

Lewis River Hydroelectric Projects

FERC Project Nos. 935, 2071, 2111, 2213



Photo courtesy of Joel Sartore – National Geographic photographer

2015 Annual Report

Lewis River Aquatic Fund Projects



April 2015

Introduction

This 2015 Annual Report prepared by PacifiCorp Energy and the Public Utility District No. 1 of Cowlitz County, Washington (“Cowlitz PUD”) (collectively the “Utilities”) is provided to the Lewis River Settlement Agreement Parties to fulfill the reporting requirement in Article 7.5.3.2 (5) of the Lewis River Settlement Agreement (SA). This report identifies the actions and selection of Aquatic Resource Projects (Resource Projects) to be funded from the Lewis River Aquatic Fund established under terms of the SA (Article 7.5, see **Appendix A**). Although the funding process was managed by the Utilities, the Aquatic Coordination Committee (ACC) provided final approval of funded projects. This report includes only Resource Projects selected from the 2014/2015 funding process, additional projects are expected to be selected and funded annually following the process established by the ACC.

This 2015 report is available to the Public on PacifiCorp Energy’s website at http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/Lewis_River/Document1.pdf

Copies of this report are available from PacifiCorp Energy upon request.

Background

PacifiCorp Energy owns the Merwin, Yale, and Swift No. 1 hydroelectric projects on the Lewis River in southwest Washington. Cowlitz PUD owns the Swift No. 2 hydroelectric project, also located on the Lewis River. These projects are operated as a coordinated system by PacifiCorp Energy. On November 30, 2004, the Lewis River Settlement Agreement established the Lewis River Aquatics Fund (Fund). The purpose of the Fund is to support resource protection measures through funding aquatic related projects in the Lewis River basin.

As identified in the SA:

“Resource Projects may include, without limitation, projects that enhance and improve wetlands, riparian, and riverine habitats; projects that enhance and improve riparian and aquatic species connectivity that may be affected by the continued operation of the hydroelectric projects; and projects that increase the probability for a successful reintroduction program upstream of Merwin Dam. Species that are targeted to benefit from Resource Projects include Chinook, steelhead, coho, bull trout, chum, and sea-run cutthroat.”

Under the direction of the SA, the Utilities in Consultation with the ACC developed the “Aquatics Fund -- Strategic Plan and Administrative Procedures” (September 2005 – Revised January 2009 and September 2013). This strategic plan provides: (a) a guide to Resource Project development, solicitation, and review; and (b) provides administrative procedures to guide implementation of the Aquatics Fund.

The strategic plan is available to the Public on PacifiCorp Energy's website at: http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/Lewis_River/08262013_FINAL_Rev_LR_AQ_Fund_Process.pdf

On September 3, 2014, PacifiCorp Energy announced the availability of calendar year (CY) 2014/2015 funds for aquatic related projects in the Lewis River Basin (Letter to interested parties from T. Olson, PacifiCorp Energy, see **Appendix B**). The letter requested that individuals or parties interested in obtaining project funding submit a Pre-Proposal to PacifiCorp Energy. Pre-Proposals were due by October 3, 2014.

In response to the announcement letter, three entities provided five different project Pre-Proposals. They include:

Applicant	Project Title
USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration
USDA Forest Service	Lewis River Side Channel 5
Lower Columbia Fish Enhancement Group	North Fork Lewis River RM 13.5 Restoration Project, Phase II

Following the Aquatics Fund – Strategic Plan and Administrative Procedures, PacifiCorp Energy and Cowlitz PUD reviewed and evaluated the Pre-Proposals and, on November 3, 2014, provided the ACC with a list of projects recommended for further consideration (Email to ACC from McCune – PacifiCorp Energy, see **Appendix C**). In general the Utilities' evaluation suggested that, while additional information is needed before a commitment of funds should be given, the following three projects be solicited to provide complete Proposals:

- USDA FS – Lewis River Mainstem Fish Habitat Restoration
- USDA FS – Lewis River Side Channel 5
- Lower Columbia Fish Enhancement Group - North Fork Lewis River RM 13.5 Restoration Project, Phase II

On December 11, 2014, the ACC concurred with the Utilities evaluations, however, a number of ACC participants were not in attendance. To accommodate those ACC participants not in attendance, the Utilities provided an additional 7-day comment period until December 18, 2014, see **Appendix D**. Shortly thereafter, PacifiCorp Energy notified the project sponsors and requested full Proposals by January 30, 2015.

