

## Memorandum

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

Date: May 15, 2017

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris

**Re: Revised Minutes of the March 28, 2017, HCP Coordinating Committees Meeting**

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The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Coordinating Committees met at the Grant PUD Office in Wenatchee, Washington, on Tuesday March 28, 2017, from 10:00 a.m. to 12:40 p.m. Attendees are listed in Attachment A to these meeting minutes.

### Action Item Summary

- Alene Underwood (Chelan PUD Fish and Wildlife Program Manager) will provide Chelan PUD's comments on the Federal Columbia River Power System (FCRPS) National Environmental Policy Act (NEPA) Scoping Process to Kristi Geris for distribution to the HCP Coordinating Committees (Item I-C). *(Note: Underwood provided these comments to Geris following the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*
- Tom Kahler will provide fish passage count data for winter months at Wells Dam for review regarding timing of winter maintenance at Wells Dam to Kristi Geris for distribution to the HCP Coordinating Committees (Item I-C).
- John Ferguson will coordinate with Tracy Hillman (HCP Hatchery Committees Chairman) to obtain HCP Hatchery Committees and Wells HCP Coordinating Committee approval of the 2017 Broodstock Collection Protocols prior to the April 15, 2017 deadline to the National Marine Fisheries Service (NMFS; Item II-A). *(Note: Ferguson discussed the timeline with Hillman following the meeting on March 28, 2017, who coordinated with the HCP Hatchery Committees to deliver the protocols by approximately April 7, 2017.)*
- Douglas PUD will provide the Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report for review to Kristi Geris for distribution to the HCP Coordinating Committees (Item III-A). *(Note: Tom Kahler provided the draft report for review to Geris following the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*
- Douglas PUD will provide an electronic copy of the 2017 Trapping Activities at Wells Dam Gantt Chart to Kristi Geris for distribution to the HCP Coordinating Committees (Item III-E). *(Note: Tom Kahler provided the chart to Geris following the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*

- Chelan PUD will complete edits to the Revised Draft Rock Island and Rocky Reach Coho Phase Designation Statement of Agreement (SOA), as discussed, and will provide a final SOA to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-A). *(Note: Lance Keller provided the final SOA to Geris on March 29, 2017, which Geris distributed to the HCP Coordinating Committees that same day.)*
- Anchor QEA, LLC, will communicate to Washington Department of Fish and Wildlife (WDFW) what discussions took place during today's HCP Coordinating Committees meeting regarding the Revised Draft Rock Island and Rocky Reach Coho Phase Designation SOA, and will request that WDFW submit a vote via email by close of business Thursday, March 30, 2017 (Item IV-A). *(Note: Kristi Geris coordinated with WDFW, as discussed, and WDFW submitted their approval of the SOA on March 30, 2017.)*
- Anchor QEA will notify the HCP Hatchery Committees that the HCP Coordinating Committees approved the Rock Island and Rocky Reach Coho Phase Designation SOA, so the HCP Hatchery Committees may move forward with hatchery compensation planning (Item IV-A). *(Note: Kristi Geris notified Sarah Montgomery [HCP Hatchery Committees Support Staff] about the approval, as discussed, on March 30, 2017.)*
- Chelan PUD will incorporate gate sequence details into the 2017 Rock Island and Rocky Reach Fish Spill Plan and will provide the final plan to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-B).
- The Yakama Nation (YN) will provide the report, "Translocation of Adult Pacific Lamprey within the Wenatchee Subbasin (2015-2016 Broodstock)," to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-C). *(Note: Bob Rose provided the report to Geris during the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*
- Kristi Geris will add Catherine Willard (Chelan PUD HCP Hatchery Committees Alternate) to the HCP Coordinating Committees email distribution list, as approved by the HCP Coordinating Committees (Item IV-F). *(Note: Geris added Willard to the list on March 29, 2017.)*
- Chelan PUD will provide the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan for vote via email to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-G). *(Note: Lance Keller provided the revised plan to Geris on March 29, 2017, which Geris distributed to the HCP Coordinating Committees on March 30, 2017.)*
- Chelan PUD will address comments received on the Draft 2016 Rock Island and Rocky Reach HCP Annual Reports and will provide the revised reports to Kristi Geris for final production (Item VI-H). *(Note: Lance Keller provided the revised reports to Geris on March 29, 2017.)*
- Chelan PUD will provide the Final 2016 Rocky Reach Juvenile Fish Bypass System Report to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-I).

- **The HCP Coordinating Committees meeting on April 25, 2017, will be held in-person at the Grant PUD office in Wenatchee, Washington (Item V-A).**

## Decision Summary

- The Wells HCP Coordinating Committee representatives present approved the 2017 Wells HCP Action Plan (Item III-C). *(Note: Carmen Andonaegui provided the Washington Department of Fish and Wildlife's [WDFW's] approval of the plan via email prior to the meeting on March 28, 2017.)*
- The Rock Island and Rocky Reach HCP Coordinating Committees representatives present approved the Rock Island and Rocky Reach Coho Phase Designation SOA, as revised (Item IV-A). *(Note: Carmen Andonaegui provided WDFW's approval of the SOA via email on March 30, 2017.)*
- The HCP Coordinating Committees representatives present approved adding Catherine Willard to the HCP Coordinating Committees email distribution list (Item IV-F).
- The Rock Island and Rocky Reach HCP Coordinating Committees representatives approved the 2017 Rock Island and Rocky Reach HCP Action Plan, as revised, via email as follows: Chelan PUD and U.S. Fish and Wildlife Service (USFWS) approved on March 30, 2017; NMFS approved on April 4, 2017; and WDFW, the Colville Confederated Tribes (CCT) and the YN approved on April 5, 2017 (Item IV-G).
- The Wells HCP Coordinating Committee approved the 2017 Broodstock Collection Protocols, as revised, via email as follows: Douglas PUD approved on April 10, 2017; and NMFS, USFWS, WDFW, the CCT, and the YN approved on April 11, 2017.

