

## Memorandum

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

Date: February 26, 2018

From: Tracy Hillman, HCP Hatchery Committees Chairman

cc: Sarah Montgomery, Anchor QEA, LLC

**Re: Final Minutes of the January 17, 2018 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, January 17, 2018, from 9:00 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 adult 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.)*
- Sarah Montgomery will distribute the approved Chelan PUD Coho Obligation Statement of Agreement (SOA) to the Hatchery Committees (Item II-A). *(Note: Montgomery distributed the SOA on January 22, 2018.)*
- Tom Kahler will send Douglas PUD's 2018 Wells HCP Action Plan to the Hatchery Committees for review (Item IV-A). *(Note: Montgomery distributed the plan on January 22, 2018.)*
- The Methow Basin Steelhead Small Working Group will revise their memorandum, "Management alternatives for Methow Basin conservation steelhead programs," to incorporate backup broodstock collection locations for Twisp River steelhead and will distribute a revised version for review (Item IV-C).
- Mike Tonseth will coordinate with Todd Seamons (WDFW) regarding reviewing the memorandum, "Management alternatives for Methow Basin conservation steelhead programs," before the February 21, 2018 Hatchery Committees meeting (Item IV-C).
- Brett Farman will coordinate with Craig Busack (National Marine Fisheries Service [NMFS]) regarding reviewing the memorandum, "Management alternatives for Methow Basin conservation steelhead programs," before the February 21, 2018 Hatchery Committees meeting (Item IV-C).

- Mike Tonseth and Sarah Montgomery will compile permits and Biological Opinions (BiOps) applicable to HCP programs and post them to the Extranet site (Item VI-A).
- Hatchery Committees representatives will continue to provide historical information to Tracy Hillman for incorporation in program and species timelines, particularly regarding Wenatchee steelhead, Methow steelhead, and Methow summer Chinook salmon (Item VI-C).
- Sarah Montgomery will poll the Hatchery Committees and Priest Rapids Coordinating Committee (PRCC) Hatchery Sub-Committee to determine the March meeting date (Item VII-A).  
*(Note: Montgomery sent a Doodle poll on January 31, 2018. A date has not been finalized yet.)*

## Decision Summary

- The Rocky Reach and Rock Island Hatchery Committees approved Chelan PUD's SOA "Regarding District's Coho Obligation" as follows: Chelan PUD, WDFW, U.S. Fish and Wildlife Service (USFWS), NMFS, Yakama Nation (YN), and Colville Confederated Tribes (CCT) approved on January 17, 2018 (Item II-A). *(Note: Montgomery distributed the Final SOA to the Hatchery Committees on January 22, 2018.)*
- The Rocky Reach and Rock Island Hatchery Committees approved the hatchery portion of the 2018 Rock Island and Rocky Reach HCP Action Plan, as follows: Chelan PUD, WDFW, USFWS, NMFS, YN, and CCT approved on January 17, 2018 (Item II-C).
- The Wells Hatchery Committee approved piloting Alternative 3 in the memorandum, "Management alternatives for Methow Basin conservation steelhead programs," for broodstock collection and management of the Twisp steelhead program in 2018, as follows: Douglas PUD, WDFW, USFWS, NMFS, YN, and CCT approved on January 17, 2018 (Item IV-C).

## Agreements

- The Hatchery Committees approved Chelan PUD's request to collect four female and four male surplus steelhead broodstock from the Wells Fish Hatchery volunteer channel to support their egg-to-emergence evaluation in 2018 (Item II-B).
- The Rocky Reach and Rock Island Hatchery Committees approved Chelan PUD's request to move approximately 25,000 hatchery-by-hatchery (HxH) steelhead, destined for final acclimation at Blackbird Island Pond, from the "Enzyme-Linked Immunosorbent Assay (ELISA)" Pond to Raceway No. 2 at the Chiwawa Acclimation Facility and forego final acclimation at Blackbird Pond in 2018 (Item II-D).
- The Rocky Reach and Rock Island Hatchery Committees agreed to cull part of the brood year (BY) 2017 Chelan Falls summer Chinook salmon program to manage disease concerns. The progeny of hatchery females with ELISA values over 0.12 will be culled, approximately 35,000 eyed-eggs (Item III-A).

## Review Items

- Sarah Montgomery sent an email to the Wells Hatchery Committee on January 22, 2018, notifying them that the draft 2018 Wells HCP Action Plan is available for review, with comments due to Tom Kahler prior to the February 21, 2018 Hatchery Committees meeting.

