

Memorandum

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

Date: August 23, 2017

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris

Re: Final Minutes of the June 27, 2017, HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Coordinating Committees met in-person at the Grant PUD Office in Wenatchee, Washington, on Tuesday June 27, 2017, from 10:00 to 11:45 a.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

- 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 Coordinating Committees (Item I-B).
- 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-B). *(Note: Lance Keller provided the final report to Geris on June 28, 2017, which Geris distributed to the HCP Coordinating Committees that same day.)*
- Anchor QEA 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 I-B).
- 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 I-B).
- Kristi Geris will coordinate with Tracy Hillman (HCP Hatchery Committees Chairman) and Sarah Montgomery (HCP Hatchery Committees Support Staff) to obtain meeting and WebEx information for Jeff Jorgensen's (NOAA Northwest Fisheries Science Center) presentation to the HCP Hatchery Committees on August 16, 2017, on a life-cycle model for Wenatchee River spring Chinook salmon, which Geris will distribute to the HCP Coordinating Committees (Item II-A). *(Note: this presentation has been postponed to the HCP Hatchery Committees meeting on September 20, 2017.)*
- Chelan PUD will provide a Rocky Reach Dam large unit repair update during an HCP Coordinating Committees meeting in late-summer 2017 (Item III-B).

- Chelan PUD will provide a Rock Island Dam Powerhouse 1 maintenance update during the HCP Coordinating Committees conference call on July 25, 2017 (Item III-C).
- Kristi Geris will add Chad Jackson, potentially the new Washington Department of Fish and Wildlife (WDFW) HCP Coordinating Committees Representative, and Mike Tonseth, likely a new WDFW HCP Coordinating Committees Alternate, to the HCP Coordinating Committees email distribution lists and request access to the HCP Coordinating Committees extranet site from Julene McGregor (Douglas PUD Information Systems Staff; Item VI-A). *(Note: Geris added Jackson and Tonseth to the email lists and requested access to the extranet site following the meeting on June 27, 2017.)*
- The HCP Coordinating Committees meeting on July 25, 2017, will be held by **conference call** (Item VII-B). *(Note: due to lack of agenda items, the HCP Coordinating Committees meeting on July 25, 2017, has been canceled. The August 22, 2017, meeting will be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.)*

Decision Summary

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

Agreements

- HCP Coordinating Committees representatives present agreed to add Chad Jackson and Mike Tonseth to the HCP Coordinating Committees email distribution lists and provide them both with access to the HCP Coordinating Committees extranet site because Jackson will potentially become the WDFW HCP Coordinating Committees Representative and Tonseth will likely be a new WDFW HCP Coordinating Committees Alternate (Item VI-A).

Review Items

- There are no items that are currently out for review.

Finalized Documents

- There are no documents that have been recently finalized.

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the HCP Coordinating Committees and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. The following revisions were requested:

- Tom Kahler added updates on the Wells Hatchery Modernization and Wells Dam bypass.

- Jim Craig added a notification about subyearling spring Chinook salmon rearing in the Columbia River.
- Jeff Korth added an update on WDFW HCP Coordinating Committees representation.

B. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees meeting on May 23, 2017, and follow-up discussions, were as follows. (*Note: italicized text corresponds to agenda items from the meeting on May 23, 2017*):

- *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).*
This action item will be carried forward.
- *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).*
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).*
This action item will be carried forward. (*Note: Lance Keller provided the final report to Geris on June 28, 2017, which Geris distributed to the HCP Coordinating Committees that same day.*)
- *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).*
This action item will be carried forward.
- *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).*
This will be discussed during today's meeting.
- *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).*
This action item will be carried forward.
- *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).*

Geris added Murdoch to the email lists and requested access to the extranet site following the meeting on May 23, 2017.

C. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft May 23, 2017, conference call minutes. Kristi Geris said she incorporated distribution of the Final 2017 Rock Island and Rocky Reach Fish Spill Plan into the action items and finalized documents sections of the minutes. She said all other comments and revisions received from members of the Committees were also incorporated into the revised minutes and there were no outstanding edits or questions to discuss. HCP Coordinating Committees members present approved the May 23, 2017, conference call minutes, as revised. WDFW abstained, because a WDFW representative was not present during the May 23, 2017, conference call.

