PRCC Hatchery Subcommittee Meeting

Thursday, March 17, 2016
Wenatchee, Washington
Meeting Summary

PRCC HSC Members	Other Participants
Bill Gale, USFWS	Eric Lauver, GPUD
Peter Graf, GPUD (alt)	Brian Lyon, WDFW
Keely Murdoch, Yakama Nation	Elizabeth McManus, Facilitator
Deanne Pavlik-Kunkel, GPUD (alt)	Andy Chinn, Facilitator
Todd Pearsons, GPUD	
Mike Tonseth, WDFW	
Kirk Truscott, CCT	
Justin Yeager, NOAA	

Decisions

A. HSC members approved the February 2016 meeting summary as amended.

Actions

1. HSC members will review the revised draft broodstock collection protocols and submit any comments to WDFW by 3/25. If needed, WDFW will schedule a conference call to discuss any outstanding issues, with the goal of an e-mail vote by 4/12 and submittal to NOAA by 4/15.
2. Comments on the draft 2016-2017 PRH M&E implementation plan are due by 3/29. If no issues are identified, the plan will become final and will be uploaded to the HSC SharePoint site.
3. USFWS will research Leavenworth NFH stocking records from the 1950's and 1960's to determine if any fish were stocked in Lake Wenatchee.
4. NOAA will provide data on lower Columbia River harvest rates.
5. USFWS will notify permitting staff that GPUD will be seeking to expedite the permitting process for the NCAF intake repairs once the design solution has been finalized.
6. Ross Strategic will check on which PRCC members are signed up to GPUD's SharePoint site.
7. Ross Strategic will finalize the Dryden SOA with the appropriate dates and send the final document to GPUD for posting to the HSC external website. (Status: Carried over from previous meeting)
8. Ross Strategic will forward the memo on White River decision making to the PRCC. (Status: Carried over from previous meeting)

I. Updates and Meeting Summary Review

A. February Meeting Summary – HSC members approved the February meeting summary as amended.

B. HCP-HC Update – Please refer to the 3/16 HCP-HC meeting summary for joint HCP-HC and PRCC-HSC discussions (Appendix A).

II. Permit Updates

A. **NOAA** – NOAA is finalizing the gene flow agreement for the Methow Spring Chinook program. The biological opinion and permits for Wenatchee steelhead are under NOAA General Counsel review.

III. Broodstock Collection

A. **Review of Draft 2016 Protocols** – Key discussion points:

- A portion of the Okanogan program will be augmented by adult collection during the fall at Wells Dam. GPUD asked whether these fish could be collected instead during the spring at the volunteer channel. CCT's preference is to collect actively migrating fish that are attempting to move above Wells Dam, rather than fish volunteering back to the hatchery.
- HSC members affirmed that the release strategy in the 2016 broodstock collection protocols will be consistent with the release strategy for BY14 and BY15 at Nason and Carlton Acclimation Facilities.

B. **Next Steps**

- HSC members will review the revised draft broodstock collection protocols and submit any comments to WDFW by 3/25. If needed, WDFW will schedule a conference call to discuss any outstanding issues, with the goal of an e-mail vote by 4/12 and submittal to NOAA by 4/15.

IV. Priest Rapids Hatchery M&E Implementation Plan

A. **Draft Implementation Plan** – The draft 2016-2017 PRH M&E implementation plan was distributed to HSC members on 2/29. The main differences for 2016 are the carcass drift bias work, and sample sizes.

B. **Next Steps**

- Comments on the draft 2016-2017 PRH M&E implementation plan are due by 3/29. If no issues are identified, the plan will become final and will be uploaded to the HSC SharePoint site.

V. WA-BC AFS Meeting

A. **March AFS Meeting in Chelan** – GPUD provided a preview of their presentation on joining historic (1958-1988) peak redd survey data from index reaches with contemporary (1989-2015) total redd counts throughout rivers and tributaries. GPUD's method is to expand historic counts using the relationship within the contemporary dataset of a 'peak count' in the index area with the total count. GPUD requested feedback on significant events or time periods to overlay on the data analysis.

B. **HSC Comments**

- USFWS commented that the Grand Coulee maintenance project placed fish in the system prior to 1958 and this activity could have an effect on redd counts. ESA listing dates for spring chinook, and cessation of bull trout harvest in Lake Wenatchee, could also be important factors. Designation of the Glacier Peak Wilderness is also a significant event. WASDOT may have useful information on significant land

movements in Tumwater Canyon. Finally, fish disease/fish health data might be useful.

