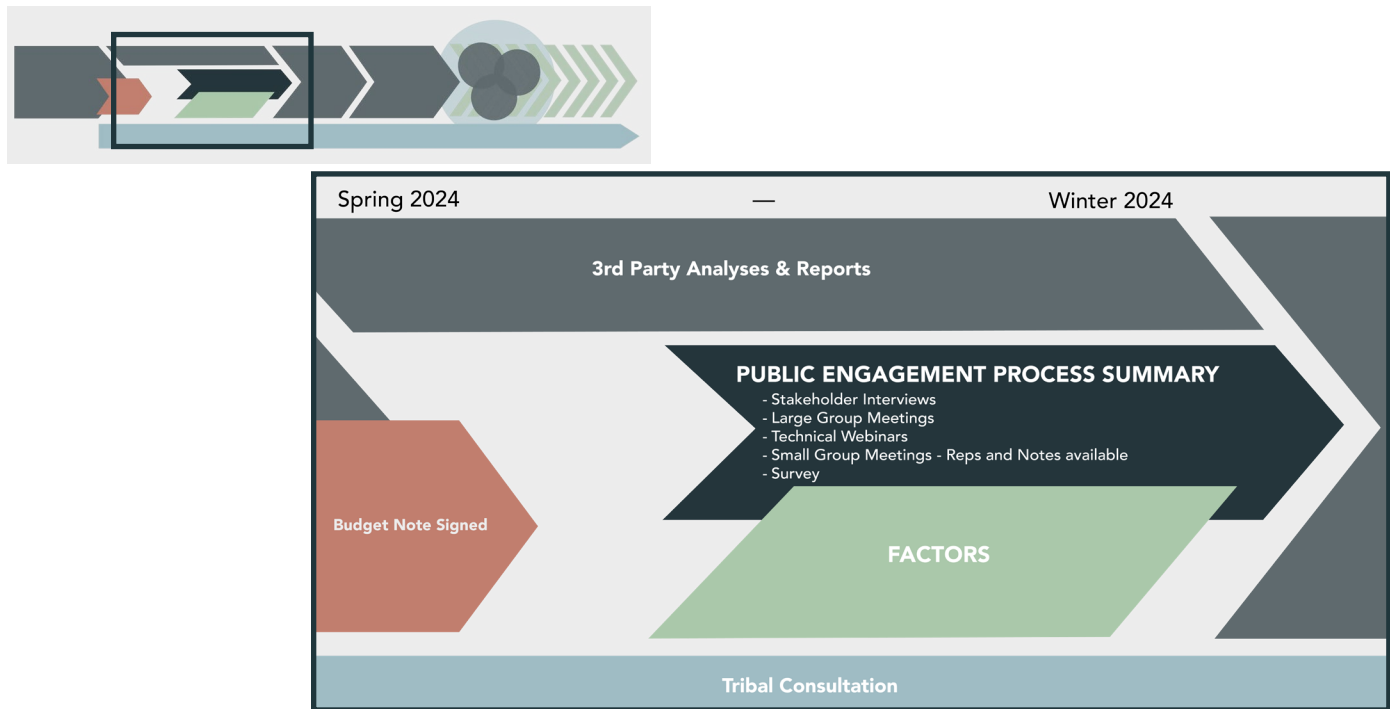


Figure 2: Public Engagement Process Detail

## II. PUBLIC INVOLVEMENT PROCESS: SUMMARY OF THEMES AND FINDINGS

### STAKEHOLDER INTERVIEWS

#### PROCESS

The purpose of the interviews was to collect interested party insights to inform the public engagement process within time and budget constraints. The interviews were intended to provide a broad overview, not to capture all perspectives. Willamette Partnership conducted 10 one-hour virtual interviews with ODFW-identified interested parties, including members that have an interest in ODFW's hatchery system, regularly engage statewide or across a broad geography on hatchery issues, and have a diversity of perspectives. Interviews were conducted with representatives from the following organizations:

- American Sportfishing Association (ASA)
- Native Fish Society (NFS)
- Association of NW Steelheaders (ANWS)
- Trout Unlimited (TU)
- Coastal Conservation Association (CCA)
- Wild Salmon Center (WSC)
- The Conservation Angler (TCA)
- Northwest Guides & Anglers Association (NWGAA)
- Oregon Anglers Alliance (OAA)
- Northwest Sportfishing Industry Association (NSIA)

Willamette Partnership asked the following questions, focusing on organizational perspectives on hatcheries, process recommendations, collaborative insight, and logistics.

- What is your main interest in engaging with ODFW on their review of the fish hatchery system? What voices, interests, or results would you like to see the process make space for?
- Tell us about your experience with the fish hatchery system, specifically as it relates to hatchery infrastructure, hatchery fish and outreach programs, and funding. What do you think is working well, and what do you think may need to change in the future?
- Hatcheries are experiencing a lot of challenges all at once: aging infrastructure and increasing maintenance costs (most hatcheries built many decades ago), risk due to wildfire (Rock Creek, fish evac) and increasing water temperatures (which are increasing fish disease and mortality), to name a few. What factors do you think are most important for the department to consider as they plan for a hatchery system that can adapt with these changes for the next 100 years?
- Do you see opportunities for ODFW and the hatchery system as they plan with these changes in mind?
- Hatcheries can be a polarizing topic. What do you think it will take to achieve some agreement on how best to address the challenges in the system? What do you think we can do to help provide opportunity to build trust and relationships among the interest groups?
- We have some in person meetings and virtual webinars (recorded) planned throughout the summer on this assessment. How would you/ your org like to be engaged in this conversation going forward? Are there barriers for you attending in person meetings or viewing webinars?
- Which other groups do you think most similarly represent your view of hatcheries in Oregon?
- Is there anything else you'd like to share that we didn't ask about?



## THEMES

From the interviews, Willamette Partnership identified areas of common ground as well as perceived challenges. These findings were presented at the first large group meeting. Interviewees shared several values, but differed in their approaches to achieve those values.

### Common Ground



#### Climate Change & Adaptation

Interested parties recognized the need to adapt hatchery practices and infrastructure to mitigate the impacts of climate change. Concerns about rising water temperatures, habitat degradation, and extreme weather events were shared regardless of fish origin, and underscored the importance of resilience and flexibility in hatchery management.



#### Fish Abundance

Everyone was concerned about not having enough fish, now and for future generations.



#### Education

Public education and outreach were seen as critical for raising awareness about hatchery issues, fostering understanding of conservation principles, and garnering support for hatchery initiatives. Interviewees emphasized the importance of transparent communication, outreach programs, and education initiatives to engage the public and promote stewardship of natural resources.





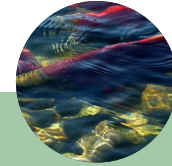
### Collaboration

There was a strong desire for more in person, safe, and constructive conversation. Seeing each other as humans first who love fish would increase tolerance and help advocates find common ground in between and during Legislative sessions. Folks also praised the hatchery staff who wear so many hats, including community educators. Building toward consensus, trust, and transparent communication were emphasized as critical elements of successful collaboration.



### Wild Fish Are Important

Everyone acknowledged the importance of wild fish, and everyone acknowledged that hatcheries will continue to exist.



### Innovation & Partnerships

Innovation and collaboration were highlighted as essential for advancing hatchery management practices, improving efficiency, and achieving conservation outcomes. Some interviewees suggested exploring innovative technologies, while others focused on partnerships and approaches to address emerging challenges, such as climate change, habitat degradation, and disease prevention.

## Challenges



### Hatchery Effectiveness

There were varying perspectives on the effectiveness of hatchery programs in supplementing wild fish populations and supporting fisheries. While some stakeholders highlighted successful examples of hatchery supplementation (e.g., Lonesome Larry), others expressed skepticism about the ecological impact and long-term sustainability of hatchery practices.



