

Memorandum

To: Wells, Rocky Reach, and Rock Island HCPs Hatchery
Committees and Priest Rapids Coordinating
Committee Hatchery Subcommittee Date: April 21, 2020

From: Tracy Hillman, HCP Hatchery Committees Chairman and PRCC Hatchery Subcommittee
Facilitator

cc: Larissa Rohrbach, Anchor QEA, LLC

**Re: Final Minutes of the March 18, 2020 HCP Hatchery Committees and PRCC Hatchery
Subcommittee Meetings**

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees (HCs) and Priest Rapids Coordinating Committee Hatchery Subcommittee (PRCC HSC) meetings were held by conference call and webshare on Wednesday, March 18, 2020, from 10:00 a.m. to 2:45 p.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

Joint HCP-HCs and PRCC HSC

- Mike Tonseth will coordinate with Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) to present pre-spawn mortality modeling results for spring Chinook salmon at an upcoming HCP-HC meeting (Item I-A). (Note: this item is ongoing.)
- Brett Farman will discuss with Charlene Hurst and Mike Tonseth the potential use of a multi-population model for estimating proportionate natural influence (PNI) for the Nason and Chiwawa spring Chinook salmon programs (Item I-A). (Note: this item is ongoing.)
- Greg Mackey will work with Mike Tonseth to test a modeling approach and prepare white paper on the method for determining a range for the number of females to be collected for a given broodstock in the upcoming year (Item I-A). (Note this item is ongoing.)
- Greg Mackey will prepare a plan for alternative mating strategies based on findings described in his previously distributed literature review (Item I-A). (Note this item is ongoing.)
- Bill Gale will ask Rod Engle (U.S. Fish and Wildlife Service [USFWS]) for information on weir operation in the Imnaha River allowing for bull trout passage (Item II-A).
- Mike Tonseth will distribute the analysis showing feasibility of the Methow Spring Chinook Outplanting plan based on historic run-size data (Item II-B).
- All parties will provide updates on changes to marking and tagging plans due to the impacts of COVID-19 on operations as updates become available (Item II-C).

PRCC HSC

- Tracy Hillman will discuss updating the Upper Columbia Salmon and Steelhead Recovery Plan with Melody Kreimes (Upper Columbia Salmon Recovery Board [UCSRB]; Item III-B).

Decision Summary

- The *Upper Columbia River 2020 BY Salmon and 2021 BY Steelhead Broodstock Collection Protocols* were unanimously approved by the HCP-HCs and PRCC HSC (Item II-A).

Agreements

- No agreements were made in today's meeting.

Review Items

- Grant County PUD's 2020-21 Priest Rapids Hatchery (PRH) Monitoring and Evaluation Implementation Plan was distributed via email by Larissa Rohrbach on March 2, 2020, for review by PRCC HSC members through April 1, 2020.

Finalized Documents

- The HCP-HCs and PRCC HSC-approved *Upper Columbia River 2020 BY Salmon and 2021 BY Steelhead Broodstock Collection Protocols* were distributed by Larissa Rohrbach to members, including Wells Coordinating Committee Chair, cc the PRCC facilitator, on March 19, 2020, for approval by the Wells HCP-Coordinating Committee.

I. Welcome

A. Review Agenda, Announcements, Approve Past Meeting Minutes, Review Last Meeting Action Items

Tracy Hillman welcomed the HCP-HCs and PRCC HSC to the meeting and read the list of attendees signed into the meeting. The meeting was held via conference call and webshare because of travel and group meeting restrictions resulting from the COVID-19 pandemic. Hillman reviewed the agenda and asked for any additions or changes to the agenda. Hillman noted three topics to add to the agenda for brief discussion:

- USFWS has asked to discuss effects of COVID-19 restrictions on hatchery and fish tagging operations.

- Responses from Dale Bambrick to the PRCC HSC regarding the White River spring Chinook salmon program were received on March 17, 2020, one day prior to this meeting, and will be reserved for discussion next month.
- Schedule for the April meeting with cancelation of the Western Division American Fisheries Society meeting due to COVID-19 restrictions.

All members approved the agenda with these additions.

The HCP-HCs and PRCC HSC representatives reviewed the revised February 19, 2020 meeting minutes.