- WDFW suggested looking at stream gauge data for the White River, particularly spikes in flows during the September – December time frame. There were also fish collection weirs on the Wenatchee and Little Wenatchee Rivers so it could be important to note when those weirs ceased to operate. The Mullen Report could be a useful source of information (particularly the appended historical documents). Redd density in the White River from the late 80's could provide information on spawning habitat changes.
- YN suggested looking at lower Columbia River harvest rates, and adding the Boldt Decision as a major historical milestone.

C. Next Steps

- WDFW will research Leavenworth NFH stocking records from the 1950's and 1960's to determine if any fish were stocked in Lake Wenatchee.
- NOAA will provide data on lower Columbia River harvest rates.

VI. Nason Acclimation Facility

A. Intake Issues Update – GPUD and consulting engineers continue to work on solutions to the Nason intake problem. Currently only 30,000 wild X wild fish are on station at NCAF, with sufficient water to handle these fish. All other fish were transferred to Chiwawa. This fall approximately 120,000 wild X wild BY15 fish are scheduled to arrive at NCAF and with the current condition of the intake there is not sufficient water to handle these fish. GPUD is working on both a short term and long term repair.

B. Next Steps

- USFWS will notify permitting staff that GPUD will be seeking to expedite the permitting process for the NCAF intake repairs once a design solution has been finalized.

VII. Draft GPUD P&I Report

A. Draft Report Status – The draft GPUD P&I report has been distributed for review. The PRCC is responsible for approving the report. HSC members can send comments on the draft report via their PRCC representative or directly to Tom Dresser.

VIII. HSC Document Sharing

A. HSC SharePoint Site – HSC members were reminded to submit their paperwork to access the HSC SharePoint site. All HSC-related documents will eventually be distributed via the SharePoint site.

B. Next Steps

- Ross Strategic will check on which PRCC members are signed up to GPUD's SharePoint site.

IX. Wrap Up and Next Steps

A. Next Meeting: Thursday, April 21, 2016

B. Potential April Meeting Agenda Items

- Draft broodstock collection protocols
- 2016 NCAF spring Chinook emergency action plan

Meeting Materials

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

- March meeting agenda
- Emergency NCAF acclimation plan

Appendix A: Joint Item Discussion Summary from March 2016 HCP Hatchery Committee Meeting

II. Joint HCP-HC/PRCC HSC

A. 5-Year Hatchery M&E Review Planning – Objective 5 (All)

Objective 5

Keely Murdoch said she is still working on the study plan draft and will try to have something for the Hatchery Committees to review at the April 20, 2016, meeting. She said the embryonic imprinting section is largely blank. Tom Kahler said he and Murdoch may want to discuss the draft with Andrew Dittman (NMFS), and that they should consider designing pilot studies, since some techniques contemplated for application in the proposed study are theoretical or have not been previously implemented at the production scale. He said the Hatchery Committees should convene a workgroup including Murdoch, Jayson Wahls (WDFW), Mike Tonseth, representatives from the PUDs, and other participants to discuss the logistical and fish-health aspects of designing a study plan for imprinting and homing in the Methow basin.

Tonseth asked if any part of the draft study plan could affect the 2016 Broodstock Collection Protocols. Murdoch said she does not think so, because if a pilot study were implemented in 2016, the eggs would be spawned at the same location as described in the protocols. Tonseth said the study may require an amendment to the protocols, but that can be determined once the study plan is further developed. Catherine Willard asked if hatchery-by-hatchery fish would be used for the pilot study. Kahler said the workgroup will discuss these aspects of the potential study plan. Murdoch said, as long as fish health is maintained throughout the process of bringing water into the hatchery, she does not see a risk to using hatchery-by-wild or wild-by-wild fish. Kahler said, if there were a risk for fish health, the Hatchery Committees would have to decide how much of a risk the study fish pose to loss in production. He said it may not make sense to use conservation fish for testing a new method in a pilot study. Wahls said Trista Welsh-Becker (WDFW) should be invited to the workgroup meeting. Bill Gale suggested that someone call Kirk Truscott to inform him of the workgroup, and Tracy Hillman said he would call Truscott to discuss the purpose of the workgroup. Kahler said the workgroup can meet at Douglas PUD, and asked Sarah Montgomery to schedule a 2-hour meeting between March 21 and April 1, 2016. Montgomery said she will send a Doodle poll to the Hatchery Committees to convene a workgroup to discuss the logistics of a draft study plan for addressing imprinting and homing in the Methow basin.

