



**PRCC Habitat Subcommittee
 Meeting/Conference Call**

**Thursday, 10 August 2023
 1:00 p.m. – 2:00 p.m.**

Meeting Minutes

PRCC Habitat Subcommittee Members

Kate Terrell, Shelby Fowler (alt), USFWS	Chris Fisher, CTCR
Dave Duvall, Deanne Pavlik-Kunkel (alt), GPUD	Brandon Rogers, Hans Smith (alt), YN
Justin Yeager, NMFS	Carl Merkle, CTUIR
Jeremy Cram, Amanda Barg (alt), WDFW	Erin Harris, GPUD
Nathan and Clayton Buck, Wanapum	Tracy Hillman, BioAnalysts, Facilitator

Meeting Attendees

Hans Smith, YN	Dave Duvall, GPUD
Justin Yeager, NMFS	Chris Fisher, CTCR
Shelby Fowler, USFWS	Nathan Buck, Wanapum
Amanda Barg, WDFW	Erin Harris, GPUD
Tracy Hillman, BioAnalysts	

Action Items:

- Dave Duvall will provide the PRCC HabSC with the slides he presented during the PRCC Policy Committee Meeting.
- Dave Duvall will check internally to see whether Grant PUD staff intend to join the Okanagan Nation Alliance tour in Canada.

Decision Items¹:

- None.

I. Welcome and Introductions

Tracy Hillman welcomed everyone to the meeting and participants introduced themselves.

II. Agenda Review

The PRCC HabSC reviewed and approved the August agenda with one change: Removed the Bockoven Acquisition Project from discussion because the Chelan Douglas Land Trust did not provide the specification sheet before the meeting.

III. Approve July Meeting Notes

PRCC HabSC members reviewed and approved the 13 July 2023 meeting notes.

IV. Review Action Items

The PRCC HabSC reviewed the following action item from the July meeting:

- Chris Fisher will send the Enloe Dam Removal Feasibility Proviso Report to Tracy Hillman, who will share it with the PRCC HabSC. **Complete.**

V. Project Updates

Members of the PRCC HabSC provided the following updates on funded projects:

- **Lower Wenatchee Instream Flow Enhancement Project, Phase II Project** – Kate Terrell provided an email update on this project. The email states that in July, the sponsor (Trout Unlimited; TU) held a kickoff meeting with their design consultants to discuss next steps and to start the process of reviewing the outdated plan set. This exercise will also give the consultants a better understanding of how much effort will be needed to bring the plan set to a bid-ready set. With the updated information, they will be able to put together a more detailed scope of work that will be added as an attachment to the agreement between TU and the consultants. In addition, TU attended a meeting with Jon Culp with the Conservation Commission and Ryan Williams with Cascadia Conservation District to go over the next steps in the Jones Shotwell Ditch Company (JSDC) Irrigation Efficiency Grant Program (IEGP) application. This meeting proved to be helpful as Jon indicated that the IEGP application is currently going through a change to simplify the application process. Jon requested the group hold off on submitting the JSDC application until early fall when the new system is rolled out. TU is also working on two other grant applications, one with the Washington Department of Ecology (Ecology) and the other with the USFWS. JSDC and TU composed a letter that will be sent to the JSDC shareholders to inform them of the irrigation system overhaul and to invite them to a meeting in August, which will allow TU and the JSDC Directors an opportunity to walk the shareholders through the upgrades and address questions or concerns. TU and JSDC continue to hold by-weekly project team meetings and are keeping all interested parties up-to-date on the status of the project.

¹ All decision items listed here were approved by PRCC HabSC members.

