PRCC Hatchery Subcommittee Meeting

Wednesday, April 18, 2018
Wells Hatchery Conference Room and via Conference Call
Meeting Summary

PRCC HSC Members	Other Participants
Matt Cooper, USFWS	Deanne Pavlik-Kunkel, GPUD
Brett Farman, NOAA (via phone)	Elizabeth McManus, Facilitator (via phone)
Peter Graf, GPUD (alt)	Andy Chinn, Facilitator (via phone)
Keely Murdoch, Yakama Nation	Pat Wyena, Wanapum Tribe
Todd Pearsons, GPUD	
Mike Tonseth, WDFW	
Kirk Truscott, CCT	

Decisions

A. Approved the March 2018 meeting summary as amended.
B. Approved the 2018 Broodstock Collection Protocols.

Actions

1. HSC will discuss results of the next PRH M&E report when it comes out, and implications for PRH future broodstock collection.
2. WDFW will circulate the final version of the 2018 Broodstock Collection Protocols.
3. WDFW will suggest revisions to streamline future versions of the broodstock collection protocols.

I. Updates and Meeting Summary Review

A. Fall Chinook Work Group – The FCWG met in early April primarily to discuss Hanford Reach updates. GPUD gave an overview about a leak that was discovered at Priest Rapids Dam and what is planned to address the leak. The dam is operating within the lower end of the normal operating range.

B. Recent Regional Meetings – The AFS meeting in March in Kelowna was well-attended. GPUD chaired a session on hatchery reform and gave presentations about hatchery reform, innovation, and implementation. GPUD is also planning on attending the Western Division AFS meeting in Anchorage in May.

C. March 2018 Meeting Summary – HSC members approved the March 2018 meeting summary as amended.

D. HCP – *Note: See Appendix A for summary of joint HSC-HCP discussion during March HCP meeting.*

II. Draft 2018 Broodstock Collection Protocols

A. PRH Fall Chinook Integration – The CCT commented that Hook-and-line and OLAFT collection of NOR fish for broodstock was originally intended as a temporary means of collecting NORs for an integrated hatchery program. In recent years the data indicate

more than sufficient NOR adults at the Priest Rapids volunteer trap to meet the program's NOR component. However, OLAFT and hook-and-line trapping activities continue in the Hanford Reach – with potential impacts on upstream returns as well as steelhead populations. Achieving a larger portion of the NOR requirement for the Priest Rapids program through the volunteer channel, will require HSC discussion of marking protocols.

- WDFW noted that under the current collection regime, natural origin fish are surplused simply due to inability to identify them as such – and this is not the best use of the resource.
- GPUD gave a short history of the complicated political environment associated with marking the PRH program fish and the challenges of meeting all the HSC objectives within the current set of agreements. GPUD commented that 2018 returns to PRH are low and all unknown origin fish will be taken this year. GPUD also attempts to collect as many NOR fish that return to the trap by prioritizing the collection of fish without adipose fins and CWTs. The PRH M&E report includes the data on number of NORs returning to the PRH trap. In higher run years there may be sufficient NOR fish to fulfill the PRH program but for lower run years the OLAFT and hook-and-line collection in the Hanford Reach are needed in order to meet PNI objectives and mitigation numbers. Steelhead encounters through hook-and-line collection are low or none so the risk to steelhead for broodstock sampling is very low. GPUD has attempted to use a variety of methods to achieve HSC approved PNI objectives and has operated within the policy bounds that have been discussed by the PRCC policy group and PRCC. GPUD did not interpret the HSC direction to fund a pilot study and collect fish at the OLAFT as a temporary solution to broodstock collection. GPUD's position is that the HSC doesn't have the authority to make decisions about marking at PRH and if anyone is interested in advancing the issue of marking it should be done at the PRCC or PRCC policy group.
- GPUD noted the tension between filling program requirements and collecting a representative fish sample from a given year's run. If there are more NORs showing up during the back end of a run, for example, but hatchery staff work to fulfill the program numbers early, the fish collection will not reflect the run. However, if hatchery staff wait to collect there is a risk that the fish run dwindles and program numbers are unmet. Another year of data will provide more insights into whether the back end of the run contains more NORs. Further complicating the situation is the need to fill the ACOE program at PRH.
- WDFW noted that taking advantage of available NORs is preferable than using alternate locations, and additional/other marking methods should be explored. A first step is to collect existing NOR data, by date, and conduct a retrospective analysis of any trends in unmarked NORs.
- **YN noted that they also cannot endorse changing the marking approach in the HSC.**

B. Decisions

- The HSC approved the 2018 Broodstock Collection Protocols.

