

Memorandum

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

Date: July 22, 2021

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris, HCP Coordinating Committees Support

Re: **Final Minutes of the June 22, 2021, 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, June 22, 2021, from 9:00 a.m. to 11:00 a.m. Attendees are listed in Attachment A to these conference call minutes.

Action Item Summary

- Chelan PUD will continue providing Rocky Reach Dam and Rock Island Dam turbine unit maintenance updates as information becomes available (Item I-C).
- Chelan PUD will consider a potential adjustment to the shape of 10% spill during spring at Rock Island Dam to better align the shape of the daily operation with estimated diel passage patterns for yearling migrants (Item III-D). *(Note: Adjustments to the summer fish spill shapes at both Rocky Reach and Rock Island dams were implemented starting on June 25, 2021, at 0000 hours, as distributed to the HCP Coordinating Committees by Kristi Geris on June 24, 2021.)*
- Douglas PUD will notify the HCP Coordinating Committees when it looks like the “thermal block” sets up in the Okanogan River (i.e., temperatures greater than or equal to 21°C at the U.S. Geological Survey [USGS] 12447200 Okanogan River at Malott Washington gage for a period greater than or equal to 12 hours), as it pertains to sockeye salmon trapping at Wells Dam¹ (Item IV-B). *(Note: Tom Kahler provided this notification on June 28, 2021, which Kristi Geris distributed to the HCP Coordinating Committees and HCP Policy Committees that same day.)*
- Anchor QEA, LLC, will set a reminder for September 2021 to consider scheduling an HCP Coordinating Committees in-person meeting at Rocky Reach Dam following completion of the Visitor’s Center renovation (tentatively set for end of August 2021; Item V-A). *(Note: Kristi Geris set this reminder, as discussed.)*
- The HCP Coordinating Committees meeting on Thursday, July 22, 2021, will be held from 1:00 to 4:00 p.m., by conference call (Item V-C).

¹ Per the HCP Policy Committees Statement of Agreement (SOA), approved October 6, 2020.

Decision Summary

- There were no HCP Decisions approved during today's conference call.

Agreements

- There were no HCP Agreements discussed during today's conference call.

Review Items

- The draft *2020 Public Utility District No. 1 of Douglas County Northern Pikeminnow Removal and Research Program* (Douglas PUD 2020 Northern Pikeminnow Annual Report) was distributed to the Wells HCP Coordinating Committee by Kristi Geris on June 8, 2021, and is available for a 30-day review with edits and comments due to Tom Kahler by July 8, 2021.
- The draft Statement of Agreement (SOA), *Deferment of the Rocky Reach Project Confirmation Survival Study from 2022 to 2023*, was distributed to the Rocky Reach HCP Coordinating Committee by Kristi Geris on July 16, 2021 (Item III-G).

Finalized Documents

- There are no documents that have been recently finalized.

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. The following revisions were requested:

- Lance Keller added: 1) Rock Island Dam and Rocky Reach Dam summer spill shape adjustments; and 2) future maintenance schedules and the 2022 Rocky Reach Dam Survival Confirmation Study.
- Tom Kahler added: 1) Sockeye salmon trapping and tagging at Wells Dam in 2021.

B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft May 25, 2021, conference call minutes. Kristi Geris said all comments and revisions received from members of the Committees were incorporated into the revised minutes. HCP Coordinating Committees members present approved the May 25, 2021, conference call minutes, as revised. National Marine Fisheries Service (NMFS) abstained because a representative was not present during the May 25, 2021, conference call.

C. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees meeting on May 25, 2021, and follow-up discussions, were as follows. (*Note: Italicized text corresponds to agenda items from the meeting on May 25, 2021*):

- *Chelan PUD will continue providing Rocky Reach Dam and Rock Island Dam turbine unit maintenance updates as information becomes available (Item I-C).*
This will be discussed during today's conference call and will also be carried forward.
- *BioAnalysts will distribute the final Enloe Dam Removal Concept Plan, that includes results from the sediment analysis by USGS, once it becomes available (expected June 1, 2021), as discussed during today's HCP Tributary Committees May 13, 2021, conference call update (Item II-A).*
Tracy Hillman provided instructions to download the final plan on May 28, 2021, which Kristi Geris distributed to the HCP Coordinating Committees that same day. The results from the sediment analysis are found on pages 17 to 19 of the final plan.
- *Chelan PUD will distribute the Rocky Reach Dam Summer Spill and Shape Adjustment graphs that were discussed during today's conference call (Item IV-D).*
Lance Keller provided these graphs to Kristi Geris on June 11, 2021, which Geris distributed to the HCP Coordinating Committees that same day.

