

Attachment 2

RRFF Discussions Regarding Twenty-Five Mile Creek (Excerpts from RRFF Meeting Notes)

April 2012 Notes:

Jason Lundgren, Cascade Columbia Fisheries Enhancement Group, briefly discussed with the RRFF a potential project that will improve fish passage on Twenty-Five Mile Creek, a tributary to Lake Chelan. Jason asked if this project would be something the RRFF would consider funding under the Rocky Reach Settlement Agreement, Section 4.1.2 in Chapter 6 of the Rocky Reach Resident Fish Management Plan (see pages 6-14 in the Plan). After discussion, the RRFF indicated that Jason should submit a proposal to the RRFF for their consideration. Because the RRFF has no formal grant application, they directed Tracy to modify the application used by the HCP Tributary Committees under their General Salmon Habitat Program. Pat Irle asked that the grant application include questions regarding threats to stream stability.

May 2012 Notes:

Cascade Columbia Fisheries Enhancement Group has not yet submitted their grant application to the RRFF for review. The grant application will ask the RRFF to approve funding for a fish passage project in Twenty-Five Mile Creek, a tributary to Lake Chelan. Jason Lundgren understands that the RRFF may consider funding the project under the Rocky Reach Settlement Agreement, Section 4.1.2, in Chapter 6 of the Rocky Reach Resident Fish Management Plan.

June 2012 Notes:

Tracy Hillman noted that Jason Lundgren, Cascade Columbia Fisheries Enhancement Group (CCFEG), has not yet submitted their grant application for a fish passage project on Twenty-Five Mile Creek. Tracy indicated that the CCFEG Board is deciding how they would like to proceed before submitting their application. Jason inquired whether the RRFF would be open to reviewing a proposal at a later date. The RRFF agreed that they would entertain a proposal from the CCFEG in the future. Tracy also shared with the RRFF that Jason asked if the RRFF would consider funding a design and alternatives analysis report as a stand-alone project. Tracy noted that this option would not fund the actual physical work, only the design and analysis of alternatives. After discussion, the RRFF indicated that they would review a grant application to fund a design and alternatives analysis report.

July 2012 Notes:

Jeff Osborn reported that Jason Lundgren, Cascade Columbia Fisheries Enhancement Group, has not yet submitted their grant application for improving fish passage on Twenty-Five Mile Creek. Tracy Hillman conveyed to Jason that the RRFF would consider a grant application to fund a design and alternatives analysis report.

September 2012 Notes:

Jeff Osborn confirmed that according to the Settlement Agreement, Chapter 6, 4.1.2, Chelan PUD shall, in consultation with the RRF, be responsible for implementing resident fish enhancement for an amount not to exceed a total of \$50,000 during years one through ten of the New License. Jason Lundgren, Executive Director of Cascade Columbia Fisheries Enhancement Group, submitted a funding application for identifying alternatives for passage at Twenty-Five Mile Creek. The RRF reviewed the application. Because of some shortcomings in the application, the RRF was unable to make a funding decision. The RRF asked to see a revised application that addresses the following comments:

- Need more information on the quality of the habitat upstream from the partial barrier.
- Need to describe an estimated timeline for fixing the problem, assuming a preferred alternative is identified and there is available funding (addresses certainty of success).
- Need to reduce and justify the budget.

The RRF found the budget to be too high for the proposed project. They questioned why it will take Chelan County one week to review the alternatives and why they are charging \$2,000 to do the review. This should be shown as a cost share. In addition, the RRF believes the first five items in the budget could be completed for about \$16,000, not \$25,000.

The RRF noted that the project was important and therefore they would like to see a revised proposal. This, however, does not guarantee that the RRF will fund the project.

November 2012 Notes:

Tracy Hillman discussed with the RRF the revised Habitat Restoration Funding Proposal received from Jason Lundgren, Cascade Columbia Fisheries Enhancement Group (CCFEG). CCFEG is seeking funds from the RRF that would address a passage problem on Twenty-Five Mile Creek, which is a tributary to Lake Chelan. At the request of the RRF, CCFEG revised the budget and provided additional information and clarification in the revised proposal.

Bob Rose asked why the RRF was considering allocation of funds for Twenty-Five Mile Creek, which is outside the Rocky Reach project boundary. Steve Hemstrom noted that Chelan PUD is required to provide funds under the Settlement Agreement, Chapter 6: Resident Fish Management Plan Section 4.1.2. Chelan PUD agreed to maintenance of Twenty-Five Mile Creek under the New License and any other subsequent annual licenses. Chelan PUD is responsible for implementing resident fish enhancement measures for an amount not to exceed \$50,000 during years one through ten of the New License.

