

## Memorandum

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To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees and Priest Rapids Coordinating Committee Hatchery Subcommittee Document Date: October 18, 2024

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

cc: Caitlin Burd and Larissa Rohrbach, Anchor QEA

**Re: Minutes of the September 19, 2024, PRCC Hatchery Subcommittee Meetings**

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The Priest Rapids Coordinating Committee's Hatchery Subcommittee (PRCC HSC) meeting focused on the White River (WR) Hatchery Program and was held in person and virtually at the Community Foundation of NCW on Thursday, September 19, 2024, from 10:00 a.m. to 4:15 p.m. Attendees are listed in Attachment A to these meeting minutes.

The following Action Item Summary identifies tasks for the PRCC HSC members related to the WR Hatchery Program only. (Action items related to other ongoing business are documented in Action Item Summary and Minutes of the September 18, 2024, Joint HCP-HCs and PRCC HSC meeting.)

### Action Item Summary

#### PRCC Hatchery Subcommittee

##### *Near-Term (to be completed by next meeting)*

##### *White River Hatchery Program (Item II-B)*

- Mike Tonseth will inquire about data outputs and potential future uses of Mark Sorel's Wenatchee spring Chinook Salmon life-cycle model (*Note: this item is ongoing*).
- Tonseth will inquire about availability of results from the Wenatchee spring Chinook Salmon Relative Reproductive Success Study or assembly of an executive summary to support the WR Expert Review Panel (*Note: this item is ongoing*).
- Tim Taylor will advance the WR spring Chinook Salmon population viability analysis using existing monitoring and evaluation data. (*Note: this item is ongoing*).
- Mat Maxey and Mike Tonseth will highlight relevant information to support conclusions of potential impacts and benefits to Bull Trout from the Bull Trout documents that Maxey obtained from U.S. Fish and Wildlife Service (USFWS) Ecological Services staff (*Note: this item is ongoing*).
- Tonseth will write a summary about limits to the size of a WR Hatchery Program (*Note: this item is ongoing*).

- PRCC HSC members will review the bibliography, add additional literature, link each paper to one or more questions (e.g., 3.1, 3.2, etc.), and indicate whether the papers should be essential reading or optional (*Note: this item is ongoing*).
- PRCC HSC members will provide Tracy Hillman with a ranking of candidates within each category of expertise by Friday, October 4, 2024 (*Note: this item is ongoing*).
- PRCC HSC members will review the habitat capacity summary created by Keely Murdoch and Tracy Hillman and provide comments by Friday, October 4, 2024.
- PRCC HSC members will prepare to approve the WR Expert Panel materials in the October 16, 2024, meeting. A PRCC HSC representative will present the materials to the PRCC in their October 22 meeting and will request the PRCC approve the documents via email two weeks following their meeting.

## Review Items

- See above. Final draft materials for convening an Expert Panel were distributed on September 23 for review and approval in the October 16, 2024, meeting.
- Members of the PRCC HSC will review the draft *Grant PUD Implementation Plan 2025–2026 Priest Rapids Hatchery Monitoring and Evaluation Plan* (Priest Rapids M&E Implementation Plan) and the draft *Grant PUD Hatchery Monitoring and Evaluation Implementation Plan for Spring and Summer Chinook in the Wenatchee Basin and Summer Chinook in the Methow Basin 2025* (Wenatchee Basin and Methow Basin M&E Implementation Plan) and provide comments to Rod O'Connor by October 18, 2024.

## Finalized Documents

- None

## I. Welcome

### A. Agenda, Approval of Past Minutes, Action Item Review

Tracy Hillman welcomed the PRCC HSC and reviewed the agenda. Agenda Item M&E Implementation Plans – Grant PUD (Item II-A) was added to the meeting agenda. The section Data Sources for White River Carrying Capacity was added as a section to the agenda item White River Spring Chinook Hatchery Program: Expert Panel Preparations (II-B).

The revised meeting minutes from August 22, 2024, were reviewed and approved by parties that attended.

Action items from the PRCC HSC August 22, 2024, meeting were reviewed. (*Note: Italicized text below corresponds to action items from the previous meeting.*)