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 June 8, 2017:

- *Budget Amendment – Clear Creek Fish Passage Project:* The Rocky Reach HCP Tributary Committee received a budget amendment request from Trout Unlimited for the Clear Creek Fish Passage Project, requesting to move \$2,000 from “Project Materials and Supplies” to “Professional Services and Permitting.” The Rocky Reach HCP Tributary Committee approved the budget amendment. The amendment will not change the total budget amount.
- *Budget Amendment – Permitting Nutrient Enhancement in the Chiwawa River Basin Project:* The Rock Island HCP Tributary Committee received a budget amendment request from Cascade Columbia Fisheries Enhancement Group (CCFEG) for the Permitting Nutrient Enhancement in the Chiwawa River Basin Project, requesting to move \$1,028 from “Professional Services” and “Indirect/Admin/Overhead” to “Sponsor Salaries and Benefits.” The Rock Island HCP Tributary Committee approved the budget amendment. Jeff Korth said he thought this project was already completed. Hillman said the U.S. Fish and Wildlife Service (USFWS) expressed concern over placing nutrients on bull trout redds; however, after revising the treatment plan this is no longer an issue. John Ferguson asked if nutrient enhancement has started, and Hillman said not yet. Ferguson asked if nutrients are depleted in the Chiwawa River. Hillman said based on studies conducted by CCFEG and Pace Engineers, nutrients are low in the river. He added that macroinvertebrate species richness is relatively high, but abundance of each species is low.

- *Budget Amendment – White River Floodplain Connection (River Mile 3.4) Project:* The Rock Island HCP Tributary Committee received a budget amendment request from CCFEG for the White River Floodplain Connection (River Mile 3.4) Project, requesting to move all available funds from construction to other tasks. The Committee questioned how the project will be completed if all the money is taken out of construction; therefore, the Rock Island HCP Tributary Committee denied the request. Hillman said he contacted the project lead who indicated the rest of the funding is covered under another source. The HCP Coordinating Committees asked who owns the land where the project is taking place, and Hillman said part of the land is owned by WDFW and some is privately owned.
- *Time Extension:* The Rock Island HCP Tributary Committee received a time extension request from Trout Unlimited for the Barkley Irrigation Project. The sponsor indicated that construction on the project is unlikely to begin until fall 2017; therefore, the sponsor asked to extend the project end date from May 31, 2017, to December 31, 2018. The Rock Island HCP Tributary Committee approved the time extension.
- *General Salmon Habitat Program Draft Proposals:* The HCP Tributary Committees received nine draft proposals. Among those nine proposals, four were selected for final proposals. The other five projects may submit final proposals; however, it is unlikely they would be approved for funding. Full proposals are due on June 30, 2017. The proposed projects are in the Wenatchee, Entiat, and Methow River basins.
- *Small Projects Program Proposal:* The HCP Tributary Committees received a Small Projects Program application from Chelan County Natural Resources Department (CCNRD) titled, "Poison Canyon Restoration." Poison Canyon has a highly entrenched stream and is a tributary to Sand Creek, which is a tributary to Mission Creek. CCNRD proposed to install 20 wood structures to help aggrade the channel. The total cost of the project is \$73,330, and the sponsor requested \$38,160 from the HCP Tributary Committees, but they declined the opportunity to fund the project. Hillman explained, the issue is that several HCP Tributary Committees representatives have completed similar projects and such highly designed structures are unnecessary to achieve the project's purposes. He said the project is over-engineered and too expensive. CCNRD also proposed installing game cameras and piezometers, which the HCP Tributary Committees do not agree are needed. CCNRD proposed installing one structure per day, when the HCP Tributary Committees believe two or more structures can be constructed per day. CCNRD also needs to consider anchoring, so the wood does not get flushed out of the canyon. The HCP Tributary Committees are working with the sponsor to develop a cheaper, more effective proposal, and CCNRD will likely resubmit. Tom Kahler noted that Poison Canyon has a lot of erodible soils. Hillman agreed and said the sponsor just lacked the technical background on how to aggrade a small stream; however, he added that the proposal was very well-written.

