

Memorandum

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

Date: January 25, 2018

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris

Re: Final Minutes of the December 12, 2017 HCP Coordinating Committees Meeting

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 December 12, 2017, from 10:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

- Kristi Geris will coordinate with Tracy Hillman and will notify the HCP Coordinating Committees of the date the HCP Hatchery Committees plan to tour the new Wells Fish Hatchery (tentatively scheduled for spring 2018; Item II-C).
- Chelan PUD will provide the Final 2017 Rock Island and Rocky Reach Fish Spill Program Report to Kristi Geris for distribution to the HCP Coordinating Committees (Item II-C). *(Note: Lance Keller provided the final report to Geris following the HCP Coordinating Committees meeting on December 12, 2017, which Geris distributed to the HCP Coordinating Committees on December 13, 2017.)*
- The Rock Island HCP Coordinating Committee will submit edits, comments, or indication of no comments on the Application for Non-Capacity Amendment for Coyote Dunes, to Jeff Osborn (Chelan PUD) and Lance Keller (and copy Kristi Geris) no later than December 15, 2017 (Item III-B). *(Note: all Rock Island HCP Coordinating Committee representatives responded to Chelan PUD by December 14, 2017.)*
- Kristi Geris will resend the email detailing the Application for Non-Capacity Amendment for Coyote Dunes for review, to the Rock Island HCP Coordinating Committee (Item III-B). *(Note: this email was re-distributed to the HCP Coordinating Committees by Geris on December 13, 2017.)*
- Lance Keller will verify internally that Chelan PUD has addressed cultural resource impacts, if any, associated with the Application for Non-Capacity Amendment for Coyote Dunes (Item III-B). *(Note: Keller verified that Chelan PUD has initiated the appropriate actions regarding addressing potential cultural resource impacts associated with this amendment, as explained in an email distributed to the HCP Coordinating Committees by Keller following the meeting on December 12, 2017, and by Kristi Geris on December 13, 2017.)*

- Douglas PUD will further review run-timing data for wild and hatchery yearling Chinook salmon with regard to Wells Dam bypass operation dates, and will report back to the HCP Coordinating Committees (Item IV-B).
- The Wells HCP Coordinating Committee will submit edits and comments on the Draft 2017 Wells Dam Passage Dates Analysis to Tom Kahler no later than January 5, 2018 (Item IV-B).
- Douglas PUD will provide a matrix outlining the pros and cons for potential study species to use in the Douglas PUD 2020 Survival Verification Study (including such details as species selection, release location, and tag type), for further discussion and decision in January 2018 (Item IV-C). *(Note: Tom Kahler provided this matrix to Kristi Geris on January 17, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*
- The HCP Coordinating Committees meeting on January 23, 2018, will be held **in-person** at the Grant PUD Wenatchee Office in Wenatchee, Washington (Item V-A).

Decision Summary

- There were no HCP Decision Items approved during today's meeting.

Agreements

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

Review Items

- A second Draft 2017 Wells Dam Passage Dates Analysis was distributed to the HCP Coordinating Committees by Kristi Geris on December 7, 2017. The draft analysis is available for review with edits and comments due to Tom Kahler by January 5, 2018 (Item IV-B).
- An Application for Non-Capacity Amendment for Coyote Dunes was distributed to the Rock Island HCP Coordinating Committee by Kristi Geris on November 15, 2017. The application is available for a 30-day review period with edits, comments, or indication of no comments, due to Jeff Osborn and Lance Keller (with a copy to Geris) by December 15, 2017 (Item III-B). *(Note: all Rock Island HCP Coordinating Committee representatives responded to Chelan PUD by December 14, 2017.)*
- The Draft 2017 Wells Post-Season Bypass Report (including the appended Draft 2017 Wells Dam Passage Dates Analysis) was distributed to the Wells HCP Coordinating Committee by Kristi Geris on December 29, 2017. The draft report is available for a 60-day review period, with edits and comments due to Tom Kahler by February 27, 2018.

- The Draft 2018 Wells Dam Gas Abatement Plan and Bypass Operating Plan was distributed to the Wells HCP Coordinating Committee by Kristi Geris on January 16, 2018. The draft plan is available for review with edits and comments due to Tom Kahler by February 12, 2018.
- The Draft 2018 Wells HCP Action Plan was distributed to the Wells HCP Coordinating Committee by Kristi Geris on January 22, 2018. The draft plan is available for a 30-day review period, with edits and comments due to Tom Kahler by February 21, 2018.
- The Draft 2017 Rocky Reach Juvenile Fish Bypass System Report, Draft 2017 Rock Island Smolt and Gas Bubble Trauma Evaluation Report, Draft 2018 Rocky Reach Juvenile Fish Bypass System Operations Plan, Draft 2018 Rock Island Bypass Monitoring Plan, and Draft 2018 Rock Island and Rocky Reach Action Plan were distributed to the Rocky Reach and Rock Island HCP Coordinating Committees by Kristi Geris on January 22, 2018. The draft documents are available for a 30-day review period, with edits and comments due to Lance Keller by February 21, 2018.