## Finalized Documents

- Sarah Montgomery sent an email to the Rocky Reach and Rock Island Hatchery Committees on January 22, 2018, notifying them that the Final SOA, "Regarding District's Coho Obligation," is now available for download from the Hatchery Committees Extranet site.

## I. Welcome

### A. Review Agenda, Review Last Meeting Action Items, and Approve the November 15, 2017 Meeting Minutes (Tracy Hillman)

Tracy Hillman welcomed the Hatchery Committees and asked for any additions or changes to the agenda. The following items were added:

- Mike Tonseth added an item for BY 2017 Chelan Falls culling.
- Greg Mackey added an update on Douglas PUD hatcheries.
- Kirk Truscott added an update on Chief Joseph Hatchery.
- Tracy Hillman added the revised timelines for program changes.

The Hatchery Committees representatives reviewed the revised draft November 15, 2017 meeting minutes. Sarah Montgomery said there are no outstanding comments. Hatchery Committees representatives present approved the draft November 15, 2017 meeting minutes as revised.

Action items from the Hatchery Committees meeting on November 15, 2017, and follow-up discussions were addressed (*note: italicized text below corresponds to agenda items from the meeting on November 15, 2017*):

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

This item is ongoing. Mike Tonseth indicated the overview may be available in April or May 2018 for review.

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

This item is ongoing.

- *Bill Gale, Matt Cooper, Charlie Snow (WDFW), Tom Kahler, and Greg Mackey will develop management alternatives for the Twisp River and Winthrop National Fish Hatchery steelhead programs (Item I-A).*

This item is complete and will be discussed today.

- *Greg Mackey will revise the Douglas PUD steelhead surplus document and send it to the Hatchery Committees (Item III-A).*

This item is complete. Mackey sent the revision to Sarah Montgomery, which she forwarded to the Hatchery Committees following the meeting on November 15, 2017.

- *Greg Mackey will provide an update on the Wells and Methow fish hatcheries transition process, particularly regarding fish health and marking strategies, near the end of the transition period (Item III-C).*

This item is complete. Mackey provided this update via email on December 7, 2017.

- *Greg Mackey will provide an update on summer Chinook salmon spawning numbers for the Douglas PUD programs to the Hatchery Committees (Item IV-A).*

This item is complete.

- *Tracy Hillman will revise non-target taxa of concern language in the draft Monitoring and Evaluation (M&E) Plan for PUD Hatchery Programs (2017 Update) and provide the final approved version to the Hatchery Committees, the Independent Scientific Advisory Board (ISAB), and Greer Maier (Upper Columbia Salmon Recovery Board [UCSRB]; Item V-C).*

This item is complete. Hillman revised and sent the final Plan to Sarah Montgomery, which she distributed to the Hatchery Committees and Maier on November 17, 2017. Hillman also sent the plan to the ISAB on November 17, 2017.

- *Tracy Hillman will distribute the draft timelines for Wenatchee and Methow spring Chinook salmon programs for Hatchery Committees review (Item V-D).*

This item is complete—Hillman sent the timelines to Sarah Montgomery, which she forwarded to the Hatchery Committees on November 15, 2017—and will be further discussed today.

- *Tracy Hillman will draft timelines for summer Chinook salmon, steelhead, and sockeye salmon, and for hatchery programs in the Entiat River basin (Item V-D).*

This item is complete and will be discussed today.

- *Sarah Montgomery will distribute Greer Maier's presentation, "Integrated Recovery," from the November 15, 2017 Hatchery Committees meeting (Item IV-E).*

This item is complete. Montgomery sent the presentation to the Hatchery Committees following the meeting on November 15, 2017.

## II. Chelan PUD

### A. Coho Obligation Statement of Agreement (Catherine Willard)

Catherine Willard shared the draft SOA, "Regarding Chelan PUD's Coho Salmon Obligation," which Sarah Montgomery distributed to the Hatchery Committees on January 3, 2018 (Attachment B). Willard said this SOA is directly related to the SOA, "Regarding Chelan PUD's Coho Obligation," which the Hatchery Committees approved on November 15, 2017 and described the methodology for calculating the District's coho hatchery obligation for brood years 2017 to 2021. Willard reviewed the content of the SOA. Kirk Truscott suggested clarifying language about how Chelan PUD is meeting their obligation by funding the Mid-Columbia Coho Salmon Reintroduction Project. Truscott also questioned the language about future recalculated hatchery compensation obligations. Willard and Keely Murdoch clarified that the mitigation should be consistent with recalculation, so if recalculation methods change, the coho salmon obligation will change, too. Representatives present revised the language in the SOA and consulted two previous coho salmon SOAs (November 15, 2017, and December 14, 2011) for consistency.