### Climate Change Implementation

Some participants focused on infrastructure upgrades and habitat restoration, while others advocated for broader systemic changes to address underlying environmental challenges.



### Funding & Policy Advocacy

A key difference heard was how the system was budgeted, either through consistent and increased funding versus different allocation of limited funding. Some advocated for policy reforms to address funding challenges (fee-based funding) and modernize hatchery infrastructure, while others prioritized strategic planning and clearer objectives to align hatchery programs with conservation goals.

Inherent in these challenges is the idea that compromise is unacceptable because it is viewed as giving in on positions or losing ground. Building collaborative opportunities to connect as humans outside of Legislative spaces could help this sentiment.

## LARGE GROUP MEETINGS

### MEETING 1

#### Meeting 1 Objective

To share information with the public about the ODFW hatchery assessment process and outline next steps for interested parties to work together to chart a sustainable future for Oregon's hatchery system.

#### Meeting 1 Themes

The discussions at the first large group meeting reflected a multifaceted concern about the future of Oregon's fish hatcheries. Participants were deeply interested in how infrastructure could adapt to climate change, probing the potential for new facilities and strategies to address water temperature and environmental challenges. Stakeholder

engagement emerged as a critical theme, with participants expressing keen interest in how diverse perspectives—from Tribes to conservation groups and commercial fishers—would be meaningfully incorporated into the assessment process.

The balance between fish production and ecological conservation was a recurring comment, with participants asking how hatchery operations might be modified to maintain fish populations while potentially reducing their environmental footprint. Economic implications were equally prominent. Questions explored the financial impacts to local communities of potential hatchery closures and the search for sustainable funding sources to support these critical fishery resources.



Underlying these substantive concerns was a fundamental desire for transparency and meaningful public participation. Participants sought clarity about the assessment process, and specifically how their input would be considered and what mechanisms would exist for ongoing engagement. Their questions and comments revealed that the community desires an approach that balances scientific understanding, economic realities, and ecological stewardship.

## MEETING 2

### *Meeting 2 Objective*

To discuss the findings shared in the three webinars and align on the formation of a small group to analyze from various community perspectives where ODFW should focus investments to develop a sustainable future for Oregon's hatchery system.

### *Meeting 2 Themes*

This meeting revealed a complex discussion about hatchery management centered on creating a more strategic, forward-looking approach to fish production. Similar to the first meeting, participants continued to explore and express their desire to understand how hatcheries can balance wild fish conservation with recreational fishing needs, expressing a nuanced desire to develop more intentional programs that support both ecological and economic goals.

A key theme was the need to address aging infrastructure, increase climate resilience, and improve long-term sustainability, with stakeholders showing particular interest in how hatchery systems can evolve to support healthy fish populations while maintaining their critical role in local communities. Economic considerations were prominent, with discussions exploring the value of hatcheries beyond simple fish production—examining their impact on rural economies, tourism, and community engagement.

The small group process and members were introduced at this time, with the expectation that members, in addition to ODFW and Willamette Partnership staff, would function as community liaisons moving forward. Participants again emphasized the importance of transparent, inclusive decision-making processes that bring together diverse perspectives from tribal, conservation, recreational, and scientific communities.

## MEETING 3

### *Meeting 3 Objectives*

Understand ODFW's hatchery assessment process; revisit ODFW's hatchery infrastructure alternatives evaluated by third-party contractors and the small group; review the work of the Small Group; and receive input on factors and alternatives.

### *Meeting 3 Context*

Meeting 3 was the final meeting in the public engagement process. During this meeting, ODFW and Willamette Partnership presented information and findings from the entire hatchery assessment process and collected direct substantive and process feedback from the public. The six-hour, hybrid public meeting was well attended both virtually and in person, with considerable engagement. Due to the abundant information presented, this meeting elicited many closing thoughts and reflections from a variety of perspectives not heard in previous meetings. Therefore, the takeaways from this closing meeting are more extensive.

### *Meeting 3 Themes*

The discussions in meeting 3 highlighted a need for adaptive, long-term planning, where decisions evolve based on environmental conditions and scientific research. Some participants focused on economic and recreational benefits

of hatcheries, while others focused on protecting wild fish populations and restoring natural habitats. Participants recognized that ongoing challenges such as climate change, predator management, and financial constraints complicate management efforts. Stakeholder engagement also continued to be a central focus, and some participants raised concern about community consultation, particularly regarding hatchery expansions. Participants called for a science-driven, data-supported approach for sustainable fisheries management that balances conservation and economic needs, with increased collaboration, particularly with tribal communities.



The following list summarizes themes that were covered in both Department and participant comments:

#### 1. Adaptive Management and Long-Term Planning

- ODFW explained that it is embracing an adaptive management approach, where decisions are flexible and evolve based on new data, environmental changes, and budget constraints. This long-term vision (20+ years) encourages ongoing adjustments, making management decisions less rigid and more responsive to emerging challenges.
- The adaptive framework is intended to be a tool not just for current decisions but for future policy, program, and budget considerations. This approach recognizes the interconnectedness of environmental, social, and economic factors in long-term planning.

#### 2. Stakeholder Engagement and Diversity

- *Public Engagement:* ODFW's effort to create a transparent, participatory process was commended, with meeting notes posted online, surveys open to the public, and multiple opportunities for stakeholders to provide feedback. This effort helped to ensure that public input was integrated into ongoing decision-making, helping to shape future fisheries policies and practices.
- *Concerns About Lack of Detailed Information:* While stakeholders appreciated the transparency, some requested more detailed information about hatchery budgets, timelines, and specific operational plans. Greater clarity in these areas may enhance public understanding and support for ODFW's decisions.
- *Inclusive and Transparent Process:* The discussions emphasized inclusivity in the decision-making process, bringing together diverse stakeholders such as fishing groups, conservationists, local communities, and government agencies. Participants noted that this allows for nuanced discussions and enables consideration of various perspectives, including those from local, regional, and statewide stakeholders.
- There was an effort to create feedback loops to ensure that large group participants and other interested parties could contact small group members, the facilitators, or the Department in between small group meetings to voice concerns or ask clarifying questions.

#### 3. Environmental and Ecological Concerns

- *Climate Change:* Climate change was identified as a significant challenge for both hatcheries and wild fish populations. Lower water levels, increased water temperatures, and habitat degradation threaten the health of fish and the effectiveness of hatchery operations. These challenges make long-term fishery management more complex and urgent.
- *Predator Management:* There were growing concerns about the impact of predators (e.g., sea lions, terns, cormorants) on fish populations, with some stakeholders feeling that ODFW has been slow or ineffective in managing these threats due to federal regulations. Addressing this issue may require more proactive and collaborative predator control efforts.

#### 4. Conservation Efforts and Habitat Restoration

- *Wild Fish Habitat Restoration:* Several stakeholders emphasized the need to restore wild fish populations through habitat conservation and more sustainable hatchery practices. Focusing on habitat restoration rather than expanding hatcheries was seen by some as a more effective and ecologically sustainable way to restore wild fish runs.





- *Genetic Integrity of Fish Populations:* Other participants highlighted the importance of maintaining genetic diversity and integrity in fish populations, particularly in local environments. Some noted that hatcheries should focus on breeding fish that are well-suited to local ecosystems to avoid genetic dilution and ecological disruptions.
- *Complex Definitions of “Wild Fish”:* The discussions highlighted the challenges of defining “wild fish” due to differing interpretations—some stakeholders focused on genetic lineage, others on spawning locations, and still others on hatchery influences.
- *Concerns About Hatchery Expansion:* There was concern that expanding hatcheries—especially in sensitive areas like the Elk River—could negatively impact local ecosystems and wild fish populations. Proponents argued that hatcheries help sustain recreational fishing and conservation efforts, but others emphasized the importance of preserving natural habitats and minimizing hatchery interventions in pristine watersheds.

