

PRCC Hatchery Subcommittee Meeting

Thursday, April 16, 2015

Wenatchee, Washington

Meeting Summary

PRCC HSC Members

Craig Busack, NMFS (via phone for agenda items I-VII)
Bill Gale, USFWS (via phone for agenda items I-VII)
Peter Graf, GPUD (alt)
Keely Murdoch, Yakama Nation
Deanne Pavlik-Kunkel, GPUD (alt)
Todd Pearsons, GPUD
Mike Tonseth, WDFW
Kirk Truscott, CCT

Other Participants

Elizabeth McManus, Facilitator
Andy Chinn, Facilitator

Decisions

- A. Approved the March meeting summary as amended, pending NMFS approval.

Actions

1. Ross Strategic will work with the HSC-HC facilitators to review HC agendas for potential joint agenda items.
2. GPUD will circulate the updated Wenatchee M&E report for 30 day review.
3. GPUD will circulate the Nason Creek and White River 2014 rotary trap reports for 30 day review.
4. Ross Strategic will invite Jeremy Cram and Andrew Murdoch to an upcoming HSC meeting for a presentation on their Upper Columbia life cycle work.
5. GPUD will develop updated productivity estimates by life-stage for the May HSC meeting.
6. WDFW, DPUD, and GPUD will work on the 2015 Methow adult management plan for HSC/HC discussion and approval in May.
7. Ross Strategic will append the VSP criteria and the White River SOA to the 2026 decision tree and table.
8. USFWS will circulate the pathology report on the White River fish. (status: in progress)
9. WDFW will contact state invasive species staff to determine the timeline for development of a New Zealand Mud Snail protocol. (status: carried over from previous meeting summary)
10. CCT will circulate its Chief Joseph hatchery program workshop report with the HSC. (status: carried over from previous meeting summary)
11. WDFW will provide data on the survival of natural origin White River adults between Tumwater Dam and the spawning grounds and egg retention. (status: in progress)

I. Updates and Meeting Summary Review

- A. PAC** – GPUD’s correspondence with WDFW related to the Ringold Springs Hatchery expansion will be discussed during the next PAC meeting. WDFW is drafting a response to GPUD’s questions and will pass the responses through PAC before sending to GPUD.
- B. Fall Chinook Working Group** – The final report on studies related to the Hanford Reach Protection Agreement was finalized with Ecology and will be forwarded to the Fall Chinook Working Group on 4/17. The report states that monitoring indicates the flow constraint program appears to be working, so no changes are required.
- C. HSC-HC** – Some of the previous discussions around the broodstock collection protocols and Methow Basin activities have occurred in the HC; however GPUD currently is responsible for about 75% of Methow Hatchery production under an agreement with DPUD. GPUD would like to be involved in the five year review and PNI discussions but feels constrained from speaking up during HC meetings. GPUD requested clarity around when joint meeting topics are under discussion.
- D. March Action Items**
 - Wenatchee Spring Chinook Management plan: Although not formally approved by the HSC, the Wenatchee Spring Chinook Management plan was submitted to NOAA as an HGMP addendum and was considered during consultation and Section 10 permitting. HSC members noted that the JFP should update the data in the document, and the JFP should develop a similar document for the Methow Basin.
 - Additional collection strategies for Priest Rapids Hatchery with associated benefits and impediments: GPUD noted that it is waiting until the final evaluation report on use of the OLAFT as a broodstock collection facility before considering additional collection strategies.
- E. Next Steps**
 - Ross Strategic will work with HSC-HC facilitators to review HC agendas for potential joint HSC/HC agenda items.

II. White River Temporary Acclimation

- A. Fish Transfer** – Fish in the net pens and temporary tanks are doing well and are scheduled for release the week of 5/3. The fish will be trucked around Lake Wenatchee and released in the evening.

III. Permit Updates

- A. Spring Chinook HGMP Re-initiation** – The re-initiated permit and biological opinion to allow compositing of Nason Creek spring Chinook are under review by NMFS General Counsel.
 - GPUD noted that the PUD will have to proceed with its required planning for Spring Chinook mitigation broodstock collection activities soon and that tangle netting is currently permitted.
 - NMFS commented that it can provide a letter to GPUD stating that GPUD activities are consistent with the biological opinion in progress.