B. USFWS Consultation Update (Bill Gale)

Bill Gale said he received an update on U.S. Fish and Wildlife Service (USFWS) consultations from Karl Halupka (USFWS). Gale said USFWS has a target completion date of April 2016 for the Wenatchee River Steelhead Biological Opinion (BiOp). He said Halupka is discussing revisions with reviewers this week. Gale said, for the Methow spring Chinook salmon consultation, the

USFWS is moving forward with a strategy that relies on the 2012 Wells Relicensing Bull Trout BiOp for coverage. He said Halupka is working on a memorandum to internally document this strategy and analysis, but its completion is second in priority to completing the Wenatchee River Steelhead BiOp. Gale said USFWS has approved the approach of extending the Section 10 permit for the Okanogan consultation, but he does not know the current status of the permit revision. Gale said he received a draft BiOp for Winthrop National Fish Hatchery (WNFH) operations, which is currently being reviewed and has a target completion date of April 2016.

*C. NMFS Consultation Update (Justin Yeager) *

Justin Yeager said he spoke with Craig Busack, who stated the Wenatchee River Steelhead BiOp is under general council review. He said, for the Methow spring Chinook salmon BiOp, gene flow standards are still being decided by the Hatchery Committees. He said NMFS is working on the permits and BiOp with a target completion date of May 2016. Amilee Wilson said NMFS has a target completion date of March 2016 for the Wenatchee River steelhead Section 7 consultation, and NMFS is waiting for USFWS to complete their consultation.

D. Broodstock Collection Protocols (Mike Tonseth)

Mike Tonseth shared a document titled, "Draft (Version 2) Upper Columbia River Broodstock Collection Protocols," which Sarah Montgomery distributed to the Hatchery Committees on March 11, 2016 (Attachment B). Tonseth said he also distributed a version of the draft Broodstock Collection Protocols with all changes tracked so Hatchery Committees members could see all of the changes and responses to comments, of which a few remain to be discussed.

Todd Pearsons asked if backup steelhead adults could be collected at the Wells Fish Hatchery (FH) volunteer channel in the spring rather than in the fall (page 8). Jayson Wahls said they were able to collect enough fish this year, and they may have more adults starting next spring due to increased amounts of water. Tonseth asked the Hatchery Committees if they would rather collect fish in the fall or in the spring. Pearsons said fewer fish are being used for backup now, and last year, spring collection was used as a backup to fall collection because some fish died. He said just collecting fish in the spring might be a better choice. Wahls said most of those fish were collected at Ringhold FH and then trucked to Wells FH. Tonseth said it might make the most sense to target fall collection of fish, and then operate the volunteer trap in the spring to see if they can meet fall collection. Wahls said they performed test trials from 2007 to 2010, and in some years, they collected 200 to 300 fish, and, in other years, only around 50 fish were collected. He said they would expect to be able to collect at least 30 fish. Tonseth said this affects the Colville Confederated Tribe's Okanogan Program, and he should get feedback from Kirk Truscott. Wahls said it would be easiest for the facility if fish were collected in the fall.

Tonseth said he is still receiving information to respond to some of the comments from Grant PUD. He said the second draft is available for review, and the Wells Coordinating Committee will discuss it during their next meeting. Tom Kahler said he added a few new comments to the

draft Broodstock Collection Protocols. He said the YN uses an extended trapping schedule in the fall when they are collecting coho salmon. He said Douglas PUD is seeking a modification to the trapping schedule this spring, because the west ladder trap will likely not be available until June. He said Douglas PUD is also going to perform a bull trout study, and may need a longer trapping period each week in order to get a large enough sample size for the study. Tonseth said he would incorporate Kahler's comments into the newest draft. He said the Broodstock Collection Protocols are due to the National Oceanic and Atmospheric Administration (NOAA) on April 15, 2016, and he requested that the Hatchery Committees provide comments on the draft before March 25, 2016. He said he would send a revised (final) draft version of the protocols for a Hatchery Committees email vote on or before April 12, 2016.

Gale said if 30 backup surplus hatchery steelhead are collected in the fall at Methow FH and WNFH, it may have complications for the WNFH spawning channel study. He said WNFH is looking for known WNFH-origin returns to be directed towards the WNFH spawning channel. He said, in the past, they have tried to direct known PIT-tagged returning fish to the spawning channel. Gale said he would want known hatchery fish caught during backup collection to be prioritized for spawning channel work. Tonseth said that is a small and workable change. Gale said he would add a comment about it in the document, and said this is the last year of the spawning channel work anyway.