## 5. Economic and Community Considerations

- *Economic Impact of Hatcheries:* Some participants emphasized that hatcheries contribute significantly to local economies through tourism, recreational fishing, and related industries. The economic benefits of maintaining healthy fish populations and sustainable hatchery operations were recognized, though some stakeholders questioned whether hatcheries are the best long-term solution.
- *Revenue from Sport Fishing:* Some participants also noted that revenues from fishing licenses are crucial for funding fisheries management, but the projected budget shortfall for the upcoming bienniums is leading to difficult decisions about resource allocation. This includes potential reductions in hatchery operations or shifts in funding priorities to address environmental concerns.
- *Community Value:* Some participants highlighted the critical role of hatcheries in communities, including opportunities for volunteerism and education. Programs like STEP, Fish Eggs to Fry, and other educational efforts were highlighted as having significant community value.



## 6. Sustainability and Financial Constraints

- *Hatchery Sustainability:* The discussion about hatchery sustainability highlighted concerns over financial constraints, particularly considering increased costs and budget reductions. The need for a more balanced approach to hatchery management that prioritizes long-term sustainability was a key point.
- *Reallocation of Resources:* Some stakeholders advocated for reallocating resources from underutilized hatcheries to those that are more critical to maintaining fish populations, ensuring that hatchery investments are aligned with ecological and conservation goals. Defining and communicating the Department's conservation goals was identified as important to the public's understanding of resource allocation.



## 7. Data Gaps and Scientific Collaboration

- *Need for Better Data:* Many participants stressed the need for better data collection on fish populations, hatchery impacts, and the economic outcomes of different management strategies. More rigorous monitoring and evaluation were identified as necessary to help improve the science driving fisheries management decisions.
- *Science-Driven Decision Making:* The importance of applying the latest scientific findings to hatchery operations and environmental conservation was widely acknowledged, including integrating new research on climate change, fish behavior, and ecological management into planning processes.

## 8. Tribal Involvement and Legal Considerations

- *Tribal Engagement:* There is a growing recognition of the importance of involving tribal communities in hatchery operations and conservation planning. Their perspectives and needs were viewed as critical to the decision-making process to ensure that policies are equitable and inclusive.
- *Legal and Regulatory Challenges:* Ongoing discussions about the legal and regulatory frameworks governing hatchery management, particularly in relation to federal policies, were raised as a necessary step for effective management of fish populations.

## SMALL GROUP

### KEY LEARNINGS

Discussion between small group members about factors relevant to hatchery investment decisions; application of the factors; and other policy, program, and communication issues yielded several notable key learnings.

- **Key Learning 1:** Both ODFW and many small group participants found listening to divergent perspectives helpful and valuable. A big takeaway for many was that everyone in the small group understood the value of wild fish, and no one was completely opposed to hatchery fish. Everyone understood the need for some hatcheries and their associated funding.
- **Key Learning 2:** This assessment exercise was limited to consideration of hatchery investments. There was a desire to have an ongoing broader, more holistic conversation that evaluates all aspects of the Department's fish resource management, including hatcheries, research and monitoring, and conservation efforts. Multiple participants agreed an ongoing conversation would ease the tension that comes with only coming together around legislative sessions.
- **Key Learning 3:** Maintaining production neutrality served as a sideboard in this assessment exercise but may not be a reasonable goal in future decision-making exercises given environmental and financial constraints.
- **Key Learning 4:** ODFW's infrastructure alternatives were not well understood by the public. Presenting the information in different ways, such as visually with maps and with written descriptions, helps different learning styles process the information. The public is eager to understand and be brought along to support the Department's efforts.

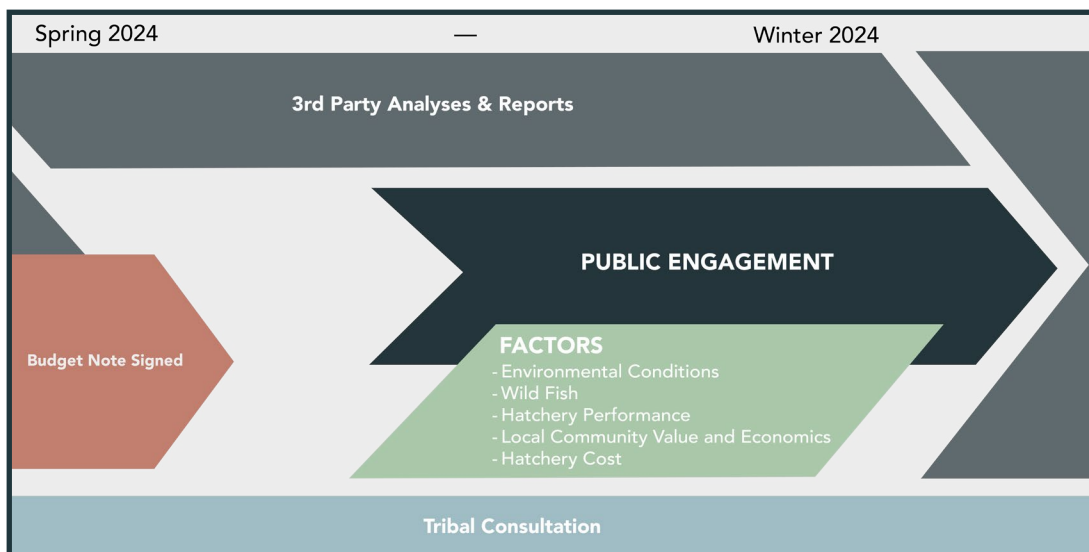
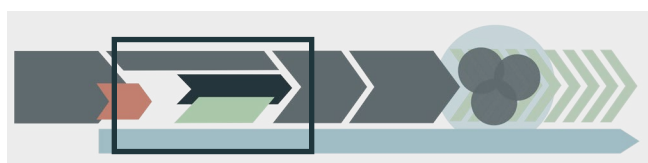
- **Key Learning 5:** How ODFW or an interested party values or prioritizes a certain factor will change the outcome of factor application. Explaining prioritization is key.
- **Key Learning 6:** Factors are useful when considering geographies, facilities, and programs, and could also be applied to higher level policy and program decisions.

## FACTORS

Small group participants worked to develop a list of factors that they viewed as relevant to the decision of whether to invest in a hatchery, program, or policy today or in the future. Each factor is further described by a list of considerations applicable to the factor and available or needed data to measure considerations.

These factors reflect divergent interests and are intended to be considered as a whole and balanced against each other. These factors reflect an expansion of the data considered by ODFW's third-party contractors in their assessments. Specifically, these factors include a broader consideration of environmental conditions, wild fish, and local community value and economics.

In short, these factors, considerations, and data are a community-informed framework that could be used as a starting point for ODFW's future conversations and decision making.