## Agreements

- The HCP Coordinating Committees representatives present agreed to vote via email on the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan (Item IV-G).
- HCP Coordinating Committees representatives agreed via email to add Alf Haukenes (WDFW Hatchery/Wildlife Interactions Unit leader) to select HCP Hatchery Committees email distribution lists, per a request by Mike Tonseth (WDFW HCP Hatchery Committees Representative), as follows: WDFW, Douglas PUD, NMFS, and USFWS approved on April 17, 2017; Chelan PUD and the YN approved on April 18, 2017; and the CCT approved on April 19, 2017.

## Review Items

- Kristi Geris sent an email to the HCP Coordinating Committees on March 1, 2017, notifying them the Draft Rocky Reach Total Dissolved Gas Alternative Analysis Report is available for

review with edits and comments due to Marcie Clement (Chelan PUD) by Friday, March 31, 2017 (Item IV-D).

- Kristi Geris sent an email to the HCP Coordinating Committees on March 29, 2017, notifying them the Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report is available for a 60-day review period, with edits and comments due to Tom Kahler by Monday, May 29, 2017 (Item III-A).
- Kristi Geris sent an email to the HCP Coordinating Committees on March 30, 2017, notifying them the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan is available for review with votes via email due to Lance Keller (with Geris copied) by Wednesday, April 5, 2017 (Item IV-G). *(Note: votes were submitted, and the plan was approved as described under the Decision Summary.)*
- Kristi Geris sent an email to the HCP Coordinating Committees on April 17, 2017, notifying them a Wells Project Land-use Permit Application (Small Block LLC) was available for a 60-day review period, with edits and comments due to Tom Kahler by Friday, June 16, 2017.
- Kristi Geris sent an email to the HCP Coordinating Committees on April 27, 2017, notifying them a Wells Project Land-use Permit Application (City of Pateros) was available for a 60-day review period, with edits and comments due to Tom Kahler by Monday, June 26, 2017.

## Finalized Documents

- The Final 2017 Wells HCP Action Plan was distributed to the HCP Coordinating Committees by Kristi Geris on March 29, 2017 (Item III-C).
- The Final 2016 Rock Island and Rocky Reach HCP Annual Reports were distributed to the HCP Coordinating Committees by Kristi Geris on April 6, 2017 (Item IV-H).

## 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) Draft Rocky Reach Total Dissolved Gas Alternative Analysis Report; 2) Rocky Reach Juvenile Fish Bypass System (RRJFBS) marked fish release; 3) request to add Catherine Willard to the HCP Coordinating Committees email distribution list; 4) Draft 2017 Rock Island and Rocky Reach HCP Action Plan; 5) Draft 2016 Rock Island and Rocky Reach HCP Annual Reports; and 6) Draft 2016 Rocky Reach Juvenile Fish Bypass System Report.
- Tom Kahler removed the 2017 Broodstock Collection Protocols, and added: 1) Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report; and 2) Twisp Pond update.

## **B. Meeting Minutes Approval (John Ferguson)**

The HCP Coordinating Committees reviewed the revised draft February 28, 2017, meeting minutes. Kristi Geris said she added under the Decision Summary that the Wells HCP Coordinating Committee approved the 2016 Wells HCP Annual Report after no disapprovals were received prior to the 30-day review period deadline. She said she also noted distribution of the Final 2016 Wells HCP Annual Report and Final 2015 Douglas PUD Pikeminnow Program Annual Report under the Finalized Documents. She said all comments and revisions received from members of the Committees were incorporated into the revised minutes. HCP Coordinating Committees members present approved the February 28, 2017, meeting minutes, as revised.

## **C. Last Meeting Action Items (John Ferguson)**

Action items from the HCP Coordinating Committees meeting on February 28, 2017, and follow-up discussions, were as follows. (*Note: italicized text corresponds to agenda items from the meeting on February 28, 2017*):

- *Alene Underwood (Chelan PUD Fish and Wildlife Program Manager) will provide Chelan PUD's comments on the FCRPS NEPA Scoping Process to Kristi Geris for distribution to the HCP Coordinating Committees (Item I-C).*  
This action item will be carried forward.
- *Tom Kahler will provide fish passage count data for winter months at Wells Dam for review regarding timing of winter maintenance at Wells Dam to Kristi Geris for distribution to the HCP Coordinating Committees (Item I-C).*  
This action item will be carried forward.
- *John Ferguson will request from Michelle Rub (National Marine Fisheries Service [NMFS]) an estimation of survival of adult spring/summer Chinook salmon from the Columbia River estuary to Bonneville Dam in 2016 (Item I-C).*  
Rub indicated via email she does not yet have a final estimate for 2016, as distributed to the HCP Coordinating Committees by Kristi Geris on March 13, 2017.
- *Lance Keller will discuss internally proposals regarding the Rock Island and Rocky Reach Coho Salmon Phase Designation and report back to the HCP Coordinating Committees with a recommended path forward that will be discussed during the meeting on March 28, 2017 (Item III-A).*  
This will be discussed during today's meeting.
- *Lance Keller will inquire internally about the basis for the fish spill patterns implemented at Rock Island and Rocky Reach dams, as well as how these patterns are evaluated for efficacy (Item III-C).*  
This will be discussed during today's meeting.

- *Tom Kahler will finalize the 2015 Douglas PUD Pikeminnow Program Annual Report and provide the final report to Kristi Geris for distribution to the HCP Coordinating Committees (Item IV-A).*

Kahler provided the final report to Geris prior to the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees that same day.

