

Memorandum

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

Date: June 27, 2017

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris

Re: Final Minutes of the May 23, 2017, 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 May 23, 2017, from 9:00 to 10:00 a.m. Attendees are listed in Attachment A to these conference call minutes.

Action Item Summary

- Tom Kahler will provide fish passage count data for winter months at Wells Dam for review regarding the timing of winter maintenance outages at Wells Dam to Kristi Geris for distribution to the Coordinating Committees (Item I-C).
- 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 Coordinating Committees (Item I-C). (*Note: Lance Keller provided the final plan to Geris on June 26, 2017, which Geris distributed to the HCP Coordinating Committees that same day.*)
- Chelan PUD will provide the Final 2016 Rocky Reach Juvenile Fish Bypass System Report to Kristi Geris for distribution to the Coordinating Committees (Item I-C).
- Anchor QEA, LLC, will contact Mackenzie Gavery (Postdoctoral Research Associate, University of Washington/National Oceanic and Atmospheric Administration [NOAA] Northwest Fisheries Science Center) regarding possibly presenting her epigenetics research to the HCP Coordinating Committees during a future meeting (Item II-A).
- Lance Keller will inquire internally about the cause of losing the use of automated spill gates 7, 17, and 25 at Rock Island Dam, as well as the timeline for repairing the gates, and will report back to the HCP Coordinating Committees (Item IV-A).
- Bob Rose will coordinate internally to develop and provide a Yakama Nation (YN) HCP Representation Designation document for distribution to the HCP Coordinating Committees (Item V-A).
- Kristi Geris will add Keely Murdoch, the new YN HCP Coordinating Committees Representative, to the HCP Coordinating Committees email distribution lists and request access to the extranet site from Julene McGregor (Douglas PUD Information Systems Staff; Item V-A). (*Note: Geris added Murdoch to the email lists and requested access to the extranet site following the meeting on May 23, 2017.*)

- The HCP Coordinating Committees meeting on June 27, 2017, will be held **in-person** at the Grant PUD office in Wenatchee, Washington (Item VI-B).

Decision Summary

- The Wells HCP Coordinating Committee representatives present approved the Columbia River Inter-Tribal Fish Commission's (CRITFC's) annual request to tag sockeye salmon at Wells Dam in 2017 (Item III-A). *(Note: Kirk Truscott provided the Colville Confederated Tribes' [CCT's] approval of the request via phone call prior to the meeting on May 23, 2017.)*

Agreements

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

Review Items

- 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 was available for a 60-day review period, with edits and comments due to Tom Kahler by Monday, May 29, 2017.
- 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 Rocky Reach Total Dissolved Gas Alternative Analysis Report was finalized following a 30-day HCP Coordinating Committees review, and was distributed to the HCP Coordinating Committees by Kristi Geris on May 23, 2017.
- The Final 2017 Rock Island and Rocky Reach Fish Spill Plan was distributed to the HCP Coordinating Committees by Kristi Geris on June 26, 2017.

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the HCP Coordinating Committees and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. Lance Keller added an update on the spill gate change at Rock Island Dam.

B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft March 28, 2017, meeting minutes. Kristi Geris said there is one outstanding edit to discuss under Chelan PUD's discussion on the Draft Rocky Reach Total Dissolved Gas Alternative Analysis Report. Lance Keller edited a statement made by Tom Kahler about the bypass at Wells Dam, and Keller requested that Kahler approve the edit. Kahler approved the edit.

Geris said all other comments and revisions received from members of the Committees were incorporated into the revised minutes. HCP Coordinating Committees members present approved the March 28, 2017, meeting minutes, as revised. *(Note: Kirk Truscott provided the CCT's approval of the minutes via phone call prior to the meeting on May 23, 2017.)*

C. Last Meeting Action Items (John Ferguson)

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

- *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).*

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).*

This action item will be carried forward.

- *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).*

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).*

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).*

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).*

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).*
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).*

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).*

This action item will be carried forward.

- *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).*

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).*

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).*

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).*

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).*

Lance Keller said Chelan PUD is still addressing a few comments on this report. This action item will be carried forward.

