

Meeting Notes

19 August 2008

Location: CPUD Auditorium, 327 N. Wenatchee (08:30-17:00).

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The regional process for SRFB funding includes a local technical review of project proposals that is conducted annually by the Upper Columbia RTT. Additionally, the HCP Tributary Committees also requested RTT review as part of their project evaluation process. These meeting notes represent the results of the RTT review of the 9th round of SRFB funding. We followed our project scoring guidelines as defined in the RTT *Biological Strategy* (2008), Appendix D (<http://www.ucsrb.com/resources.asp>). Table 1 shows the arithmetic mean score from up to nine RTT members for each project within the two major categories of scoring criteria, biological benefit and certainty of success. Figure 1 was generated to provide a visual feel for how the projects scored relative to the two major categories of scoring criteria and each other simultaneously. Figure 2 is one form of a cost benefit analysis that was identified as a useful evaluation tool in the Salmon Recovery Plan (UCSRB 2007).

Entiat Assessment (CCD)

The RTT believes that the Upper Entiat (RM 26-34) is in relatively good condition and restoration options will be limited, hence the lower priority of this reach as recognized by the project sponsor. A simpler approach to assessing this reach may be adequate. We believe that the information in the USFS watershed assessment, combined with some relatively simple GIS and field evaluations may be all that is needed to identify potential restoration opportunities in the upper reach.

The USBR Tributary Assessment should be adequate to identify whether the prescriptions in each reach should be the restoration of normative processes or the use of artificial structures. A detailed reach assessment may be unnecessary in all areas of the Entiat if the Tributary Assessment shows that opportunities are limited or that artificial structures (which could be located in numerous locations) are the only feasible restoration prescription. The RTT encourages the project implementers to compare the assessment and restoration prescriptions from the Entiat River Inventory and Analysis (1998) to the 2005 USBR reach assessment in the lower river. If restoration prescriptions from both assessments are consistent then it may not be necessary to do a detailed reach assessment to come up with site-specific alternatives for artificial structures. For example, the RTT noticed that the aerial photo #3 from the Below the Bridge project shows five projects completed or planned between river miles 6 and 12 that were apparently planned or implemented without such an assessment.

It was unclear whether the REI would tie in with ISEMP monitoring for effectiveness and status and trend of habitat conditions. There could be considerable overlap in efforts and data collected, and opportunities for data sharing should be explored to eliminate

redundancies and reduce project costs. The objectives for the REI should be clarified. Some questions that surfaced in discussions on this were:

- What attributes will be used?
- How will you determine if an attribute is in each category (i.e. at risk, properly functioning)?
- Is there an expectation to use it as an effectiveness monitoring tool at the reach level as is being done in the Methow?

It was also unclear how the modeling would be conducted and used. Since LiDAR has already been completed there should be enough existing information to run the HEC-RAS model. Although modeling was a large portion of the budget, Task 6 stated that, “modeling may include” the development and application of a hydraulic model. It was not clear if that meant that it would occur or that it might occur.

Tasks and objectives related to sediment characterization were not specified. Task 5 of the proposal stated that the ERRA would characterize sediment and sedimentation but no details were provided (protocols, sampling design, or objectives). Task 5 stated that it “may include collecting bed-material samples from unique habitat features”, but it was not clear whether that meant that sampling would occur or that it might occur.

While general questions of cost are not the purview of the RTT, it was noticed that the cost per mile of conducting the assessment was not consistent between the worksites. Specifically, Worksite 1 was nearly twice as expensive per mile as Worksites 2 and 3.

Below the Bridge (Keystone/Moody Instream Structures in the lower Entiat)(CCD):

We appreciated the project sponsors incorporation of ideas and suggestions from the pre-proposal workshop and the site visit such as evaluating risk due to ice, and a new screen and bypass system to replace the current settling pond and return pipe. Inclusion of an engineered log-jam in this proposal also showed responsiveness to comments from the RTT and SRFB tech panel during the 2007 review period to include more wood in the lower Entiat instream structure projects.

Eliminating the need for frequent maintenance on the push up dam is desirable; however, the wing dam will not be a grade control structure for the whole river so some continued maintenance may still be necessary.

Another positive aspect of this project is that it will be tied in with ISEMP effectiveness monitoring. However, clear expectations for the longevity of each structure were not estimated. Without calculating what flows and conditions the structures should be able to handle, it was difficult to evaluate long- or short-term success. We recommend estimating the maximum flow event the structures should be able to handle, which would give reviewers some indication on how long it may last and provide objectives to use during effectiveness monitoring.