## II. HCP Tributary and Hatchery Committees Update

### A. HCP Tributary and Hatchery 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 9, 2017:

- *Methow Valley Irrigation District Instream Flow Improvement Project:* Trout Unlimited submitted a time extension request on the Methow Valley Irrigation District (MVID) Instream Flow Improvement Project, requesting to extend the period of their contracts from March to November 2017. The HCP Tributary Committees approved this request.
- *Entiat Stillwaters Gray Reach Acquisition:* The Chelan-Douglas Land Trust (CDLT) submitted a time extension and amendment request on the Entiat Stillwaters Gray Reach Acquisition Project, requesting to extend the period of the contract and to use part of the remaining balance of this project to help cover expenses associated with lot sales and the purchase of additional properties, which were not part of the original proposal. Because the amendment represented a significant departure in the scope of the original project, the Rocky Reach HCP Tributary Committee denied the amendment and time extension, and indicated if CDLT wants to use funding for additional properties they will need to submit a new proposal. This project will be terminated at the end of March 2017.
- *Similkameen River Mile 3.8 Rehabilitation Project:* The Okanogan Conservation District submitted a budget amendment request on the Similkameen River Mile (RM) 3.8 Rehabilitation Project, requesting an additional \$24,851 to be added to their budget resulting in an increase from \$67,370 to \$92,221. The Rocky Reach HCP Tributary Committee approved the budget amendment.
- *Beaver Fever: Restoring Ecosystem Function Project:* Trout Unlimited submitted a budget amendment request on the Beaver Fever: Restoring Ecosystem Function Project, requesting to shift funds among different budget line items. The Rock Island HCP Tributary Committee approved the budget amendment. The total budget will not change as a result of this amendment.
- *General Salmon Habitat Program Proposal:* Cascade Columbia Fisheries Enhancement Group (CCFEG) submitted a General Salmon Habitat Program Proposal titled, Derby Creek Fish Passage – Collins Project. The purpose of the project is to remove the lowermost fish passage

barrier culvert on Derby Creek, to provide access to spawning and rearing habitat for steelhead. CCFEG requested \$90,000 from HCP Tributary Funds; however, the HCP Tributary Committees were unable to make a funding decision because they need more information on the passability of a possible barrier farther downstream of the barrier proposed for removal. The HCP Tributary Committees requested additional information.

- *Draft HCP Tributary Committees Action Plans:* The Wells, Rock Island, and Rock Reach HCP Tributary Committees reviewed their respective draft action plans for 2017 and approved the tributary sections of their respective draft action plans.
- *Review of Tributary Committees' Policies and Procedures:* The HCP Tributary Committees rearranged certain sections of the Tributary Committees' Policies and Procedures document to highlight the importance of allowing public access on properties acquired with Plan Species Account funds and also to reflect a more logical order. The HCP Tributary Committees are also drafting language to add to the document regarding limiting the amount of time between when a project is approved for funding and when the sponsor signs a contract. Hillman said, for example, one project still has no signed contract 5 years after it was approved for funding.
- *Contributions to Plan Species Accounts:* The PUDs deposited funds into each of the Plan Species Accounts at the end of January 2017. Chelan PUD deposited \$737,452 into the Rock Island Account and \$349,271 into the Rocky Reach Account. Douglas PUD deposited \$267,771 into the Wells Account. As of March 2017, the unallocated balances within each account were \$5,559,653 in the Rock Island Account, \$2,378,263 in the Rocky Reach Account, and \$1,331,318 in the Wells Account. This totals about \$8,269,234 for restoration/protection efforts.
- *Middle Entiat Restoration Project Presentation:* The Bureau of Reclamation (Reclamation) provided a status update on the Middle Entiat Restoration Project to the HCP Tributary Committees and the Priest Rapids Coordinating Committee (PRCC) Habitat Subcommittee. Hillman recalled this is the restoration project in the Middle Entiat Basin the Bonneville Power Administration (BPA) was going to fund, but were unable to reach agreement with CDLT regarding liability. Ultimately, Reclamation will be able to fund much of the project, and the status update included an overview of the scope of the project and the current landowner-project sponsor relationship. Chelan County was able to reach an agreement with CDLT on liability. Chelan County will assume responsibility for projects above the ordinary high-water mark, and Washington Department of Natural Resources will be responsible for projects below the ordinary high-water mark. In terms of funding, Reclamation will fall short by about \$1 to 1.5 million to complete the project. Reclamation asked the HCP Tributary Committees and the PRCC Habitat Subcommittee about their interest in funding specific components of the restoration project. The HCP Tributary Committees will review this request during the HCP

Tributary Committees meeting on April 13, 2017. Jim Craig asked, considering that the liability issue has been resolved, will Reclamation ask BPA to cover the shortfall. Hillman said no, BPA has made it clear they no longer will be involved with this project. John Ferguson asked if there has been any indication why BPA is not willing to come back to the project. Hillman said he is not certain, but it is likely because BPA has reallocated their funds to other projects in the Methow and Wenatchee basins. Craig questioned if this has implications regarding funding of intensively monitored watershed evaluations being conducted in the basin. Hillman said he heard BPA is still considering this, but has not yet made a decision.

- *Next Steps:* The next meeting of the HCP Tributary Committees will be on Thursday, April 13, 2017.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on March 13, 2017:

- *DECISION: Wells HCP 2017 Action Plan:* The Wells HCP Hatchery Committee approved the hatchery section of the Wells HCP 2017 Action Plan.
- *DECISION: Hatchery Monitoring and Evaluation Reporting Schedule:* Douglas PUD presented an SOA memorializing the hatchery monitoring and evaluation (M&E) reporting schedule, as discussed in previous HCP Hatchery Committees meetings. The Wells HCP Hatchery Committee approved the SOA.
- *Methow Fish Hatchery Pond 13:* Douglas PUD noted a high level of bird predation in Pond 13 at the Methow Fish Hatchery (FH) last winter. In summer 2016, about 80,000 spring Chinook salmon were stocked in outdoor Pond 13 at Methow FH. Despite installing wiring and conducting bird hazing efforts, more than 40,000 spring Chinook salmon were removed by mergansers, cormorants, herons, and other avian predators. Douglas PUD speculated this is likely because Pond 13 at Methow FH was the only waterbody that did not freeze over last winter. Fish managers estimated approximately 35,000 spring Chinook salmon remain in the pond. Despite this large loss, there will be no impact on the release goal for the program. Douglas PUD plans to install additional fencing. Craig asked if installing bird netting is not possible because of snow load, and Tom Kahler said he believes that is the reason.
- *DECISION: Hatchery Monitoring and Evaluation Reporting Schedule:* Chelan PUD presented an SOA memorializing the hatchery M&E reporting schedule, as discussed in previous HCP Hatchery Committees meetings. The Rock Island and Rocky Reach HCP Hatchery Committees approved the SOA.
- *DECISION: Draft 2017 Steelhead Release Plan:* Chelan PUD presented the Draft 2017 Steelhead Release Plan. In short, the plan is similar to the 2016 Steelhead Release Plan, and the Rock Island and Rocky Reach HCP Hatchery Committees approved the plan.



