

Columbia Basin Collaborative

Hatcheries/Harvest Work Group

Meeting Summary

Friday, December 9th, 9:00am – 12:00pm PT/ 10:00am – 1:00pm MT

Attendees

Participants: Andrew Gibbs (Oregon Department of Fish and Wildlife), BJ Keiffer (Spokane Tribe of Indians), Brad Halverson (NW Steelheaders), Brandon Weems (Confederated Tribes of the Grand Ronde), Brent Hall (Confederated Tribes of the Umatilla Indian Reservation), Casey Baldwin (Confederated Tribes of the Colville Reservation), Chris Sullivan (Idaho Fish and Game), David Bain (Orca Conservancy), David Moskowitz (The Conservation Angler), Eric Kinne (Washington Department of Fish and Wildlife), Gary James (Confederated Tribes of the Umatilla Indian Reservation), Gary Marston (Wild Steelheaders United), Glen Spain (Pacific Coast Federation of Fishermen), Guy Norman (State of Washington), Helen Neville (Trout Unlimited), Jay Hesse (Nez Perce Tribe Department of Fisheries), Jeff Whisler (Oregon Department of Fish and Wildlife), Joe Zendt (Yakama Nation Fisheries), John Simpson (Idaho Water Users), John Powell (Idaho Fish and Game), Maureen Hess (Northwest Power and Conservation Council), Robert Sudar (Independent Salmon Distributor), Ryan Lothrop (Washington Department of Fish and Wildlife), Scott Patterson (Oregon Department of Fish and Wildlife), Steve Manlow (Lower Columbia Fish Recovery Board), Stuart Rosenberger (Idaho Power), Susan Bishop (NOAA), Tom Iverson (Yakama Nation Fisheries), Tom Scribner (Yakama Nation Fisheries), Tucker Jones (Oregon Department of Fish and Wildlife)

Observers: Bill Bosch (Yakama Nation Fisheries Program), Dennis Rohr (DRohr & Associates, Inc.), Jeromy Jording (NOAA), Shane Scott (Shane Scott & Associates, Inc.), Stuart Crane (member of the public), Stuart Ellis (CRITFC)

Facilitation Team: Liz Mack (Kearns & West), Amira Streeter (Kearns & West), and Grant Simmons (Kearns & West)

Welcome, Agenda Review, and Updates

Liz Mack, Kearns & West, started the meeting by introducing Amira Streeter, Kearns & West, as lead facilitator. Amira then provided an overview of the meeting guidelines and reviewed the agenda. The topics included (1) Welcome, Agenda Review, and Updates; (2) Biological Matrices – Hatchery Management; (3) Review Top Tier Gaps & Needs – Hatchery; (4) Biological Matrices – Harvest Management; (5) Review Top Tier Gaps & Needs – Harvest; and (6) Confirm Next Steps and Action Items.

Biological Matrices – Hatchery Management

Amira shared the most up to date version of the hatchery management biological matrices for the work group to identify stocks that were highly impacted by hatchery management and discuss the associated circumstances. Amira asked the group for input and thoughts in response to the information. The group offered the following input:

- Work group members discussed the conservation status of the current stock of Upper Columbia Summer Chinook. Several members pointed out that the stock is currently not ESA listed and its populations are in fact much larger than it was 30 years ago. Thus, two distinctions should be considered: the current upper summer chinook and the future goals of upper spring Chinook. Work group members agreed that a distinction should be made within Upper Columbia Chinook Salmon.
- Question: As we look at these recommendations, are we primarily trying to address the ones in the red or are we trying to make goals that address all stocks?
 - Answer: There isn't a specific answer to that. The biological matrix is here to be used for guidance. Regarding the high and very high priority, this matrix is supposed to simply be used for focus. The matrix lets the group have a general focus in terms of what we need to pay attention to.
- Work group members discussed the methodology behind the priority classifications (low, medium, high) within the Columbia task force. Several members made a point to discuss the need to address decreased populations of all stocks in the basin, even those with lower priority classification.
- Work group members discussed the need for genetic diversity amongst stocks and how the biological matrix does not necessarily account for this. One member pointed out that the slider tool does not have a temporal component or factor in genetics. Several members discussed proportion of hatchery origin (pHOs)s as a tool for understanding negative genetic impacts but noted that one must get into each species' specifics to understand its risk fully. One member stated that Proportionate Natural Influence (PNI) is exceptionally important not just to understand species health but can also be an effective way of assessing how good of a job the program is doing at balancing effective integration with pHOs risk.
- One member expressed hesitation in grouping harvest and conservation programs together noting that the two topics have two very different objectives and as such the risk/ benefits should be considered different.

Amira then transitioned the group over to the top tier gaps and needs.

Review Top Tier Gaps & Needs – Hatchery

Amira then reviewed and led a discussion on the list of top tier Hatchery gaps and needs. This list was generated from a survey that went out in-between meetings.

