

Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees, and Priest Rapids Coordinating Committee Hatchery Subcommittee Date: December 15, 2021

From: Tracy Hillman, HCP Hatchery Committees Chairman and PRCC Hatchery Subcommittee Facilitator

cc: Larissa Rohrbach, Anchor QEA, LLC

Re: Final Minutes of the November 17, 2021, HCP Hatchery Committees and PRCC Hatchery Subcommittee Meetings

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan Hatchery Committees (HCP-HCs) and Priest Rapids Coordinating Committee's Hatchery Subcommittee (PRCC HSC) meetings were held by conference call and web-share on Wednesday, November 17, 2021, from 9:00 a.m. to 11:00 a.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

Joint HCP-HCs and PRCC HSC

Long-Term

- Mike Tonseth will distribute the analysis showing feasibility of the Methow Spring Chinook Salmon Outplanting plan based on historical run size data (Item I-B). (*Note: This item is ongoing; expected completion to be determined.*)
- Kirk Truscott will work with Colville Confederated Tribe staff to develop a model that addresses the probability of encountering natural-origin Okanogan River spring Chinook salmon at Wells Dam (Item I-B). (*Note: This item is ongoing; expected completion date to be determined.*)
- Kirk Truscott will determine the number of scales that should be collected from spring Chinook salmon at Wells Dam for elemental signature analysis to discern Okanogan River spring Chinook salmon from Methow River spring Chinook salmon (Item I-B). (*Note: This item is ongoing; completion depends on the outcome of the previous action item.*)
- Keely Murdoch and Mike Tonseth will obtain estimates of pre-spawn mortality from Andrew Murdoch to update the retrospective analysis for Wenatchee spring Chinook salmon (Item I-B). (*Note: This item is ongoing; expected completion date to be determined.*)
- Mike Tonseth and Greg Mackey will solicit input from hatchery managers on effective methods to count surplus fish (Item I-B). (*Note: This item is ongoing; expected completion late 2021/early 2022.*)

Near-Term (to be completed by next meeting)

- Larissa Rohrbach will file and distribute *10-year Comprehensive Review* chapters and comments to the Committees for review as they are completed (Item I-B). (Note: This item is ongoing.)
- Todd Pearsons and Catherine Willard will revise Grant and Chelan PUD's draft *Statements of Agreement on Sockeye Salmon Obligation* for approval in an upcoming meeting (Item I-B). (Note: This item is ongoing.)
- Kirk Truscott will develop language for the *Priest Rapids Coordinating Committee's Hatchery Subcommittee Statement of Agreement Regarding Grant PUD's Sockeye Salmon Obligation* on assessing feasibility and implementation of alternative plans in years when environmental conditions are prohibitive for broodstock collection activities (Item I-B).
- Keely Murdoch will calculate no-net-impact (NNI) mitigation levels using the smolt-to-adult return (SAR) estimation approach used in 2013 and the method proposed for the current recalculation effort (Item III-A).
- Catherine Willard will revise the draft *Statement of Agreement Regarding the 2023 NNI Hatchery Recalculation Dataset* (Recalculation Data Sources Statement of Agreement [SOA]) to include feedback obtained in today's meeting, for distribution to the HCP-HCs and PRCC HSC next week (Item III-A).
- All HCP-HCs and PRCC HSC representatives will review the draft Recalculation Data Sources SOA and reply to all with comments via email prior to the additional conference call on December 6, 2021 (Item III-A).

Rock Island/Rocky Reach HCP-HCs

- None.

Wells HCP-HC

- None.

PRCC HSC

- None.

Decision Summary

- The Rock Island/Rocky Reach HCP-HCs approved the *Chelan County PUD Hatchery Monitoring and Evaluation Implementation Plan for 2022*.

Agreements

- The HCP-HCs and PRCC HSC agreed to alternating the use of coded wire tag (CWT)-based and passive integrated transponder tag (PIT)-based SAR estimates for each year of SAR data included in the NNI recalculations.
- All HCP-HC and PRCC HSC Parties agreed to initiate work on 2022/2023 Broodstock Collection Protocols (BCPs) sections as information becomes available (Item III-D).

Review Items

- The *10-year Comprehensive Review* chapters on Objective 7 (genetics) were distributed by Larissa Rohrbach with an updated review schedule on October 21, 2021.
- The *Draft 2022 Wells Complex Monitoring and Evaluation Implementation Plan* was distributed by Larissa Rohrbach on November 4, 2021, for 30-day review, with comments and edits due to Greg Mackey by Friday, December 3, 2021.

