

## Memorandum

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

Date: October 19, 2017

From: Tracy Hillman, HCP Hatchery Committees Chairman

cc: Sarah Montgomery, Anchor QEA, LLC

**Re: Final Minutes of the September 20, 2017 HCP Hatchery Committees Meeting**

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The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Hatchery Committees meeting was held at the Grant PUD office in Wenatchee, Washington, on Wednesday, September 20, 2017, from 9:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A to these meeting minutes.

### Action Item Summary

- Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) will write an overview of proposed expanded sampling at the off-ladder fish trap (OLAFT) at Priest Rapids Dam (Item I-A). *(Note: this item is ongoing.)*
- Mike Tonseth will coordinate with Todd Seamons (WDFW) to produce an outline or recommended approach for genetic monitoring (Item I-A). *(Note: this item is ongoing.)*
- Tracy Hillman will distribute the Upper Columbia Salmon Recovery Board's (UCSRB) discussion draft Hatchery Report to the Hatchery Committees when he receives it (Item I-A). *(Note: Hillman sent the report to Montgomery, who distributed it to the Hatchery Committees on October 13, 2017.)*
- Tracy Hillman will invite Greer Meier (UCSRB) to an upcoming Hatchery Committees meeting to discuss the Hatchery Report (Item I-A). *(Note: Meier plans to attend the November 15, 2017 Hatchery Committees meeting.)*
- Kirk Truscott will discuss internally and coordinate with Keely Murdoch on potential edits to Chelan PUD's *Draft Statement of Agreement Regarding the District's Coho Obligation* (Item II-A).
- Tom Kahler will send Douglas PUD's Transition Plan Outline to Sarah Montgomery for distribution to the Hatchery Committees (Item III-A). *(Note: Montgomery distributed the outline following the meeting on September 20, 2017.)*
- Douglas PUD will provide their Transition Plan to the Hatchery Committees for review (Item III-A). *(Note: Tom Kahler sent the plan to Montgomery, which she forwarded to the Hatchery Committees on October 16, 2017.)*

- Hatchery Committees representatives will review the revised monitoring and evaluation (M&E) Plan for PUD Hatchery Programs and discuss it during the October 18, 2017 Hatchery Committees meeting (Item IV-D). *(Note: Montgomery distributed the latest version of the plan on October 10, 2017.)*
- Tracy Hillman will invite Barry Berejikian (Northwest Fisheries Science Center) to the October 18, 2017 Hatchery Committees meeting to discuss steelhead in the Twisp River (Item V-A). *(Note: Berejikian plans to attend the October 18, 2017 meeting.)*

## Decision Summary

- There were no decisions approved during today's meeting.

## Agreements

- There were no agreements discussed during today's meeting.

## Review Items

- Sarah Montgomery sent an email to the Rocky Reach and Rock Island Hatchery Committees on August 15, 2017, notifying them that the Chelan PUD *Draft Statement of Agreement Regarding the District's Coho Obligation* is available for a 30-day review, with comments due to Catherine Willard by September 14, 2017. Chelan PUD indicated they will request approval of the Statement of Agreement (SOA) at the Hatchery Committees September 20, 2017 meeting. *(Note: this item will be discussed at the November 15, 2017 Hatchery Committees meeting.)*
- Sarah Montgomery sent an email to the Hatchery Committees on September 1, 2017, notifying them that the Draft 2016 Douglas PUD and Grant PUD M&E Annual Report is available for a 60-day review, with edits and comments due to Greg Mackey by October 31, 2017. *(Note: Douglas PUD requested comments in 30 days if possible, which would be October 2, 2017.)*
- Sarah Montgomery sent an email to the Hatchery Committees on October 16, 2017 notifying them that the draft plan, Implementation of Comprehensive Monitoring and Evaluation of Wells Hatchery Complex Programs in 2018, is available for review with edits and comments due to Greg Mackey by December 1, 2017.