C. Format and Content of Broodstock Collection Protocols – The current document is

intended to be comprehensive, partly to provide hatchery staff with a 1-stop repository of information. There are certain elements of the protocols that are required for submittal to NOAA; however, some of the protocols could be shortened and/or moved to appendices.

D. Next Steps

- HSC will discuss results of the next PRH M&E report when it comes out, and implications for PRH collection.
- WDFW will circulate the final version of the 2018 Broodstock Collection Protocols.
- WDFW will suggest revisions to streamline future versions of the broodstock collection protocols.

III. Wrap Up and Next Steps

A. Next Meeting: May 16, 2018

B. Potential Agenda Items:

- TBD

Meeting Materials

The following documents were provided to HSC members in advance of this meeting:

- April meeting agenda
- Draft 2018 broodstock collection protocols
- Final PRH M&E 2018-2019 Implementation Plan
- February 2018 PUD Hatchery Progress Report
- Nason Creek Rotary Trap summary
- White River Rotary Trap summary

Appendix A: HSC Joint Meeting Minutes

A. Joint HCP-HC/PRCC HSC

B. NMFS Consultation Update (Brett Farman)

Emi Kondo (NMFS) said she has an update on the National Environmental Protection Act (NEPA) process for the Methow steelhead consultation and the unlisted programs consultation (summer/fall Chinook salmon for Wells, Methow, Chelan Falls, Dryden, and Priest Rapids). She said completion of the Environmental Assessment (EA) will depend on other pending consultation pieces, mainly the commenting period for Hatchery Genetic Management Plans (HGMPs) and permit drafting. She said Chuck Peven (Peven Consulting, Inc.) has drafted all chapters except Chapter 5, cumulative impacts. She said the next steps are internal review (approximately 45 days), applicant review, then a 30-day public comment period.

Charlene Hurst said she has an update on the permitting process for the Wells Complex and Winthrop NFH summer steelhead programs. She said she expects to review the permits and distribute them to applicants for review in early to mid-May. Hurst said the Wells Complex steelhead HGMP and the Winthrop NFH steelhead HGMP should go out for public comment at the same time as the Methow steelhead EA. She said the HGMPs likely do not need to be revised, although the proposed action identified in the BiOp should be appended to the HGMPs. Douglas PUD and USFWS should provide a letter to NMFS requesting the addendum to the HGMPs. She said one potential concern is that the Winthrop HGMP identifies many alternatives, so it may elicit public comments that slow down the permitting process. She said anything that can be done in advance to make the proposed action and HGMPs clear should be completed prior to public comment.

Kondo said she plans to use the same approach (appending the proposed action described in the BiOp to the HGMPs) for putting the HGMPs for the unlisted summer/fall programs out for public comment in tandem with the EA being available for public review. Greg Mackey asked if NMFS is drafting the proposed action sections to be appended to the HGMPs. Hurst said these sections are in the BiOps, so the applicants should extract the proposed action from the final BiOp and send it back to NMFS to be included with the HGMP. Hurst said she will send a Word version of the steelhead BiOp to the applicants to make this process easier. Kondo summarized the NEPA process for the Methow steelhead and unlisted summer/fall Chinook salmon programs is underway and permitting is progressing for the Wells Complex and Winthrop NFH steelhead programs.

2018 Broodstock Collection Protocols (Mike Tonseth)

Mike Tonseth said the version 4 draft 2018 Broodstock Collection Protocols were distributed on April 17, 2018 by Sarah Montgomery (Attachment C). He said he received further edits from Keely Murdoch after the draft was distributed and those are included in the version for review today.

He said the majority of comments were received during review of the first version and addressed in the second version. Most edits since the second draft version was distributed were editorial. Tonseth also provided a document for discussion during the meeting, Emerging Discussions from draft 2018 Broodstock Collection Protocols (Attachment D), which Montgomery distributed to the Hatchery Committees following the meeting on April 19, 2018. He said these topics will require discussion in 2018 before the 2019 protocols are drafted. He reviewed the discussion items and asked the Hatchery Committees to provide feedback on how and when each item should be addressed. A summary of each item is included in the paragraphs below along with continued discussion on the draft protocols following the emerging discussion items.

