

# PRE-PROPOSAL FORM

*Lewis River Aquatic Fund 2011*

## **Form Intent:**

To provide a venue for an applicant to clearly indicate the technical basis and support for proposed project. Specifically the project's consistency with recovery plans, Settlement Agreement Fund objectives, technical studies and assessments which support the proposed action and approach.

## **Proposal format:**

Please complete the following form for each proposal. Maps, design drawings and other supporting materials may be attached. The request is to be brief in response with a total completed form length of no more than 3 pages of text.

The deadline for Pre-Proposal Form submission is **October 4, 2010**. Please submit materials to:

Frank Shrier  
PacifiCorp – LCT 1500  
825 NE Multnomah  
Portland, OR 97232

## **1. Applicant organization**

Cowlitz Indian Tribe

## **2. Organization purpose**

Federally Acknowledged Indian Tribe

## **3. Project manager**

Rudy Salakory, Biologist  
Cowlitz Indian Tribe, Natural Resources Department  
PO Box 2547  
Longview, WA 98632  
Phone: 360.508.6039  
Email: [rsalakory@cowlitz.org](mailto:rsalakory@cowlitz.org)

## **4. Project Title**

Eagle Island Habitat Enhancement: Sites B and C

## **5. Summary of Project Proposal**

These North Fork Lewis River (NFLR) projects will restore vital spawning and rearing habitat by establishing Large Woody Debris (LWD) components in remnant alcove, back channel and side-channel habitats along Eagle Island, in Sites B and C. Reaches of the NFLR along and around Eagle Island have been identified as some of the best sites in the lower NFLR basin for enhancement of channel complexity and re-introduction of LWD, primarily due to the following: 1) wood jams can be constructed that are protected from full-force mainstem flows, 2) projects enhance existing complexity and channel dynamics, and 3) projects will not affect boat traffic.

Medium-to-large jams will be placed throughout project sites (see maps, attachment A, obtained from 30% designs for Sites B and C). At the head of each side channel, *bar apex jams* will wrap the upper end of each bar or bar-island, and are designed to encourage the maintenance of split-flow conditions during low flows. The balance of the LWD structures will be installed as *lateral scour pool jams*, *habitat cover*

*wood*, and *floodplain wood*. These structures are typical of the types installed in other similarly-scaled restoration projects, including Eagle Island Site A.

Restoration of riparian plant communities will be a major component of work in both project sites. Control of invasive species will address removal of Himalayan Blackberry and Japanese Knotweed; additional restoration plantings will establish and enhance a medium-density native tree cover and a shrub/scrub layer. Primary restoration tree species will be Oregon Ash and Black Cottonwood; shrub species will include willow, red-osier dogwood, and spirea. All planting plans will consider site conditions, including the sandy nature of the soil at project sites. The establishment/enhancement of a native forest and shrub layer at these sites improves wildlife habitat values, reduces scour during moderate flood events, recruits desirable woody debris, and reduces establishment of additional centers of invasive species.

The Eagle Island Project Development Team, organized by the LCFRB, has identified multiple opportunities for habitat restoration projects in the Eagle Island area, and has developed the necessary supporting technical documents. Three projects have been selected for design development. Site A is currently in the preparatory stages for implementation by the Cowlitz Indian Tribe in summer 2011, has a 90% design complete, and total funding is pending final acceptance from the SRFB. Projects proposed here at Sites B and C already have 30% designs completed. These projects are the second phase of a large and ongoing suite of restoration projects to be implemented in the Eagle Island area of the NFLR.

*These projects address the following priorities:*

*Priority 1: Benefit fish recovery throughout the North Fork Lewis River, with priority to federal ESA-listed species.*

1. The Lower Columbia River ESU of Chinook salmon are listed as a threatened species under the ESA.
2. The Columbia River ESU of chum salmon are listed as a threatened species under the ESA
3. The Lower Columbia River ESU of coho salmon are listed under the ESA
4. The Lower Columbia River DPS of steelhead trout are listed as a threatened species under the ESA

*Priority 2: Support the reintroduction of anadromous fish throughout the basin.*

An increase in the abundance and quality of refugia habitat available to returning salmonids will directly increase the abundance of salmonids surviving upstream navigation that are available to access underutilized tributary systems. This larger abundance and increased distribution will in turn result in a more complete utilization of spawning habitats, and increased reproductive success and productivity of salmonids in the NFLR watershed. These habitat projects incrementally expand the distribution and productivity for salmonids in the lower NFLRS system.

*Priority 3: Enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River.*

An increase in the abundance and quality of refugia habitat available to returning salmonids will directly enhance the ability of returning salmonids to persist in the NFLR, resulting in an increased abundance of successful spawners. This larger abundance will in turn be expressed in a more complete utilization of spawning habitats, and increased reproductive success and productivity of salmonids in the NFLR watershed. In addition, enhanced refugia/rearing habitat quality at project sites will increase the success of juveniles produced in the NFLS system and increase the overall abundance of the juvenile salmonid cohort. In sum, these habitat projects incrementally expand the NFLS's carrying capacity for salmonids.

## **6. Project location (including River/Stream and Lat/Long coordinates if available)**

Site B: North Fork Lewis River, Eagle Island, south channel (45.935751N -122.689128E) Fig.1.

This site is located on the rightbank (west) side of the south channel 750 meters below the upstream end of Eagle Island, and consists of alcove and backchannel complex that is approximately 220 meters long.