Finalized Documents

- The Final 2017 Rocky Reach and Rock Island Fish Spill Program Report, which was approved by the Rocky Reach and Rock Island HCP Coordinating Committees during the HCP Coordinating Committees meeting on October 24, 2017, was distributed to the HCP Coordinating Committees by Kristi Geris on December 13, 2017 (Item II-C).
- The Final Douglas PUD 2016 Pikeminnow Program Annual Report, which was approved by the Wells HCP Coordinating Committee after no disapprovals were received prior to the 60-day review deadline on May 29, 2017, was distributed to the HCP Coordinating Committees by Kristi Geris on December 29, 2017.
- The Final 2016 Rock Island Smolt Monitoring Program and Gas Bubble Trauma Report, Final 2016 Rock Island and Rocky Reach Pikeminnow Control Program Summary Report, and Final 2017 Rock Island Bypass Monitoring Plan were distributed to the HCP Coordinating Committees by Kristi Geris on January 5, 2018. The Rocky Reach and Rock Island HCP Coordinating Committees approved these documents after no disapprovals were received prior to the 30-day review deadline on February 22, 2017.
- The Final 2017 Rocky Reach Juvenile Fish Bypass System Operations Plan was distributed to the HCP Coordinating Committees by Kristi Geris on January 5, 2018. The Rocky Reach HCP Coordinating Committee approved the plan after no disapprovals were received prior to the 30-day review deadline on March 20, 2017.

I. HCP Tributary and Hatchery Committees Update

John Ferguson suggested Tracy Hillman provide the HCP Tributary and Hatchery Committees update prior to discussing today's other agenda items, to accommodate Hillman's travel schedule.

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 Hatchery Committees meeting on November 15, 2017:

- *Coho Salmon Statement of Agreement*: The Rocky Reach and Rock Island HCP Hatchery Committees approved the Statement of Agreement (SOA) regarding Chelan PUD's coho salmon obligation, which includes methodology for meeting the obligation. This version, however, does not include a funding arrangement with the Yakama Nation (YN), which will be determined in a separate SOA following further coordination with the YN and the Colville Confederated Tribes (CCT).
- *Steelhead Program Surplus Brood Year 2017*: Douglas PUD indicated that their steelhead program has an excess of about 7,600 fish in the Twisp River program, an excess of about 87,000 in the Columbia River program, and a shortage of about 27,000 fish in the Methow River program. Following discussion, the Wells HCP Hatchery Committee agreed to: 1) release all Twisp River No Net Impact and inundation program steelhead on-station at time of release; 2) release all Methow River inundation program fish on-station at time of release; 3) retain the approximately 210,000 Columbia River Safety Net program fish on-station for release; 4) release the target of 160,000 Columbia River Safety Net program fish, plus a surplus to make up the shortfall in the Methow River inundation program release, for a total release of about 339,000 fish or less; and 5) remove additional surplus fish from the Columbia River Safety Net program and release in non-anadromous waters under direction of the Washington Department of Fish and Wildlife (WDFW).
- *Wells and Methow Fish Hatcheries Transition*: Douglas PUD has fully staffed both the Wells and Methow fish hatcheries. As of November 15, 2017, the transition was on track to be completed within 90 days. Douglas PUD hired a veterinarian, and is also working to finalize all other paperwork and responsibilities.
- *Summer Chinook Salmon Spawning Update*: Douglas PUD indicated the full program egg take was acquired, with a possible surplus. Hatchery staff collected an additional 18 females during an outbreak of columnaris, and the Yakima River restoration program also helped to spawn fish.
- *National Marine Fisheries Service Consultation Update*: The National Marine Fisheries Service (NMFS) received the official initiation of consultation request for the unlisted programs in the upper Columbia River, and will be responding with letters of sufficiency to the applicants. Also, the Draft Upper Columbia River Summer/Fall and Fall Chinook Salmon Biological Opinion (BiOp) will go to General Counsel for review, and then to the applicants for review. Finishing this BiOp by the end of the year is a priority.
- *U.S. Fish and Wildlife Service Bull Trout Consultation Update*: The U.S. Fish and Wildlife Service (USFWS) is working on the BiOp for the batch of Wenatchee subbasin programs, and hopes to

obtain signatures this week. USFWS is also making progress on the Methow River steelhead consultation, which was anticipated to be complete by the end of November 2017. Finally, USFWS received additional information for the unlisted programs in the upper Columbia River, which will inform the effects analysis. The schedule for completing a letter of concurrence depends on when NMFS is able to initiate consultation.

