

Memorandum

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

Date: March 28, 2019

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

cc: Larissa Rohrbach, Anchor QEA, LLC

Re: Final Minutes of the February 20, 2019 HCP Hatchery Committees and PRCC Hatchery Subcommittee Meetings

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees (HCs) and Priest Rapids Coordinating Committee Hatchery Subcommittee (PRCC HSC) meetings were held in Wenatchee, Washington, on Wednesday, February 20, 2019, from 9:00 a.m. to 3:30 p.m. Attendees are listed in Attachment A to these meeting minutes.

Action Item Summary

Joint HCP-HCs and PRCC HSC

- Tracy Hillman will review aspects of the Independent Scientific Advisory Board's Review of Spring Chinook Salmon in the Upper Columbia River under HCP-HCs' purview (Item I-A). (*Note: this item is ongoing.*)
- Greg Mackey will continue researching broodstock composition and mating strategies for conservation programs, focusing on spring Chinook at the Methow Hatchery; Item I-A). (*Note: Larissa Rohrbach distributed an email from Mackey including a paper and presentation by Hankin et al.^{1,2} to the HCP-HCs and PRCC HSC representatives on February 22, 2019. This item is ongoing.*)
- Mike Tonseth will coordinate with Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) regarding presenting pre-spawn mortality modeling results for spring Chinook salmon at an upcoming HCP-HCs meeting (Item I-A). (*Note: this item is ongoing.*)
- Catherine Willard will update the genetics section of the Monitoring and Evaluation Plan for PUD Hatchery Programs (Update to the 2017 Plan) based on the genetics panel

¹ Hankin, D. G., J. Fitzgibbons, and Y. Chen, 2009. "Unnatural Random Mating Policies Select for Younger Age at Maturity in Hatchery Chinook Salmon (*Oncorhynchus Tshawytscha*) Populations." *Canadian Journal of Fisheries and Aquatic Sciences* 66(9):1505-1521.

² Hankin, D. G., J. Fitzgibbons, and Y. Chen, 2011. *Unnatural Random Mating Selects for Younger Age at Maturity in Hatchery Chinook Salmon Stocks*. Oral presentation.

recommendations and will append the recommendations from the panel to the plan (Item I-A).
(Note: this item is ongoing.)

- Kirk Truscott will discuss with Colville Confederated Tribes (CCT) biologists whether elemental signature analysis could differentiate natural-origin Okanogan spring Chinook salmon from other natural-origin Chinook salmon during broodstock collection at Wells Dam for Methow Fish Hatchery programs (Item I-A). (Note: this item is ongoing.)
- Larissa Rohrbach will add sizing of upper Columbia River conservation programs as a periodic agenda item (Item I-A). (Note: this item is ongoing.)
- The following updates will be made to the draft 2019 Broodstock Collection Protocols pertaining to Joint HCP-HCs and PRCC HSC items (Item II-A):
 - Mike Tonseth will add Appendix C to the draft 2019 Broodstock Collection Protocols describing return-year adult management plans.
 - Greg Mackey will revise Douglas PUD's broodstock collection protocol for Methow coho salmon captured at Wells Dam.
 - Kirk Truscott will comment in the draft broodstock collection protocol regarding the number of steelhead collected in the fall that have intact adipose fins and no coded wire tag (CWT).
 - Keely Murdoch will provide the number of summer Chinook salmon eggs required from Wells Hatchery for the Yakima Basin program.
 - Tonseth will revise language about the allocation and marking of spring Chinook salmon in the Nason Creek conservation and safety-net programs.
 - Tonseth will distribute a revised version of the Broodstock Collection Protocols by March 6, 2019, to be discussed on the March 11, 2019 conference call.

(Note: Rohrbach distributed an email from Tonseth including revised draft 2019 Broodstock Collection Protocols to the HCP-HC and PRCC HSC on March 8, 2019).

- Mike Tonseth will distribute the costs of tagging steelhead at the Priest Rapids Dam Off-Ladder Adult Fish Trap (OLAFT) and the upper Columbia River passive integrated transponder (PIT)-array operation and maintenance (O&M) budgets to the PUDs and inform the Chair when this has been distributed (Item III-A). (Note: Tonseth emailed Tracy Hillman on February 25, 2019, to inform him that this item is complete.)
- Mike Tonseth will invite Andrew Murdoch to the next HCP-HCs and PRCC HSC meetings on March 20, 2019, to answer questions about PIT-tagging spring Chinook salmon at the OLAFT (Item III-A). (Note: Tonseth emailed Tracy Hillman on February 25, 2019, to inform him that Murdoch will attend the March 20, 2019 meeting. This item is complete.)
- Brett Farman will discuss with Charlene Hurst and Mike Tonseth the potential use of a multi-population model for estimating the proportionate natural influence (PNI) for the Nason spring Chinook and Chiwawa spring Chinook programs (Item II-A).

- Brett Farman will inform the HCP-HCs of the publication date for public review of the Methow River Steelhead Environmental Assessment (EA) (Item II-C).
- Brett Farman will inform the HCP-HCs of the publication date for public review of the Section 10 permit for the unlisted Chinook salmon bundle (Item II-C). *(Note: Farman emailed Larissa Rohrbach on March 6, 2019 to inform the Committees that the UCR unlisted Chinook NEPA and HGMP bundle will be published within the week.)*

Wells HCP Hatchery Committee

- Greg Mackey will provide a revised version of Douglas PUD's draft 2019 Monitoring and Evaluation (M&E) Implementation Plan for HCP-HCs approval by email (Item III-A).

PRCC Hatchery Subcommittee

- The following updates will be made to the draft 2019 Broodstock Collection Protocols pertaining to PRCC HSC items (Item V-B):
 - Mike Tonseth will revise the Broodstock Collection Protocols for the natural-origin (NOR) Methow (Carlton) summer Chinook salmon program to identify a seasonal target number of adult fish to be collected rather than weekly collection goals due to low numbers expected in 2019.
 - Tonseth will review the assumptions and target number of proposed NOR Methow (Carlton) summer Chinook salmon to determine if this number could be increased similar to 2018 targets.
 - Todd Pearsons will organize a conference call with Tonseth and Paul Hoffarth (WDFW) to develop a plan to determine the number of fall Chinook salmon broodstock to be collected during the 2019 Angler Broodstock Collection (ABC) fishery and the OLAF. *(Note: Rohrbach distributed an email from Tonseth including revised draft 2019 Broodstock Collection Protocols to the HCP-HC and PRCC HSC on March 8, 2019).*

Decision Summary

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

Agreements

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

Review Items

- Larissa Rohrbach sent an email to the Rocky Reach and Rock Island HCs on February 11, 2019, notifying them that the 2019 Rock Island and Rocky Reach HCP Action Plan is available for a 30-day review with edits due to Catherine Willard by March 13, 2019 (Item IV-A).
- Larissa Rohrbach sent an email to the HCP-HCs and PRCC HSC on February 12, 2019, notifying them that the draft 2019 Broodstock Collection Protocols are available for review with comments and edits due to Mike Tonseth by March 1, 2019 (Item II-A and V-B).
- Larissa Rohrbach sent an email to the PRCC HSC on February 21, 2019, notifying them that the draft Priest Rapids Hatchery M&E Implementation Plan is available for 30-day review with comments and edits due to Todd Pearsons by March 25, 2019 (Item V-C).
- Larissa Rohrbach sent an email to the HCP-HCs and PRCC HSC on February 7, 2019, notifying them that the updated meeting protocols, distribution lists, and draft Conflict of Interest Statement of Agreement (SOA) are available for review with comments and edits due to Rohrbach by March 15, 2019 (Item II-B).