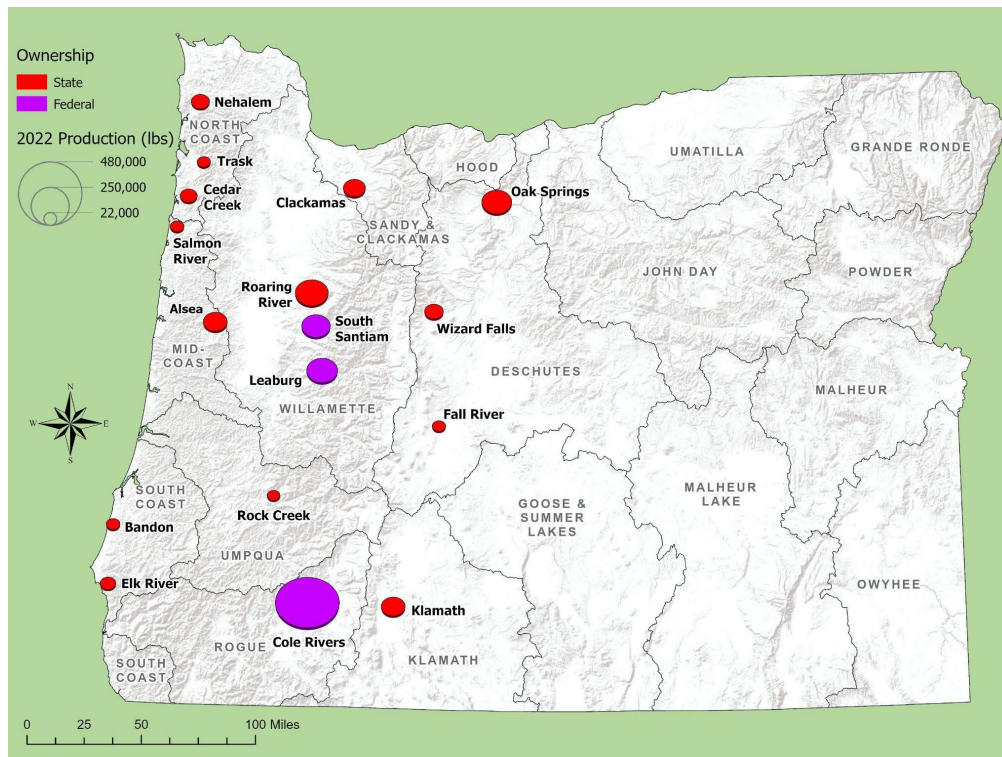
**Figure 3:** Small Group Factor Detail

Factors	Considerations	Data
Environmental Conditions	<ul style="list-style-type: none"> <li>Water quality (temps)</li> <li>Water quantity</li> <li>Habitat - food</li> <li>Wildfire risk</li> <li>Marine conditions</li> </ul>	<ul style="list-style-type: none"> <li>Water temperature</li> <li>Water quantity</li> <li>Wildfire risk</li> <li>Habitat status (inv spp)</li> <li>Marine survival</li> </ul>
Wild Fish	<ul style="list-style-type: none"> <li>Current abundance</li> <li>Abundance trends</li> <li>Projected abundance (with climate change)</li> <li>Limiting factors (barriers, habitat)</li> <li>Productivity</li> <li>Diversity</li> <li>Spatial distribution</li> <li>Listing status</li> <li>Educational opportunities</li> <li>Capacity</li> </ul>	<ul style="list-style-type: none"> <li>Redd counts</li> <li>Carcass counts</li> <li>Fish ladder counts</li> <li>Creel surveys</li> <li>Screw trap data</li> <li>Recovery plans and related updates</li> <li>Juvenile salmon abundance</li> </ul>
Hatchery Performance	<ul style="list-style-type: none"> <li>Size/capacity of hatchery (potential for expansion)</li> <li>Required technology</li> <li>Program(s): species and quantity</li> <li>Contribution to OR fisheries</li> <li>Quality of fish raised</li> <li>Watershed(s) of release and capture</li> <li>Hatchery management plan</li> <li>Current and future legal and policy context for programs</li> </ul>	<ul style="list-style-type: none"> <li>pHOS</li> <li>SARs</li> <li>Egg to smolt</li> <li>Prespawn mortality</li> <li>Harvest rate in Oregon</li> <li>Harvest rate out of Oregon</li> </ul>
Hatchery Cost	<ul style="list-style-type: none"> <li>Cost of infrastructure upgrade</li> <li>Cost of maintenance</li> <li>Cost of operation</li> <li>Opportunity cost</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade costs</li> <li>Annual costs of operation</li> <li>Annual costs of maintenance</li> </ul>
Local Community Values and Economics	<ul style="list-style-type: none"> <li>Educational value of facility</li> <li>Community service and social events</li> <li>Angler demand (visits/trips)</li> <li>Subsistence fishing</li> <li>Impacts on local jobs</li> <li>Tourism impacts</li> <li>Cultural significance (e.g., Tribal and generational value)</li> <li>Local volunteerism</li> <li>Non-fishing recreational participation</li> <li>Access to the resource</li> </ul>	<ul style="list-style-type: none"> <li>Economic studies</li> <li>Annual visitors</li> <li>Educational and cultural events/year</li> <li>Angler trips</li> <li>Volunteer time</li> </ul>

## APPLICATION OF FACTORS TO ALTERNATIVES

Small group members discussed application of the factors to potential infrastructure alternatives presented in one of the third-party reports. The value in having small group members reexamine the alternatives was to further develop the factors, gain insights into their application to decisions, and bring community and industry focused perspectives to a set of current alternatives. Perhaps the greatest value that emerged from the process was the learning that the alternatives as presented by ODFW in its webinar and third-party report did not adequately describe the changes being considered. In response to this learning, ODFW developed new descriptions of the alternatives that better illustrate the options considered. Note that the alternatives did not change, only the description of the alternatives changed. The table below reflects the revised alternative descriptions.

Small group participants also discussed the fact that how an individual or entity values or prioritizes each factor affects decision making outcomes. In terms of transparent decision making, giving insight into values and prioritization of factors applied offers a much clearer understanding of how the decision was reached.



**ALTERNATIVE 1:**  
**Upgrades to all existing facilities**

**Alternative 2a**

*Northwest:*

- Expand Cedar Creek, Oak Springs & Fall River
- Shift Nehalem production to Cedar Creek, Trask, Salmon River & Clackamas
- Shift trout production to Oak Springs & Fall River

*Southwest:*

- Expand Bandon & Elk River
- Shift Rock Creek production to Cole Rivers & Elk River
- Build capacity for South Umpqua programs

**Alternative 2b**

*Northwest:*

- Expand Cedar Creek, Oak Springs & Fall River
- Shift Salmon River production to Cedar Creek, Roaring River & Clackamas
- Shift trout production to Nehalem, Oak Springs & Fall River

*Southwest:*

- Expand Bandon & Elk River
- Shift Rock Creek production to Cole Rivers & Elk River
- Build capacity for South Umpqua programs

**Alternative 2c**

*Northwest:*

- Expand Cedar Creek, Nehalem, Oak Springs & Fall River
- Shift Alsea production to Cedar Creek, Salmon River & Clackamas
- Shift trout production to Nehalem, Oak Springs & Fall River

*Southwest:*

- Expand Bandon & Elk River
- Shift Rock Creek production to Cole Rivers & Elk River
- Build capacity for South Umpqua programs

**Application of Factors to Northwest (Nehalem, Salmon River, Alsea)**

Alternatives 2a and 2b: There was a perception among small group members that fisheries in both basins have challenges as currently run (e.g., access, program performance etc.), but potentially more community value in Nehalem basin. Challenges to relocating production in both instances (e.g., maintaining disabled access in Nehalem vs maintaining PST indicator at Salmon). Future habitat values for wild fish were seen as highest in Nehalem.

Alternative 2c: Highest capital cost savings of the three alternatives (\$15M of \$220M total). Strong local support for winter steelhead program and an important early-season steelhead fishery on the coast.

Each alternative presents trade-offs between financial savings, community impacts, and long-term sustainability goals. The system can currently only accommodate shifting production from one facility while maintaining production levels.