- *Independent Scientific Advisory Board Visit:* The Independent Scientific Advisory Board will be visiting Wenatchee, Washington, from July 19 to 21, 2017. One day is for visiting the Wenatchee River basin, one day is for visiting the Methow River basin, and one day is for presentations. Kahler said he believes the plan now is to visit the Methow River basin at a later date, because all three components were too much to cover in a 3-day period.
- *Next Steps:* The next meeting of the HCP Tributary Committees will be on July 13, 2017, when the HCP Tributary Committees will be evaluating the final General Salmon Habitat Program proposals.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on June 21, 2017:

- *Tumwater Dam Pacific Lamprey Passage Feasibility Study Update:* In the Rocky Reach Fish Forum, concerns were raised about Pacific lamprey passage issues at Tumwater Dam. The way the fish ladder is currently designed is not conducive to Pacific lamprey passage. The question is whether improvements can be made to improve Pacific lamprey passage. To address this question, Chelan PUD has funded a feasibility study. In the HCP Hatchery Committees, Alene Underwood (Chelan PUD HCP Policy Representative) provided an update on the status of the feasibility study. During the HCP Hatchery Committees meeting, Underwood indicated that technical staff at the District have been expecting to receive the feasibility study report for the past few months; however, the report is still under review by Chelan PUD's upper management. Chelan PUD is evaluating what their legal requirement is regarding Pacific lamprey passage at Tumwater Dam and the biological benefit that a passage structure at the dam will provide. Specifically, Chelan PUD is working on three items: 1) distributing the feasibility study as soon as possible; 2) determining regulatory nexus and requirements including off-license mitigation; and 3) preparing a biological benefit assessment to determine how passage improvements will influence future abundance. The report should be available in the next couple of months. Jim Craig recalled that when Bryan Nordlund (National Marine Fisheries Service [NMFS], retired) served on the HCP Coordinating Committees, Nordlund expressed concern that the denil structure could potentially exclude the largest of the Chinook salmon species (i.e., it was a caudal tail amplitude issue). Mike Tonseth (WDFW HCP Hatchery Committees Representative) noted that the structure was designed for sockeye salmon. Hillman also noted that Steve Rainey (USFWS consultant) designed the current fishway.
- *USFWS Bull Trout Consultation Update:* USFWS has made little progress on bull trout consultations due to other pressing issues.
- *NMFS Consultation Update:* NMFS provided an update on consultation for the six unlisted programs in the upper Columbia River, including: Wenatchee summer Chinook salmon,

Chelan Falls summer Chinook salmon, Wells summer Chinook salmon, Methow summer Chinook salmon, Priest Rapids fall Chinook salmon, and Ringold upriver bright fall Chinook salmon. The Ringold program will likely be a direct Section 7 consultation with the U.S. Army Corps of Engineers. The NMFS General Counsel prefers using the Section 4(d) process for Endangered Species Act (ESA) coverage for the other five programs rather than a Section 10 incidental take permit. Section 4(d) has a more flexible timeline, provides a wider range of actions under which a program can operate, and provides a continuing form of coverage. Section 10 is very specific, it has an expiring form of coverage, and operation changes could result in re-consultation. However, the language in the HCP stipulates Section 10 for ESA coverage. The PUDs are talking to their respective attorneys to determine if Section 4(d) is a workable alternative.

- *Review Hatchery Monitoring and Evaluation Plan Objectives:* The HCP Hatchery Committees have been reviewing the objectives in the Hatchery Monitoring and Evaluation (M&E) Plan to verify they are consistent with the updates made to the hatchery M&E timeline. The review is complete. Language will be added to the plan, mostly in the section on straying. Hillman explained that stray rates for within population and among populations are related to ESA criteria defined by the Upper Columbia Technical Recovery Team (UCTRT) and included in the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan. Brood year stray rate, on the other hand, is not described in the Recovery Plan or UCTRT document and therefore those documents did not provide a criterion for brood year stray rate. Consequently, the HCP Hatchery Committees are discussing whether they need to have a target for brood year stray rate. The current brood year stray rate target in the Hatchery M&E Plan is 5%. There is no literature supporting a specific brood year stray rate target; however, some literature indicates stray rates of natural-origin fish can range anywhere from 1 to 100% depending on what spawning aggregate is considered. Hillman noted that changes can be made to programs that could affect the stray rates; however, complete brood year returns have to be reported years after any changes because fish from those brood years have not yet returned, so this is always being evaluated retrospectively. The HCP Hatchery Committees will continue to measure and evaluate a target for brood year stray rates in light of other metrics. The genetics component is also still under review. Kirk Truscott asked how the HCP Hatchery Committees can make changes if there is no target to apply it against. Tonseth said it comes down to accountability.
- *Methow Steelhead Gene Flow:* The Wells HCP Hatchery Committee continued their discussion on steelhead gene flow in the Methow River basin. The Wells HCP Hatchery Committee is working toward a proportionate natural influence (PNI) target of 0.67 or greater for in-basin. Depending on steelhead escapement levels, a basin-wide PNI can be achieved by setting percent hatchery-origin spawners (pHOS) targets for specific areas (i.e., some areas have low pHOS and others have high or fluctuating pHOS, so long as PNI can be achieved basin-wide).