Upon the due date, three full proposals were submitted. Following receipt of the proposals the Utilities' Subject Matter Experts evaluated and scored the above proposals. Evaluations were conducted as outlined in the *Aquatic Fund – Strategic Plan and Administrative Procedures* document.

Consultation with the ACC began on February 12, 2015 with presentations of project proposals to include an opportunity for ACC questions and comments. On February 2, 2015, the ACC was provided an email (Subject: Lewis River 2014/2015 Aquatic Fund Full Proposals, 30-day Review and Comment Period), see **Appendix E** containing a link that includes a description of the proposed Resource Projects. The Utilities requested review and ACC comment by March 3, 2015.

The ACC met on March 12, 2015 for an Aquatic Project Proposal Decision Meeting. To accommodate those ACC participants not in attendance, the Utilities provided an additional 7-day comment period until March 20, 2015.



Photo courtesy of Joel Sartore – National Geographic photographer

On March 18, 2015 the U.S. Forest Service (FS) informed the Utilities that they *did not approve* of funding the Lower Columbia Fish Enhancement Group project and would stand in the way of the project receiving funding from the ACC.

An informal ACC meeting was conducted on March 24, 2015 in order to review and discuss all 2014/2015 Resource Project ACC comments before referring the FS objection to the Alternative Dispute Resolution (ADR) procedure. Consensus was subsequently reached at this March 24, 2015 ACC meeting. This effort is summarized in the *Lewis River Aquatic Fund - ACC Evaluation Matrix 2014/2015*, dated March 24, 2015 (Appendix F of Annual Report).

Consensus was reached on a final Resource Project list as follows:

Applicant	Project Title	Approved Funding	Decision
USDA Forest Service	Lewis River Side Channel	\$88,000	YES
LCFEG	North Fork Lewis River RM 13.5 Restoration Project, Phase II	\$77,000	YES

On March 25, 2015 the Utilities notified all ACC Participants of the selected 2014/2015 Aquatic Funding projects approved for full funding (email dated March 25, 2015, 2014/2015 Lewis River Aquatic Fund Project Final Selection, see **Appendix F**).

Consensus was reached to not select for funding:

Applicant	Project Title	Funding Requested	Decision
USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration	\$72,000	NO

Projects Selected for Funding

The following is a summary description of the individual Resource Projects selected to be funded by the Aquatics Fund. All of these projects are expected to promote the recovery of anadromous fish post re-introduction upstream of the Lewis River dams, and the federally listed bull trout which spend a portion of their life history in the Lewis River hydroelectric project reservoirs. Included for each project is an overview of the original proposal, any ACC modifications to the project, and identification of Resource Project nexus to the hydroelectric projects. Final Resource Project Plans are provided as appendices to this document.

1) Lewis River Side Channel 5 – USFS

The goal of this project is to ensure fish reintroduction efforts into the upper North Fork Lewis River are successful. This project will restore habitat in an old side channel of the Lewis River thus restoring the side channel to its full potential, and prioritizing opportunities for ESA-listed fish species. Enhancement and restoration of instream habitat will increase the overall abundance of functional habitat in the Upper North Fork Lewis River.

The U.S. Forest Service proposes to reopen the side channel by removing sediment deposits and using structures created from Large Woody Material (LWM) and boulders to divert water from the Lewis River into the side channel. The structures will be designed to keep water flowing into the side channel year round. Sorting of existing gravels in the side channel will occur when LWM is strategically placed, developing both spawning and rearing opportunities for fish. Structures will also be placed at the side

channel outlet location to ensure sediment does not build up in the river and eventually block the outlet.

Project Objectives:

- Approximately 100 pieces of large woody material (LWM) will be harvested during thinning operations from a nearby timber sale unit which will allow the project to use long stems (60+ feet) with attached rootwads.
- Approximately 8 to 12 pieces of LWM will be used at each structure location to form complex habitat. Structures will protrude 1/2 to 2/3 of the way into the channel to create a meandering thalweg and sort gravels.
- LWM will provide additional cover in the side channel allowing full use of the channel by juvenile salmonids. In addition to enhancing cover, gravels will be sorted during high flow events increasing spawning opportunities.

ACC representatives agreed to fund this project as proposed and granted funding of \$88,000.

The final Resource Project Plan is provided in **Appendix G** and would be completed in accordance with the schedule below:

Permitting Document/Constr/NEPA	Winter 2015
Monitoring	Summer 2016
Project Implementation	July 2016
As built' documents	December 31, 2016
Initial Report	December 31, 2017

2) North Fork Lewis River RM13.5 Restoration Project, Phase II - LCFEG

The goal of the project is to restore long-term habitat function and to provide an immediate increase in habitat availability, quality, and complexity in order to benefit North Fork Lewis River ESA-listed Chinook, steelhead, Coho, and chum.