Finalized Documents

- *Chelan County PUD Hatchery Monitoring and Evaluation Implementation Plan for 2022* revised in the October 20, 2021, meeting was approved as final and distributed by Larissa Rohrbach following the meeting.
- The *2020 Annual Report on Monitoring and Evaluation of the Wells Hatchery and Methow Hatchery Programs* was accepted as final with no additional revisions and will be distributed by Larissa Rohrbach following the meeting.
- The *Draft Priest Rapids Hatchery Monitoring and Evaluation Annual Report for 2020–2021* was accepted as final with no additional revisions and will be distributed by Larissa Rohrbach following the meeting.

I. Welcome

A. Agenda, Announcements, Approve Past Meeting Minutes, Last Meeting's Action Items

Tracy Hillman welcomed the HCP-HCs and PRCC HSC and read the list of attendees (Attachment A). The meeting was held via conference call and web-share because of travel and group meeting restrictions resulting from the coronavirus disease 2019 (COVID-19) pandemic.

All HCP-HCs and PRCC HSC representatives approved the agenda. Revised minutes from the October 20, 2021, meetings were reviewed and approved.

Action Items

Action items from the HCP-HCs and PRCC HSC meeting on October 20, 2021, were reviewed and discussed (*Note: Italicized text below corresponds to action items from the previous meeting*).

B. Joint HCP-HCs and PRCC HSC

Long-Term

- *Mike Tonseth will distribute the analysis showing feasibility of the Methow Spring Chinook Salmon Outplanting plan based on historical run size data. (Note: This item is ongoing; expected completion by 2022.)*
- *Kirk Truscott will work with Colville Confederated Tribe staff to develop a model that addresses the probability of encountering natural-origin Okanogan River spring Chinook salmon at Wells Dam. (Note: This item is ongoing; expected completion to be determined.)*
- *Kirk Truscott will determine the number of scales that should be collected from spring Chinook salmon at Wells Dam for elemental signature analysis to discern Okanogan River spring Chinook salmon from Methow River spring Chinook salmon. (Note: This item is ongoing; completion depends on the outcome of the previous action item.)*
- *Keely Murdoch and Mike Tonseth will obtain estimates of pre-spawn mortality from Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) to update the retrospective analysis for Wenatchee spring Chinook salmon. (Note: expected completion to be determined.)*
- *Mike Tonseth and Greg Mackey will solicit input from hatchery managers on effective methods to count surplus fish. (Note: This item is ongoing; expected completion by early 2022 for incorporation into BCPs.)*

Near-Term (to be completed by next meeting)

- *Larissa Rohrbach will file and distribute 10-year Comprehensive Review chapters and comments to the Committees for review as they are completed.*
This item is ongoing.
- *Greg Mackey will distribute a summary table showing steelhead reallocated among programs at Wells Hatchery.*
This item is complete.
- *Todd Pearsons and Catherine Willard will revise Grant and Chelan PUD's draft SOAs on Sockeye Salmon Obligation for approval in a future meeting.*
This item is ongoing.

- *Kirk Truscott will develop language for the Priest Rapids Coordinating Committee's Hatchery Subcommittee Statement of Agreement Regarding Grant PUD's Sockeye Salmon Obligation on assessing feasibility and implementation of alternative plans in years when environmental conditions are prohibitive for broodstock collection activities.*
This item is ongoing.
- *Catherine Willard will convene a meeting among the PUDs to respond to the Joint Fisheries Parties' (JFP's) proposed approach for calculating SAR returns for use in the Biological Assessment and Management Plan calculation.*
An updated approach has been proposed by the PUDs that will be the subject of discussion today. This item is complete.

II. Rock Island/Rocky Reach HC

A. DECISION: Chelan PUD's 2022 Hatchery Monitoring and Evaluation Implementation Plan

Catherine Willard reminded the Committee that Chelan PUD's draft 2022 Monitoring and Evaluation (M&E) Implementation Plan (M&E Implementation Plan) was originally distributed on October 11, 2021. She responded to a question on precocity monitoring from U.S. Fish and Wildlife Service during the October 20, 2021, meeting. No other revisions to this M&E Implementation Plan were made.

