12c. Evaluation Proposal
In-Stream Passage

Applicants must respond to the following items. The local citizen and technical advisory groups will use the evaluation proposal to evaluate your project. Applicants should contact their lead entity for additional information that may be required.

Up to eight pages may be submitted for each project evaluation proposal.

(SUBMIT INFORMATION VIA PRISM ATTACHMENT PROCESS OR ON PAPER)

For prioritization questions or technical assistance, contact Dave Caudill at Department of Fish and Wildlife (WDFW) at (360) 902-2486 or at caudidsc@dfw.wa.gov. For engineering design questions or technical assistance, contact Patrick Powers at WDFW at (360) 902-2546 or at powerpdp@dfw.wa.gov.

NOTE: This information, along with information provided in Section 12d-WDFW Fish Passage Data Forms will be evaluated by WDFW and comments forwarded to the Review Panel for consideration.

I. BACKGROUND

Describe the fish resources (number of species or unique populations), the current habitat conditions, and other current and historic factors important to understanding this project. Be specific—avoid general statements. When possible, document your sources of information by citing specific studies and reports.

Skinney Creek is a tributary of Chiwaukum Creek within the middle Wenatchee River and has been affected primarily by highway construction and logging. Skinney Creek meanders beneath Highway 2 several times. The stream is also at the base of several clearcuts in the lower reaches. The headwaters of Skinney Creek originate on Forest Service land and the bottom 75% of the stream is located on Private land (Longview Fiber and a sub-division (Chiwaukum Estates).

The Department of Transportation made a significant and costly effort to replace three culverts upstream of the proposed culvert replacement site in 2001, however until the downstream culverts are replaced, the upstream culvert replacements are substantially less effective. There is another barrier culvert downstream (RM .25) of this proposed project and we are currently applying for Tributary Funds to replace that culvert.

Upper Columbia River Spring-Run Evolutionarily Significant Unit (ESU) of Wenatchee River run Spring chinook salmon, *Oncorhynchus tshawytscha*, Upper Columbia River ESU of Wenatchee River Summer steelhead, *Oncorhynchus mykiss*, (endangered) and Columbia River Distinct Population Segment (DPS) bull trout, *Salvelinus confluentus*, (threatened) are known to spawn and rear in Chiwaukum Creek (Andonaegui 2001). Skinney Creek can go sub-surface in the lower portions during significantly dry years. Steelhead could and have utilized it during high flow spring spawning and adult steelhead have been found spawning near this culvert in the past (ten years ago). Even

when the stream goes sub-surface in late summer the upper reaches continue to have instream flows and within the lower reaches the juvenile steelhead/rainbow migrate to the isolated ponds. Currently, juvenile steelhead/rainbow can be found in ponds immediately adjacent to the culvert but are blocked from moving through the culvert due to the high outfall drop.

The significance of the Chiwaukum Creek watershed and the removal and replacement of the Skinney Creek culvert lies in its potential to contribute to steelhead spawning and possible spring Chinook and steelhead rearing in the Wenatchee River subbasin.

II. PROBLEM STATEMENT

Concisely describe the passage problem (outfall, velocity, slope, etc). Describe the current barrier (age, material, shape, and condition). Is the structure a complete or partial barrier? Describe the amount and quality of habitat to be opened if the barrier is corrected.

When possible, document your sources of information by citing specific studies, reports, or personal communication.

As stated in the introduction, this project was identified as part of a Chelan County Fish Barrier Inventory Study completed by the Harza/BioAnalyst Engineering Co. in 2000. Harza set out to identify problem culverts within the Wenatchee watershed, evaluate the effectiveness of barrier removal in terms of restored access to fish habitat, and rank projects in order of priority. There is approximately 3 miles of fish habitat above the culvert and Harza/BioAnalyst ranked Skinney Creek as having one of the highest potential for fish habitat above the barrier of the streams inventoried. Skinney Creek was also ranked within the "top 25" for culvert correction within the entire Wenatchee watershed. The culvert Skinney Creek is a substantial barrier to fish due to the presence of a high outfall drop distance and high velocities. It is a partial barrier during high flow and a complete barrier to juveniles during low flow. This culvert is deformed due to insufficient cover combined with excessive loads and is losing much of its functional value.

III. PROJECT OBJECTIVES

List the project's objectives. Objectives are statements of specific outcomes that typically can be measured or quantified over time. Objectives are more specific than goals (visions of the desired future condition) and less specific than tasks (the specific steps that would be taken to accomplish each of the objectives). For example, the objectives of a barrier removal project might be to provide fish passage, restore natural stream function, and riparian revegetation in the treated area. Explain how achieving the objectives will address and help solve the problem identified in II above.

