



REGIONAL TECHNICAL TEAM MEETING FINAL DECEMBER MEETING SUMMARY

Date: Wednesday, 14 December 2022

Time: 9:00 AM to 12:15 PM

Location: Webinar

Members Present: Kate Terrell, John Crandall, Steve Fortney, Jeff Jorgensen, John Arterburn, Jeremy Cram, Brandon Rogers, Catherine Willard, and Tracy Hillman (Chair)

Others Present: Tracy Bowerman/UCSRB, Ryan Niemeyer/UCSRB, Dave Hecker/UCSRB, Amanda Ward/UCSRB, Ameer Bahr/RCO, Ryan Williams/CCD, Matt Holland/CCNRD, Michael Dello Russo/TU, Lisa Foster/TU, Scott Bailey/CCNRD, Jason Lundgren/CF, Phillip Klenke/CF, Alex Harwell/CCD, Mark Ingman/CCD, Susan Dickerson-Lange/NSD, Allison Lutes/CCNRD, Mike Kaputa/CCNRD, Steve Kolk/BOR, Julia Jay/NSD, John Soden/NSD, Nic Truscott/NSD, Lisa Dowling/CCNRD, and Aaron Rosenblum/CF

Upcoming meetings and potential topics:

- January:
 - Alexa Whipple: Beaver Monitoring Results
 - Review Upper Wenatchee Floodplain Reconnection Project Design (info sent to RTT members)
 - RTT review and approval of prioritization updates
 - RTT review and approval of barrier prioritization tool

Tracy Hillman welcomed everyone to the RTT meeting. RTT members reviewed and approved the December draft agenda and November meeting notes.

RTT and UCSRB Updates

Scheduling 2022 SRFB Grant Round Debrief Notice

Dave Hecker sent out a Doodle poll to schedule a 2022 SRFB Grant Round Debrief meeting. Please respond and attend if able.

2023 Draft SRFB Schedule

Dave Hecker shared the draft schedule for the 2023 SRFB Grant Round (see Attachment 1). Dave requested feedback on the proposed dates for the preliminary application presentations to the RTT. RTT members who were present indicated a preference for 29-30 March during which to hold presentations, but Dave will poll the remaining RTT members who were not in attendance before deciding on a date.

Other SRFB dates of note for the RTT include:

- 8-10 May project field tours
- 7 June RTT review and scoring of projects

- 20 June CAC ranking of projects

Implementation Schedule

Dave Hecker shared an overview of the 2021 Implementation Schedule. This schedule is submitted by UCSRB annually to NOAA and includes a list of planned projects for the next 4 years. The list included 137 projects planned for 2023-2026 (9 in the Entiat, 42 in the Methow, 73 in the Wenatchee, and 13 in the Okanogan), with an estimated price tag of \$117,846,418.

Barrier Prioritization Tool Update

The Barrier Prioritization team has a meeting scheduled for 5 January from 9:00-11:00 am. Tracy B. will send out the draft scores spreadsheet and associated map before the meeting. She will send these to RTT members to provide an opportunity for review if RTT members choose to do so.

Upcoming Workshop Reminders

Tracy B. reminded the group about the upcoming Floodplain Restoration Workshop, which is scheduled for a full day on 24 Jan 2023, at the Wenatchee Convention Center. There will also be a remote option and the plan is to run an adaptive hybrid meeting. Tracy B. put out a call for presenters. The afternoon will focus on regional efforts and we would like to provide local restoration practitioners an opportunity to showcase their projects and discuss lessons learned from a range of floodplain restoration efforts in the region.

Tracy H. reminded the group that the NOAA Restoring Riverscapes virtual workshop has been re-scheduled for 7-9 March 2023.

Wenatchee Basin Process-Based Flow Improvement

Allison Lutes, a consultant with CCNRD, Matt Holland, monitoring lead for CCNRD, and Susan Dickerson-Lange, principal hydrologist with Natural Systems Design presented information on CCNRD's ongoing work throughout the Wenatchee basin to implement process-based flow improvement projects. The alluvial water storage model is a screening tool to evaluate where water storage capacity can be increased throughout the basin. Years of anthropogenic impacts have resulted in incised channels, sediment export from the systems, lower water residence times, and simplified groundwater-surface water connections, all leading to decreased water storage.

Susan provided an overview of the conceptual basis, development of, and application for the model. The model can be used to identify how much natural water storage capacity has been lost across a large area (e.g., Wenatchee basin), to approximate the potential for water storage at a distributed scale across reaches. The model takes into consideration such factors as the size of the alluvial aquifer, gradient, and soil type/hydraulic conductivity to approximate the water storage capacity. The model relies on geospatial data including NHD stream attributes, land ownership, infrastructure intensity, valley width, incision estimates, current water storage, and approximate flux. The amount of water lost from the ground to evapotranspiration and use by plants is not currently included in the model and is an identified information gap. The tool provides a visualization of where there is more or less potential to restore water storage; this can be used to help prioritize projects for implementation. The model is being used to show where and how much restorable alluvial water storage is available by stream mile or watershed area and uses a distributed approach to influence water storage and flow restoration with the goal of changing the water residence time.