Keely Murdoch asked whether this plan would be delayed due to uncertainty around the number of fish that should be PIT-tagged to support future recalculation efforts (as was discussed in the last meeting). Willard determined that there is already a need to continue to PIT tag summer Chinook salmon to monitor precocial maturation. Any other modifications to the PIT-tagging approach would be recorded in next year's plan.

The RI/RR HCP-HC approved the *Chelan County PUD Hatchery 2022 M&E Implementation Plan for 2022*.

III. Joint HCP-HCs and PRCC HSC

A. Hatchery Production Recalculation

Approve Data Sources

In the October 20, 2021, meeting, the JFP brought forth a proposed compromise for calculating mean SARs for use in NNI recalculation. The JFP recommended using the same approach that was used in the previous recalculation effort in 2013. Depending on the program and time series, the last approach used CWT recoveries or a combination of CWT recoveries and PIT-tag detections at dams. PIT tags were used where they were available. The JFPs' proposed approach was reviewed and

discussed by the PUDs after the meeting. The PUDs indicated that they generally support the JFPs' approach to calculate mean SAR using a combination of CWT recoveries and PIT-tag detections but proposed a modification that incorporates an equal number of years of CWT-based SAR estimates and PIT-tag-based SAR estimates.

Mike Tonseth said the JFP has not been able to convene a conference call to discuss the PUDs' counterproposal but have exchanged emails regarding the PUDs' proposal. He appreciates the PUDs' response and suggestions. WDFW's position is that whatever agreement is reached on how SARs are calculated for this recalculation effort, it does not set a precedent for future NNI recalculation efforts. He would like to see language in the draft 2023 Recalculation Data Sources SOA to that effect. He would also like to identify a mutually agreeable approach for calculating SARs for use in NNI recalculation. He agrees with most of the PUDs' counterproposal but suggested, rather than using a "blocked" approach in which the first half of the time series uses CWT-based SARs and the second half use PIT-tag-based SARs, the approach randomly assigns which tag (CWT or PIT) will be used at the beginning of the time series. Tags would then alternate systematically thereafter throughout the time series. For example, if CWT was randomly selected as the tag for calculating SAR, the first SAR in the time series would be based on CWTs, the second year in the time series would be based on PIT tags, the third year would be based on CWT, the fourth would be based on PIT tags, and so forth.

Kirk Truscott said he is in lockstep with Tonseth regarding adding language to the draft 2023 Recalculation Data Sources SOA to ensure this compromise is not precedent-setting and agrees with the more randomized approach to selecting SAR calculation method in each year. Matt Cooper said he also agrees with this approach (as did Bill Gale in response, by phone, to Tracy Hillman prior to the meeting).

Keely Murdoch said she appreciates the PUDs' recommendations. She was able to meet internally with Yakama Nation (YN) staff late last week to discuss the PUDs' counterproposal. She echoed the sentiment that the draft 2023 Recalculation Data Sources SOA language should not set a precedent. The YN still has some concerns, however. One question to ask is, what is the numeric difference between the mitigation values using the PUDs' approach and the JFPs' proposed approach? If the difference is small, it is not worth continuing to have a disagreement. If the difference is large, the YN may feel differently. The YN still views SARs measured in the tributary to be lower than those measured at the project. This is a foundational difference in what the mitigation metric is supposed to be. Murdoch said she suspects the biggest difference will be for summer Chinook salmon, which includes a large number of natural-origin fish.

All HCP-HC and PRCC HSC Parties agreed not to set a precedent with the proposed approach, and some Parties would like to see a commitment to collectively developing a SAR metric that includes both a tagging plan and a detection plan, to ensure enough tags are released to obtain adequate detection rates. Murdoch said that while the PIT-tag detection arrays are not highly efficient in

tributaries, methods have been established to account for inefficiencies using two arrays, with the exception of the Okanogan River where there is only one array.

Brett Farman said he generally agrees with Tonseth and Truscott. He has some concerns that can be addressed with wordsmithing in the introduction and background sections. The concept of this hybrid SAR calculation approach is to incorporate project effects that are difficult to account for using any one tag type. He does not want to have discussions on detection efficiencies in 10 years. The focus should be on estimating mitigation levels based on project effects. There is a need for language explaining why this hybrid approach is being proposed and that this method is addressing reservoir effects, which we just don't know enough about at this time. There is a need to set the stage so that 10 years from now, there will be better information to calculate mitigation for project effects.