The scope of the riparian plantings seems out of scale with the opportunity. For example, there are only narrow corridors of riparian zone along the shorelines due to the Entiat River Road and the orchard / orchard access road along most of the project area. Aerial photo 2 shows that most of the available riparian area (within the confines of the anthropogenic features) is currently vegetated, with the exception of the right bank at the downstream end of the project area. However, the project has budgeted for 860 deciduous trees and 755 conifers. A planting plan should be developed to determine the appropriate density of each plant type and balance that with the opportunity and need.

The boulder clusters may not add much benefit to the project in terms of increasing fish habitat.

Stillwater Design (CCD)

The RTT previously recommended that a geomorphic reach assessment for the entire reach (RM 21-23) be completed before proceeding with a design for a series of restoration projects. The Woodsmith and Bookter analysis was an appropriate and useful coarse scale evaluation that concluded that the rate of erosion appeared accelerated compared to a reference reaches in the Upper Wenatchee watershed. However, while the report described existing geomorphic conditions in the Stillwater reach, it was also clear about the need for further investigation at the project scale, including the collection of reference reach data, prior to designing appropriate restoration strategies and actions for the specific properties mentioned in this proposal. Although Woodsmith and Bookter did recognize the potential usefulness of wood in restoring channel stability, it also recommended that a more detailed geomorphic analysis would be necessary to prescribe exactly which actions would be needed where.

This proposal describes an intended action of placing 5 to 7 log structures of at least 10 logs each somewhere in the reach, or doing other instream actions, or reconnecting the floodplain. However, without an analysis of the causal mechanisms for the degradation throughout the entire reach, it is not possible to determine which of those are appropriate actions or in what combinations. Despite the uncertainty regarding what should be done and where it should occur, the proposal claims that it will implement projects on several pre-determined properties.

We suggest a sequenced approach for the Stillwater Reach of the Entiat is to:

- 1) Conduct a detailed *geomorphic reach* assessment that identifies the causal mechanisms of the accelerated erosion. (already planned or in progress?)
- 2) Develop a restoration strategy for the entire reach that will restore and protect channel form and function.
- 3) Design site-specific prescriptions for restoration and protection actions.
- 4) Implement projects.

The RTT concluded that this design proposal was out of sequence and we did not believe we could apply our scoring criteria when the proposal did not provide a specific action

for evaluation. This proposal is for step 3 (above) and although the proposal stated that they “will utilize any and all technical and other information”, they also state that the project “does not depend on the completion of any assessment”. So it was unclear what information would be used or how project designs would be selected if the assessments were not completed or the results were not available in time to meet this project’s timeline, or the project sponsor elected not to use the assessments. We believe the proposal describes a good process (using the Design Team) for application of the assessments once they are completed; however, the actions should be more explicitly linked to the assessments.

North Road Culvert Replacement (CCNRD)

This project is important for spatial structure because it will open up a major spawning area for steelhead.

There was some concern about sequencing, and whether or not the habitat conditions upstream of the barrier were degraded to the extent that productivity would be low once the habitat was occupied. The proponent should verify the habitat quality upstream of the North Road Culvert.

The success of this project is partially dependent on fixing the 12 barriers upstream; however, we recognize that the additional barriers are scheduled for repair in the next year or so and we rated this project under that assumption.

Goodfellow-Chotzen Floodplain Reconnection Project (CCNRD)

Previous RTT recommendations were to minimize engineering at this site and to take a less invasive approach by simply removing the manmade berm, orchard debris, and revegetating where needed.

Although the backwater areas could provide some winter rearing and high flow refuge habitat we do not believe that the excavated backwater areas and LWD placement are necessary, as wood recruitment will likely occur naturally once barriers to the floodplain are removed and riparian vegetation restored. Due to likely high water temperatures, lack of flow, and proximity to the Columbia, the excavated backwater areas are a high risk for invasive warmwater species, which could have a negative affect on juvenile salmonid survival. Excessive algae growth could be prohibitive to summer and fall rearing.

Continued monitoring of this site through photo points (or other Level 1 effectiveness monitoring techniques) might provide helpful information regarding how natural processes are reclaiming the area.

Rayrock Springs, Nason Creek (CCNRD)

This proposal appears to be out of sequence in regards to the BOR Draft Reach Assessment and UC Spring Chinook and Steelhead Recovery Plan.

The final reach assessment has not been completed and vetted, so it is not clear how this project fits into the big picture strategy for restoring this reach or Nason Creek as a whole. However, the project sponsor correctly acknowledges that this kind of action was previously determined to be low priority in Nason Creek by the RTT. Although the river is “pinned” against the highway, the channel appears that it would most likely be constrained by natural features on that side of the creek regardless.