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 Hatchery Committees conference call on June 16, 2021 (*Note: Joint HCP Hatchery Committees/ Priest Rapids Coordinating Committee (PRCC) 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"*):

- *Hatchery Production Recalculation Statement of Agreement (Joint):* The PUDs submitted a SOA that describes the general methodology for recalculating hatchery production needed to achieve No Net Impact for all Plan Species. After some minor tweaks to the SOA, all parties except for the Colville Confederated Tribes (CCT; who were not present) approved the SOA. Thus, the general methodology used during the last calculation process was deemed appropriate for this calculation period, pending CCT approval. Kirk Truscott said he will review the revised SOA and get back to Hillman. (*Note: Truscott approved the revised SOA via email on June 22, 2021.*)
- *Hatchery Production Recalculation Data Sources and Methods (Joint):* The PUDs gave a presentation on the datasets that can be used in the recalculation process. They identified the pros and cons of various datasets and the timeline of data that can be used in the calculations. Members agreed to use data from 2011 to 2020. Members also began discussing how to deal

with overshoot. Over the next two months, the Committees will be evaluating the data to be used in the recalculation process. The Committees are on schedule to complete the 2024 to 2033 implementation plan by the end of the year. Truscott said he will contact Hillman to discuss the topic.

- *Comprehensive Monitoring and Evaluation Report Review (Joint)*: The PUDs reported they are on schedule to deliver the draft comprehensive evaluation report to the Committees by July 1, 2021. The PUDs outlined the sequential release of report sections (by monitoring and evaluation [M&E] objective) for 30-day reviews. The entire review process will take 90 days. In addition, the annual M&E report was recently distributed to members for a 30-day review.
- *Multi-Population Proportionate Natural Influence Model (Joint)*: The Committees continued their discussion on the use of a multi-population, spring Chinook salmon, proportionate natural influence (PNI) model for the Wenatchee River basin. They identified specific questions that will be shared with Craig Busack (NMFS) and Mike Haggerty (NMFS). Busack and Haggerty will provide written responses to the questions and participate in a future meeting with the Committees to discuss multi-population PNI modeling.
- *Spring Chinook Salmon Tagging at Priest Rapids Dam (Joint)*: Washington Department of Fish and Wildlife (WDFW) provided a brief update on the passive integrated transponder (PIT)-tagging of spring Chinook salmon at Priest Rapids Dam. So far (as of last week), they have tagged 568 spring Chinook salmon with a cumulative sample rate of 3.3%. Spring Chinook salmon tagging efforts are winding down as the run is nearing completion.
- *COVID-19 and M&E Activities (Joint)*: Each member of the HCP Hatchery Committees discussed the effects of coronavirus disease 2019 (COVID-19) on their respective M&E activities. There were no significant changes since last month.
- *Next Meeting*: The next meeting of the HCP Hatchery Committees will be on July 21, 2021.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Tributary Committees conference call on June 10, 2021:

- *Scope Change Request*: The Wells HCP Tributary Committees received a request from Cascade Fisheries for a scope change on the Mission Wood Amendment Project. The sponsor asked the Committee to remove the qualification within the Scope of Work that states: "The Sponsor shall not cut any large trees (greater than 12 inches [diameter at breast height]) within 15 meters (or 50 feet) of the channel. Only large trees beyond 15 meters of the channel should be used in this project." Based on the clarification provided by the sponsor and the Committee's communication with the U.S. Forest Service, the Wells HCP Tributary Committee agreed to remove the qualification. Hillman noted that this primarily pertained to dropping large trees that would require the use of large equipment and would disturb surrounding habitat.
- *General Salmon Habitat Program Applications*: The HCP Tributary Committees received nine General Salmon Habitat Program proposals that were cost shares with the Salmon Recovery

Funding Board (SRFB). Members with conflicts of interests recused themselves from discussing and voting on specific proposals. Of the nine General Salmon Habitat Program proposals reviewed, the Committees elected to fund seven of them. Those that were not selected for funding had low biological benefit, needed more information, or had low benefits per cost. The seven projects funded occur within the Wenatchee, Entiat, and Methow River basins and were supported by the Rock Island, Rocky Reach, or Wells Plan Species Account Funds.

- *Conflicts of Interests:* The HCP Tributary Committees' Chair received a call from a project sponsor who was interested in how the HCP Tributary Committees deal with conflicts of interests. The issue was centered on HCP Tributary Committee members who submit applications through the HCP Tributary Committees' process and also vote on non-member applications that compete for Plan Species Account funds. In this case, the sponsor sees a conflict of interest when a member competing for funds can vote on competing applications. The HCPs and the HCP Tributary Committees' Operating Procedures describe conflicts of interests, and the Committees follow the established guidelines closely. However, the guidelines do not address the issue pointed out by the project sponsor. The Committees do not believe this is an issue because members are vigilant when it comes to identifying voting outliers. In addition, because members who submit applications through the HCP Tributary Committee process must recuse themselves from voting on and discussing their own applications, there is no guarantee that other voting members will approve a project submitted by a member of the Committees. Each member was directed to inform their HCP Policy and Coordinating Committees members that this issue has been raised by an outside project sponsor, who indicated that they may elevate this issue within the PUDs and other entities. Hillman said as he understands it now, this sponsor no longer plans to elevate this issue. Andrew Gingerich asked, in Hillman's experience, is this an isolated case or continuing feedback from project sponsors? Hillman said this was a recent comment and was the first case. Although, according to the project sponsor, he reached out to other project sponsors who indicated they collectively view this as a potential issue.
- *Recusal versus Abstention:* HCP Tributary Committees members discussed the difference between "Recusal" and "Abstention." After researching Robert's Rules of Order and other parliamentary procedures, the following definitions were accepted:
 - Abstain: Voting member can participate in discussions on a decision item but may elect to withhold their vote on the decision item. This is exercised when there are no conflicts of interests. For example, a member may elect to withhold their vote on finalizing draft meeting notes because they did not attend the meeting from which the notes were compiled.
 - Recuse: Voting member will not vote on or participate in discussions on a decision item. This is not found in Robert's Rules of Order but is a parliamentary procedure that is used when there are conflicts of interests.