The use of geometric means (GMs) in place of arithmetic means in the broodstock collection protocols (BCPs) was discussed. Hillman reviewed the typical method for calculating the GM, which is to calculate the natural log (ln) of all values, calculate the arithmetic mean of the ln values, then calculate the antilog of that mean. This method does not work (returns an error) if the data set contains zeros; this method only works with positive values. There are several methods for compensating for zeros in the dataset, including:

- Add one to all values, calculate the GM, then subtract one from the mean.
- Drop the zero values; however, this returns a very different mean.
- Make the zero a very small number (compared to the rest of the values).

Hillman asked why GM is preferred for calculations in the BCPs instead of the arithmetic mean. Mike Tonseth said he has used the GM for several years in Appendix A and uses the command in Excel. He said the GM tends to return conservative numbers of brood needed. For instance, a few steelhead with high fecundity can skew the target number of brood downward. He said in some cases where there are zero values in a dataset, the GM of the 2- or 3-year dataset was calculated instead of a 5-year dataset.

Greg Mackey said he encountered this problem when calculating the smolt-to-adult returns used for run projections, where zeros can occur. Tonseth said he doesn't mind changing the methodology but suggested testing the various methods and comparing to past broodstock needs first to ensure we are not grossly over estimating or underestimating brood targets.

Todd Pearsons said Grant PUD asked WDFW to calculate the GM for various tables in the BCPs; the numbers for Grant PUD programs have not changed dramatically among methods and he would not want to make changes in the protocols at this time. Pearsons said he agrees with using the Excel GM calculation unless numbers look dramatically different from past years. Peter Graf agreed and suggested the authors of the BCPs use professional judgement when looking at a mean of five numbers; one formula may not fit for all metrics.

Hillman concluded the discussion and inserted the typical GM formula in the February 19, 2020 minutes with a statement that it is appropriate when all values are positive.

The HCP-HCs and PRCC HSC approved the February 19, 2020 meeting minutes as revised.

Action items from the HCP-HCs and PRCC HSC meeting on February 19, 2020, were reviewed, and follow-up discussions were addressed (*note that italicized text below corresponds to action items from the previous meeting*):

Joint HCP-HCs and PRCC HSC

- *Mike Tonseth will coordinate with Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) to present pre-spawn mortality modeling results for spring Chinook salmon at an upcoming HCP-HC meeting (Item I-A).*
Tonseth said this item is ongoing.
- *Brett Farman will discuss with Charlene Hurst and Mike Tonseth the potential use of a multi-population model for estimating proportionate natural influence (PNI) for the Nason and Chiwawa spring Chinook salmon programs (Item I-A).*
Tonseth said he will provide Farman with necessary data. This item is ongoing.
- *Greg Mackey will work with Mike Tonseth to test a modeling approach and prepare a white paper on the method for determining a range for the number of females to be collected for a given broodstock in the upcoming year (Item I-A).*
Mackey said this item is ongoing.
- *Greg Mackey will prepare a plan for alternative mating strategies based on findings described in his previously distributed literature review (Item I-A).*
Mackey said this item is ongoing.
- *Mike Tonseth will confirm the completion date for an updated plan for Outplanting Surplus Methow Composite Spring Chinook salmon (Item II-A).*
Tonseth said this item will be discussed in today's meeting and this action item should be removed from this list.
- *Matt Cooper will provide Winthrop National Fish Hatchery spring Chinook salmon return forecasts to Mike Tonseth to update Appendix J of the draft 2020 Broodstock Collection Protocols (BCPs; Item II-A).*
Tonseth said this item is complete.
- *All HCP-HC and PRCC HSC members will submit final edits to the draft 2020 BCPs to Larissa Rohrbach by March 4, 2020, for compilation and distribution by March 8, 2020, in preparation for the March 18, 2020 meeting (Item II-A).*

Rohrbach said previously reviewed edits were accepted and comments and questions in the document were answered by the authors. Rohrbach sent an updated version of the draft 2020 BCPs to the HCP-HCs and PRCC HSC via email on March 11, 2020. This item is complete.

- *Matt Cooper will organize a meeting with WDFW, Chelan PUD, and U.S. Fish and Wildlife Service (USFWS) Ecological Services to share the proposed Chiwawa Weir operations plan for 2020 (Item II-B).*

Mike Tonseth said the method proposed in last month's meeting was modified only slightly. Keely Murdoch asked that this section of the BCPs be reviewed carefully during this meeting. This item is complete.

