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| --- | --- | --- | --- | --- | --- | --- |
| Lead Entity: | Upper Columbia Salmon Recovery Board |  |  | | Date | Status |
| **Project Number:** | 14-1739 |  | Draft Application Review/Site Visit | | 5/21/14 | Reviewed |
| **Project Name:** | Upper Peshastin Migration Barrier Design |  | Post Application | |  |  |
| **Project Sponsor:** | Chelan County NRD |  | Final | |  |  |
| **Grant Manager:** | Mark Duboiski |  | Early Application Status Option | | | |
|  |  |  | REVIEWED | SRFB Review Panel has reviewed and provided comments. | | |
|  |  |  | Post-Application & Final Status Options | | | |
|  |  |  | NMI | Need More Information | | |
|  |  |  | POC | Project of Concern | | |
|  |  |  | CONDITIONED | SRFB Review Panel has applied conditions | | |
|  |  |  | CLEAR | Project has been reviewed by SRFB Review Panel and is okay to continue in funding process | | |

# Project Summary

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| --- |
| Currently, a 1000’ reach of Peshastin Creek, (RM 10.4-10.6) is believed to be limiting access to spawning habitat upstream. Spawning distribution and timing data, as well as field observations, suggest that a landslide above the Ruby Creek confluence may be acting as a barrier at low flows, thus inhibiting access to high quality spawning areas and delaying the spawn timing of fish that eventually access habitat above the slide by over 40 days. The upper Peshastin Creek and tributaries above this reach provide diverse habitat types and substantial low gradient spawning habitat. Road building, in particular the construction of US 97 in 1956 has altered the river corridor through channel straightening, levee construction, bank armoring, vegetation clearing and large wood removal. Road construction throughout the watershed has contributed to a 70% potential increase in drainage network resulting in increased peak flows and reduced summer low flows. These problems have been exacerbated in this reach by the failure of the slope above the reach on USFS road 7312 (The Ruby Slide), and WSDOT repairs to this stretch of US 97. The resulting channel is severely constricted between vertical gabion baskets and the toe of a 16 acre slide path. Spawning surveys conducted by WDFW throughout the Wenatchee basin from 2004 - 2010 demonstrate steelhead spawning in Peshastin Creek contributes significantly to the basin as a whole. In 2010, Peshastin Creek had 12.2% of the steelhead redds in the Wenatchee subbasin. The majority of the spawning is distributed in the lower Peshastin between RM 3 to 6.5. In the upper Peshastin steelhead show a pattern of concentrated spawning between Ingalls and Ruby Creek with dispersed spawning beyond the project site and in Tronsen Creek. |

# Draft Application Review and Site Visit – REVIEW PANEL comments

**Date:** 5/21/14

**Panel Member(s) Name:** O’Neal and Cramer

**Early Project Status:** Reviewed

**Project Site Visit?**  Yes  No

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

This project identifies an excellent design approach in terms of identifiying fish use before project design, integrating that fish use information into the design specifications, and then proposing to evaluate the use of the project with respect to fish use after implementation. This overall approach is a model that provides a potential for direct linkage between the project action and benefits to fish directly.

1. **Missing Pre-application information.**

A PI score would be helpful in evaluating the level of priority of this project.  Can the following information be provided to calculate the PI and evaluate the level of priority for this passage project?

* Proportion of passage improvement
* Annual adult equivalent production potential
* Habitat gain
* Mobility (how geographically mobile are the stocks)
* Species condition (species status)
* Cost of project

The information needed to generate a PI score will be generated from the project and available for a proposal to fund final design and construction. The data available at this time does not allow an accurate accounting of the proportion of passage improvement and adult equivalent production potential, since the barrier is not in effect every year and until an assessment is complete, the limiting factors are not clearly understood. Potential habitat gain includes 6 miles of Steelhead spawning and rearing habitat in Peshastin, 2.5 miles in Tronsen and 0.5 miles in Scotty Creek (in the years when the barrier is in effect). Cost of the project at this time is about $75,000 for assessment and conceptual design, but when this phase is completed, we will have a cost estimate to correct the problem.