In short, members who are conflicted must recuse themselves from discussing and voting on a decision item (per the HCPs and Operating Procedures). Members who are not conflicted can discuss decision items but may elect to withhold their vote on the items. In both cases, members will let other members and the Chair know that they are conflicted (need to recuse themselves) or will abstain from voting on a decision item before the item is opened for discussion.

- *Next Meeting*: The next meeting of the HCP Tributary Committees will be on July 8, 2021.

III. Chelan PUD

A. Fish Passage Center Memorandums (Lance Keller)

Lance Keller recalled that two Fish Passage Center (FPC) memorandums have been shared with the HCP Coordinating Committees by Committees representatives: 1) *Eliminating Rock Island from the Regional Smolt Monitoring Program* (distributed on February 23, 2021); and 2) *Monitoring Avian Predation for the Upper Columbia River – An alternative to marking fish at Rock Island Dam* (distributed on April 5, 2021). Keller said Chelan PUD has been aware of these discussions and feels this is an “apples to oranges” comparison because these are different mark groups.

Keely Murdoch said she has been involved with FPC and Columbia River Inter-Tribal Fish Commission (CRITFC) regarding these issues, and when CRITFC brought avian predation into the discussion this only added confusion. If the FPC Smolt Monitoring Program (SMP) is not collecting the data they need at Rock Island Dam and FPC has a different proposal, there is nothing preventing the PRCC from continuing to fund avian predation monitoring at Rock Island Dam because these are separate processes. This discussion became convoluted when the avian work entered the equation because it assumed that if SMP is removed from Rock Island Dam the avian predation work would stop, too.

Keller said he appreciates Murdoch’s comments, and added that there are two major differences to discuss related to the claimed biases of marking juveniles at Rock Island Dam. First, the selection criteria for marking fish are different. Marking of hatchery fish have much stricter criteria, while marking at Rock Island Dam is trying to boost sample size as much as possible. This means that at Rock Island Dam, fish with injuries and descaling are marked and released in the same day, whereas this is not the case when fish are marked at the hatchery. Therefore, this can result in different survivals for these two mark groups. Second, hatchery releases occur over a short time frame, while marking and releases at Rock Island Dam target the middle 80% of the entire run. That is, hatchery groups are exposed to a narrow band of environmental conditions when migrating, whereas fish tagged at Rock Island Dam to evaluate avian predation are exposed to environmental conditions and predation pressures experienced throughout the overall steelhead out-migration.

Keller said he thinks it is clear that FPC will remove SMP from Rock Island Dam. Chelan PUD does conduct an annual internal evaluation as to whether the SMP at Rock Island Dam is in the District’s best interest. If SMP is not at Rock Island Dam in 2022, Chelan PUD will continue indexing fish on a

daily basis. If the PRCC chooses to fund avian predation work at Rock Island Dam, this can continue as well.

Scott Carlon agreed with Murdoch's comments about the confusion related to mixing these two separate actions. He added that the Northwest Fisheries Science Center (National Oceanic and Atmospheric Administration [NOAA] Fisheries) has expressed some doubt about the utility of no longer marking at Rock Island Dam; however, no decisions have been made that he is aware of. He said Ritchie Graves (NMFS Branch Chief, West Coast Regional Office) is looking into this.

John Ferguson summarized Chelan PUD views as follows: 1) there are differences in how fish are selected and their condition when tagged at the Rock Island Dam bypass versus at a hatchery; and 2) there is a difference in how fish are released back to the river after tagging at a hatchery or at Rock Island Dam, which results in the two groups potentially experiencing different environmental conditions and exposure to predation. Keller said this is correct, and Chelan PUD is analyzing whether SMP should stay at Rock Island Dam and these discussions are ongoing. However, at this point, it is pretty clear FPC would like to remove SMP from Rock Island Dam and redistribute those funds upstream of Rock Island Dam. Ferguson asked when a decision will be made. Murdoch said she thought FPC already made a decision, but then CRITFC and NOAA Fisheries had additional questions. She said she hopes the only issue with CRITFC is about the avian predation work, which can continue if the PRCC chooses to fund it. She does not know what issues NOAA Fisheries has. Carlon said he is not clear about this either.