II. HCP Tributary and Hatchery Committees Update

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

Tracy Hillman said the HCP Tributary Committees did not officially meet in May 2017; rather, the Committees attended project tours on May 10, 2017, in the Wenatchee River basin; on May 11, 2017, in the Entiat River basin; and on May 18, 2017, in the Methow River basin. This year, the HCP Tributary Committees received nine General Salmon Habitat Program proposals. All projects are cost shares. Total funds requested from the HCP Tributary Committees Plan Species Accounts equal about \$612,000. The HCP Tributary Committees will attend presentations in June 2017, and during the regular monthly meeting on June 8, 2017, the Committees will evaluate the proposals and decide which projects should be submitted as final proposals. John Ferguson asked about the overall quality of the proposals this year. Hillman said there are some good ones and also a couple the HCP Tributary Committees may not recommend for submitting a final proposal. He said, for example, reviewers liked a project that will improve instream flow in the lower Icicle Creek (titled, "Cascade Orchards Flow Restoration in Icicle Creek"), which will produce an important contribution to flow in the creek during late summer and early-fall (about 7 to 8 cubic feet per second). Other projects involve restoration work where the HCP Tributary Committees may recommend a slightly different approach. The next meeting of the HCP Tributary Committees will be on Thursday, June 8, 2017.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on May 17, 2017:

- *PRESENTATION: Epigenetics:* Mackenzie Gavery shared a presentation titled, "Epigenetics: what is it and why is it relevant to hatchery practices?" The presentation included an overview of epigenetics, discussion of a specific epigenetic marks called deoxyribonucleic acid (DNA) methylation, and a presentation of results for the Methow River steelhead DNA methylation study. Epigenetics refers to heritable changes in trait or phenotype caused by a mechanism other than mutation to the DNA sequence. The epigenome of an organism can be affected by the environment, especially during early development, and even after the environmental signal is removed. In Gavery's research, she asked whether there are discernable epigenetic differences between hatchery- and natural-origin steelhead at Winthrop National Fish Hatchery. In 2014, blood and sperm samples were extracted from returning hatchery- and natural-origin adult steelhead, and a DNA methylation analysis was performed to evaluate somatic and germline cells (which are passed on to the next generation). The results showed steelhead have a heavily methylated genome compared to other species. Comparisons of differentially methylated regions between blood and sperm cells show sperm carry important epigenetic information regarding which genes are going to be turned on in the early embryo. Results also showed there are differences in DNA methylation between hatchery- and natural-origin steelhead in both somatic and germline-derived cell types. Epigenetics may play a role in the observed fitness loss of steelhead after a single generation of rearing. Epigenetics can help organisms retain and pass on information about their environment and the study of the epigenome is an emerging tool to help understand how the environment affects phenotype in hatchery fish. Gavery has a second study underway where offspring from natural-origin Methow steelhead families are divided into two groups and reared in a hatchery tank and an artificial stream. Hillman said Gavery provided an excellent presentation, recommended the HCP Coordinating Committees inquire about having Gavery present at a future meeting, and thanked USFWS for recommending Gavery to present to the HCP Hatchery Committees. Anchor QEA will contact Gavery regarding possibly presenting her epigenetics research to the HCP Coordinating Committees during a future meeting.
- *USFWS Bull Trout Consultation Update:* USFWS is currently revising the draft Biological Opinion (BiOp) for the Wenatchee subbasin programs and expects it will be finalized in mid-June 2017.
- *NMFS Consultation Update:* NMFS is working on consultation for the unlisted programs in the upper Columbia River. The proposed actions will likely be finished in June 2017. NMFS is also working on the Methow steelhead consultation. A consultation update meeting is scheduled for June 1, 2017.