The Hatchery Top Tier Gaps that were identified in the survey are as follows:

Analysis/info needs:

- Scientifically valid studies to address impacts or benefits of hatcheries (this group to consider)

Infrastructure:

- Need to increase production or build new hatcheries (specifically for Upper Columbia)
- Need estimated cost to repair/maintain/infrastructure improvements at existing facilities and fund it

Performance:

- Overview of mitigation performance (meeting or failing to meet adult return goals), data showing release/return goals throughout basin
- Focused goals on adult returns

The Hatchery Top Tier Funding Needs that were identified in the survey are as follows:

Infrastructure:

- Repairs, maintenance, modernization
- Water sources
- Climate change planning
- Rearing and release conditions of hatcheries

Monitoring and evaluation:

- Tagging of hatchery fish
- True assessment of PHOS and outcomes/impacts

Funding for studies:

- Evaluate hatchery outcomes/reforms

The group had the following discussion and posed the following questions:

- Work group members discussed the need to preserve genetic diversity in the hatchery process. Many members agreed that this was a component that was not addressed as much as it should be in the hatchery process.

- One member noted that if hatchery fish are fed into carrying capacity, then natural fish are pushed out thus reducing genetic diversity; Fish number goals could be met but long-term harm could still be done to the fish population.
- Work group members also noted that Hatchery Genetic Management Plans (HGMPs) already exist and should be used as a resource moving forward. One member stated that they worry HGMPs are not overly detailed and would not include the detail needed to perform these actions and thus are hesitant to recommend using HGMPs as a guiding document.
- Work group members discussed the need to advocate for more scientific studies when there is so much information out there. Some members thought it would be beneficial to develop new studies related to hatchery management. Other members stated that the duty of this group and the I/RG is to make sure the actions they take are informed correctly by studies that already exist.
- Work group members discussed monitoring. One member stated that monitoring should include genetic impacts and genetic tagging to clarify pHOS. They also noted that, in some instances, hatchery fish were found to be misidentified as wild in recent studies.
- Work group members noted that there is still a lack of understanding regarding how hatchery and natural fish interact. Multiple members noted that all fish pass through the estuary twice and that it could be a suitable place to conduct research in the future.
- Work group members discussed the gap of infrastructure. One member stated that there is no way to implement hatchery reform without infrastructure improvements. One member noted that hatchery infrastructure is often 30 years behind hatchery science and there are several types of hatcheries – this group should not put all infrastructure into one category. The list should be expanded to include the concepts from the gaps, namely the increased production for the Upper Columbia and the infrastructure needs to achieve hatchery reform principles. One member noted Upgrades, maintenance, etc. are all at the top of the list for us.
- One member stated that the group should be paying attention to integration rates. Currently, these rates at many hatcheries are far below their target. Members discussed implementation review and the need to ensure measures are implemented and in line with the HGMP guidance.
- Work group members discussed water sources within hatcheries. One member noted that studies show that using surface water from the rivers produces a worse result than well water. Thus, most hatcheries use well water. Infrared filtration systems are used in hatcheries to use surface water and more infrared filtration systems should be a priority moving forward.
- One member stated the need to anticipate climate change and that the long-term needs for maintaining hatchery facilities needs to account climate. They noted that climate change impacts on water sources is a critical point within this. Recently, Oregon’s state budget included a note that asked the state to conduct a statewide assessment of their hatchery system. As Oregon is in the middle of doing a climate vulnerability assessment,

it is possible that Columbia Basin Facilities are a part of it. Another member noted that floodplain restoration efforts will buffer negative impacts of climate change.

- One member stated that this group could support current WDFW legislative proposals dealing with hatchery infrastructure and those that support hatchery/harvest reform.
 - Work group members discussed whether there should be a recommendation that prioritizes tagging. Some members said they felt tagging in certain regions of the basin is happening at an adequate level and thus did not see tagging as a priority need. One member stated that tagging is an essential part of monitoring, but it should not be confused with holistic marking. Members again discussed the different types of tags. One member advocated for parentage tagging and noted that in the past, many fish that were thought to be wild turned out to be hatchery fish due to a misclip or because they had shed their tag. Work group members discussed marking fish populations. One member stated that to maintain the current level of marking, funding is required, which should be a priority for this group. Several members discussed the need for new marking trailers with one member remarking that their fishery has over a million fish that need tagging. Work group members also discussed types of tag with some members discussing the different benefits of coded wire tags, passive integrated transponder tags, and parental based tagging for monitoring.

Hatchery and Harvest Recommendation – Draft Proposal

Amira then went on to lead a discussion on a proposal that was developed by Brad Halverson. Amira asked Brad Halverson, Coastal Conservation Association, to share his proposal for a recommendation for the group for consideration to include in the existing list of recommendations.