The following restoration objectives have been developed to address process impairments, and to create and enhance habitats from lesson learned from experience at the project site.

Project Objectives:

- Enhance fish access to 2,800ft of side channel/off channel habitat by installing 700 feet of LWD and removing a portion of the sand wedge.
- Enhance connectivity to 2.5 acres of off-channel rearing habitat by excavating new 750-foot low flow side channel and adding large wood structures.

- Create 1,100 feet of new low flow side-channel spawning and enhancing rearing/spawning side channel habitat by adding large wood structures.
- Remove a minimum of 2.0 acres of invasive plant species (Himalayan blackberry, scotch broom, Japanese knotweed) and under-planting with greater than 5,000 native riparian plantings.

ACC representatives agreed to fund this project as proposed and granted funding of \$77,000.

The final Resource Project Plan is provided in **Appendix H** and would be completed in accordance with the schedule below:

Task 1: Dec. 2015 – July 2016 Update design. This task involves acquiring updated topographic and hydraulic data to support designs for the various project elements. Interfluve will be the design consultant.

Task 2: Dec 2015 – Feb 2016 Permitting. Permit applications (including HPA, USACE, and DNR Right of Entry) will be submitted in sufficient time to acquire permits in time for summer 2016 construction.

Task 3: June 2016 Materials acquisition/Construction contractor selection. This process will begin in 2015 and be completed in time for construction in 2016.

Task 4: August – September 2016 Project implementation. In-water work will occur only within the in-water work window that is allowable according to the permit requirements.

Task 5: Oct 2016 – May 2017 Periodic project monitoring. Observation and photo documentation of project results, coordination with WDFW and PacifiCorp spawning surveyors.

Task 6: August – September 2017. Maintenance of side channel and LWD structures as needed.

Task 7: March - June 2018. Summarize results, project final report.

Conclusion

This report provides the final CY2014/2015 Resource Project descriptions and plans for aquatic projects to be funded from the Lewis River Aquatics Fund. Distribution of funds to these projects will reduce the current Aquatic Fund - Resource by \$165,000. As determined by the ACC, a portion of the LCFEG project will be funded from the Lewis River Large Woody Debris Fund.

According to SA article 7.5.3.2 (5), any ACC member may initiate the Alternative Dispute Resolution Procedures to resolve disputes relating to Resource Projects 30 days after receiving this final report. If no disputes are identified, PacifiCorp Energy and Cowlitz PUD will provide funds to the identified project owners to implement Resource Projects per SA article 7.8.

APPENDIX A
LEWIS RIVER SETTLEMENT AGREEMENT ARTICLE 7.5

7.5 Aquatics Fund. PacifiCorp Energy and Cowlitz PUD shall establish the Lewis River Aquatics Fund (“Aquatics Fund”) to support resource protection measures (“Resource Projects”). Resource Projects may include, without limitation, projects that enhance and improve wetlands, riparian, and riverine habitats; projects that enhance and improve riparian and aquatic species connectivity that may be affected by the continued operation of the Projects; and projects that increase the probability for a successful reintroduction program. The Aquatics Fund shall be a Tracking Account maintained by the Licensees with all accrued interest being credited to the Aquatics Fund. PacifiCorp Energy shall provide \$5.2 million, in addition to those funds set forth in Section 7.1.1, to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below. Cowlitz PUD shall provide or cause to be provided \$520,000 to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below; provided that Cowlitz PUD’s funds may only be used for Resource Projects upstream of Swift No. 2, including without limitation the Bypass Reach. The Licensees shall provide such funds according to the schedules set forth below.

7.5.1 PacifiCorp’s Contributions.

- a. PacifiCorp shall make funds available as follows: on each April 30 commencing in 2005, \$300,000 per year until 2009 (a total of \$1.5 million).
- b. For each of the Merwin, Yale, and Swift No. 1 Projects, PacifiCorp shall make one-third of the following funds available as follows after the Issuance of the New License for that Project: on each April 30 commencing in 2010, \$300,000 per year through 2014 (a total of \$1.5 million); on each April 30 commencing in 2015, \$100,000 per year through 2018 (a total of \$400,000); and on each April 30 commencing in 2019, \$200,000 per year through 2027 (a total of \$1.8 million); provided that, for any New License that has not been Issued by April 30, 2009, the funding obligation for that Project shall be contributed annually in the same amounts but commencing on April 30 following the first anniversary of Issuance of the New License for that Project.
- c. PacifiCorp shall contribute \$10,000 annually to the Aquatics Fund as set forth in Section 7.1.1.