The overall objective of this project is to reestablish fish passage by removing a corrugated steel three sectioned culvert that has high outfall drop. This culvert will be replaced with a new culvert that does not impede fish passage. This objective will open

up and allow passage to steelhead spawning areas and potential rearing areas for spring Chinook, bull trout, and steelhead.

IV. PROJECT APPROACH

Has the project received a Priority Index (PI) Number? If yes, provide the PI number and indicate the method used: Physical Survey, Reduced Sample Full Survey, Expanded Threshold Determination, or WDFW Generated PI (list source, such as a study or inventory).

- *Priority Index =16.1*
- *Method used WDFW Generated PI, Chelan County Fish Barrier Inventory Study, Harza/BioAnalyst Engineering Co. 2000*

Identify if there are additional fish passage barriers downstream or upstream of this project.

- *The Department of Transportation replaced three culverts upstream of the proposed culvert replacement site in 2001. There is one other fish passage barrier 1 mile downstream that we are applying for Tributary Fund to replace.*

Briefly describe the location of the project within the context of the watershed (estuary, main stem, tributary, etc) and the life cycle stage(s) affected.

- *Skinney Creek is a tributary of Chiwaukum Creek. The project site is located at the intersection of Forest Service Road 7909 and Skinney Creek river-mile 1.5. Possible steelhead spawning grounds and potential steelhead and spring Chinook, bull trout rearing area.*

List the individuals and methods used to identify the project and its location.

- *Using input and review from the Technical Advisory Committee (TAC) Harza/BioAnalyst Engineering Co. investigated over 200 culverts in the Wenatchee Watershed and identified the Skinney Creek site as a part of the Chelan County Fish Barrier Inventory Study. Priority areas included streams with fish passage barriers within Chelan County jurisdiction that have been used historically by anadromous salmonids. Skinney Creek was assessed and rated and was found "not passable" because the culvert had an outfall drop >0.8 feet. Following the culvert assessment, a habitat survey was conducted on Skinney Creek to assess a number of critical components including: the quality and quantity of habitat above the barrier and also any limiting factors of the affected reach. Skinney Creek ranked one of the highest for potential habitat above the barrier.*

Describe the project design and how it will be implemented.

- *CCNRP will utilize the "Design of Road Culverts for Fish Passage Manual" and work with the Washington Dept. of Fish and Wildlife technical staff, Bureau of Reclamation, and the Chelan County Public Works Department to establish the culvert design.*

Explain how the project's cost estimates were determined.

- *Engineer's estimate*

Describe other approaches and opportunities that were considered to achieve the project's objectives.

- *n/a*

List project partners. When appropriate, include a letter from each participating partner briefly outlining its role and contribution to the project. (See Section 15 for a sample format.)

- *Bureau of Reclamation will be designing the culvert*

List all landowner names. Include a signed form from each landowner acknowledging their property is proposed for SRFB funding consideration. (See Section 16 for a sample format.)

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Describe your approach to the long-term stewardship of the facility.

- *New culvert will be included in routine maintenance activities conducted by Chelan County Public Works.*

When known, identify the staff, consultants, and subcontractors that will be designing and implementing the project, including their names, qualifications, roles and responsibilities. If not yet known, describe the selection process.

- *Chelan County Natural Resources director will obtain permits and put construction contracts out to bid. Bureau of Reclamation Engineers have made a site visit and are in the process of designing the culvert. The Habitat Project Manager will be coordinating and implementing all aspects of the project while our Natural Resource Specialist will be involved in fish removal and habitat restoration.*

V. TASKS AND TIME SCHEDULE

List and describe the major tasks and time schedule you will use to complete the project. Describe your experience with managing this type of project.

The Natural Resource Habitat Project Manager is a qualified engineer and has worked for Chelan County Public works managing similar projects for over 15 years. Our Natural Resources Specialist has worked on numerous fisheries projects including pre-project fish removal as well as many habitat restoration projects. The director of Natural Resources has extensive experience in obtaining permits and putting contracts out to bid.

Time Schedule

- *Design February to May of 2006*
- *Permitting June to August of 2006*
- *Advertise for bids August of 2006*
- *Notice to Proceed September of 2006*
- *Project construction to take approximately two weeks*

Yet to be determined.

VI. CONSTRAINTS AND UNCERTAINTIES

State any known constraints or uncertainties that may hinder successful completion of the project. Identify any possible problems, delays, or unanticipated expenses associated with project implementation. Explain how you will address these constraints.

Road serves as access to private and Forest Service lands and we will need to insure there are no scheduling conflicts.