

Memorandum

To: Wells, Rocky Reach, and Rock Island HCP
Coordinating Committees

Date: April 23, 2024

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris, HCP Coordinating Committees Support

Re: Final Minutes of the March 26, 2024, HCP Coordinating Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Coordinating Committees met by conference call on Tuesday, March 26, 2024, from 12:00 p.m. to 1:30 p.m. Attendees are listed in Attachment A to these conference call minutes.

Action Item Summary

1. Chelan PUD will search their records for past investigations into dead-fish releases in the Upper Columbia River and will distribute any data located (Item I-C).
2. National Marine Fisheries Service (NMFS) will inquire internally about what information or data were considered in the recent change in spill operations at federal dams in the Lower Snake and Lower Columbia rivers (Item I-C).
3. The next scheduled HCP Coordinating Committees meeting is on Tuesday, April 23, 2024, from 12:00 p.m. to no later than 4:00 p.m. and is to be held in-person at the Confluence Technology Center in Wenatchee, Washington (Item VI-C). (*Note: this meeting was changed to be held by conference call.*)

Decision Summary

1. Wells HCP Coordinating Committee representatives present approved the 2024 Broodstock Collection Protocols. The Yakama Nation (YN) approved the protocols via email on March 22, and U.S. Fish and Wildlife Service (USFWS) and NMFS approved the protocols via email on March 25, 2024 (Item III-A).
2. Wells HCP Coordinating Committee representatives present approved Columbia River Inter-Tribal Fish Commission's (CRITFC's) annual request to tag Sockeye Salmon at Wells Dam in 2024, contingent on using the anesthetic Aqui-S and that any trapping beyond concurrent efforts with brood and stock assessment trapping be performed consistent with the Wells HCP Policy Committee statement of agreement (SOA) dated October 6, 2020.¹ The YN approved the request via email on March 22, and USFWS and NMFS approved via email on March 25, 2024 (Item III-B).

¹ Per the SOA, additional trapping of Sockeye Salmon at Wells Dam may only occur after the "thermal barrier" in the Okanogan River has set up (i.e., temperatures greater than or equal to 21 degrees Celsius at the USGS 12447200 Okanogan River at Malott Washington gage for a period greater than or equal to 12 hours).

Agreements

1. HCP Coordinating Committees representatives present agreed to add Jeff Caisman (YN) and Rick Alford (YN) to the HCP Hatchery Committees secondary email list (Item VI-B).

Review Items

1. The draft 2023 Wells HCP Annual Report was distributed to the Wells HCP Coordinating Committee by Kristi Geris on February 23, and is available for a 70-day review with edits and comments due to Geris by May 7, 2024.
2. The draft 2023 Rock Island and Rocky Reach HCP Annual Reports were distributed to the Rock Island and Rocky Reach HCP Coordinating Committees by Kristi Geris prior to the HCP Coordinating Committees conference call on February 27, and are available for a 70-day review with edits and comments due to Geris by May 9, 2024.
3. The draft SOA, *Closure of Rock Island Right Bank Adult Fishway TRE Entrance During High Flows and Tailwater Elevation*, was distributed to the Rock Island HCP Coordinating Committee by Kristi Geris on April 12. Chelan PUD will request approval of the SOA during the HCP Coordinating Committees conference call on April 23, 2024 (Item IV-A).

Finalized Documents

1. The final 2024 Broodstock Collection Protocols were distributed to the HCP Coordinating Committees by Kristi Geris on March 29, 2024 (Item III-A).

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the HCP Coordinating Committees and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. Lance Keller added the following: Early Bypass Operations Update.

B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft February 27 conference call minutes. Kristi Geris said edits and comments received from members of the Committees were mostly minor clarifications that were incorporated into the revised minutes. There were also a few more remarkable edits retained in tracked changes, which the Committees reviewed and approved. Geris noted that the YN and NMFS approved these minutes via email on March 22 and March 25, respectively; and USFWS abstained via email on March 25, because a representative did not participate in the February 27 conference call. HCP Coordinating Committees representatives present approved the February 27, 2024, conference call minutes, as revised.

C. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees conference call on February 27, and follow-up discussions were as follows (*Note: Italicized text corresponds to agenda items from the conference call on February 27, 2024*):

1. *Chelan PUD will search their records for past investigations into dead-fish releases in the Upper Columbia River and will distribute any data located (Item I-C).*
This action item will be carried forward.
2. *BioAnalysts will create trend graphs showing HCP Tributary Committees funding contributions over the years, including the number of projects approved by year, for distribution to the HCP Coordinating Committees (Item II-A).*
Tracy Hillman provided these graphs, as distributed by Kristi Geris on March 4, 2024.
3. *NMFS will inquire internally about what information or data were considered in the recent change in spill operations at federal dams in the Lower Snake and Lower Columbia rivers (Item III-E).*
This action item will be carried forward.
4. *Chelan PUD will inquire internally about the feasibility of collecting fish length and weight measurements at the Rock Island Juvenile Fish Bypass Trap (RI JFBT) during the 2024 fish bypass season, starting March 1 and will report back to the Rock Island HCP Coordinating Committee via email by close of business Thursday, February 29, 2024 (Item IV-D).*
Lance Keller provided notification that Chelan PUD will be able to accommodate this request, as distributed by Kristi Geris on February 29, 2024.

II. HCP Hatchery and Tributary Committees Update

A. HCP Hatchery and Tributary Committees Update (Tracy Hillman)

Tracy Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Tributary Committees meeting on March 14, 2024:

- *Budget Amendment:* The Rock Island HCP Tributary Committee received a budget amendment request from Chelan County Natural Resources Department on the East Fork Mission Floodplain Restoration Project. The sponsor indicated that because the winning bid came in much lower than expected and they will no longer be using U.S. Forest Service Central Washington Initiative funding, they requested to move funding from Contract Labor to Salaries and Benefits, Admin/Indirect/Overhead, Supplies, and Travel. The sponsor did not request additional funds for this project. After review, the Rock Island HCP Tributary Committee approved the budget amendment. The total budget for the project will not change as a result of this amendment.
- *Methow River M2 at 3R 60% Design Project:* The Methow Salmon Recovery Foundation gave a presentation on the 60% design for the Methow River M2@3R Design Project. The purpose of the project is to develop 60% restoration designs that will improve the complexity, quantity,

and access to cold-water refuge between river miles 46.25 and 47.25 on the Methow River. The project will build upon previously completed restoration actions within the reach by implementing actions that will reengage 20 acres of floodplain habitat, increase instream structure, connect 0.4 mile of side channels, and increase critical thermal refuge opportunities. The sponsor walked the Wells HCP Tributary Committee through the 60% design and addressed comments raised by the Committee during their review of the 30% design. The Committee is currently reviewing the 60% design and will provide comments to the sponsor by the end of March 2024.

- *Plan Species Account*: Based on questions/comments from the HCP Coordinating Committees during their meeting in February, the HCP Tributary Committees are compiling information on proposals that were received but not funded. This will allow them to evaluate the number and costs of projects funded and the number and costs of projects not funded over time. Hillman said for projects funded, the number and costs show an increasing trend over time. Next, he will look at projects not funded and determine ratios between the two. Andrew Gingerich asked about the intent of this exercise. Kirk Truscott acknowledged recent issues with the Tribes not approving each other's projects, and he thought this might be reflected by an increasing trend in projects not funded over time. (*Note: an updated project list was distributed to the HCP Tributary and Coordinating Committees on April 12, 2024.*)
- *Next Meeting*: The next meeting of the HCP Tributary Committees will be on April 11, 2024. The HCP Tributary Committees will join the Upper Columbia Regional Technical Team for presentations from project sponsors from March 27 to 28, 2024.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on March 20, 2024 (*Note: Joint HCP Hatchery Committees/Priest Rapids Coordinating Committee Hatchery Subcommittee items are noted by "joint," Wells HCP Hatchery Committee items are noted by "Wells," and Rock Island and Rocky Reach HCP Hatchery Committees items are noted by "Rock Island/Rocky Reach"*):