Chad Jackson said it is worth noting that FPC is also considering terminating SMP from other projects and not just Rock Island Dam. Murdoch said she understands that FPC wants to get away from mainstem tagging and focus more on population-based tagging. She thinks Rock Island Dam was the only location that did not reach unanimous decision because of the confusion with the avian work. Ferguson asked if SMP will be terminated at John Day Dam and Lower Monumental Dam, as well. Kristi Geris said on the Snake River, FPC was only proposing to terminate SMP at Lower Monumental Dam. Keller said Jackson made a good point that termination of SMP is not isolated to Rock Island Dam.

B. 2021 Rock Island Dam Survival Confirmation Study Update (Lance Keller)

Lance Keller reported that all of the acoustic receivers were retrieved, and the data were downloaded on Monday and Tuesday of last week. This included all autonomous receivers anchored in the Rock Island Dam forebay and placed at the boat restriction zone, as well as the autonomous receivers deployed near Crescent Bar and Sunland Estates. All receivers were functional, and all of the collected datasets appeared to be complete (i.e., no missing data). Blue Leaf Environmental (Blue Leaf) are processing these data now and are scheduled to have a clean dataset to Dr. John Skalski (University of Washington, Columbia Basin Research) by August 1, 2021. It is Keller's understanding that Skalski will need 30 days or more to conduct the statistical analyses. At that

point, Chelan PUD will invite Skalski to present the preliminary data during an HCP Coordinating Committees meeting. Keller thinks it will also be interesting to see the results of the Tag Life Study. There are still active tags at the Rocky Reach Juvenile Sampling Facility that are in continuously flowing river water. He recalled that these tags are being monitored for failure to develop a tag life curve for the tags used in the survival confirmation study. He guessed these tags may be active into August 2021, and therefore Skalski might be given a dataset without completed tag life data. If the tags are still active, there should be only a minimal tag life correction that will be applied to the data upon termination of the Tag Life Study. He noted that the data will take some time to sort and quality check, as some receivers had up to 1 million to 1.45 million detections.

John Ferguson guessed that the HCP Coordinating Committees meeting in September 2021, is when Skalski might present preliminary findings. He asked regarding the downstream receivers, were the data retrieved, new batteries installed, and the receivers redeployed? Keller said this is correct. One by one, Blue Leaf triggered each acoustic release, retrieved the receiver when it floated to the surface, downloaded the data, refreshed the batteries, then redeployed each receiver back in place to maintain a high detection resolution during the effort. This is needed for the Tag Life Study. The downstream gear was retrieved and redeployed on June 15, 2021. The forebay gear was retrieved on June 14, 2021, is still out of the water, and will be redeployed this Thursday, June 24, 2021, before initiating the Rock Island Dam subyearling Chinook salmon behavior study next week.

C. Rock Island Dam Subyearling Chinook Salmon Behavior Study Update (Lance Keller)

Lance Keller said Four Peaks Environmental Science and Data Solutions (Four Peaks) has received 400 tags of the 600-tag order, which is enough to start the effort. The remaining tag order is forthcoming. As mentioned in the previous section, acoustic receivers will be redeployed in the Rock Island Dam forebay on June 24, 2021, after which Four Peaks will conduct a "tag drag" using a remote-controlled boat. This involves submerging and dragging tags at different depths and reviewing tag detections to determine detection range and probability. Additional receivers were installed on the face of the dam and in the forebay on June 7 and 8, 2021. Additional receivers were also installed in Powerhouse 1, Powerhouse 2, and in the middle fishway. Chelan PUD and Four Peaks conducted a tag site orientation yesterday. Both release replicates will be tagged out of the Rocky Reach Dam tag site. For this first release, study fish will be collected and transported on June 28, 2021, marked on June 29, 2021, and released on June 30, 2021, at 2000 hours in the Rocky Reach Dam tailrace. The other group will also be collected and transported on June 29, 2021, tagged on June 30, 2021, and released upstream of Rock Island Dam on July 1, 2021. Chelan PUD and Four Peaks are still determining the appropriate release location for this release. The goal is to release the tagged fish in close proximity to Rock Island Dam should there be residualization in above releases but allow the fish enough time to redistribute themselves before arriving in the Rock Island Dam forebay. Release locations being considered include one location adjacent to the Alcoa

Plant and 2.5 kilometers upstream of Rock Island Dam, or perhaps a location just slightly downstream of the black train bridge at the town of Rock Island, Washington, 5.5 kilometers upstream of Rock Island Dam. Chelan PUD and Four Peaks are thinking the latter might be the better of the two locations. The plan is to split the releases, with half of the fish released on river-right and the other half released on river-left, versus dropping all fish in the middle of the river. The study plan is not yet finalized, but a final plan will be distributed to the HCP Coordinating Committees when it is available. Each release will include 50 fish, and releases will occur 1 day per week for 6 weeks with the last releases during the week of August 2, 2021. Chelan PUD is hoping to finish all of the releases before river temperatures increase too much, notably with the extreme weather temperatures the area is experiencing so far.