- *Draft Hatchery Monitoring and Evaluation Plan for PUD Hatchery Programs, 2017 Update:* The HCP Hatchery Committees approved the Hatchery Monitoring and Evaluation Plan for PUD Hatchery Programs, 2017 Update, as revised. The approved plan has been shared with the Upper Columbia Salmon Recovery Board (UCSRB) and Independent Scientific Advisory Board (ISAB). The HCP Hatchery Committees also shared the final plan with those conducting on-the-ground hatchery monitoring.
- *Timeline of Changes in Hatchery Programs:* The HCP Hatchery Committees are preparing and reviewing timelines of major hatchery program changes to help inform statistical analyses for the statistical and comprehensive reports. This has been completed for spring Chinook salmon, and focus will now shift to summer Chinook and sockeye salmon, and steelhead,
- *Upper Columbia Salmon Recovery Board Hatchery Summary Report:* Greer Maier (UCSRB) presented on "Integrated Recovery," and discussed the UCSRB's Draft Hatchery Summary Report. HCP Hatchery Committees representatives and other reviewers provided comments on the draft summary report, and UCSRB is currently reviewing and addressing those comments. UCSRB hopes to obtain approval of the summary report during their meeting on December 31, 2017. The next step for UCSRB is to prepare summary reports for hydropower and harvest. John Ferguson asked about the status of the ISAB report summarizing their review of the status of upper Columbia River spring Chinook salmon, and Tom Kahler said the report will be available in March 2018.
- *Next meeting:* The next meeting of the HCP Hatchery Committees will be on January 17, 2018.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Tributary Committees meeting on November 9, 2017:

- *Frazer Creek – Lazy K Property Appraisal Project:* The HCP Tributary Committees received a Small Projects Program Application from Methow Salmon Recovery Foundation to appraise the value of a 20-acre parcel along Frazer Creek in the Methow River basin. Acquiring the property would allow stream restoration in a site where the 2017 flood plugged a culvert causing the stream to cut deep gullies through the property. The total cost of the project is about \$1,400, which only covers coordination with the landowner and appraiser, and billing and administration work. The HCP Tributary Committees elected not to fund the appraisal, because most of the property does not border the stream and restoring this site would have little biological benefit.

- *Upper Beaver Creek – Anderson Property Appraisal Project:* The HCP Tributary Committees received another Small Projects Program Application from Methow Salmon Recovery Foundation to appraise the value of a 1.6-acre parcel along Beaver Creek in the Methow River basin. Acquiring the property would allow stream restoration in a site where the 2017 flood avulsed through the Anderson property and damaged the County road. The cost of the project is about \$1,400, which only covers coordination with the landowner and appraiser, and billing and administration work. After receiving additional information from the sponsor, the HCP Tributary Committees elected not to fund the appraisal, because the Committees were uncomfortable acquiring the property without an analysis of the vulnerability of the road from the stream.
- *PRESENTATION: Chelan River Restoration:* Steve Hays (Chelan PUD) presented on the Chelan River Restoration project, which was funded by Chelan PUD. Hays discussed riverine conditions before hydropower development, requirements under the first two licenses, and objectives and agreements under the most recent license. Hays played a video which showed the evolution of the river during the restoration process and how it changed. He then described Chelan PUD's robust monitoring program and discussed results. He concluded by stating the restoration work has created high quality habitat, which is being used by salmonids, including cutthroat trout.
- *PRESENTATION: Effectiveness of Enhancement Projects:* Hillman provided a presentation on the effectiveness of tributary habitat enhancement projects, which is based on a report Hillman and his coauthors (Phil Roni [Cramer Fish Sciences] and Jen O'Neal [Natural Systems Design]) prepared for the Bonneville Power Administration (BPA). The report addresses six policy-level questions about the success of enhancement actions, and was used as part of the Federal Columbia River Power System BiOp. Well-over 1,000 pieces of literature were reviewed and 617 reports met the criteria for relevance. The report focused on identifying characteristics of successful projects and also reasons why some failed. Hillman concluded by providing recommendations for enhancement work in the future.
- *Sponsorship Request:* The UCSRB asked the HCP Tributary Committees about helping sponsor the Upper Columbia Science Conference. Each HCP Tributary Committee agreed to donate \$1,000 to the conference, which identifies the HCP Tributary Committees as "Gold Sponsors."
- *Next meeting:* The next meeting of the HCP Tributary Committees will be on January 11, 2018.

II. 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 the Application for Non-Capacity Amendment for Coyote Dunes.
- Tom Kahler added a Wells Dam fishway maintenance update.

B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft October 24, 2017 meeting minutes. Kristi Geris said there was one outstanding comment when the revised minutes were distributed, under Douglas PUD's Draft 2017 Wells Dam Passage Dates Analysis discussion. Geris said the comment was about the new location of the lower Methow River passive integrated transponder (PIT)-tag array, which Mike Tonseth later clarified has been moved from river mile 1.2 to 5. 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 October 24, 2017 meeting minutes, as revised.

C. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees conference call on October 24, 2017, and follow-up discussions, were as follows. (*Note: italicized text corresponds to agenda items from the meeting on October 24, 2017*):

- *Kristi Geris will coordinate with Tracy Hillman and will notify the HCP Coordinating Committees of the date the HCP Hatchery Committees plan to tour the new Wells Fish Hatchery (tentatively scheduled for early 2018; Item II-C).*

Geris said Hillman indicated the HCP Hatchery Committees decided to postpone the tour until later next year. Geris said although no date was set, it will likely occur next spring. This action item will be carried forward.

- *Kristi Geris will locate the presentation, "Potential to improve the conservation benefits of steelhead hatcheries," presented by Barry Berejikian (National Oceanic and Atmospheric Administration [NOAA] Northwest Fisheries Science Center) during the HCP Hatchery Committees meeting on October 18, 2017, and will distribute the presentation to the HCP Coordinating Committees (Item III-A).*

Geris distributed Berejikian's presentation to the HCP Coordinating Committees on October 26, 2017.

- *Douglas PUD will: 1) incorporate comments received on the Transition Plan for Wells and Methow Fish Hatcheries, and provide the updated plan to Kristi Geris for distribution to the HCP Coordinating Committees; 2) either incorporate sections of the Memorandum of Understanding (MOU) into the transition plan or distribute the MOU to the HCP Coordinating Committees; and 3) check on the status of the Operations Plan (Item IV-B).*
Sections of the MOU were incorporated into the final transition plan, and Tom Kahler provided the final plan to Geris on November 7, 2017, which Geris distributed to the HCP Coordinating Committees that same day.
- *Douglas PUD, in coordination with Richard Townsend (Columbia Basin Research), will incorporate wild yearling Chinook salmon passage data for 2017 into the corrected Draft 2017 Wells Dam Passage Dates Analysis (Item IV-C).*
Data were incorporated, as discussed, and an updated analysis was distributed to the HCP Coordinating Committee by Kristi Geris on December 7, 2017. This will be further discussed during today's meeting.
- *Douglas PUD, in coordination with Richard Townsend, will include wild yearling Chinook salmon passage data for all years of analyses in an addendum to the Draft 2017 Wells Dam Passage Dates Analysis (Item IV-C).*
This will be discussed during today's meeting.
- *Douglas PUD will provide a proposal on which study species to use for the Douglas PUD 2020 Survival Verification Study for the Wells HCP Coordinating Committee to consider, and will convene a conference call for discussion, if necessary (Item IV-D).*
This will be discussed during today's meeting.
- *Chelan PUD will provide the Final 2017 Rock Island and Rocky Reach Fish Spill Program Report to Kristi Geris for distribution to the HCP Coordinating Committees (Item V-A).*
This action item will be carried forward. (Note: Lance Keller provided the final report to Geris following the HCP Coordinating Committees meeting on December 12, 2017, which Geris distributed to the HCP Coordinating Committees on December 13, 2017.)
- *Chelan PUD will provide a written list of the repairs planned for the Rocky Reach Dam fish ladders during the 2017/2018 winter maintenance outage, and 2014 passage data, for Rocky Reach HCP Coordinating Committee consideration and vote via email (Item V-D).*
Keller provided the list of repairs and 2014 passage data to Kristi Geris following the meeting on October 24, 2017, which Geris distributed to the HCP Coordinating Committees on October 25, 2017.
- *Chad Jackson will provide an official Washington Department of Fish and Wildlife (WDFW) HCP Hatchery Committees Representation Designation Letter to Kristi Geris for the administrative record (Item VI-A).*

Jackson provided this letter to Geris on November 6, 2017, which Geris distributed to the HCP Coordinating Committees and to Sarah Montgomery [Anchor QEA] for distribution to the HCP Hatchery Committees that same day.

- *Kristi Geris will coordinate with Denny Rohr (Priest Rapids Coordinating Committee [PRCC] Facilitator) and the PRCC regarding rescheduling the HCP Coordinating Committees meeting in December 2017 (Item VI-B).*

Geris coordinated with Rohr, who indicated the PRCC plans to meet on December 13, 2017; therefore, the HCP Coordinating Committees meeting on December 26, 2017, has been rescheduled to December 12, 2017.

III. Chelan PUD

A. Rocky Reach and Rock Island Adult Fishway Maintenance Updates (Lance Keller)

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

Rock Island Dam

Right Ladder

Keller said the right ladder at Rock Island Dam was taken offline for annual winter maintenance on December 4, 2017. He said a fish rescue was conducted in the upper fishway that same day, and in the lower fishway on December 6, 2017. He said all fish were successfully rescued and released in a healthy state. He reviewed species that were recovered across both efforts, as follows:

Species	Stage/length	Clip	Count	Condition	PIT-tag
rainbow/steelhead	juvenile	ad-present	51	NR	No
		ad-clipped	4	NR	No
	12 inches	ad-clipped	2	NR	No
	14 inches	ad-clipped	2	NR	No
	20 inches	ad-present	1	NR	No
Chinook salmon	juvenile	ad-present	20	NR	No
	adult	ad-present	5	NR	No
		ad-clipped	1	NR	No
reidside shiner	NR	NA	2	NR	No
bull trout	8 inches	NA	1	Excellent	No
	10 inches	NA	1	Excellent	Yes

Notes:

ad = adipose

NA = not applicable

NR = not reported

PIT = passive integrated transponder

Keller noted that the one PIT-tagged bull trout was listed as orphan. He also noted there were no mortalities encountered. John Ferguson asked where the rescued fish were released, and Keller said rescued fish are released in the Rock Island Dam forebay.