- *2024 Broodstock Collection Protocols (joint)*: The Committees reviewed and approved the 2024 Broodstock Collection Protocols. The protocols were submitted to the Wells HCP Coordinating Committee for review and approval.
- *Ten-Year Summary Report (joint)*: The HCP Hatchery Committees have completed a draft summary report based on results in the PUDs' 10-year comprehensive reports. The report includes a summary of technical information for all HCP hatchery programs and stocks. Members of the Committees are currently reviewing the report. Final comments are due at the end of March 2024. Once the Committees approve the technical summary report, they will develop a list of management and monitoring and evaluation (M&E) recommendations.
- *Wenatchee Spring Chinook Salmon PNI Targets (joint)*: The Committees discussed the current evaluation of Proportionate Natural Influence (PNI) for Wenatchee River spring Chinook Salmon. The PNI criteria are implemented in accordance with the Wenatchee Basin Spring

Chinook Salmon Management Plan and the National Oceanic and Atmospheric Administration permit to achieve a 5-year running average PNI ≥ 0.67 . The Wenatchee Basin Spring Chinook Salmon Management Plan identified sliding-scale PNI targets for each major spawning aggregate and for the proportion of the population upstream from Tumwater Dam. Annual sliding-scale targets are based on the number of natural-origin fish spawning within each aggregate and for the entire area upstream from Tumwater Dam. Unfortunately, achieving the annual sliding-scale target does not necessarily mean that the 5-year running average PNI target will be met. The Committees will be evaluating and, if necessary, updating the annual sliding-scale PNI targets.

- *Wenatchee Summer Chinook Salmon Release (joint)*: Chelan PUD and Washington Department of Fish and Wildlife (WDFW) reported that summer Chinook Salmon rearing at Dryden Pond are experiencing high levels of bacterial kidney disease and fungus. They are losing 600 to 900 fish per day, and the losses will increase as water quality in the pond decreases due to turbid water. There are about 450,000 summer Chinook Salmon in the pond. The Committees agreed that the fish should be released as turbidity increases. WDFW Fish Health will determine when to release the fish and whether the release will be volitional, forced, or both. The fish will be released into the Wenatchee River. Catherine Willard (Chelan PUD HCP Hatchery Committees Representative) reported that fish were released the night of Wednesday, March 20, and the rest (a couple thousand) were released on Monday, March 25, 2024.
- *Steelhead Size-at-Release Targets (Wells)*: Douglas PUD provided the Wells HCP Hatchery Committee with a proposal to change the size-at-release target from 6 fish per pound to 8 fish per pound for all their steelhead programs. Based on an evaluation of the programs, Douglas PUD believes the reduction in fish size will reduce the current intensive feeding regime that results in excessive amounts of fish feed at the bottom of rearing vessels, increase the production of more migration-ready smolts, and reduce the risk of fish health issues. The Wells HCP Hatchery Committee will evaluate the proposal and provide comments to Douglas PUD by mid-April 2024. Douglas PUD will ask for a decision on the proposal during the April meeting.
- *Wenatchee Steelhead Release Plan (Rock Island/Rocky Reach)*: Chelan PUD provided the Rocky Reach and Rock Island HCP Hatchery Committees with the draft Wenatchee Steelhead Release Plan for brood years 2023 to 2025. Among other things, the plan will evaluate whether overwinter acclimation of the Wenatchee steelhead program at the Chiwawa Acclimation Facility and subsequent direct releases into Nason Creek, the Chiwawa River, and the upper Wenatchee River via truck planting will result in adequate dispersal of returning adults to the three release locations. The plan will also evaluate whether the screened "non-movers" acclimated at the Chiwawa Acclimation Facility and released into the lower Wenatchee River return to tributaries downstream of Tumwater Dam. The plan will result in the passive integrated transponder (PIT)-tagging of 35,000 juveniles. The HCP Hatchery

Committees will review the draft plan and provide comments to Chelan PUD by early April 2024. The HCP Hatchery Committees did approve the increase in numbers of juveniles PIT tagged.

- *HCP Hatchery Committees Secondary Email Distribution List (Administration)*: The YN asked the HCP Hatchery Committees whether they approve the addition of Jeff Caisman (YN) and Rick Alford (YN) to the secondary email distribution list. Caisman and Alford work for the YN and are involved with hatchery M&E. Members present approved the request. Hillman said he is still waiting for Truscott's approval. Truscott approved.
- *Next Meeting*: The next meeting of the HCP Hatchery Committees will be on April 17, 2024.

