PRCC Hatchery Subcommittee Meeting

Wednesday, November 15, 2017
GPUD Wenatchee Office
Meeting Summary

PRCC HSC Members	Other Participants
Bill Gale, USFWS	Ryan Benson, ONA (for joint agenda item)
Matt Cooper, USFWS	Dave Duvall, GPUD
Brett Farman, NOAA (via phone)	Deanne Pavlik-Kunkel, GPUD
Peter Graf, GPUD (alt)	Catherine Willard, CPUD (for joint agenda item)
Keely Murdoch, Yakama Nation	Elizabeth McManus, Facilitator (via phone)
Todd Pearsons, GPUD	Andy Chinn, Facilitator (via phone)
Mike Tonseth, WDFW	

Decisions

The HSC approved the October meeting summary as amended.

Actions

1. GPUD will move forward with planning for 2018 PRH fish releases as detailed in the release plan proposal.
2. Ross Strategic will schedule an HSC conference call or request an email vote on the draft Coho evaluation SOA.

I. Okanagan Sockeye Program (Joint HSC-HCP Agenda Item)

A. Update on Skaha Lake Sockeye Reintroduction Program – ONA representatives provided an overview of their long-term project to re-introduce sockeye into Skaha Lake. The presentation included information on ONA hatchery operations and production numbers, Skaha Lake pre-smolt and natural production estimates, and fry production data. ONA staff also discussed the Okanagan Lake program and estimates of potential in-lake rearing.

B. Questions and Comments

- GPUD's experience with cryo-preserved milt samples is that motility significantly degrades over time; ONA might consider testing motility.
- The data suggest that Okanagan Lake has substantial rearing capacity but is limited by spawning capacity.

II. Updates and Meeting Summary Review

A. HCP – The Coho methodology SOA for CPUD was approved during the November 15 HSC meeting. *Note: See Appendix A for summary of joint HSC-HCP discussion during November HCP meeting.*

B. October Meeting Summary – HSC members approved the October meeting summary as amended.

III. Priest Rapids Hatchery

A. 2018 Fall Chinook Release Schedule – The 2017 pilot release plan involved staggered release from ponds C, D, and E in late May and early June, with ponds A and B released after Hanford Reach tagging completion on 11 June. The plan included details on fish size at release and time of day for releases. Based on PIT tag results from the 2017 releases and literature on the modeled relationship between survival probability, discharge, and water temperature, GPUD hypothesizes that cold water temperatures might favor later timed releases and warmer water temperatures will favor earlier releases. GPUD proposes a similar release schedule and evaluation for 2018, with 8,000 PIT tags and a separate CWT code for each pond. PRH staff are supportive of continuing the release strategy as outlined by GPUD for 2018.

- WDFW asked whether any research exists on flow projections as compared to actual water years to determine if accuracy is sufficient for hatchery program staff to manage release timing.
- USFWS noted that the pond effect cannot be discounted because the release treatment is not randomly assigned (GPUD agreed –this is not a controlled experiment).
- GPUD will include information on 2017 releases in its annual report but will wait for a complete write up of the test releases until several years of data are available.
- USFWS commented that if the study is intended to be 3 years in duration then a final report will be 4-5 years out, if adult data are included.
- WDFW noted that a multi-year commitment is important while also allowing for adjustments if negative results begin to appear.
- GPUD noted that a commitment to a longer term study would help PRH staff with fish management planning.

B. Next Steps

- GPUD will move forward with planning for 2018 PRH fish releases as detailed in the release plan proposal.

IV. Priest Rapids Hatchery Broodstock

A. 2017 Broodstock Collection – GPUD reached its target of 1,000 fish collected at the OLAFT while 485 fish were collected through the ABC fishery. GPUD was able to stay close to collection protocols for excluding younger males, CWT fish, and clipped fish. Based on real-time otolith reading there appears to be a high number of natural origin fish in the ABC sample.

B. Requests for GPUD Facility Surplus – Several organizations have been requesting GPUD surplus eggs. Based on projected returns, there will likely be more requests for surplus in the near future; as a reminder, any organization that is planning to use GPUD facilities needs to have a facility use agreement.

- USFWS noted that PAC is working through prioritization of Little White broodstock. For those programs that are lower on PAC's prioritization the facility use agreement

will be important.

V. Coho NNI

A. Draft Evaluation SOA – The draft evaluation SOA remains open for discussion. HSC members indicated support for the draft SOA during the October HSC meeting. During subsequent conversations with the HSC facilitators, CCT has indicated support for the draft SOA.

B. Next Steps

- Ross Strategic will schedule an HSC conference call for discussion and voting on the draft Coho evaluation SOA.

VI. Wrap Up and Next Steps

A. Next Meeting: Wednesday, December 20, 2017

B. Potential Agenda Items:

- Coho NNI

Meeting Materials

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

- November meeting agenda
- October meeting summary
- September M&E report for PUDs hatchery programs

Appendix A: Joint HCP-HC/PRCC HSC Minutes

Joint HCP-HC/PRCC HSC

A. NMFS Consultation Update (Emi Kondo)

Emi Kondo provided an update on consultation for the unlisted programs in the upper Columbia River. Kondo said she received the official initiation of consultation request, and now NMFS will respond with letters of sufficiency to the applicants. She confirmed to whom the letters should be addressed for Douglas PUD, Grant PUD, Chelan PUD, and WDFW.