## Finalized Documents

- Sarah Montgomery sent an email to the Hatchery Committees on September 15, 2017, notifying them the Chelan PUD and Grant PUD 2016 Final M&E Annual Report and Appendices is now available for download from the Hatchery Committees Extranet site.

## I. Welcome

### A. Review Agenda, Review Last Meeting Action Items, and Approve the August 16, 2017, Meeting Minutes (Tracy Hillman)

Tracy Hillman welcomed the Hatchery Committees and asked for any additions or changes to the agenda. Hillman added agenda items for annual and monthly M&E reports. Keely Murdoch requested that Douglas PUD discuss the transition plan for the Wells Program hatcheries. Greg Mackey agreed and also added an item for Wells Fish Hatchery Modernization.

The Hatchery Committees representatives reviewed the revised draft August 16, 2017 meeting minutes. Sarah Montgomery said there are a few outstanding comments in the notes, and representatives revised the meeting minutes. Hatchery Committees representatives present approved the draft August 16, 2017 meeting minutes, as revised.

Action items from the Hatchery Committees meeting on August 16, 2017, and follow-up discussions were addressed (*note: italicized text below corresponds to agenda items from the meeting on August 16, 2017*):

- *Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) will write an overview of proposed expanded sampling at the off-ladder fish trap (OLAFT) at Priest Rapids Dam (Item I-A).*

Mike Tonseth said this item is ongoing.

- *Sarah Montgomery will clarify the review period for the Chelan PUD Draft Statement of Agreement (SOA) Regarding the District's Coho Obligation and provide an update to the Hatchery Committees (Item II-A).*

This item is complete.

- *Mike Tonseth will coordinate with Todd Seamons (WDFW) to produce an outline or recommended approach for genetic monitoring (Item III-E).*

Tonseth said he began coordinating with Seamons and this item is ongoing.

- *Mike Tonseth will send the revised Table 3 of the Hatchery Monitoring and Evaluation (M&E) Plan to Tracy Hillman for inclusion in the 2017 Update (Item III-G).*

This item is complete. Tonseth provided the table to Hillman on August 17, 2017.

- Sarah Montgomery will send SOAs regarding Non-target Taxa of Concern (NTTOC) study results to Tracy Hillman (Item III-G).

This item is complete.

- Tracy Hillman and Todd Pearsons will revise NTTOC and adaptive management language in the Draft 2017 Update to the M&E Plan for PUD Hatchery Programs and provide a revised version for Hatchery Committees review (Item III-G).

Hillman revised the plan and Sarah Montgomery distributed a revised version for review on September 2, 2017, which will be discussed today.

## II. Chelan PUD

### A. Draft Coho Salmon Mitigation SOA (Catherine Willard)

Catherine Willard shared the document titled *Draft Statement of Agreement Regarding the District's Coho Obligation*, which Sarah Montgomery distributed to the Hatchery Committees on September 6, 2017 (Attachment B). Willard said the revised version includes clarifications regarding which calculations apply to which coho reintroduction projects (i.e. Methow sub-basin or Wenatchee sub-basin). She asked if there are any comments or questions.

Kirk Truscott said the Colville Confederated Tribes (CCT) need to discuss this internally before approving it, and asked to coordinate discussions with the Yakama Nation (YN). Keely Murdoch agreed and said YN and CCT will coordinate any proposed revisions to the SOA and provide an update to the Hatchery Committees at the October 18, 2017 Hatchery Committees meeting.

### B. Tumwater Feasibility Study for Lamprey Update (Catherine Willard)

Catherine Willard said Chelan PUD has been working on a feasibility study for lamprey passage at Tumwater Dam. She said an updated version of the study will be available for review soon. Bill Gale asked if the study needs to be reviewed by Chelan PUD management again. Alene Underwood said no and it will likely be distributed in October 2017. Gale asked if the draft will be available for the Rocky Reach Fish Forum (RRFF) to review. Underwood said Chelan PUD will ask the RRFF to review the document and provide comments.