Truscott said facility use is specifically mentioned in the SOA and he has concerns that facility use may influence other HCP actions. Knowing which facilities will be used and the purpose of using those facilities would be helpful in understanding the scope of the SOA. Murdoch said the agreement between YN and Chelan PUD primarily regards funding, and use of the Rocky Reach Annex has also been discussed. She said trapping facilities such as Dryden Dam and Tumwater Dam will also be important to implementing the project. Truscott said using Dryden Dam and Tumwater Dam for broodstock is agreeable; however, YN using those facilities for harvest under an agreement related to this SOA would not be agreeable. Further edits were made to the SOA specifying "facility use for propagation purposes." The Rocky Reach and Rock Island Hatchery Committees approved Chelan PUD's SOA "Regarding District's Coho Obligation" as follows: Chelan PUD, WDFW, USFWS, NMFS, YN, and CCT approved on January 17, 2018.

### B. Request for Steelhead Gametes for 2018 Egg-to-Emergence Evaluation (Catherine Willard)

Catherine Willard said Chelan PUD is requesting steelhead gametes in order to conduct a steelhead egg-to-emergence evaluation in the habitat channel of the Chelan River. The evaluation is used to evaluate the effectiveness of Chelan PUD's Chelan River Biological Evaluation and Implementation Plan, a requirement of their Federal Energy Regulatory Commission license for the Lake Chelan Hydroelectric Project. Willard said 2018 is the second year of this study. In the first year, researchers used green eggs from Wells Fish Hatchery; this year the study will use eyed eggs. She said the study requires 2,800 eggs total, from four pairs of fish. Greg Mackey asked if Chelan PUD is requesting the

eyed eggs from Douglas PUD, or if Chelan PUD plans to spawn the fish and incubate the eggs at their own facility. Willard said Chelan PUD will spawn the hatchery-origin fish in March and plant the eyed-eggs in mid-April.

Mackey said steelhead at Wells Fish Hatchery also have Columnaris this year. He said Douglas PUD has been losing broodstock. He said the Columbia program is being spawned now and will be back-up broodstock for the Okanogan and Methow programs pending spring collections in those locations. He said the program will barely meet egg-take goals under current conditions. Mackey said he expects hatchery staff will be able to collect brood for Chelan PUD in the Wells Fish Hatchery volunteer channel once the channel is open, and supplemental brood for the Wells programs can also be collected.

Mike Tonseth said he agrees with collecting brood for the Chelan River egg-to-emergence evaluation, but collecting brood to offset production shortfalls in the Wells programs would need to be further discussed with the Hatchery Committees. He said collecting surplus fish for adult management is agreed to, but using those surplus fish for broodstock is not agreed to yet. He said as in the past, collecting additional broodstock to meet production shortfalls would need to be discussed. Mackey said he will have more information regarding this potential production shortfall in February. Tonseth said due to disease issues and a slow run, meeting spring broodstock collection goals may be more challenging than usual for the Methow safety net and Okanogan programs. He said he is not opposed to collecting additional broodstock, just that it would need to be agreed to in committee to deviate from the Broodstock Collection Protocols.

Kirk Truscott asked about the fate of the gametes that are not planted in the boxes. Willard said they are reared in the hatchery as a control, then culled because they are progeny of surplus fish. Tonseth said the fry in the egg boxes are also culled, which is standard in egg-to-fry survival studies. Truscott noted that only surplus fish should be used as a brood source for this study. Mackey asked if there is a backup plan for brood source if surplus fish are not collected in the Wells Fish Hatchery volunteer channel in March. Willard said the study would be postponed.

The Hatchery Committees approved Chelan PUD's request to collect four female and four male surplus steelhead broodstock from the Wells Fish Hatchery volunteer channel to support their egg-to-emergence evaluation in 2018 as follows: Chelan PUD, Douglas PUD, NMFS, USFWS, WDFW, YN, and CCT approved on January 17, 2018.