Finalized Documents

- No items have been recently finalized.

I. Welcome

A. Review Agenda, Review Last Meeting Action Items, and approve the January 16, 2019 Meeting Minutes (Hillman)

Tracy Hillman welcomed the HCP-HCs and PRCC HSC and asked for any additions or changes to the agenda. Three items were added to the agenda:

- Greg Mackey added an announcement of a job opening at Wells Hatchery to the Wells HC agenda items
- Catherine Willard added an update on the Tumwater fishway to the Rocky Reach and Rock Island HC agenda items
- Todd Pearsons added the 2019 Draft Priest Rapids Hatchery M&E Implementation Plan to the PRCC HSC agenda items

The HCP-HCs and PRCC HSC representatives approved the revised agenda.

The HCP-HCs and PRCC HSC representatives reviewed the revised draft January 16, 2019 meeting minutes. Larissa Rohrbach said there are some outstanding comments and revisions, which the

representatives reviewed and addressed. The HCP-HCs and PRCC HSC representatives approved the draft January 16, 2019 meeting minutes as revised.

Action items from the HCP-HCs and PRCC HSC meeting on January 16, 2019, and follow-up discussions were addressed (*note: italicized text below corresponds to agenda items from the meeting on January 16, 2018*):

Joint HCP-HCs and PRCC HSC topics

- *Tracy Hillman will review aspects of the Independent Scientific Advisory Board's Review of Spring Chinook Salmon in the Upper Columbia River under HCP-HCs' purview (Item I-A).* Hillman said this item is ongoing. Hillman said he has the statistical tools for analyzing total spawners in a BACI analysis, and is now developing the tool for analyzing productivity by return year. Next, he plans to figure out when the before and after treatment time periods should be: that is, when hatchery fish would first start to affect the productivity of natural-origin fish.
- *Greg Mackey will continue researching whether to include age-3 males in broodstock and discuss it with Craig Busack (National Marine Fisheries Service [NMFS]; Item I-A).* Mackey said this item is ongoing. Mackey said he identified a paper by Hankin et al. for distribution about modeling age structure of a hatchery population. Hankin et al. found that a simple protocol of structuring broodstock management to mate females with larger males can shift the population to an older age structure and prevent the shift to a younger age structure. A 2x2 factorial approach is used now in the Methow spring Chinook salmon program. In addition, due to genotyping all potential brood for stock identification, the capacity exists to identify full-sibs and half-sibs to avoid those crosses. Todd Pearsons said this approach was used in the White River. Catherine Willard said this approach was used for Snake River Sockeye at Redfish Lake, Idaho. Bill Gale asked if there is a minimum number needed for this approach to work. Tom Kahler agreed this was an important question and noted the Methow program is small. Gale said this may not be possible for conservation programs that are small.
- *Keely Murdoch will attempt to provide coho salmon broodstock collection protocols to Mike Tonseth by early February for inclusion in the draft 2019 Broodstock Collection Protocols (Item I-A).* Murdoch said this item is complete. Murdoch said the protocol is ready and will be distributed following the meeting.
- *Mike Tonseth will coordinate with Andrew Murdoch (Washington Department of Fish and Wildlife [WDFW]) regarding presenting pre-spawn mortality modeling results for spring Chinook salmon at an upcoming HCP-HCs meeting (Item I-A).*

Tonseth said this item is ongoing.

- *Keely Murdoch will research past co-mingling ratios of coho salmon to spring Chinook salmon at Winthrop National Fish Hatchery or other locations (Item I-A).*

Murdoch said this item is complete. Murdoch identified years in which co-mingling occurred. She said that the ratio centered around 50% (49-53%) coho salmon over those years at the Spring Creek acclimation site but that at the Twisp acclimation site it would be mostly coho salmon. Greg Mackey said the ratio would be approximately one-third Chinook salmon and two-thirds coho salmon.

- *Larissa Rohrbach will obtain approval or abstention from NMFS to approve the December 2018 meeting minutes (Item I-A).*

Rohrbach said this item is complete. NMFS did not respond to a request for a vote within 5 business days and therefore abstained. Brett Farman [NMFS] approved via email on February 13, 2019.

- *Larissa Rohrbach will schedule a tentative conference call on March 11, 2019, at 2:30 pm for the HCP-HCs and PRCC HSC to discuss the draft 2019 Broodstock Collection Protocols (Item I-A).*

Rohrbach said this item is complete. Rohrbach sent a calendar placeholder via email on January 28, 2019.

- *Catherine Willard will update the genetics section of the Monitoring and Evaluation Plan for PUD Hatchery Programs (2017 Update) based on the genetics panel recommendations and will append the recommendations from the panel to the plan (Item II-A).*

Willard said this item is ongoing.

- *Mike Tonseth will share draft 2019 Broodstock Collection Protocols with the HCP-HCs and PRCC HSC by February 11 (Item II-B).*

Rohrbach said this item is complete. Larissa Rohrbach distributed the 2019 Broodstock Collection Protocols in an email on February 12, 2019.

- *Greg Mackey will confirm with Betsy Bamberger (Douglas PUD) whether Douglas PUD will use the Washington Animal Disease Diagnostic Laboratory (WADDL) for in-season bacterial kidney disease (BKD) testing during 2019 broodstock collection and confirm that WADDL methods will provide ELISA [enzyme-linked immunosorbent assay] optical density test results (Item II-B).*

Greg Mackey said this item is ongoing. Greg Mackey said Douglas PUD still plans to use WADDL, but it is unclear at this time if WADDL plans to report optical density (OD) values. If Douglas PUD cannot get the ODs through WADDL, they will contract with the State of Washington. Mike Tonseth asked if there is similarity in how the ODs are interpreted by both laboratories to determine if culling is needed in-season. Mackey said Bamberger is in the process of determining this. This topic will be added to an upcoming meeting agenda with Bamberger.