7.5.2 Cowlitz PUD’s Contributions. Cowlitz PUD shall make or cause to be made funds available as follows: \$25,000 per year on each April 30 following the first anniversary of the Issuance of the New License for the Swift No. 2 Project through the April 30 following the 20th anniversary of the Issuance of the New License for the Swift No. 2 Project (a total of \$500,000); and a single amount of \$20,000 on the April 30 following the 21st anniversary of the Issuance of the New License for the Swift No. 2 Project.

7.5.3 Use of Funds. Decisions on how to spend the Aquatics Fund, including any accrued interest, shall be made as provided in Section 7.5.3.2 below; provided that (1) at least \$600,000 of such monies shall be designated for projects designed to benefit bull trout according to the following schedule: as of April 30, 2005, \$150,000; as of April 30,

2006, \$100,000; as of April 30, 2007, \$150,000; as of April 30, 2008, \$100,000; and on or before the April 30 following the fifth anniversary of the Issuance of all New Licenses, \$100,000; and such projects shall be consistent with bull trout recovery objectives as determined by USFWS; (2) fund expenditures for the maintenance of the Constructed Channel (Section 4.1.3) shall not exceed \$20,000 per year on average; (3) if studies indicate that inadequate “Reservoir Survival,” defined as the percentage of actively migrating juvenile anadromous fish of each of the species designated in Section 4.1.7 that survive in the reservoir (from reservoir entry points, including tributary mouths to collection points) and are available to be collected, is hindering attainment of the Overall Downstream Survival standard as set forth in Section 3, then at least \$400,000 of such monies shall be used for Resource Projects specifically designed to address reservoir mortality; and (4) \$10,000 annually shall be used for lower river projects as set forth in Section 7.1.1. Projects shall be designed to further the objectives and according to the priorities set forth below in Section 7.5.3.1.

7.5.3.1 Guidance for Resource Project Approval and Aquatics Fund Expenditures.

- a. Resource Projects must be consistent with applicable Federal, State, and local laws and, to the extent feasible, shall be consistent with policies and comprehensive plans in effect at the time the project is proposed. These may include, but are not limited to, Washington’s Wild Salmonid Policy, the Lower Columbia River Bull Trout Recovery Plan, and the Lower Columbia River Anadromous Fish Recovery Plan.
- b. The Aquatics Fund shall not be used to fund Resource Projects that any entity is otherwise required by law to perform (not including obligations under this Agreement or the New Licenses for use of the Aquatics Fund), unless by agreement of the ACC.
- c. The Licensees shall evaluate Resource Projects using the following objectives:
 - (1) benefit fish recovery throughout the North Fork Lewis River, with priority to federal ESA-listed species;
 - (2) support the reintroduction of anadromous fish throughout the Basin; and
 - (3) enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River.

For the purposes of this Section 7.5, the North Fork Lewis River refers to the portion of the Lewis River from its confluence with the Columbia River upstream to the headwaters, including tributaries except the East Fork of the Lewis River.

The Licensees shall also consider the following factors to reflect the feasibility of projects and give priority to Resource Projects that are more practical to

implement:

- (i) Whether the activity may be planned and initiated within one year,
- (ii) Whether the activity will provide long-term benefits,
- (iii) Whether the activity will be cost-shared with other funding sources,
- (iv) Probability of success, and
- (v) Anticipated benefits relative to cost.

7.5.3.2 Resource Project Proposal, Review, and Selection.

(1) By the first anniversary of the Effective Date, the Licensees shall develop, in Consultation with the ACC, (a) a strategic plan consistent with the guidance in Section 7.5.3.1 above to guide Resource Project development, solicitation, and review; and (b) administrative procedures to guide implementation of the Aquatics Fund. Both may be modified periodically with the approval of the ACC.

(2) Any person or entity, including the Licensees, may propose a Resource Project. In addition, the Licensees may solicit Resource Projects proposals from any person or entity.

(3) The Licensees shall review all Resource Project proposals, applying the guidance set forth in Section 7.5.3.1. The Licensees shall provide an annual report describing proposed Resource Project recommendations to the ACC. The date for submitting such report shall be determined in the strategic plan defined in subsection 7.5.3.2(1) above. The report will include a description of all proposed Resource Projects, an evaluation of each Resource Project, and the basis for recommending or not recommending a project for funding.