D. Rock Island Dam and Rocky Reach Dam Summer Spill Shape Adjustments (Lance Keller)

Lance Keller recalled that the Rock Island Dam subyearling Chinook salmon behavior study is an opportunistic investigation about subyearling behavior at Rock Island Dam, which takes advantage of the acoustic telemetry gear that is already deployed for the 2021 Rock Island Dam Survival Confirmation Study. As part of this investigation, Four Peaks reviewed available runtime data at Rocky Reach Dam via PIT tag detections at the surface collector structure and found a consistent diel distribution of subyearling passage at Rocky Reach Dam. This is shown by the blue line in the left graph on slide 1 of the Rocky Reach Dam and Rock Island Dam summer spill shapes file (Attachment B), which was distributed to the HCP Coordinating Committees by Kristi Geris on June 21, 2021. Around sunrise, there is a drop in passage, then passage continues during the day but at a reduced rate, and then around 1700 to 1800 hours there is an uptick in passage again. The orange line is the current 9% summer fish spill shape. Interestingly, these lines are inverted. Chelan PUD reviewed the Rocky Reach HCP, which does not say how fish spill needs to be provided, and so Chelan PUD moved forward with adjusting this spill shape. Last month, Chelan PUD shared the right graph on slide 1 of Attachment B, which redistributes the spill blocks at 6%, 9%, and 12% of the daily average river flow to match detection timing observed at the Rocky Reach Dam collection structure. The HCP Coordinating Committees agreed this was a good adjustment, and Keely Murdoch suggested even further to consider a similar adjustment at Rock Island Dam assuming subyearlings pass more at night across all projects. Therefore, Chelan PUD went back and discussed with internal stakeholder teams to see if the adjusted spill shapes could be implemented. The groups discussed whether redistributing spill might approach license minimums (i.e., drain reservoirs to license limits), and after review, Chelan PUD feels these adjustments can be made. Lastly, the table on slide 1 of Attachment B shows the target spill percentages per hour to illustrate how spill is distributed.

Jim Craig said he thinks this is a great step forward. He realizes there are no requirements for spring spill but wondered if it is possible to match spring spill with the yearling out-migration, as well. Keller

agreed there is no spring spill requirement at Rocky Reach Dam but said there is a spring spill requirement at Rock Island Dam, which is worth looking into.

Scott Carlon thanked Keller for the review of discussions (note: Carlon was unable to attend the HCP Coordinating Committees conference call on May 25, 2021). Carlon noted that this was also the same subyearling diel behavior pattern he observed at Bonneville Dam when conducting work there. Keller said this aligns with Murdoch's comments about her experience and work with subyearlings.

Keller said slide 2 of Attachment B has not yet been discussed with the HCP Coordinating Committees. It took a bit of time with the internal stakeholder groups to agree on this adjustment. Rock Island Dam relies heavily on spill blocks at 15%, 19%, and 23% of the daily average river flow and it was difficult to get the adjusted curve to match the passage timing as well as at Rocky Reach Dam. Chelan PUD does not consider these adjusted shapes as set in stone. As data are provided, the shapes can be further adjusted if needed. He noted that the current 20% spill shape (left graph) has reduced spill early in the day and resulted in higher spill later in the day. Ultimately, the adjusted spill shape (right graph) tries to redistribute the lower spill periods. He also noted that he was unable to line up the adjusted spill shape with passage timing in the early morning due to the 23% spill requirement. Chelan PUD is looking to implement both adjusted spill shapes in a short time frame, barring any major questions or concerns from the HCP Coordinating Committees.

Murdoch said she likes where Chelan PUD is going with this, and it looks like a step in the right direction. Keller said Chelan PUD appreciates Murdoch's input, noting that data for Rock Island Dam may not have been reviewed as it was if it were not for Murdoch's comments.

John Ferguson asked, regarding Craig's question about Rock Island Dam spring spill for yearlings, does Chelan PUD want an action item for this? Keller said yes. Craig added that he just sent an email to Keller clarifying his question. Craig said he knows there is no mandated spring spill, but is there an opportunity to spill more at night to potentially benefit the yearling out-migration? Keller said he also just sent a response that there is a daily 10% requirement at Rock Island Dam for spring fish spill, but with no required spring fish spill at Rocky Reach Dam, the spill that occurs is needed only as a response to either a unit outage or headwater control, with no flexibility due to a lack of predictable spill events. In reviewing spill events from mid-April to late May for 2021, the few spill events for the most part did occur later in the day or in the early hours of the morning. However, this year, river flows have been atypical, so he is not sure these events will continue at similar times in future spring periods. Keller forwarded the email correspondence with Craig to Geris, which she distributed to the HCP Coordinating Committees following the conference call on June 22, 2021. Chelan PUD will consider a potential adjustment to the shape of 10% spill during spring at Rock Island Dam to better align the shape of the daily operation with estimated diel passage patterns for yearling migrants.