Yakama Nation Summer Chinook Egg Requests at Wells Fish Hatchery

Tonseth suggested that Murdoch coordinate an update or presentation to the Hatchery Committees about the YN summer Chinook salmon program and future program direction. He said the program has been in place for 10 years and is still receiving eggs from Wells Fish Hatchery (FH). Murdoch agreed that an update is needed and said she will invite Melinda Davis and Mark Johnston (YN) to the Hatchery Committees July 2018 meeting to discuss this item.

Age-3 Males in the Broodstock, Include or Exclude?

Tonseth said Greg Mackey commented on including age-3 males in broodstock during review of the draft 2018 Broodstock Collection Protocols. Tonseth said this discussion and decision will not necessarily delay approval of the 2018 protocols, but a literature review should be performed and this item should be discussed further. Mackey said he will take the lead on researching this item. He said he brought this up in part because of discussions on Twisp River steelhead and a Ryman-Laikre effect. He said for a harvest program, the goal is often to maximize the size of fish; however, managers should be careful not to limit population diversity by size-selecting broodstock in conservation programs . Tonseth said data should be evaluated to determine whether excluding age-3 males (based on size selection) is limiting the diversity of the program. He said past hatchery programs have over-incorporated age-3 males, and those fish made up a large portion of the hatchery spawning population. He said from WDFW's perspective, fish incorporated into broodstock should resemble what is expected in the natural environment. Tonseth said the current version of the protocols is consistent with past years, but this should be discussed for the 2019 protocols. Matt Cooper asked if this discussion only pertains to hatchery returns used for broodstock. Tonseth said no, it also applies to natural-origin returning fish. He said age-3 fish are not purposefully included in broodstock.

Brett Farman asked how the proportion of age-3 fish in the population is estimated. Tonseth said age classes are based on the size of fish. He said during broodstock collection, age-3 determination is based on the size of both hatchery- and natural-origin fish, and age is confirmed via scale analysis

after collection and spawning. Mackey said spawning-ground survey data could be used to estimate the proportion of natural age-3 fish in the population. Tonseth said the natural age-3 population estimate is determined by a run composition assessment. Catherine Willard asked if there is an estimate of age-3 fish incorporated into the brood based on size. Tonseth said this information is in the annual report.

Pat Phillips said protocols for including age-3 fish in broodstock have changed often over time. Tonseth said recent literature suggests younger age-at-maturity adults produce progeny with younger age-at-maturity juveniles. Mackey also suggested that in addition to environmental and genetic influences on age-at-maturity, there may be epigenetic influences to consider. Kirk Truscott said age-3 fish should not be eliminated entirely from broodstock, but due to concerns about over-representation, a discussion is warranted. Tonseth said the solution may be a size cutoff that still allows a certain percentage of age-3 fish in the broodstock to help maintain a natural age structure. Willard said in the Chiwawa program, the percentages of age-3 fish is 5.5% for wild fish and 11.3% for hatchery fish, and before 2011, percentages were higher. Tonseth said changes were made to the program in 2011 to limit age-3 males being included in the broodstock. Truscott said changes to water source were also made that were intended to minimize age-3 fish being included. Todd Pearsons suggested also examining literature on reproductive success of age-3 fish. He said one reason age-3 males were excluded from broodstock in the past is that they have not performed as well in the natural environment as older fish. Murdoch said even if age-3 fish are incorporated into the broodstock at the same rate as appears in the wild, age-3 fish pass on genes at a higher rate in hatcheries than the in the wild—another consideration to limit inclusion of age-3 males. Mackey said in the wild, age-3 males reproduce at a frequency-dependent rate. That is, if there are few age-3 fish, they tend to proportionally perform better; if there are many age-3 fish, they tend to proportionally perform worse.