III. Douglas PUD

A. DECISION: 2024 Broodstock Collection Protocols (Tom Kahler)

The 2024 Broodstock Collection Protocols were approved by the HCP Hatchery Committees on March 20 and were distributed to the Wells HCP Coordinating Committee by Kristi Geris on March 22.

Tom Kahler recalled that these protocols are an HCP Hatchery Committees-produced document that are brought to the Wells HCP Coordinating Committee and NMFS Hydro Program each year for approval, per the Wells HCP and biological opinion (BiOp). The Wells HCP requires Wells HCP Coordinating Committee approval of trapping activities at Wells Dam, and the BiOp delegates NMFS Hydro Division approval of trapping activities to the Wells HCP Coordinating Committee. This approval is not about the numbers; rather, it is just about the activities proposed at Wells Dam, which are the same as proposed and approved in previous years, as vetted by the HCP Hatchery Committees. Kahler asked whether there are questions. None were expressed.

Wells HCP Coordinating Committee representatives present approved the 2024 Broodstock Collection Protocols. The YN approved the protocols via email on March 22, and USFWS and NMFS approved the protocols via email on March 25.

The final protocols were distributed to the HCP Coordinating Committees by Geris on March 29, 2024.

B. DECISION: CRITFC's Annual Request to Tag Sockeye Salmon at Wells Dam in 2024 (Tom Kahler)

CRITFC's annual request to tag Sockeye Salmon at Wells Dam in 2024 was distributed to the HCP Coordinating Committees by Kristi Geris on February 26. Tom Kahler recalled discussing last month that this is the same annual request from CRITFC for the collection of Sockeye Salmon at Wells Dam for routine PIT-tagging. The request is to tag 800 Sockeye Salmon, but typically only 300 to 500 are tagged. CRITFC is also proposing to tag up to 200 Sockeye Salmon with temperature tags as part of the 800 fish (i.e., double tagged). There is one correction—CRITFC is not proposing to trap Monday through Friday; rather, the plan is to coordinate trapping with brood and stock assessment trapping.

Kahler reminded Jeff Fryer (CRITFC) of the Wells HCP Policy Committee SOA requiring that additional trapping of Sockeye Salmon beyond concurrent trapping with the brood and stock assessment effort cannot occur until the thermal barrier sets up in the Okanogan River. Kahler said this is stipulated in Douglas PUD's approval each year.

Kirk Truscott said he appreciates the clarification on timing of trapping and asked that this be codified in the Wells HCP Coordinating Committee approval. Additionally, although the language in the HCP Policy Committee SOA, dated October 6, 2020, is specific to the east ladder trap, he does not believe this was the intent. The intent was to address all trapping at Wells Dam. Kahler agreed and said this language may have been due to Fryer's preference to trap via the east ladder. Truscott asked that this also be codified in the Wells HCP Coordinating Committee approval. Lastly, there is no indication of the anesthesia of choice. Kahler said CRITFC always uses Aqui-S. Truscott asked that this also be codified in the Wells HCP Coordinating Committee approval.

Wells HCP Coordinating Committee representatives present approved CRITFC's annual request to tag Sockeye Salmon at Wells Dam in 2024, contingent on using the anesthetic Aqui-S and that any trapping beyond concurrent efforts with brood and stock assessment trapping be performed consistent with the Wells HCP Policy Committee SOA dated October 6, 2020.² The YN approved the request via email on March 22, and USFWS and NMFS approved via email on March 25, 2024.

C. Wells Dam Maintenance Update (Andrew Gingerich)

Andrew Gingerich said, as reported last month, Turbine Unit 6 is still offline for a long-term overhaul and will be out of service through this bypass season. Turbine Unit 7 is offline for biannual maintenance and is on track to come back online in the next week or two. Spill Gate 5 maintenance is complete, and Spill Gate 11 maintenance has started, which will last through most of this bypass season. Preparation for bypass barrier installation is underway, with work expected to start late next week. Biomark is conducting maintenance on the Wells Dam bypass sampler, WEJ, which is on track to be installed in advance of the April 9 bypass start date. On the east embankment, there are four bore holes left to complete. He does not expect any interruption in access to the east ladder for brood collection. This fall 2024, the transformer farthest to the east at Wells Dam is scheduled to be replaced. There is no firm replacement date yet. The new transformer is being built now. Again, he does not expect these activities to impact access to the east ladder.