- *Kirk Truscott will discuss with Colville Confederated Tribe (CCT) biologists whether elemental signature analysis could differentiate natural-origin Okanogan spring Chinook salmon from other natural-origin Chinook salmon during broodstock collection at Wells Dam for Methow Fish Hatchery programs (Item II-B).*
Truscott said this item is ongoing. The major unknown is whether those elemental signatures would still be present in adults 4 to 5 years out. The technique works for juvenile identification; it is unknown if the signature is maintained in adult fish. Truscott said that at this time, collections at Wells Dam cannot distinguish the stocks of natural origin fish. He said that CCT doesn't want Okanogan River fish to be incidentally collected for Methow brood. Tom Kahler clarified that not all fish are encountered at Wells Dam because there are two ladders and trapping may not be in operation every day at both ladders.
- *Mike Tonseth will ask Andrew Murdoch for interim pre-spawn mortality data for spring Chinook salmon to incorporate into the 2019 Broodstock Collection Protocols (Item II-B).*
Tonseth said this item is complete. Tonseth has asked for an update from Murdoch. Tonseth said that some values are available for gross management decisions, but that data are not refined for use in the analysis for recalculating the size of the Wenatchee spring Chinook conservation programs.
- *Larissa Rohrbach will add the size of upper Columbia River conservation programs as a periodic agenda item (Item II-C).*
Rohrbach said this item is ongoing.
- *Mike Tonseth will ask Andrew Murdoch to provide to the PUDs a list of passive integrated transponder (PIT)-tag arrays that will be shut down if not funded, the cost to operate and maintain these arrays, and the cost of PIT tagging steelhead at the Priest Rapids Dam Off-Ladder Adult Fish Trap (OLAFT; Item II-D).*
Tonseth said this item is ongoing. Tonseth said he will send this information to the PUDs within 4 to 5 days following the meeting and will inform the HCs when it has been distributed.
- *Larissa Rohrbach will draft email distribution lists merging HCP-HCs and PRCC HSC recipients for review and approval by the HCP-HCs and PRCC HSC and the HCP Coordinating Committees (Item II-E).*
Rohrbach said this item is complete. This item will be discussed in today's meeting. (Note: documents were emailed by Rohrbach to the HCP-HCs and PRCC HSC on February 7, 2019.)
- *Larissa Rohrbach and Tracy Hillman will revise and distribute meeting protocols for the HCP-HCs and PRCC HSC for review and approval (Item II-E).*
Rohrbach said this item is complete. This item will be discussed in today's meeting. (Note: documents were emailed by Rohrbach to the HCP-HCs and PRCC HSC on February 7, 2019.)
- *Tracy Hillman will send the Statement of Agreement (SOA) regarding conflicts of interest to Larissa Rohrbach for inclusion of language in the meeting protocols (Item II-E).*

Rohrbach said this item is complete. This item will be discussed in today's meeting. Hillman said a question was raised about whether there is still a need for a Conflict of Interest SOA. Bill Gale said there should be some written agreement for people in the future to reference but does not have to be a formal SOA. Hillman agreed that it could be a simple paragraph within the meeting protocols. (Note: The most recent Conflict of Interest Policy, dated January 26, 2013, was emailed by Hillman to Rohrbach on January 17, 2019.)

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- *Greg Mackey will provide a revised version of Douglas PUD's draft 2019 Monitoring and Evaluation (M&E) Implementation Plan for HCP-HCs approval by email (Item III-A).*
Mackey said this item is ongoing. This item will be discussed in today's meeting.

II. Joint HCP-HCs and PRCC HSC

A. Broodstock Collection Protocols Review (Mike Tonseth)

Mike Tonseth asked that written comments on the Draft 2019 Broodstock Collection Protocols (Attachment B) be returned to him by Friday, March 1, 2019, to flag outstanding issues and return a second draft to HCP-HCs and PRCC HSC representatives a few days ahead of the March 11, 2019 special conference call. Bill Gale asked when U.S. Fish and Wildlife Service (USFWS) Ecological Services will be asked to review protocols relative to the Bull Trout Biological Opinions or Bull Trout permit constraints. Gale said review by Sierra Franks at USFWS Ecological Services is needed because approval by the HCs assumes there is Endangered Species Act coverage for impacts of the broodstock collection activities on listed species. Tonseth said ideally USFWS Ecological Services would comment on the plan now.

Tonseth said major changes to the Broodstock Collection Protocols include the following:

- Much of the technical content has been moved to appendices.
Notables that were bulleted in the front of the document that have been carried over from year to year have been eliminated. Those that are important for this year have been maintained.

Tonseth further explained several bulleted notables. Tracy Hillman recorded edits to the bulleted notables during the meeting for Tonseth to carry through in revisions to the rest of the document.

Elimination of a Fall Collection Component for the Methow Safety-Net and Okanogan Steelhead Programs

Tonseth proposed to eliminate fall steelhead collection (adult hatchery steelhead collection for the Methow Safety-Net and Okanogan programs at Wells Dam and hatchery). Tonseth said there has always been a surplus of fish for the Methow Safety-Net and Okanogan programs. He said there are opportunities to use traps at Wells Hatchery in the spring to collect more spawners instead of fall collection. It has become laborious to deal with overages every year – requiring Wells hatchery to rear fish that turn out to be surplus to program needs and for WDFW to identify bodies of water for fish to be transferred to and coordinating fish transfers, and Wells Hatchery and WDFW staff must then stock out the surplus fish. Kirk Truscott said another problem is that spawners collected in the fall do spawn earlier so they are unable to mate with fish collected in spring. Truscott will review this with his staff to confirm, but preliminarily agrees he would accept ending collection in the fall. He said even during the poorest years, at least 58 fish (the target number) can be collected in the Wells volunteer channel in the spring. Tonseth said they will still read CWTs to identify return origin so that those identified as Okanogan can still be allocated to that program.

Expansion of Spring Chinook Salmon Collection at Wells East and West Ladder Traps

Tonseth said this is actually continuation of an ongoing broodstock collection strategy.

Appendix Review

Tonseth said ideally the appendices can be rolled over year-to-year. Tonseth asked representatives to review the following appendices:

- Appendix I – Summarizes all juvenile rearing and release plans. Tonseth said that if a program is not identified, the plans are status quo. Tonseth asked that representatives ensure all plans are up to date.
- Appendix J – Summarizes summer and spring Chinook salmon disease management at Eastbank Hatchery. Tonseth said there are minor language changes. He said fish are being inoculated with Draxin. He said inoculation by Oxytet will be used on an as needed basis for *Columnaris* only.
- Appendix K – Summarizes Yakama Nation (YN) coho salmon protocols provided by Keely Murdoch. Tom Kahler noticed there is no Douglas PUD plan for coho salmon collection though it is a component of the program. Greg Mackey will provide revisions in written comments on the Broodstock Collection Protocols.
- Appendix G – Summarizes the management plan for managing surplus juvenile spring Chinook salmon and summer steelhead. Tonseth asked the representatives to ensure that past discussions have been accurately captured for managing overages. Tonseth said these

plans were in last year's Broodstock Collection Protocols in the body of the document. He said there were revisions to language for this year.