- B. Methow Spring Chinook** – USFWS is waiting on comments to the draft biological opinion from CPUD, WDFW, and NMFS. USFWS is working to incorporate comments received to date, a Section 10 permit extension for the Chief Joseph hatchery, and a letter of concurrence for the 10-J program.

IV. Broodstock Collection Protocols

- A. Status of Outstanding Issues** – The Broodstock Collection Protocols were approved on 4/8. The outstanding issues flagged during the most recent review period related to Little Wenatchee broodstock were resolved. The safety net for the Nason Program will consist of Chiwawa Hatchery returns and will be released from Nason Creek and the returns for these releases will be managed for the 2015 and 2016 brood consistent with the Wenatchee Spring Chinook Management Plan.

V. Wenatchee M&E Report Review

- A. Document Review Schedule** – The Wenatchee M&E Report was circulated with the HCP-HC for 60 day review but the draft did not include a White River chapter or the Nason Creek and White River rotary trap reports as appendices. These sections are nearly complete and will be added to the full report.
- B. Next Steps**
- GPUD will circulate the updated Wenatchee M&E report (with White River chapter) for 30 day review.
 - GPUD will circulate the Nason Creek and White River 2014 rotary trap reports for 30 day review and when final they will be added as appendices to the Wenatchee M&E report.

VI. White River Productivity

- A. Productivity Estimate by Life-Stage** – GPUD updated its presentation on White River spring Chinook productivity using additional/supplementary data as suggested by HSC members. The findings using the updated data are consistent with preliminary findings and indicate that White River productivity is so low that it is difficult to develop a scenario that achieves sustainability.
- YN noted that the next step in analysis is linking life cycle models to habitat variables, but this is also the most difficult step due to the lack of data.
 - NMFS commented that the analysis suggests substantial evidence of Lake Wenatchee mortality influence.
 - NMFS and USFWS noted that evaluation of density dependence overlaid on the productivity estimate will provide further resolution to the analysis.
 - WDFW commented that in-river conditions and ocean conditions are also variables affecting productivity.
 - CCT suggesting performing a similar NRR analysis for the Little Wenatchee River as was done for Nason Creek. Environmental conditions are different from White River (lack of glacial till in the Little Wenatchee) but the Lake Wenatchee issue is similar.

CCT also noted that the RTT recommended habitat improvements in Nason Creek because there are larger potential habitat gains in Nason Creek than in the White River.

- GPUD commented that based on the productivity analysis it does not appear that improving any single variable or combination of variables within a natural range will alter the conclusion that the White River appears to be a sink population.
 - WDFW suggested comparing the years with the highest natural replacement rates for Nason Creek and White River with the stray rates from the Chiwawa Hatchery Program for the same years to determine the degree to which strays are contributing to the Nason Creek and White River populations.
- CCT noted that natural origin White River returns might be producing and hatchery origin returns might not be producing, suggesting that the hatchery fish are dragging down productivity. CCT suggested comparing escapement and recruitment, corrected for environmental variables; there are several reports, including from the Snake River, indicating that supplementation programs are reducing numbers of natural origin fish.
 - YN reported that the reproductive success study demonstrates that hatchery fish spawning in the White River have as much reproductive success as natural origin fish.
- USFWS commented that the main bottleneck for White River and Nason Creek spring Chinook is not in-lake survival but egg-to-fry survival and SARs. Additionally, the Nason Creek program is just getting underway and the productivity analysis could have implications for how that program is managed.
- NMFS suggested contacting Richard Carmichael (ODFW) to see if similar productivity estimates have been conducted for the Imnaha or Grande Ronde rivers.

B. Next Steps

- Ross Strategic will invite Jeremy Cram and Andrew Murdoch to an upcoming HSC meeting for a presentation on their Upper Columbia life cycle work.
- GPUD will develop updated productivity estimates by life-stage for the May HSC meeting.