Willard said the YN has been introducing lamprey into the Wenatchee River in 2016 and 2017, above and below Tumwater Dam, and lamprey have been counted at the Tumwater Dam observation window. Gale asked how many lamprey have been counted at the window and Willard said during the times trapping was not occurring, 14 lamprey were counted passing by the observation window at night. She said between July 16 to August 31, limited trapping occurs at Tumwater for up to 16 hours per day (versus 24 hours/7 days/week). Additionally, from August 31 to September 6, 2017,

trapping was not occurring at Tumwater Dam to evaluate lamprey passage in the fishway after the August 31<sup>st</sup> lamprey release. She said when the trap is not operating, the denil is not operating, and lamprey are using the fishway to ascend the dam. However, she did note that a lamprey was observed ascending the denil, which was captured on video by WDFW technicians. She said PIT-tag detection data have not been uploaded to PTAGIS yet, but it appears that 24 unique detections in the Tumwater Dam fish ladder are likely the lamprey most recently released by the YN. She said PIT-tag detections have occurred previously in the fish ladder at Tumwater Dam.

### III. Douglas PUD

#### A. Wells Transition Plan (Greg Mackey)

Greg Mackey said Douglas PUD terminated their contract with WDFW to operate the Wells and Methow fish hatcheries. He said this decision was precipitated by complaints, investigations, and firings at Wells Fish Hatchery, covered heavily by media. He said the Douglas PUD General Manager and commissioners have been working to determine a path forward and directed the PUD to terminate the WDFW contract. Mackey said the termination includes a contractually-determined 90-day transition period, which may or may not be extended pending higher-level discussions.

Mackey said Steve Parker (YN) contacted Douglas PUD with concerns, mostly about the transition period, and Shane Bickford (Douglas PUD) discussed the transition period with him. Mackey said no determination has been made yet to extend the transition period, but Douglas PUD is not opposed to a longer period such as 120 days.

Mackey said Douglas PUD is drafting a transition plan and shared hard-copies of the Transition Plan Outline to meeting attendees (Attachment C). Tom Kahler said he would send an electronic copy to Sarah Montgomery to distribute to the Hatchery Committees. Mackey said Douglas PUD intends to distribute the Transition Plan for the Hatchery Committees to review soon, as it is nearly complete. He said it will be important to receive input from representatives about any missing pieces or program details. Mackey said Douglas PUD has posted approximately 10 positions, which they intend to fill very soon. He said the fish health position, if not filled by Douglas PUD, would be contracted to the U.S. Fish and Wildlife Service (USFWS), WDFW, or other qualified sources.

Keely Murdoch thanked Mackey for the update and agreed with his summary of Parker's feedback that YN would prefer a longer transition period. She said 90 days may be too short of a time to discuss and cover all items and tasks. She said jointly held permits, roles and responsibilities, National Pollutant Discharge Elimination System permits, marking, staffing, operation of Carlton Pond, and adult management and surplusing are just a few of the complex management actions that need to be worked out during the transition. She suggested not just a longer transition

period, but also a more collaborative transition plan. She said the Wells and Methow fish hatcheries are central to Douglas PUD's hatchery mitigation requirements and communication and involvement with others who make related management decisions is necessary to ensure a smooth transition. Mackey said Douglas PUD intends to keep the M&E contract with WDFW in place, as there are no performance issues with those tasks. He said it also conceptually makes sense to have the M&E contract separate from the hatchery operations so that oversight can be performed separate from operations. He said it would not make sense for Douglas PUD to monitor their own programs, even though this has not been an issue in the past with WDFW having both contracts

Tonseth said a detailed transition plan is the most necessary piece of this transition to make sure nothing gets missed. He said parties will not understand if the transition is working unless a plan is being followed. He said he hopes to see a full transition plan available for review soon, as Bickford indicated. Mackey said Douglas PUD will distribute the draft soon and asked for representatives to provide feedback on the outline so Douglas PUD can adjust the plan as needed.