- Appendix H – Summarizes continued inclusion of a plan in place for the 2018 Methow conservation steelhead brood. Tonseth said that last year some parts of the plan were not followed. He said the existing plan was carried forward with the note that the plan will be followed this year. He said the plan was contingent on NOR collection by hook-and-line in the Methow basin and that last year an overage was collected by hook-and-line. He said this may be more challenging this year due to low numbers of returning adults. Tonseth asked when the collection would start. Matt Cooper and Mackey said it would have started already if the river temperatures were warmer, and that it will start as soon as the weather changes and the river is thawed.

Chelan Falls Broodstock Collection at Wells Dam Volunteer Trap

Tonseth said there were changes to broodstock collection for the Chelan Falls summer Chinook salmon program. Tonseth asked Catherine Willard to clarify the changes.

Willard said that for three years, Chelan PUD piloted broodstock collection at the Chelan River Canal Trap. She said in the first year all 100 fish were collected; however, second- and third-year collections were interrupted by other activities (gravel augmentation, outage). This year, a new Washington Administrative Code changed safety precautions making the Chelan River Trap infeasible to operate without major, expensive modifications.

Willard said Chelan PUD will prioritize collection at the Wells Dam Volunteer Trap while concurrently piloting a temporary weir located in the Chelan River Habitat Channel and collection by beach seine in the Chelan Falls spawning channel. Tonseth said there will need to be coordination with brood collection at Wells Hatchery program to ensure collection at the volunteer trap for the Chelan Falls program occurs within the same trapping period as brood for the Wells summer Chinook programs. Truscott said they haven't determined details on the timing of weir installation and beach seining activities. Tonseth said any broodstock collected should be retained, but those collected later in the season are less likely to be used due to higher disease potential (BKD, *Columnaris*) and lower egg quality.

Gale said he is concerned about entering into a long-term agreement that Wells Dam is always going to provide the backstop for Chelan Falls. Willard and Tonseth agreed the long-term commitment is to collect broodstock for the Chelan Falls program in the Chelan River. Truscott said it's unlikely that collection at Chief Joseph Hatchery would be done to back-fill summer Chinook salmon programs. He said by design there are few fish collected there in order to support tribal harvest programs and it

is unlikely that CCT would support collection. Tonseth said he will revise the protocol to state that the HCs will discuss alternative options if collection in the Chelan River falls short of target numbers.

Collection of Surplus Broodstock

Gale said that the USFWS Regional Office is formulating a more defined policy for how USFWS handles requests for surplus fish. He said it will require a formal request to the regional administration, rather than simply being handled by local USFWS staff, and this may make the disposition of surplus fish more complicated.

Tonseth said that in the past, protocols were written to ensure broodstock were collected throughout the return run. This year, returns will be so low all fish should be collected early in the run regardless of weekly targets to ensure meeting broodstock goals, instead of trying to distribute collections throughout the run and perhaps not collection enough fish. Tonseth recommended taking early advantage of the collection days and sites available, noting it is not something normally advocated by the HC, but may be a prudent action. This has not been written into the 2019 protocols yet. Tonseth requested that representatives discuss adding this to this year's protocols. Todd Pearsons asked which programs may be affected by low numbers. Tonseth said the spring and summer Chinook salmon programs will have low numbers. Truscott said they had to incorporate hatchery-origin fish at Chief Joseph Hatchery last year as well. Tonseth said he will review last year's data to determine whether all trapping opportunities and locations were well utilized.

Tonseth said in the Wenatchee River, depending on early summer flows and the low expected summer run forecast, the Dryden Traps may not be very efficient. He said there may be a need to collect summer Chinook salmon at Tumwater and Dryden dams simultaneously in 2019 rather than rely on weekly collection quotas or only going to Tumwater Dam once a deficit in brood numbers occurs at Dryden. Truscott asked whether NOR fish arriving at Dryden early in the season would be returned to the river. Tonseth said no, typically collection is frontloaded, but in years of low returns there is a deficit at Dryden and numbers are made up at Tumwater later. Pearsons asked if they are only proposing to retain NOR fish for broodstock (pNOB). Tonseth said yes, the program would just deviate from use of a weekly collection quota and would retain any NO adult summer Chinook as it is encountered at either Dryden or Tumwater Dams. He does not expect that for this brood year, not collecting broodstock throughout the return will cause long-term harm to the population.

Collection of Chinook Salmon to Support Chief Joseph Hatchery

Tonseth said that the Chief Joseph Hatchery may collect summer Chinook brood at Wells Dam if needed. Pearsons asked if this has ever been done. Tonseth answered that this has never been done before, but this year it could, if adult returns to Chief Joseph Hatchery fall short of broodstock targets.

Tonseth said adipose-clipped only (no CWT) spring Chinook encountered at Methow Hatchery or WNFH could be transferred to the Chief Joseph Hatchery CCT segregated program. Gale asked whether the assumption that it is a Chief Joseph Hatchery fish is correct or if it could be a wire-shed from an Endangered Species Act-listed program—how would you know? Gale said he is unsure if it is permitted to make that transfer of a 'wire-shed' fish to Chief Joseph Hatchery (CCT segregated program, which is a program for harvest). Gale said it would be rare but if it is a realistic occurrence, USFWS and CCT are at risk of moving fish that are not permitted for use in the Chief Joseph Hatchery segregated program. Tonseth asked Truscott to review this bullet to determine if this language should be kept and if it would be permitted to cross ESA-listed fish with a Chief Joseph Hatchery CCT segregated program fish.

Collection of Summer Chinook Salmon at Wells Hatchery for the Yakama Nation Yakima River Program

Tonseth asked Keely Murdoch and Truscott to review the collection of summer Chinook salmon from the Wells Hatchery Volunteer Channel to support the YN's Yakima River summer Chinook salmon program. Draft protocols identify up to 350,000 eggs could be transferred assuming 300,000 juveniles would be released. Brood may not be collected for that program due to differing positions between the CCT and the YN. Tonseth would like to know whether the YN will collect those fish so that, in the event that they will not be collected, they can be allocated elsewhere (e.g., for food). Truscott agreed it is difficult to justify moving fish from Wells to the Yakima program.