Left Ladder

Keller said the left ladder at Rock Island Dam will be taken offline for annual winter maintenance on December 18, 2017.

Middle Ladder

Keller said the middle ladder at Rock Island Dam will be taken offline for annual winter maintenance when either the right or left fish ladder is returned to service. He noted that this year, the middle ladder will be the shortest ladder outage at Rock Island Dam.

Keller said all fishways at Rock Island Dam should be back to service by mid-February 2018. He said this is earlier than the usual end of February return to service date.

Rocky Reach Dam

Keller recalled that the Rocky Reach HCP Coordinating Committee agreed to Chelan PUD's request to begin the 2017/2018 winter maintenance work period at Rocky Reach Dam, 3 weeks earlier than usual to allow more time to complete required work. Keller said as agreed, the upper adult fish ladder at Rocky Reach Dam was taken offline for annual winter maintenance on December 11, 2017. He said a fish rescue was conducted in the upper ladder that same day, while the lower ladder remained watered with entrances open. He reviewed species that were recovered from the upper ladder, as follows:

Species	Stage/length	Clip	Count	Condition	PIT-tag
rainbow/steelhead	juvenile	ad-present	54	NR	No
		ad-clipped	9	NR	No
Pacific lamprey	adult	NA	232	NR	No
		NA	2	NR	Yes
whitefish	NR	NA	34	NR	No

Notes:

- ad = adipose
- NA = not applicable
- NR = not reported
- PIT = passive integrated transponder

Keller said, considering the large Pacific lamprey run this year, crews were prepared to encounter a large number of Pacific lamprey, and 234 fish is the most encountered in a long time. He said two Pacific lamprey were PIT-tagged with full-duplex tags, which Keller suspects are from the adult PIT-tagging effort Steve Hemstrom is conducting in coordination with the Rocky Reach Fish Forum. Keller said all 234 Pacific lamprey were released to a calm, quiet area in the Rocky Reach Dam forebay.

Ferguson noted the ongoing translocation efforts lead by Ralph Lampman (YN) and in association with the Douglas PUD Aquatic Settlement Work Group. Ferguson suggested Chelan PUD coordinate with Lampman about possibly using Pacific lamprey from fish rescues for translocation efforts upstream of Wells Dam. Keller said he believes Lampman is aware of annual fish rescue numbers. Keller said Chelan PUD would want to continue releasing PIT-tagged fish in the Rocky Reach Dam forebay for monitoring and evaluation purposes; however, Chelan PUD may be open to ideas for non-PIT-tagged fish. Keller said similar to Rock Island Dam, there were also no mortalities encountered at Rocky Reach Dam.

Keller said the lower ladder will be dewatered in the coming days. He reiterated that all weirs in the lower fishway remained fully submerged while dewatering the upper fishway, so fish will not become stranded and are able to exit the fishway. Kirk Truscott asked about the logistics of dewatering the upper fishway, but not the lower. Keller said the upper fishway exits are closed and the water drains via gravity to a level equal to the current tailwater elevation, with the lower ladder and all weirs remaining fully submerged. He said the water elevation in the lower fishway will follow the tailrace elevation until the entrance gates are deployed and the remaining water is pumped from the lower fishway, at which point crews are present for the lower fishway fish rescue. Truscott also asked if the number of clipped and non-clipped *O. mykiss* (*Oncorhynchus mykiss*) were similar to other years. Keller said there seemed to be more resident fish versus migrating. He added that crews did interrogate every fish for PIT tags.

B. Application for Non-Capacity Amendment for Coyote Dunes (Lance Keller)

Lance Keller said Kristi Geris notified the Rock Island HCP Coordinating Committee on November 15, 2017, that an Application for Non-Capacity Amendment for Coyote Dunes is available for a 30-day review period, with edits and comments due to Jeff Osborn by December 15, 2017. Keller also asked that Rock Island HCP Coordinating Committee representatives submit indication of no comments, if this is the case, in order to create a complete consultation record to submit to the Federal Energy Regulatory Commission. Geris said she will resend the email detailing the Application for Non-Capacity Amendment for Coyote Dunes for review, to the Rock Island HCP Coordinating Committee. (Note: this email was re-distributed to the HCP Coordinating Committees by Geris on December 13, 2017,

and all Rock Island HCP Coordinating Committee representatives responded to Chelan PUD by December 14, 2017.)

Keller said the proposal is for two changes to the Olds Bridge recreation site, which is the area south of "north end bridge" (Odabashian Bridge) in Wenatchee, Washington. He said changes include: 1) changing the name of the site to "Coyote Dunes Natural Area"; and 2) adjusting the area of the site and designating the site to be a passive recreation area on approximately 26 acres of land owned by Chelan PUD.

