



## REGIONAL TECHNICAL TEAM MEETING FINAL JANUARY MEETING SUMMARY

**Date:** Wednesday January 13, 2021

**Time:** 9:00 AM to 12:30 PM

**Location:** Webinar

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**Members Present:** Jeremy Cram, John Arterburn, Justin Yeager, Keely Murdoch, Tom Kahler, Brandon Rogers, Carlos Polivka, Catherine Willard, Kate Terrell, John Crandall, Steve Fortney, and Tracy Hillman (Chair).

**Others Present:** Jason Lundgren, Jeff Jorgensen, Kristen Kirkby, Mike Kane, Mike Gieschen, Mike Kaputa, Nic Truscott, Pete Teigen, Ryan Niemeyer, Steve Kolk, Jamie Cleveland, Aaron Rosenblum, Scott Bailey, Chris Nygaard, Brian Fisher, Sarah Walker, Ken Muir, Jessica Goldberg, Chris Johnson, Graham Simon, Greer Maier, Pete Teigen, John Soden, and Doug Knapp.

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Tracy Hillman welcomed everyone to the meeting. Members reviewed and approved the draft agenda. There were no changes to the agenda.

The December meeting summary was reviewed and approved. Tracy reviewed the action items and carry-over action items (if any).

***Carry-over action items:***

- Greer Maier will post information and a link to the HSI tool on the UCSRB website.
- Pete Teigen will post the updated RTT scoring criteria on the UCSRB website.

***Agenda Items for Future Meetings:***

- CF Chiwawa Project
- CF Lower Peshastin Project
- CF Merritt Oxbow Project
- Columbia River Treaty – Shane Bickford
- River Health - Joe Wheaton
- Entiat Floodplain Analysis Results - Paul Powers

### UCSRB Updates

#### SRFB 2021 Schedule

Pete Teigen provided the RTT with key dates for the Salmon Recovery Funding Board (SRFB) 2021 Grant Round. Those dates are:

- February 10<sup>th</sup> - Kick-off Meeting (following the RTT meeting)
- March 1<sup>st</sup> - Pre-applications Due
- March 10-11 - Presentations and RTT Feedback

- May 10-13 - Site Visits (virtual)

Pete also summarized some key changes in the SRFB grant round. One change is reduction in monitoring funding. If sponsors are going to submit a monitoring project, they should let Pete know as soon as possible and engage with the RTT. If the project cost is over \$50,000, then Pete will need to talk with GSRO and other regions about how to get full funding for the project. If a sponsor does ask for additional funding, they need to explain what they would do if they only get \$50,000 and not the full amount requested.

UCSRB staff are working on the draft application and Pete asked how the RTT will be using ecological concerns in their scoring. Currently, the application asks sponsors to identify ecological concerns. Tracy responded that the RTT will change the terminology in scoring factor #1 to “Limiting Factors;” however, this year is a transition year and therefore sponsors can identify ecological concerns or limiting factors. Tracy reminded everyone that there are some but minor differences between ecological concerns and limiting factors. The prioritization tool is based on limiting factors.

**Action item:**

- Pete Teigen will send to Tracy Hillman the SRFB 2021 schedule for distribution to the RTT.

## **CCNRD Upper Wenatchee Floodplain Project - 15% Design**

Scott Bailey from Chelan County Natural Resources Department (CCNRD) presented the 15% designs for a project on the Upper Wenatchee. The project design is funded by BPA and this presentation to the RTT is a part of the design process (i.e., early input from RTT on the design). Scott provided the RTT with information on the project site prior to the presentation. The project is located in reach 1 and 2 of the Upper Wenatchee assessment unit. The reach is partially confined and there is a single thread channel with evidence of incision (bedrock control). The reach is cobble dominated. Past assessments have identified the need for protection of the reach and addition of LWD. The process of developing the project began in 2016. CCNRD submitted the project to BPA in 2018 and began designing the project in 2019.

The goals of the project are to: 1) increase floodplain connectivity for juvenile fish, 2) promote lateral channel migration and sediment aggradation; and 3) create habitat diversity via pools and side channels. Scott reviewed the content in the design report, which was provided to the RTT. He showed the Habitat Suitability Modeling (HSI) results for juvenile salmon in the summer and winter. There was little change at the annual flows but some change at the 1-year event.