Ally talked about two pilot projects that were identified as high potential for increasing water storage by the model: these are underway at locations in the Merry Canyon and Eagle Creek watersheds. CCNRD's approach is to identify implementation approaches that suit the requirements of the site depending on stream power, slope, and scale. Hence, they consider a range of structural approaches, from low cost/hand built to higher cost/machine built. The Merry Canyon project was more low cost, hand built, and less permanent. The Eagle Creek site had more engineered structures, intermediate cost, and higher permanence.

CCNRD uses the quality assurance project plan (QAPP) as a guiding document, which includes monitoring and study goals. Additionally, they develop individual monitoring plans for each site. Monitoring data are uploaded to EIM (Department of Ecology's web site).

Matt Holland provided monitoring results for those projects, which show initial promising results for increasing groundwater elevation and potentially dampening peak runoff. More results will be forthcoming.

Questions:

1. Is there a plan to incorporate Evapotranspiration (ET) into storage model? Susan explained that there are not currently plans to incorporate ET into the model. It would be possible to put bounds on total potential ET, but there are no plans to do so. Continuing to monitor results at the Eagle Creek site might be the best way to answer this question. Tracy H. stated that particularly in intermittent streams, it would be important to identify the potential for increasing instream flow vs. growing more plants, which increases ET.
2. What is the basis for the decision to pursue projects in the Icicle watershed, when the HUC10 was identified as having lower potential to restore water storage potential compared with other watersheds? The CCNRD team explained that the water storage model was just meant to be a starting place and increasing storage in Icicle has been identified by the Icicle Work Group as a desired outcome.
3. If projects result in increased baseflow, what actions will be taken to protect baseflow for benefits of fish? The County has not tackled this question, as it will be up to agencies to decide how to regulate streamflow. CCNRD is currently focused on evaluating whether they can quantify in-stream flow benefits to this type of restoration work.

Clear Creek Project Review

Lisa Dowling and Mike Kaputa with CCNRD and Julia Jay, Nic Truscott, and John Soden with Natural Systems Design, presented an update on the Clear Creek project. This project is on the Thousand Trails property near Plain. Initial design funding was provided by BPA, and CCNRD is looking for feedback on early design plans from the RTT. Nic presented summary data from flow and temperature monitoring over time. Flows in Clear Creek remained <10 cfs during the period of monitoring. Stream temperatures leaving the lower pond reach >16-18 degrees in the summer. The ponds have a substantial effect on stream temperatures below the pond (the upper pond is approximately 3' deep; the lower pond ~10'). Although there is some thermal stratification in the lower pond, stream temperatures appear to mirror surface temps. NSD has a preliminary hydraulic model available to show depth and velocity of both flow paths (through ponds and via the auxiliary channel).

As for fish use, there was fairly high density of steelhead redds in 2012 in the low-habitat-quality area just downstream of the ponds, where the stream flows through a field. Steelhead redd counts are no

longer conducted in Clear Creek. There is a thriving population of brook trout in the ponds and in particular the lower pond, which is deeper and cooler. WDFW has data showing steelhead are moving through system and getting above the ponds but there is no information on the effect of brook trout predation on or competition with steelhead smolts. There is also another pond system upstream from the project area that likely supplies brook trout to the Thousand Trails ponds.

The CCNRD team outlined potential restoration options, including removing the dam and restoring Clear Creek to its historical path. There is opportunity to remove man-made structures, restore historical stream channel alignment, and potentially replace both ponds in a full restoration design option. That design would include decommissioning the irrigation channel to re-route the canal above where the stream runs and installing a nature trail along the current stream alignment including signs about salmon conservation and restoration. The landowner has indicated that this would be a desired outcome.

Next steps are to engage stakeholders to address project constraints and meet stakeholder needs. CCNRD will also engage the Yakama Nation, how plans to acclimate coho salmon in the larger pond. CCNRD will also do additional modeling to evaluate how alternatives will inform design selection. The goal is to advance to 30% near the end of 2023/24, move to 60% and permitting in 2024/25, and final design and construction in 2025/26.