Brett Farman said the National Marine Fisheries Service (NMFS) has similar concerns regarding the transition period and making sure nothing is missed. He said NMFS is working to understand how to transfer and renew permits with Douglas PUD as the hatchery operator. He said, for example, NMFS needs to ensure the operating party meets qualifications and has a demonstrated track record of hatchery performance in order to transfer permits. He said NMFS is working to interpret this regulatory language and will provide a letter with their concerns soon.

Bill Gale said this is a big change in hatchery operations and the policy aspects of the termination are outside many Hatchery Committees representatives' control. He said as agency representatives, Hatchery Committees representatives are responsible for oversight of hatchery mitigation related to the Rock Island, Rocky Reach, and Wells projects. He said he is pleased that Douglas PUD is hiring staff and working on a transition plan, but urged Douglas PUD to make the transition plan collaborative within the Hatchery Committees because representatives are charged with overseeing mitigation related to these programs. He said representatives have the responsibility and obligation to ensure that mitigation and plans for transition are going to be implemented. He said the USFWS is working to understand some of the regulatory aspects of this transition, and would prefer a more deliberate and collaborative transition process over a longer period. He also voiced frustration with the lack of communication about the transition and asked for Hatchery Committees representatives to be kept better informed of these sorts of changes in the future.

Kahler agreed that the luxury of better communication regarding the contract termination would have been ideal, but was not an option. Tonseth agreed and said better communication on all sides could have reduced stress and surprises associated with the transition.

Kirk Truscott said he also urges Douglas PUD to communicate with the Hatchery Committees regarding the transition and asked that the Hatchery Committees review the transition plan.

Kahler summarized that Douglas PUD will provide a transition plan soon for the Hatchery Committees to review and thanked everyone for their input, expertise, and offers of help during the transition.

### **B. Wells Fish Hatchery Modernization (Greg Mackey)**

Greg Mackey said the Wells Fish Hatchery Modernization project is nearly complete. He said Douglas PUD extended the contract end date past August 31, 2017, to finish minor items such as grating and fixed ladder designs, but the building is operational and essentially complete as scheduled. He invited Hatchery Committees representatives to visit and said he plans to schedule a tour or perhaps an upcoming Hatchery Committees meeting there this fall.

## **IV. Joint HCP-HC/PRCC HSC**

### **A. USFWS Bull Trout Consultation Update (Bill Gale)**

Bill Gale said he does not have an update from Karl Halupka (USFWS) regarding bull trout consultations. Mike Tonseth said WDFW met with National Oceanic and Atmospheric Administration and USFWS staff earlier this week and said they discussed strategies and outstanding items for bull trout consultation. Tonseth said Halupka finished making edits and responding to comments on the Biological Opinion for the batch of Wenatchee subbasin programs and Sierra Franks (USFWS) is currently reviewing the document. He said Franks indicated there are no major red flags in the document and it will go through a more senior review and then back to Halupka for revisions. Tonseth said the Wenatchee steelhead permit will likely be the only remaining permit issued in 2017, because it only needs Section 7 consultation and signatures.

### **B. NMFS Consultation Update (Brett Farman)**

Brett Farman said Emi Kondo (NMFS) intends to finish the proposed action for the upper Columbia River unlisted summer Chinook salmon programs next week and is incorporating edits and comments from reviewers. He said Chuck Peven (Peven Consulting Inc.) is working on the Biological Opinion for the upper Columbia River unlisted programs and may contact people for information.