Korth asked what a low pHOS is, and Tonseth said 0.25. Hillman added that the pHOS in the conservation zone would be divided between programs such that conservation programs would have a pHOS target of 0.20 and the safety-net program would have a pHOS target of 0.05. Tonseth clarified this is for run escapements larger than 500 fish. He also added this is modeled similarly to Methow spring Chinook salmon. Hillman said discussions are ongoing.

- *Hatcheries and Life Cycle Modeling:* The NOAA Northwest Fisheries Science Center is modeling effects of hatchery programs on the Wenatchee spring Chinook salmon life cycle. Hillman invited the senior modeler, Jeff Jorgensen, to present these studies to the HCP Hatchery Committees during their meeting on August 16, 2017. Hillman suggested the HCP Coordinating Committees also attend the presentation. Kristi Geris will coordinate with Hillman and Sarah Montgomery to obtain meeting and WebEx information for Jorgensen's presentation to the HCP Hatchery Committees, which Geris will distribute to the HCP Coordinating Committees. *(Note: this presentation has been postponed to the HCP Hatchery Committees meeting on September 20, 2017.)*
- *Draft Hatchery M&E Annual report:* The HCP Hatchery Committees are currently reviewing the Draft 2016 Chelan PUD and Grant PUD Hatchery M&E Annual Report. Comments are due by July 15, 2017.
- *Next Steps:* The next meeting of the HCP Hatchery Committees will be on July 19, 2017.

III. Chelan PUD

A. Tumwater Dam Pacific Lamprey Passage Feasibility Study Progress Update (Lance Keller)

Lance Keller said Jim Craig requested that Chelan PUD provide an update on the Tumwater Dam Pacific Lamprey Passage Feasibility Study; however, Tracy Hillman covered this under the HCP Hatchery Committees update. Keller asked Craig if he had further questions at this time, and Craig said Hillman's update was adequate.

B. Rocky Reach Large Unit Repair Update (Lance Keller)

Lance Keller said Rocky Reach Dam has four large turbine units, C8, C9, C10, and C11, which are the northern-most units and were built in 1961. Keller said in 2013, one unit (C10) started leaking oil and metal particles were found in an oil strainer. He said mechanic crews investigated this and discovered the stainless steel rod that delivers oil to the servo motor was machined too thin and had developed a hairline crack. He said Chelan PUD determined this crack could lead to catastrophic failure and because all large units were designed similarly, Chelan PUD decided to take the four large units out of service. Keller said Chelan PUD then worked with the Rocky Reach HCP Coordinating Committee and Bryan Nordlund and ultimately welded blocks to fix the blades on the large units at a specific

angle, which was selected to be the most hydraulically efficient (and best for fish passage) at full turbine flow.

Keller said Chelan PUD last provided a Rocky Reach large unit repair update to the HCP Coordinating Committees in 2014 that included the following timeline for repairing the units assuming no further issues developed:

Schedule for Rocky Reach Large Unit Repair, 2014

Turbine Unit	Return to Service
C8	December 2017
C9	October 2016
C10	December 2020
C11	November 2019

Keller said after providing this timeline during the HCP Coordinating Committees meeting on May 24, 2016, Chelan PUD notified the HCP Coordinating Committees that cracks were identified in the wheels of the bridge crane required to hoist the turbines for repair. He recalled that the repair of the bridge crane was fast tracked internally by making an emergency declaration and is scheduled to be back in service in 2017. He said with the bridge crane back in service this year, the updated timeline for repairing the large units is as follows:

Schedule for Rocky Reach Large Unit Repair, 2017

Turbine Unit	Return to Service
C8	Fourth Quarter 2017
C9	First Quarter 2019
C10	First Quarter 2020
C11	First Quarter 2021

Keller noted that the return-to-service date for C11 is the same year Chelan PUD will conduct the HCP 10-year check-in survival study for Rocky Reach Dam. He said if the unit repairs cannot be completed on schedule, Chelan PUD determined C11 is the preferred unit to be offline during a survival study. He explained that given C11 is the northern-most unit, being offline will not cause a shift in flow nor provide a calm, central area for predators to stage in the immediate tailrace.

Jim Craig asked if the servo rods will be completely replaced, and Keller said yes. John Ferguson said with C8 scheduled to be back in service this fall, he suggested that Chelan PUD provide another Rocky Reach Dam large unit repair update during an HCP Coordinating Committees meeting in late-

summer 2017. Keller agreed. Jeff Korth asked if the large units will remain in a fixed position once the new servo rods are installed. Keller said no, the units will be restored to their Kaplan configuration.

C. Rock Island Powerhouse 1 Maintenance Update (Lance Keller)

Lance Keller said he was unable to obtain a Rock Island Powerhouse 1 maintenance update in time for today's meeting; therefore, Chelan PUD will provide this update during the HCP Coordinating Committees conference call on July 25, 2017.

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

Lance Keller recalled providing an update during the HCP Coordinating Committees conference call on May 23, 2017, about the notification from May 18, 2017, that Rock Island Dam lost capability of operating automated spill gate 7. Keller said the issue with spill gate 7, coupled with two other spill gates being out of service, resulted in reduced capacity to respond to a significant flow event; therefore, two notch gates were converted back to full gate operation. He said this discussion resulted in an action item for Chelan PUD to explain 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.

Keller explained that the spill gates at Rock Island Dam are suspended on large cables. He said on spill gate 7, one cable became unattached; therefore, when one end of the gate raised up, the other end did not, damaging the gate and guiderails. He said river flow needs to decrease in order to deploy divers for repairs. He said currently, spill gate 7 is jammed in place.

Keller said spill gates 17 and 25 are in a similar condition. He said spill gate 17, during operation, had the gear shaft twisted in half in the gear box, causing one end of the gate to raise and the other end not. He said again, the gate was damaged and the gear box needs to be replaced. He said replacement parts are 20 weeks out. Keller said after the spill gate 17 failure, mechanics observed the same cracks in spill gate 25 and removed that gate from service. Keller added, however, that spill gate 25 has not yet failed. Upon review it was also discovered that the gear box was undersized for the operation, and engineers are looking into replacement with a new gear box. He said Chelan PUD is hopeful the spill gates will be equipped with new gear boxes and back in service by spring 2018.

John Ferguson asked about the other automated spill gates. Keller said all other gates have been inspected and they are in good condition. He added that anytime a failure such as this occurs, Chelan PUD inspects all other similar structures.

Jeff Korth asked how the gates are replaced. Keller said the gates are removed in sections, and each section is held in place using a crane.

Kirk Truscott asked how often inspections are conducted on the spill gates, because there seems to be a trend of aging parts failing at the project. He said it may behoove Chelan PUD to inspect and replace parts before they fail. Keller agreed there have been some opportunities for better planning and to be more proactive. He added, however, it is still difficult with Rock Island Dam because once it is determined parts are at the end of their lifespan, repairs still take a long time because the parts are so old, typically a redesign is needed and parts need to be located.

Keller said Chelan PUD is hoping for a modern-day fix for the gear boxes, and have extra parts on hand for when the others gates show signs of possible failure.

IV. Douglas PUD

A. Wells Hatchery Modernization Update (Tom Kahler)

Tom Kahler said the modernization is expected to be complete by the end of August 2017. John Ferguson suggested convening an HCP Coordinating Committees meeting at the dam after the modernization is complete, including a tour of the upgrades. Kahler agreed this is a good idea and noted there is a conference room at the hatchery.