Questions:

1. Is it possible to implement the recommended action of full restoration given landowner constraints? CCNRD responded that removing both ponds is the best-case restoration scenario given constraints. CCNRD thinks they can get close to that but the full restoration scenario might not be achievable. Tracy H. reiterated that if the ponds can be removed, Clear Creek could be an important cold-water stream for the Chiwawa.
2. If you do remove ponds, what are you going to do about the brook trout? CCNRD responded that it is unlikely they would be able to completely remove brook trout but WDFW indicated they would attempt to decrease population size via electrofishing and ideally work toward a design that will shift competitive advantage to steelhead. A rotenone treatment is unlikely to be pursued in this case and WDFW has indicated a preference for mechanical removal.
3. Has anyone looked at disconnecting the ponds from Clear Creek entirely by doing something like screening the intake and moving the outflow? This was a consideration in an earlier iteration of design plans but low flow in Clear creek limited options.
4. YN has plans for the lower pond but there may be a way to modify how the system works to address the heat sink component to mitigate the negative thermal effects. There might be a way to reconfigure the shape and size of ponds so to decrease solar inputs or draw outflow water from the bottom.
5. Has CCNRD looked at groundwater-surface water interactions in the area? Is it a gaining or losing reach? Not directly, but they have looked at the possibility to supplement flows via groundwater and that was deemed unlikely.

Merritt-Oxbow Project Completion Presentation

Aaron Rosenblum gave a summary of the CF Merritt-Oxbow project, which was implemented in 2021. The project constructed a side channel to connect wetland habitat and an existing relict oxbow. In doing so, they also raised the bed and constructed a riffle in the main channel. Major takeaways from this construction included:

- De-fishing efforts were extensive and difficult due to high flows

- Late runoff flows pushed the schedule later than planned and required creative solutions in the field
- Higher/late than expected flows created quite a bit more work for the contractor
- Wood structures were placed deep and designed to be engaged at a full range of flows
- Cofferdams in the oxbow were removed and the outlet cleaned
- Sheet pile cofferdams were effective for limiting sediment inputs to the stream during construction; these were installed using a vibratory hammer which requires a skilled excavator
- Large rock was imported to create constructed riffle; cofferdams were placed in one half of the river during riffle construction, and then moved to the opposite side when completed
- The contractor was Kysar and Koistinen, who had their own cofferdam materials and constructed a temporary bridge to access the far side of the main channel

Some project information can be found here: [SRP Project \(wa.gov\)](#).

Questions:

1. Were there any surprises from this work? The number of lamprey were surprising (>200 larvae collected). Lamprey are offspring of adult translocations that were placed in Nason Creek (as well as the Chiwawa River). Lamprey were found in the first bend of side channel as well as in main channel margins. The only major change during construction was that the contractor added large rock to the upper bank under the powerline corridor, which was very loose material. The biggest challenge was water management, but the contractor was able to deal with this by using sheet pile cofferdams, which proved very effective.
2. What general expectations do you have for the types of geomorphic changes you expect to see at that site as a response to your project? Do you expect the bed to aggrade or erode at that site? Aaron responded that they expect to see deposition at the top of the riffle. CF doesn't expect channel migration in this reach because of the infrastructure in place. The construction raised the bed 3' but it is still quite entrenched. If there is too much deposition in the side channel (in part because of the beaver dams), CF will want to keep an eye on that to make sure side channel remains connected.

Review and Approve MaDMC Data Gaps

Ryan Niemeyer presented the proposed updates to the MaDMC data gaps list, as reviewed by the MaDMC.

Changes and updates to the data gap list can be summarized as:

- Additional tabs were created to help organize the data gaps. New tabs added include Status and Trends, Fine Sediment Sources, and Temperature or Chemicals.
- Fine Sediment Tab: listed all reaches where a single AU had at least 2 reaches with At Risk or Unacceptable Substrate REI rating
- Added data gaps to Prioritization tab that are now more than 10 years old
- Updated Prioritization tab to identify the specific habitat data gaps and if the data gaps are older than 10 years (columns N-Q)
- Identified areas where there have been major disturbances (mostly wildfire) and included those as prioritization data gaps.
- New riparian data from Aspect were included in the prioritization data. Data on wood, sediment, and pool spacing were collected based on a combination of field work and remote sensing by Cramer Fish Sciences. Reaches where data gaps were filled using the Aspect Riparian data and field data collected by Cramer were removed from the data gaps list. The Prioritization Work Group decided to move forward with using the remote sensing data in prioritization but

will still consider those reaches as data gaps, and eventually the remote sensing data should be replaced with field-verified data.

During the MaDMC meeting, the group decided to identify management goals associated with subject-specific data gaps. The MaDMC will tackle this at a future meeting.

Data gaps list discussion: Steelhead spawning distribution is a data gap to track since steelhead redd counts in tributaries ended in 2013. Jeremy suggested not adding those back unless there is a specific tributary that we have pressing questions about. Others identified the desire to include steelhead spawning distribution as a data gap.

Decision: Several RTT members abstained from voting to approve the MaDMC data gaps list and a few asked for more time to review it. Tracy H. will re-send the data gaps list and request that any RTT members who wish to vote on whether to approve the MaDMC data gaps list can do so via email by 23 December 2022.