Bacterial Kidney Disease Risk Assessment Criteria and Management/Data Series Implications

Tonseth said a question was raised about BKD risk assessment criteria and management implications. Betsy Bamberger said Douglas PUD is now using WADDL's diagnostic services and WADDL does not numerically report optical density values for *Renibacterium salmonarium* (or Rsal, the causative agent of BKD) in the same manner as WDFW or USFWS laboratories. Because WADDL is a lab accredited by the American Association of Veterinary Laboratory Diagnosticians (AAVLD), their protocols and processes are reviewed to ensure they are in conformance with ISO-international standards and consequently every positive result needs to be confirmed by a secondary assay. She said WADDL requires that Rsal be detected in any given sample by both an enzyme-linked immunosorbent assay (ELISA) and a molecular based test (i.e., a polymerase chain reaction test) before it is reported as either a "positive" or "negative" result. She said the different assays target different macromolecules and do not necessarily produce the same test results but corroboration between the two methods

provides greater assurance that Rsal is indeed present. She said management decisions and culling in the past have been based only on optical density values.

Tonseth said he is concerned that this new method prevents looking at trends in BKD over time. He said as program changes are made, it is important to compare to past data. And, consultations completed for these hatchery programs included specific titer levels by which programs are managed. He said these new methods may be inconsistent with Section 10 permits. He said it also creates an issue regarding previous decisions and conversations about specific optical density levels by which programs will be managed. He added that wild fish (in conservation programs such as spring Chinook salmon) also have a higher standard of care than hatchery fish, and it took a long time to come to agreement on the culling protocols due to WDFW's policy on culling viable fish. He asked if changing the way results are presented (and interpreted) compromises the agreement? He said it is important to maintain confidence that these programs can be managed in the manner by which they have been managed in the past. Truscott said the 2006 SOA and culling protocol considers below-low, low, moderate, and high optical density values and management actions associated with each level. He said only having positive/negative results from WADDL changes how these fish are managed. Tonseth added that WDFW does not favor culling more fish and collecting additional broodstock as a solution.

Pearsons asked if WADDL produces an optical density value and if they could provide the results with the understanding that data are unverified. Bamberger said WADDL expressed willingness to develop tests that fit the program's needs with the understanding that the results reported would not be validated by a secondary assay. Bamberger warned that these data would have to be interpreted with caution. She also added that ELISA testing detects the antigen of the Rsal bacteriabut does not necessarily relate to risk of pathogen transference or a given fish's current infection status.. Tonseth said it would be helpful to have optical density values and positive/negative results to compare and consider side-by-side at least in the first year of this change. Truscott suggested that it might be preferable to even keep fish with high ELISA results but low transference. Tonseth said his concern is that fish are managed in a way that is consistent with terms of conditions of permits and SOAs. He said a new SOA may need to be developed that makes allowances for interpreting fish health results, with the help of NOAA to ensure the approach is consistent with the spirit and intent of permits. Pearsons suggested asking WADDL to provide optical density values and recommended the Hatchery Committees discuss this further throughout 2018 and 2019. Phillips added that historically, there is no correlation between culling to the agreed-to titer levels and outbreaks of BKD. Bamberger said ELISA data are just one piece of information that informs us about the health status of a population. Tonseth said lower rearing densities often produce healthier fish. Mackey also suggested that Bamberger present information on BKD and ELISA testing during an upcoming Hatchery Committees meeting. Representatives present agreed.

Differentiating Natural-Origin Okanogan Spring Chinook Salmon During Methow Program Broodstock Collection at Wells Dam

Tonseth said Truscott brought up the question of naturally spawning spring Chinook salmon in the Okanogan Basin and the potential for returning fish to be collected at Wells Dam instead of allowing to pass upstream to spawn as part of the Okanogan 10j reintroduction program. Truscott said as spawning fish are recovered in the Okanogan, genetic samples could be taken. Potential ideas to differentiate Okanogan spring Chinook salmon from Methow spring Chinook salmon were stated as follows:

- Genetic samples
- Parentage-based approach
- Elemental scale analysis
- Otoliths
- Fin rays
- Scale pattern analysis

Discussions about this item will continue.

Priest Rapids Hatchery Fall Chinook Salmon Integration – How to Achieve It Without Fish from Alternative Collection Sites/Methodology

This item does not pertain to the Hatchery Committees, therefore was not discussed.