- *USFWS Bull Trout Consultation Update:* USFWS is moving forward with finalizing the draft Biological Opinion (BiOp) covering hatchery programs in the Wenatchee basin. Comments are due Friday, March 31, 2017. USFWS will address comments received and plans to complete the BiOp by mid-May 2017. Next, USFWS will work on either the Methow steelhead BiOp or the Columbia River mainstem unlisted programs, pending a decision on a path forward by NMFS.
- *NMFS Consultation Update:* The signed permits for Methow spring Chinook salmon are with the applicants. NMFS is now working on the Methow steelhead consultation, with no known completion date. Kahler said he spoke with Charlene Hurst (NMFS HCP Hatchery Committees Alternate) who indicated she does not believe the permit for Methow steelhead will be ready in 2017.
- *Draft 2017 Broodstock Collection Protocols:* WDFW presented the draft protocols and reviewed the new items. The HCP Hatchery Committees reviewed the protocols and provided comments to WDFW by March 16, 2017. Hillman said he understands Mike Tonseth (WDFW HCP Hatchery Committees Representative) is currently addressing the comments and will revise the protocols or will schedule a conference call to discuss difficult comments, as needed. Hillman said he believes Tonseth will request a vote via email this week or in early April 2017. Bob Rose asked if the technical issues were resolved with fish health, regarding transferring steelhead to Wells FH due to live spawning. Hillman said he will discuss this under the next topic. Ferguson asked how HCP Hatchery Committees and Wells HCP Coordinating Committee approval of the protocols will be coordinated. Hillman said the HCP Hatchery Committees are aware the protocols need to be approved by the HCP Hatchery Committees and then by the Wells HCP Coordinating Committee before submitting to NMFS on April 15, 2017. He said he has not heard from Tonseth, so he hopes this means a conference call will not be needed. Ferguson said he will coordinate with Hillman to obtain HCP Hatchery Committees and Wells HCP Coordinating Committee approval of the 2017 Broodstock Collection Protocols prior to the April 15, 2017 deadline to NMFS. Kahler said Douglas PUD provided Tonseth with extensive comments on the steelhead program, and Kahler believes Douglas PUD and Tonseth will convene a call today. *(Note: Ferguson discussed the timeline with Hillman following the meeting on March 28, 2017, who coordinated with the HCP Hatchery Committees to deliver the protocols by approximately April 7, 2017.)*
- *Brood Year 2017 Twisp River Steelhead:* WDFW discussed two recommended revisions to brood year (BY) 2017 Twisp River Steelhead in the 2017 Broodstock Collection Protocols. First, rather than acclimating and releasing BY 2017 smolts (S1s) at the Twisp Acclimation Pond, WDFW recommended releasing the 48,000 S1s at Buttermilk Bridge, to encourage the juveniles to return farther upstream into the Twisp River, resulting in better distribution. The Wells HCP Hatchery Committee representatives present agreed to this revision. Second,

WDFW proposed collecting BY 2017 steelhead at the Twisp Weir in the spring and then transferring them to Winthrop National Fish Hatchery (NFH) to be spawned as part of the aggregate composite population. The eggs or fry would then be transferred to Wells FH to be reared as S1s. The Wells HCP Hatchery Committee is still considering this request with regard to aspects such as fish health, live-spawning, sampling schemes, tagging, and hatchery space, among other things. Hillman said he believes a vote via email will be requested by the end of March 2017. Kahler said he believes the YN are interested in this because of the kelt reconditioning issue. He explained that the YN had been conducting live spawning of the Twisp portion of Methow basin releases and holding progeny at Methow FH; however, since those fish were live-spawned, organ and tissue samples could not be collected to examine for viruses. Kahler said to deal with this lack of parental screening, the WDFW fish health protocols developed by Bob Rogers (WDFW), required the sampling of progeny of the live-spawned females prior to their transfer from Methow FH to Wells FH, and this protocol differs from that implemented for the Winthrop NFH steelhead program. Kahler said there were some questions about what would become of that WDFW protocol. He said if all adults are transferred to Winthrop NFH for spawning, there were questions about whether the WDFW disease-screening protocol would be implemented prior to transferring the fish to Wells FH, or whether WDFW would accept the USFWS protocol as adequate screening. Regardless, this issue will not affect the kelt program because the females from the programs would be live-spawned in any case; but spawning all the fish at WNFH and following the USFWS screening protocols would simplify everything, including the kelt-reconditioning program. Bob Rose noted that Keely Murdoch (YN HCP Hatchery Committees Alternate) was not expressing concern; rather, this was a technical discussion she brought up that WDFW is working on.

- *Spring Chinook Salmon Outplanting in the Chewuch River:* Recall the HCP Hatchery Committees developed a draft plan for outplanting surplus, passive integrated transponder (PIT)-tagged MetComp fish in the Chewuch River, with the goal of monitoring movement and spawning. Chelan PUD revised the draft plan and following discussions, a few more edits were identified. Chelan PUD will address those comments and will redistribute a second revised draft plan for approval.
- *Brood Year Stray Rate Targets:* The HCP Hatchery Committees continued discussing BY stray rate targets for their programs and requested Hillman write up a suggestion he discussed during the meeting. Hillman explained the idea is to keep stray rate targets for recipient populations and spawning aggregates because those are linked directly with extinction risk. He said a BY stray rate target, on the other hand, is not linked directly to extinction risk and it is not easily justified biologically. He said if the HCP Hatchery Committees agree that a BY stray target is necessary, the HCP Hatchery Committees will need to identify targets for each program, which will be a difficult task. Rose asked what the need is to establish a target, and

asked if stray rates are alarmingly high. Hillman said there is a need to have targets for recipient populations and spawning aggregates because those are biologically justified (i.e., they are linked with extinction risk). In contrast, according to Todd Pearson's (Grant PUD) research, a BY stray rate target is not well founded biologically and no other hatchery program has a BY stray rate target. Hillman said it is important to measure it, because it informs the other stray rate metrics (i.e., recipient stray rate metrics), but assigning a target to BY stray rate may be less important. Hillman added that yes, in some years, BY stray rates are high, but when BY stray rates are high, recipient population or spawning aggregate rates are also high. Thus, there appears to be a correlation between BY stray rates and recipient stray rates, suggesting some redundancy in the metrics. Hillman stated the HCP Hatchery Committees have reviewed Mike Ford's (NMFS)<sup>1</sup> work, and it is clear selecting a unique BY stray rate target for each hatchery program would be difficult. Hillman said he is unsure if everyone agrees there should not be a BY stray rate target; however, there is agreement that BY stray rates need to be measured, because they inform other stray rate metrics that do have targets. He added that the BY stray rate target for Chiwawa spring Chinook salmon has not been met in any year since monitoring began in the early 1990s.