Greg Mackey said Douglas PUD is agreeable with alternating SAR calculation methods across years; it is not radically different than the blocked approach the PUDs proposed. This is simply a compromise solution when there is no agreed-upon technical solution, and he recognizes the need to develop language that describes that. He said he would have liked to achieve a precedent-setting solution because that was not achieved in the 2013 recalculation; however, in order to move the recalculation process forward in a timely manner, the direction of the proposed approach is acceptable to Douglas PUD.

Catherine Willard said Chelan PUD also accepts the alternating year approach to calculating SARs.

Todd Pearsons said the blocking approach was chosen as the rationale for using CWT earlier and PIT tags in later years, because of the lag time in reporting CWT recoveries; using the CWT method in later years may lead to an underestimation of SAR. Grant PUD is not happy with the compromised approach and probably none of the Committees members are happy with this as a solution. This is not necessarily the "right" answer, but it moves the Committees through the recalculation process. From Grant PUD's perspective, this is not the most accurate method, it is simply a compromise position, but it is acceptable in order to move the programs through the next 10-year period.

Hillman reported that Bill Gale wants to ensure that the draft 2023 Recalculation Data Sources SOA clearly states that this method will not set precedence and why this method was chosen. He added that Gale also wants the Committees to work on a preferable method next year and wants language in the draft 2023 Recalculation Data Sources SOA that holds the Committees to a commitment to make progress and ensures that the necessary data are collected (and plugged into the calculation) in the next 10-year period.

Tonseth said he agrees with Grant PUD's position, and that WDFW is not necessarily happy with the approach but is willing to go forward with the compromise. He supports starting conversations immediately next year on a long-term SAR calculation methodology, so data can be reported in

annual M&E reports. He added that an end date should be set for having an agreement in place that may drive PIT-tagging rates and consistent tagging locations, so changes can be made to the 5-year M&E Plan or annual plans well in advance of the next 10-year recalculation. He suggested a potential time frame of no longer than 18 to 24 months to agree on a SAR calculation methodology. Hillman noted that this time frame would allow for coordination with the Policy Committees, who may need to provide the intent and foundation for the calculations.

Mackey said the real impasse is how the intent of these agreements regarding NNI are being interpreted (i.e., the Wells HCP, Rock Island and Rocky Reach HCPs, and the Grant PUD SSSA) by the Hatchery Committees parties, which should not be the purview of the Hatchery Committees as a technical group. Policy Committee guidance is needed on the intent of the agreements, otherwise the Hatchery Committees will continue to disagree over the different interpretations of the agreements that cannot be solved by technical approaches. It may be wise to initiate outreach to the Policy Committees to ask them to provide guidance to their respective Hatchery Committees representatives as to how the agreements are to be interpreted and implemented regarding NNI and recalculation.

Pearsons agreed with Mackey's comment, noting that it does not appear this committee would be able to come up with additional technical information that would allow for an agreement on the approach. Clearer policy guidance would allow this group to work on the technical issues more cleanly without debate about the definition of project effects or interpretation of NNI. The first step may be to determine what clarification of interpretations we need from the Policy Committees prior to engaging them. Hillman suggested developing the list of issues soon, in December or January, because it takes time to convene and engage the Policy Committees.

Murdoch said she initially thought this could be done prior to the preparation of the next annual M&E Implementation Plan. She understands this may require policy review and can prepare the issue for the YN policy representative. There are two different policy committees (HCP and PRCC); a joint policy meeting could be complicated because the Umatilla Tribes are engaged on the PRCC and not the HCPs. However, meeting separately could lead to different recommendations from the different Policy Committees.

Mackey, Willard, and Pearsons said this group would need the Policy Committees to give direction on how they would want those meetings orchestrated. It would be up to the Hatchery Committees to frame up the issues so the Policy Committees can understand what they are being asked to address.

Murdoch asked about when to engage the Policy Committees—potentially as an agenda item for the regularly scheduled HCP Policy Committee's annual meeting in early summer. This approach would motivate the Hatchery Committees to obtain any information needed by the Policy Committees prior to the summer meeting.

Tonseth said it will be important for the Hatchery Committees to clearly and consistently outline what is needed from the Policy Committees to guide their responses. The request should be the same for each Policy Committee, with just one or two questions, as opposed to each Hatchery Committee representative describing the request to their respective policy representatives individually, which may return different answers. The best approach will be to start immediately in 2022 to draft a specific and consistent request with specific background information for both Policy Committees. Hillman suggested pointing to specific sections of the HCPs or the Priest Rapids Salmon and Steelhead Settlement Agreement or Federal Energy Regulatory Commission licenses. All agreed with this approach to framing the issue.