Kirk Truscott asked if the amendment includes moving dirt. Keller said no, there will be some restoration in the uplands, but there will be no in-water work. Keely Murdoch asked if a cultural resource survey is needed or has been conducted. Keller said to his knowledge, Chelan PUD has reviewed and addressed the requirements associated with cultural resources. Murdoch said she asked because for the YN, someone other than her needs to review and approve actions related to cultural resources. Keller said he will verify internally that Chelan PUD has addressed cultural resource impacts, if any, associated with the Application for Non-Capacity Amendment for Coyote Dunes. *(Note: Keller verified that Chelan PUD has initiated the appropriate actions regarding addressing potential cultural resource impacts associated with this amendment, as explained in an email distributed to the HCP Coordinating Committees by Keller following the meeting on December 12, 2017, and by Kristi Geris on December 13, 2017.)*

C. Integrated Recovery Technical Advisory Team (Greer Maier)

Greer Maier said she is the Science Program Manager at UCSRB (the Board). Maier said she has been with the Board since 2007, when the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan was written. She said part of this recovery plan is to determine what recovery strategies can be integrated across all four H's (habitat, harvest, hydropower, and hatcheries), how to achieve recovery by creating partnerships, and how the Board can help facilitate positive change. She said this effort started with developing the Habitat Summary Report in 2014, where information was gathered to date on habitat restoration efforts. She said next, the Hatchery Summary Report was developed, which will hopefully be approved next week. She said now, focus is shifting to the Hydropower Summary Report. She said part of this process is understanding who is involved (in hydropower).

Maier said the Integrated Recovery Technical Advisory Team (IRTAG) was convened 5 years ago to review and provide input on these summary reports. She said the IRTAG meets twice per year in Wenatchee, Washington. She said it is optimal to have at least one representative present from each Mid-Columbia PUD (Grant, Chelan, and Douglas PUDs), and she said it has also been helpful to have Keely Murdoch and Casey Baldwin present to represent the YN and the CCT, respectively.

Maier said this effort starts with these background summaries, or summary reports. She said next comes shared learning, presentations at Board meetings, and then open discussions about the issues and how the Board can play a role in coming up with solutions and obtaining funding. She said, however, these summary reports for all four H's need to be complete before the subsequent discussions can start.

Tom Kahler asked if UCSRB would also report on the Federal Columbia River Power System (i.e., fish passage and survival at the federal projects). Maier said yes, as well as BPA, WDFW, and USFWS. She said she has also been in touch with Grant PUD and the PRCC.

John Ferguson asked if the Board has formally requested representation. Maier said the request is fairly informal, and is essentially what she is doing today. Kahler said he has been elected to represent Douglas PUD. Lance Keller said he was elected to represent Chelan PUD. Maier said the first meeting will be in early spring 2018.

Ferguson asked about the regulatory context of the recovery plan. He asked, what requirement does the recovery plan meet, what authority does this plan have, and how does it affect ongoing programs? Maier said the plan is advisory and all participation is voluntary. She said this effort is supported by specific salmon recovery funds. She said there is political value with the Board, but there is also interest in pursuing how to contribute in other arenas. She said the recovery plan has also been adopted by NOAA, but is voluntary. She said the plan also affects obtaining permits in terms of status of species.

Maier said she would like to touch base with the HCP Coordinating Committees again, when the process is further down the road. She said a copy of the Hatchery Summary Report was provided to the HCP Hatchery Committees for review and comment. She said this is an open process, that she wants accurate information, and asks for everyone to participate so the process has everyone involved.

Kirk Truscott asked, considering various workloads, can chapters be distributed as they are completed instead of all at once (entire draft document). Maier said the document is written all at once, not iteratively; however, she can work on distributing sections separately, or can try parsing out the information.

Ferguson asked about the schedule for the Hydropower Summary Report. Maier said efforts for this report will be ramping up in February or March 2018, which is when the first meeting might be scheduled. She said she hopes to identify people contributing to this report by January 2018. She said she also hopes to have a draft report by spring 2018, and finish the report by the end of 2018. She said this might be a bit ambitious considering the other reports took 2 to 3 years to complete.

IV. Douglas PUD

A. Wells Dam Fishway Maintenance Update (Tom Kahler)

Tom Kahler reviewed maintenance updates at Wells Dam, as follows:

West Fishway

Kahler said dewatering of the west fishway at Wells Dam (ladder and collection gallery) for annual winter maintenance has been postponed because unforeseen problems delaying the necessary replacement of a walkway over the AWS intakes in the tailrace have prevented the installation of the bulkheads in those intakes. He said dewatering was initially supposed to take place on the morning of December 5, 2017; however, it will now take place the week of December 18, 2017. *(Note: the west fishway was taken out of service for annual maintenance on the morning of December 27, 2017.)*

Kahler said installation of the bulkheads in the fish-pump intakes in the forebay was completed on the afternoon of December 5, 2017, in preparation for the fish rescue through the entire fishway. He said, therefore, the ladder is in operation; however, the AWS attraction flow to the collection gallery is not. Therefore, there is very little head differential at the fishway entrance, but flow from the ladder into the collection gallery will attract fish already in the gallery, and any fish using the ladder will be able to exit.