- *Wells Fish Hatchery Power/Water Outage:* WDFW and Douglas PUD provided a recap and update about a power and water outage experienced at Wells Fish Hatchery. The power and water outage occurred on May 2, 2017, and water was restored overnight. Approximately 20,000 to 25,000 steelhead fry of unknown origin were lost. WDFW indicated the loss will not affect the overall production obligation for the program.
- *Wells Dam West Fish Ladder Trapping Contingencies:* Currently, WDFW is manually trapping spring Chinook salmon at the Wells Dam west fish ladder because the pipe that is used to transfer fish to the pond is under construction, which includes increasing the diameter of the pipe to 30 inches and installing a dewatering screen. Improvements are expected to be completed soon.
- *Review Hatchery Monitoring and Evaluation Plan Objectives:* The HCP Hatchery Committees are reviewing the objectives in the Hatchery Monitoring and Evaluation (M&E) Plan to verify they are consistent with the hatchery M&E timeline. The HCP Hatchery Committees have completed their review of the first few objectives with only a few changes. The review should be completed by June or July 2017.
- *Methow Steelhead Gene Flow Plan:* The HCP Hatchery Committees discussed the proportion of hatchery-origin spawners (pHOS) target for inclusion in the Methow steelhead BiOp. NMFS proposed achieving a pHOS of 0.3 for most run sizes. However, in 2013, there was also an agreement that pHOS should be closer to 0.5. The HCP Hatchery Committees are discussing how to identify a target and how to achieve it. The Committees are further discussing a phased approach, which was also discussed in 2013. These discussions are expected to continue.
- *Coho Salmon Recalculation:* The YN and Chelan PUD are coordinating on this and provided a presentation to the HCP Hatchery Committees. The goal is to use the same recalculation methods for coho salmon as were used for other species. The YN and Chelan PUD will include the final mitigation numbers in a SOA for review and approval in June 2017.
- *Update from the Upper Columbia Regional Technical Team:* The Independent Scientific Advisory Board (ISAB) is working with the Upper Columbia Salmon Recovery Board to review upper Columbia River spring Chinook salmon recovery analyses and strategies. ISAB is visiting the upper Columbia River on July 20 and 21, 2017, for presentations and site visits. Further updates will be available in June 2017. Ferguson asked about the ISAB review scope. Hillman said at this point, it is only for spring Chinook salmon, but may eventually change to steelhead.
- *Next Steps:* The next meeting of the HCP Hatchery Committees will be on Wednesday, June 21, 2017.

III. Douglas PUD

A. DECISION: CRITFC Annual Request for Sockeye Tagging at Wells Dam (Tom Kahler)

Tom Kahler said CRITFC's annual request to tag sockeye salmon at Wells Dam in 2017 (Attachment B) was distributed to the HCP Coordinating Committees by Kristi Geris on April 17, 2017. Kahler recalled this is the same request received from Jeff Fryer (CRITFC) each year.

John Ferguson said Kirk Truscott provided the CCT's approval of the request via phone call prior to the meeting on May 23, 2017, as long as the request is the same as last year's. Kahler said the only difference in this year's request from last year, is this year's letter specifies fin clips for genetic samples, which also occurred last year but was not included in the request letter. Kahler also noted that traditionally, CRITFC received assistance from the CCT and the YN; however, this year only the YN will provide assistance.

The Wells HCP Coordinating Committee representatives present approved CRITFC's annual request to tag sockeye salmon at Wells Dam in 2017. *(Note: Truscott provided the CCT's approval of the request via phone call prior to the meeting on May 23, 2017.)*

B. Trapping at Wells Dam (Tom Kahler)

Tom Kahler recalled discussing with the HCP Coordinating Committees during past meetings about the transport pipe from the west fish ladder trap to the Adult Handling Facility, where engineers had not included a dewatering section in the new pipe. Kahler said those repairs have been underway and the change order specified the repairs would be complete by mid-April 2017. He said, however, the sweep for the 30-inch pipe (the pipe turns approximately 30 degrees) needed to be custom fabricated and the manufacturer took longer than planned. He said once received, contractors discovered that the opening in the vault where the sweep is to be installed is 6 inches higher than necessary. He said a new hole was cut and the pipe flange grouted in place, to which the sweep was connected, and the whole pipe is being embedded in concrete which should be completed by today or tomorrow. He said the west ladder fish trap may be operational as early as tomorrow, depending on how long it takes for the concrete to cure. He said in the meantime, WDFW is proposing real-time trapping, where fish are conveyed from the trap chute across the ladder pool into a tote for processing. He recalled trapping for spring Chinook salmon may occur at the west fish ladder between May 1 and June 20, under a maximum 5 days per week (but no more than 3 consecutive days) at 16 hours per day.

Kahler said spring Chinook salmon numbers passing Wells Dam have been in the single digits until last Sunday, May 21, 2017, when there were 31 fish counted passing the dam. He said he expects numbers to increase moving forward.

IV. Chelan PUD

A. Spill Gate Change at Rock Island Dam (Lance Keller)

Lance Keller said a notification of spill gate changes at Rock Island Dam was distributed to the HCP Coordinating Committees by Kristi Geris on May 19, 2017. Keller said on May 18, 2017, Chelan PUD received notification that Rock Island Dam lost capability of operating one of the automated spill gates (spill gate 7). He said now, a total of three spill gates are out of service (spill gates 7, 17, and 25). Keller said it is his understanding there is no capability to manually raise an automated spill gate and hold it in an open position. He said there are 31 spill gates at Rock Island Dam, 11 of which are automated and 20 are operated manually. He said if a large spring runoff event suddenly occurs, it is expected that the functioning automated and manual gates can be opened. He said with the manual gates, staff need to remove gate sections and store the sections on either side of the dam. He said while staff are opening the manual gates, the spill capacity provided through the automated gates must be relied upon.