She said the Draft Upper Columbia River summer/fall and fall Chinook salmon BiOp will go to General Counsel review soon, then back to the applicants for review. She said this BiOp is a regional priority to finish by the end of 2017, and asked for the Hatchery Committees to be aware that it will be available for review soon.

Alene Underwood asked for an update on the steelhead draft permit. Kondo said she is not sure on the status of the steelhead draft permit, and said Charlene Hurst would have more information about that permit.

USFWS Bull Trout Consultation Update (Matt Cooper)

Matt Cooper said Karl Halupka provided him an update on USFWS bull trout consultations, which he summarized as follows:

- Halupka is finalizing editorial pieces and working to get the BiOp for the batch of Wenatchee subbasin programs signed this week.
- Halupka is making progress on the Methow steelhead consultation, and is using the memorandum format developed for Methow spring Chinook salmon. He expects this to be complete by the end of November.
- Halupka received additional information for the unlisted programs in the upper Columbia River, which will inform the effects analysis. He said the schedule for completing a letter of concurrence depends on when NMFS is able to initiate consultation.

Mike Tonseth added that the USFWS consultation for the unlisted batch of Columbia River programs will likely only require a letter of concurrence.

Decision: M&E Plan for PUD Hatchery Programs, 2017 Update (Tracy Hillman)

Tracy Hillman shared the revised document, M&E Plan for PUD Hatchery Programs (2017 Update), which Sarah Montgomery distributed to the Hatchery Committees on October 19, 2017. Hillman said the sections about non-target taxa of concern and adaptive management have been recently updated, and Andrew Murdoch also provided edits to Appendix 1, Estimation of Carrying Capacity.

He asked if the Hatchery Committees approve the revised document. Chelan PUD, Douglas PUD, YN, USFWS, NMFS, and WDFW approved during the meeting, and CCT approved via email. Grant PUD (PRCC HSC) also indicated approval.

Hillman said he will finalize and distribute the document to the committees, Greer Maier, and the ISAB. (Note: Montgomery distributed the final version on October 17, 2017 [Attachment D]).

Timeline of Changes in Spring Chinook Salmon Programs (Tracy Hillman)

Tracy Hillman shared the document, Draft Hatchery Program Timelines, which Sarah Montgomery distributed to the Hatchery Committees on October 18, 2017 (Attachment E). Hillman said he received feedback from USFWS and Chelan PUD on the timelines. He said once the timelines have all the needed information, statistical break periods can be decided. Hillman said he will revise the timelines based on further input from Douglas PUD, and also prepare draft timelines for steelhead and summer Chinook salmon. Once the timelines are complete, the best way to complete the statistical and comprehensive reports can be decided.

Bill Gale asked if a timeline should be created for the Entiat. He said there is no PUD hatchery production there, but it could be related to analyses for statistical and comprehensive reports. Hillman said he will make a timeline for the Entiat and asked representatives to send him input for it. Mike Tonseth said spring and summer Chinook salmon programs have been in the Entiat River, and steelhead used to be released there too. Gale suggested developing a timeline for sockeye. Hillman said he can do that. Gale suggested also displaying the timelines by basin as well as species. Todd Pearsons suggested also displaying the timelines in table format, and also including exact dates as well as years whenever possible. Mackey suggested identifying year and brood year whenever possible. Hillman said he would incorporate these suggestions and continue revising the timelines.

Discuss UCSRB Hatchery Report (Greer Maier)

Tracy Hillman welcomed Greer Maier to the meeting, and said Maier will be discussing the UCSRB's draft Hatchery Summary. Maier shared a presentation, "Integrated Recovery" (Attachment F), which Sarah Montgomery distributed to the Hatchery Committees on November 15, 2017. Maier said the UCSRB implements the Upper Columbia Salmon and Steelhead Recovery Plan along with their partners, including the Integrated Recovery Technical Advisory Group (IRTAG), and the plan identifies actions across the four H's, hydropower, hatcheries, habitat, and harvest. Maier reviewed the process of writing the Habitat Report and Hatchery Summary, and discussed the contents of the Hatchery Summary.

Maier said the next steps for the Hatchery Report include a meeting next week to edit and review the report with the IRTAG, then it will hopefully be approved at the board meeting in December. In 2018, the UCSRB plans to share the report and knowledge from it through meetings and conferences.

Then, the UCSRB will develop summaries for hydropower and harvest. Maier said the UCSRB is always looking to partner with other entities in order to move along initiatives that benefit recovery.