### ***Near-Term (to be completed by next meeting)***

#### **White River Hatchery Program**

##### **Data Sources and Document List for Expert Panel (Item II-A)**

- *Grant PUD staff will assemble existing data sources to answer the questions in Table 1 of the 2018 WR memorandum. (Note: this item is ongoing).*  
This item will be discussed in today's meeting.
- *Tonseth will inquire about data outputs and potential future uses of Sorel's Wenatchee spring Chinook Salmon life-cycle model (Note: this item is ongoing).*
- *Tonseth will inquire about availability of results from the Wenatchee spring Chinook Salmon Relative Reproductive Success Study, or assembly of an executive summary, to support the WR Expert Review Panel (Note: this item is ongoing).*
- *Taylor will advance the WR spring Chinook Salmon population viability analysis using existing monitoring and evaluation data. (Note: this item is ongoing).*
- *Maxey and Tonseth will highlight relevant information to support conclusions of potential impacts and benefits to Bull Trout from the Bull Trout documents that Maxey obtained from USFWS Ecological Services staff (Note: this item is ongoing).*  
Maxey relayed the relevant information to Tonseth and is continuing to work internally with Ecological Services.
- *Tonseth will write a summary about limits to the size of a WR Hatchery Program (Note: this item is ongoing).*
- *PRCC HSC members will review the habitat capacity summary drafted by Murdoch and Hillman and provide comments by September 18, 2024.*  
Comments were provided by Grant PUD. O'Connor (Grant PUD) asked for a similar comment response process that has been provided to other documents like the broodstock feasibility review.

##### **Expert Panel Scope, Logistics, Qualifications (Item I-A)**

- *PRCC HSC members will review the materials for the panel (most recent versions distributed on August 26, 2024) and provide feedback by September 6, 2024.*
  - *Materials include the Panel Candidate List, Bibliography, Scope, Invitation Letter, Answer Form, and Conflict of Interest Form.*
  - *PRCC HSC members will show links between each paper in the bibliography and one or more question assigned to the Expert Panel.*

Hillman has prepared a draft document demonstrating the linkages between papers and questions for the Expert Panel.

- *PRCC HSC members will rank potential panelists based on their areas of expertise.*

*Hillman will work on this today.*

Hillman has prepared a draft reorganized version for discussion during today's meeting.

## II. PRCC HSC

### A. M&E Implementation Plans – Grant PUD

An overview was presented on updates to the draft Priest Rapids M&E Implementation Plan and the Wenatchee Basin and Methow Basin M&E Implementation Plan.

Dates have been changed to reflect the updated years of implementation. The content of the draft plan remains the same.

Members of the PRCC HSC have 30 days to review the Priest Rapids M&E Implementation Plan and the Wenatchee Basin and Methow Basin M&E Implementation Plan. Comments shall be provided to Rod O'Connor by October 18, 2024.

### B. White River Spring Chinook Salmon Hatchery Program: Expert Panel Preparations

#### *Draft Bibliography*

Meeting attendees continued to categorize bibliography items into essential and optional readings for the Expert Panel. Items were not excluded but placed in essential and optional reading categories to minimize bias and provide panelists with the best available information for their review. The items were additionally sorted under corresponding questions for the Expert Panel.

Readings that pertain to the understanding of the Wenatchee spring Chinook Salmon population, WR spawning aggregate, and PRCC HSC-approved reports were categorized as essential reading. Grant PUD will collect relevant pictures and maps of the WR as essential reading. Reports and papers on broader ecological interactions were categorized as optional reading.

Grant PUD requested that some components of the PUDs' 10-Year Comprehensive Summary Report relating to productivity and genetics be included in the essential reading to provide necessary context for the expert panelists, though these were not Committee-approved documents. Grant PUD agreed to an approach that guides the readers to the methods and results but not to the discussion and conclusions from papers that were not fully supported by the PRCC HSC, and have since been informed by further development of the HCP-HC- and PRCC HSC-led 10-Year Comprehensive Summary Report.

Tracy Hillman will add any missing information to the bibliography and distribute the document to the PRCC HSC for final approval in October.

### *Draft Candidate List*

The Draft Candidate List has been reorganized by areas of expertise. PRCC HSC members agreed to provide independent rankings of candidates within each area of expertise by Friday, October 4.

### *Expert Panel Answer Form*

Regarding question No. 7 on the Expert Panel Answer Form—"What are the potential risks and benefits to other spawning aggregates (e.g., Chiwawa, Nason, and Little Wenatchee) and non-target taxa of concern (e.g., Bull Trout, Sockeye Salmon) associated with a supplementation program that helps meet viable salmon population criteria consistent with the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan?"—it was noted that this question is part of the permitting and feasibility analysis and therefore is beyond the scope for the Expert Panel. Answering this question would require more background information on Sockeye Salmon capacity, spawning habitat, Bull Trout movement, and other feasibility-related topics. The question relates to non-taxa of concern (NTTOC) analysis that would normally occur during an agency review of a Hatchery and Genetics Monitoring Plan.

The PRCC HSC agreed to focus the scope of the Expert Panel to understanding the impacts to other spring Chinook Salmon spawning aggregates within the framework of the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan by removing the portion focusing on NTTOC.