Andrew Murdoch said it seems that WEJ has had low detection probability, and he asked if this might be a noise issue. Kahler said it is not a noise issue, it is a design situation. He explained that the bypass opening is 64 feet high, 16 feet wide, and is divided into what looks like 4-foot-by-4-foot windowpanes. The WEJ antennas are installed in one vertical column, which means fish have

² Per the SOA, additional trapping of Sockeye Salmon at Wells Dam may only occur after the "thermal barrier" in the Okanogan River has set up (i.e., temperatures greater than or equal to 21 degrees Celsius at the USGS 12447200 Okanogan River at Malott Washington gage for a period greater than or equal to 12 hours).

64 passage routes, but only 16 routes have detection. A. Murdoch asked whether there is 100% detection efficiency through these 16 routes. Kahler said yes, a tagged fish swimming through one of those 16 "windows" should be detected, and that detection range extends horizontally about 18 inches from the vertical entrance. A. Murdoch asked about trying different windows or adding more antennas. Kahler said this setup has been a huge maintenance issue. He explained that the bypass barriers are installed in the same slots as the turbine trash racks, and the trash racks are located below the barriers. Accessing the trash racks requires removal of the barriers, which consist of six individual sections per spillway intake and three spillway intakes per spillway, totaling 18 separate sections. Then removing the barriers requires Biomark to be onsite for antenna cable management. Their intent was to leave everything in place, but after 5 years of being installed, the turbine intake below became clogged with debris and needed to be cleaned. The system was removed after bypass operations in 2021, remained out for the winter, and was reinstalled in spring 2022. In May 2023, the system became clogged with debris that damaged five of the antennas, so WEJ was functioning with five fewer antennas most of last bypass season. Due to these complications, Douglas PUD is looking for alternatives rather than putting more time and money into improving the current setup, which would only complicate the removal and installation process. One possibility is moving WEJ to the Spillway 2 flap gate. A. Murdoch said he appreciates this situation, but there is nothing preventing adding more antennas to get better detection. Kahler said Douglas PUD has tried a different configuration. In 2016, the setup consisted of four antennas installed in a horizontal row. Detection was primarily in the center two windows of this row. This configuration ran for one season. The next year, an additional 12 antennas were installed, and the system was reconfigured into the vertical column it is today. To install detection through the entire bay means installing an additional 48 antennas, including an additional six readers and all of the nodes. This would not be a trivial expense. It would be manageable, but rather than investing in this and perpetuating the maintenance issues, Douglas PUD is looking into better detection without all the hassle. A. Murdoch asked whether this is happening now. Kahler said yes, Douglas PUD started looking into this last fall 2023.

John Ferguson asked about this Spillway 2 flap gate configuration. Kahler explained that all of the spillways at Wells Dam are over/under gates with one upper leaf and one lower leaf. Typically, spill is accomplished by raising the lower leaf to spill underneath at the ogee (i.e., bottom spill). The upper leaves of Spillway 2 and Spillway 10 at Wells Dam have flap gates, which pivot down to open, creating a sluiceway to complete surface spill. Douglas PUD is looking into installing the WEJ antennas on the flap gate, which was the original concept for WEJ. In 2015, before the spillway reader at Lower Granite Dam and other improved antenna technology, the high water velocity through the flap gate and limited vertical read range for pass-over antennas would have resulted in a relatively low detection efficiency, so Douglas PUD elected to try another location with lower velocities. Since then, antenna technology has improved dramatically, so Douglas PUD is hoping the flap gate location will work now.

Andrew Gingerich provided the weblink for WEJ metadata in the Microsoft Teams chat:
<https://www.ptagis.org/Sites/InterrogationSites?siteCode=WEJ#siteInfo--configuration>.