- *Maturation Sampling for Methow and Chiwawa Spring Chinook Salmon 2017 Releases:* The Rock Island HCP Hatchery Committee approved Chelan PUD's request to perform the third year of maturation sampling with USFWS. The plan includes sampling 300 Chiwawa spring Chinook salmon to determine maturation. The Wells HCP Hatchery Committee also approved Douglas PUD's request to sample 300 Methow spring Chinook salmon to determine maturation.
- *Next Steps:* The next meeting of the HCP Hatchery Committees will be on Wednesday, April 19, 2017.

### III. Douglas PUD

#### A. Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report (Tom Kahler)

Tom Kahler said when Douglas PUD received the Final 2015 Douglas PUD Pikeminnow Removal Program Annual Report from the contractor, the Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report was also provided. Kahler said he plans to review the draft 2016 report and will provide the draft report for review to Kristi Geris for distribution to the HCP Coordinating Committees. *(Note: Kahler provided the draft report for review to Geris following the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*

Geris sent an email to the HCP Coordinating Committees on March 29, 2017, notifying them the Draft 2016 Douglas PUD Pikeminnow Removal Program Annual Report is available for a 60-day review period, with edits and comments due to Kahler by Monday, May 29, 2017.

### **B. Twisp Pond Update (Tom Kahler)**

Tom Kahler said, this winter, a massive pile of ice accumulated in front of the Twisp Pond intake. He said crews were finally able to install the traps last Thursday, March 23, 2017, and fish are now in the pond as of yesterday, March 27, 2017. Kirk Truscott asked about the release date for spring Chinook salmon from the Twisp Pond. Kahler said it largely depends on the weather and fish growth. He said it's still quite cold and river flow has not yet increased. He said, in past years, fish were typically released out of the Twisp Pond by mid-April; however, if the weather remains cool and wet, the release date could be delayed a few weeks.

### **C. DECISION: 2017 Wells HCP Action Plan (Tom Kahler)**

Tom Kahler said Kristi Geris sent an email to the HCP Coordinating Committees on February 23, 2017, notifying them the Draft 2017 Wells HCP Action Plan is available for review. John Ferguson noted the HCP Tributary and Hatchery Committees already approved their respective sections, and now the plan is ready for Wells HCP Coordinating Committee approval.

Ferguson asked about the 2020 survival verification study, noting the time gap between defining the study design and conducting the study. Kahler said the timing is based on broodstock collection. He said broodstock needs to be collected in 2018 for the study, and Douglas PUD decided to start designing the study in late 2017 because the 2018 broodstock collection protocols (developed early in 2018) would need to include brood collection for study fish. Ferguson asked if Douglas PUD and Chelan PUD are on the same schedule for a survival verification study, just not the design portion, and Kahler said that is correct.

The Wells HCP Coordinating Committee representatives present approved the 2017 Wells HCP Action Plan. *(Note: Carmen Andonaegui provided WDFW's approval of the plan via email prior to the meeting on March 28, 2017.)*

The Final 2017 Wells HCP Action Plan was distributed to the HCP Coordinating Committees by Geris on March 29, 2017.

### **D. Wells Dam Bypass PIT-detection System (Tom Kahler)**

Tom Kahler said bypass operations are scheduled to start at midnight on April 9, 2017; however, Wells Dam is receiving such high river flow, the bypass barriers have not all been installed. He said according to our bypass operating plan, some of the barriers are pulled once river flow reaches a certain level, and the current river flow is already exceeding that level. John Ferguson asked if these

operations affect the expanded PIT-tag detector system in Bypass Bay 2. Kahler said part of the system is already installed (barriers in slots A and B, antennas in some of the baffles). He said the goal is to have all antennas installed in the baffles by the end of this week and also have the baffles ready to be installed, so they can be trucked onto the dam and ready for installation next week. Ferguson asked if the system will be operational by April 9, 2017. Kahler said it should be operational by April 6, 2017, because they want to ensure everything is functioning properly. He noted the lowest antenna will be installed 70 feet below the water surface. He also noted permission was granted to leave the system installed, so crews do not need to pull the baffles each year.

#### **E. 2017 Trapping Activities at Wells Dam (Tom Kahler)**

Tom Kahler distributed a hard copy of a 2017 Trapping Activities at Wells Dam Gantt Chart, and said he will provide an electronic copy of the chart to Kristi Geris for distribution to the HCP Coordinating Committees. *(Note: Kahler provided the chart to Geris following the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*

Kahler said the YN coho salmon trapping activities at the Wells Dam fish ladders and Methow outfall were incorporated into the chart. He also said Douglas PUD is still waiting to hear from Jeff Fryer (Columbia River Tribal Fish Commission) regarding on which fish ladder Fryer will conduct sockeye salmon trapping activities. Kahler said, per usual, Douglas PUD will convene a trapping coordination meeting in April 2017.

Kirk Truscott said he spoke with Casey Baldwin about broodstock protocols and the potential for a low spring Chinook salmon return this year, and the CCT's ability to trap spring Chinook salmon at the Chief Joseph Dam fish ladder, depending on river flow. Truscott said there may be an option included in the 2017 Broodstock Collection Protocols for the CCT to trap adipose fin (ad)-clipped non-wired spring Chinook salmon at Wells Dam if the return pans out as low as expected. John Ferguson asked if the low forecast came from the Technical Advisory Committee, and Truscott said it came from the Fishery Resource Office. He added there have only been 12 Chinook salmon counted at Bonneville Dam, whereas at this time last year there had been 90 Chinook salmon counted, and the 10-year average is 170 Chinook salmon. He said, if the CCT trapped at Wells Dam, those fish would go toward the segregated program at Chief Joseph Dam, and the CCT would trap within the confines of the trapping schedule.