### **C. Wenatchee Spring Chinook Salmon Lifecycle Modeling (Jeff Jorgensen)**

Tracy Hillman introduced Jeff Jorgensen (Ocean Associates, Inc.), who shared a presentation titled *Lifecycle modeling in the Wenatchee River Basin* (Attachment D). Hillman said he and Andrew Murdoch have also participated in developing this model and Jorgensen leads one of several lifecycle modeling teams. Jorgensen said the different teams share ideas and code and, while models

may be driven by different factors, most of the work is directed to inform biological opinions and recovery planning. He said today he will describe the Wenatchee spring Chinook salmon lifecycle model.

#### Roots and basics of the model (slides 1-4)

Jorgensen said the Wenatchee lifecycle model is a population dynamics model that addresses how the population changes relative to natural factors or demographic rates and has its roots in a matrix-type model. He said the Independent Scientific Advisory Board (ISAB) reviewed the Wenatchee model in 2013 and again in 2017. He said to determine how many fish move to the next step of the model, you multiply the number of fish by difference equations. This allows for applying different demographic parameters to different production areas, such as management areas in the Wenatchee basin (e.g., Chiwawa River or White River).

#### Running the model and using modules (slides 5-13)

Running the model starting with spawner abundance produces different outcomes, which can be summarized and characterized to determine tendencies and variation. Jorgensen said there are a lot of data in the Wenatchee basin that help inform this model. Estimates of spawner abundance and juvenile production are particularly useful to fit a fish production function within the model based on observations. Numbers of spawners, numbers of smolts, and hatchery relative reproductive success are all used to calibrate and parameterize the model. Additionally, smolt-to-adult survival rates, harvest rates, fish passage rates, and pre-spawn mortality are all factored into the model. In the Wenatchee basin, different production areas account for different production levels.

Jorgensen said the model is separated into different modules and one of those is the hatchery module, which considers broodstock, conservation, and mitigation elements to hatchery programs in the Chiwawa River and Nason Creek. He said hatchery fish are allowed to spawn in the wild based on percent natural influence (PNI) targets and percentage of hatchery origin spawners (pHOS), which set the baseline for natural-origin returns in the model. He said recent PNI estimates for the Chiwawa River, for example, are used in the model because hatchery fish are less productive than natural fish, so their spawning success is discounted. Kirk Truscott asked if the model accounts for hatchery fish spawning in the wild in separate areas. Jorgensen said hatchery fish tend to choose marginal habitat compared to wild fish, and that difference is still being discussed for incorporation in the model. Andrew Murdoch said the lifecycle modeling team will incorporate as much detail as possible to the model, especially in specific basins. Bill Gale asked if the model should consider three- or four-population estimates for PNI. Jorgensen said each area could be considered separately if enough data are available. Hillman asked if the same function is being used for both the Chiwawa River and Nason Creek. Jorgensen said yes. Hillman said for example, in the Chiwawa River, hatchery



fish spawn mostly in the lower part of the river, so the Chiwawa River could be written into the model as having two separate spawning aggregates.

Jorgensen emphasized that the lifecycle model evolves as more information becomes available and the hatchery module operates within the lifecycle model. He said at low natural-origin return abundance, hatchery managers have more flexibility for hatchery fish to spawn in the wild. He said the model sets a hatchery-origin return ceiling at very low natural-origin return abundance. In the Chiwawa River, for example, the PHOS line is a function of natural-origin returns.

#### Evaluating hatchery programs (slides 14-16)

Jorgensen said there are different scenarios for evaluating hatchery management. Broodstock collection levels, smolt releases, and domestication can change, which would all affect the number of hatchery-origin spawners spawning in the wild.

#### Scenarios and outputs (slides 17-30)

Jorgensen said hatcheries, habitat, hydropower projects, avian predation, ocean conditions, harvest, and pinniped predation are all factors included in the model that can change. In addition, Lake Wenatchee and toxics can be included in the model, but those will not be discussed today. Jorgensen said, for example, some potential changes to the habitat variable include improving juvenile rearing capacity by reconnecting side channels and converting rangeland to floodplain.