- *Mike Tonseth will prepare a written strategy for distribution of surplus Wells Hatchery Summer Chinook in 2020, to be shared with co-managers (Item IV-A).*

Tonseth said this item will be tracked outside of the HCP-HCs meetings.

Rock Island and Rocky Reach HCs

- *Catherine Willard will send data showing the change in Eastbank Hatchery's water temperature profile due to aquifer recharging actions to Kirk Truscott.*

Willard said this item is complete.

PRCC HSC

- *Tracy Hillman will forward the written responses from Craig Busack (National Marine Fisheries Service [NMFS]) on White River Spring Chinook Salmon to Dale Bambrick (NMFS) to ask for additional responses related to NMFS policy (Item V-B).*

Hillman sent an email to Bambrick on Friday, February 21, 2020. Bambrick replied and Larissa Rohrbach distributed his responses to the PRCC HSC via email on March 17, 2020. This item is complete.

II. Joint HCP-HCs and PRCC HSC

A. DECISION: 2020 Broodstock Collection Protocols

Tracy Hillman shared the revised 2020 BCPs via the webshare portion of the meeting. Hillman read each set of unresolved comments to review the changes and comments, suggest a resolution or open the topic for discussion, and allow representatives to respond. Hillman made revisions in the document during the meeting. The following minutes reflect the discussion of comments and questions:

- Summary of notable activities in this year's protocols: To date, no spring Chinook salmon originating from Chief Joseph Hatchery (CJH) have been observed returning to Winthrop National Fish Hatchery. Mike Tonseth said the BCPs state any fish that is identified to be CJH

shall be returned to CJH. Kirk Truscott said some of the CJH fish are passive integrated transponder (PIT) tagged, so if PIT-tagged fish are recovered in the broodstock, we would like to have those fish returned to CJH. Truscott said he does not know whether Methow hatcheries have been reading coded wire tags (CWTs) yet prior to spawning. Greg Mackey said at the Methow Fish Hatchery (MFH), CWTs are read prior to spawning so if a fish was identified for the CJH program the eggs could be made available. Bill Gale said the comments are confusing because MFH is not spawning ad-clipped fish. Mackey said Michael Humling had written a comment to align the BCP text with what is happening at Winthrop National Fish Hatchery (WNFH). Truscott said this is a moot issue if CWTs are not read prior to spawning at WNFH. Gale confirmed that CWTs would not be read until eye-up and culling of eggs. Gale said a CJH fish has not been observed in the hatchery yet. Humling's comment is that this is not something that has been seen and is asking whether it is worth pursuing. Truscott said the bulleted text can be stricken for this year but the programs should keep monitoring for CJH fish to ensure that the presence of CJH fish in MFH or WNFH does not increase over time as the CJH returns increase, and Committees should assess the need to revise that protocol in the future. Gale agreed and reiterated that if PIT-tagged CJH fish are found at WNFH, USFWS will make an effort to transfer them to CJH.

- Table 1, Spring Chinook salmon age-at-return projections: A correction was made to the number of age-4 fish in the brood from one year to the next.
- Trapping at Twisp Weir: Tonseth said the text is fine as revised to reference the agreed-upon plan. Tom Kahler said activities during steelhead trapping are consistent with Appendix D. Kahler provided language in the BCPs that is consistent with Appendix D (e.g., trapping occurs 7 days per week, up to 16 hours per day for spring Chinook salmon). Truscott asked what the permit provisions are for trapping at Twisp Weir and whether what is written in the BCPs is less aggressive than what is in the permit language. Tonseth said the permit is very general and refers to a future plan to be developed between Douglas PUD and USFWS, which is the plan provided in Appendix D.
- Methow Spring Chinook Salmon Adult Outplanting strategy: Tonseth said this should be discussed to determine a path forward with the outplanting plan. The 2017 outplanting plan was developed as a study to test the outplanting method, but raised the question whether, as is, the plan could even be implemented and if there would be permit coverage to do so. Implementation of outplanting with current run sizes would involve relaxing the proportion of hatchery origin spawners (pHOS) and PNI conditions of the permits and revising methods that were detailed in the 2017 outplanting plan. Tonseth said a retrospective analysis was done, and if the 2017 outplanting plan had been in place in the past, 1995 and 1996 would have been the only brood years (BYs) in which this could have been implemented while still meeting pHOS targets identified by permits. Implementation in other years, and in 2020,