Ferguson asked if there are any issues with the trap itself. Kahler said Douglas PUD plans to cover the west fish ladder trap upwell holding area, similar to the east fish ladder trap holding area, as originally proposed in 2014. He explained the east fish ladder trap is covered and has grating and padding, but the west fish ladder currently does not. He also noted that there should not be any constraints (like last year) related to the Wells FH Modernization project. Lastly, he said Douglas PUD contractors are fixing the section of the transport pipe from the west fish ladder to the hatchery that

was unintentionally designed such that, if the pipe flow is not turned down at the trap, it discharges water and fish from the pipe exit at such high velocities, the fish could hit the raceway wall opposite the pipe mouth.

## **IV. Chelan PUD**

### **A. DECISION: Rock Island and Rocky Reach Coho Salmon Phase Designation (Lance Keller, Alene Underwood, and Catherine Willard)**

Lance Keller recalled that during the last HCP Coordinating Committees meeting on February 28, 2017, the HCP Coordinating Committees had a lengthy discussion about the proposed Rock Island and Rocky Reach Coho Phase Designation SOA, which was distributed to the HCP Coordinating Committees by Kristi Geris on February 15, 2017. Keller said the discussion ended with an action item for Chelan PUD to discuss internally recommendations provided by the HCP Coordinating Committees regarding the proposed SOA and a path forward. Keller said Chelan PUD also spoke again with the YN. Keller reiterated what Steve Hemstrom touched on last meeting, that John Skalski and Richard Townsend (Columbia Basin Research) initially conducted the analysis using only 2 years of acoustic and PIT-tag data (2010 and 2011) for the Rocky Reach Project. Keller said, during that time, Chelan PUD was concerned the dataset was not using all of the available information and requested that Skalski and Townsend conduct a more robust study. He said the 2010 projected survival was 95.94% and the 2011 projected survival was 94.35%, averaging to 95.15% for the 2-year average. He said, if Chelan PUD accepted those 2 years of data and added 1 additional year to obtain 3 years of data, as stipulated in the HCP, a survival level of only 88.71% would be needed during the third year of study to achieve Phase III (Standards Achieved). Keller said Chelan PUD chose not to accept those numbers because of the interest in a more robust dataset. Keller also noted the adult component contained in the 2010 yearling Chinook SOA, and said he told Bob Rose Chelan PUD would review adult data for the Rocky Reach Project. Keller said there was variability in those data, noting that from 2010 to 2016, estimated adult survival for coho salmon ranged from 86.6% to 100.0%; however, the total average was still 94.58%. Keller also discussed data from 2014, noting all of these data contribute to a positive story about coho salmon. Keller recalled the SOA, "HCP Phase III Standards Achieved Designation for Steelhead at Rock Island with two years of survival testing at a 10% spill level," which was approved by the Rock Island HCP Coordinating Committee on November 16, 2010, was based on less than 3 years of valid survival data (2 years). He said this is one example from the past where the HCP Coordinating Committees were satisfied with making a decision based on the available data. He and John Ferguson also noted the SOA, "Phase III Standards Achieved for 91% Combined Adult and Juvenile Spring Chinook Survival at the Rocky Reach Project," which was approved by the Rocky Reach HCP Coordinating Committee on August 30, 2011. Keller and Ferguson said aspects of this SOA are also similar to the currently proposed SOA for coho salmon, and in the 2011 SOA, the HCP Coordinating Committees accepted juvenile survival levels that were less than the

93% standard (92.37%) and comprised of four years of juvenile survival studies. Therefore, Ferguson said the concern that incorporating a level of estimated survival in the current coho phase designation SOA for Rocky Reach (92.94%) that is slightly less than the 93% standard would establish an unwanted precedent does not seem to be an issue. He did note, however, the 2011 SOA was based on the combined survival of juvenile and adult spring Chinook salmon, whereas the current SOA is based just on juvenile survival data.

Rose said, in general, the YN are comfortable with Chelan PUD's currently proposed SOA. Rose thanked Chelan PUD and the HCP Coordinating Committees for taking the time to thoroughly vet this decision. He said he agrees there is a high level of confidence that the number is sufficient to meet or exceed the standard. He said, however, the YN are still interested in paying attention to and tracking precedence. He said he does not want the HCP Coordinating Committees to begin accepting lower and lower standards. He said the YN are not so concerned about one or two SOAs; rather, he was only making points. He said, while discussing this with Keely Murdoch, she made an interesting comment, which Rose said he agrees with. Rose said Murdoch noted that when the coho salmon program is set up for the next several years, the program will be successful and will contribute many more fish than the 0.06% under discussion. Ferguson said the HCP Coordinating Committees appreciate Rose's comments, which encouraged everyone to review past decisions and governing documents.

Ferguson asked about edits to the SOA before voting. Geris noted that Carmen Andonaegui requested via email to postpone WDFW's vote until Jeff Korth is available on Thursday, March 30, 2017. Ferguson suggested voting with representatives present, and following up with WDFW afterwards. Keller clarified it was not Chelan PUD's intention when drafting one SOA for both projects to imply that survival values through the Rock Island and Rocky Reach projects can be combined or averaged. Rose said he believes his comments will be adequately captured in the meeting minutes, and no revisions to the SOA are needed for the YN. Kirk Truscott requested that the SOA be updated to be consistent with past nomenclature (e.g., "yearling spring Chinook" versus "yearling Chinook," etc.). Jim Craig requested that "Projects" be added to the title of the SOA.

The Rock Island and Rocky Reach HCP Coordinating Committees representatives present approved the Rock Island and Rocky Reach Coho Phase Designation SOA, as revised.