### **C. Draft 2018 Rock Island and Rocky Reach Action Plan (Catherine Willard)**

Catherine Willard shared the draft 2018 Rock Island and Rocky Reach HCP Action Plan, which Sarah Montgomery distributed to the Hatchery Committees on January 15, 2018 (Attachment C). Willard said many items are ongoing from previous years. She said new items include the following:

- Chelan Falls Canal Trap Engineering Feasibility: Chelan PUD is considering a more permanent structure. Design would occur in 2019, and it would be installed in 2020.
- Chelan Hatchery Rehabilitation Engineering Feasibility.
- Chiwawa Weir Maintenance Engineering Feasibility: the left abutment needs to be replaced, and permits are in process. Maintenance would also include moving accumulated gravel and cobble material so that the weir lays flat.
- New Eastbank Well Generator Installation: Chelan PUD plans to install a second backup power source in 2018.
- Steelhead Residualism Plan: discussed in Section II-D.
- Receive permit for Wenatchee and Chelan Falls unlisted summer Chinook salmon programs.

Mike Tonseth suggested adding development of the Broodstock Collection Protocols. It was added, and the Rock Island and Rocky Reach Hatchery Committees approved the Hatchery Committees section of the plan as follows: CPUD, USFWS, NMFS, WDFW, YN, and CCT approved on January 17, 2018. The plan will be discussed by the Coordinating Committees for final approval.

### **D. Wenatchee Steelhead Final Acclimation (Catherine Willard)**

Catherine Willard said Chelan PUD typically transfers 25,000 HxH steelhead from Chiwawa Acclimation Facility to Blackbird Pond in March for final acclimation. She said Chelan PUD is developing the draft 2018 Steelhead Release Plan, which will be available for review soon. She said there are a lot of covariates to consider when evaluating steelhead survival, such as type of release, type of tank or raceway, and parental source. She said in an attempt to reduce covariates and more effectively examine residualism as part of the Wenatchee steelhead permit (NMFS No. 18583) received in December 2017, Chelan PUD plans to passive integrated transponder (PIT)-tag three size classes of steelhead in the Wenatchee program in 2018. She said Chelan PUD wants to take fish that are in the "ELISA" pond (these are the HxH fish that were destined for Blackbird Pond) and transfer them to Raceway No. 2 at the Chiwawa Acclimation Facility. Thus, these fish will be reared in the same vessel type and in the same water as other fish in the evaluation. She said Chelan PUD is requesting approval for this action now because the fish need to be moved soon, but it will also be described in the Steelhead Release Plan.

Keely Murdoch asked where the fish will be released. Mike Tonseth said the fish will be released in locations consistent with previous years, namely Nason Creek, Chiwawa River, upper Wenatchee

River, lower Wenatchee River, and Blackbird Pond (however, this release will not occur as part of the plan). Murdoch asked if examining differences between HxH and wild-by-wild (WxW) fish is part of the study. Tonseth said it is part of the study plan. There are three size groups per parental cross for a total of six groups. Kirk Truscott asked how many HxH fish are planned to be released in the upper Wenatchee Basin. Tonseth said the majority of the late group released in the upper Wenatchee Basin in previous years comprised WxW fish. Willard said the plan is that WxW fish will continue to be released in the upper Wenatchee Basin. Truscott said he wants to make sure management strategies are not being compromised by releasing more HxH fish in the upper basin. Tonseth said there is an increase in the total number of fish released in the upper Wenatchee Basin as part of this plan, but the plan provides more reliability in the removal of HxH adults at Tumwater Dam.

Willard said this plan will likely include a total of 20,000 to 30,000 PIT-tagged fish; but she is waiting for sample size calculations from Dr. John Skalski. Tonseth summarized that the new steelhead permit provides guidance to evaluate potential rates of residualism for the Wenatchee steelhead program, and in the near-term, Chelan PUD plans to reduce covariates by maintaining the entire program at the Chiwawa Acclimation Facility and not final acclimating and volitionally releasing steelhead from Blackbird Pond for 3 years. This will inform whether residualism is linked to fish size or parental source. Willard said Chelan PUD asks the Hatchery Committees to approve moving the fish now, and not releasing fish at Blackbird Pond for 3 years. Hillman asked what would happen if the fish are moved now, but then the release plan is not approved. Tonseth said in that case, releases would occur as planned except for the Blackbird Pond release. Truscott said he is okay with moving these fish from the ELISA pond to Raceway No. 2, because Raceway No. 2 is already a mixture of differentially marked fish. Brett Farman asked if the tagging groups are individually identifiable. Tonseth said the different parental groups are differentially marked, and the number of fish by parental group released at each site will be tracked and distributed. He said the difference in this plan is that the PIT-tagging component will be structured so that three size groups for each parental group are targeted.