Keller noted that summer fish spill was already initiated on June 4, 2021, using the current 9% spill shape at Rocky Reach Dam and 20% spill shape at Rock Island Dam. Chelan PUD is already looking at implementation of the adjusted spill shapes by Friday, June 25, 2021, and will provide email notification when this occurs. *(Note: Adjustments to the summer fish spill shapes at both Rocky Reach and Rock Island dams were implemented starting on June 25, 2021, at 0000 hours, as distributed to the HCP Coordinating Committees by Kristi Geris on June 24, 2021.)*

E. Rock Island Dam Powerhouse 1 Maintenance Update (Lance Keller)

Lance Keller said Turbine Unit B4 has been watered up and is now in the wet commissioning phase. Once Turbine Unit B4 is returned to service, work will move to Turbine Unit B3.

F. Rocky Reach Dam Turbine Units Maintenance Update (Lance Keller)

Lance Keller said work continues on Turbine Unit C3, which is expected to be back in service by mid-August 2021. Turbine Unit C7 is now in the wet commissioning phase and is anticipated to be back in service in the next few days. Crews have started disassembly of Turbine Unit C6, which is the last remaining unit to address regarding trunnion seal issues. The Turbine Unit C6 return-to-service date is mid-November 2021.

G. Future Maintenance Schedules and the 2022 Rocky Reach Dam Survival Confirmation Study (Lance Keller)

Lance Keller said there has been a lot of internal discussions regarding maintenance issues at Rock Island Dam and Rocky Reach Dam. At Rock Island Dam, Chelan PUD has been less than satisfied with the work and products produced for the work done on Turbine Units B1 to B3, and there are concerns about the remaining Turbine Units B5 and B7. At Rocky Reach Dam, there has been ongoing internal discussion about the overall repair schedule that has continually not been met. Last year was an anomaly with impacts from COVID-19, but return-to-service dates have not been met for the three units completed so far. Turbine Unit C2 was the quickest repair to date, with disassembly, work, and reassembly occurring in 11 months. Turbine Unit C1 took the longest, although it was the first unit repaired. Turbine Unit C7 will have taken 15 months once it is completed in a few days. Chelan PUD is hoping that Turbine Unit C3 will be returned to service in mid-August 2021 and Turbine Unit C6 will be returned to service in November 2021. This leaves Turbine Unit C5 and Turbine Unit C4, which are planned for a 6- to 7-month repair schedule leaving very little breathing room before the 2022 Rocky Reach Dam Survival Confirmation Study that begins in mid-April 2022. Further, at Rock Island Dam due to complications with the work and products, there is a strong desire to provide internal labor so Chelan PUD can ensure the quality of the work and product. However, this will require a crew from Rocky Reach Dam to work at Rock Island Dam at a time when Chelan PUD already does not have much confidence in meeting the repair schedules at Rocky Reach Dam before the 2022 Rocky Reach Dam Survival Confirmation Study. Chelan PUD is not yet asking for a deferral of the 2022 Rocky Reach Dam Survival Confirmation Study, but these discussions are

occurring in the context of this workload and what are reasonable return-to-service timelines. Chelan PUD plans to have a status update before the HCP Coordinating Committees meeting on July 22, 2021, which might lead to a request for a deferral of the 2022 Rocky Reach Dam Survival Confirmation Study. Having Turbine Unit C5 and Turbine Unit C4 out-of-service means having two units out-of-service in the middle of Rocky Reach Dam Powerhouse for the confirmation study. Chelan PUD does not want to test survival under these conditions because it is not representative of how the project will be operated in the next 10-year period.

Keely Murdoch said she is trying to understand what is actually representative. She understands that Rocky Reach Dam Powerhouse is not operating how Chelan PUD wants it to or it should be. However, when looking at the maintenance schedule and how long these turbine units have been out-of-service and how long Chelan PUD expects to have these units offline, she is wondering how many years will this maintenance last? In which case, maybe having two turbine units offline is actually representative of a 10-year period.

Keller clarified that Turbine Units C4 and C5 are still in operation, and he noted that this is not a typical maintenance schedule. Chelan PUD has discussed internally about deferring work on Turbine Units C4 and C5 to ensure these units are not in a status of disassembly and available for the 2022 Rocky Reach Dam Survival Confirmation Study; however, there is risk associated with hoping these units will continue to operate through June 2022 without failure of the trunnion bushings. Chelan PUD could be in the middle of the study and have unit failures that could change project operations. Or, if Chelan PUD studies with these units out-of-service, testing under no spill operations would be tough because of the reduction in plant capacity. With a 0% spill target for the study, Chelan PUD would be relying on all remaining turbine capacity to pass river flow out of the Rocky Reach Project. With Turbine Units C4 and C5 out-of-service, the plant would be unable to do this, and Chelan PUD is not planning to operate in this fashion in the next 10 years. John Ferguson asked about the hydraulic capacity of Turbine Units C4 and C5. Keller said discharge through the small units is approximately 14.6 kcfs per unit, so nearly 30 kcfs of reduced plant capacity.

