



## REGIONAL TECHNICAL TEAM MEETING FINAL NOVEMBER MEETING SUMMARY

**Date:** Wednesday, 08 November 2023

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

**Location:** Webinar

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**Members Present:** Catherine Willard (Chelan PUD), Tom Kahler (Douglas PUD), John Arterburn (Colville Tribe), John Crandall (MSRF), Amanda Barg (WDFW), Brandon Rogers (Yakama Nation), Joe Lange (NRCS), Kate Terrell (USFWS), John Crandall (MSRF), and Tracy Hillman (Chair)

**Others Present:** Jason Lundgren (Cascade Fisheries), Ameer Bahr (RCO), Christina Barrineau (CCNRD), Kristen Kirkby (Cascade Fisheries), Ryan Niemeyer (UCSRB), Tori Bohlen (BPA), Virginia Preiss (BPA), Jeff Jorgenson (NOAA), Jarred Johnson (YN), Shannon Adams (YN), Ryan Williams (Cascadia CD), Scott Bailey (CCNRD), Mark Ingman (Cascadia CD), Glen Leverich (WWR), Tessa Reeder, Michelle O'Malley (BPA), and Steve Rodriguez (WWR), and Aaron Rosenblum (Cascade Fisheries)

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Tracy Hillman reviewed the agenda and the agenda was approved by all RTT members present. Tracy reviewed the August draft meeting notes and all RTT members present approved the notes.

### RTT & UCSRB Updates

#### UCSRB Science Conference Timeline and Abstracts

UCSRB staff shared that the abstract deadline has passed, but the conference was still accepting registrations. Early bird registration ends on 10 January. The UCSRB is looking for raffle items and financial sponsorship for the conference. If individuals know of any organizations who would be interested in donating financially or a raffle item for the conference, please email Amanda Ward ([amanda.ward@ucsrb.org](mailto:amanda.ward@ucsrb.org)).

#### Lead Entity Position Search Update

The new Lead Entity (LE) Coordinator has been hired and will start on Monday, 13 November. The LE Coordinator is Ariel Edwards ([ariel.edwards@ucsrb.org](mailto:ariel.edwards@ucsrb.org)).

#### 2023 SRFB Debrief Planning

UCSRB staff shared that they reached out to both the WATs as well as the CACs regarding the SRFB debrief meeting. Both groups favored a remote meeting. This debrief meeting will take place in January, allowing the new LE coordinator time to acclimate to her new position before the debrief meeting.

#### Cramer Fish Sciences: Entiat Effectiveness Monitoring (16 November)

The Wenatchee Habitat Subcommittee will have a joint meeting with the Entiat Habitat Subcommittee on 16 November at the Confluence Technology Center. Phil Roni will be presenting his Entiat Effectiveness Monitoring work around 10:00 am.

**Decisions:**

- None

**Action Items:**

- None

## **Wildfire and Restoration: Case Studies from the Methow River Watershed**

Jarred Johnson (Yakama Nation) provided an overview of the post-fire study and large wood assessment conducted in the Methow sub-basin. The report was shared with the RTT.

The Cub Creek fire predominantly burned in the Chewuch River. A total of 8 of the 15 large-wood project sites burned on the Chewuch River. Often the slash piles or the piles off-channel burned. Bank-buried or pine-ballasted structures with limited projection into the active channel were susceptible to burning. Submerged or partially submerged wood was typically not burnt. Elevated log structure members were more vulnerable to fire than submerged or partially submerged members. Structures with slash burned easier.

Beaver Creek was burned by the Carlton Complex fire. About 40% of the riparian area burned in Beaver Creek. A total of 8 of the 12 large wood project sites were affected by fire. At one site, a debris flow caused sediment to fill the channel and buried a treatment site. Similar to the Chewuch burned sites, lower elevation (relative to floodplain) structures and structures in the active channel were more resistant to fire. Slash often burned, but remaining structures collected mobile wood. Large wood project sites with larger wood were less affected by wildfire than sites with smaller wood. Sites in depositional reaches will have a higher risk of becoming buried or abandoned. Floodplains with no established vegetation had a higher likelihood of channel avulsion.

