

Salmon Recovery Funding Board

Individual Comment Form



Lead Entity:	Snohomish
Project Number:	15-1198
Project Name:	Moga Back Channel Construction
Project Sponsor:	Snohomish Conservation District
Grant Manager:	Elizabeth Butler

	Date	Status¹
Post-Application	9/29/15	NMI
Final	10/21/15	Clear

PROJECT SUMMARY *(for Review Panel reference only)*

The project will construct various treatments to reconnect about 6 acres of floodplain wetland and about 0.7 miles of relict side channel to the Snohomish River for the purpose of providing off-channel rearing and refuge habitat for salmonids during high river flows from fall through spring. The project will also plant native forest plants on about 5 acres along the reconnected channel. The project is being designed and permitted under Project 14-1404; as of May 2015, a preferred design alternative is at the conceptual design stage.

FINAL REVIEW PANEL COMMENTS

Date: 10/21/15

Final Project Status: Clear

Review Panel Member(s): Review Panel

- 1. If the project is a POC, please identify the SRFB criteria used to determine the status of the project:**
- 2. If the project is Conditioned, the following language will be added to the project agreement:**
- 3. Other comments:**

All questions were clearly addressed in the reponse. Good luck with this project.

POST-APPLICATION REVIEW PANEL COMMENTS

Date: 9/27/15

Project Status: NMI

Review Panel Member(s): Review Panel

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

The review panel needs more information from the sponsor and design team in order to review the adequacy of the design to meet the stated project objectives. The mainstem Snohomish River, like many diked lowland rivers, is incised in this location and disconnected from the floodplain and important off-channel rearing habitats. The project to reconnect off-channel floodplain habitats requires a great deal of excavation and design elevations need to be clearly understood and stated as objectives relative to inundation duration, timing and frequency that will most benefit rearing salmonids. The review panel also remains concerned about dewatering

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 floodplain wetlands that are currently providing habitat for amphibians, reptiles, aquatic mammals and other fauna.

The review panel is concerned with the following elements in the Preliminary Design Report and project application:

1. From Section 2.2, the description of the hydrology/base topography and water surface elevations (WSEL);
2. Proposed design channel bottom elevations of 11.5 ft NAVD88 and potential lack of sufficient depth of cover (only 1 foot of average depth proposed) from inundation with a design WSEL of 12.5 ft NAVD, and
3. The amount of time the channel will be backwatered and accessible to juvenile salmonids during peak outmigration and rearing.

With regards to base topography and hydrology, the review panel needs more justification for the proposed bottom elevation of the excavated channels. The proposed one foot of water is not justified or explained, and appears to be insufficient to provide depth of cover from aerial predation and offers little in the way of hydraulic habitat diversity and complexity. Please explain further how this water depth was chosen – was it from the literature or a reference condition off-channel area? We appreciate that you chose a design river stage of the average annual flow/elevation, rather than a 2-year flood elevation, for example. However, the design report does not provide information on the frequency or duration of inundation expected from this design elevation. This timing of inundation information should be presented relative to the known timing of juvenile salmonid fish use (rearing and peak outmigration) in the project area. Habitat area is important, but so is habitat volume, quality, and availability of habitat during critical life stages.

It would be helpful if the report included an explanation of the conversion factor used between the datum used in the design report (NAVD88) and the referenced USGS gage (12150800) datum of 13.25 feet above NVGD29.



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: May 24, 2015

Project Site Visit?

Yes **No**

Review Panel Member(s): Tom Slocum and Kelley Jorgensen

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

The overall project concept, as described in the Project 14-1404 Conceptual Design Report, appears to be technically sound and will likely provide substantial benefit to the targeted salmon species/life histories. As of the date of the site visit, the project design is not developed enough yet to provide certainty on some of the key design issues that are mentioned in the Conceptual Design Report. Two issues in particular need to be resolved: 1) how much the wetland will be allowed to drain during low river stage in order to balance preserving ecological functions for other native aquatic fauna (amphibians, turtles and mammals), preventing fish stranding, and discouraging infestation with warm water resident fish like bass; and 2) how to design the new channels to minimize the long term

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aggradation of fine sediment, so that the connection will be sustainable over a relatively long time frame. Until the design and permitting implications of these two issues are worked out, the construction cost estimate/grant budget cannot be determined accurately. The “25% contingency” placeholder in the conceptual cost estimate is not an allowable substitute for an accurate construction budget and is not an eligible budget line item.

Manual 18 requires that proposals for construction projects with budgets exceeding \$250,000 must provide all Appendix D-2 preliminary design deliverables by the final application date. If the schedule for completing the preliminary design deliverables under project No. 14-1404 cannot meet this deadline, then we recommend that this proposal for construction funding should be postponed until the next SRFB funding round. The construction proposal will be much stronger if the design grant deliverables are completed.

The review panel recommends that the final application include (typically pulled from the Preliminary design report) a comparative table of the design alternatives considered, and the relative fish habitat benefits of each for ease of comparison. The final application (and preliminary design report) should include the reach scale map that was used at the site visit that describes the relationships between the nearby dikes and levees that were referenced in the application. Please confirm that the current design won't preclude any future larger-scale floodplain restoration if those levees are no longer functional. Please provide the R2 technical memo prepared for the County regarding the reach-scale geomorphic analysis that addresses the project reach.

Please clarify how the project will provide for adult holding habitat for Chinook and coho as stated in the application. Is overwintering and winter flow refuge a more limiting habitat type than spring outmigrant or summer off-channel rearing habitat? It did not appear that temperature or water surface elevation dataloggers were deployed as part of the conceptual design – why not? What data is available for spring and summer temperatures in this reach of the Snohomish River?

2. Missing Pre-application information.

3. General Comments

The review panel appreciates that the project proposal is being designed to consider other native fauna. This can result in a better balanced project if the needs of all species are taken into account and habitat for non-fish species can be incorporated if primary habitat objectives for the multiple species don't conflict. Balancing the interests of preserving the existing high value ecological function in the wetland versus providing access for salmonid rearing and refuge habitat is the key issue that will drive the project design and permitting. Depending on the permitting strategy (i.e. whether a nationwide or an individual Section 404 permit), the sponsor will need to consult with the Army Corps of Engineers and potentially also the Washington Department of Ecology for guidance on how to minimize and/or mitigate impacts to the wetland. Section 106 cultural resources review and critical areas review under Snohomish County Shorelines Management Act and Critical Areas Ordinance will also be necessary. These conversations with regulators need to happen at the preliminary design stage. While the Manual 18 rules do not require permit applications to be submitted by the final application date, we strongly recommend that the final proposal include documentation of at least preliminary discussions with the County, Corps and potentially Ecology on the wetland impact issues.

4. Staff Comments:



SPONSOR RESPONSE INSTRUCTIONS:

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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.