Gale said he has spoken with Jim Craig (USFWS) and Steve Lewis (USFWS), and the USFWS has a concern to discuss with the Hatchery Committees. He said the USFWS is in a difficult position by continuing to approve Broodstock Collection Protocols and adult management at Tumwater Dam. He said the USFWS needs to know what the plan moving forward will be for assessment of lamprey distribution in the Wenatchee basin. He said he does not want this to affect a timely approval of Broodstock Collection Protocols, and it would be helpful for USFWS if a plan was developed to assess lamprey passage through the fishway at Tumwater Dam.
Alene Underwood said she appreciates that Gale brought up this concern. She said there is an upcoming meeting to discuss lamprey, and the Rocky Reach Fish Forum has also discussed this topic extensively, even though lamprey at Tumwater Dam are not under the purview of the Rocky Reach Fish Forum. She said Chelan PUD intends to have open dialogue with USFWS so that expectations are clear and discussions are consistent, and is meeting with Jessica Gonzales (USFWS) and Steve Lewis soon. She said Chelan PUD has agreed to develop a plan to address lamprey at Tumwater Dam. Keely Murdoch asked if Bob Rose (YN) and Ralph Lampman (YN) have also been involved in these discussions. Underwood replied yes and said the notes from the Rocky Reach Fish Forum are publically available for anyone to review.

Gale asked why the Rocky Reach Fish Forum is not an appropriate forum for discussing lamprey at Tumwater Dam. Underwood said the Tumwater Dam fishway was constructed for salmon and steelhead passage, and moving forward, feasibility about lamprey passage in the fishway or any operational conditions will be openly discussed outside of the Rocky Reach Fish Forum. If any changes are made to the fishway to improve lamprey passage, it would be approved by the

Coordinating Committees to ensure salmon and steelhead passage remains adequate. Gale asked if the Rocky Reach Fish Forum representatives also thought that lamprey passage at Tumwater Dam is not under the purview of the Forum. Underwood said it was not discussed as any type of agreement, but Chelan PUD believes that lamprey plans, as part of the Rocky Reach Federal Energy Regulatory Commission license, only apply to lamprey at the Rocky Reach Hydroelectric Project and not at Tumwater Dam. She said a few Rocky Reach Fish Forum representatives had questions and comments about designing lamprey plans for Tumwater Dam, and it was stated that anyone could participate with Chelan PUD in plan design, though not under the purview of the Forum. Gale said his concern is that USFWS would like to see progress made within the next year, and he does not want lamprey at the Tumwater Dam fishway to affect Hatchery Committees approval of the Broodstock Collection Protocols. Underwood said the Hatchery Committees representatives and alternates have a responsibility to implement the hatchery programs. She said there is a collision of priorities that should be recognized when talking about Endangered Species Act (ESA)-listed species at Tumwater Dam. Gale said it is certainly recognizable that Hatchery Committees members have agency directives, and for the USFWS, lamprey are important. As a final discussion item under Broodstock Collection Protocols, Catherine Willard said, regarding size-at-release targets for Wenatchee summer Chinook salmon brood year 2015 and future brood years, the size at release target will be smaller at 18 fish-per-pound (FPP) in preparation to meet the total maximum daily load requirements for the Wenatchee River. She said warm water temperatures at Eastbank FH present a challenge to reaching a small size-at-release target and the new chilled partial reuse system should improve the water temperature challenge. Willard said, regarding size-at-release targets for Chelan Falls summer Chinook salmon,with a 13 fish-per-pound target, the minijack rate has been very low and juvenile outmigration survival high at Chelan Falls. She said 10 to 13 fish-per-pound will be set as the target for Chelan Falls for BY2015 and BY2016. She said lethal precocious maturation sampling will be performed in 2016, and Chelan PUD will revise the size targets once they have full performance information from the adult fish. Tonseth said he would put the size targets for BY2016 in Appendix B of the Broodstock Collection Protocols, and for BY2015, the size targets are captured in Hatchery Committees meeting minutes.

Tracy Hillman recalled that in 2015, more steelhead and Chinook salmon juveniles were available than needed, and the Hatchery Committees had to decide what to do with the excess fish. He asked if the protocols this year address overages in juveniles. Tonseth said overages are expected in the steelhead programs upstream of Wells Dam, which are addressed on page 12 of the protocols. He said any other overages would be dealt with on a case-by-case basis. He said an overage is expected for BY 2016; however, fall collection has been decreased so the overage should be lesser than previous years.