IV. Chelan PUD

A. 2024 Rock Island Dam Right Bank Adult Fishway Tailrace Entrance Closure (Lance Keller)

Lance Keller said this agenda topic is a primer for next month, when Chelan PUD plans to request to essentially renew this SOA.³ Recall that Rock Island Dam is operating under a 1-year SOA for high-tailwater operations. When a prolonged period of tailwater elevation above 574.5 feet is anticipated, this SOA allows fishway attendants to close the Rock Island Dam right bank adult fishway tailrace entrance (TRE), which redistributes river flow to the right powerhouse entrances and left powerhouse entrance in order to meet the 1.0-foot head differential criteria and not exceed the maximum target velocity of 4.0 feet per second in the fishway transportation channel. Chelan PUD feels another annual SOA is appropriate so as to not lose sight of these activities and discussions. Chelan PUD continues to consider alternatives to closing the TRE, as previously discussed. There have been other more pressing repair and maintenance projects taking precedence in the engineering department; however, Chelan PUD has not lost sight of this topic. Keller plans to reach out to the YN, USFWS, and NMFS before next month about this forthcoming request for approval. Again, the only change to this SOA will be the date to establish another annual expiration. With the current spring runoff and snowpack, he anticipates that this TRE closure, if even needed, will be brief.

The draft SOA, *Closure of Rock Island Right Bank Adult Fishway TRE Entrance During High Flows and Tailwater Elevation*, was distributed to the Rock Island HCP Coordinating Committee by Kristi Geris on April 12. Chelan PUD will request approval of the SOA during the HCP Coordinating Committees conference call on April 23, 2024.

B. Early Bypass Operations Update (Lance Keller)

Lance Keller provided an update on operations and fish counts encountered to date, during early bypass operations at Rocky Reach Dam and Rock Island Dam, as follows.

Rocky Reach Dam

Keller said daily index counts have ranged from 0 to 6 fish. In total, 50 fish have been collected, averaging fewer than 2 fish per day. As expected, these were all wild fish. Fish were interrogated for coded wire tags (CWTs), and lengths and weights were collected. Around March 9, there was a brief reporting outage for the surface collector PIT antenna, RRJ. The detection array continued to function properly during the outage. The error was in the transfer of the daily data files from the

³ SOA titled *Closure of Rock Island Right Bank Adult Fishway TRE Entrance During High Flows and Tailwater Elevation*, approved by the Rock Island HCP Coordinating Committee on May 23, and distributed on December 30, 2023.

computer to the PIT Tag Information System (PTAGIS). Biomark arrived on site and reconfigured how reporting of files occurs. Instead of passing files through a computer, RRJ is now connected to a cellular modem that reports files directly to PTAGIS. Again, no detection results were lost during this outage. These have been backfilled, time stamped, and uploaded to PTAGIS. To date, there have been 82 detections on RRJ.

Andrew Murdoch asked about the timing of index sampling. Keller said index samples consist of 30-minute samples at 0800, 0900, 1000, and 1100 hours. A. Murdoch asked whether there have been recaptured PIT-tagged fish during index sampling. Keller said he knows there has been at least one recapture, but he will need to review the data for total recaptures. A. Murdoch asked how recaptures are differentiated in the data. Keller said recaptures are not coded as RRJ; rather, these fish have a different reporting code in PTAGIS. A. Murdoch asked whether Chelan PUD can also provide this code. Keller said yes. *(Note: Keller provided, via email after the conference call on March 26, confirmation that there have been 5 recaptures, and in PTAGIS, the event site code for recaptures is RRETAL, and the release site is RREBYP.)*

Rock Island Dam

Keller recalled that Rock Island Dam has the capacity for 24-hour sample collection. As Tracy Hillman noted during the HCP Hatchery Committees Update (Item II-A), there was an early release of hatchery fish from the Dryden Acclimation Facility. These fish have CWTs and are 100% adipose fin clipped. The first release occurred on March 20. These fish started showing up in the index samples on March 21. There was an increase in counts on March 22, and then a decrease in counts from March 23 to March 26. Today, the sample included 6 hatchery fish and 0 wild fish; with the Data Access in Real Time (DART) expansion, this equals 12 fish. Chelan PUD is monitoring the influence of this Dryden release on these early bypass operations. Rock Island Dam staff are prepping the over/under gate and notch gate frames for when it is necessary to initiate spring spill. The ratio of hatchery to wild is 552 hatchery fish to 49 wild fish. As Catherine Willard noted, the remainder of the Dryden fish, which is on the scale of 1,000 to 2,000 fish, will be released on March 25. Chelan PUD will continue to monitor how this translates into fish counts at Rock Island Dam.

