

**Columbia Basin Collaborative  
Hydropower/Blocked Areas Work Group**

Wednesday November 2, 2022 from 1:00pm – 4:00pm PT/2:00pm - 5:00pm MT

**Meeting Summary**

**Attendees**

Work Group Members in Attendance: Aaron Lieberman (Idaho Outfitters and Guides Association), Adam Storch (Oregon Department of Fish and Wildlife), Andrew Gingerich (Douglas Public Utilities District), Casey Baldwin (Confederated Tribes of the Colville Reservation), Chris Donley (Washington Department of Fish and Wildlife), Claire McGrath (United States Bureau of Reclamation), Conor Giorgi (Spokane Tribe of Indians), David Bain (Orca Conservancy), David Doeringsfeld (Port of Lewiston), Dennis Daw (Fort McDermitt Paiute and Shoshone/Upper Snake River Tribes), Eric Rothwell (United States Bureau of Reclamation), Erick Van Dyke (Oregon Department of Fish & Wildlife), Glen Spain (Pacific Coast Federation of Fishermen's Associations), Haley Ohms (Trout Unlimited), Heather Stebbings (Pacific Northwest Waterways Association), Jay Hesse (Nez Perce Tribe Department of Fisheries Resources Management), Jennifer Riddle (Tidewater Transportation and Terminals), Jens Rasmussen (AgriNorthwest), Jerry Rigby (Rigby, Andrus & Rigby Law, PLLC), John Simpson (Idaho Water Users), Jonathan Ebel (Idaho Fish and Game), Keely Murdoch (Yakama Nation Fisheries), Kieran Connolly (Formerly with Bonneville Power Administration), Leslie Bach (Northwest Power and Conservation Council), Leslie Druffel (McGregor Company), Liz Hamilton (Northwest Sportfishing Industry Association), Mark Bagdovitz (United States Fish and Wildlife Service), Megan Kernan (Washington Department of Fish and Wildlife), Michael Garrity (Washington Department of Fish and Wildlife), Michelle Adams (Temco), Nancy Hirsch (Northwest Energy Coalition), Norman Semanko (Quincy-Columbia Basin Irrigation District), Patty O'Toole (Northwest Power and Conservation Council), Ritchie Graves (National Marine Fisheries Service), Scott Hauser (Fort McDermitt Paiute and Shoshone/Upper Snake River Tribes), Sean Tackley (United States Army Corps of Engineers), Stephen Waste (Columbia River Research Laboratory Western Fisheries Research Center), Tim Copeland (Idaho Fish and Game), Tom Iverson (Yakama Nation Fisheries), and Tracy Bowerman (Upper Columbia Salmon Recovery Board).

Observers in Attendance: Anna Brady (Attorney for Colville Tribes), Cathy Kellon (Northwest Power & Conservation Council), Dirk Mendive (Office of Congressman Russ Fulcher), Giulia Good Stefani (Marine Mammal Protection Project), Heather Nicholson (Public), Liz Fortunato (Desimone Consulting Group), Mark Martin (Idaho Outfitters & Guides), Mitch Silvers (Office of Senator Mike Crapo), Shane Scott (Public Power Council), Stacy Horton (Northwest Power & Conservation Council), Stuart Crane (Yakama Nation), and Tom Lorz (Columbia River Inter-Tribal Fish Commission).

Facilitation Team: Samantha Meysohn (Kearns & West) and Colin Johnson (Kearns & West)

**Welcome, Agenda Review, and Updates**

Samantha Meysohn, Kearns & West, welcomed the work group members, provided the meeting guidelines, and reviewed the meeting agenda. Agenda topics included: 1) Guidance from the Integration/Recommendations Group (I/RG), 2) Hydropower Operations and Impacts to Salmon, 3) Presentation on USACE Fish Budget Needs at mainstem dams, 4) Hydropower Needs Sequencing

Activity, 5) Presentation about the Upper Columbia fish passage and reintroduction efforts, 6) Blocked Areas Needs Sequencing Activity, and 7) Confirm Next Steps, Upcoming Meeting Topics, and Summary.

### **Guidance from the Integration/Recommendations Group (I/RG)**

Michael Garrity, Washington Department of Fish and Wildlife, reviewed the objectives set for the Work Groups by the I/RG and introduced the Recommended Action Form developed by the Science Integration Work Group (SIWG). The form can be used by other work groups to share recommendations for the SIWG for cross-cutting analysis and to pass along recommendations to the I/RG. The I/RG supports the work groups moving forward with using this form to develop recommendations. Michael also reviewed the I/RG feedback on the Hydropower/Blocked Areas Work Group Workplan, highlighting the key topics for meeting 2, and reminding group members of the goal of building consensus recommendations.