Keller said lastly, he thinks it is worth mentioning the reasoning behind discussing this so early. Considering scheduling related to selecting a contractor, obtaining approval from the Commissioners, and placing a tag order, Chelan PUD ultimately decided to move this discussion up earlier because the District wants to be sure that Rocky Reach HCP Coordinating Committee members are aware of these internal discussions and understand that a request for deferment could come in the future.

The draft SOA, *Deferment of the Rocky Reach Project Confirmation Survival Study from 2022 to 2023*, was distributed to the Rocky Reach HCP Coordinating Committee by Kristi Geris on July 16, 2021.

IV. Douglas PUD

A. Wells Dam Bypass Operations Update (Tom Kahler)

Tom Kahler said per the *Wells Bypass Operating Plan*, bypass barriers in Spillway 6 were pulled on June 3, 2021, and were reinstalled on June 10, 2021, which spanned the peak of the freshet. Otherwise, everything has been operating normally. Each day, inflows from Chief Joseph Dam and the tributaries are decreasing. However, Wells Dam is still producing a spill shape based on power production from upstream. Average river flow has generally been above 150 kcfs but has also been down at approximately 100 kcfs or lower. Lately, spill has been higher with the hotter weather and power demands associated with this.

Kirk Truscott asked if Douglas PUD expects that bypass barriers at Wells Dam will remain in place for the remainder of the summer period. Kahler replied, yes.

B. Sockeye Salmon Trapping and Tagging at Wells Dam in 2021 (Tom Kahler)

Tom Kahler said he received an email from Jeff Fryer (CRITFC) indicating that he was not planning to begin sockeye salmon trapping and tagging at Wells Dam until June 28, 2021, which is typical for summer tagging. Fryer had hoped to begin sampling 1 week earlier, but at that time, there had only been 32 sockeye salmon counted at Wells Dam this season. He hopes to apportion sampling over the entire run with the largest effort occurring during the weeks of July 5 and July 12, 2021, targeting over 200 fish per week and then tapering off. He is targeting tagging 800 fish total, but he is concerned this might not be feasible due to the projected run size. He is also planning to test out a fat meter on sockeye salmon at Wells Dam. If the results are satisfactory, there are plans to implement this at Bonneville Dam in 2022. He is also planning on acoustic tagging sockeye salmon at Bonneville Dam in 2022, which will piggyback on another effort.

Kahler said in the Okanogan River, river temperatures were staying relatively cool and then suddenly began climbing steadily, from below 15°C last Thursday to over 19°C yesterday. The daily low temperatures are increasing by nearly 1°C per day, so he suspects the thermal barrier will set up by the weekend.

Kirk Truscott asked what this means relative to sockeye salmon tagging at Wells Dam. Kahler recalled that the Wells HCP Policy Committee guidance is that prior to the thermal barrier setting up, there can be no additional trapping beyond concurrent trapping with WDFW for the Carlton Summer Chinook Salmon Program. However, once the thermal barrier sets up, trapping can occur on additional days beyond WDFW trapping for the Carlton Program because there is no longer concern about delaying these fish because sockeye salmon will stay in the reservoir anyway. John Ferguson agreed and said, simply put, let fish migrate when it is cool in the Okanogan River, then trap when it is hot.

Ferguson asked Kristi Geris to share the HCP Policy Committees October 6, 2020, conference call minutes to review any processes discussed for tracking or reporting out on the thermal barrier setting up. Kahler said he also just emailed a graph to Geris showing river temperatures at the USGS 12447200 Okanogan River at Malott Washington gage from June 9 to June 23, 2021 (Attachment C), which Geris shared on WebEx and distributed to the HCP Coordinating Committees following the conference call on June 22, 2021. Geris then shared an excerpt from the HCP Policy Committees October 6, 2020, conference call minutes, as follows:

Ferguson said Douglas PUD and the CCT will also be monitoring temperatures and will distribute an email² when it looks like the thermal block sets up, and HCP Parties can review the data and respond to the notification, if needed.

Truscott also noted that the definition of a thermal block is included in these minutes (also as memorialized in the HCP Policy Committees SOA, approved October 6, 2020):

For the purposes of this Agreement, "thermal block" refers to 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.

Ferguson said, per these meeting minutes, Douglas PUD will notify the HCP Coordinating Committees when it looks like the "thermal block" sets up in the Okanogan River (i.e., temperatures greater than or equal to 21°C at the USGS 12447200 Okanogan River at Malott Washington gage for a period greater than or equal to 12 hours), as it pertains to sockeye salmon trapping at Wells Dam³. (Note: Kahler provided this notification on June 28, 2021, which Geris distributed to the HCP Coordinating Committees and HCP Policy Committees that same day.)

V. HCP Administration

A. Coronavirus Disease 2019 Updates (John Ferguson)

John Ferguson asked if there are any updates HCP Coordinating Committees members would like to share regarding impacts of COVID-19 on HCP activities.