**Application of Factors to Northwest (Oak Springs and Fall River)**

The group did not spend much time on this part of the NW alternatives. ODFW explained it is evaluating potential hatchery consolidation through expanding trout rearing capacity at some facilities, though funding is limited so nothing is guaranteed. While trout production is less expensive per unit than anadromous fish (like salmon), group discussion focused on the economic and community importance of anadromous fishing. ODFW's hatchery assessment process involves analyzing costs, benefits, and future performance of different fish programs while considering public input. Participants understood the intention and did not have strong opinions about this potential shift in production.

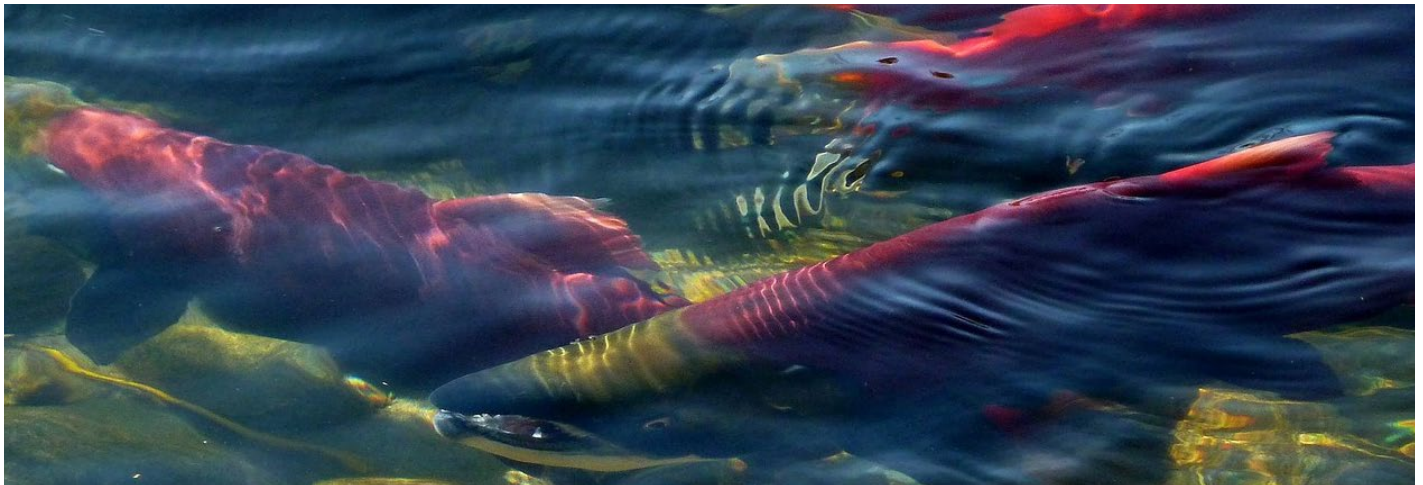


### ***Application of Factors to the Southwest***

The group noted that there is a high value in the North Umpqua fishery on both wild and hatchery spring Chinook. Some group members raised concerns about hatchery fish straying and some challenges related to broodstock and acclimation, particularly without Rock Creek.

Participants noted that the local economy is recovering from fire impacts, and that there is a strong economic contribution to the local economy from the spring Chinook fishery. The group commented that there is a need for clear community engagement, partnerships, and communication about funding and alternative plans. Other participants noted that like any investment decision, investment at Rock Creek limits other investment opportunities.

The group discussed uncertainties in funding, challenges in hatchery production due to environmental factors, and high operational costs at Rock Creek, which led to consideration of new alternatives like acclimation sites, moving production, or an interpretative center, alongside rebuilding. Future studies are needed to assess the impacts of different strategies identified by the group.



## **SURVEY ANALYSES**

The survey was designed to ask questions related to the information and context presented at the third large group meeting, specifically the factors the small group created. For this reason, participants were also asked about their engagement with the hatchery assessment process. The survey received 2,082 unique responses (duplicate responses were merged into one response per person and email address). The analyses are separated by quantitative and qualitative questions, with the factor ranking represented in multiple formats based on participants' geographic location and fishing response data.

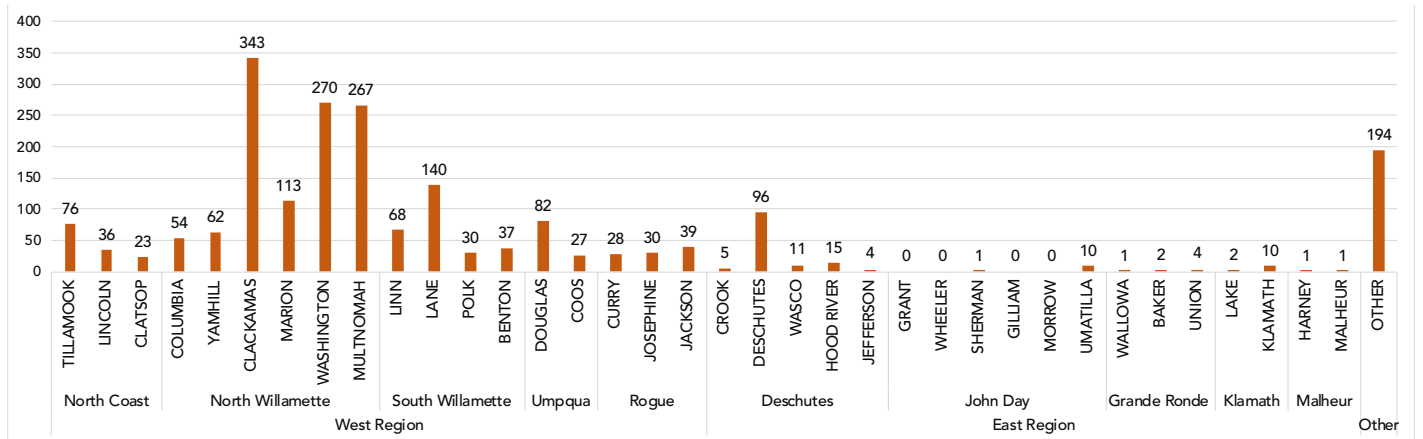
### **SURVEY QUESTIONS**

1. Name
2. Email Address
3. Are you an Oregon resident?
4. What is your zip code?
5. Did you fish recreationally in Oregon anytime in the last year?
6. Which of the following sources have you used to learn about ODFW's hatchery assessment?
7. Please rank the 5 factors below in order of importance when prioritizing investment in ODFW fish hatcheries (1 is most important and 5 is least important). ODFW should invest in Oregon's hatcheries to: (rank)
  - Minimize the costs of running the hatchery system
  - Maximize hatchery program performance (e.g. prioritize stocks and release strategies that maximize harvest)
  - Maximize the community value of the hatchery system (maximize economic, cultural, educational benefits)
  - Maximize positive outcomes for wild fish
  - Maximize environmental resiliency of the hatchery system (minimize risks from increasing water temperatures, wildfire, and flooding)
8. List any other factors you think are important when prioritizing investment in ODFW fish hatcheries.
9. What else would you like to say about investment in ODFW fish hatcheries?