For the Expert Panel to understand the impacts these programs have on NTTOC without making it the forefront of the evaluation, USFWS has been asked to include information about potential impacts to Bull Trout and some panelists will likely take a systems-ecology perspective. The question was rephrased to ask: "What are the risks and benefits to other spawning aggregates and other non-taxa of concern?" to avoid leading panelists toward evaluating something that will be a regulatory concern. The expert panelists should consider NTTOC but not directly evaluate them.

### *Hypothetical White River Hatchery Program*

Grant PUD prepared a tabulation of scenarios that could be implemented to depict options for a hypothetical WR Hatchery Program. This effort emerged from a discussion with Justin Yeager (National Marine Fisheries Service) in the May 15, 2024, PRCC HSC meeting, who indicated it could help to review how a hypothetical hatchery program would be operated. Grant PUD produced a table of three hypothetical program scenarios that fall within the best practices currently known to Grant PUD to serve as a discussion piece for the PRCC HSC on what possible scenarios would work and function well as a hatchery program.

Scenario 1 included broodstock collection at Tumwater Dam. Broodstock would be handled at Eastbank Hatchery and acclimated in streamside tanks. Fish would be trucked to a release location within the WR. There would be a 30,000- to 150,000-smolt release goal (30,000 is the minimum size and 150,000 is a legacy number given in the settlement agreement).

Scenario 2 was similar to Scenario 1 except with a composited stock. The program would follow protocols similar to the Nason program.

Scenario 3 changed the broodstock collection location to the WR. Possible methods of collection include construction of weirs and use of tangle nets.

Some additional ideas were provided, which Grant PUD would consider more pioneering methods, including eyed-egg outplanting, solely overwintering fish in the WR for acclimation, and subyearling releases. The WR may be a good fit to pilot eyed-egg rearing because it will be a small program. The WR is too cold for the use of instream incubators or remote stream incubators; therefore, water from the WR would need to be trucked to Eastbank Hatchery for eyed-egg imprinting. Approximately 30,000 eggs could be reared on a relatively small volume of water (e.g., 2,500 gallons). A UV system would also be required to ensure the water is disinfected. Subyearling programs are not common for spring Chinook Salmon; however, a large enough release in the WR would hopefully produce returns. Getting a Section 10 permit for a subyearling program is not common and would be a significant deviation from how most spring Chinook Salmon hatchery programs function.

It will be important that adults produced from the hatchery program return to the WR and not other areas of the basin due to the small size of the conservation program. Producing adult returns to the WR will be the key to success. Some considerations (e.g., homing fidelity and growth at the right time of year) come from the challenges observed from other programs using Eastbank Hatchery as the central rearing facility.

The least amount of fish handling will be the most beneficial. Trucking and transporting actively smolting fish from streamside tanks will require extra handling. Additionally, there will be accessibility issues with placing streamside tanks in the upper WR. Overwinter accessibility to facilities will rely on the proper equipment to clear snow and would require permits from the U.S. Forest Service. If a composited stock is used, the use of other hatchery facilities may be considered; an acclimation facility on the WR was considered in the past but was not successfully implemented. Parentage-based tagging could be used for the identification of adult returns and to evaluate the success of egg outplants and fry releases with adult-to-adult survival. However, no information on juvenile outmigration behavior would be obtained.

Mike Tonseth will follow up on additional considerations for a subyearling program number based on No Net Impact mitigation obligations. There is generally a 4:1 conversion factor to scale a subyearling program relative to a yearling program. A subyearling program could be downsized if the program is designed around optimizing adults for a conservation program. Subyearlings would be released in the fall so they can be raised to a size to be passive integrated transponder tagged but also to ensure that they are released before major cooling in the WR starting in mid-to-late October. Juvenile outmigration data would be particularly important for monitoring the success of a subyearling release.

Concern was shared that this response to the National Oceanic and Atmospheric Administrations suggestion may not fit in the bibliography for the Expert Panel because it seems pre-decisional. However, it is in Grant PUD's interest to obtain recommendations from the Expert Panel that are refined enough to allow the PRCC HSC to then decide what they could support as a more promising scenario; it helps provide a larger context to the layers of challenges with implementing a WR Hatchery Program.

To avoid leading the panel toward recommendation of a specific implementation scenario, the PRCC HSC agreed to reframe the concepts as an inventory of available program elements. All ideas were included, even if some of the options included (e.g., remote streamside incubators) may not be feasible. The PRCC HSC can then look at the recommendations handed down by the Expert Panel and make informed decisions about how to go forward with implementation.

Grant PUD noted they would like assurance that they would not be accepting undue risk if the pioneering approaches retained on the list are determined not to be feasible. They want to avoid a scenario with a program that does not go well, with no way to explain why it did not go well, to prevent perpetuating long-term legacy issues. Back-up strategies (offramps) would need to be identified as part of the plan (e.g., reincorporating WR production into the Nason Creek program) to allow for course correction, especially for Endangered Species Act species, and there is a need to be able to monitor the program to understand which things are working or not working.

