

Salmon Recovery Funding Board

Individual Comment Form



Lead Entity:	WRIA 1
Project Number:	15-1287
Project Name:	NF Farmhouse Phase 2b
Project Sponsor:	Nooksack Indian Tribe
Grant Manager:	Marc Duboiski

	Date	Status ¹
Post-Application	9/22/15	NMI
Final	10/28/15	Clear

PROJECT SUMMARY *(for Review Panel reference only)*

This project will install engineered log jams (ELJs) in an attempt to stabilize existing mid-channel islands and to protect and enhance salmon habitat conditions in existing side channels. Phase 1 of the project has been constructed and phase 2b is planned to address issues of channel stability and create forested islands in an actively migrating floodplain.

FINAL REVIEW PANEL COMMENTS

Date: 10/28/15

Final Project Status: Clear

Review Panel Member(s): Full Review Panel

- If the project is a POC, please identify the SRFB criteria used to determine the status of the project:**
- If the project is Conditioned, the following language will be added to the project agreement:**
- Other comments:**
Sponsor responded to Review Panel request for more information. Project is cleared.

POST-APPLICATION REVIEW PANEL COMMENTS

Date: 9/22/15

Project Status: NMI

Review Panel Member(s): Full SRFB Review Panel

- If the project is a POC, identify the SRFB criteria used to determine the status of the project:**
- If the project is a POC, identify the changes that would make this a technically sound project:**
- If the project is Conditioned, the following language will be added to the project agreement:**
- General comments:**

The project sponsor responded to some of the input from the early comments, but some questions remain as to the goals and scope of the project. Please provide plans that clearly show the extent of the jams to be included under Phase 2b for this project. There are circled jams in the plans labeled Phase 2a, but the 2b jams are not clearly identified. There are more than 16 jams in the rest of Phase 2 shown in the current drawings.

Also, it is unclear from the proposal whether the project is targeted at creating stability in the channel or planning for mobility. Since these objectives are opposed, their use and the intent of the project should be clarified. If different objectives are intended for different areas within the project boundary, that should also be clearly depicted. The project proposal describes

¹ CLEAR: Cleared to proceed; CONDITIONED: Cleared to proceed with a condition; NMI: Needs More Information; POC: Project of Concern; NOTEWORTHY: Exemplary Project

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the need to respond to the mobility of the channel, but also promotes creating stable islands and side channels. Which is the target of this effort?

Finally, please provide a reduced scope of work and budget for this proposal since there is only \$354,890 available of your \$795,832 grant request.



SPONSOR RESPONSE INSTRUCTIONS:

If your project is not cleared (i.e. has a status of NMI, Conditioned, or POC) you must update your proposal, PRISM questions, or attachments as necessary to address the review panel's comments. Use track changes when updating your proposal. Fill out the section at the end of your project proposal to document how you responded to comments.

DRAFT APPLICATION / SITE VISIT REVIEW PANEL COMMENTS

Date: 6/4/2015

Project Site Visit?

Yes No

Review Panel Member(s): Steve Toth and Jennifer O'Neal

1. Recommended improvements to make this a technically sound project according to the SRFB's criteria.

As identified in earlier comment forms, the review panel comments that it may be more cost-effective to focus on achieving the chief objective of protecting and improving spawning and rearing habitat conditions in the side channels, rather than the broader objective of stabilizing the mid channel islands. The plan to construct a large number of ELJs along the margins of the mid-channel islands is not necessarily flawed from an engineering perspective, but due to the very dynamic nature of the reach, in which the main channel and side channels migrate across the active channel area at a frequency of a few to several years, it is not assured that ELJs may be functioning to promote salmon habitat a decade from now. If the overall approach were to be triaged, the review panel believes that the most cost-effective use of ELJs would be to preserve and enhance the inlets of the side channels in the reach, plant the islands with conifers, and let the river do what it will. The sponsor's Lone Tree restoration site, about 5 miles upstream of the Farmhouse reach, exemplifies this situation: two ELJs intended to enhance and protect a side channel are working well, but several other ELJs intended to protect a mid-channel island have been rendered non-functional, at least for the time being, because the active main channel migrated away from them.

Recognizing that the sponsor and the WRIA 1 technical advisory committee disagree with this opinion, the review panel suggests that the sponsor and its consultants consider the following technical observations, and incorporate any insights into the final design of the project.

First, please consider if there are other useful "reference site" models for side channel habitat in Western Washington, besides the long, stable side channels along the White River. Is productive Chinook spawning and rearing habitat found in more dynamic, shorter, ephemeral side channels on other rivers? In addition, in terms of targeting the creation of esdges habitat, can sponsors provide more specific targets to their design team in terms of what constitutes effective edge habitat in terms of depth, velocity and cover, based on current use of edge habitat by fish in the Nooksack, or other reference areas (see Beechie et al. 2005). (e.g. what parameters are you using to define edge habitat which is identified as one of the project objectives? There are specific velocity and depth criteria that have been established in the literature.) A better understanding of current use, or lack thereof of structures placed in Phase 1 would help inform the development of later

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phases. What factors on the White River contribute to the stability of its side channels: is it abundant log jams along the banks, or other factors?

How reliable is 2D hydraulic modeling for use in modeling hydraulics at the level of individual ELJs in the very complex, multi-channel conditions typical in the Farmhouse Reach? If it is impractical to try to model stochastic variation from year to year, is there a simpler, fallback position that is less sensitive to variability in channel migration? To what degree does placement in ELJs in one area, such as at Phase 1, drive the placement of ELJs in other areas (such as at Phase 2a) to counteract the hydraulic effects of the Phase 1 ELJs? Please explain more about the “negative effects” of Phase 1 and whether these were planned or unplanned.

The review panel raises these questions in order to develop a clear understanding of the appropriateness of the scope of large, reach-wide ELJ projects like this for meeting salmon recovery objectives. We do not necessarily disagree that the proposed design is appropriate, but because it has not been tried at this scale elsewhere in the state, we think it deserves more critical evaluation. The Lower Columbia Fish Enhancement Group has approached the uncertainty of trying to stabilize the very dynamic active channel area of the South Fork Toutle River by employing a broader suite of restoration techniques, ranging from cheap “debris catcher,” “log vane,” and floodplain fencing log piling structures, to more expensive ELJs, rather than placing all its bets on static ELJ structures, as are proposed in this proposal. Some of these structures have been flanked or isolated by unpredictable channel migration, but the overall lower cost of the techniques tends to pencil out in the long run. Ten or twenty of these cheaper structures can be installed for the cost of an ELJ. Refer to SRFB Project 09-1731 and Proposal 14-1337 for examples of this approach.

Because this issue is central to WRIA 1’s salmon recovery planning, the review panel would welcome a continuing dialogue with WRIA 1 sponsors and project sponsors from the Lower Columbia Region on this issue.

Finally, we think that this proposal would be strengthened by including an aggressive conifer planting program on the mid channel islands, rather than relying on natural regeneration of alders and cottonwoods.

2. Missing Pre-application information.

3. General Comments:

Staff Comments: The preliminary design deliverables must be submitted with the final application by 8/14/15 to remain eligible for funding consideration (Manual #18, Restoration, page 12).



SPONSOR RESPONSE INSTRUCTIONS:

Revise your project proposals using “track changes” and update any relevant PRISM questions and attachments. Fill out the section at the end of your project proposal to document how you responded to comments.