(4) The Licensees shall convene a meeting of the ACC on an annual basis, no sooner than 30 days and no later than 60 days after distribution of the report set forth in Section 7.5.3.2(2), for Consultation regarding Resource Projects described in the report.

(5) Licensees shall modify the report on proposed Resource Projects, based on the above Consultation, and submit the final report to the ACC within 45 days after the above Consultation. Any ACC member may, within 30 days after receiving the final report, initiate the ADR Procedures to resolve disputes relating to Resource Projects. If the ADR Procedures are commenced, the Licensees shall defer submission of the

final report on Resource Projects to the Commission, if necessary, until after the ADR Procedures are completed. If the ADR Procedures fail to resolve all disputes, the Licensees shall provide the comments of the ACC to the Commission. If no ACC member initiates the ADR Procedures, the Licensees shall submit the final report to the Commission, if necessary, within 45 days after submission of the final report to the ACC.

APPENDIX B

MEMORANDUM DATED SEPTEMBER 3, 2014
LETTER TO INTERESTED PARTIES FROM T. OLSON, PACIFICORP ENERGY
AVAILABILITY OF FUNDS FOR AQUATIC RELATED PROJECTS

September 3, 2014

Subject: Availability of Funds for Aquatic Related Projects in the Lewis River Basin

Dear Interested Party,

PacifiCorp owns the Merwin, Yale, and Swift No. 1 hydroelectric projects on the Lewis River in southwest Washington. Public Utility District No. 1 of Cowlitz County, Washington (Cowlitz PUD) owns the Swift No. 2 hydroelectric project, also located on the Lewis River. These projects are operated as a coordinated system. On November 30, 2004, the Lewis River Settlement Agreement established the Lewis River Aquatics Fund (Fund). On June 26, 2008, the Federal Energy Regulatory Commission acknowledged this fund as a stipulation of project operating licenses. The purpose of the Fund is to support resource protection measures via aquatic related projects (Resource Projects) in the Lewis River basin. The projects are evaluated for funding according to their:

- (1) Benefit to fish recovery throughout the North Fork Lewis River, with priority to federal ESA-listed species;
- (2) Support of the reintroduction of anadromous fish throughout the Basin; and
- (3) Enhancement to fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River.

Species that are targeted to benefit from Resource Projects include Chinook, steelhead, coho, bull trout, chum, and sea-run cutthroat.

This letter is to provide you the opportunity to submit proposals for Resource Project funding. The total Fund amount available this year is limited to \$1,661,899.97 for Resource Projects and \$638,788.32 for Bull Trout Projects. If you know of other entities that may have an interest in seeking funding, please forward this opportunity to them.

The selection of Resource Projects will be conducted in two phases. To be considered, applicants must submit a completed Pre-Proposal Form (see attachment A for Form) **by close of business October 3, 2014**. Pre-Proposals will be evaluated with some projects appropriately selected for further consideration (see attachment B for evaluation criteria). If selected, applicants will be notified in early December, and be requested to submit a formal proposal by mid-January. The Utilities and representatives of the Lewis River Aquatic Coordination Committee will finalize the list of successful projects in early April 2014. Shortly thereafter the Utilities will submit the final list to the Federal Energy Regulatory Commission to meet the submittal deadline of April 15, 2015.

Please give attention to this excellent opportunity. If you should have any questions feel free to contact Mr. Frank Shrier, PacifiCorp, (503) 813-6622. We look forward to your response in October.

Sincerely,

A handwritten signature in blue ink, appearing to read "Todd Olson", with a long horizontal flourish extending to the right.