The Rocky Reach and Rock Island Hatchery Committees approved Chelan PUD's request to move approximately 25,000 HxH steelhead from the "ELISA" Pond to Raceway No. 2 at the Chiwawa Acclimation Facility, as follows: Chelan PUD, WDFW, NMFS, USFWS, YN, and CCT agreed on January 17, 2018.

### III. WDFW/Chelan PUD

#### A. Brood Year 2017 Chelan Falls Summer Chinook Salmon Culling (Mike Tonseth)

Mike Tonseth said the Hatchery Committees need to discuss culling part of the Chelan Falls summer Chinook salmon program due to disease concerns. He said the program is short due to prespawn

mortality, poor eye-up rates, and lower than anticipated fecundities. ELISA levels are also higher than usual in females, so culling may be necessary to manage for disease. Tonseth said the program collected the 179 females called for in the Broodstock Collection Protocols, and 168 were spawned, though fish sustained higher than expected prespawn mortality (6%). He said the average fecundity was 300 eggs lower than expected, resulting in a shortage of approximately 30,000 to 35,000 eggs. He said the Broodstock Collection Protocols identify a cull allowance of 2% or less, and the number of high-ELISA females (greater than 0.12 optical density [OD]) is about 6%. Tonseth proposed culling all eggs from progeny of high-ELISA females to manage the risk of bacterial kidney disease (BKD). He said the Broodstock Collection Protocols and other permits identify culling criteria for spring Chinook salmon, but not for summer Chinook salmon. He suggested applying the same principle—culling all eggs from hatchery females with ELISA values of 0.12 OD or higher—to summer Chinook salmon as for spring Chinook salmon. He said for the Chelan Falls program, the number culled would amount to approximately 35,000 eyed eggs. Tonseth summarized that the total egg-take goal for the Chelan Falls summer Chinook salmon program is 634,000 eggs, the smolt release goal is 576,000 smolts, and there are currently 573,000 eyed eggs on station. Removing 35,000 eyed eggs would result in a projected smolt release of 492,000 smolts. He said an additional consideration in culling these eggs is that they are the progeny of hatchery parents, and it is not possible to rear them separately from any other portion of the program. So, maintaining these fish on station would be a risk to the rest of the program. He also mentioned that females from Entiat National Fish Hatchery made up 11% of the broodstock and did not have significantly different ELISA values. The Rocky Reach and Rock Island Hatchery Committees agreed to cull part of the BY 2017 Chelan Falls summer Chinook salmon program to manage disease concerns. The progeny of hatchery females with ELISA values over 0.12 will be culled, approximately 35,000 eyed-eggs. Chelan PUD, WDFW, YN, CCT, USFWS, and NMFS agreed to this on January 17, 2018.

## IV. Douglas PUD

### A. Wells HCP Action Plan (Tom Kahler)

Tom Kahler shared a hard copy of the Draft 2018 Wells HCP Action Plan and said he will distribute a revised version for the committees to review soon. (Sarah Montgomery distributed the revised version on January 22, 2018; Attachment D.) Tracy Hillman asked Kahler to explain Douglas PUD's Twisp spring Chinook egg-to-fry study. Kahler said Cramer Fish Sciences and WDFW performed a pilot study for 2 years in the Twisp River, and in 2017 used the same methodology, but with more redds per site. The hope was that the data from 2017 when combined with those from the pilot years would serve adequate for analysis and inference purposes. The inclusion of an additional study year in the 2018 Action Plan serves as a contingency in case we need another year of data. Kahler

requested that representatives review the action plan and provide any comments to him, prior to approval at the Hatchery Committees February 21, 2018 meeting.

## **B. Hatcheries Update (Greg Mackey)**

Greg Mackey said Douglas PUD hired Betsy Bamberger, Doctor of Veterinary Medicine, to support the Wells Hatchery and Methow Hatchery programs. Mackey said Bamberger started in early January and will focus on immediate fish health issues, long-term biosecurity plans, and analyzing fish culture environments that might relate to fish health issues.

Mackey said the contractual work on the Wells Fish Hatchery modernization will soon be complete, as few warranty and contractor items remain.

Mackey said National Pollutant Discharge Elimination System permits are in place for the Wells programs. He said Douglas PUD will need to obtain Hydraulic Project Approvals for the Methow Fish Hatchery volunteer trap.