The model can be run by changing multiple scenarios at a time, and the output is a graph of natural-origin spawners vs. each scenario. The model also allows for referencing recruits back to brood year, so quasi-extinction risk and viable salmon population scores can be considered.

Jorgensen said sensitivity analyses help identify the big drivers in the lifecycle model. Jorgensen said Lake Wenatchee is one area where it is difficult to understand how to parameterize the lifecycle model. He said there are opportunities and challenges when considering Lake Wenatchee, but the effects of changing habitat or other actions pertaining to the lake are currently unclear. Some of the scenarios for the lake consider changes in habitat for eggs, habitat for parr, and lake survival under different hatchery scenarios, with the output being a change in the number of smolts leaving Lake Wenatchee, a change in natural origin spawners, or other factors.

#### Next steps and acknowledgments (slides 31-33)

Jorgensen said the lifecycle modeling team is working on incorporating pre-spawn mortality and the early migrant juvenile-life-history strategy into the model. He said they will consider the results of spatially continuous, long-term time-series stream-temperature data, and perhaps incorporate it into

fish-habitat relationships. Jorgensen acknowledged his funding sources and collaborators and asked for any questions or comments.

#### Questions and comments

Greg Mackey asked if Jorgensen ever encountered populations going extinct during model runs and asked if adjustments had to be made for calibration to reasonably represent current conditions. Jorgensen said they did not run into an extinction situation when running the model, likely because in the Wenatchee basin there are two life-history stages to calibrate the model and keep it within reasonable bounds.

Hillman asked how important was the hatchery component to overall abundance? Jorgensen said the hatchery component is very important to abundance especially compared to habitat or harvest. He said the lifecycle modeling team can run more scenarios to further isolate the hatchery component and determine its influence.

Peter Graf asked if the alternative hatchery scenario, which reduced pHOS, included commensurate changes in linked parameters, such as reduced broodstock collected or reduced juvenile releases. Jorgensen said that in this case the parameters were not linked and that only pHOS reduced, but those variables could be linked in the model. Tom Kahler commented that those parameters should be linked for a proper evaluation of hatcheries.

Peter Graf asked why adult survival to Bonneville Dam is described as an unknown quantity in the model and included in the calibration process. Jorgensen said it is used as a test case to see if the model fits, and used to help calibrate the model. Jorgensen noted that since discussing this further with the ISAB, the lifecycle modeling team has taken a more approximate approach to calibrating the model in order to account for natural variability and covariability. Graf asked if Lake Wenatchee survival could be treated similarly to the other less certain variables like year-1 ocean survival and be included in the calibration process. Jorgensen said it could but some prior knowledge or data is needed to create bounds around the variable otherwise the variable will not have an effect on the model. Mackey asked about the end product of the model. That is, will the model be available so anyone can run the model? Jorgensen said it would be difficult to train people to run the model themselves, but the modeling team may run all possible combinations and then create something like a Shiny application to display the results. Mike Tonseth asked if the Hatchery Committees identified a suite of questions or scenarios to evaluate, would the modeling team be able to run those. Jorgensen said yes. Andrew Murdoch said the model will change over time and data currently being collected will further inform the model.

Jorgensen summarized that the model is intended to be useful for managers and asked for representatives present to consider improvements to the model.

Tom Kahler asked about including water transport time, plume size, and the timing and duration of the spring freshet in the model. Jorgensen said these were considered when the model was being developed, but ultimately were not included because they correlate with model inputs that are already included. Additionally, the time series for those data is not as lengthy as other parameters like ocean regimes. Jorgensen said the lifecycle modeling team will be developing a revised module for ocean survival (currently under development for modeling for the Snake River), which includes more variables. He said water and travel time do not end up having a large influence on the model, but when included with ocean survival the variables are similar. Jorgensen said the model can be forced to run with bad ocean conditions to simulate a bad ocean sample, and a very visible relationship is seen between ocean conditions and decreased fish numbers.