Todd Olson
Director, Compliance Hydro Resources

Encl:	Cover Letter
	Attachment A
	Attachment B

Lewis River 2014/2015 Aquatic Fund Announcement Notification List

September 3, 2014

eMail:	Diana M. Gritten-MacDonald PUD #1 of Cowlitz County, WA PO Box 3007 Longview, WA 98632-0307 dmacdonald@cowlitzpud.org	eMail:	Bill M. Bakke The Native Fish Society 7830 SW 40 th , Suite 6 Portland, OR 97219 bmbakke@gmail.com
eMail:	Bob Nelson Rocky Mountain Elk Foundation, Inc. 45 Overmeyer Rd Raymond, WA 98577 nelson338@aol.com	Hc:	Salley Sovey United States Bureau of Land Mgmt. 915 Walla Walla Ave Wenatchee, WA 98801
eMail:	Adam Haspiel USDA Forest Service 42218 NE Yale Bridge Road Amboy, WA 98601 ahaspiel@fs.fed.us	eMail:	Kathryn Miller Trout Unlimited 227 SW Pine Street, Suite 200 Portland, OR 97204 kmiller@tu.org
eMail:	Michelle Day NMFS 1201 NE Lloyd Blvd., Suite 1100 Portland, OR 97232-2778 michelle.day@noaa.gov	Hc:	Brett Swift American Rivers 320 SW Stark St Ste 412 Portland, OR 97204-2634
Hc:	Ken S. Berg United States Fish and Wildlife Service 510 Desmond Drive SE, Ste. 102 Lacey, WA 98503-1263	eMail:	John Clapp Lewis River Citizens at-Large 9315 NE Etna Road Woodland, WA 98674 jmcmapple@gmail.com
eMail:	Bart Stepp City of Woodland 100 Davidson, Box 9 Woodland, WA 98674 steppb@ci.woodland.wa.us	eMail:	Emily Platt Gifford Pinchot Task Force 917 SW Oak St., Suite 407 Portland, OR 97205 Emily@gptaskforce.org
Hc:	Cowlitz County Department of Public Works 207 4th Ave North Kelso, WA 98626	Hc:	Jody Lando, Senior Quantitative Ecologist Stillwater Sciences 404 SE 6th Avenue Portland, OR 97214
Hc:	Ilene L. Black North County Emergency Medical Svc. 227 Frasier Rd. Amboy, WA 98601	Hc:	Darlene G. Johnson Woodland Chamber of Commerce P.O. Box 1808 Woodland, WA 98674
eMail:	Mariah Stoll-Smith Reese Lewis River Community Council 14900 Lewis River Rd. Ariel, WA 98603 m.reese@tds.net	Hc:	Washington Recreation & Conservation Office P.O. Box 40917 Olympia, WA 98504-0917
Hc:	Susan Rosebrough National Park Service 909 First Avenue Seattle, WA 98104-1060	eMail:	Peggy Miller Washington Dept. Fish & Wildlife 600 Capitol Way North Olympia, WA 98504-0001 peggy.miller@dfw.wa.gov

eMail:	James Malinowski Fish First PO Box 127 Amboy, WA 98601 jhmalin@pacifier.com	eMail:	Melody Tereski Lower Columbia Fish Recovery Board 2127 8th Ave Longview, WA 98632 Melodyt@lcfrb.gen.wa.us
eMail:	Noel Johnson Lewis River Citizens at-Large 6412 NW Amidon Road Woodland, WA 98674 noel@lewisriver.com	eMail:	Pat Frazier Lower Columbia River Fish Recovery 2127 8 th Avenue Longview, WA 98632 pfrazier@lcfrb.gen.wa.us
Hc:	Don Stuart Cowlitz-Skamania Fire Dist. No. 7 11670 Lewis River Road Ariel, WA 98603	eMail:	Amy Tanska Mt. Saint Helens Institute atanska@mshinstitute.org
Hc:	Betty Sue Morris, Chair Clark County, 1013 Franklin Street PO Box 5000 Vancouver, WA 98666-5000	eMail:	Eric Kinne WDFW 2108 Grand Blvd Vancouver, WA 98661 kinneebk@dfw.wa.gov
eMail:	Jeff Breckel Lower Columbia River Fish Recovery 2127 8 th Avenue Longview, WA 98632 jbreckel@lcfrb.gen.wa.us	Hc:	Gary Stuart Cowlitz-Skamania Fire District No. 7 11310 Lewis River Road Ariel, WA 98603
eMail:	Bob Rose Yakama Nation P.O. Box 151 Toppenish, WA 98948 rosb@yakamafish-nsn.gov	eMail:	Kemper M. McMaster Wildlands of Washington 2713 NW 140th St Vancouver, WA 98685 kcmcmaster@wildlandsinc.com
eMail:	Lisa Moscinski Deputy Director Gifford Pinchot Task Force 917 SW Oak Street, Suite 410 Portland, OR 97205 lisa@gptaskforce.org	Hc:	Ken Hogan Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426
Hc:	Steve Vigg Washington Dept. Fish & Wildlife 600 Capitol Way North Olympia, WA 98501	Hc:	Joel Rupley Clark County PO Box 5000 Vancouver, WA 98666
eMail:	Shannon Wills Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632 biologist@cowlitz.org	eMail:	LouEllyn Jones US Fish & Wildlife Services 510 Desmond Drive SE, Suite 102 Lacey, WA 98503-1263 louellyn_jones@fws.gov
eMail:	Paul J. Pearce pearce@forestco.org	eMail:	Dave Burlingame Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632 culture@cowlitz.org
eMail:	Eric Holman Washington Dept. Fish & Wildlife 2108 Grand Blvd. Vancouver, WA 98661 eric.holman@dfw.wa.gov	Hc:	Olympic Resource Management 321 Maurin Road Chehalis, WA 98520