Tonseth said the Final Broodstock Collection Protocols are due to NOAA on April 15, 2016. He said previously, when the Hatchery Committees approved the protocols, NMFS and USFWS abstained from voting because of their regulatory obligations, and their concurrences came after the submission deadline. He said now, NMFS and USFWS do vote on the protocols, and their

approval is considered ESA-concurrent. Kahler said this also applies to the Wells Coordinating Committee.

E. HETT Update (Sarah Montgomery)

Sarah Montgomery provided an update on the Draft Hatchery M&E Plan Appendices:

- McLain Johnson (WDFW) completed Appendix 2, which Montgomery distributed to the Hatchery Committees for review on March 2, 2016.
- Keely Murdoch is working on Appendix 3.
- Peter Graf completed Appendix 4, which Montgomery distributed to the Hatchery Committees for review on February 9, 2016.
- Catherine Willard completed Appendix 5, which Montgomery distributed to the Hatchery Committees for review on February 5, 2016.
- Matt Cooper completed Appendix 6, which Montgomery distributed to the Hatchery Committees for review on February 5, 2016.
- Appendix 1 does not currently have a deadline, and Tracy Hillman said Appendix 1 is not a critical part of the M&E documentation.

Hillman asked the Hatchery Committees to provide guidance on what types of carrying capacity estimates he should calculate for Appendix 1. He said juvenile salmon data provide the best carrying capacity estimates, but most of the Chinook salmon and steelhead programs do not have juvenile data. He asked whether spring Chinook salmon carrying capacity should be estimated only in places with smolt traps and whether the Hatchery Committees should also request summer Chinook salmon estimates. He said there is potentially a lot of work involved in finishing Appendix 1, and he wants to be efficient.

Hillman said carrying capacity changes with variations in the quality and quantity of habitat, and it should be kept in mind that the Tributary Committees, Salmon Recovery Funding Board, Bonneville Power Administration, and others are funding projects to improve habitat, which can add error or variance to average carrying capacity calculations. He said the HETT has previously discussed the two types of carrying capacity that he could calculate. Population equilibrium carrying capacity is the average capacity based on stock-recruitment models. Habitat capacity is the maximum number of fish that the habitat can sustain. He said managers often use equilibrium population capacity to manage programs. However, to understand how many fish an area of habitat can support, one would need to estimate habitat capacity using habitat models or quantile regression. He said the HETT asked him to calculate both types of carrying capacities. Willard asked how the appendices and the carrying capacity estimates will be used. Tom Kahler said in the M&E Plan, spawning escapement, and carrying capacity are derived variables. Carrying capacity estimates are also used to normalize escapement and natural-origin recruits. This allows for comparison of supplemented populations with reference populations. Willard said the Hatchery Committees should focus on using carrying capacity estimates to inform hatchery programs. Alene Underwood said carrying capacity estimates could help inform the composition of the programs during the next recalculation in order to ground-truth that the 7 percent mitigation is being allocated in an efficient manner (between conservation and safety net groups). Gale agreed, and said many sources of information are available, and they should be discussed during recalculation, whether or not they are considered by decision-makers.

Hillman said he will calculate carrying capacity estimates for Chiwawa River spring Chinook salmon for discussion during the May 18, 2016, Hatchery Committees meeting. Hillman said, in the past, it is possible that carrying capacity has been overestimated for streams such as the Chiwawa River. He said some fish leave the system during summer and fall, and those fish may contribute to smolt and adult production. He said looking at the condition of the Chiwawa River basin, one would think that it should support more fish than it does. He said in years with lower escapements, juvenile survival is higher and fish are larger, while years with higher escapements, juvenile survival is lower and fish are smaller. This clearly demonstrates density-dependence. This is consistent with the findings of the Independent Scientific Advisory Board. Murdoch said capacity estimates should be labeled as current to clarify that historical or potential capacity may be higher. Hillman agreed and said the current analyses include data from 1991 to present and, therefore, do represent recent conditions. He said there are a number of activities that have affected habitat conditions in the Chiwawa River basin, including mining, logging, roads, and recreation. Nevertheless, habitat within the Chiwawa basin is in relatively good condition. He said the Hatchery Committees need to define recruits, because capacity estimates will differ if recruits are modeled as recruits produced within the Chiwawa River basin or those produced within and outside the Chiwawa River basin.