### **Presentation on Hydropower Operations and Impacts to Salmon**

Samantha introduced Tom Lorz, Columbia River Inter-Tribal Fish Commission, who prepared a presentation on hydropower operations and impacts to salmon. Samantha prefaced that work group members shared an interest in being on the same page around hydropower impacts on salmon.

Tom presented an overview of the region, dam locations, authorizations, impacts, blockages, and general operations. The presentation covered the following points:

- The various purposes of dams as well as dam ownership.
- The impacts of dams on habitat, water quality, hydrology, and biological communities. The changes to biological communities include:
  - Longer migration times for juveniles,
  - Impaired passage, both upstream and downstream for juvenile and adult salmon, as well as lamprey and sturgeon,
  - Facilitates predation and enables invasive species to persist, and
  - Dams pose one of the largest single sources of mortality for juvenile salmon migrants including lamprey.
- The hydropower dams create blocked areas in the basin: Chief Joseph dam, the Hells Canyon dam, and the Dworshak Dam, on the Columbia, Snake, and Idaho rivers respectively.
- Dam construction contributes to varied impacts on reach mortality, production, and latent mortality. These impacts stem from blockages, travel times, and predation.
- The following technology serves to mitigate impacts to fish:
  - Spillway weirs
  - Surface bypass structures
  - Screen bypass systems
- Recent mitigation strategies have involved changes in spill operations, additional structural modifications, and changes to reservoir operations. Flex spill refers to times when generation needs are lower and thus spill amounts can be adjusted. More spill is released in the spring and less flow is released in the summer. The spill regimes in the CRSO have been set through multiple policies over the last 15 years.
- Federal Energy Regulatory Commission (FERC) relicenses and habitat conservation plans are coming up for renewal and during this time it will be determined whether they are adequate or need adjustment to meet objectives.

## Questions and Comments:

The members asked the following questions and shared the following comments:

- Question: Are there estimates for changes to travel time and survival rates due to increased spill? Answer: In spring, the migration consists of yearly Chinook and steelhead, while summer consists of fall Chinook. They each have different lifespans and migration patterns and thus it is hard to determine changes in travel time. It is difficult to estimate survival for the whole species, but if one was to look at the end of migration, those fish are likely not doing as well as they used to.
  - Comment: The 2022 Comparative Survival Study (CSS) Annual Report contains that analysis. Chapter 7 looks at spill over the past 40 years with general reference to fish metrics.
- Question: The chart displayed with delayed mortality, the high and low estimates, is that added to the reach mortalities or is that separate? Answer: It is separate because latent mortality does not occur within the reach.
  - Comment: It would be helpful for this group to see a slide with a combination of all hydropower impacts to fish.
- Question: Is there data on the last two weeks of spill in August? Answer: Those spill changes have only occurred over the past two years so the returns have not taken place yet. CSS usually looks at that much closer than anyone else so hopefully their reports will add information about that.
  - Comment: The proportion of fish being affected during that two-week window is so small that a statistically significant change in returns based on that window will not be seen.
- Comment: It is important to acknowledge that every measure taken over the last ten years has been to avoid extinction. If the goal is to rebuild populations, then more needs to be done through the hydro system.

## Presentation on USACE Fish Budget Needs at Mainstem Dams

Tom Lorz began a second presentation on USACE fish budget needs at mainstem dams. Tom prefaced that this presentation highlighted estimated funding amounts to address current deficits in programming and was provided to the USACE as well as at regional forum meetings. Current goals are to aid salmon and lamprey, determine where to direct lobbying efforts, and where current bottlenecks for funding streams are. A summary of the presentation is below:

- There are four primary zones where the additional funding would be distributed in the USACE process: Columbia River Fish Management (CRFM), Operations & Maintenance, Hatcheries, and Lamprey.
- Estimated additional funds, beyond what is currently being funded, were identified and placed within an eight-year timeframe. The total bill came out to \$1.1 billion, which includes an additional \$144.1 million annually. This funding would be allocated to projects in the following areas:
  - Adult Fish Ladder Repairs and Improvements - \$160.4M
  - Spillway Repairs and Improvements - \$201.2M
  - Lamprey Passage - \$165.1M
  - Fish Screen & Juvenile Bypass System Maintenance - \$132.7M
  - Survival & Monitoring Studies - \$59.5M

- Avian Predation Deterrents - \$31.2M
- River Mouth Sediment and Coldwater Refugia Actions - \$12.0M
- Estuary work - \$6.5M
- Hatcheries - \$240M to \$360M
- Flood Risk Management - TBD
- Tom provided additional background information for each funding need including specific examples of how funds would be utilized.
- At this stage in the process of seeking funding, the focus of the Tribes is on messaging and identifying who the right people are to approach for funding.