Murdoch suggested establishing the following priorities in the Broodstock Collection Protocols for allocation of broodstock collected at Wells Dam: 1) Wells Hatchery program; 2) other upper Columbia River programs; 3) the Yakima program. Gale asked whether these transfers are always occurring as eggs. Murdoch said yes, transfers are made as green eggs (gametes). Gale said USFWS is getting requests for fish from many sources and appreciates the effort to prioritize. Kahler agreed this allows for coordinating collection at the Wells volunteer ladder where holding surplus fish is undesirable. Gale asked what the YN summer Chinook salmon program size is. Murdoch said 250,000 eggs could be requested from sites where available, and the Hatchery and Genetic Management Plan (HGMP) says up to 400,000 eggs could be collected.

Murdoch said that Melinda Goudy (YN) provided a presentation and answered questions about developing a local broodstock but explained there wasn't a good opportunity to collect in the Yakima River. She said Goudy took the questions from this committee and had a meeting with staff in the Yakima Basin who decided to start releasing smolts at Prosser Dam to have a collection point for returning adults to develop a local broodstock. Murdoch said additional eggs were requested last year to meet this need. She said that now there is a release site (Prosser) specifically to support local

broodstock development, this is similar to the way the coho reintroduction project has approached local broodstock development in the Wenatchee Basin, with releases from Leavenworth NFH.

Gale requested some certainty around the number of eggs that could be requested by the program this year. Murdoch stated the goal of 300,000 juveniles may have changed since last fall to include a release group for Prosser. Gale noted there were enough adults last year at Entiat to support the Yakima program but with the contingency that early returning fish will be prioritized for consumption, late returning fish seem to meet the Yakima needs just fine. Murdoch read an email from Goudy stating that the original release goal of summer Chinook salmon in the Yakima Basin was 500,000 and is still the goal. Goudy said that initial years focused on 250,000 with an emphasis on jump-starting collection at Prosser Dam. Murdoch said the release at acclimation sites is still part of the plan. Murdoch said to differentiate summer and fall Chinook salmon collected at Prosser Dam, 100% of the summer Chinook salmon will be tagged with CWTs, and 100% of fall Chinook salmon will be adipose-fin-clipped. Murdoch will confirm with YN staff the total number requested. Gale asked that the Broodstock Collection Protocols state the specific number requested from each hatchery or define priorities for review by the USFWS Regional Office.

Operating Tumwater Trap to Facilitate Lamprey Passage

Tonseth asked that representatives review to ensure protocols are acceptable to the HCs.

Appendix B – Marking Rates

Tonseth asked that representatives review to ensure protocols are acceptable to the HCs.

Appendix C – Return Year Adult Management Plans

Tonseth said he will distribute Appendix C in the coming days.

Appendix A – Biological Assumptions

Tonseth said a second table was added that responds to feedback on the number of adults and egg targets. This will help determine if there may be an overage or underage for a program. Table 2 may need revision based on discussion of the spring Chinook salmon broodstock collection plan. Tonseth noted these targets are program-specific. Gale asked whether Tonseth has all information needed from USFWS. Tonseth answered the necessary information is typically in Appendix B and some information for steelhead programs upstream from Wells Dam is integrated in the steelhead plan.

Allocation of Smolts in the Nason Creek Conservation Program and Safety-Net Program

Tonseth presented an interim reduction of Nason Creek spring Chinook salmon conservation program (wild parents) size to 100,000 juveniles and increase in safety-net program (hatchery parents) size to 123,670 (see page 19, Table 10 of draft Broodstock Collection Protocol).

Tonseth said 490 wild spring Chinook salmon returns and 2,966 hatchery returns are expected upstream from Tumwater (Table 9). Matt Cooper asked whether that estimate seems high for hatchery returns. Gale said expecting approximately 3,500 fish to return from a 450,000 smolt release would be a smolt-to-adult return ratio that seems high. Tonseth agreed and said WDFW's model tends to over-predict hatchery returns but has generally been accurate for wild returns. Tonseth said he may use a correction factor to adjust these numbers based on last year's results.

Pearsons asked whether the PUDs are using too many NOR fish to maintain their programs and if there are truly that many hatchery returns, won't there still be some hatchery fish removed at Tumwater? Tonseth reminded the HCs that when using the sliding scale system, the target PNI shifts. Cooper asked whether the NO run size can be tracked in season. Tonseth said NORs cannot be tracked very well in season because only approximately 25 to 30 NO PIT tags may return, mostly from the Chiwawa and only a couple from Nason, which is a low number for expanding to total return in season.

Tonseth said the bigger issue in need of discussion is reducing the size of the Nason conservation program of 125,000 fish to 100,000 in light of low expected NO returns in 2019.³ Murdoch said that YN did not agree to reducing the conservation program size based on broodstock origin. When insufficient NOR returns are available, hatchery origin fish are intended to be used in the conservation program. The number of wild fish extracted for broodstock would not change over what is proposed in the protocols, rather, hatchery fish should be used to back-fill the conservation program (and would be adipose fin-present). Tonseth said offspring of hatchery parents could be allocated to the safety-net program and would be marked as safety-net program fish are. Tonseth said this would not be a proposal to change US v Oregon but would provide a notice to change marking within HCP and settlement agreement programs. Gale said this may affect the federal programs. Truscott said Nason Creek conservation program juveniles are currently adipose-fin-present and tagged in the body with CWTs, but they could be tagged with wire differently.

Truscott said the discussion is about how to mark 25,000 juvenile fish that have hatchery-origin adults but will be marked as a conservation program fish; how important is it to manage a small number of adults (250 adults) resulting from this group? Truscott asked how important it is to

³ Reduction of the conservation program would not change the overall production obligation for Nason Creek.

prioritize wild x wild progeny over hatchery x hatchery progeny on spawning grounds? Murdoch answered there is no rule in the Nason conservation program to prioritize wild x wild progeny on the spawning ground but that it's going to be increasingly important to manage safety-net fish (hatchery x hatchery progeny) on the spawning grounds. Tonseth agreed but said in years of high abundance a lot of hatchery x hatchery progeny would have to be removed to prioritize wild x wild progeny on the spawning grounds. Murdoch suggests deferring to the management plan that states that conservation program fish would be adipose-fin-present, conservation fish would be recycled back into the program, and if there are not enough conservation fish, safety-net fish would be used but all would be marked adipose-fin-present if they are a conservation program fish. The intent is to avoid the previous management approach of a floating program size based on return size. Pearsons asked for clarification—are we talking about flexing the size of the conservation and safety-net programs? Murdoch answered no, we are not talking about flexing the programs annually, but if we are talking about reducing the conservation program size, more approval will be needed at higher levels of management. Tonseth said he doesn't think the conservation program size will change much this year. Murdoch noted there could be a limited number of natural-origin adults (58), and the remainder of the broodstock to meet the conservation program would be backfilled with adult returns from the conservation program. Murdoch and Gale noted one of the management strategies of the programs is to backfill the program with hatchery fish so as not to reduce the program size.