eMail:	Erich Gaedeke Federal Energy Regulatory Commission 805 SW Broadway, Suite 550 Portland, OR 97205 Erich.Gaedeke@ferc.gov	eMail:	Bryan Nordlund NMFS 510 Desmond Drive Lacey, WA 98503 bryan.nordlund@noaa.gov
eMail:	Chris Maynard Department of Ecology PO Box 47600 Olympia WA 98504-7600 cmay461@ecy.wa.gov	eMail:	Taylor Aalvik PO Box 2547 Longview, WA 98632 taylor.a@cowlitz.org
Hc:	Tony Pranger ANE/Elkhorn Forestry, Inc. PO Box 1864 Oregon City, OR 97045	eMail:	Rhidian Morgan PO Box 428 Ridgefield, WA 98642 rmmorgan@plasnewydd.org
eMail:	Evan Haas Habitat Restoration Coordinator Lower Columbia River Estuary Par. 811 SW Naito Parkway, Suite 410 Portland, OR 97204 haas@lcrep.org	eMail:	LCFEG Tony Meyer 12404 SE Evergreen Hwy Vancouver, WA 98683 cwfish@comcast.net
eMail:	Gardner Johnston Inter-fluve gjohnston@interfluve.com	eMail:	
eMail:	James Bryne WDFW James.Byrne@dfw.wa.gov	eMail:	Tammy Weisman Lower Columbia Fish Enhancement Group tweisman@lcfeg.org

APPENDIX C

EMAIL DATED NOVEMBER 3, 2014

EMAIL TO ACC FROM K. McCUNE – PACIFICORP ENERGY
2014/2015 AQUATIC FUND PRE-PROPOSALS – UTILITIES
COMMENTS/RECOMMENDATIONS

McCune, Kimberly

From: McCune, Kimberly
Sent: Monday, November 03, 2014 7:56 AM
To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; Baker Holden III (Bakerholden@fs.fed.us); 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; Heather Bowen (heatherlbowen@gmail.com); James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfwb.gen.wa.us); 'Patrick Lee'; Peggy Miller; Rhidian Morgan (rmmorgan@pnfarm.com); 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana
Subject: RE: 2014/2015 Aquatic Fund Pre-Proposals; Utilities Comments
Attachments: 10312014 - ACC Lewis River AQ Fund evaluation (2014-2015) Utilities' comments.xls

Attn: ACC Participants

Please find attached the Utilities comments for the three (3) Aquatic Fund Pre-Proposals received. Please review prior to the ACC Meeting on Thursday, November 13th as this will be an agenda item.

<http://www.pacificorp.com/es/hydro/hl/lr.html#>

- License Implementation
- ACC
- Aquatics Coordination Committee 2015

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp Energy - Hydro Resources
825 NE Multnomah, Suite 1500
Portland, OR 97232
Ph: (503) 813-6078

From: McCune, Kimberly
Sent: Friday, October 03, 2014 4:17 PM
To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel';

Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfwb.gen.wa.us); 'Patrick Lee'; Peggy Miller; 'Rhidian Morgan (rmmorgan@plasnewydd.org)'; 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana; (brichardson@RMEF.org); (ewhite@cowlitz.org); 'Bob Nelson (nelson338@aol.com)'; 'Diana MacDonald (dmacdonald@cowlitzpud.org)'; Emmerson, Kendel; 'Eric Holman (holmaewh@dfw.wa.gov)'; 'Fish First (j.malinowski@ieee.org)'; 'James H Malinowski (jim.malinowski@icloud.com)'; 'Joanna Meninick (joannam@yakama.com)'; 'John Clapp (jmcmaple@gmail.com)'; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese'; 'Michelle Day (michelle.day@noaa.gov)'; 'Mitch Wainwright'; 'Nathan Reynolds (nreynolds@cowlitz.org)'; Naylor, Kirk; Olson, Todd; 'Pam Johnson (johnson@co.skamania.wa.us)'; 'peggy.miller@dfw.wa.gov'; 'Ray Crosswell (shedhunt@aol.com)'; 'Shannon E. Wills (biologist@cowlitz.org)'; 'Weinheimer, John (DFW)'