Keller said with having three automated gates out of operation and recently experiencing the highest river flow at Rocky Reach and Rock Island dams on record, Rock Island Dam engineers requested to convert two notch gates back to full gate operation. He said Thad Mosey (Chelan PUD Fish Biologist and Spill Coordinator) and Steve Hemstrom discussed which notch gates to convert back to full gate operation with regard to juvenile and adult fish passage and total dissolved gas (TDG) levels. Keller said Chelan PUD decided to convert notched spill gates 18 and 24 for the following reasons: 1) conversion of these gates to full gate operation is not expected to have negative impacts to juvenile fish passage; 2) gates 18 and 24 are located away from the left powerhouse entrance of the right bank adult fish ladder and should have no impact on adult fish passage; and 3) both of these gates are shallow spill gates so additional TDG from the gate conversions should be negligible. Keller said this is a temporary conversion until river flow subsides or until the automated spill gates return to service.

Bob Rose asked about tailwater egress (e.g., eddies). Keller said Rock Island Dam staff are conducting visual observations every other day and, to date, everything looks good (flow appears to be linear).

Scott Carlon asked about the cause of the failed automated spill gates, and John Ferguson asked about the timeline for fixing the failed gates. Keller said he is unsure but will inquire internally about the cause of losing the use of automated spill gates 7, 17, and 25 at Rock Island Dam, as well as the timeline for repairing the gates, and will report back to the HCP Coordinating Committees.

V. Yakama Nation

A. Yakama Nation HCP Representation Update (Bob Rose)

Bob Rose said Keely Murdoch will transition into the YN HCP Coordinating Committees Representative and Rose will become the YN HCP Coordinating Committees Alternate. Rose said Murdoch is familiar with the HCPs and has participated on the HCP Hatchery Committees for years. Rose will coordinate internally to develop and provide a YN HCP Representation Designation document for distribution to the HCP Coordinating Committees.

John Ferguson asked what to expect with the transition. Rose said he is unable to attend the HCP Coordinating Committees meeting on June 27, 2017; however, he hopes to have the designation document distributed by then. He said he anticipates participating in the July 2017 meeting, with the transition occurring by the August or September 2017 meetings.

Murdoch noted that she also cannot attend the HCP Coordinating Committees meeting on June 27, 2017. Rose said the purpose of today's discussion is to notify the HCP Coordinating Committees of the change and understand that Murdoch will now be added to the email distribution list and extranet site. Kristi Geris said she will add Murdoch to the HCP Coordinating Committees email distribution lists and request access to the extranet site from Julene McGregor. *(Note: Geris added Murdoch to the email lists and requested access to the extranet site following the meeting on May 23, 2017.)*

VI. HCP Administration

A. Chelan PUD HCP Representation Update (Kristi Geris)

Kristi Geris said a Chelan PUD HCP Representation Designation document (Attachment C) was distributed to the HCP Coordinating Committees by Kristi Geris on April 13, 2017. Geris said key changes included designating: Alene Underwood (Chelan PUD Fish and Wildlife Manager) as the new Chelan PUD HCP Policy Committees Representative; Jeff Smith (Chelan PUD Managing Director – District Services) as the new Chelan PUD HCP Policy Committees Alternate; and Catherine Willard (Chelan PUD Senior Fisheries Biologist) as the new Chelan PUD HCP Hatchery Committees Representative.

B. Next Meetings

The next scheduled HCP Coordinating Committees meeting is on June 27, 2017, to be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.

The July 25 and August 22, 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.

VII. List of Attachments

Attachment A List of Attendees

Attachment B CRITFC's annual request to tag sockeye salmon at Wells Dam in 2017

Attachment C Chelan PUD HCP Representation Designation document

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman ¹	BioAnalysts
Lance Keller*	Chelan PUD
Tom Kahler*	Douglas PUD
Scott Carlon*	National Marine Fisheries Service
Jim Craig*	U.S. Fish and Wildlife Service
Bob Rose*	Yakama Nation
Keely Murdoch*	Yakama Nation

Notes:

* Denotes HCP Coordinating Committees member or alternate

¹ Joined for the HCP Tributary and Hatchery Committees Update