Hillman said he thought the spreadsheet model, which was partially updated and distributed by Murdoch in January, would be used to determine the number of fish allocated to the conservation and safety-net programs. However, the model still needs addition information and results from the model have not yet been approved by the committees. Thus, Hillman asked if it is premature to identify changes to the number of fish in the conservation and safety-net programs. Tonseth agreed this represents an interim reduction in conservation program number. Tonseth requested time to rerun the escapement estimates and revisit the management plans to ensure they are in agreement on number of fish per program and marking of those fish, and then revise the language in the protocol so it isn't framed as a reduction in size of the conservation program.

Pearsons asked why there would be resistance to moving all conservation NOR fish into the broodstock collection and back-filling from the safety-net program. Murdoch said there is a history of limiting conservation program size due to limited number of NOR fish for the broodstock. She said a review of the program was done in the past to make clear that all fish used for the conservation program should be adipose-fin-present. She said that now we are meeting production goals but potentially altering the marking of program fish. Pearsons said there is no disagreement that the aggregate program size should be met but potentially a disagreement about marking.

Gale said changes to program size should be something that should be discussed separately, and potentially a separate SOA. Gale said changes in production and marking targets for each component of the aggregate program should be decided outside the broodstock collection protocols and then will need to be discussed in the US v Oregon arena before implementation. Pearsons thought this committee should be able to make decisions and inform US v Oregon and that US v Oregon should not influence decision making for this group. Gale partially agreed, but decisions that deviate from US v Oregon agreements need to be memorialized somewhere other than within broodstock collection protocols.

Truscott said he would be concerned about reducing the size of the conservation program (fish that are afforded the most protection) because of low return predictions. Other tagging options could be explored that allow for adult management at Tumwater Dam and protection from harvest.

Willard said if hatchery x hatchery fish are adipose-fin-present, how does that affect PNI? Murdoch said they are still marked with CWTs. Thus, they will be identified as hatchery fish when they are collected for broodstock prior to using the multi-population PNI model. Tonseth said the multi-population PNI model is not a requirement in the Wenatchee permit, as it is in the Methow Basin.

Brett Farman said NMFS now has models that do compensate for differing program types (i.e., safety-net and conservation programs to adjust PNI). Farman will work with Charlene Hurst and Tonseth to explore different inputs in the models. Farman said changes to program allocation would require approval by the HCs.

Hillman summarized that there are two issues to research and discuss further: 1) is there a need to change allocations for conservation and safety-net programs (this should be decided outside the broodstock collection protocols); and 2) how fish within each program (conservation and safety-net) are to be marked.

B. Streamlining

Tracy Hillman asked representatives to provide comments on meeting coordination documents to himself and Larissa Rohrbach over email (Attachment C). Final versions of the distribution lists and meeting protocols will be brought to the HCP-Coordinating Committee and the Priest Rapids Coordinating Committee.

C. NMFS Consultation Update

Brett Farman said the Methow Steelhead permit has been drafted and is in review. He said once the EA is completed, the EA and both Wells and WNFH HGMPs will go out for comment. Tom Kahler asked when the EA will be published. Farman said the Methow Steelhead EA is in line behind some

other projects with no expected publication date. He said the comment period will be 30 days. Bill Gale asked why the WNFH Steelhead HGMP is going out for public comment; he thought it had already gone out for public comment. Farman confirmed that typically HGMPs go out at the same time as EAs for public comment. He said the Winthrop Steelhead HGMP does need to go out for public comment as part of the EA but noted they typically receive no comments on the HGMPs.

Farman said Emi Kondo (NMFS) asked about the status of the Wenatchee summer Chinook HGMP submission for the unlisted Chinook salmon bundle. Deanne Pavlik-Kunkel (Grant PUD) answered that the cover letter is waiting to be signed and once it is signed it will be sent to NMFS. Farman said the unlisted Chinook salmon bundle EA is ready for publication and will be posted once the HGMP is received. He said the EA may not be published immediately due to a backlog from the January 2019 furlough. Todd Pearsons asked about the review and timing of the draft unlisted Chinook salmon bundle permit. Farman confirmed that the unlisted Chinook salmon permits are out for review by general council. Once revised per the internal review, they will be made available for public comment.

Farman said Charlene Hurst asked whether bull trout information is being collected. Catherine Willard said yes. Chelan PUD talked to Karl Halupka (USFWS) prior to his retirement and stated that this information will be included in annual reports. Halupka indicated he was comfortable changing the due date for bull trout reporting from September to correspond to the PUD's annual reporting timeline. Gale confirmed that those annual reports will be sent to USFWS Ecological Services. Gale asked if bull trout reporting is being tracked in the Methow because it has not been a requirement but should be accounted for somehow. Kahler answered that Andrew Gingrich (Douglas PUD) has reported on bull trout take (e.g. due to trapping) in an annual report that goes to Steve Lewis (USFWS) for the Bull Trout Management Plan. Gale asked whether angling encounters were coordinated with USFWS to avoid double counting. Tonseth confirmed there will be an appendix in the annual PUD report documenting bull trout encounters.

III. Wells Hatchery Committee

A. Wells Monitoring and Evaluation Implementation Plan

Greg Mackey explained that Douglas PUD has not accepted the most recent revisions to the Wells M&E Implementation Plan made by Keely Murdoch because of uncertainty around the methods to be used for estimating brood year 2020 steelhead escapement (first discussed in the January 16, 2019 HCP-HCs and PRCC HSC meeting). Tracy Hillman suggested making the language added by Murdoch more specific. Kahler proposed first receiving information on the issues creating uncertainty (costs of PIT-tagging at the OLAFT and operating and maintaining PIT arrays that may

not be covered by WDFW). Then, Douglas PUD would consider this internally before revising the language in the Wells M&E Implementation Plan. It would then go to the Wells HC for a final vote.

Mike Tonseth asked about the HCP-HCs protocol for voting on decision items. Tom Kahler said the Chair can grant each party one 5-day extension to the typical review period prior to voting on a decision item. If the voting party does not vote within the 5-day extension period, the committee assumes the silent party abstains from voting. In this case, the revised version of the Wells M&E Implementation Plan has not yet been reissued as a decision item. Kirk Truscott noted that had a different methodology of estimating steelhead spawner abundance without use of PIT tags been proposed in any of the draft M&E Implementation Plans, CCT may not have approved them. Bill Gale asked if a change to these methods would bring all the M&E Implementation Plans up for a re-vote and all representatives confirmed that it would. (Chelan PUD's 2019 M&E Plan was modified and approved in the meeting on August 15, 2018.)