Murdoch offered to work on the comparison of SAR calculation methodologies between the 2013 recalculation effort and the PUDs' compromise approach because it was her idea, but she may ask the PUDs for assistance with data compiling. She will start with the calculation for natural-origin summer Chinook salmon, which are likely to show the largest differences due to larger natural-origin numbers in that population, and may move on to other species as time allows.

Hillman determined, from a coin flip, that the first year in the SAR time series will start with using PIT-tag detections, alternating the use of CWT and PIT tags for SAR calculation in the subsequent years in the time series. All agreed that this approach (starting with PIT tags) would apply to all 11 programs to be analyzed.

Truscott said in earlier meetings he had also asked to confirm that the PIT-tag detection data sources were from brood years that were not part of the survival studies; they were fish that were PIT-tagged as part of the general population. Fish that were used for the survival studies had to meet certain size or condition requirements and may not have been representative of the total population of hatchery fish, and it would be a concern to include those fish in the SAR calculations. Pearsons and Willard said they do not use PIT tags for survival studies for their programs. Mackey said they have done survival studies using summer Chinook salmon, but Douglas PUD summer Chinook salmon programs are all for inundation mitigation, except for the funding supplied to Chief Joseph Hatchery, which is the NNI part based on the project survival study result. Therefore, the PIT tags used in the survival studies would not be used in the NNI recalculation. Truscott said he thought he saw some Wells Hatchery PIT tags in the dataset. He asked to make sure the correct data sources will be used and HCP-HCs and PRCC HSC representatives will have the opportunity to review them again. Mackey agreed the data sources will be attached to the 2023 Recalculation Data Sources SOA Willard is preparing.

Willard said she has started drafting the 2021 Recalculation Data Sources SOA, which she will update to reflect what was agreed to today, specifically the following:

- A tag type used for the SAR calculation that alternates each year (with a random selection made in this meeting for the initial year)

- Background information on why this approach was chosen
- A clear statement that this approach should not be precedence-setting
- A plan for the HCP-HCs and PRCC HSC to begin work in 2022 to develop a better approach (starting by seeking direction from the Policy Committees)
- An intent to define a metric for SARs for future recalculations—for inclusion in the annual M&E Implementation Plans and the M&E annual reports—that can be directly plugged into the Biological Assessment and Management Plan formula during the next recalculation effort

As drafted, the version Willard is preparing includes approval of the total dataset that was provided in the draft *2024 to 2033 Recalculation Data Summary* provided on August 10, 2021, and a specific agreement to the approach for calculating SAR. Willard will distribute the revised draft SOA in the coming week. HCP-HC and PRCC HSC representatives will respond to all with comments or edits in preparation for an additional meeting to finalize the draft SOA. The HCP-HCs and PRCC will hold an additional conference call to agree on final edits to the draft SOA, in preparation for agreement via email prior to the next meeting in December.

Sensitivity Analysis

Hillman asked if there has been any progress on the sensitivity analysis since the approach was presented by the PUDs (Attachment C to the July 21, 2021 meeting minutes). Willard asked if there is agreement on performing the sensitivity analysis following the same approach that was used in the 2013 recalculation process. Mackey said the *Final SOA Regarding Methods for the 2023 NNI Hatchery Recalculation*, approved June 16, 2021, suggested that the same approach would be used unless someone presented something more innovative. Farman said he is likely in agreement with that approach but asked for additional time to think about it and obtain feedback from others. Tonseth said he has not looked at it recently, but the previous analysis is a good start. Cooper said the sensitivity analysis method used previously was not ideal but was appropriate. Murdoch, Truscott, and Pearsons also agreed to using the same approach. Murdoch said the next step would be a recalculation implementation plan, which has become more of a negotiation based on values within the ranges presented in the sensitivity analysis.

Willard asked representatives about SAR credit for adult equivalents under components C and E of the sensitivity analysis. Because we are now planning to alternate SARs using CWT and PIT tags, these components are not likely applicable here. This component of the calculation was something the PUDs developed for the 2013 recalculation. Components C and E of the sensitivity analysis resulted from the fact that the PUDs wanted to convert smolt production from subject hatchery facilities to SARs at PUD hatchery facilities due to PUD hatchery facilities have higher SARs. The PUDs developed a factor to adjust production numbers but never used it in the 2013 recalculation effort. Willard asked all representatives to review components C and E because it probably does not make sense to calculate these this time.