After discussion, the RRF approved the Twenty-Five Mile Creek Passage Improvement-Alternatives Analysis Project for \$19,649. The RRF noted that they would like to review the engineering alternatives and provide their input on the selection of a preferred alternative. In addition, the RRF request detailed descriptions of the alternatives (e.g., detailed description of “roughened channel”).

August 2013 Notes:

Tracy Hillman shared the following update on passage at Twenty-Five Mile Creek, which was funded by the RRF in November 2012:

1. The consultant is evaluating the hydraulics of the culvert and the downstream stream reach. Velocities coming out of the culvert during a major flood would be extremely high, which is an important factor to consider in the design.
2. The consultant has developed three concepts that cover the range of alternatives (see Attachment 1). They are not spending too much time on these, only enough to make sure they have enough information to know whether they are actually possible.
3. It is likely that the concept of a roughen channel will be a core element of the project. The channel downstream from the culvert is a classic step-pool system. Knowing that the stream will be an amenity for the park, the consultants are working on a design that will take advantage of the roughen channel stability, but also incorporate as much of the natural step-pool morphology as possible so that the stream will be very pleasing to park guests.

Tracy added that the RRF had asked to review the engineering alternatives and provide input on the appropriate design.

September 2013 Notes:

Tracy Hillman reported that he reminded Jason Lundgren with Cascade Columbia Fisheries Enhancement Group that the RRF would like an opportunity to review the engineering alternatives for fish passage at Twenty-Five Mile Creek. Jason provided the RRF with a document (e-mail and engineer's concept) that described the preferred alternative. Tracy noted that he received an e-mail from Bryan Nordlund, NOAA Fisheries, who identified some potentially serious issues with the proposed design. Tracy read the e-mail he received from Bryan:

First, has this consultant built these before, and if so, have they ever been assessed for passage or durability after completion? I ask because I see a flaw in the design - I bet at low flow and maybe even some higher flows, the water surface will go sub-grade just downstream of the culvert. Neither of these designs appeared to backwater the culvert outlet, which means the gradient and porosity will control the water surface elevation transition at the culvert outlet to the roughened channel. And since at least one of the designs shows a steepened section just below the outlet, this is where I expect flow to either immediately go sub-surface (if they do a poor job selecting and placing the finer fill material), or after time when the fines are eroded by high flows.

The RRF agreed with Bryan's concerns and also asked how certain the project sponsor is that the substrate used to build the channel will stay in place during high flow conditions. Patrick Verhey added that his agency's habitat engineer recommended the use of rounded rock, not angular, as well as stating concerns about slope and sealing up the bed to prevent water going subsurface. Patrick also asked for details on why other engineering options (rock or log weirs) were not selected.

October 2013 Notes:

Tracy Hillman reported that he received responses from the Cascade Columbia Fisheries Enhancement Group (project sponsor) on the issues raised by the RRF on the Twenty-Five Mile Creek fish passage design. Tracy sent the responses to the RRF on 24 September and asked for their review. He added that Bryan Nordlund did not reply before the government furlough. Tracy stated that the responses seemed

reasonable to him. Discussion took place regarding changes that campers often make to rock and log weirs in the stream. Tracy asked if the RRF was satisfied with the project sponsor's responses. Patrick Verhey voiced his approval. Pat Irle stated that she was uncomfortable approving the design before getting feedback from Bryan Nordlund. Steve Hemstrom indicated that he would try to contact Bryan to get his feedback. Tracy stated that the sponsor needs to have design approval soon in order to meet their contract deadline with Chelan PUD.

November 2013 Notes:

Tracy Hillman noted that Chelan PUD extended the Twenty-Five Mile Creek contract with Cascade Columbia Fisheries Enhancement Group (project sponsor) until 1 November. He also reported that Bryan Nordlund had replied and approved most of the contractor's responses to the RRF's concerns. He added that Bryan's remaining concern was being addressed by the contractor, and that a report from the project sponsor should be available soon. Tracy noted that the RRF may receive a proposal for funding to do the work in the future. Patrick Verhey shared that he had recently been in the Twenty-Five Mile Creek watershed and that he saw the engineering challenges there first hand. Discussion took place regarding a possible site visit if there is a future funding request for this project.