Re-Evaluating the Size of Upper Columbia Spring Chinook Salmon Conservation Programs

Tonseth said an ongoing discussion will include the appropriate size of spring Chinook salmon conservation programs. He said WDFW and YN drafted the Wenatchee Basin spring Chinook Salmon management plan, which set the standard for conservation program size in the Wenatchee Basin. He said WDFW and YN will revisit the models used to develop this plan, update information in the models, and reassess assumptions that were made to determine if adjustments to conservation programs are warranted (in the Wenatchee Basin and other areas). He said he plans for this assessment to be completed in time to be incorporated into the 2019 Broodstock Collection Protocols. Truscott said reproductive success study results should be incorporated into this assessment. Tonseth said Andrew Murdoch has also been working to develop more accurate estimates of pre-spawn survival in the Wenatchee Basin (data that were lacking in the first management plan). Keely Murdoch said estimates of pre-spawn mortality were made at the time to determine the sliding proportion of natural influence (PNI) scale for Nason Creek. She said now that more years of data are available, pre-spawn mortality assumptions and estimates need to be updated. Results from safety-net program returns will also be incorporated. She said after the PNI sliding scale was made, a split was determined for the safety-net and conservation programs based on previous years' return rates. She summarized that the management plan is a living document and

adjustments should be considered, which she and Tonseth will take the lead on and report back to the Hatchery Committees around October 2018. Tonseth said additional modeling results are available for the Wenatchee Basin (but not yet for the Methow basin). Hillman asked if proposed adjustments would only affect the proportion of safety-net versus conservation program fish and not total hatchery production. Tonseth said that is correct. Truscott said changes to these program sizes could influence how readily PNI targets in the basins are achieved.

Pearsons said this topic was raised based on the number of fish predicted to return to hatchery programs in the Wenatchee Basin. He said in Nason Creek, the number of hatchery-origin fish predicted to return was much higher than the number of natural-origin fish. He asked if more natural-origin fish are being used to populate programs than are needed. Keely Murdoch said there is a lot of uncertainty in the 2018 run forecast. Peter Graf asked if programs could be sized along a sliding scale to account for varying run forecasts. Tonseth said the permits provide some flexibility in that the programs should not exceed more than 33% of the natural-origin component.

Tonseth said the updated analysis will incorporate, at a minimum, modeling, reproductive success data, estimates of capacity, stray rates, and adult management at Tumwater Dam. Pearsons suggested also considering how much of the conservation program is needed on the spawning grounds each year, with the safety-net program hardly being used. He said the safety-net programs can be evaluated to ensure they are not segregated programs (i.e., not allowed on spawning grounds). Farman said he does not have any immediate input on these discussion pieces from the NMFS perspective, but he sees value in re-evaluating the size of the programs and will provide input throughout the process.

Reviewing Edits and Comments in the Draft Broodstock Collection Protocols

Tonseth said he did not receive feedback from USFWS about the Tumwater Dam operations plan for lamprey passage. He said this plan includes at least an 8-hour open period for lamprey passage from 10 pm to 6 am, which is a compromise to meet other permit requirements. Willard said the open passage period is based on lamprey passage distribution at Rocky Reach Dam.

Tonseth said he also did not receive any feedback regarding modifications to the trapping schedule at the Chiwawa Weir.

In the draft document, Tonseth pointed out one unresolved comment from Douglas PUD regarding the number of PIT-tagged yearling summer Chinook salmon, which will depend on the outcome of an HCP Coordinating Committees discussion about a survival study. No further edits were needed in this section.

Tonseth noted that significant edits were made to the Wells steelhead section by Michael Humling (USFWS) and others. He asked if everyone saw those edits and if there are any questions. None were raised.

Mackey said there is a known shortage of summer Chinook salmon yearlings to be released in 2019 and proposed increasing the subyearling production for the 2019 release to make up the mitigation gap. He said Tonseth noted in response to this idea that it would result in an exceedance of the allowable release number for subyearlings. Mackey asked for feedback on this idea and said Douglas PUD is willing to produce extra subyearling fish to make up the gap but would not want to overproduce fish if it is not allowed by permits. Murdoch asked how much of an exceedance it would be for the subyearling release. Tonseth said the allowed subyearling release is 484,000 fish and overproducing to meet the mitigation gap would result in approximately 648,000 fish. Tonseth asked Farman to provide feedback, because production levels identified in permits are specific to production element (yearling versus subyearling), not just species. Tonseth said Craig Busack previously communicated concern about entities liberally interpreting release numbers. Farman agreed. Mackey said based on this feedback, Douglas PUD plans to produce as many yearling summer Chinook salmon as possible to meet release goals, but not overproduce subyearlings to make up the mitigation gap.