## QUANTITATIVE RESULTS

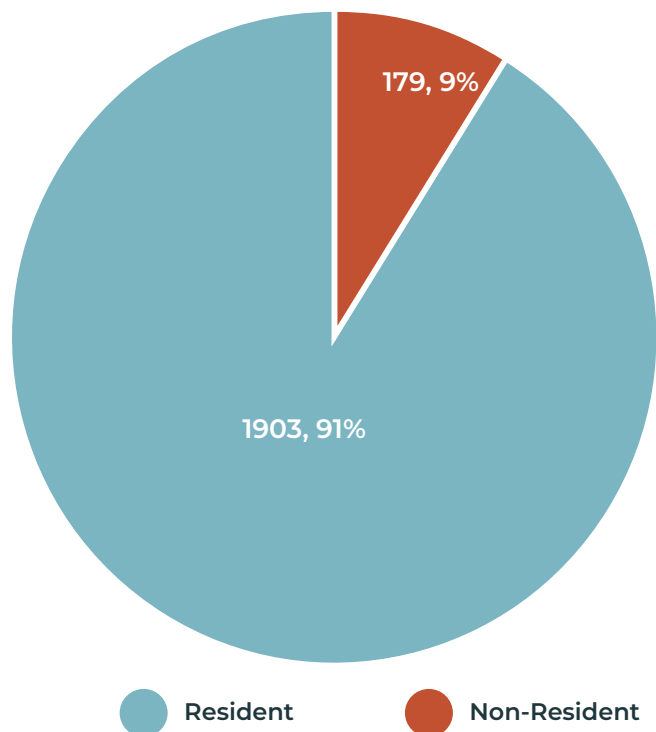
As shown in the following graphs, a high proportion of survey respondents were Oregon residents and had fished in Oregon in the past year. Factor rankings were similar for respondents from urban and rural zip codes in Oregon, as well as non-residents. In all three cases, hatchery program performance generally ranked high, hatchery system costs generally ranked low, and other factors were intermediate. Differences in factor ranking were more apparent when comparing responses based on fishing participation, particularly in the ranking for maximizing positive outcomes for wild fish.

### Oregon Hatchery Survey Responses by County

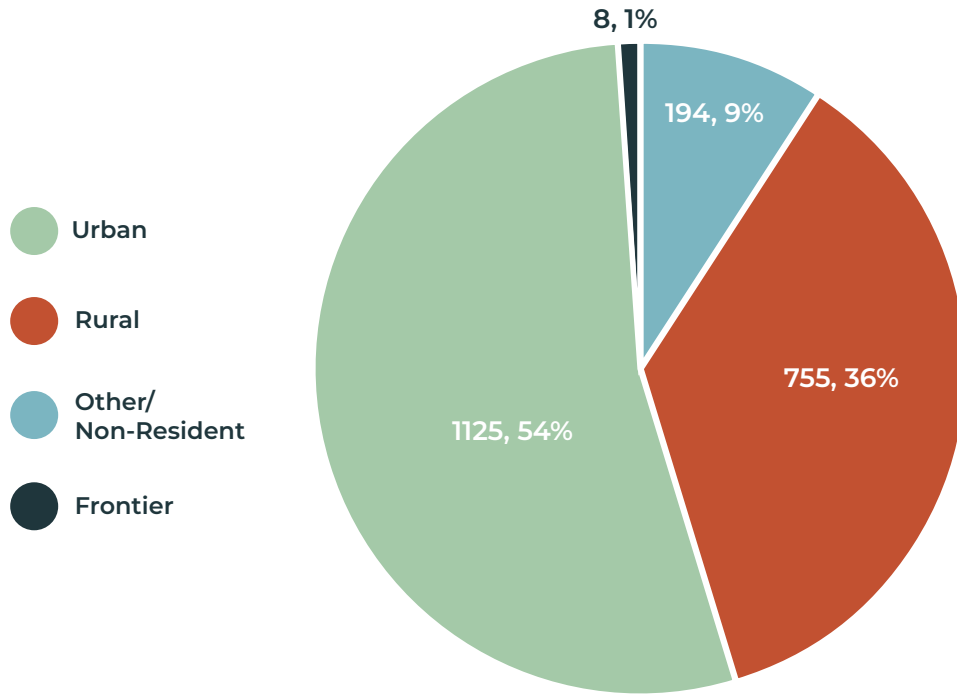


**NOTE:** "Other" category in the Survey Responses by County graph contains responses from people who input an invalid zip code, and responses from non-residents.

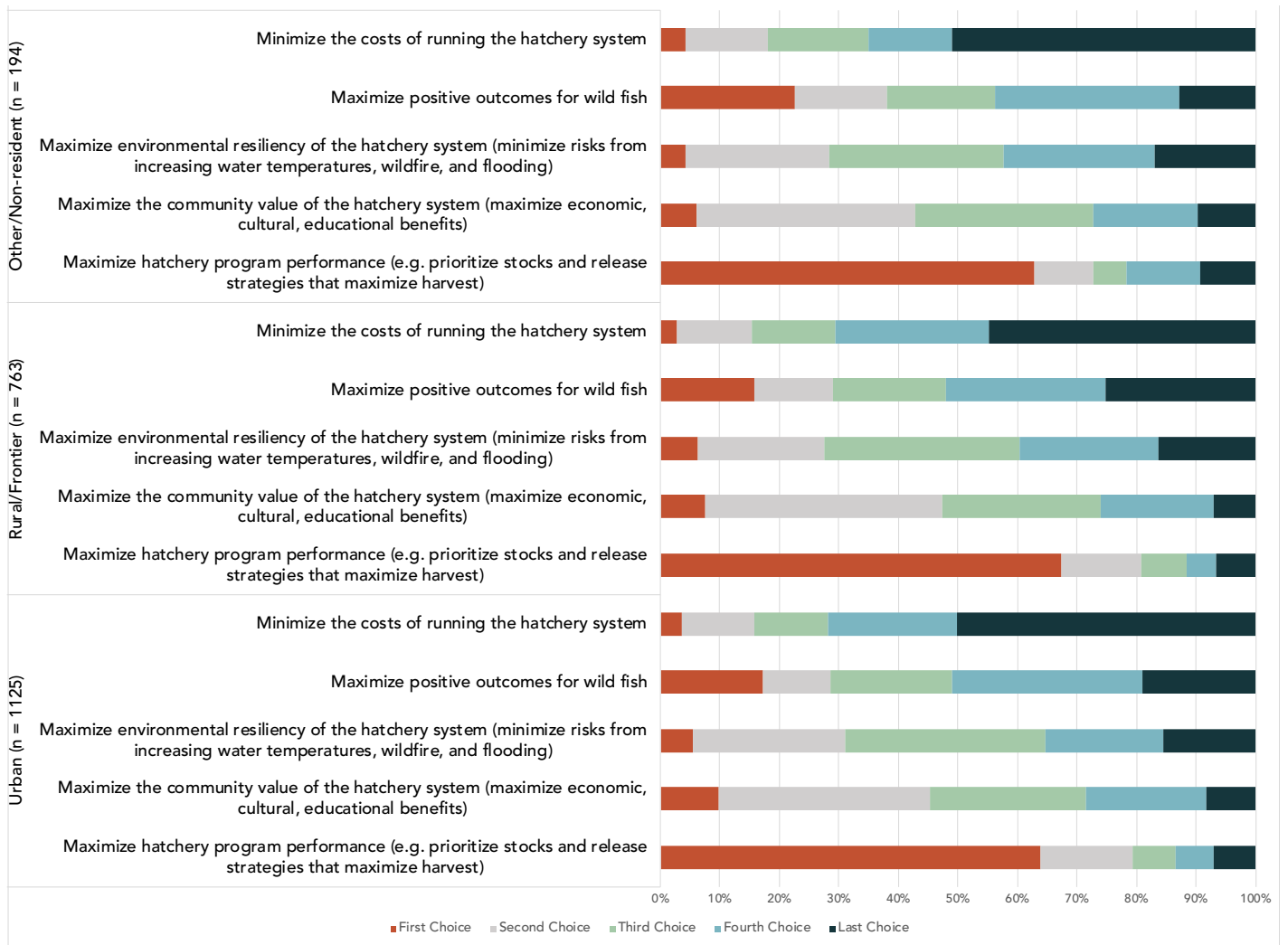
### Hatchery Survey Respondents by Oregon Residency