Site C: North Fork Lewis River, Eagle Island, South Channel (45.931993N -122.688658E) Fig.1  
This site is located on the rightbank (west) side of the south channel 1120 meters below the upstream end of Eagle Island, and consists of a perennially-active side-channel that is approximately 350 meters long.

#### **7. Expected products and results (Please attach any drawings)**

- Increase LWD quantities to greater than 57 pieces/100 meters (25 percentile historical modeled LWD frequency, Interfluve et al. 2008).
- Maintain channel complexity in the form of off-channel and side-channel habitat through placement of LWD jams.
- Increase pool abundance through LWD placements that promote pool scour.
- Restore a native streambank, riparian, wetland, and floodplain vegetation community to provide stability, shade, wildlife habitat, and future LWD recruitment.
- These enhancements will increase the abundance of salmonids in the Lewis River System and the establishment of quality rearing habitat and summer refugia.

#### **8. Benefits of Proposed Project**

These sites are ideal for the creation of high-quality aquatic habitat. LWD jams will enhance adult holding and spawning, as well as provide cover and scour pools that will benefit juvenile steelhead, Chinook, and coho rearing throughout the year.

#### **9. Project partners and roles.**

Cowlitz Indian Tribe – Project management, implementation and contracting

Interfluve – Project Design

Clark County – Landowner

Lower Columbia Fish Recovery Board – Lead entity for WRIA 27, design funding

Washington State Department of Fish and Wildlife – Design consultation and advisory partner

#### **10. Community involvement (to date and planned)**

The Cowlitz Indian Tribe maintains active community involvement by cultivating strong ties with agencies, academia, and local citizen groups. In addition, the Tribe often schedules educational events with legislators, scientists, Tribal members, and other key individuals. Successful implementation of the project will be accompanied by educational opportunities and press releases for distribution to media.

#### **11. Procedure for monitoring and reporting on results**

A project performance report will be prepared, including detailed methods and as-built construction plans. Monitoring will be conducted which will assess the function of the completed project. A monitoring plan will be prepared.

#### **12. Project schedule (anticipated start date, major milestones, completion date)**

Whole project design will be completed and submitted to SRFB for FY 2012. If funded, RFQ's for construction and materials will go out January 2012. Construction will begin in low water 2012 (August through September). Project will be complete before October 2012, effectiveness monitoring will begin immediately and follow through to summer 2013, and 2014.

**13. Funding requested (estimated cost for project design, permitting (including necessary resource surveys), construction, and monitoring).**

Estimated combined costs of the both projects are **\$734,000**, but combining both projects into one construction season reduces mobilization and access costs, bringing combined costs estimates to **\$720,000**. The Tribe therefore requests funding of **\$144,000.00** from PacifiCorp to use as a twenty percent (20%) value to “anchor” the whole project. The balance of funding for the whole project will be requested by the Cowlitz Indian Tribe from the Salmon Recovery Funding Board in FY 2011 for construction in 2012, using this ACC award as match. If PacifiCorp’s ACC funds this request, the Cowlitz Indian Tribe agrees that if the award of the balance of whole-project funding from the Salmon Recovery Funding Board is not successful, the Tribe will return the ACC funding to PacifiCorp.

**14. Type and source of other contributions (Identify cash (C) and/or in-kind (IK), and status, pending (P) or confirmed (Co)).**

\$576,000 (C, P) Washington State Salmon Recovery Funds

**15. If you have technical assistance needs for this project, please briefly describe such needs.**

No technical assistance is needed at this time.

**Reference Documents:**

Interfluve and Stillwater Sciences; 2009: Eagle Island Project Identification and Design, Technical Memo 1: Existing Conditions and Project Prioritization Methods

Interfluve, Stillwater Sciences and Berger/Abam; 2009: Eagle Island Project Identification and Design, Technical Memo 2: Preliminary Project Opportunities

Interfluve, Stillwater Sciences and Berger/Abam; 2009: Eagle Island Project Identification and Design, Technical Memo 3: Preliminary Design Report (includes budget estimates for Sites B and C)

Interfluve; 2009: Lewis River – Eagle Island Habitat Restoration – Site B, Woodland Washington, 30% design plan, sheets 1-12

Interfluve; 2009: Lewis River – Eagle Island Habitat Restoration – Site C, Woodland Washington, 30% design, sheets 1-12

Interfluve and Stillwater Sciences; 2009: Conceptual Study Design for the Eagle Island North Channel Abandonment Study

Interfluve, Cramer Fish Sciences, and Fox Environmental Services, 2008. Lewis River LWD Study. Prepared for PacifiCorp, Portland, OR.

LCFRB (Lower Columbia Fish Recovery Board). 2004. Lower Columbia Salmon and Steelhead Recovery and Subbasin Plan. Prepared for Northwest Power and Conservation Council.

PacifiCorp. 2004. Stream channel morphology and aquatic habitat study (WTS-3 Study). Final Licensees' 2001 Technical Studies Status Report for the Lewis River Hydroelectric Projects.

Stillwater Sciences. 2006. Lewis River Spawning Gravel Evaluation. Prepared for PacifiCorp, Portland, Oregon and Public Utility District No. 1 of Cowlitz County, Longview, Washington.

## Attachment A



**Figure One.** Locations of Eagle Island Sites B and C within the North Fork Lewis River basin, at approximately RM 11.



Figure Two. WDFW data (unpublished) of steelhead redd locations near Eagle Island Sites B and C.