Kahler recalled at Wells Dam, major versus routine maintenance is alternated between fishways each year. He said this year, the west fishway will receive the more extensive maintenance.

East Fishway

Kahler said the east fishway at Wells Dam will be taken offline for annual winter maintenance once the west fishway is complete. He said this year, only routine maintenance will be performed on the east fishway. He guessed the fishway will be dewatered in late-January 2018, and should return to service a couple of weeks after.

Kirk Truscott asked, historically, if a large number of whitefish are typically rescued from the Wells Dam fishways. Kahler said yes, both Mountain and Lake whitefish. He said operators started pulsing water through the upper ladder in preparation for the fishway outage, which whitefish do not appear to like and so they move out.

B. 2017 Wells Dam Passage Dates Analysis (Tom Kahler)

Tom Kahler said a corrected Draft 2017 Wells Dam Passage Dates Analysis was distributed to the HCP Coordinating Committees by Kristi Geris on October 23, 2017. The draft analysis was available for a 30-day review period, with edits and comments due to Kahler by November 22, 2017. Kahler said per his action item from the HCP Coordinating Committees meeting on October 24, 2017, to

incorporate wild migrants only, a second version of the corrected Draft 2017 Wells Dam Passage Dates Analysis (Attachment B) was distributed to the HCP Coordinating Committees by Geris on December 7, 2017. Kahler said he already identified edits needed to the text of this latest version; however, the edits will not change the data.

Kahler said based on this analysis, when considering wild yearling Chinook salmon migrants only, there is quite a difference compared to the combined (hatchery and wild) run. He said, for example, Table 5 of Attachment B demonstrates how the yearling Chinook salmon wild-only sample sizes are disproportionate to the run at large sample sizes. He added that wild yearling Chinook salmon migrate approximately 2 weeks earlier compared to hatchery fish. He said some fish managers also expect the freshets to shift (occur earlier) over time if climate change continues. He said if this happens, hatchery releases may also need shifting. *(Note: Jim Craig noted a typo in Table 5 under wild only PIT tags in 2015, which Kahler said he will correct in the next iteration of this document.)*

Kahler said, however, the same is not true for subyearling Chinook salmon, as shown in Table 7 of Attachment B. He said here, the wild PIT-tagged and hatchery groups are not so different from one another. Kirk Truscott noted that for subyearling Chinook salmon, wild fish typically emigrate later than hatchery fish.

John Ferguson asked what these new data mean in terms of a path forward. Kahler said the Wells HCP standard says nothing about parsing out wild versus hatchery fish; therefore, yes, the Wells Project met the standard. He said, however, he believes the intent of the HCP was not to systematically under-protect.

Truscott reviewed Table 6 of Attachment B. He noted that about 14% of wild spring Chinook salmon did not receive protection under spill in 2013 and 2015. He caveated that those years were moderate-to-low water years. He also noted in 2014, about 18% of wild spring Chinook salmon did not receive protection under spill, which he believes is a fairly healthy portion of the wild run. Ferguson asked, considering the small sample size, are those numbers being skewed by 1 or 2 fish? He asked if more needs to be understood about when these fish start migrating to understand the importance of the data. Kahler said this is something Douglas PUD is concerned about and would like to investigate more. He said in 2017, spill was provided for 92.92% of the wild run; however, Wells Dam was spilling a lot of water beginning mid-March, and it is not as though those fish passing before April 9 were not provided protection. He said Douglas PUD is interested in better understanding the shape of the wild spring Chinook salmon distribution.

Truscott said based on these PIT tag data (detections at Rocky Reach Dam with the assumed 5-day travel time to Wells Dam), spring Chinook salmon are beginning to migrate before the Twisp River screw trap is operational. Kahler said Charlie Snow's (WDFW) crew also started electrofishing and

tagging in the tributaries sometime around 2012 to 2014, and Kahler is unsure of what the mix is between screw trap and electrofishing. Ferguson asked if the new PIT-tag detector in spillbay 2 at Wells Dam can be used to verify the assumed 5-day travel time between Wells and Rocky Reach dams. Kahler said this analysis is ongoing, as described on page 12 of Attachment B; however, not many fish have been detected at both Wells and Rocky Reach dams. He said the issue is when there is so much spill most fish do not pass via that spillbay with PIT-tag detection.

Kahler said Douglas PUD will further review run-timing data for wild and hatchery yearling Chinook salmon with regard to Wells Dam bypass operation dates, and will report back to the HCP Coordinating Committees. Ferguson asked if changing the bypass operation dates at Wells Dam will need to be memorialized in an SOA, and Kahler said this is correct. Craig noted that hatchery managers will also need to know ahead of time to adjust their programs, as needed.