Mackey said Douglas PUD has not been using the WDFW steelhead escapement model based on tagging at the OLAFT. Rather, they PIT tag steelhead at Wells Dam and recapture (detect PIT tags) at arrays within the Methow River basin. Hillman asked whether results from the two different models have been compared. Mackey said no, because the WDFW model is not readily available and has only been shown to the committees in a presentation from Andrew Murdoch. Mackey said having the WDFW model published would allow Douglas PUD to evaluate whether the WDFW model could be used for the Methow River and, if so, rescope their M&E Implementation Plan. Tonseth will ask Andrew Murdoch to share WDFW's internal comparison between model outputs.

Truscott said PIT tagging steelhead at the OLAFT is key to accurate spawner escapement estimates in the Okanogan River. Truscott said that if PIT tagging at the OLAFT is not funded by WDFW, CCT would preferentially support funding the PIT tagging at the OLAFT versus funding certain arrays.

Gale asked whether the O&M and replacement costs for arrays is being divided between steelhead and spring Chinook salmon. Tonseth said operation for tracking spring Chinook salmon would be three months whereas arrays must be operational nearly year-round to track steelhead and therefore would be more costly.

Kahler asked what were the Bonneville Power Administration's (BPA's) goals for installation of the PIT arrays originally? Kahler asked if there is a need for an Independent Scientific Review Panel review of WDFW's proposal (to shift from PIT tagging steelhead to spring Chinook salmon). What is BPA's opinion on how these arrays are managed? Do they consider these arrays valuable for steelhead and spring Chinook salmon? Tonseth answered that WDFW has latitude to apply the funding to its objectives and may have already moved toward modifying the scope of the use of the BPA funding

from supporting steelhead PIT tagging at OLAFT or PIT array O&M to working on the spring Chinook salmon escapement model.

Hillman reminded the HCs representatives of an outstanding action item for WDFW, which is to provide the PUDs with the cost of PIT tagging at the OLAFT, cost of array O&M, and providing a list of arrays at risk of being turned off. Todd Pearsons asked for clarification on what "turning off" arrays means? Pearsons asked what the cost would be of allowing automated arrays to continue to run. Tonseth answered that "turning off" an array means that no future data management would be provided and no O&M would be provided for those that are not automated (e.g., those running on generators).

Kahler noted that there is no certainty that BPA will agree with WDFW's proposed switch to modeling spring Chinook salmon. Kahler asked what the rationale is for PIT tagging spring Chinook salmon. What is achieved by creating a spring Chinook salmon spawner escapement model that differs from existing methods (e.g., spawning ground surveys and carcass surveys)? Tonseth said a PIT-tag-based model will improve accuracy of the escapement estimates. Willard noted that spring Chinook escapement estimates above Tumwater are already corrected to improve accuracy. Keely Murdoch said a PIT-tag-based model gives run escapement for each of the tributaries allowing for better estimates of pre-spawn mortality (not spawning escapement). Kahler said all spring Chinook salmon are still handled at Tumwater and Wells dams; adding another handling point at Priest Rapids could significantly contribute to pre-spawn mortality.

The PUDs and USFWS have remaining questions about the utility of shifting effort from steelhead to spring Chinook salmon. Tonseth will invite Andrew Murdoch to the next meeting to answer questions about the goals of switching from PIT tagging steelhead to spring Chinook salmon at the OLAFT.

B. Wells HCP Action Plan (Tom Kahler)

Tom Kahler presented the Draft 2019 Wells HCP Action Plan to the Wells HC (Attachment D) and noted additions compared to previous years. Kahler said he will reissue an updated version following the meeting and Wells HC members will respond with feedback to Mackey by February 21, 2019.

C. Job Opening (Greg Mackey)

Greg Mackey said that Douglas PUD has an open position at the Wells Hatchery for a Hatchery Specialist and asked HCP-HCs and PRCC HSC representatives to let potential candidates know. He said the job listing is posted on the Douglas PUD website and applicants can be referred to him. Kirk Truscott asked about the level of expertise. Mackey said this is a high-level technician position that

reports directly to Pat Phillips (Douglas PUD). Mackey said the job is open until enough qualified applications have been collected and the position is filled.

IV. RR and RI HCs

A. Action Plan (Catherine Willard)

Catherine Willard presented the Draft 2019 Chelan PUD Action Plan (Attachment E) and noted the additions compared to previous years and identified the timing of events. Rocky Reach and Rock Island HCs representatives have 30 days to review the plan. Representatives will send comments to Willard by March 13, 2019.

B. Tumwater Dam Fishway Update

Catherine Willard said the concrete core samples showed that erosion is not as bad as previously thought at the Tumwater Dam Fishway and no repair work is necessary at this time. Mike Tonseth asked when the ladder would be re-watered. Willard said that it was not de-watered.

V. PRCC HSC

A. Approve the January 16, 2019 Meeting Minutes, Committee Updates, and Meeting Summary Review (Todd Pearsons)

The PRCC HSC representatives approved the draft January 16, 2019 meeting minutes as revised.

HCP-HCs and PRCC HSC members agreed that in most meetings, all the minutes (HCP-HCs and PRCC HSC) can be revised and approved at the same time. Pearsons noted for the record it needs to be clear when representatives are approving PRCC HSC minutes at the beginning of meetings.

B. Broodstock Collection Protocols for PRCC HSC Programs

Mike Tonseth explained several bulleted notables in the draft broodstock collection protocol pertaining to the PRCC HSC programs.

Carlton Summer Chinook Salmon

Tonseth said given the low expected natural-origin summer Chinook return, the Methow summer Chinook salmon program (Carlton Summer Chinook salmon; Grant PUD program may have difficulty in meeting the 2019 collection target under past trapping protocols where a weekly collection quota was used. NOR brood and protocols could be revised to take advantage of fish in hand during collection at Wells Hatchery if supported by the HSC. He said the target would be a seasonal goal rather than weekly collection goals.

Todd Pearsons said there may be a revision needed to target a higher number for the Carlton summer Chinook salmon program, with target numbers that are more similar to last year. Todd Pearsons said that Eric Lauver (Grant PUD) said they have not met targets for several years. Tonseth said there was a higher number of Chinook salmon collected in 2018 based on dramatically lower than expected fecundities in the 2017 brood. Based on production assumptions, the number recommended should be sufficient for 2019. Pearsons said the program is flush this year because they took 68 (136 total) instead of 61 adults per gender in 2017 but that there was under-collection in previous years. Tonseth said that based on the eyed egg count the program is bumping up against the 110% production limit and he does not want to increase the number collected to avoid producing a surplus. Tonseth said he will review the assumptions and numbers to determine if the target number could increase. Pearsons said if it fits the program assumptions, he supports changing the targets to the number collected last year.