Three foot diameter rocks are probably not adequate for flows at this site. Clear expectations (in terms of withstanding a certain (e.g., 100-year) flood event) for each structure should be included so that success can be evaluated. We recommend estimating the maximum flow event the structures should be able to endure and the life expectancy of each structure.

There was a rock barb in the budget that was not included in the engineering diagrams.

It was helpful that the proposal included descriptions of the alternatives analysis, though we did not have the time to delve into the detailed attachment of those alternatives. There was uncertainty regarding what the best alternative for this site would be, or whether or not adding these juvenile rearing features would have more or less biological benefit than Alternative 2.

Icicle Creek Protection, Fromm Property (CDLT)

The imminent threats of development at this site are high and this site also has considerable value for wildlife, which is a virtue that is not directly reflected in our scoring system.

The currently degraded condition of the streambanks, the relatively thin strip of riparian buffer, and plans for continued grazing reduce the protection benefits of this property. Additional riparian restoration, extension of the riparian buffer, and other restoration actions on this property would increase the biological benefits of this proposal.

Conservation Opportunities on Icicle Creek (CDLT)

We did not score this project because an outreach project does not fit our technical scoring criteria. Without specific properties to review we were not able to evaluate the biological benefits of this proposal. It might be appropriate as an education and outreach component of the adjacent protection project.

Cashmere Pond Off-Channel Habitat Project (CCNRD)

We appreciated the responsiveness of the project sponsor to previous comments by reducing some of the engineered features of the project. Eliminating the stranding problem at this site was thought to have relatively high biological benefit. There was still some concern regarding the effectiveness of the excavated return channel, but if it does work as envisioned, this pond and channel could have large benefits for high-flow refuge

and winter-rearing salmonids. It was helpful to include the summary of the alternatives and we agreed that the shorter return channel might have higher maintenance requirements due to the depositional nature of the main channel within the first 1200 feet downstream of the pond. Deposition of fine sediment in the pond and the excavated channel may still occur and reduce the longevity of the project. There was concern that the outlet channel will continue to aggrade and fill in requiring future maintenance or reducing the effectiveness of the groundwater fed return channel. Additional concerns included:

- Construction of the 1200-1600 foot outlet channel will impact a currently functional floodplain channel.
- The certainty of success for this project would be higher if temperature data from the groundwater was available.
- It would be helpful to include estimates for flows that the structures could withstand for the pond and the outlet channel so that effectiveness can be evaluated.
- This project would benefit from a long-term maintenance plan.

Twisp River Riparian Protection (Methow Conservancy)

This project included five separate properties and we decided to evaluate them separately since there were obvious differences in the quality and quantity of habitat on each property. We appreciated the project sponsors responsiveness to our past requests for more detail regarding the stewardship plans, site development potential, and quantification of upland versus floodplain habitat on each property.

Zinn Property: This was the largest property and had the highest proportion and absolute quantity of riparian, wetland, and floodplain habitat. Although we did not visit this site during the project tour, prior knowledge of this area of the Twisp River, along with the aerial photos suggested that this habitat is in excellent condition and should be maintained.

Pampanin Property: The likely building sites on this property appeared to be on the high benches in areas that had little risk to the riparian zone. Although this property had relatively large amount of shoreline, the river did not appear to be accessing the floodplain with much frequency, leading to lower potential biological benefit relative to other protection opportunities in the Twisp River.

Coon Property: This property had a relatively high proportion of upland (45%), a low linear distance of shoreline, and relatively poor riparian condition.

Speir Property: Although relatively small, this property had good connectivity with the floodplain, good riparian condition, and potential for restoration that could add additional benefits in a later project.

Buckley Property: It appeared that the majority of development potential on this property was on the high natural terrace (comprising 14 of the 41 acres) that would pose low risk to degradation of the floodplain and riparian areas. However, there were also several potential restoration actions on this property that could be conducted in the future that would add to the benefits of preserving the floodplain.

Twisp River Conservation Acquisition II (MSRF)

The proposal and the project tour made it evident that the project sponsor has a well thought out plan for the protection and restoration of this important area of the Twisp River. Continuity with the protected site on the opposite bank enhances the value of protecting this property. MSRF has done a good job with protecting and restoring their property, leading to confidence that this protection action is also likely to be successful. The RTT liked their creative approach to using the house proceeds to fund restoration of the site in the future (not part of this proposal).