would require exceeding PNI and pHOS. Tonseth said he contacted Brett Farman and Charlene Hurst to ask NMFS' position on relaxation of the PNI and pHOS sideboards in permit conditions to be able to test this methodology. Prior to this meeting, Farman told Tonseth that relaxing the PNI targets would require re-consultation under the biological opinion¹ (BiOp) because the effect of outplanting on PNI was not considered as part of the proposed action. This would also be the case for outplanting eyed eggs. Tonseth said, based on historical observations, the 2017 outplanting plan is not likely to be implementable, nor would a modification of the plan that eases pHOS/PNI requirements during the life of the permit. Keely Murdoch said one of the discussions held when developing this plan was that there would be flexibility during the first 5 years of implementing the permit. Murdoch said the criterion is to meet the 5-year average for PNI, so 1 year of low PNI should not preclude implementing the plan. Tonseth said it will require at least 2 or 3 years to determine feasibility because it is based on a sliding scale for PNI, and taking the perspective of implementing it for 1 year with low PNI, the program would still need to maintain pHOS at low levels for the other 4 years. Tonseth said in order to consider that action, the effects of that action will need to be consulted on and that will take some time. Farman agreed and said changing the year to year goals, with the assumption that that goals will be met at some time in the future, puts the program in a bad situation. Murdoch said when the 2017 outplanting plan was developed, it was not anticipated that the program would change the PNI goals. Catherine Willard said the 2017 outplanting plan reads that it will be consistent with the number of adults needed for the hatchery programs, and implementation scenarios were written depending on different abundances. Willard asked Tonseth to share the historical analysis that was done with the HCP-HCs. Murdoch said the idea was that the plan would not be implemented until the conditions could be met but that the plan should be tested during the first 5 years, the grace period, of the permit. Murdoch said the idea of outplanting was to have more control of a wider distribution of returning adults, so the alternative would be to use more juvenile acclimation sites. Hillman summarized that Tonseth is proposing to replace the existing language in the BCPs with Tonseth's suggested language, which is more general in nature regarding distribution of surplus Methow spring Chinook salmon and does not refer to the outplanting plan specifically. All agreed with the proposed revision. Willard said this conversation should continue in future meetings and asked that the analysis based on historical run sizes be provided for the HCP-HCs to review. Tonseth agreed to share the analysis. Tonseth said the outplanting Plan of 2017 should not be included as an appendix but

¹ National Marine Fisheries Service (NMFS), 2016. Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation for the Issuance of Four Section 10(a)(1)(A) Permits for Spring Chinook Salmon Hatchery Programs in the Methow Subbasin. NMFS Consultation Number WCR-2015-3845.

suggests keeping references to it as a placeholder until a decision is made whether to make changes to the plan.

- Reconditioned kelts encountered during Methow steelhead broodstock collection: Language has been added to indicate that reconditioned kelts collected at the Twisp weir should not be taken for broodstock and should be returned to river and allowed to spawn naturally, per the goal of the kelt reconditioning project. It was noted that reconditioned kelts encountered during angling should similarly be excluded from broodstock collection. Mackey agreed, but said this section is already complicated; every detail for every potential scenario should not have to be written in the BCPs and recommends leaving language as is. Mackey suggested adding a blanket statement that reconditioned kelts would not be retained. Murdoch agreed. Tonseth suggested revising the text to refer to any encounter of reconditioned kelts. Gale said USFWS would not know whether it is a returning kelt until it has been transported to the hatchery. Logistically, should it then be returned to the capture site, or the river at the hatchery, some other site like Miller's hole, etc.? Gale recommended leaving the logistics up to Charlie Snow (WDFW), Humling, and Matt Abrahamse (Yakama Nation [YN]) to determine how to return fish to the river.

Murdoch said additional handling and moving of kelts to the hatchery is stressful and should be minimized. Murdoch asked that PIT tags be read in the field with portable detectors to identify reconditioned kelts prior to loading them into the fish transport trucks. Gale said carrying portable readers in the field may not be feasible and asked if a list of fish that have ascended a mainstem ladder can be used to identify fish that may be in the area. Murdoch said many fish are not encountered in ladders because they may have overwintered upstream of dams. Murdoch said perhaps PIT-tag readers cannot be carried in the field but maybe they could be read at the transport trucks prior to being loaded. Gale suggested the people in the field refine the logistical approach. Murdoch agreed and said she would ask Matt Abrahamse to look up a list of potential PIT-tags of reconditioned kelts to inform the field work.