Mackey also suggested adding flexible language for in-season decisions based on fecundity, age-at-return, size-at-return, prespawn mortality, and other items. Mackey said even with this flexibility added, field staff would need to discuss and describe over- or under-collection with the Hatchery Committees, but was seeking scope to allow broodstock collection staff to make minor adjustments in real time. Phillips asked if hatchery fish are being removed for broodstock and for surplus, is there a difference between collecting for broodstock or surplus? Tonseth said there is a difference if the fish are listed because permits are specific to the number of broodstock that can be collected. He said incidental and direct impacts are associated with a certain activity for a specific fish. He said there are different take components for surplussing. Tonseth said if there is something happening at a facility or program that is outside the expected norm, it should be understood and discussed before more fish are collected. Phillips said one issue in 2017 was that prespawn mortality did not become an issue until it was too late to collect more fish. He said the mitigation program requires the program to produce a certain number of fish, while the permit limits broodstock collection, so it is odd that additional fish cannot be collected for broodstock as a buffer, and later converted to surplus if not needed. Tonseth said if the fish produced from those extra broodstock become fry, it becomes a WDFW responsibility. Phillips said 220 brood were lost in 2017 before spawning was completed, and he would like to prevent that from happening in the future. Tonseth said collecting extra broodstock may be within permit conditions for unlisted fish, and could be considered, but for listed programs or programs based on natural-origin fish, it is not allowable. Truscott said an additional consideration to collecting extra broodstock is the impacts of the collection activity—

collecting out of the Wells west ladder for a longer period of time has impacts, for example. Phillips clarified that he is advocating additional brood collection from the Wells volunteer channel for the Columbia River safety-net program. Truscott said for that discussion, NOAA should provide input. Tonseth said there should still be a Hatchery Committees' nexus to those decisions, and in the past, collecting extra fish was allowed but should not be allowed as a substitute for good fish-culture practices. Farman said ongoing discussions like these suggest the program may not have been fully described in the permits. Phillips said the hatchery programs in the region continue to see considerable impacts from Columnaris disease on summer Chinook salmon brood and lower fecundities. He said this is perhaps cyclical, but he would like to take a cautious approach to making sure the program meets its production goals.

Regarding changes to the Okanogan steelhead program, Pearsons said he thought backup collections for Okanogan steelhead were occurring in the spring instead of the fall. Tonseth said the protocols state any steelhead with a coded wire tag from the Okanogan program that is collected as part of the Columbia River program collection in the fall can be allocated to the Okanogan program. Tonseth said 60 adults are collected as backup for the Methow steelhead program in the fall, but no backup adults for the Okanogan program are intentionally collected (some are allocated based on coded wire tags). Tonseth made clarifying edits in the document. Phillips noted that the newly designed Omak Creek weir may result in changes to this section in the future.

Regarding spring Chinook salmon management in the Methow Basin, Pearsons said Michael Humling provided comments about trapping at Methow FH. Pearsons said to be consistent with permits, additional trapping requirements should not be placed on trapping at Methow FH. Pearsons asked if natural-origin fish are returning and attempting to spawn, should the trap be operating? Tonseth said the Methow FH and Winthrop NFH facilities need to operate in conjunction to meet PNI goals in the Methow Basin. So even if enough conservation program fish have been collected to meet production obligations, and Winthrop NFH-origin fish are still volunteering to the facility, they should continue to be removed. Tonseth suggested possibly implementing adult translocation for natural-origin fish that are collected in the facility under these conditions. Pearsons said he would prefer flexibility in closing the trap so that the conservation fish can spawn naturally without being handled. Pearsons said in order to prioritize the program, translocation is not currently being implemented and fish collected are brought into the safety-net program, but it is unknown what the fish would do if the trap were closed. Tonseth said relocating the fish would be beneficial in comparison to the fish spawning very near or in the hatchery channel. Pearsons agreed and said it is just an unknown. Willard asked if Pearsons wants to see the benefits of translocating fish (spawning naturally). Pearsons said yes and translocation is not currently being implemented for multiple reasons, one of them being it is unknown how well the fish would perform (so they are brought into the safety-net program). Willard said she understood that the safety-net broodstock was prioritized because it is a higher priority than translocating fish to spawn naturally, not because spawning