## **C. Twisp Steelhead (Tom Kahler)**

Tom Kahler shared the memorandum, "Management alternatives for Methow Basin conservation steelhead programs," which Sarah Montgomery distributed to the Hatchery Committees on January 12, 2018 (Attachment E). Kahler said the impetus for developing these alternatives is concern of a Ryman-Laikre effect occurring in the Twisp steelhead population. He said a subgroup has developed a draft proposal, including a preferred alternative, for the Twisp steelhead program.

Michael Humling (USFWS) said he and Charlie Snow (WDFW) developed the general points in the memorandum. He summarized the key pieces: alternative 3 (preferred alternative) aims to maintain local genetic structure in the Twisp River and does not change any release numbers in the Methow Basin for steelhead conservation programs. Specifically, alternative 3 proposes to 1) collect half of the current Twisp WxW broodstock program number in the Twisp River at the weir (approximately 6 to 8 pairs of known Twisp stock), 2) collect half the Twisp program WxW broodstock in the Methow River mainstem downstream of the Twisp River confluence (approximately 6 to 8 pairs of composite Methow stock that would include Twisp fish at approximately the proportion in the overall Methow population), and 3) collect the WNFH broodstock (WxW plus WNFH hatchery fish as needed) in the Methow River ranging throughout the length of the Methow mainstem. The releases would entail: 1) approximately 24,000 1S Twisp WxW progeny (raised at Wells Hatchery) and approximately 24,000 Methow composite WxW 2S progeny (raised at WNFH) released at Buttermilk Bridge in the Twisp River, and 2) approximately 24,000 Methow composite WxW 1S progeny (raised at Wells Hatchery) coupled with approximately 24,000 Methow composite WxW 2S progeny (raised at WNFH) released in the Methow Basin (not in the Twisp), location to be

determined, and 3) release of the remainder of the WNFH 1S and/or 2S production at locations to be determined by the USFWS and co-managers, but not in the Twisp River. This program maintains the Twisp releases at 48,000 with the Twisp stock continuing to be represented as a separate stock with the addition of a composite mix of smolts representing the Methow Basin (many parents). This approach maintains the Twisp numbers while injecting genetic diversity by way of releasing progeny from many more parents collected outside the Twisp (the idea is to have representation from almost all parents at WNFH). The degree to which the Twisp and the Methow composite fish mix in the Twisp will be determined through natural selection, removing artificial compositing of the stocks. Alternative 3 also maintains Douglas PUD's conservation number at 48,000. The difference is that half of these fish will remain Twisp, while the other half become a Methow Composite program that is released elsewhere in the basin. Both Douglas releases of one year old smolts will be paired with two year old smolts from WNFH. The remainder of the WNFH releases will be managed by the USFWS and co-managers. Humling said this plan resembles the tactic agreed to in 2017. Matt Cooper said alternative 3 also includes juvenile releases higher in the basin. Greg Mackey said the Twisp River releases will be truck-planted at Buttermilk Bridge. Broodstock collection for alternative 3 includes angling and use of the Twisp Weir, and Methow and WNFH outfall channels.

Keely Murdoch asked how many pairs were targeted in the past for broodstock collection in the Twisp River. Mackey said 13 pairs. Mike Tonseth said the broodstock target could vary based on annual biological assumptions (e.g., fecundity, returns). Humling said the total broodstock collection target is 61 to 65 pairs collected mostly through angling, which would be transferred to Winthrop National Fish Hatchery for spawning. He said because fish are individually PIT-tagged during broodstock collection, known-Twisp-origin fish can be separated from other groups. After spawning, sufficient fish would be reared to maintain the 48,000 smolt release in the Twisp River, and 24,000 of those fish would be known-Twisp-origin, transferred to Wells Fish Hatchery. The Winthrop National Fish Hatchery program would be maintained at 100,000 to 200,000 fish per the *United States v. Oregon* agreement. Keely Murdoch said she is concerned that this alternative would release fewer conservation fish in the Methow Basin than previous plans. Tonseth said the number of fish targeted for removal at the Twisp weir under alternative 3 would be half as many as the current level, but each year an additional 6 to 8 pair would be collected by angling. Murdoch said that would still result in fewer combined pairs than if the program was collecting its full component at the Twisp weir. Tonseth said Douglas PUD is responsible for collecting additional fish per their permits in the Methow River with hook-and-line. Murdoch said extra fish cannot always be collected by hook-and-line and calling them "extra" is not accurate. Tonseth said compositing the programs is advantageous because natural-origin brood can be collected above and below the Twisp Confluence, allowing broodstock collection to be expanded spatially and temporally, likely resulting in more natural-origin brood collected, and higher proportion of natural origin broodstock (pNOB) over time.