Hatchery Committees representatives present thanked Jorgensen for presenting the model and expressed interest in future developments in the model and potentially running certain hatchery scenarios.

#### **D. M&E Plan for PUD Hatchery Programs 2017 Update (All)**

Tracy Hillman said he revised the M&E Plan for PUD Hatchery Programs to reflect changes discussed during the August 16, 2017 Hatchery Committees meeting. Sarah Montgomery distributed a revised version of the plan for review on September 2, 2017 (Attachment E). Hillman reviewed the edits in the document, and questions and comments were discussed.

Hillman said language in Section 7.2 (Non-target Taxa of Concern) is new and asked if anyone had comments. There were no immediate questions, but representatives indicated they would like more time to review it.

Hillman said he added language to Section 8 (Adaptive Management) regarding analyzing major program changes. He said in order to complete these analyses, the Hatchery Committees will need to identify major program changes in fish culture or M&E for each program and suggested that the Hatchery Committees start by identifying program changes with spring Chinook salmon during the October 18, 2017 Hatchery Committees meeting.

Hillman said he is still drafting Appendix 1, Carrying Capacity, and it will be available for review soon. He summarized that Hatchery Committees representatives will review the revisions to the plan and discuss it again at the Hatchery Committees October 18, 2017 meeting.

### **E. 2016 Chelan PUD and Grant PUD M&E Annual Report (Tracy Hillman)**

Tracy Hillman reminded the Hatchery Committees that the Chelan PUD and Grant PUD 2016 Final M&E Annual Report and Appendices are now available for download from the Hatchery Committees Extranet site (note: Sarah Montgomery sent this information to the Hatchery Committees on September 15, 2017).

### **F. Chelan PUD and Grant PUD Hatchery Programs M&E Progress Report – August 2017 (Tracy Hillman)**

Hillman shared the document, Chelan PUD and Grant PUD Hatchery Programs M&E Progress Report – August 2017 (Attachment F), which Sarah Montgomery distributed to the Hatchery Committees on September 19, 2017. He said in the section discussing 2016 Brood Nason Spring Chinook Salmon, there was an action that needs to be clarified. He said there was an over-production of both wild-by-wild (WxW) and hatchery-by-hatchery (HxH) spring Chinook salmon. As a result, a surplus of 41,263 HxH spring Chinook were released into Banks Lake. He said the remaining HxH Chinook salmon totals about 76,135 fish, which is below the production goal for this program (goal = 98,760 HxH fish). He said the over-production of WxW fish were marked as part of the safety-net program; thus, the safety-net program will meet its release target.

Keely Murdoch asked why the overage and subsequent release were not discussed with the Hatchery Committees before decisions were made. She said decisions to release fish to Banks Lake and to mark WxW fish as if they are HxH (ad-clip+coded wire tag [CWT]) does not reflect the purpose and spirit of the Hatchery Committees. Catherine Willard asked if there is a Hatchery Committees agreed-to policy for moving and tagging fish outside of what is described in broodstock collection protocols. Murdoch said the precedent is to discuss where and how to release excess fish as a committee. Mike Tonseth said some surplus management decisions and prioritizations are included in the broodstock collection protocols for steelhead, but not juvenile spring Chinook. He said an additional item to consider is that fish could not be transferred to the Chiwawa program because progeny of fish that would have had the highest assignments to the Chiwawa (from the composite brood collected at Tumwater for the Nason program) had already been comingled with the rest of the Nason program which precluded being able to transfer those progeny to the Chiwawa program because Nason Creek is a composite program and Chiwawa is not. Tonseth said this should be discussed, so that if a surplus occurs again, particularly with WxW progeny, fish can be moved between programs to satisfy conservation targets. Peter Graf said protocols and permits should be reviewed and discussed to determine how to manage overages and balance conservation programs. He said Grant PUD has concerns about WxW fish being marked as ad-clip+CWT, and asked what the venue is for discussing these concerns.