The group had the following discussion and posed the following questions:

- One member stated that pHOS are the major metric for risk in hatchery production and within that risk, genetic is the main attribute scientists look towards to determine success.
- One member noted an emphasis in this recommendation was on stocks in the Upper Columbia. They noted that there are still major bottlenecks in the Lower Columbia that need to be addressed and this report does not focus on them as much as it should.
- Work group members noted that an evaluation of how much recommendations will cost was not present in this proposal.
- Work group members discussed the proposal's scope and noted that these issues could be looked at via a basin-wide perspective or hatcheries could be looked at individually.
- One member noted that language that identifies if mitigation obligations have been met was absent from this proposal. Another member noted that some mitigation hatcheries are run by public utility companies while others are run by federal and state agencies.

- Several members noted that hatcheries play a complicated role in many areas, and it is difficult to convey the complexities of hatcheries within one report.
- One member noted that hatchery production is a part of treaty obligations which should not be ignored moving forward.
- One member highlighted the Northwest Power and Conservation Council's Independent Scientific Review Panel assessment of hatchery program performance for programs both in the Council's Fish and Wildlife Program, as well as those operated by the Lower Snake River Conservation Program, as an example of currently existing independent review of hatchery programs in the Columbia River basin.

Biological Matrices – Harvest Management

Amira showcased the current harvest management matrix and asked the work group to reflect on interpreting the matrix. The group offered the following input:

- The Upper Columbia Summer Chinook has a reintroduction goal above Grand Coulee which has not been achieved. However, there is a track record of this stock meeting escapement goals.

Review Top Tier Gaps & Needs – Harvest

Amira reviewed the identified top tier gaps and needs for harvest:

The Harvest Top Tier Gaps that were identified in the survey are as follows:

Information Gaps

- Improve forecast models and run size updates
- Better assessments of likely impacts of climate change on salmon at all life stages which will impact harvest opportunities
- How the lack of adipose clipping of large portion of hatchery program at Priest Rapids production impacts the implementation of mark selective fisheries
- Real-time measures of effort, encounter, and harvest rates (not models and estimate)

Management Needs

- Improvements to optimize LC Tule management

The Harvest Funding Needs that were identified in the survey are as follows:

Monitoring

- Sufficient and stable funding for tagging and monitoring

- Additional tools and technology to assess catches and returns (improved software technology to collect sample data and PIT tag arrays)
- Development of electronic reporting of catch reporting for both commercial and recreational fisheries, including catch and release (rec) to allow better in-season management

Other

- Development of fishery management plans
- A robust, basin wide study of the economic and cultural impacts of reduced harvest opportunity (tribal and non-tribal)

The group had the following discussion and posed the following questions:

- One member noted that for forecast models, understanding them should be looked at via a stock-by-stock approach. They noted that, for instance, stocks harvested in ocean can probably benefit from increased forecast, but river stocks wouldn't benefit too much from that. Therefore, they were doubtful that increased forecast models would necessarily provide a sweeping benefit across the basin.
 - One member said the need to evaluate escapement goals regularly should be on this list but was not on it. They mentioned that it was discussed in the first Harvest/Hatchery Work Group Meeting.
 - Question: Has there been a forecast accuracy assessment?
 - Answer: A couple years ago we did have a process to go over this. The processes were adequate, but suggestions were made on how to improve them, and some entities have already implemented some of these changes.
- One member stated that Tule salmon should fall within the priority high status. There are currently problems the stock faces that may not rise to CBC level issues but are struggles nonetheless.
- Work group members discussed the need for funding for monitoring. One member stated that monitoring is funded at an adequate level and several members disagreed stating that more funding is needed if monitoring is to be successful. One member noted that a large part of the fall season management is coat and wire tagging and that those tags are used uniquely in the basin. Additionally, this member noted a note for more support on data management regarding monitoring. One member noted that real time monitoring is hard depending on where one is in the state; Small remote fisheries can have difficulty.
- One member voiced that the third bullet on this list concerning Priest Rapids should be clarified by referring to what specific species are affected. Additionally, this bullet seems out of scope with the others as this one is very technical whereas other points are more overarching.

- One member noted that regarding forecast models, if the model is inaccurate, it can affect commercial fishers' ability to reach their end of season quotas. If the runs come in above forecast, it is difficult for them to catch up.

Confirm Next Steps and Action Items

Amira reviewed the next steps for this work group and confirmed upcoming meeting topics. The next meeting (to be scheduled for January) will focus on further refining the recommended actions and beginning to complete the recommended action form. Amira also shared that documents and files for concurrent editing will be available in a shared folder for the work group on SharePoint.

Action items from this meeting included the following:

- KW: Finalize compiled list of gaps and needs
- All: Receive and review meeting materials from the Shared Work Group folder

Amira thanked everyone for participating and adjourned the meeting.