Keller said Chelan PUD will complete edits to the Revised Draft Rock Island and Rocky Reach Coho Phase Designation SOA, as discussed, and will provide a final SOA to Geris for distribution to the HCP Coordinating Committees. *(Note: Keller provided the final SOA to Geris on March 29, 2017, which Geris distributed to the HCP Coordinating Committees that same day.)*

Anchor QEA will communicate to WDFW what discussions took place during today's HCP Coordinating Committees meeting regarding the Revised Draft Rock Island and Rocky Reach Coho Phase Designation SOA, and will request that WDFW submit a vote via email by close of business Thursday, March 30, 2017. *(Note: Geris coordinated with WDFW, as discussed, and WDFW submitted approval of the SOA on March 30, 2017.)*

Anchor QEA will notify the HCP Hatchery Committees that the HCP Coordinating Committees approved the Rock Island and Rocky Reach Coho Phase Designation SOA, so the HCP Hatchery Committees may move forward with hatchery compensation planning. *(Note: Geris notified Sarah Montgomery about the approval, as discussed, on March 30, 2017.)*

## **B. Draft 2017 Rock Island and Rocky Reach Fish Spill Plan (Lance Keller)**

Lance Keller said Kristi Geris sent an email to the HCP Coordinating Committees on February 22, 2017, notifying them the Draft 2017 Rock Island and Rocky Reach Fish Spill Plan is available for a 30-day review with edits and comments due to Keller by Friday, March 24, 2017. Keller said no edits were requested by the HCP Coordinating Committees on the draft plan. He recalled a question from Bob Rose about the shape of the daily spill (the gate opening pattern across the spillway). Keller said, during the early years of operation, hydroacoustic data provided some guidance, and acoustic tag survival data were also used to provide shape for spring and summer spill at Rocky Reach Dam and summer spill at Rock Island Dam. Keller also noted spill shape at both projects is the same as when the HCP survival studies were conducted.

Keller said Thad Mosey (Chelan PUD Fish Biologist and Spill Coordinator) obtains river flow estimates from Chief Joseph Dam, and based on those estimates plus tributary flows, Mosey distributes a memorandum to spill operators outlining spill shape 2 days in advance. Keller said Mosey can also monitor all spill programs in real-time, so if inaccuracies due to inaccurate flow estimates occur he can make a real-time adjustment.

Jim Craig asked if a general shape is targeted or is the shape adjusted, as needed. Keller said generally, a particular shape is targeted. Bob Rose said the YN are interested in understanding that the current spill shape is achieving what it is meant to do, as outlined in the spill plan. Kirk Truscott asked about the proposed spill pattern or gate sequence, throughout the 2017 season, along with outages. Keller explained that unit outages reduce turbine capacity resulting in more spill. He said there is a preferred spill gate sequence at Rock Island and Rocky Reach dam to provide a crown shape and also a preference for over-under gates. Truscott suggested including this type of information in the spill plan. Keller said Chelan PUD will incorporate gate sequence details into the 2017 Rock Island and Rocky Reach Fish Spill Plan and will provide the final plan to Geris for distribution to the HCP Coordinating Committees.



John Ferguson said this discussion reminded him of the total dissolved gas (TDG) discussion, and asked how much information the HCP Coordinating Committees want to hear regarding TDG issues. Keller said TDG falls under Chelan PUD's Clean Water Act Section 401 Water Quality Certification, which is the purview of the fish forum. He said TDG will be an issue this year and added it really already is an issue. Truscott asked if the Fish Passage Center provides weekly reports on TDG, and Keller said it does. The HCP Coordinating Committees agreed that routine updates from Keller on TDG were not needed because members can look up TDG data on the Fish Passage Center website at any time. Keller added that Chelan PUD will conduct gas bubble trauma monitoring in 2017 at the Rock Island Juvenile Bypass Trap, per the Fish Passage Center Smolt Monitoring Program.

### **C. Tumwater Dam Pacific Lamprey Update (Lance Keller)**

Lance Keller said USFWS requested to receive a progress update from Chelan PUD on the Tumwater Dam Pacific Lamprey Passage Feasibility Study, which includes the anticipated schedule for completion and a brief synopsis regarding the type of information the final report will contain. Keller recalled that Pacific lamprey discussions are germane to the HCP Coordinating Committees when Pacific lamprey activities have the potential to affect passage of HCP Plan species. He said Pacific lamprey discussions are germane to the HCP Hatchery Committees when Pacific lamprey activities affect brood collection of Plan species. He said Chelan PUD voluntarily drafted a feasibility report. He said the Rocky Reach Fish Forum (RRFF) discusses Pacific lamprey monthly, and the goal of the feasibility study was to determine what would be feasible from an engineering standpoint, should action to address Pacific lamprey passage be implemented at Tumwater Dam.

Jim Craig asked if efforts will focus on the fishway itself. Keller said several alternatives are being considered and noted the current status of the report is "draft for internal review." Keller said Chelan PUD will distribute the draft report for review to the RRFF following internal review. Craig said USFWS understands these discussions will occur in the RRFF; however, he requested periodic updates in the HCP Coordinating Committees. He added that his office is involved with designing lamprey passage structures. Keller said he believes R.D. Nelle (USFWS) has shared those designs in the RRFF. Bob Rose said the YN recently completed a Pacific lamprey study at Tumwater Dam, which is summarized in a report. He said he will provide the report, "Translocation of Adult Pacific Lamprey within the Wenatchee Subbasin (2015-2016 Broodstock)," to Kristi Geris for distribution to the HCP Coordinating Committees. *(Note: Rose provided the report to Geris during the meeting on March 28, 2017, which Geris distributed to the HCP Coordinating Committees on March 29, 2017.)*

### **D. Draft Rocky Reach Total Dissolved Gas Alternative Analysis Report (Lance Keller)**

Lance Keller said Kristi Geris sent an email to the HCP Coordinating Committees on March 1, 2017, notifying them the Draft Rocky Reach Total Dissolved Gas Alternative Analysis Report is available for review, with edits and comments due to Marcie Clement by April 1, 2017. Keller clarified that edits

and comments are due to Clement by Friday, March 31, 2017. Keller said this report is step two of a 401 Water Quality Certification requirement. He recalled step one was the Five-Year Compliance Report, which the Rocky Reach HCP Coordinating Committee approved on January 27, 2015. He said these reports serve as consultation with the RRFF and HCP Coordinating Committees to determine if any additional reasonable and feasible measures may exist to meet the TDG standards, as required by the certification.