The Wolf Creek watershed was burned by the Cedar Creek fire. In moderate- and high-severity areas, fire burned vegetation and log jams in the channel. There were minimal changes to channel morphology, primarily localized widening where bank or hillslope failure occurred. Fine sediments accumulated behind wood and debris. Fire burned some existing large wood jams. Fire burned small diameter wood within existing large wood jams. Log jams continue to acquire mobile wood post-fire. Soil recovery appeared to be delayed due to presence or absence of vegetation and root strength. Sites that were identified as candidates for restoration remain candidates due to floodplains or boulders present both before and after wildfire.

Recommendations from the assessment include evaluating future risks of wildfire. A map of existing geomorphic features will help model where debris flows, landslide hazards, or flood hazards would occur. For project planning, implementers should use wildfire risk assessment for project reach selection and restoration treatments. Note that fire effects can be beneficial for river habitat.

One RTT member mentioned that regardless of wildfire intensity, large wood has a life span and will not be in a location forever. Perhaps restoration work should focus more on wood recruitment to the stream by restoring natural watershed processes. Otherwise, we will be in a never-ending cycle of adding wood to streams, which, in the long term, is likely not cost effective. Furthermore, although important, adding wildfire and climate change assessments will increase the costs of already high-cost planning. Another member pointed out that anchorage is needed. Without anchorage, large wood will not remain in the system. Another RTT member mentioned having floodplains connected to the stream so large wood can be stored.

**Decisions:**

- None

**Action Items:**

- None

## **Protection Language Update**

Tracy Hillman reviewed the updated language to the scoring criteria that reflects that an acquisition with the purpose of restoration would be evaluated using the restoration criteria, not the protection criteria. Tracy Hillman and Ryan Niemeyer made updates to the language in the scoring criteria for both the pre-proposals and the full proposals. The RTT voted and approved the changes to both documents.

**Decisions:**

- **The RTT approved the updated language to the protection language for the pre-proposal and full proposal scoring criteria.**

**Action Items:**

- None

## **Floodplain REI Metrics Status Update**

UCSRB staff gave an update on the Floodplain REI metrics. The Floodplain project was completed by UCSRB staff and Aspect Consulting. The goal was to generate floodplain and off-channel REI metrics for reaches in the Upper Columbia using remote sensing. As part of the development of the data sources and floodplain metrics rule set, UCSRB staff and Aspect met with the RTT Prioritization Work Group on multiple occasions. The primary data source was LiDAR, which there is currently 75% coverage of Upper Columbia UCSRB reaches. The LiDAR data were used to generate Relative Elevation Models (REMs). The Western Flow Metrics generated with the VIC (Variable Infiltration Capacity) hydrologic model were used for the 1.5-yr and 10-yr discharge. The HAND (Height Above Nearest Drainage) dataset was used to generate Manning's Equation metrics to estimate a velocity and then calculate a cross-sectional area of the given flow for a given reach. This was used to map floodplain inundation at 1.5 yr and 10 yr flows. Where HEC-RAS or other hydrodynamic model output is available, this will be used. Additional data generated was length of a reach with anthropogenic features including both levees and roads as well as bank armoring such as riprap. Aspect recently shared the final data products, and UCSRB staff will present these at the December RTT.