B. Wells Dam Bypass Update (Tom Kahler)

Tom Kahler recalled that bypass barriers have been pulled from spill bay 6 nearly all spring 2017. He said river flow out of Grand Coulee Dam is diminishing and barriers will likely be reinstalled in spill bay 6 in the next week.

Kahler said the newly installed passive integrated transponder (PIT)-tag detection system in spill bay 2 is operating well. He said when spill is high, detections are low; however, when spill is low, detections increase. He noted there were a few orphan PIT tag detections on June 23, 2017.

Jeff Korth asked about total dissolved gas out of Chief Joseph Dam. Kahler said he does not have those data available at this time and the Douglas PUD biologist who monitors those data has been in the field for the past couple of weeks.

V. USFWS

A. Subyearling Spring Chinook Salmon Rearing in the Columbia River (Jim Craig)

Jim Craig said USFWS now has genetic data from their M&E program in the Entiat River basin which indicate that subyearling ESA-listed spring Chinook salmon are outmigrating, residing, and rearing in the mainstem Columbia River. Craig said to date, fisheries managers believed the only subyearling Chinook salmon rearing in the Columbia River were of the non-listed summer Chinook salmon variety. He added that subyearling spring Chinook salmon have a life history which is difficult to

monitor. He said follow-up emails with Scott Carlon also revealed this life history trait in the Deschutes River (i.e., subyearling spring Chinook salmon leave the tributaries in the fall and overwinter in the mainstem Deschutes River).

Kirk Truscott asked if USFWS is PIT-tagging fish out of the Entiat River basin, and Craig said yes. Craig said he is concerned there is no juvenile monitoring during the fall when a lot of subyearlings emigrate from the Entiat River basin.

VI. WDFW

A. WDFW HCP Coordinating Committees Representation (Jeff Korth)

Jeff Korth said his last day before retirement is Friday, June 30, 2017. Korth said WDFW opened the position for Northcentral Regional Fish Program Manager. He said there were three applicants, including Chad Jackson. Korth said Jackson is the front runner, because of his extensive management experience. Korth said interviews for his replacement will be conducted July 13, 2017. He said WDFW has also been considering Mike Tonseth to serve as a WDFW HCP Coordinating Committees Alternate, particularly to keep close connections to HCP Hatchery Committees topics. *(Note: Tonseth is also the WDFW HCP Hatchery Committees Representative.)*

Korth requested to add Jackson and Tonseth to the HCP Coordinating Committees email distribution lists and provide them both with access to the HCP Coordinating Committees extranet site, because Jackson will potentially become the WDFW HCP Coordinating Committees Representative and Tonseth will likely be a new WDFW HCP Coordinating Committees Alternate. HCP Coordinating Committees representatives present agreed to Korth's request.

Kristi Geris will add Jackson and Tonseth to the HCP Coordinating Committees email distribution lists and request access to the HCP Coordinating Committees extranet site from Julene McGregor. *(Note: Geris added Jackson and Tonseth to the email lists and requested access to the extranet site following the meeting on June 27, 2017.)*

VII. HCP Administration

A. Jeff Korth Farewell (All)

The HCP Coordinating Committees and Tracy Hillman thanked Jeff Korth for his contributions to the HCPs and fisheries world and said it has been a pleasure to work with Korth over the years.

A farewell lunch was planned for Korth at McGlenn's at 12:00 p.m.

B. Next Meetings

The next scheduled HCP Coordinating Committees meeting is on July 25, 2017, to be held by conference call. *(Note: due to lack of agenda items, the HCP Coordinating Committees meeting on July 25, 2017, has been canceled.)*

The August 22, 2017, meeting will be held in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington.

The September 26, 2017, meeting will be held by conference call or in-person at the Grant PUD Wenatchee Office in Wenatchee, Washington, as is yet to be determined.

VIII. List of Attachments

Attachment A List of Attendees

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman	BioAnalysts
Lance Keller*	Chelan PUD
Tom Kahler*	Douglas PUD
Scott Carlon*†	National Marine Fisheries Service
Jim Craig*	U.S. Fish and Wildlife Service
Jeff Korth*	Washington Department of Fish and Wildlife
Mike Tonseth	Washington Department of Fish and Wildlife
Kirk Truscott*	Colville Confederated Tribes

Notes:

* Denotes HCP Coordinating Committees member or alternate

† Joined by phone