Murdoch said if there is a mid-month conference call, we could take the time to review the sensitivity analysis that was done for the 2013 recalculation, so that the updated sensitivity analysis can be addressed at the December meeting. Pearsons agreed. Mackey gave a presentation in the July 21, 2021 meeting that reviewed the calculation methods and updated it based on the result of the SAR calculation discussions.

An additional conference call will be convened on the morning of Monday, December 6, from 9 a.m. to 12 p.m.

B. 10-Year Comprehensive Monitoring and Evaluation Report: Review Check-in

Todd Pearsons said the genetics chapters reporting on results from the WDFW genetics laboratory are available for review, with reviews due by the end of November. There are two chapters outstanding on spring and summer Chinook salmon spawn timing, run timing, and distribution, and steelhead fecundity and egg size. Willard said the sockeye salmon report is also forthcoming. The executive summaries will follow. All other chapters have been provided for review.

C. Coronavirus Disease 2019 and Monitoring and Evaluation Activities

Tracy Hillman asked members to provide their monthly updates on impacts of COVID-19 restrictions on M&E activities.

- Brett Farman had no updates from the National Marine Fisheries Service.
- Catherine Willard had no updates from Chelan PUD.
- Mike Tonseth said WDFW offices are now open. Katy Shelby said they are fully staffed in the office. At this time the requirement is to have proof of vaccination; masking is not required.
- Matt Cooper said U.S. Fish and Wildlife Service staff have until November 22 to get vaccinated or put in a waiver request. If jobs can be done remotely, staff are still required to do so, with phased reentry to offices through April.
- Keely Murdoch said there are no changes for the YN, at this time, that affect M&E activities, and at-home workers will be phasing back to working at the office.
- Mackey said the Washington State mandate for vaccination did cause some turnover in the WDFW Twisp Field Office and some replacements will be necessary.
- Todd Pearsons said there are no changes at Grant PUD.

D. Broodstock Collection Protocol Preparation

Tracy Hillman asked whether the Parties should initiate work now on components of the 2022 BCPs to avoid a rushed process in the spring. Greg Mackey said tables with metrics could be populated with the most recent year's results. There is a need to wait for recalculation to be completed to determine the number of broodstock needed. The document may not need to be edited much from last year. Catherine Willard said WDFW will prepare Chelan PUD's component. Mike Tonseth said the biological assumptions (Appendix A of the BCPs) could be updated; steelhead and subyearling

programs could be worked on now for brood collection in 2023. All yearling programs will collect brood based on revised collection programs in 2022. There are a number of appendices that could be drafted now regarding trapping. Marking, adult management, and run forecast sections are reliant on run forecasts or recalculation information available later in the spring. Todd Pearsons said it makes sense to work on the BCPs when all data are available because there are no big rewrites to the protocols, but there will be updates to numbers. In some cases, those data are still being collected, so it will be some time before those numbers are updated.

All Parties agreed to initiate work on sections as information becomes available.

IV. Administrative Items

A. Next Meetings

An additional HCP-HC and PRCC HSC meeting will be held on Monday, December 6, 2021, from 9 a.m. to 12 p.m.

The next regular HCP-HCs and PRCC HSC meetings will be held on Wednesday, December 15, 2021; Wednesday, January 19; and Wednesday, February 16, 2022, by conference call and web-share until further notice.

V. List of Attachments

Attachment A List of Attendees

Attachment A

Name	Organization
Larissa Rohrbach	Anchor QEA, LLC
Tracy Hillman	BioAnalysts, Inc.
Scott Hopkins*	Chelan PUD
Catherine Willard*	Chelan PUD
Kirk Truscott*‡	Colville Confederated Tribes
Tom Kahler*	Douglas PUD
Greg Mackey*	Douglas PUD
Rod O'Connor	Grant PUD
Deanne Pavlik-Kunkel	Grant PUD
Todd Pearsons‡	Grant PUD
Brett Farman*‡	National Marine Fisheries Service
Katy Shelby	Washington Department of Fish and Wildlife
Mike Tonseth*‡	Washington Department of Fish and Wildlife
Keely Murdoch*‡	Yakama Nation
Matt Cooper*‡	U.S. Fish and Wildlife Service

Notes:

* Denotes HCP-HCs member or alternate

‡ Denotes PRCC HSC member or alternate