Bill Gale said this should be discussed in both the Hatchery Committees and Priest Rapids Coordinating Committee Hatchery Sub-Committee meetings. Tonseth said presently, utilizing WxW overages in the Nason Creek program for the Chiwawa program would be inconsistent with current permits. He said pending consultation with NOAA and discussion with the Hatchery Committees and Hatchery Sub-Committee, surplus WxW fish in the Nason program may be able to be prioritized for the Chiwawa program if a deficit occurs and the ability to keep progeny of fish with the highest assignments to the Chiwawa can be reared separately until an overage or insufficiency can be identified. Tonseth suggested additional alternatives and stated that further discussion is required with NOAA and other agencies.

Keely Murdoch said she is not certain the outcome of this overage (transfer to Banks Lake) would have been the same if it were discussed with the Hatchery Committees. She said she is not sure whether YN would have supported marking WxW fish with HxH fish, or the transfer to Banks Lake. She said the Hatchery Committees should discuss the protocol and decision-making standards for this type of decision in the future, especially for transferring fish as it may influence contracting and mitigation credit.

Tonseth said each program has individual and total release targets, and he had to make an immediate decision regarding this overage. He said the issue that forced this decision was capacity. He said there are two points at which staff can estimate numbers of fish on hand—the eyed-egg stage and during tagging. He said during the eyed-egg stage, it appeared that there might be an overage, but not more than the acceptable 110% limit. He apologized for the lack in communication about the transfer and decision, and suggested that as many management caveats and options should be included in agreed-to protocols as possible. He said decisions like this can be avoided in the future if program prioritization is built into protocols. He said, for example, if there is a known group of fish with very high assignment rates, that group could be kept separate from rearing to tagging then potentially could be transferred to a different program. He summarized that better communication and building more options and caveats into agreed-to protocols will help prevent something like this from occurring again.

## V. HCP Administration

### A. Next Meetings

The next Hatchery Committees meetings are on October 18, 2017 (to be decided; perhaps Wells Fish Hatchery or Grant PUD), November 15, 2017 (Grant PUD), and December 20, 2017 (Grant PUD).

## VI. List of Attachments

Attachment A List of Attendees

- Attachment B Draft Statement of Agreement Regarding the District's Coho Obligation
- Attachment C Transition Plan Outline
- Attachment D Lifecycle modeling in the Wenatchee River Basin
- Attachment E Draft 2017 Update - M&E Plan for PUD Hatchery Programs
- Attachment F Chelan PUD and Grant PUD Hatchery Programs M&E Progress Report – August 2017

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

Name	Organization
Tracy Hillman	BioAnalysts, Inc.
Sarah Montgomery†	Anchor QEA, LLC
Catherine Willard*	Chelan PUD
Alene Underwood	Chelan PUD
Greg Mackey*	Douglas PUD
Tom Kahler*	Douglas PUD
Peter Graf‡	Grant PUD
Deanne Pavlik-Kunkel‡	Grant PUD
Curt Dotson†	Grant PUD
Mike Tonseth*	Washington Department of Fish and Wildlife
Andrew Murdoch	Washington Department of Fish and Wildlife
Alf Haukenest	Washington Department of Fish and Wildlife
Bill Gale*	U.S. Fish and Wildlife Service
Michael Humling†	U.S. Fish and Wildlife Service
Brett Farman*†	National Marine Fisheries Service
Keely Murdoch*	Yakama Nation
Kirk Truscott*	Colville Confederated Tribes
Jeff Jorgensen	Ocean Associates, Inc.
Tom Skilest	Columbia River Inter-Tribal Fish Commission
Denny Rohrt	D. Rohr and Associates

Notes:

\* Denotes Hatchery Committees member or alternate

† Joined by phone

‡ Joined for the joint HCP-HC/PRCC HSC discussion