CCNRD has a contract with BPA through the end of 2021. Phase 2 will include advancing the design with additional studies focused on refining modeling and exploring various alternatives. CCNRD will also do more assessments of access options and recreation impacts. They will also look more closely at bedrock in the site using ground penetrating radar. Bedrock affects what options are available for wood structure design. CCNRD is looking at options for implementing the project during low flow.

John Soden with Natural Systems Design (NSD) provided a review of the design elements. The project concept includes large wood (LWD) structures at various locations – aimed at providing cover, activating floodplains and/or side channels, stabilizing mid-channel islands, and recruiting wood. There is also a pilot channel proposed to activate a large floodplain area.

Nic Truscott with NSD added more information about hydraulic modeling results. The model looks at benefits at five different flow levels – winter, 1-year, 2-year, 10-year, and 100-year. The results show

that most of the floodplain is activated at flows greater than the 2-year event. Currently, only 0.25 acres are activated at the winter base flow. Depths and velocities are moderate at base winter flow and the 1-year/annual event. At the 10-year event there is substantial floodplain activation. Depth and velocities are severe in the mainstem but moderate on the floodplain. Under proposed conditions, there will be no change in floodplain activation at the winter base flow, but some benefits provided at the LWD sites. At the 1-year event, there is an additional 20 acres of floodplain activated (600% increase). There is an additional 10 acres activated at the 2-year event. Depth and velocity decrease in the mainstem during flood events as a result of the project. NSD staff discussed the pilot channel in more depth. The modeled velocities show that the channel is expected to be maintained. The next phase of design will further explore how to design this channel and use it to activate the floodplain.

The RTT provided some comments (summarized below):

- Reach 1 has the highest level of LWD ever recorded in a reach assessment and is already highly functional. NSD response: The project actually straddles Reach 1 and 2; Reach 2 has significantly less wood.
- The project is not benefitting habitat at the winter base flow and that was a goal. How is this benefitting winter rearing? NSD response: The pilot channel could evolve and eventually provide winter floodplain activation. Phase 2 will explore whether that benefit could be provided at day 1 with changes in its design.
- The RTT recommended providing more winter habitat benefits.
- Some members were not opposed to working in an area that was already mostly functional.
- Why are there no design elements to activate the upper part of the floodplain? NSD response: There were feasibility issues with implementing actions in that area (access, bedrock, amount of excavation needed, and location of the thalweg).
- Why do you need to remove the wood to implement the project? NSD response: That is probably referring to removal of trees not downed wood.
- Habitat used by juvenile Chinook in the winter is different than habitat used during warmer periods. It appears that the suitability curves used to model winter habitat are based on summer conditions. Thus, winter HSI results may not reflect winter habitat conditions. In addition, icing can affect depth and velocity predictions, further confounding HSI results.
- It is important to consult with DOE early in the design process.
- RTT would like to see use of more large boulders in the design.

Additional RTT comments will be compiled by Tracy and sent to CCNRD. The 30% design set will be presented to the RTT in the future.

### **MSRF Twisp Ponds Project - Final Design**

Brian Fisher with the Methow Salmon Recovery Foundation (MSRF) presented the final designs for the Twisp Ponds project. The project design was funded by BPA and this final check-in with the RTT is part of MSRF's contract with BPA. The goal of the project is to provide a perennial connection to an existing off-channel area (Twisp Ponds). The inlet is through a headgate and the houses behind the levee prevent a more natural connection type. Due to an incision event in the Twisp River, the flow at which connection occurs is now fairly high and the ponds are not connected as often. Alternatives that were considered but dismissed included LWDs (not feasible), relocating the diversion (feasible but high cost), and rebuilding the diversion in place (not feasible). The selected alternative was a passable roughened channel. The bed elevation will be raised 1 foot using boulders and streambed material. The project is intended to increase the connection, especially when temperatures are high in the Twisp. Fish use the ponds for thermal refuge. The RTT liked the design.

The RTT provided some comments (summarized below):

- Using fill from another project may be more cost effective.
- Will the project affect spawning within the reach? BPA response: The effect on the bed will actually be minimal. It is putting a riffle back where it used to be. MSRF response: There is very little spawning at this site. Most spawning is upstream of the site. There is little gravel and groundwater at the site. Fish spawn in the Twisp Ponds, which this project will reconnect.