Fall Chinook Trapping at the OLAFT

Tonseth said WDFW has proposed to eliminate trapping fall Chinook salmon at the OLAFT and increase effort from hook-and-line collection (Angler Broodstock Collection or ABC effort) in this year's broodstock collection protocols. This year fall Chinook salmon returns to the lower Columbia are predicted to be some of the lowest on record. WDFW has opted not to advocate for collection of fall Chinook salmon at the OLAFT to reduce impact to NOR spawning aggregates upstream from Priest Rapids. Pearsons noted that predicted runs back to the Hanford Reach are not anywhere near the historical lows and that predictions indicate that escapement targets will be met. Tonseth said for aggregates above the Hanford Reach we know very little about the predicted run size. Pearsons said the proposed elimination of OLAFT collections was a surprise because Grant PUD relies on handling at the OLAFT for collection for PNI. This is a substantial change to the program that is being introduced in the broodstock collection protocols without discussion in the HSC. Broodstock collection protocols should reflect changes that have been discussed previously and should not be a surprise to the programs. Tonseth said fall Chinook salmon forecasts were not available until January. Pearsons said there is a tradeoff between passing fall Chinook salmon past the OLAFT versus meeting the PNI targets at Priest Rapids hatchery program and the Hanford Reach. Pearsons said there is an expectation that we will meet our brood targets but may not meet PNI targets. He said the PNI target may not be met for the Hanford Reach without the use of the OLAFT in large part because of the low pNOB in the U.S. Army Corps of Engineers' program. The pNOB of the PRH program boosts the PNI for the Hanford Reach substantially.

Matt Cooper asked whether the ABC effort could be as successful as it was last year. Pearsons said if the fishery is as successful as last year, collection at the OLAFT is probably not needed. Pearsons said Paul Hoffarth (WDFW) suggests the collection rate in the ABC fishery may not be as successful and

Grant PUD should assume approximately 500 fish could be collected. Pearsons said Hoffarth is not comfortable closing the harvest fishery early, which is what allowed for large numbers for broodstock collection last year. Tonseth said WDFW needs to protect spawning aggregates moving upstream by minimizing collection at downstream points such as the OLAFT. Kirk Truscott agrees that protecting some of the upstream spawning aggregates would be even more important with climate change. Pearsons said the tradeoff is allowing fall Chinook salmon to pass Priest Rapids versus collection at the OLAFT. Pearsons noted that last year was even more of a concern because the predicted run size was smaller than this year and yet full escapement was met. Tonseth said fish probably should not have been collected at the OLAFT last year either. Truscott suggests Tonseth go back to WDFW to attempt to enhance collection in the ABC fishery.

Bill Gale said collecting sufficient NOR brood (in the fishery or the OLAFT) is one piece of PNI management but the other piece is management of the proportion of hatchery origin spawners (pHOS) on the spawning ground. How does this affect our ability to manage fish on the spawning ground? Pearsons said that pHOS has been very good (~10%). Pearsons said last year the volunteer trap was run as long as was able because the trap wasn't becoming filled. He added the U.S. Army Corps of Engineers has also been keeping the trap open to bring fish into Ringold. Tonseth said Ringold made improvements to their trap that will enhance their ability to bring adults into the trap. Pearsons said Ringold typically doesn't get a lot of NORs. Pearsons said he is not opposed to collection by ABC if Paul Hoffarth is comfortable with it. He said there will be additional transfer boats and trucks allocated this year to improve collection and transfer, and there will be a high cap on participants (100 boats).

Pearsons said he will organize a conference call with himself, Tonseth, and Hoffarth to develop a plan to present to the PRCC HSC. Pearsons asked if the plan is to maintain collection at the OLAFT, will Truscott approve knowing CCTs aversion to trapping at the OLAFT. Truscott said the later arriving fish may be the most important to the Okanogan. Truscott said he will have a hard time buying into the status quo (1,000 fish at OLAFT) but that it would be more acceptable to collect half as many at the OLAFT (500 fish). Keely Murdoch said she wants to make sure that enough broodstock can be collected and will be interested to know how the conversations develop. She said there is no preference for whether the fish come from ABC or the OLAFT. Pearsons said the broodstock needs can be met by using the hatchery channel. Tonseth said the concern is not meeting production goals but pNOB [PNI goal] for the Hanford Reach. Tonseth said that low pHOS helps the PNI. Pearsons said there were many fish collected last year in the ABC allowing spawning combinations of 1:1, 1:2, and 1:4.

C. Priest Rapids Monitoring and Evaluation Implementation Plan

Todd Pearsons will distribute the draft 2019 Priest Rapids M&E Implementation plan to the PRCC HSC this week or next week for a 30-day review. He said highlights and changes to the plan will be shown as using track changes. He said the following changes will be made:

- An ABC task will be moved from M&E to O&M
- Removal of a completed task related to CWTs and carcass bias. This task will be summarized in the comprehensive report and annual updates have been included in the M&E annual reports

VI. Administration

A. Next Meetings

The next HCP-HCs and PRCC HSC meetings are on February 20, 2019 (Grant PUD), a conference call on March 11, 2019, and March 20, 2019 (Grant PUD).

The HCP-HCs and PRCC HSC will hold the special conference call on March 11, 2019, to discuss revisions to the first draft of the 2019 Broodstock Collection Protocols. Mike Tonseth will receive comments on the first draft by March 1, 2019, then will send around a revised draft with redlines shown in track changes and a clean copy by March 6, 2019. Tonseth requested that representatives make revisions to the clean copy. The goal will be for the HCP-HCs and PRCC HSC to approve the 2019 Broodstock Collection Protocols in the March 20, 2019 meeting.

VII. List of Attachments

Attachment A List of Attendees

Attachment B Draft 2019 Broodstock Collection Protocols (First Draft)

Attachment C Draft HCP-HCs and PRCC HSC Meeting Protocols, Distribution Lists, and Conflict of Interest Policy

Attachment D Draft 2019 Douglas PUD Wells HC Action Plan (Final Draft)

Attachment E Draft 2019 Chelan PUD RI/RR HCs Action Plan

Attachment A
List of Attendees

Name	Organization
Tracy Hillman	BioAnalysts, Inc.
Larissa Rohrbach	Anchor QEA, LLC
Catherine Willard*	Chelan PUD
Kirk Truscott*‡	Colville Confederated Tribes
Tom Kahler*	Douglas PUD
Greg Mackey*	Douglas PUD
Todd Pearsons‡	Grant PUD
Deanne Pavlik-Kunkel	Grant PUD
Brett Farman*‡°	National Marine Fisheries Service
Matt Cooper*‡	U.S. Fish and Wildlife Service
Bill Gale*‡	U.S. Fish and Wildlife Service
Mike Tonseth*‡	Washington Department of Fish and Wildlife
Pat Wyena°	Wanapum Tribe
Keely Murdoch*‡	Yakama Nation

Notes:

* Denotes HCP-HC member or alternate

‡ Denotes PRCC HSC member or alternate

° Joined by phone