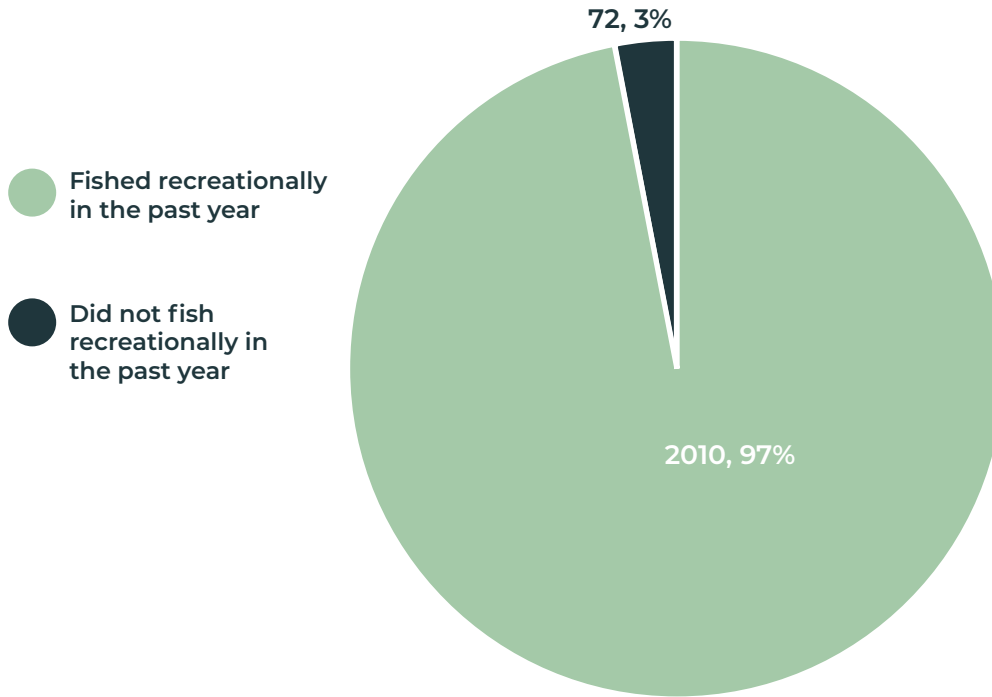
## Hatchery Survey Respondents by Zip Code Designation



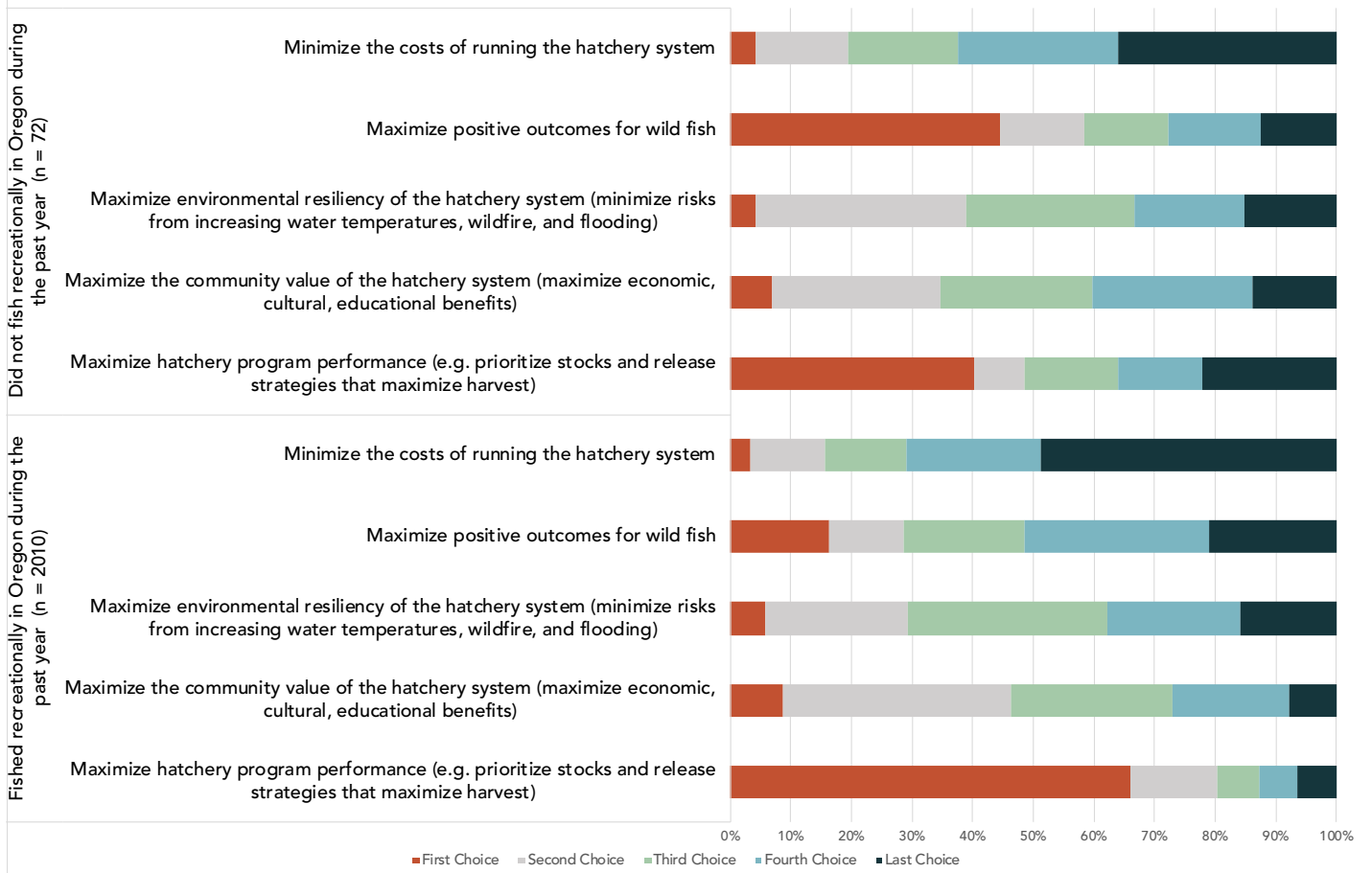
## Hatchery Priority Rankings by Zipcode Designation



## Hatchery Survey Respondents by Angling Participation



## Hatchery Priority Rankings by Angling Participation





## QUALITATIVE RESULTS

There were two open-ended questions in the survey:

8. List any other factors you think are important when prioritizing investment in ODFW fish hatcheries.
9. What else would you like to say about investment in ODFW fish hatcheries?