Poorman Cr barrier removal (MSRF)

This proposal describes a relatively simple project that replaces an undersized culvert with an adequate one and installs a more efficient, less disruptive irrigation diversion on Poorman Creek. This project will provide access to good spawning and rearing habitat for steelhead. The timing of this project is good since the culverts on USFS lands are also being fixed, providing an effective subwatershed level approach to fixing barriers. This project would have scored higher for biological benefit had it included securing year round flows in lower Poorman Creek. Despite that limitation, Poorman Creek still has potential to add to steelhead capacity and productivity due to the timing of steelhead adult and juvenile migration.

Table 1. Results of RTT scoring for project proposal review of SRFB and HCP Tributary Fund, 19 August 2008. NS = No score, please see the attached narrative.

Subbasin	Watershed	TITLE	RTT Score		
			Biological Benefit Subtotal	Certainty of Success Subtotal	TOTAL
Methow	Twisp	Zinn Property	77	41	118
Methow	Twisp	Twisp Acquisition	76	42	118
Wenatchee	Chumstick	North Rd. Culvert	66	46	112
Methow	Twisp	Speir Property	69	41	111
Methow	Twisp	Poorman Creek Barriers	61	45	106
Methow	Twisp	Buckley Property	65	41	105
Wenatchee	Lower Wenatchee	Cashmere Ponds	68	31	99
Methow	Twisp	Pampanin Property	57	41	98
Methow	Twisp	Coon Property	54	40	94
Wenatchee	Icicle	Icicle_Fromm	58	32	90
Wenatchee	Lower Wenatchee	Goodfellows_CMZ Site 2	56	32	88
Entiat	Lower Entiat	Moody_Keystone Structures	57	30	87
Wenatchee	Nason	Ray Rock Springs	44	31	75
Entiat	Entiat	Entiat Assessment	33	29	62
Wenatchee	Icicle	Icicle_Opportunities	NS	NS	NS
Entiat	Upper Entiat	Stillwater Reach Design	NS	NS	NS