Kirk Truscott asked who is responsible for the angling in the Methow Basin. Humling said USFWS, WDFW, and YN have performed the task in the past. Truscott suggested increasing the level of effort since more of the river will be fished for broodstock. Mackey said angling will occur in late winter and spring, and if a shortfall occurs, collections at the Twisp weir could be increased.

Murdoch said she is concerned about collecting fewer WxW broodstock under alternative 3 than what was implemented in 2017 with fully composited broodstock. She said alternative 3 appears to be lessening the number of broodstock. She said by increasing the geographic area where collection occurs in the Methow River, it is not certain that increased broodstock will be collected unless a commitment is also made to increase anglers or angler hours.

Tonseth said alternative 3 aims to avoid genetically mining the Twisp aggregate, which may have unique genetic traits. Alternative 3 provides an opportunity to address the diversity component of the recovery plan by not precluding subpopulation structure development. Murdoch asked if Todd Seamons (WDFW geneticist) has reviewed these alternatives. Tonseth said no, but he will coordinate with Seamons to review it. Hillman asked if Craig Busack (NMFS) has reviewed the composite approach recently. Tonseth recalled that Busack did not see a risk in compositing Methow steelhead, and Brett Farman agreed. Farman said he would coordinate with Busack to review this approach. Cooper added that alternative 3 is an opportunity to move portions of the Winthrop National Fish Hatchery program off-station to evaluate S1 and S2 releases to determine long-term benefits and results.

Tonseth said broodstock collection for 2018 needs to be decided soon. Truscott asked if broodstock for the Methow safety net program is collected at Wells Dam. Tonseth said yes, and those fish are differentially marked. Truscott said the 2018 broodstock collection identified in alternative 3 is 256 fish collected by hook-and-line in the Methow River. He asked how many broodstock were collected in previous years using this method. Tonseth said for the Winthrop National Fish Hatchery program, enough broodstock have been collected for the full 200,000 fish release with a pNOB of 0.7 or 0.8, and now, even more fish are available due to spawning channel studies being completed. Tonseth said he thinks there is a high probability of meeting the broodstock collection targets for alternative 3, and the Twisp weir can be used as a backup location if there is a shortfall (*note: this detail should be added to the plan*). Mackey said Douglas PUD will participate in the broodstock collection, increasing the overall effort. Murdoch asked how these changes will intersect with the kelt reconditioning program. Tonseth said he expects the kelt reconditioning activities will occur similarly to those in 2017.

Murdoch acknowledged that the Hatchery Committees need to develop a longer-term management plan and suggested selecting alternative 3 for implementation as a trial in 2018, then the committees

can address needed changes in a final plan in 2019. She said there are additional contingencies and backup plans that will need to be included in a final management plan, but alternative 3 can be put into the protocols for 2018. Tonseth said he will add language to the draft 2018 Broodstock Collection Protocols about the 2019 broodstock collection methods pending the outcome of the spring collection efforts for the 2018 brood.

The Wells Hatchery Committee approved piloting Alternative 3 in the memorandum, "Management alternatives for Methow Basin conservation steelhead programs," for broodstock collection and management of the Twisp steelhead program in 2018, as follows: Douglas PUD, WDFW, USFWS, NMFS, YN, and CCT approved on January 17, 2018.

## V. CCT

### A. Chief Joseph Hatchery Update (Kirk Truscott)

Kirk Truscott said some of the summer/fall Chinook salmon brood being held at Chief Joseph Hatchery have Columnaris. He said there have been significant mortalities to natural-origin fish, more than hatchery-origin fish. He said there have been more mortalities to female than male fish, and the integrated natural-origin brood suffered about 50% mortality. He said the program will shifting from a subyearling component to a yearling component this year due to the losses—there will be no subyearling releases for this brood. He said Columnaris is a recurring issue at Chief Joseph Hatchery, perhaps due to groundwater temperatures. He said the well water in October was approximately 61°F. He said CCT are examining operational actions that could reduce stressors. Todd Pearsons said the Grant PUD programs have had issues with BKD. Truscott said the ELISA values were on par with previous years, so there is no immediate concern about BKD. He said the hatchery and fish health staff are working together to determine operational ways to decrease water temperatures and reduce stress on the fish.