Andrew Gingerich asked whether both sets of data (Rocky Reach and Rock Island) are reported to DART and expanded for indexing. Keller said yes; however, there is currently a time lag for Rock Island data. Rebecca Buchanan's (University of Washington, Columbia Basin Research) team is aware of this issue and working through it. The delay is due to a relic in the code because Rock Island Dam is no longer a Fish Passage Center Smolt Monitoring Program site.

C. Rocky Reach Dam and Rock Island Dam Adult Fishway Winter Maintenance Updates (Lance Keller)

Lance Keller reviewed adult fishway winter maintenance updates at Rocky Reach Dam and Rock Island Dam, as follows.

Rocky Reach Dam

Keller said maintenance work went well, and the adult fish ladder was returned to full operation prior to March 1.

Rock Island Dam

Keller said the left ladder was returned to service the week of February 19, and the right ladder was returned to service on February 29. As of the last meeting, the middle ladder had already returned to service. All three ladders were operational prior to March 1, 2024, and the fishways are in good operational shape heading into the 2024 bypass season.

D. Rocky Reach Dam and Rock Island Dam Maintenance Updates (Lance Keller)

Lance Keller reviewed maintenance updates at Rocky Reach Dam and Rock Island Dam, as follows.

Rocky Reach Dam

Keller said work continues on Turbine Unit C10 and Turbine Unit C11. The return-to-service dates reported last month are still holding; however, there may be another 2- to 3-week shift due to Voith's labor issues. Chelan PUD will continue to do what is possible with the internal maintenance schedule with the units out of the pit.

Rock Island Dam

Keller said work continues on Turbine Unit B3. Last week, the turbine was placed back into the turbine pit, which is a significant milestone in the reassembly of the unit. The return-to-service date is still holding. In Powerhouse 2, work also continues and is proceeding as planned on Turbine Unit U5.

V. Steelhead Overshoots

A. Plan Species Updates (All)

John Ferguson asked for updates. None were expressed.

B. Non-Plan Species Updates (All)

John Ferguson asked for updates. None were expressed.

VI. HCP Administration

A. Subyearling Chinook Salmon Workshop (John Ferguson)

Updates on reaching out to potential speakers and logistics were discussed, as follows.

Item IV. Rock Island Behavioral Investigation Results

Lance Keller said Four Peaks Environmental Science and Data Solutions (Four Peaks) is still wrapping up the Rock Island Behavioral Investigation results. Once this is complete, Four Peaks will start assembling a presentation of the data. At this time, it is likely that Erika Rubenson (Four Peaks) will be providing the presentation, because she is the most familiar with the 3-year dataset.

Item V. Measuring Subyearling Survival

John Ferguson said he met with Rebecca Buchanan, Ryan Harnish (Pacific Northwest National Laboratory [PNNL]), and Russ Perry (U.S. Geological Survey [USGS]), to coordinate the survival model discussions, as outlined in an updated revised agenda (Version 4), which Kristi Geris shared on Microsoft Teams. Ferguson said Buchanan will lead off with an overview of the paired release models, including challenges with this modeling approach for subyearlings, which sets the stage for how studying survival has been conducted. Harnish will then discuss ways to apply the Virtual Release/Dead-Fish Correction (or ViRDcT) model and what PNNL is doing in the field with tagging effects on subyearlings, which will pair well with the laboratory-based tag effect studies (Item VII). Perry will then discuss the temporal aspects of mark-recapture models and will provide an overview of what sounds like a flexible statistical framework for evaluating which covariates (e.g., project operations) are influencing survival, for example, on a daily basis. Lastly, there is time in this session now for discussion. This was the only change in this version of the draft agenda. The titles of the presentations listed are from Ferguson and will be updated by the speakers.