Lance Keller recalled discussing last December 2020, a possible in-person meeting at the newly renovated Rocky Reach Dam Visitor's Center. Construction is still continuing, and he thinks the soft opening for Chelan PUD employees is set for the end of August 2021. He also has not yet heard clear direction regarding convening large group meetings with attendees external to Chelan PUD. He thinks Chelan PUD may be waiting for further direction from the Governor. Regarding the renovations, the fish viewing window work was completed two winter outages ago, but construction

² Note: this email will be distributed to the HCP Coordinating Committees Representatives, with the HCP Policy Committees Representatives copied.

³ Per the HCP Policy Committees SOA, approved October 6, 2020.

on the facility is still ongoing. Bill Towey said all of this is correct, and any in-person meetings would need to be in fall 2021, at the earliest. Ferguson suggested touching base in September 2021, and Keller agreed. Anchor QEA will set a reminder for September 2021 to consider scheduling an HCP Coordinating Committees in-person meeting at Rocky Reach Dam following completion of the Visitor's Center renovation (tentatively set for end of August 2021). *(Note: Kristi Geris set this reminder, as discussed.)*

No other updates were shared.

B. HCP Policy Committees June 8, 2021, Conference Call (John Ferguson)

John Ferguson said the HCP Policy Committees recently convened their annual check-in meeting. From his perspective everything went well, and the HCP Policy Committees accomplished what was intended for this meeting. There was good discussion on how the HCPs are implemented from the PUDs' perspectives. He and Tracy Hillman (HCP Tributary and Hatchery Committees Chairman) provided Chair perspectives on how everything is going for the four HCP Committees. The presentations were positive. Each HCP Policy Committees representative provided comments, which were all positive. There were three topics flagged that were not issues, but rather just topics to be aware of: 1) Hillman raised a potential conflict of interest in the HCP Tributary Committees, which he shared during today's update; 2) Cody Desautel (acting CCT HCP Policy Representative) raised the need for a plan for surplus fish in the HCP Hatchery Committees; and 3) although outside of the HCPs, Ritchie Graves (NMFS HCP Policy Representative) mentioned concerns about steelhead overshoots in the Snake and Columbia rivers.

Chad Jackson said he has nothing additional. This was a helpful, informative meeting for those new to the HCPs. Jim Craig agreed and said, overall, the meeting was positive and a good check-in.

C. Next Meetings (John Ferguson)

John Ferguson said after reviewing the July 2020 agenda and meeting minutes and checking with the PUDs, he was going to suggest canceling the July 22, 2021, conference call due to the agenda being light this time of year. However, after Chelan PUD's topic today about potentially deferring the 2022 Rocky Reach Dam Survival Confirmation Study to 2023, he now thinks it might be important to convene the July 22, 2021, conference call.

Lance Keller said Chelan PUD will have a Rock Island Dam subyearling Chinook salmon behavior study update but will likely be providing weekly updates via email once the study starts. Regarding potential deferment of the 2022 Rocky Reach Dam Survival Confirmation Study to 2023, he plans to reach out to the individual Rocky Reach HCP Coordinating Committee representatives anyway because not all representatives will be present during the July 22, 2021, conference call. Ferguson said this is correct, NMFS and the CCT are unavailable to attend this call. Keller said he hopes to complete this outreach once he receives further direction regarding a deferment, and then this can

be summarized in an email with an SOA to follow. He thinks this can all happen ahead of the meeting, and he wonders how productive a discussion can be without all members present. Ferguson said, however, if there is an SOA to review, this can be done ahead of the call with NMFS and the CCT and then it can be discussed with the rest of the members during the call.

Tom Kahler said Douglas PUD will only have a Wells Dam bypass operations update.

Ferguson proposed keeping the July 22, 2021, conference call on the schedule, and members can decide whether to cancel or not after Chelan PUD knows more about the possible deferment. He said deferment of a survival study seems to be too big of a topic to cover via email due to canceling a meeting. Chelan PUD will work with members between now and then. Keller agreed with this hybrid approach.

The next scheduled HCP Coordinating Committees meeting is Thursday, July 22, 2021, from 1:00 to 4:00 p.m. The August 24 and September 28, 2021, meetings will be held by conference call or in person, as is yet to be determined.

VI. List of Attachments

Attachment A List of Attendees

Attachment B Rocky Reach Dam and Rock Island Dam Summer Spill Shapes

Attachment C USGS 12447200 Okanogan River at Malott Washington Gage from June 9 to June 23, 2021

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillmant†	BioAnalysts
Lance Keller*	Chelan PUD
Bill Towey	Chelan PUD
Tom Kahler*	Douglas PUD
Andrew Gingerich*	Douglas PUD
Scott Carlon*	National Marine Fisheries Service
Jim Craig*	U.S. Fish and Wildlife Service
Chad Jackson*	Washington Department of Fish and Wildlife
Kirk Truscott*	Colville Confederated Tribes
Keely Murdoch*	Yakama Nation

Notes:

* Denotes HCP Coordinating Committees member or alternate

† Joined for the HCP Hatchery and Tributary Committees update