Kahler said Douglas PUD is still accepting comments on the Draft 2017 Wells Dam Passage Dates Analysis. The Wells HCP Coordinating Committee will submit edits and comments on the draft analysis to Kahler no later than January 5, 2018.

Truscott said he appreciates Douglas PUD's willingness to look into these passage dates further.

C. Douglas PUD 2020 Survival Verification Study - Study Species (Tom Kahler)

Tom Kahler said he has not yet developed a proposal on which study species to use for the Douglas PUD 2020 Survival Verification Study. He said the most practical approach would be to use yearling summer Chinook salmon. He said with summers there is no Endangered Species Act issue, and this species does not have the same level of concern for straying. He recalled the last survival verification study consisted of 15 replicate releases of 667 yearling Chinook salmon at the mouth of the Okanogan River; 2,000 in the Methow River; and 2,667 in the Wells Dam tailrace. He said based on more current data, this split may change. He said all study fish were PIT-tagged. He said Douglas PUD may just propose to repeat the same study methods.

John Ferguson asked if there will be enough adult returns, and Kahler said he believes precision was met before. Kirk Truscott asked about releasing at the mouth of the Okanogan River, noting that Project effects reach farther upstream than just at the mouth. Kahler said the Wells HCP specifically states a release will be at the mouth. Truscott said inundation reaches up 11 miles, and he knows a lot of non-indigenous fish are present in the inundation zone.

Keely Murdoch said for clarification, when this topic was last discussed Kahler mentioned YN reluctance for using coho salmon for a study species; however, after further discussions with colleagues the YN would be supportive of using coho salmon if the Wells HCP Coordinating Committee chooses to do so. Kahler said Douglas PUD is also open to using coho salmon; however,

Douglas PUD's proposal would still be for yearling summer Chinook salmon. Ferguson asked if using coho salmon will change releases. Kahler said yes, because there are no Okanogan River coho salmon. He said using coho salmon may be simpler. He said in terms of Project effects, there have been four studies using yearling Chinook salmon (2 studies) and steelhead (2 studies), but no coho salmon. He said consistency helps to fully understand effects, but he acknowledged there are also several other considerations.

Truscott recalled during the HCP Coordinating Committees meeting on October 24, 2017, there was discussion about using PIT tags versus acoustic tags. Truscott said it seems Douglas PUD prefers PIT tags. Ferguson recalled that the Wells HCP requires testing for delayed mortality, which cannot be evaluated using acoustic tags. Truscott said he is suggesting acoustic tags because then the sample size can be lower and spring Chinook salmon can be used to evaluate how they differ from yearling summer Chinook salmon. Kahler said Douglas PUD is wary of using acoustic tags. Lance Keller recalled that in 2004, Chelan PUD conducted a PIT- versus acoustic-tag comparative study, and for the Rock Island Dam project there was no difference based on a side-by-side analysis. Scott Carlon said he favors acoustics because of the ability to evaluate behavioral data. He also asked Truscott if he is referring to using hatchery spring Chinook salmon, and Truscott said this is correct. Kahler added that historically, Douglas PUD has not needed to use acoustic tags because there has been no need to determine route-specific survival at Wells Dam.

Kahler said a decision needs to be made in time for drafting the annual Broodstock Collection Protocols. He said this is needed by February 2018 at the latest, but January 2018 is more practical. Ferguson suggested that Douglas PUD provide a matrix outlining the pros and cons for potential study species to use in the Douglas PUD 2020 Survival Verification Study (including such details as species selection, release location, and tag type), for further discussion and decision in January 2018. *(Note: Kahler provided this matrix to Kristi Geris on January 17, 2018, which Geris distributed to the HCP Coordinating Committees that same day.)*

V. HCP Administration

A. Next Meetings

The next scheduled HCP Coordinating Committees meeting is on January 23, 2017, to be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.

John Ferguson said he will be unable to attend in-person; however, he will call into the meeting.

The February 27 and March 27, 2018 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 B Draft 2017 Wells Dam Passage Dates Analysis (version 2)

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman ^{††}	BioAnalysts
Lance Keller [*]	Chelan PUD
Alene Underwood [†]	Chelan PUD
Greer Maier [°]	Upper Columbia Salmon Recovery Board
Tom Kahler [*]	Douglas PUD
Scott Carlon ^{*†}	National Marine Fisheries Service
Jim Craig [*]	U.S. Fish and Wildlife Service
Chad Jackson [*]	Washington Department of Fish and Wildlife
Kirk Truscott [*]	Colville Confederated Tribes
Keely Murdoch [*]	Yakama Nation

Notes:

- * Denotes HCP Coordinating Committees member or alternate
- † Joined by phone
- †† Joined by phone for the HCP Tributary and Hatchery Committees Update
- ° Joined for Chelan PUD's Integrated Recovery Technical Advisory Team agenda item