- Methow steelhead collection by hook and line: Corrections were made during the meeting to show the target number as 24 fish (12 male and 12 female) in text and Tables 5 and 6. The discrepancies in the footnotes to Tables 5 and 6 were resolved in the meeting.
- Steelhead juvenile releases: Truscott said there is redundancy in paragraphs meant to summarize juvenile releases by program, but the bulk of the paragraph is about broodstock that has already been addressed in other areas of the document and suggested making this section more succinct. Mackey said originally this part of the protocol was much simpler but has become more complex as the programs have continued to become more complex. Additions to this section have changed it over time, especially the collection at the weir and angling. Mackey said he does not like the redundancy; however, this section isolates all the information for a single program in a slightly different format, so he does not mind keeping it

this way for this year but agrees it should be rewritten to make it more usable and succinct. Tonseth agreed and suggested combining juvenile release methods with the broodstock collection methods that follow in one section. Mackey said another idea is to move the broodstock collection methods to an appendix so that this section is only about where and what number of fish are collected, and the appendix describes the details of the collection methods. Hillman asked if there was opposition to retaining the language as is and then making revisions next year. Truscott said his comments were made as an observation and revisions can be made next year.

- Table 4, 2021 Steelhead Wells and upstream: The numeric target for one of the programs was deleted to be consistent with the contents of the table.
- Wells Hatchery-Columbia River Steelhead Program: Tonseth revised the BCPs to include this program description that was missing from the previous version.
- Okanogan Steelhead Conservation Program (Grant PUD/Colville Confederated Tribes [CCT]): Truscott asked what Okanogan steelhead collections are being contemplated. Tonseth said the collections described in the 2019 BCPs are the same as described in these draft 2020 BCPs; nothing new unless there are suggestions on other options for collection. Truscott said he may have misinterpreted the language that there was now a proposal to collect at the Wells Dam ladder for the Okanogan program or any other program. Tonseth said this was not currently a proposal, but the BCPs do not preclude the option to do so if the run forecast is low enough that the brood targets cannot be met. Tonseth said parties *may* opt to collect from the East and West ladders at Wells Dam in the spring, and maybe in the fall, if there is reason to believe the targets will not be met, but currently these activities are not planned. Truscott summarized that this language provides the option to adjust the broodstock programs as detailed previously in the document. Truscott said he agrees with the narrative as written and suggests no changes.
- Methow Spring Chinook Salmon Conservation Program: Mackey confirmed permit language for summer steelhead specified the collection of up to 33% is specific to natural-origin fish because, under adult management, up to 100% of hatchery-origin fish could also be removed. If the run size is low enough, the entire hatchery-origin run and up to 33% of the natural-origin run could be removed. Mackey said if it came to this type of decision, the programs would defer to the permits rather than the BCPs for making decisions.
- Steelhead trapping in fall: Tonseth emphasized retaining the option in the BCPs for allowing programs to collect in the fall if run projections are very low without the need to discuss in the HCP-HCs and PRCC HSC again. Truscott said he agrees with the language, but if necessary, this issue should be brought to the HCP-HCs and PRCC HSC to acknowledge the need and ensure all still approve. Tonseth agreed to provide notice to the HCP-HCs and PRCC HSC; however, permits already allow for the activity to occur during that time period. Truscott

noted the HCP-HCs and PRCC HSC have gone to great lengths to avoid overcollection, but approves of the existing language, assuming the committees would be informed if fall collection is undertaken. Hillman retained the existing language with no revisions.