success is unknown. She said if there are enough fish to fill the safety-net program on site, additional returning fish should be translocated. Mackey said running the trap at Methow FH is not a lot of work due to partnership and collaboration with USFWS, where spring Chinook are transported as surplus to from Methow Hatchery to WNFH. Truscott said he thinks the USFWS will continue to operate the ladder at Winthrop NFH to collect Methow-origin fish, so it is a reciprocal activity. Cooper said the Methow FH and Winthrop NFH staff holistically manage the Methow population and collect fish for both facilities. Tonseth agreed and said the basin is expected to be managed to a basin-wide PNI level, regardless of which program is contributing. He said both hatcheries need to trap aggressively to meet this target.

Pearsons said his concern is about permit conditions. Mackey said Douglas PUD is amenable to continue trapping after broodstock and adult management targets are met. However, he said there is a concern that trapping and handling conservation fish may diminish their potential natural contribution.He also asked if they had not been trapped, would they have remained and spawned in the location they were collected, or would they have spawned elsewhere? Tonseth clarified that once safety-net and adult management targets are met, fish recruiting to the trap are available for translocation. Tonseth said there is a caveat in the translocation plan that PNI and proportion of hatchery-origin spawners could exceed permit conditions during the adjustment period. He suggested that a short-term study of translocation could fit into the adjustment period. Murdoch agreed and suggested prioritizing translocation over closing the trap. Graf clarified that the permit is not very restrictive to trapping operations and allows for closing the trap based on runs and conditions. Tonseth said the protocols are a living document and there is a placeholder in the current year for trap operations after safety-net and adult management goals are met. Mackey said in 2017, the trap was operated for a long time and then closed when fish ceased recruiting to it due to spawning and it is difficult to meet adult management targets in most years. Tonseth said based on the current forecast, there will be little to no adult management on the conservation program in 2018. Farman asked if there is a risk of collecting excess fish and not translocating them? And, are there good spawning areas for translocation where production would be better than below the trap? Willard said the translocation plan includes up to 200 fish with a sex ratio similar to the run at large. Pearsons said there is a chance that too many fish would be collected. Mackey said there is also a chance that the hatchery attracts a skewed sex ratio, and there would be excess males needing to be released back to the river. Tonseth said there will be a better understanding of the run and what to expect at the trap this year once fish start arriving at Wells Dam. Pearsons suggested using more flexible language to account for this adaptive management approach. Tonseth agreed and revised the document.

Murdoch said Tonseth has historically put a placeholder for coho salmon broodstock collection protocols in the Broodstock Collection Protocols document. Murdoch said the coho salmon protocols are due in mid-June each year and asked if it would be helpful to have those protocols

included as part of this document in future years. Representatives present were generally in favor of adding the coho salmon protocols and Murdoch said she will coordinate internally and with Tonseth to incorporate the coho salmon protocols in 2019.

The HCP Hatchery Committees approved the draft 2018 Broodstock Collection Protocols as follows: WDFW, Douglas PUD, Chelan PUD, USFWS, NMFS, YN, and CCT approved on April 18, 2018. Tonseth noted that the section pertaining to Priest Rapids Hatchery may change during the PRCC HSC meeting and he will distribute a final version on April 19, 2018. (Note: the Wells HCP Coordinating Committee will vote on the Wells portion of this document during their April 24, 2018 meeting.)

Hillman noted that the protocols are a very large document with information that expands every year. He asked about the possibility for decreasing detail in some sections to facilitate earlier approval of the protocols and less arduous reviewing. Tonseth said adult management plans are often held up by receiving the spring Chinook salmon forecast, but the main body of the document could likely be streamlined and reviewed earlier, with adult management information being added for review later. Representatives present were generally in favor of reducing the size of the protocols document. Hillman noted that many of the details and back-up plans need to be discussed by the Hatchery Committees each year anyway, so those details may not need to be included in the document or could be attached as appendices.