VII. Methow Production

A. 2015 Methow Adult Management – WDFW and DPUD are working on guidance for Methow hatchery staff regarding which fish to retain for brood, when to shut down the outfall trap, whether any adult distribution is possible via transfer of fish back to the spawning grounds, and the possibility of transferring excess fish to Winthrop National Fish Hatchery.

- USFWS requested to be included in discussions of transfers to Winthrop National Fish Hatchery.

B. Next Steps

- WDFW, DPUD, and GPUD will develop the 2015 Methow adult management plan for HSC/HC discussion and approval in May.

VIII. White River Planning

A. Questions for 2026 Technical Committee – HSC members reviewed the 2026 decision tree and associated question/data table.

- WDFW suggested that the HSC should clarify the level of sustainability envisioned for the White River population: Is sustainability at low population numbers the only goal, or is the goal of a supplementation program to support population recovery at a higher abundance level?
 - CCT noted that the correct balance between productivity and abundance is difficult to determine.
- GPUD noted that the upper Wenatchee spring Chinook Hatchery programs were not created to exist in perpetuity; they were created to support recovery to self-sustaining levels. Continuing to supplement the natural spring Chinook populations to fulfill mitigation requirements would be a different style of program than working toward a recovery goal. From the discussions to-date there appear to be multiple goals for the program. One goal is to contribute to VSP parameters, ultimately resulting in recovery. Another goal is to maintain the White River spawning aggregate, even though there is little or no chance at recovery.
- NMFS affirmed its belief that several spring Chinook populations in the upper Wenatchee basin will become extinct in the absence of hatchery operations, and NMFS considers programs that stave off extinction as contributing to recovery. A key question is whether there is interest in continuing hatchery operations even though the populations may never recover.
- WDFW commented that the JFP decision was that since spring Chinook are facing extinction, PUD mitigation would be used as a tool to promote recovery. A major remaining question is whether supplementation programs truly work; there is no program that has been allowed to run as a supplementation program only. Hatchery programs are in place to determine if abundance can be increased to the level where natural populations become self-sustaining. The managers will be able to get an indication of whether this is the case in Chiwawa and Nason Creek as a result of adult management. With the sliding scales for PNI and escapement, as natural origin returns increase in the tributaries, fewer hatchery fish will be allowed to escape, possibly to the point of removing 100% of those fish. If that happens, mitigation requirements will be met; if not, the population will either become extinct or greatly reduced.
- Other questions raised by committee members included:
 - Given that mitigation is a finite number, what is the best approach to using mitigation in the upper Wenatchee basin?
 - What is the probability of persistence of the White River MSA in the absence of a hatchery program?
 - Is there a need to quantify or set a minimum level to define “persistence”? (i.e., there could be 2 fish returning every year – does that meet the definition?).

- If a population is likely to persist, what is the projected abundance?
- How is “genetic differentiation” defined?
- What constitutes an “improvement” to N_e ?

B. Next Steps

- Ross Strategic will append the VSP criteria and the White River SOA to the 2026 decision tree and table.

IX. Recent Reports and Publications

A. Highlights and relevance to HSC work – GPUD provided key findings from several recent reports and publications, and the implications of these findings for programs under the HSC’s purview. The ISAB report had the most striking findings and significant implications for the HSC. These documents are posted to the HSC Boxnet site.

- The ISAB report authors will provide a briefing to NMFS in late April. The report includes strong statements about projects in which NMFS is interested, and NMFS is concerned over the authors’ reliance on unpublished data. NWPC is requesting questions and comments on the ISAB report by 4/28.

X. Wrap Up and Next Steps

B. Next Meeting: Thursday, May 21, 2015

C. Potential May Meeting Agenda Items

- White River 2026 planning
- White River productivity
- Life cycle modeling
- Wenatchee M&E report review

Meeting Materials

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

- April meeting agenda
- White River decision tree
- Embryonic Imprinting paper
- Ford et al Paper on Parentage Analysis
- Draft March meeting summary