- **Icicle-Peshastin Irrigation District Fish Screen Project** – Jeremy Cram was not available to provide an update. Justin Yeager reported that he visited the site in late spring and the screen is operating. Therefore, the project should be close to completion.
- **Cascade Orchards Icicle Creek (COIC) Flow Restoration Project** – This project is tabled until the PRCC HabSC receives Ecology’s responses to comments on the updated draft Report of Examination.
- **ORRI VDS Backwatering Project** – Chris Fisher said that the Okanagan Nation Alliance (ONA; sponsor) completed two back-watering riffles last year. The sponsor is constructing the remaining three riffles this year. These constructed riffles are associated with vertical drop structures 14-17.
- **Lower Trout Creek Re-naturalization: Stage 1 Construction** – Chris Fisher reported that Phase I is complete and implementation of Phase II (construction of four additional riffles) will begin this year.
- **Big Meadow Creek Fish Passage Restoration Project** – Tracy Hillman reported that Cascade Fisheries (sponsor) completed the project in July. They placed about 40 trees in the stream to improve habitat complexity.

VI. Restoration/Protection Projects

Cascade Orchards Icicle Creek (COIC) Flow Restoration Project – As described above, the Yakama Nation and WDFW are unable to vote on this project until they receive responses from Ecology on the Yakama Nation’s comments on the updated draft Report of Examination. Once they receive responses from Ecology, they will cast their votes.

Water Temperature Monitoring – Tracy Hillman reported that he received an inquiry from Tracy Bowerman, USFWS, regarding the PRCC HabSC’s interest in possibly funding temperature monitoring within the Wenatchee River basin. In an email to Tracy Hillman, Tracy Bowerman indicated that she has been formulating a plan with Aimee Fullerton (NOAA) and Shannon Cleason (USFS) to take over a temperature monitoring network they developed in the Wenatchee River basin. They have 5 years of temperature data from a much denser network of thermistors than what NorWeST used. Aimee has developed the foundations of a Spatial Stream Network model, which allows continuous spatial and temporal temperature predictions throughout the Wenatchee Basin, and at a higher resolution than what is available through NorWeST. NOAA does not have funding to continue this work, but because the real value in the data is the long-term nature of it, Tracy Bowerman has been trying to figure out a way to continue the data collection. These data will provide valuable information on climate refugia – which tributaries are the coldest and which are warming at the slowest rates. This information will help the region prioritize projects in the long-term. Tracy Bowerman has been coordinating with Matt Holland (CCNRD), who will collect the field data (annual deployment and collection). Tracy Bowerman will run the model and provide regional updates every 2-3 years. She believes the project will be inexpensive. Funding would cover Matt’s time, the cost to replace thermistors, and possibly her time.

Members were generally lukewarm to the idea. Hans Smith indicated that the information would be useful in prioritizing restoration actions in the Wenatchee River basin. Amanda Barg noted that WDFW used to collect continuous temperature data within several major tributaries, but she believes that work ended during COVID-19. Some members did not see a real need for the information. They noted that existing temperature information may be sufficient to inform restoration actions. In addition, there were questions regarding the level of existing monitoring, how existing monitoring would be

incorporated into the analyses, and how much the work would cost annually. Some members suggested that Tracy Bowerman seek funding from the Salmon Recovery Funding Board. That said, members indicated that they would review a specification sheet from Tracy Bowerman.

VII. Administration

Grant PUD Presentation to the PRCC Policy Committee – Dave Duvall reported that Grant PUD hosted a PRCC Policy Committee meeting on 20 July 2023. The purpose of the meeting was to provide new Policy Committee members with an overview of Grant PUD’s programs. This was basically a meet-and-greet gathering. Dave said he presented the slides reviewed by the PRCC HabSC and received positive feedback from policy members. Tracy Hillman shared that the meeting was well organized and Dave’s presentation was educational in highlighting habitat projects and successes. Tracy added that there were a few questions, most of them associated with fish passage at McIntyre Dam. Dave did a good job of answering questions. Dave will share his final slides with the PRCC HabSC.

VIII. Information Updates

Misc Project Updates – Chris Fisher provided an update on two projects in Canada (these are not projects currently funded by the PRCC HabSC).

- Okanagan Falls Floodplain Reconnection Project—Chris said the project has stalled because of Band issues. At this time, there is no information on what this means or whether the project will move forward in the future.
- Fish Passage at McIntyre Dam—Chris said the Okanagan Nation Alliance (ONA) and the Provincial Government are identifying ways to modify the eddy along the right bank just downstream of McIntyre Dam as well as within bay #5. Modifying the eddy should improve fish passage at bay #5, which is the bay most used by fish but often unsuccessfully. ONA asked Chris for a list of fish passage engineers. Based on recommendations from Tom Kahler (Douglas PUD), Chris provided ONA with a list of passage engineers.