**Decisions:**

- None

**Action Items:**

- **Ryan Niemeyer will share the floodplain metrics rule set with the RTT.**
- **Ryan Niemeyer will research the VIC flow calibration and reach out to CTCR and others for additional streamflow data for calibration.**
- **Ryan Niemeyer will share the completed floodplain analysis at the December RTT.**

## Okanogan Data Integration Update

UCSRB staff shared updates on the Okanogan habitat metrics used in the RTT Prioritization Tool. The goal of this effort was to use actual habitat metrics (e.g., cover-wood, pools per mile, etc.) rather than EDT generated habitat REI ratings in the prioritization tool. This effort resulted in changes in prioritization results. Seven of the reaches that were deemed to have good habitat quality (HQ score of > 70%) were not rated as highly. The primary reason for this was because we are missing coarse substrate or cover-wood information. Comparing the correlation of the HQ score with the EDT data, versus the actual habitat data, showed two distinct patterns. Many of the reaches were well correlated (the higher the HQ score with EDT, the higher the score with the habitat metrics). However, a subset of reaches calculated as “0%” resulted because those reaches were modeled to be 0% of the template in EDT. John Arterburn noted that this did not make sense and should be investigated. UCSRB staff indicated that there are now 83 priority reaches, versus 75 priority reaches with EDT. However, only 45 are currently ranked, mostly due to missing coarse substrate or cover-wood data. If data are missing, EDT interpolates to estimate the data, hence EDT allowed for complete coverage of all reaches.

### Decisions:

- **Ryan Niemeyer will dig into the reaches with 0% of Template EDT rating.**

### Action Items:

- **None**

## Habitat Prioritization Finalization Update

UCSRB staff shared the conversation from the previous Prioritization Work Group meeting about updating the prioritization timeline. The proposal was to delay “putting a pin in” prioritizing reach ranks one more year, so the first stable prioritization would be in 2025. The delay is due to 1) Cascade Fisheries having one more year of Level 2 stream surveys to conduct and 2) the floodplain and riparian remote sensing metrics will be completed with additional CTCR funding next year.

The RTT had a robust discussion about this topic. Some proposed to update prioritization every year, because it is important to use the best available data to guide salmon recovery. Others said the changes in reach ranks over short time periods can affect how a project in a specific reach is scored over time (i.e., from the design phase to implementation), because projects can take years to develop and implement. In some cases, rankings could change over short time periods depending on wildfires and the pace of restoration work. Others noted that most reaches will not change ranks over short time periods.

After discussion, the RTT proposed the following for reach ranking. Reach rankings will be regenerated as new information becomes available. This is to make sure the prioritization tool is using the best available scientific information. Projects that receive funding for designs will be “grandfathered” in for a 5-year period. If the project cannot be implemented within the 5-year period, the RTT will decide on a case-by-case basis whether the project will continue to be scored according to the original reach ranking (continue to be grandfathered) or will be scored based on updated reach ranks. Ryan stated that he developed a spreadsheet tool that can track grandfathered projects over time. The group agreed to wait and vote on this item during the December meeting.

### Decisions:

- **None.**

**Action Items:**

- **During the December meeting, the RTT will vote on: 1) updating reach ranks as soon as the best available scientific information is available and incorporated (no more than once per year); 2) projects that have received (or been approved for) design funding will be grandfathered in for a 5-year period; and 3) any project that cannot be implemented within the 5-year period will be evaluated on a case-by-case basis.**

**Project Review: Goodwin 15% Design Update**

Aaron Rosenblum (Cascade Fisheries) presented the Goodwin Side Channel 15% Design update. The side-channel is located along the Wenatchee River in a Rank 3 reach. Limiting factors include floodplain and off-channel metrics. Piezometers were installed and demonstrated that the side-channel is groundwater fed. There were three alternatives proposed for project implementation. The first alternative was to expand the existing low point into a full side-channel. The second alternative expands upon this. The third and most expensive alternative includes adding a second inlet on the upstream end of the side-channel and incorporating the current low-point pond area to be inundated during annual flows.

One RTT member mentioned concern about how to ensure the pond does not cause the side-channel water temperatures to increase. The response was to ensure adequate shading from riparian vegetation.

**Decisions:**

- **None**

**Action Items:**

- **None**