- Natural-origin summer Chinook salmon collection at Wells Dam: Target was 124 in 2019, changed to 122 this year based on using a GM. Todd Pearsons said the method used reflects discussions with hatchery staff regarding fecundity. Hillman retained the 122 fish (61 females) based on use of GMs of past values to forecast 2020 needs.
- Allocation of surplus summer Chinook salmon to the YN's Yakima River summer Chinook salmon program: Several authors made edits, which Tonseth merged into one parsimonious revision. Hillman inquired among the members to ensure all agree with the revisions. Truscott agreed to accept the revisions as written. Tonseth had revised numbers to show 186 fish would be collected from the Chelan River and 200 from Wells Dam to sum to a total of 386 brood. Any additional fish collected in the Chelan River would be in excess of program needs. Table 8 was revised to reflect this change.
- Chiwawa Weir operations for collection of spring Chinook salmon: Revisions were made to reflect the status of the coordination and concurrence with USFWS for 2020. Tonseth adjusted language to respond to Matt Cooper's comments that the BCPs clarify they are lowering the weir instead of just opening the traps to allow passage. Murdoch asked to continue the discussion initiated in the last meeting regarding spring Chinook salmon trapping efficiency with a new approach to lower the weir at night for protecting bull trout. Murdoch requested that the Rock Island HCP-HC check in mid-season rather than at the end of the trapping season. The program may need to change operations mid-season if, for instance, Chinook salmon are not effectively captured by only trapping during the day. Willard and Tonseth agreed this was a good idea. Tonseth proposed a week-by-week comparison of spring Chinook salmon movement over the lower Chiwawa River PIT-tag array compared to spring Chinook salmon trapping observations and encounters with bull trout. Murdoch suggested communicating weekly over email, memorandum, or phone conference rather than in HCP-HC meetings. Tonseth agreed. An email update is preferable; a phone conference can be requested if any one party feels it is needed. Murdoch asked if contingency language is needed in the BCPs in case the trapping does not work. Tonseth said it is not necessary because the BCPs are considered a living document. As long as due diligence is taken during the season to evaluate trapping effectiveness, and parties recognize the need to change course, a change can be implemented and it is not necessary to take up space in the document with unknown scenarios. Gale said Rod Engle (USFWS) has been working with ODFW on the Imnaha Weir with similar challenges. At Imnaha they were successful by raising the lower panel of the weir to allow bull trout to pass but still retained Chinook salmon that did not tend to move below the weir panel with the exception of a few jacks that were able to

navigate through the opening. Gale said it is unclear whether this happened because of the size of the opening or some other species-specific behaviors. Gale offered to ask Engle for more information. Tonseth agreed it would be helpful to discuss this further and to compare their weir with the Chiwawa Weir. Willard said they are able to raise a portion of the panels or remove some pickets at the Chiwawa Weir. Tonseth asked if the lower part of a panel could be trimmed up or notched to create a similar effect. Gale said he would talk to Engle to provide information to WDFW and Chelan PUD committee.

- Appendix B, uses of BY versus release year: The BY and release year columns were revised where they were out of alignment for S1 versus S2 programs. Recent revisions to release year resolved the comments made on the table. Gale said there is confusion because there are 24,000 S1 smolts being released by Douglas PUD into the Twisp River; 24,000 S2 smolts from WNFH on Douglas PUD's behalf into the Twisp River; and 24,000 S1 smolts from WNFH released into the Methow River at WNFH. Tonseth said this could be clarified by removing Douglas PUD's name from the MetComp Conservation line. Humling had commented that a footnote should be added to identify fish that are part of USFWS' 200,000 production requirements from WNFH regardless of release location. A footnote was added during the meeting to resolve this detail. All lines of the table were made consistent to refer to rearing location rather than release location.
 - The following note was removed pertaining to Okanogan River release locations: "TBD in fall of 2020."
 - Willard asked that the additional mark for BY 2019 be a continued discussion item. Willard said if 100% natural-origin brood are collected for the Chiwawa program, there is no need for an additional mark. However, in BY 2019, hatchery fish will be used to backfill the program due to low expected returns, and the RI/RR HCP-HCs needs to decide whether to continue with the body tagging method used in the past. Willard said Chelan PUD staff noticed deformities in body-tagged fish this year.
- Table 6 in Appendix C: Tonseth responded to a question about refining Methow Spring Chinook salmon adult management forecasts to smaller groups, noting that it is time consuming and of little value because the forecasts are not very accurate and splitting into smaller groups would increase inaccuracies.
- Columbia River Inter-Tribal Fish Commission (CRITFC) program for sockeye trapping at Wells Dam East and West ladder traps: Truscott removed the provision noting it is not supported by the CCT. Tonseth asked Truscott why the CCT would oppose this. Truscott said the CRITFC have 17 years of sockeye tagging data as it relates to release timing and water temperature. Truscott said there is enough information collected already and is not aware of substantive management decisions that have been made based on these data, and the CCT do not want to preclude any sockeye from harvest opportunity. Murdoch said it was premature to remove