Pearsons said the Wells summer Chinook salmon program also had a Columnaris issue this year. Greg Mackey agreed, and said it was not as bad as the Chief Joseph issue, likely due to lower water temperatures, approximately 54 degrees. Truscott mentioned that these are similar problems to 2015, when river temperatures were high. Mike Tonseth said in 2017, summer/fall Chinook salmon and steelhead were held up in the lower Columbia River due to a thermal barrier coming out of the Snake River, which may be contributing to the steelhead issue this year. He said he is not sure whether the thermal barrier would affect disease issues, but it did delay fish. Tracy Hillman asked if fish in the Snake River Basin are experiencing disease issues. Tonseth said yes. For example, the Tucannon program lost approximately 30% of their spring Chinook salmon broodstock due to BKD.

## VI. Joint HCP-HC/PRCC HSC

### A. NMFS Consultation Update (Brett Farman)

Brett Farman said Emi Kondo (NMFS) distributed the BiOp for the unlisted summer/fall Chinook salmon programs in the upper Columbia River after it was signed on December 26, 2017. He said permit approvals are still needed, but he does not know the permitting timeline.

Farman said Chuck Peven (NMFS) is working on the National Environmental Protection Act (NEPA) consultation for Methow steelhead and the unlisted programs (summer/fall Chinook salmon for Wells, Methow, Chelan Falls, Dryden, and Priest Rapids).

Mike Tonseth noted that the Wenatchee steelhead permit was issued in late December 2017. Tracy Hillman suggested that permits and BiOps could be saved on the Extranet site for reference. Sarah Montgomery and Tonseth agreed to compile permits and BiOps and save them to the Extranet site.

### B. USFWS Bull Trout Consultation Update (Matt Cooper)

Matt Cooper said Karl Halupka (USFWS) has no consultation updates for the Hatchery Committees because all section 7 consultations are complete with the submission of BiOps or letters of sufficiency. Todd Pearsons asked if the consultation pathway for the BiOp for the unlisted summer/fall Chinook salmon programs in the Columbia River was a letter of sufficiency. Cooper said yes.

Cooper asked if the Hatchery Committees would like any further updates from USFWS regarding consultation. Representatives present stated updates are not needed at this time.

Mike Tonseth noted that permits for the Methow steelhead program and for the unlisted summer/fall Chinook salmon programs are still pending.

### C. Timelines of Changes in Programs (Tracy Hillman)

Tracy Hillman shared the most recent version of the timelines for program changes. He reviewed the different draft timelines. Specifically, regarding the Methow spring Chinook salmon timeline, more information is needed from Douglas PUD. The Wenatchee steelhead timeline also needs more details. The Entiat steelhead timeline may need additional details regarding state releases, which Mike Tonseth will look into. The Methow steelhead and summer Chinook salmon timelines also need more information. Hillman said the next steps are incorporating more details provided by representatives, making tables with this same information, and then deciding the statistical break periods for each program. Kirk Truscott suggested adding a timeline for sockeye salmon in the Okanogan River. Hillman replied that he would need to consult with his funding sources before

moving ahead with an additional timeline. Representatives present said they would continue providing input to Hillman for the timelines.

## **VII. HCP Administration**

### **A. Next Meetings**

The next Hatchery Committees meetings are on February 21, 2018 (Grant PUD), March 12, 2018 (Grant PUD), and April 18, 2018 (tentatively planned for Wells Fish Hatchery).

## **VIII. List of Attachments**

Attachment A List of Attendees

Attachment B Draft SOA Regarding District's Coho Obligation

Attachment C Draft 2018 Rock Island and Rocky Reach HCP Action Plan

Attachment D Draft 2018 Wells HCP Action Plan

Attachment E Management alternatives for Methow Basin conservation steelhead programs

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

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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
Todd Pearsons‡	Grant PUD
Peter Graf‡	Grant PUD
Deanne Pavlik-Kunkel†‡	Grant PUD
Mike Tonseth*	Washington Department of Fish and Wildlife
Chris Moran†	Washington Department of Fish and Wildlife
Charlie Snow†	Washington Department of Fish and Wildlife
Matt Cooper*	U.S. Fish and Wildlife Service
Michael Humling	U.S. Fish and Wildlife Service
Brett Farman*†	National Marine Fisheries Service
Kirk Truscott*	Colville Confederated Tribes
Keely Murdoch*	Yakama Nation

Notes:

\* Denotes Hatchery Committees member or alternate

† Joined by phone

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