More detail should be added to the budget (i.e. if WDFW staff are being engaged to assess fish use before and after the project, or for the design, where is this in the budget?)

WDFW staff time will not be funded by the project and their time has not been estimated for use as match.

1. **Comments/Questions:**

During the site visit, a large scale unstable slope above and upstream of the project area was observed. The potential to have ongoing issues with additional material falling into the stream is high. What is the approach to prevent future loss of passage at the site from additional material falling into the stream? Has WSDOT’s staff studied this slide and if so, describe the data gaps this project will address.

The material on the face of the eroding slope does not appear large enough to affect passage in the channel on a short term basis (2 to 5 years). In the longer term, they may be larger boulders which become exposed and roll down the slope. They may affect/change the channel conditions immediately below the slope. If passage is deemed to be a problem here, the assessment of the size and frequency of material coming down may be the issue. Then options for treatment or restoration of the slope can be considered.

WSDOT’s staff has not studied the slide from what I have been able to determine. We need to better understand the issues as far as WSDOT is concerned. They have done a lot of work in this area with structural walls, rock placement, etc. This grant will allow us to have those discussions and document the history and future plans. The outcome of this planning will greatly affect any design options.

Local gradient downstream of the project area is also very steep. Can you confirm that this is the most downstream barrier that needs to be addressed?

From my observations (P. Powers) it did not appear that the area directly below the slide was a barrier in terms of drop, velocity, etc…………. but looking downstream away from the main slope failure it did appear there may be hydraulic conditions just upstream of the WSDOT culvert and inside the entrance which may create a passage problem. The key is to synthesize the fish migration timing and hydrology to see if there really is a hydraulic problem. This combined with local biologist information and opinion is likely the best way to assess passability.

Peshastin Creek is identified as having some of the highest juvenile densities in the Wenatchee basin. Please provide information on fish densities in Peshastin Creek and identify the localized densities downstream of the project area. According to statewide monitoring, pre- project fish densities below barriers are one of the best indicators of the potential for increasing fish use above fish passage barriers.

Juvenile fish density maps were included on final proposal in response to this comment. The existence of steelhead/rbt densities up and downstream of the barrier make this a challenging indicator.

Please determine the potential for liability at the site if work is done below the unstable slope and further slide activity occurs. Consultation with a WSDOT Geologist is recommended to determine the potential for liability.

No conversations on future liability has occurred with WSDOT at this time.

1. **Staff Comments:**

## EARLY APPLICATION Review and Site VISIT – lead entity and project sponsor responses

**Directions:** **By the final application due date**, applicants must revise their project proposals using “track changes” and update their PRISM applications and attachments, as needed, to respond to the review panel comments. In addition, please fill out the section at the end of the project proposal which asks how you responded to the review panel’s comments.

**Special Note:** To help speed the local and SRFB Review Panel evaluation process, if for any reason throughout the application review process you update your project proposal based on SRFB Review Panel comments please update your project proposal using WORD “track changes” and re-attach your proposal in PRISM. This step will save time and focus the reviewer on the changes.

# Post Application – REVIEW PANEL comments

**Date:**

**Review Panel Member(s) Name:**

**Application Project Status: None**

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, what changes would make this a technically sound project according to the SRFB’s criteria?**
3. **If the project is Conditioned, the following language will be added to the project agreement:**
4. **How could this project be further improved?**
5. **Other comments:**

## Post application – lead entity and project sponsor responses

**Directions**: All projects will be reviewed at the September 22-25 review panel meeting. A status will be assigned to each project by October 4, 2014. **By October 15**, applicants of projects assigned a status of Project of Concern, Conditioned, or Need More Information, must update their project proposals. Please “accept” all current track changes in the project proposal so you are starting with a clean proposal. Then please turn track changes back on when you make new changes. This step will save time and focus the reviewers on the changes.

In addition, please fill out the section at the end of the project proposal which asks how you responded to the review panel’s comments.

# FINAL REVIEW PANEL Comments

**Date:**

**Panel Member(s) Name:**

**Final Project Status:** Choose an item.

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:**