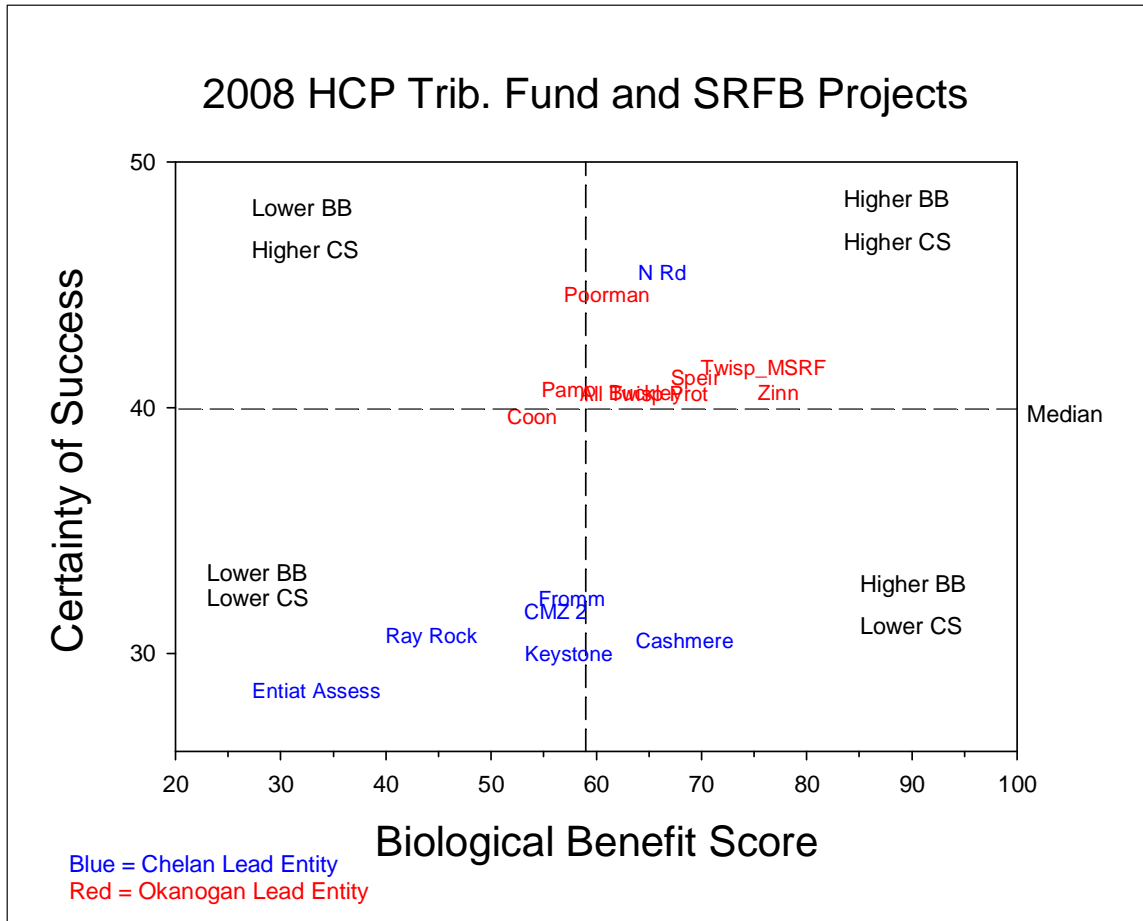


Figure 1. Quadrant plot of RTT scoring results for project proposal review of SRFB and HCP Tributary Fund, 19 August 2008. *exception: The Stillwater Design Only and Icicle Conservation Opportunities projects are not shown because the RTT did not assign a score to these projects.

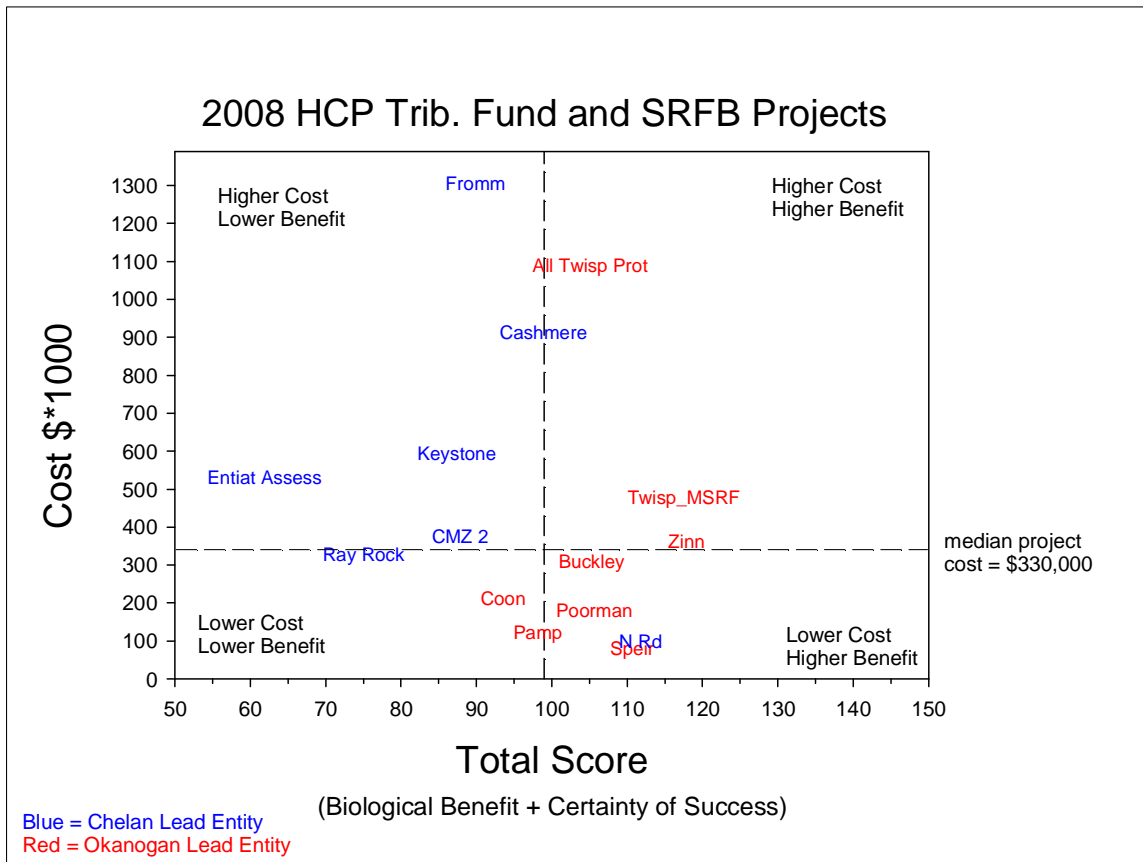


Figure 2. Quadrant plot of RTT score versus total project costs for project proposal review of SRFB and HCP Tributary Fund, 19 August 2008. *exceptions: 1) North Road Culvert project only includes the SRFB funding request because the match was from sources not related to salmon recovery funding 2) The Stillwater Design Only and Icicle Conservation Opportunities projects are not shown because the RTT did not assign a score to these projects.