Item VI. Tag Technology; and Item VII. Tag Effects

Andrew Gingerich confirmed that Daniel Deng (PNNL) can provide a presentation on tag technology. For tag effects, Alison Colotelo (PNNL) reached out to Stephanie Liss (PNNL) who is working on these data more closely; however, Liss has not yet confirmed.

Item VIII. Updated Life-History Results

Tom Kahler said he has no updates. Andrew Murdoch said he has discussed internally about presenting data from the Wenatchee and Entiat smolt traps, regarding wild fish timing and size at emigration. He is also open to presenting other data if there are requests. Kirk Truscott said he spoke with Andrea Pearl (CTCR), who reminded him that she will be tagging juveniles at the confluence of the Okanogan River in mid-June, so her availability to participate in this workshop is questionable. This does not mean the CTCR cannot present, but he needs to figure out who is available. He is also still looking into which updates are available. Kahler said Douglas PUD could possibly team with the

CTCR on presenting data. Truscott said he is interested in whether the proportion of fish collected of taggable size are representative of the population at large. He believes this is a key element to address in studying survival. Timing might be less important. Kahler said Douglas PUD is interested in this, as well, and can talk more with the CTCR offline. John Rohrback also has ideas on this topic.

Logistics

Ferguson confirmed the workshop will be held in-person at the Douglas PUD Auditorium in East Wenatchee, Washington. Several of Russ's team members from USGS will call into the workshop.

Geris asked whether the latest revised draft agenda (Version 4) is ready to be shared with the PRCC. Ferguson said yes. *(Note: this agenda was distributed to the PRCC by Geris after the conference call on March 26, 2024.)*

B. HCP Hatchery Committees and PRCC Hatchery Subcommittee Secondary Email List – Jeff Caisman and Rick Alford (YN) (John Ferguson)

Cory Kamphaus (YN HCP Hatchery Committees representative) would like to add Jeff Caisman to the materials distribution list. Caisman participated in one of the recent Hatchery Evaluation Technical Team discussions and will be involved when the HCP Hatchery Committees revisit the M&E Plan for the mitigation programs. Rick Alford is becoming more involved in the Methow Basin and is preparing to track some of the production up there.

John Ferguson said the HCP Hatchery Committees approved this request on March 20.

HCP Coordinating Committees representatives present agreed to add Caisman and Alford to the HCP Hatchery Committees secondary email list.

C. Next Meetings (John Ferguson)

The next scheduled HCP Coordinating Committees meeting is on Tuesday, April 23, 2024, from 12:00 p.m. to no later than 4:00 p.m. and is to be held in-person at the Confluence Technology Center in Wenatchee, Washington. John Ferguson may chair the meeting remotely from California. *(Note: this meeting was changed to be held by conference call.)*

The HCP Coordinating Committees meeting on May 28, 2024, is from 12:00 p.m. to no later than 4:00 p.m. and will be held in-person at the Confluence Technology Center in Wenatchee, Washington.

The Subyearling Chinook Salmon Workshop on June 11, 2024, is from 8:00 a.m. to 5:00 p.m. and will be held in-person at the Douglas PUD Auditorium in East Wenatchee, Washington.

The HCP Coordinating Committees meeting on June 25, 2024, is from 12:00 p.m. to no later than 4:00 p.m. and will be held in-person at the Confluence Technology Center in Wenatchee, Washington.

List of Attachments

Attachment A List of Attendees

Attachment A
List of Conference Call Attendees

Name	Organization
John Ferguson	Anchor QEA
Kristi Geris	Anchor QEA
Tracy Hillman ^{††}	Bioanalysts
Lance Keller [*]	Chelan PUD
Bill Towey [*]	Chelan PUD
Catherine Willard	Chelan PUD
Tom Kahler [*]	Douglas PUD
Andrew Gingerich [*]	Douglas PUD
John Rohrback	Douglas PUD
Chad Jackson [*]	Washington Department of Fish and Wildlife
Andrew Murdoch [*]	Washington Department of Fish and Wildlife
Kirk Truscott [*]	Confederated Tribes of the Colville Reservation

Notes:

* Denotes HCP Coordinating Committees member or alternate

†† Joined for the HCP Hatchery and Tributary Committees update