#### Questions and Comments:

The members asked the following questions:

- Question: Is dam operations and maintenance distinct from fish passage operations and maintenance? Answer: The operations and maintenance discussed here is both because some of these systems, like spillways, provide a flood control requirement as well as fish passage control. Most of what we are focused on is the requirements for fish passage at the dams.
- Question: Considering that past and current goals have been focused on avoiding extinction, has there been discussion about what a budget to meet the bigger restoration goals would look like? Answer: Not yet because there are still negotiations and discussions about what the future hydro system will look like and the outcomes of those will determine what is needed. The current focus is on not losing what is working, acknowledging that in eight to ten years the system will require larger changes and improvements.

Work group members provided the following comments:

- Maintenance needs to be prioritized if the current survival rates are to be maintained. To do so, it's important to make sure the USACE is receiving an adequate budget to ensure each of these tacit routes are maintained at the highest caliber.
- Funding for CRFM has declined in recent years, and USACE is unable to lobby Congress for more funding. Group members noted that one action the CBC could take is to lobby on behalf of USACE for additional funding.
- To bridge this group and the Estuary & Tributary Habitat work group, the Upper Columbia Salmon Recovery Board has federal funding but has maxed out capacity for projects. From a salmon recovery population standpoint, we might be better off putting some of that remaining money towards the hydro system rather than habitat, as the gains in habitat will be impacted by issues in the hydro system. This group can begin to think about how to message that effectively.
- One thing that could be looked at would be alternative budgetary impacts of different spill regimes.

#### **Hydropower Needs Sequencing Activity**

Samantha introduced the Hydropower Needs Sequencing Activity by recalling the needs identified via the virtual whiteboards during the last work group meeting. Samantha explained that the information gathered during that meeting has been compiled into one document, and this group's task is to begin focusing the group's efforts by identifying areas for agreement and places where we can begin to move forward and develop recommendations.

The groups looked at the Hydropower needs and the following had significant interest:

- Modernize and fully fund detection and monitoring in mainstem to address gaps and allow for more accurate data collection.
- Need to establish base starting point that is at least adequate/sufficient for fish relative to CBPTF abundance goals and NPCC survival rate goals.
- Ways (methods, infrastructure) to improve downstream passage for juveniles and kelts.
- What operational changes are we talking about and what are the impacts? - Need to understand the specific operations of projects/across the systems?
- Dams are managed for ESA goals (at best), not Partnership goals.
- Energy producers should not be managing restoration work; put fish recovery in the hands of Fish & Wildlife managers.
- Urgency is lacking for actions to achieve success that include fish goals
- Begin funding infrastructure to support services currently provided by lower Snake River dams.

The group had the following conversation:

- One group member shared an interest in developing a broader understanding amongst the group of what operational changes to the system are being discussed, what needs are trying to be met, and what the implications of those changes would be. Flood control was identified as one potential implication. Paul Ocker, Chief of Operations Division for the USACE, was proposed as an authority who could speak to the group on this topic.
- Question: In these conversations are we focused solely on salmon or can we focus on lamprey as well? Answer: The focus of the CBC is primarily on salmon and other anadromous fish.
- One group member shared that they would like to see an overlay between what we're looking for more information on and where the most effective, and cost-efficient, options are for meeting recovery goals.
- One group member shared that this is the most studied extinction on the planet and so it is difficult to accept that more science is needed.
- One group member questioned whether these items were enough to meet the goals identified by the Columbia Basin Partnership (CBP).
- The group identified that hatcheries are an important aspect of salmon recovery and although mitigation links hatcheries with hydropower, this topic would be better served in the hatchery work group.

Samantha asked if there was a sense that people outside this group had a good understanding of hydropower operations. A group member responded that most people in the basin do not have that understanding.

The group shared support for starting with this list to develop initial recommendations.

### **Presentation about the Upper Columbia Fish Passage and Reintroduction Efforts**

Samantha introduced Casey Baldwin, Confederated Tribes of the Colville Reservation, and Conor Giorgi, Spokane Tribe of Indians, to share a brief presentation about fish passage and reintroduction work being done in the Upper Columbia above Chief Joseph Dam (CJD) and Grand Coulee Dam (GCD).