## Regional Barrier Prioritization - Next Steps

Greer Maier (UCSRB) provided a brief introduction to updating the barrier prioritization tool. Cascade Fisheries has completed barrier assessments in the Entiat and Methow subbasins and has draft prioritization results. They are working through the QA/QC process and have some questions for the RTT. Greer would like to get the barrier subgroup together in the next month to discuss the outstanding needs to keep moving this effort forward.

Kristen Kirkby with Cascade Fisheries (CF) outlined her questions for the RTT:

1. Given the limited number of tier 1 and 2 barriers, is there a need to revise criteria for these tiers?
2. How will multiple barriers be addressed in scoring/applications?
3. How should the region use the EDT passability rating in prioritization?

Kristen mentioned that maybe an order weighting should be added to barrier prioritization (e.g., more weight given to barriers lower in the system). In regard to the EDT passability, the WDFW criteria seems to be overestimating juvenile passage and underestimating adult passage. Greer suggested that she convene the barrier subgroup to address these comments and questions. Members of the barrier subgroup are listed below. If other RTT members or individuals want to participate, please email Greer Maier.

Ben Truscott/WDFW  
Casey Baldwin/RTT  
Chris Fisher/CCT  
Emily Johnson/FS  
Gene Shull/FS  
Jason Lundgren/CF  
Kristen Kirkby/CF  
Jenni Novack/WDFW

John Arterburn/CCR  
John Crandall/RTT  
Jose Vazquez/FWS  
Justin Yeager/RTT  
Kate Terrell/RTT  
Cindy Reakes/FWS  
Robyn Pepin/Aspect  
Tracy Hillman/RTT

## RTT Reach Assessment Guidance

Tracy provided the RTT a current draft of the Reach Assessment Guidance document. The previous document was out of date and needed to be updated. Some RTT members provided comments, which have been incorporated into the latest draft. Steve Fortney provided several comments that have not been addressed. He suggested some changes to the order of the outline. Steve agreed to work with other RTT members to further update the guidance document.

### **Action item:**

- Steve Fortney will work with John Crandall, Brandon Rogers, John Arterburn, and Tracy Hillman to update the draft Reach Assessment Guidance document.

## RTT Prioritization

Greer Maier gave a brief update on prioritization. The Prioritization Workgroup (PWG) met in December and discussed protection, bull trout, and other items. Those updates are summarized below.

- Protection: There are missing data in protection priority areas. This is because there is rarely a reach assessment in these areas (they are generally not in need of restoration). To fill these data gaps, the PWG decided to look at using GIS analysis to evaluate habitat at the reach scale. The BPA funded analysis of floodplains and riparian should fill some of these data gaps (see below). Greer is working with Robyn Pepin at Aspect Consulting to look at other ways to fill data gaps related to substrate, wood, and stability, among others. It may be that the PWG develops a different methodology for prioritizing at the reach scale for protection.
- Bull Trout: Greer and Robyn are working with John Crandall and Jose Vazquez to update the reach layer for bull trout life stages. Once complete, that will be sent to the PWG and other bull trout experts for review. After the reach layer is updated and approved, the restoration prioritization tool can be run for bull trout (expected in the next month).
- Floodplain and Riparian Analysis (BPA funded): Greer and Robyn have been working on a project funded by BPA to use GIS to evaluate floodplain and riparian condition. Evaluating floodplains has been more challenging than expected. It may be possible to delineate floodplains using existing data but to bin those floodplains at the reach scale into the three categories of adequate, at-risk, and unacceptable may be more difficult. Robyn and Greer are meeting with Paul Powers and Matt Helstab this week to talk to them about using their GGL (Gearscape Geoprocessing Language) tool. Another approach may be to use a stack of layers (LiDAR, vegetation, aerial photos, etc.) to evaluate if the floodplain is well connected. Riparian evaluation is fairly straightforward and moving ahead.
- Portal: The UCSRB is working with Aspect on the prioritization portal (also BPA funded). Greer said they hope to have a demo site set up for RTT review and input at the next meeting.

There will be a PWG meeting in the next few weeks. Tracy will distribute the meeting info to the full RTT when available.

## Next Meeting

The next RTT meeting will be Wednesday, 10 February.