this provision from the BCPs because this has not yet been decided in HCP-Coordinating Committee (HCP-CC) meetings. Murdoch said this is being discussed and may be voted on in the Wells HCP-CC, but likely to be discussed for an additional month prior to making a decision. Murdoch said she is willing to modify the language to provide some wiggle room. Truscott said he does not support leaving this in the document and asked if there is anything that would preclude this from being added to the document later this year. Murdoch suggested revising the text to state that historically this activity has been carried out and would require approval by the Wells HCP-CC in 2020. Truscott accepted this revision. Tonseth said he is concerned that approval of the BCPs by the Wells HCP-CC next week could indirectly authorize this activity before the conversations are concluded in the Wells-CC. Murdoch disagreed and said with the revisions, approval of the BCPs is not approval of CRITFC sockeye sampling. Tonseth agreed.

- Coho trapping: Murdoch provided revisions that coincide with the provisions of the permit (also outlined in Appendix J).
- Appendix D, trapping operation plans: Fall steelhead trapping operations at Wells Dam and Methow Hatchery outfall trapping information was added back into Tables 4 and 5, respectively (to retain the potential to trap during this time). Murdoch said coho trapping and PIT-tagging at the PRD Off Ladder Adult Fish Trap (OLAFT) will probably occur this year and was added to Table 6 (concurrent with Viable Salmonid Population monitoring to estimate coho escapement), but no broodstock collection would occur at the OLAFT.
- Formerly Appendix H, alternative plan for Methow Sub-Basin Conservation Steelhead Programs: Several comments suggested formalizing this draft plan that has now been implemented over 3 years. Tonseth said this was maintained as draft because of uncertainty around feasibility of spring broodstock collection only, and collection by angling. Tonseth said he now supports formalizing this plan as the status quo because these actions have been successful and this appears to be how the program will be operating in the future. Tonseth suggested eliminating this Appendix because the program is fully described in text of the BCPs. All parties agreed as long as all this information is in other parts of the document. This appendix was eliminated and Appendix callouts were updated throughout the document.
- Wenatchee summer steelhead rearing and release plan element: This was removed from Appendix H of the BCPs because the last year of this rearing and release plan was implemented in 2019.
- Appendix J, Methow basin coho program: Kahler revised the target release number to 25,900 smolts. Murdoch was not sure this was correct that the number should be adjusted for Douglas PUDs production. Kahler said Douglas PUD's production is tied to the YN production target for each brood year, based on a statement of agreement from 2015 approved by the HC. Murdoch reviewed the statement of agreement and agreed to the edits made by Kahler.

Hillman asked for a vote to approve of the Draft Upper Columbia River 2020 BY Salmon and 2021 BY Steelhead Broodstock Collection Protocols. All members of the HCP-HCs and PRCC HSC approved.

Larissa Rohrbach will update the document header and other edits to appendix and table callouts, then will distribute the HCP-HCs and PRCC HSC-approved version for HCP-CC approval.

Hillman asked if there were any items that should be discussed in the near term in preparation for next year's broodstock collection activities. Willard said that the marking of backfill hatchery-origin Chiwawa spring Chinook salmon should be discussed soon. Pearsons said further progress on sizing of hatchery programs (allocation of fish between safety-net versus conservation programs) needs to move forward. Tonseth said differentiation of naturally produced Okanogan spring Chinook salmon from Methow River fish will be necessary (involves the use of elemental signature analysis).

B. Outplanting Adult Methow Spring Chinook Salmon

This item was discussed as part of revising and approving the annual BCPs during the previous agenda item.

C. Impacts of Agency Responses to COVID-19 on Hatchery Operations

Bill Gale said the USFWS is evaluating marking and tagging activities that are occurring right now while trying to implement social distancing measures, which is difficult to do in tagging trailers where people are confined in close proximity for 8 hours at a time. USFWS is evaluating whether program fish can be marked and tagged this release year and how a change in schedule could cascade to affect marking and tagging later in the year. Gale said it is likely that future tagging events will be canceled. Gale asked if any other programs have started to think about these issues.

Catherine Willard said Chelan PUD is PIT-tagging Wenatchee steelhead at Chiwawa, which does not require working in a trailer, and will re-evaluate upcoming activities on a case-by-case basis. Willard said Chelan PUD is evaluating on a case-by-case basis whether contractors should be allowed on site (e.g., at hatchery facilities).