Casey and Conor introduced their presentation on fish passage and reintroduction, specifically on Phase 2 Implementation Plan (P2IP). The presentation covered the following topics:

- Oriented group members to the timeline of dam construction in the Upper Columbia.

- The Tribes are following a phased approach to reintroduction that was initially developed as part of planning efforts for the Columbia River Treaty negotiations. It was subsequently adopted in 2014 by the Northwest Power and Planning Council's Fish and Wildlife program and reaffirmed in 2020.
- Phase 1 saw a comprehensive evaluation of existing data, habitat availability, need, and feasibility of future projects above GCD, and the development of a life cycle model to test possible management scenarios during Phase 2.
- Phase 2 is a two-step plan to evaluate the feasibility of providing passage at CJD, GCD, and Spokane River Dams through generating baseline data and testing interim fish passage systems at the dams. This will require establishing sources of Chinook and sockeye donor stocks for these studies.
- The budget for Phase 2 is \$208 million over the 21-year span of the project. The project currently lacks dedicated programmatic funding.
- This project is scoped to work within the current hydropower regime and no operational changes are being requested.
- Progress made thus far includes a juvenile acoustic study and pit tag studies.
- Additional constraints include access to fish stocks, developing rearing and adult collection facilities, fish health and disease management, and consultation & Endangered Species Act impacts.
- Culture and education releases have been an exciting aspect of this project that involves the release of some adult and juvenile fish to meet the short-term needs of the Tribes.

Group members asked the following questions:

Question: How much weight was given to whether reintroduction was a viable tool for meeting Phase 2 goals? Answer: The Phase 2 report includes hatchery and harvest abundance goals for blocked areas. It would be impossible to meet the goals of the Phase 2 report without implementing reintroduction.

Samantha invited group members to share additional questions for the presenters in an email with the facilitators.

### **Blocked Areas Needs Sequencing Activity**

Samantha then led an activity to look at the Blocked Areas gaps. Samantha invited group members to share their top priorities for addressing blocked areas needs:

- Are downstream fisheries impacts on upstream/blocked areas well understood and managed? Where downstream fish may seem abundant, those fish are destined for upstream areas where they may not be abundant.
- There is a gap in understanding the feasibility of achieving self-sustaining populations in some blocked areas.
- Perhaps there needs to be a discussion regarding the legal/policy differences on blocked areas between states, basins, etc. Some explanation by state representatives may be helpful.
- The major challenge in most reintroduction efforts into blocked areas is how to provide effective downstream passage for juvenile fish.
- Understand the impacts of Columbia River Treaty modernization.
- Little to no regional effort for blocked areas above Hells Canyon Complex. This includes the federal dams above Hells Canyon Complex.
- Resource gap: financial support for UCUT Phase 2 Implementation Plan – which will fill gaps in understanding specific to the upper Columbia blocked area.

- Limited resources (flat funding) from Bonneville Power Administration (BPA) Fish/Wildlife mitigation program.

The work group members had the following discussion:

- One group member noted that a current National Oceanic and Atmospheric Administration (NOAA) group is assembling a comprehensive inventory of all the dams in the Columbia River basin, which was a need identified by the group. The group member's point of contact for that NOAA group is Morgan Vaughn, and their contact information was shared in the chat.

Work group members shared support for moving forward with the identified options.

### **Confirm Next Steps, Upcoming Meeting Topics, and Summary**

Samantha reviewed next steps for the work group, including an assignment to be completed before the next meeting. Work group members were asked to identify recommendations from other forums that have been proposed to address the identified needs for hydropower and blocked areas. Samantha shared that the facilitation team would follow up soon with a meeting summary and poll to schedule the next meeting, then previewed the upcoming meeting topics before closing. Samantha thanked the group for their participation and confirmed the following action items:

#### Action Items:

- **All:** email any questions for Casey Baldwin and Conor Giorgi regarding the **Fish Passage and Reintroduction: The Phase 2 Implementation Plan "P2IP"** presentation by **end of day 11/9**. We will consolidate your question and send them a list.
- **All:** Complete a brief Hydropower/Blocked Areas Meeting 2 survey to share feedback on the meeting by **end of day 11/9**.
- **All:** Identify and share recommendations that have been proposed to address the identified needs from other forums or entities via the survey by **end of day, 11/23**. More information is below.
- **All:** Please complete the Doodle Poll with your availability for a December meeting by **end of day 11/9**. Let us know if you need more time or assistance to complete the poll.
- **KW:** Clean up tier 1 needs and circulate to the group.
- **KW:** Draft a meeting summary and circulate to the group by **end of day, 11/23**

*Meeting adjourned at 4:00pm PT/5:00pm MT*