Jim Craig asked how to address incoming water that is already in exceedance. Alene Underwood explained Chelan PUD is not held responsible for TDG levels in incoming water; however, the project cannot add TDG to any existing exceedances. Tom Kahler said this is difficult, because while running the bypass at Wells Dam, it is almost impossible to not add to TDG.

#### **E. Rocky Reach Juvenile Fish Bypass System Marked Fish Release (Lance Keller)**

Lance Keller said a preseason test of marked fish release was conducted at the RRJFBS to ensure the system is operating correctly ahead of the April 1, 2017, startup at midnight. He said, on Thursday, March 23, 2017, a total of 189 marked fish were released in the bypass channel. He said all fish were collected free of any descaling injury or mortal wounds. He said the intake diversion screens were also tested in Powerhouse Turbine Units C1 and C2. He said 100 fish were flushed through each unit (200 total), of which 198 were recaptured (typically 185 to 195 are recaptured). None of the recapture fish showed any signs of injury, and there were no mortalities.

Keller said, with the cold winter, the lower end of the bypass conduit filled with ice, and crews had to introduce water into the system to remove the ice. He said another full inspection was completed after the ice was removed and the results were good. He said the sampling screen also froze in the down position, and crews had to thaw the screen and then remove it. Jim Craig asked if the screen will be removed before the winter season in future years, and Keller said the screen was only there due to maintenance activities, so this should not be an issue in future years.

#### **F. Request to Add Catherine Willard to the HCP Coordinating Committees Email Distribution List (Lance Keller)**

Lance Keller requested that Catherine Willard (Chelan PUD HCP Hatchery Committees Alternate and future Representative) be added to the HCP Coordinating Committees email distribution list, mainly to track HCP Coordinating Committees meeting minutes and discussions pertaining to the HCP Hatchery Committees. The HCP Coordinating Committees representatives present approved adding Willard to the HCP Coordinating Committees email distribution list. Kristi Geris will add Willard to the HCP Coordinating Committees email distribution list, as approved by the HCP Coordinating Committees. *(Note: Geris added Willard to the list on March 29, 2017.)*

### **G. Draft 2017 Rock Island and Rocky Reach HCP Action Plan (Lance Keller)**

Lance Keller said Kristi Geris sent an email to the HCP Coordinating Committees on January 23, 2017, notifying them the Draft 2017 Rock Island and Rocky Reach HCP Action Plan was available for a 30-day review with edits and comments due to Keller by Wednesday, February 22, 2017. A Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan was distributed for review on January 24, 2017. USFWS provided comments on the revised draft plan on March 9, 2017.

The HCP Coordinating Committees representatives present agreed to vote via email on the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan. Chelan PUD will resend the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan for vote via email to Geris for distribution to the HCP Coordinating Committees. *(Note: Keller provided the revised plan to Geris on March 29, 2017.)*

Geris sent an email to the HCP Coordinating Committees on March 30, 2017, notifying them the Revised Draft 2017 Rock Island and Rocky Reach HCP Action Plan is available for review, with votes via email due to Keller (and copy Geris) by Wednesday, April 5, 2017. The Rock Island and Rocky Reach HCP HCP Coordinating Committees representatives approved the 2017 Rock Island and Rocky Reach HCP Action Plan, as revised, via email as follows: Chelan PUD and USFWS approved on March 30, 2017; NMFS approved on April 4, 2017; and WDFW, the CCT, and the YN approved on April 5, 2017.

### **H. Draft 2016 Rock Island and Rocky Reach HCP Annual Reports (Lance Keller)**

Lance Keller said Kristi Geris sent an email to the HCP Coordinating Committees on February 16, 2017, notifying them the Draft 2016 Rock Island and Rocky Reach HCP Annual Reports are available for a 30-day review with edits and comments due to Geris by Monday, March 20, 2017. Keller said Chelan PUD received a comment from USFWS about noting certain Pacific lamprey discussions were taking place in the RRF. Chelan PUD will address comments received on the Draft 2016 Rock Island and Rocky Reach HCP Annual Reports and will provide the revised reports to Geris for final production. *(Note: Keller provided the revised reports to Geris on March 29, 2017.)*

The Final 2016 Rock Island and Rocky Reach HCP Annual Reports were distributed to the HCP Coordinating Committees by Geris on April 6, 2017.

### **I. Draft 2016 Rocky Reach Juvenile Fish Bypass System Report (Lance Keller)**

Lance Keller said Kristi Geris sent an email to the HCP Coordinating Committees on February 17, 2017, notifying them the Draft 2016 RRJFBS Report is available for a 30-day review, with edits and comments due to Keller by Monday, March 20, 2017.

Chelan PUD will provide the Final 2016 Rocky Reach Juvenile Fish Bypass System Report to Geris for distribution to the HCP Coordinating Committees.

## **V. HCP Administration**

### **A. Next Meetings**

The next scheduled HCP Coordinating Committees meeting is on April 25, 2017, to be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.

The May 23 and June 27, 2017, meetings will be held by conference call or in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington, as is yet to be determined.

## **VI. List of Attachments**

Attachment A List of Attendees

**Attachment A**  
**List of Attendees**

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<b>Name</b>	<b>Organization</b>
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman <sup>1†</sup>	BioAnalysts
Lance Keller*	Chelan PUD
Alene Underwood <sup>2†</sup>	Chelan PUD
Catherine Willard <sup>2</sup>	Chelan PUD
Tom Kahler*	Douglas PUD
Scott Carlon*	National Marine Fisheries Service
Jim Craig*	U.S. Fish and Wildlife Service
Kirk Truscott*	Colville Confederated Tribes
Bob Rose*†	Yakama Nation

Notes:

\* Denotes HCP Coordinating Committees member or alternate

† Joined by phone

<sup>1</sup> Joined for the HCP Tributary and Hatchery Committees Update

<sup>2</sup> Joined for select Chelan PUD items