HARP Model – Tracy Hillman reported that on 9 August the NOAA Science Center held a workshop on the Habitat Assessment and Restoration Planning (HARP) model they are developing for a large portion of the Columbia River Basin. The model will be used to evaluate tributary habitat restoration scenarios. Because the Science Center will develop the Columbia Basin model starting in the Upper Columbia, they wanted to coordinate with Upper Columbia folks who may have information that will support the model.

The Science Center gave a presentation on the life cycle model and described the mechanics of the model. Like the Ecosystem Diagnosis and Treatment (EDT) model, HARP estimates a historical condition and a current condition. The gap between historical and current conditions reflects habitat potential (i.e., potential to improve habitat conditions through restoration work). During the presentation, they identified the drivers (potential restoration actions and external drivers) and how they help describe habitat conditions (both quantity and quality of habitat). These data then feed into the life cycle model, which evaluates pre-spawn productivity, spawning capacity, egg-to-fry productivity, rearing capacity, and rearing productivity. The model then generates life cycle model outputs (salmonid abundance and productivity). Tracy summarized the model workflow, which uses spatial data inputs, habitat data layers, and restoration scenarios to generate life cycle outputs. Tracy also identified some of the data layers needed to populate the model.

Tracy said a large portion of the workshop was used to address questions and identify possible data layers that can be used to populate the model. Because Chris Fisher was unable to attend, he sent Tracy

a couple questions to ask the Science Center. The first was: have the investigators attempted to “ground truth” model outputs to determine the accuracy of the model? The Science Center responded that they have evaluated model outputs for current conditions (not future conditions based on restoration work). The model results are within 10% of current estimates of abundance and productivity. The second question was: which factors have the most influence on the model outputs? That is, which factors should we be measuring to gain the most accurate outputs? The Science Center responded that they conduct sensitivity analyses with each model run and the factors most sensitive tend to vary depending on species, location, and restoration actions. In general, the most important information needed for the model at this time are life-stage specific survival rates. Sediment data are also important.

Tracy said that as the Science Center continues to develop the model for the Upper Columbia, they will schedule meetings with specific groups (e.g., Tributary Committees, Hatchery Committees, Implementers, etc.). They expect to have the model completed by the end of 2024.

Okanagan Tour – Chris Fisher reported that the Okanagan Nation Alliance (ONA) is willing to host a tour of potential projects in the Okanagan Basin on 11-12 October. Most of the tour will focus on potential projects in tributaries to Okanagan Lake. Those who plan to attend the tour include: Chris Fisher, Tracy Hillman, Dave Duvall, and Brandon Rogers (?). Other members are unlikely to participate. Dave will check internally to see if other Grant PUD staff plan to attend.

Recent Publication – Tracy Hillman reported that Bill Jaeger and Mark Scheuerell recently published a paper titled: “Return(s) on investment: Restoration spending in the Columbia River Basin and increased abundance of salmon and steelhead.” The paper was published in PLoS ONE. Here is a link to the paper: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0289246>

Tracy said the researchers concluded that there was no empirical evidence of an increase in natural-origin Chinook Salmon, Coho Salmon, Sockeye Salmon, or steelhead abundance associated with \$9 billion spent by federal and state agencies on restoration work in the Columbia River basin. Tracy added that the researchers measured fish abundance at Bonneville Dam. Unlike most monitoring efforts that measure project- or reach-scale effects, and sometimes watershed-scale effects, this work attempted to evaluate restoration effects on returning adults. Tracy recommended that members read the paper and be prepared to respond to questions they may receive from outside groups or from folks within their respective agencies.

IX. Adjourn

Tracy Hillman adjourned the meeting at 2:00 pm.

X. Next Meeting

The next meeting of the PRCC HabSC will be on 14 September 2023.