Questions and Comments

Bill Gale asked about the delineation between the hatchery report and the harvest report. He said with the Leavenworth programs, for example, there are unlisted hatchery programs that produce fish for harvest, but these programs are described in the Hatchery Summary. Maier said the harvest report has not been started yet, and the hatchery report focuses on hatchery fish interacting with listed species. She said there is overlap, and a clear line has not been drawn yet. She said she is open to suggestions on which programs to discuss in which report. Mike Tonseth suggested describing a clear linkage between the harvest and hatchery reports. He said harvest programs such as summer Chinook, fall Chinook, and sockeye salmon have impacts to listed fish. Maier agreed and said those will be addressed in the harvest report. Gale suggested being very clear about which programs and topics are included in each report.

Gale also suggested providing more clarity in the adult straying section, where he said hatchery escapement and straying are somewhat conflated. He said the Hatchery Committees discuss strays as out-of-population strays, and if a hatchery fish returns to its intended population (such as Wenatchee, Methow, or Okanogan), then it is not a stray; rather, it is a hatchery movement and escapement issue. Maier said the National Oceanic and Atmospheric Administration thinks that there are consequences to within-population straying, and within-population straying is reported in documents prepared by or for the Hatchery Committees. Gale suggested separating the types of straying more clearly. Greg Mackey said out-of-population straying is a genetic issue, and within-population straying is a management issue. Keely Murdoch said the level of concern for each type of stray depends on the program and species because they are all managed differently. Maier said the section discussing straying includes a general overview, and she will add more information about within-basin and out-of-basin strays. Mackey said that information is provided in PUD reports. Hillman suggested organizing that section by the recovery plan objectives and goals. He said the recovery plan mainly discusses out-of-population straying, but also discusses within-population straying. Maier liked this approach, and Hillman said she can find appropriate language and terms in the Hatchery M&E Plan. Gale said data for within-population straying are hard to compile, and so it might be best to show out-of-population stray data and describe that within-population straying also occurs. Maier said the document currently shows brood-year stray rates. Todd Pearsons said viable salmon population (VSP) criteria include within- and between-population stray rates, and said brood-year stray rates are different. He suggested focusing primarily on VSP-related stray rates. Hillman suggested reporting return-year stray rates instead of brood-year stray rates, because the recovery plan discusses return-year stray rates. Tonseth agreed and said examining brood-year stray rates can help determine if rearing practices or release strategies may contribute to stray rates, but it is more for management than evaluation. Mackey suggested reporting the number of fish along with

the stray rate percentage, as percentages can be misleading depending on the size of the recipient program. Maier said she would consider these suggestions and review the Hatchery M&E Plan (2017 Update) for further content.

Mackey said for assessing habitat or hatchery performance, or for setting a management strategy, one could examine percent improvement for each generation or each year, then compile years and examine improvement over time. He said some improvements cannot be detected in year-to-year evaluations, but over a longer period of time they would be detected, as in a life cycle model. Maier said Jeff Jorgensen (NWFSC) included life cycle modeling scenarios with improvements over time (i.e., increasing natural-origin adults), and the results are included in the original Hatchery Summary draft, but not the most recent version. Mackey said the life cycle model will be useful for examining expected changes over time and will help with long-term planning and expectations. Hillman asked if Jorgensen's results showing that hatchery programs are very important to reducing the threat of extinction are included in the Hatchery Summary. Maier said those results are not included in the most recent version of the summary, but the life cycle model includes a robust hatchery module that should be considered especially considering realistic increases in natural-origin returns.

Hillman asked if non-target taxa of concern species are addressed in the Hatchery Summary. Tom Kahler said the BiOps contain information about non-target taxa of concern species that could be used in the summary. Mackey recommended contacting Craig Busack and Charlene Hurst for more information about non-target taxa of concern topics. Pearsons said there is published information about the non-target taxa of concern model, which could also be used in the summary.

Maier summarized that the UCSRB will start working on the hydro report next, then harvest. Peter Graf (Grant PUD) asked what the UCSRB's goals are for shared learning and discussions. He asked who will be participating in these discussions. Maier said shared learning will involve presentations to the Board from members of the IRTAG or Hatchery Committees. She said the Board should understand the relationship between management sections and recovery, and the goal is for the Board to engage on hatchery topics and understand the programs and management concepts.

Maier summarized that any further comments should be provided to her by Monday, November 20, 2017, so the IRTAG can address any outstanding issues. She asked representatives present for any further input on this summary. Catherine Willard said the summary is much improved from the previous draft, and Murdoch agreed. Maier asked what representatives think of this summary format, and said the hydro summary will likely focus on direct life stage interactions with the hydro system. Willard said she thinks the summaries will be useful for habitat and hydro managers.

Gale asked what the timeline is for reexamining the four H's once the reports are completed. Maier said for the Habitat Report, the UCSRB maintains a database of important information for tracking habitat projects. She said the Board tracks certain metrics and reports on them yearly. She said she

expects the Hatchery Summary will also result in a database that is updated and reported annually. Gale suggested finalizing which data will be reported on and maintained before the report is finalized, so that the report points to and focuses on which data will be tracked.

Matt Cooper asked if there will be a report or modeling effort that will tie the four H reports together. Maier said the Board has discussed writing a synthesis report, but has not decided yet, and the discussion will likely continue during the sharing sessions when the most important data for interactions between the H's are identified.

Hatchery Committees representatives present thanked Maier for her presentation.