The list of hypothetical program components was revised during the discussion to include a broad range of potential implementation options without grouping them into specific implementation scenarios (Attachment B). All attendees agreed with the revised format. The document will be included with the package of materials for approval in the October PRCC HSC meeting.

### *Data Sources for White River Carrying Capacity*

A document to convey the best available knowledge of spring Chinook Salmon carrying capacity in the WR was distributed on August 15 and was discussed in the September meeting. It was proposed that this document be provided to the Expert Panel as a PRCC HSC-authored paper.

Grant PUD provided comments on the paper, which were reviewed in the meeting, and specific responses to questions will be provided outside of the meeting, especially where additional refinements to the analyses were requested.

The summary extrapolates habitat carrying capacity from habitat intrinsic potential units. Grant PUD believes meeting this intrinsic potential may not be feasible due to the low number of spawners and the amount of intrinsic potential for the WR seems unrealistically high.

Hillman noted that “population capacity” is the maximum equilibrium population size estimated from population models (e.g., stock-recruitment models) and should not be confused with “habitat capacity,” which is the maximum number of fish the environment can sustain. Because of the lack of a true habitat model for the WR, habitat capacity was estimated using the Chiwawa River basin as a surrogate. In sum, habitat capacity within the WR was estimated as the ratio of the maximum number of smolts produced within the Chiwawa River basin (assumes full seeding) to the area of intrinsic potential (IP) in the Chiwawa River basin, multiplied by the area of IP in the WR. This was done based on the idea that habitat capacity is always greater than the average population capacity.

It was requested that the PRCC HSC provide any additional comments no later than October 4, 2024.

### *Next Steps for White River Materials*

Revised documents for review by the PRCC HSC will be distributed before the next meeting.

*(Documents were distributed on Monday, September 23, with candidate rankings and comments on the habitat capacity summary due to Hillman by Friday, October 4, 2024.)*

PRCC HSC members will prepare to approve the WR Expert Panel materials in the October 16, 2024, meeting. A PRCC HSC representative will present the materials to the PRCC in their October 22 meeting and will request the PRCC approve the documents via email 2 weeks following their meeting.

The first meeting with the Expert Panel will be virtual, during typical PRCC HSC meetings. An in-person meeting with the panelists will be planned for the spring to allow for an informative breakdown of results.

## **III. Administration**

### **A. Next Meetings**

The next meetings of the HCP-HCs and PRCC HSC will be held on October 16, 2024; November 20, 2024; and December 18, 2024. Meetings are in person and will be held at a location to be determined.

## **IV. Attachments**

Attachment A List of Meeting Attendees

Attachment B Hypothetical White River Hatchery Program Options

**Attachment A**  
**List of Meeting Attendees**

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<b>Name</b>	<b>Organization</b>
Caitlin Burd	Anchor QEA
Larissa Rohrbach	Anchor QEA
Tracy Hillman	BioAnalysts, Inc.
Rod O'Connor‡	Grant PUD
Deanne Pavlik-Kunkel°	Grant PUD
Mike Tonseth*‡	Washington Department of Fish and Wildlife
Matthew Maxey*‡°	U.S. Fish and Wildlife Service
Brett Farman*‡°	National Marine Fisheries Service
Cory Kamphaus*‡°	Yakama Nation

Notes:

\* Denotes HCP-HCs member or alternate

‡ Denotes PRCC HSC member or alternate

° Joined remotely

## Hypothetical White River Hatchery Program Options

Table 1. Potential options for a hypothetical White River Hatchery Program.

Metric	Possible Options
Broodstock Collection Location	Tumwater Dam; White River; Lake Wenatchee
Broodstock Origin	White River; Compositated Wenatchee
Broodstock Number	Up to 33 females (66 total adults assuming a 1:1 sex ratio)
Spawning, Incubation, and Rearing	Eastbank Hatchery; Eyed-egg Imprinting at Eastbank Hatchery; Instream/Streamside Incubation; Eyed-egg Outplants; Construct Facility on the White River
Acclimation	Direct Release from Streamside Tanks in Upper Wenatchee Basin (short-term spring acclimation); Streamside Acclimation and then Trucked and Released (short-term spring acclimation); White River Overwintering; Lake Wenatchee Net Pen Acclimation (short-term spring acclimation)
Release Location	White River; Lake Wenatchee; Lake Wenatchee Outlet
Release Type	Smolt Releases ( $\leq 101,825$ 1+ Smolts; consistent with Settlement Agreement); Subyearling Releases (fall releases); Combination of Subyearling and Smolt Releases