Over 1,500 respondents answered one or both questions, resulting in about 1,300 individual responses to each question. Many of the responses could apply equally well to either question in the survey, so all responses were reviewed together to develop the following summary. The Department did not attempt to quantify responses to the open-ended questions. Instead, it provided quotes that are representative of themes expressed in survey responses, often by many respondents:

*“Invest in the future. Modernize and maximum production value of all Salmon and Steelhead hatcheries. Anglers add a tremendous financial benefit to rural Oregon. Those parts of the state deserve to have more value placed upon them.”*

*“Being able to harvest fish is an important part of our family and Oregon way of life. Hatcheries make this possible and should be funded so they can make that possible.”*

*“I believe the focus needs to shift heavily to protecting and supporting wild fish, not hatchery fish.”*

*“Consider the cultural benefits of strong recreational fisheries. One good example based on my own personal experience is getting kids hooked on fishing instead of drugs, cell phones and video games!”*

*“Continue to honor and support tribal cultural and economic needs.”*

*“Wild fisheries and habitat restoration to support them should be the number one priority. Hatcheries should support that mission by focusing on restoring wild fish runs where necessary, not function as a ‘put and take’ commercial/recreational harvest.”*

*“Hatchery fish are expensive, have an extremely low return on investment & are far less adaptable (than wild fish) to negative impacts of climate change.”*

*“The hatchery fish provide an incredible outcome for all. It provides great fishing, economic boost for all industries, hotels, restaurants, service stations, increased sales for fishing licenses etc...”*

*“It is difficult to lump all streams and all hatcheries into one bucket. Hatchery priorities should be unique for each one based on the state of a given river’s run, habitat, and current fish populations. For sure, if we’re going to use hatcheries, wild broodstock should be used whenever possible.”*

*“The hatcheries are extremely important to help replace the fish stocks that have been destroyed by dams, destruction of spawning habitat and urbanization of watersheds.”*

*“Overall, hatcheries have been a poor investment for Oregon anglers. They have not maintained abundant fish stocks nor have they adequately mitigated declining numbers of fish due to stream blockages, forestry and agricultural practices, and infrastructure development. The money spent on hatcheries should be re-invested in habitat restoration, improved fish passage, and wild fish production.”*

*“ODFW should look for public-private partnerships to help reduce the cost of maintaining and operating hatcheries.”*

*“Decrease regulations to allow for more tribes and private entities to operate hatcheries.”*

*“We are not the only species that benefit from ODFW fish hatcheries. Sea Lions, Orcas, many bird species, and more all benefit from having an increased and supplemented population of Salmon and Steelhead. If we stop production of hatchery raised fish, a vital food source for many other species will be reduced significantly. We need to focus on improving spawning habitat and rearing habitat to improve wild fish performance while also maintaining a healthy population of hatchery fish to supplement the food source for all the species that rely on salmonids.”*

*"Maximize reducing fish predators ie: sea lions, seals and cormorants. It is obvious that sea lions and walleye are the main beneficiary of our investments in fish and not people."*

*"Too many of our fish are getting killed by trawlers and sea lions before they have a chance to return. I think maximizing output should be prioritized since there hasn't been any attempts to mitigate those issues."*

*"Increase/maximize volunteer opportunities. Throughout Oregon there are individuals and groups ready to volunteer significant time and effort to maintaining and operating hatcheries. There are several examples where groups are currently successfully running hatcheries and maintaining related facilities. Angler capture broodstock programs are popular and provide significant benefits. The angling public is ready to roll up their sleeves and help, they just need the opportunity."*

*"Decisions should be made based on scientific data and not from undue pressure from any group."*

*"There are no real 'wild' fish anymore. Focus should be on creating the optimal conditions for continuing harvest and runs."*

*"Maintain current levels and control of trout production. We are primarily a trout fishing state and cannot lose sight of that. While I love fishing for anadromous fish, the tail should not wag the dog, and trout production should have the highest priority."*

*"I would like to see Kokanee planted in more lakes to expand Kokanee fishing opportunities."*

*"Oregon must also hold the federal government accountable for meeting its obligations to fund hatchery mitigation in the Willamette Valley and beyond, including at hatcheries operated by ODFW"*

*"Strong consideration should given to "carrying capacity" of oceans and rivers. This includes due consideration to hatchery releases from all sources....national and international."*

*"I am a disabled fisherman. I only have so many places or opportunities to fish. Please keep the hatchery system in place."*

*"I'd happily pay extra for my Tags for larger runs. Cancel the Columbia river endorsement and put that money into the hatcheries. Take commercial gill nets off the Columbia river."*

*"I believe that we need to let anglers have a larger say in what goes on in our fisheries. Most of the time we are the ones who know the rivers and fisheries better than anyone. I wish we could better co exist with the biologists and ODFW better."*

*"For what we pay for license tags and fees. The State agencies should be investing alot more funding into hatcheries."*

*"Increase hatchery production across the board!"*

*"Too much money and time is invested in promoting opportunities for fish harvests; by decreasing emphasis on harvesting fish, we can better improve sustaining healthy fish populations"*

*"Increase volunteer programs, like STEP. Install hatch boxes run by volunteers in more upstream tributaries."*

*"Think about our future generations and how we can excite them about/involve them in fishing activities!!!"*

In addition to the general themes represented above, many responses identified a need to improve fishing in a specific river system (e.g. Clackamas, Sandy, and others) or concerns about a specific hatchery (e.g. Nehalem Hatchery, Rock Creek Hatchery, Salmon River Hatchery, Elk River Hatchery, Cole Rivers Hatchery, Eagle Creek National Fish Hatchery, and others). Comments about specific hatcheries included concerns about potential closure, hatchery performance, and potential environmental impacts.

### III. FUTURE POLICY AND PROGRAM IDEAS

Suggestions regarding the process and future work emerged in one-on-one discussions with small group members at the conclusion of the small group meetings.

First, as noted above, the assessment exercise was limited in two significant ways: (1) the exercise was focused on investments in hatcheries rather than a broader examination of all Department's fish management policies and programs, and (2) the exercise assumed that any changes to the system could not impact hatchery production levels. While these sideboards were a useful starting point to focus the process, they also left some small group members wondering about future opportunities to work with the Department to expand beyond infrastructure considerations in the future of ODFW's fish policies and programs. Specifically, several small group members requested additional opportunities to engage in conversation with ODFW about supporting wild fish populations.

To paraphrase one small group member:

*Hatcheries are a tool that exists to accomplish ODFW's goals and objectives, but they are not a goal or objective unto themselves. What was needed is a better articulated understanding of ODFW's objectives to determine where hatcheries as a tool fit in the complex system. Given that ODFW is crafting a plan to guide future decisions about resources, the process was limited in its value because it only addressed one tool. A comprehensive holistic process would allow a true evaluation of partnership and compromise opportunities. The limited focus on hatcheries did not offer opportunities for compromise in areas of interest for all groups.*

*And regarding the current budget - the budget is siloed into hatcheries, research, etc. ODFW's work is limited because each silo has a goal, and those goals do not appear to roll up to overarching objectives. Further, the goals and budgets are in competition with each other. For example, ODFW's hatchery program wants to be good neighbors to wild fish, but ODFW's research programs are not investing in research and monitoring to know if hatcheries are good neighbors to wild fish so the goal feels like a hollow statement.*

And, to paraphrase another small group member with a different focus:

*I'm skeptical of small group discussions. It was a starting point this time around, but the best conversations are public and transparent so the public understands the Department's struggle. We need collective advocacy at the highest levels. We must advocate for the resources ODFW needs to do its job - asking sportsmen to pay more will not solve the problem and will result in pushback from anglers. When we talk to the public and Legislature, talk in specifics and use numbers to make the issues real and clear so people understand how to prioritize. We must maximize the available resources for ODFW to meet its conservation obligations and angler demand.*

Second, small group members offered several suggestions for ODFW's future use of factors in its decision-making processes:

- Articulate the value and prioritization of factors when applied so that decision making is transparent.
- Articulate any uncertainties and assumptions made at the time of the decision so that the context for the decision is clear.
- Remain open to adaptation when decisions are made based on the factors to allow for evaluation of actual impacts and flexibility to account for uncertainties and changing conditions.
- Consider making decisions that allow for differing alternatives based on uncertainties. For example, in the best-case scenario (if X occurs), we will make this decision. In an alternative scenario (if X does not occur and Y occurs instead), we will make this different decision.
- Determine ways to keep the decision-making factors in use at ODFW over time. It may be necessary to adjust the factors, but it is important that the Department build on this work rather than starting over each time new decisions are required.