Tracy Hillman adjourned the meeting at 12:29 pm. The next RTT meeting will be held on 11 January 2023.

Happy holidays and have a wonderful new year!

Attachment 1

(DRAFT) UPPER COLUMBIA SRFB/ TRIB 2023 FUNDING SCHEDULE				
DATE	ACTIVITY/MILESTONE	PARTICIPANTS	LOCATION	FACILITATOR/ COORDINATOR
FEBRUARY/MARCH				
February 9	Meeting: SRFB/TRIB Kick-Off Meeting	LE, RTT, TRIB, Sponsors, RCO	Virtual	LE/RCO
March 9, COB	DEADLINE: Regional Project Pre-application (JotForm) submitted to Lead Entity	Sponsors	Online/Email	LE
March 21-22; (20-21; 29-30)	RTT Presentations (SRFB and TI)	Sponsors, LE, RTT, TRIB, SRFB Review Panel, CAC	TBD	LE/RTT/CAC
APRIL				
April 20, COB	DEADLINE: Complete applications due	Sponsors, LE, RCO	PRISM	LE
MAY				
May 8, 9, 10 (11 - TBD)	Tours: SRFB/TRIB Project Tours	Sponsors, LE, RTT, TRIB, SRFB SRP, CAC	TBD	LE
	Wenatchee			
	Entiat			
	Methow			
	Okanogan			
May 11	Action: TRIB reviews draft proposals	TRIB	TRIB	TRIB Chair
May 12	Lead entity feedback (optional)	LE	PRISM	LE

**(DRAFT) UPPER COLUMBIA SRFB/ TRIB
2023 FUNDING SCHEDULE**

DATE	ACTIVITY/MILESTONE	PARTICIPANTS	LOCATION	FACILITATOR/ COORDINATOR
May 16, COB	DEADLINE: Revised proposals due for regional RTT scoring and CAC ranking	Sponsors, LE, RCO, SRFB Review Panel, RTT, CAC, TRIB	PRISM	LE
May 17	Action: TRIB provide comments	TRIB	Emails	TRIB Chair
May 24	First Comment Form: Sponsors receive project status (clear, conditioned, NMI or POC)	SRFB Review Panel, LE, Sponsors	Email/Prism	LE
JUNE				
June 6 (afternoon)	Action: (optional) Discuss projects identified as conditioned, NMI or POC	Sponsors, RCO, SRFB Review Panel, LE	Conference Call	LE/RCO
June 7	Action: RTT review/scoring	RTT, CAC, LE	RTT Meeting	RTT
June 8	Action: TRIB reviews final proposals	TRIB	TRIB Meeting	TRIB Chair
June 12 & 13 (evenings)	Presentations to Citizens: Okanogan/Chelan CAC's	Sponsors, CAC's, RTT, LE	TBD	LE
June 15	Action: TRIB Decisions	TRIB	Email	TRIB Chair
June 20 (evening)	Joint CAC SRFB final ranking	CAC's, LE	TBD	LE
June 26, Noon	DEADLINE: Final revised applications due in PRISM	Sponsors, LE	PRISM	LE
JULY				

(DRAFT) UPPER COLUMBIA SRFB/ TRIB 2023 FUNDING SCHEDULE

DATE	ACTIVITY/MILESTONE	PARTICIPANTS	LOCATION	FACILITATOR/ COORDINATOR
July 12-13	Action: SRFB Review Panel completes comments	SRFB Review Panel, RCO	N/A	RCO
July 20	Final Comment Form: Sponsors receive final SRFB Review Panel comments	SRFB Review Panel, LE, Sponsors	Email/Prism	SRFB Review Panel
AUGUST				
August 3	Deadline: Sponsors must accept SRFB Review Panel conditions	Sponsors	Email/Prism	LE/RCO
August 4	Deadline: Regional Ranked List submitted to RCO	LE	PRISM	LE/RCO
August 11	Deadline: Regional Submittal	LE	Email	LE
SEPTEMBER				
August 30	Final grant report available for public review	RCO	Email	RCO
Sept 13 & 24	Action: SRFB Funding Decisions	SRFB	Olympia, WA	RCO

Acronyms

CAC- Citizen's Advisory Committee
 LE- Lead Entity Coordinator/Program
 RCO - Recreation and Conservation Office
 RTT- Upper Columbia Regional Technical Team
 SRFB - Salmon Recovery Funding Board
 SRFB Review Panel - State Review Panel
 TRIB- Tributary Committees
 TI- Targeted Investment
 UC- Upper Columbia Region
 UCSRB - Upper Columbia Salmon Recovery Board

Timeline Legend

Meetings	Blue
Deadlines	Red
Actions	Black