Salmon Recovery Funding Board
Individual Comment Form

Lead Entity:	Hood Canal
Project Number:	15-1192
Project Name:	Salmon Creek-W. Uncas Bridge Construction
Project Sponsor:	Jefferson County Public Works
Grant Manager:	Mike Ramsey

	Date	Status[1]
Post-Application	9/23/15	**POC**
Final	10/22/15	**Conditioned**

PROJECT SUMMARY (*for Review Panel reference only*)

Jefferson County Public Works proposes a restoration project that will remove a fish passage barrier along Salmon Creek (RM 0.75) where it intersects with West Uncas Road (MP 0.804) through the construction of an 80 ft. x 29 ft. concrete bridge to replace a 60 ft. long, 15.5 ft. x 9.5 ft. rise, corrugated steel pipe arch culvert. In 2008 it was discovered that the existing culvert and rip rap prevent Summer Chum from accessing prime spawning habitat and limit habitat forming processes that have the potential to negatively impact nearby salmon spawning habitat. WDFW and Jefferson County implemented emergency measures from 2009-2014 to create step pools with sandbags and temporarily backwater the culvert to facilitate summer chum passage. The bridge will eliminate the fish passage barrier restoring the Chum access to 0.75 RM of high-quality protected upstream spawning habitat, essentially doubling the available spawning habitat in order for the run to remain stable over the long-term.

FINAL REVIEW PANEL COMMENTS

Date: 10/22/2015 **Final Project Status: Conditioned**
Review Panel Member(s): Full 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:**
   The project proponent will redesign the natural channel bed between armored abutments to a 24 ft bankfull width for permit submission and implementation.

3. **Other comments:**

POST-APPLICATION REVIEW PANEL COMMENTS

Date: 9/23/15 **Project Status:** POC
Review Panel Member(s): Full review panel

1. **If the project is a POC, identify the SRFB criteria used to determine the status of the project:**
   #11. The project design is not adequate or the project is sited improperly.

2. **If the project is a POC, identify the changes that would make this a technically sound project:**
   The review panel understands the design constraints at this particular site given limited ROW and the culvert skew and appreciates the modeling and design efforts put forth to improve fish passage and natural channel

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

processes. Bridge span is the most fundamental parameter in bridge design for habitat protection. The recommended bridge span between armored abutments should be greater than the OHW (WAC 220-110-070(1)a). The current design provides 20 feet between abutments rather than 24 ft, the bankfull width. It is not uncommon to place riprap on a 1.5:1 slope for bridge abutment and footing protection. Please revisit designing the side slopes for a 24 ft natural channel bed width. Perhaps the pile caps can be extended such that the height of riprap can be lowered to approximately the 100 year water surface depth? Or perhaps an ecology block or similar structure can be placed landward of the rock trench to reduce the slope. The review panel supports providing fish passage at this crossing and hopes the sponsor can eventually land on a design which will allow for natural channel bed variability without compromising the structural integrity of the abutments.

3. **If the project is Conditioned, the following language will be added to the project agreement:**
4. **General comments:**

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 18, 2015 **Project Site Visit?** ☒ **Yes** ☐ **No**
Review Panel Member(s): Schlenger and Cramer

1. **Recommended improvements to make this a technically sound project according to the SRFB's criteria:**
   This project will remove the last remaining barrier in the Salmon Creek basin and is well sequenced with the Salmon Creek restoration projects downstream.

   The 100% draft design shows riparap placed under the bridge spanning the channel cross section and extending upstream and downstream beyond the bridge footprint. The bridge pile foundations will be driven below the anticipated scour depth and with riprap embankments and an armored channel bed. Longitudinal incision is not a concern though lateral channel migration does pose some concern. The recommended channel width between abutment protection is the bankfull width plus a factor of safety (*Water Crossing Design Guidelines, 2013*). The designed channel width is 30 feet as determined by the hydraulic analysis. Encroachment of abutment protection into the channel width as proposed is unacceptable; the width of unarmored channel must be at least 30 feet. The use of piles rather than spread footings typically do not neccessitate embankment and channel bed protection if the piles extend below the anticipated scour depth, which these piles do.

2. **Missing Pre-application information:**

3. **General Comments:**

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.