Todd Pearsons said Grant PUD has closed facilities to the public and is taking all other precautions that other agencies are taking. Pearsons said it is unclear how marking will be handled because these activities are contracted out.

Kirk Truscott said for subyearlings, the CCT uses an automated clipping trailer, which would not require people to work in close proximity.

Gale asked if all ad-clipping and CWT marking is complete for this year. Gale said he may have to provide USFWS with a program-by-program update. Willard said yes for Chelan PUD's programs. Pearsons said not yet for Grant PUD's PRH program. Truscott said the CCT's subyearling releases

have already been clipped or tagged. Tom Kahler said he thinks Douglas PUD's fish have all been tagged with the exception of subyearlings scheduled for PIT tagging by USFWS starting April 13, so that may not occur. Mike Tonseth said he would look into WDFW programs to provide a better update.

Brett Farman said these discussions are occurring in US v. Oregon Agreement meetings. NMFS has not had the chance to discuss their position on this rapidly emerging issue internally but will have an internal discussion about potentially developing a priority list of programs for determining whether tagging can occur.

Gale said this has been helpful and provided helpful information for his need. Tracy Hillman asked each party to provide updates to tagging and marking activities to the HCP-HCs and PRCC HSC as they become available this spring.

III. PRCC HSC

A. Review Agenda, Announcements, Approve Past Meeting Minutes

The PRCC HSC representatives approved the February 19, 2020 meeting minutes as revised.

B. White River Spring Chinook Salmon: Next Steps

Tracy Hillman informed the PRCC HSC that Dale Bambrick provided responses to questions about the White River spring Chinook salmon program, distributed via email by Larissa Rohrbach yesterday.

Todd Pearsons said a lot of this depends upon whether the recovery plan² can be modified or not. Pearsons asked what is the process for modifying the recovery plan? Hillman said because the UCSRB was instrumental in developing the recovery plan under the direction by NMFS, the Subcommittee may need to go back to the UCSRB. Brett Farman agreed and said he did not have more information on a specific process for updating the recovery plan.

Pearsons said a specific example of new information since the original plan was produced would be data that indicates the [viability] of the Wenatchee River spring Chinook salmon spawning aggregate is now in question. Pearsons asked how the recovery plan could be modified to incorporate this new information.

Hillman will ask Melody Kreimes (UCSRB Executive Director) for her response to what it would take to open the recovery plan up for revision.

² UCSRB 2007. Upper Columbia Salmon and Steelhead Recovery Plan. Available from: <https://www.ucsr.org/mdocuments-library/plans/>

Discussion of Bambrick's responses was tabled until the April meeting to allow members more time to review.

IV. Meeting Administration

Todd Pearsons said the Washington/British Columbia and Western Division American Fisheries Society meeting that was scheduled to occur in the same week as the April HCP-HC and PRCC HSC meeting (April 15) has been cancelled due to COVID-19 concerns (organizers considered holding a virtual meeting but ultimately chose to cancel completely). Tracy Hillman said the next meeting date of April 21 will be maintained for consistency and held as a conference call unless changes in health department guidance allow for an in-person meeting.

V. Next Meetings

The next HCP-HCs and PRCC HSC meetings will be Tuesday, April 21, 2020, by conference call and webshare; Wednesday, May 20, 2020; and Wednesday, June 17, 2020, at Grant PUD in Wenatchee, Washington.

VI. List of Attachments

Attachment A List of Attendees

**Attachment A
List of Attendees**

Name	Organization
Tracy Hillman ^o	BioAnalysts, Inc.
Larissa Rohrbach ^o	Anchor QEA, LLC
Catherine Willard ^{*o}	Chelan PUD
Kirk Truscott ^{*‡o}	Colville Confederated Tribes
Tom Kahler ^{*o}	Douglas PUD
Greg Mackey ^{*o}	Douglas PUD
Peter Graf ^{‡o}	Grant PUD
Todd Pearsons ^{‡o}	Grant PUD
Brett Farman ^{*‡o}	National Marine Fisheries Service
Bill Gale ^{*‡o}	U.S. Fish and Wildlife Service
Mike Tonseth ^{*‡o}	Washington Department of Fish and Wildlife
David Blodgett ^o	Yakama Nation
Keely Murdoch ^{*‡o}	Yakama Nation

Notes:

- * Denotes HCP-HC member or alternate
- ‡ Denotes PRCC HSC member or alternate
- o Joined by phone