Cc: Pete Barber (Peter@lcfeg.org); Paul Pearce - NFCSC (pearce@forestco.org); culture@cowlitz.org; 'kmcmaster@wildlandsinc.com'; 'Erich Gaedeke'; Rhidian Morgan (rmmorgan@plasnewydd.org); 'haas@lcrep.org'; 'Gardner Johnston'; 'TWeisman@lcfeg.org'; james.byrne@dfw.wa.gov; cwfish@comcast.net; 'emily@gptaskforce.org'; Noel Johnson; Paul Pearce - NFCSC (pearce@forestco.org); Taylor Aalvik (taylor.a@cowlitz.org); 'Susan Rosebrough (NPS) (susan_rosebrough@nps.gov)'; 'Darlene Johnson (darlene@gowoot.net)'

Subject: 2014/2015 Aquatic Fund Pre-Proposals

Attn: ACC Participants

The Utilities have received three (3) Aquatic Fund Pre-Proposals for the 2014/2015 aquatic funding cycle. You may view each Pre-Proposal on the Lewis River website at the link provided below.

<http://www.pacificorp.com/es/hydro/hl/lr.html#>

- License Implementation
- ACC
- Aquatics Coordination Committee 2015

The Utilities are reviewing and will provide its recommendations prior to the ACC November meeting.

Thank you.

Kimberly McCune

Sr. Project Coordinator

PacifiCorp Energy - Hydro Resources

825 NE Multnomah, Suite 1500

Portland, OR 97232

Ph: (503) 813-6078

From: McCune, Kimberly

Sent: Wednesday, September 03, 2014 8:19 AM

To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day';

Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfwb.gen.wa.us); 'Patrick Lee'; Peggy Miller; 'Rhidian Morgan' (rmmorgan@plasnewydd.org); 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana; (brichardson@RMEF.org); (ewhite@cowlitz.org); 'Bob Nelson' (nelson338@aol.com); 'Diana MacDonald' (dmacdonald@cowlitzpud.org); Emmerson, Kendel; 'Eric Holman' (holmaewh@dfw.wa.gov); 'Fish First' (j.malinowski@ieee.org); 'James H Malinowski' (jim.malinowski@icloud.com); 'Joanna Meninick' (joannam@yakama.com); 'John Clapp' (jmcmapple@gmail.com); 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese'; 'Michelle Day' (michelle.day@noaa.gov); 'Mitch Wainwright'; 'Nathan Reynolds' (nreynolds@cowlitz.org); Naylor, Kirk; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); 'Patrick Lee' (patrick.lee@clark.wa.gov); 'peggy.miller@dfw.wa.gov'; 'Ray Crosswell' (shedhunt@aol.com); 'Shannon E. Wills' (biologist@cowlitz.org); 'Weinheimer, John (DFW)'

Cc: Pete Barber (Peter@lcfeg.org); lisa@gptaskforce.org; Paul Pearce - NFCSC (pearce@forestco.org); culture@cowlitz.org; 'kmcmaster@wildlandsinc.com'; 'Erich Gaedeke'; Rhidian Morgan (rmmorgan@plasnewydd.org); 'haas@lcrep.org'; 'Gardner Johnston'; 'TWeisman@lcfeg.org'; james.byrne@dfw.wa.gov; cwfish@comcast.net; 'Bill Bakke'; 'emily@gptaskforce.org'; Noel Johnson; Paul Pearce - NFCSC (pearce@forestco.org); Taylor Aalvik (taylor.a@cowlitz.org); 'haas@lcrep.org'; 'Susan Rosebrough (NPS)' (susan_rosebrough@nps.gov); 'Darlene Johnson' (darlene@gowoot.net)

Subject: RE: ANNOUNCEMENT - 2014/2015 Availability of Funds for Aquatic Related Projects in the Lewis River Basin
Importance: High

Please see the attached Lewis River Aquatic Fund 2014/2015 announcement. The deadline for Pre-Proposal Form submission is **October 3, 2014**.

Please submit materials to:

Frank Shrier
PacifiCorp Energy
825 NE Multnomah St., Suite 1500
Portland, OR 97232

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp Energy - Hydro Resources
825 NE Multnomah, Suite 1500
Portland, OR 97232
Ph: (503) 813-6078

APPENDIX D

EMAIL DATED DECEMBER 11, 2014

EMAIL TO ACC FROM K. McCUNE – 2014/2015 LEWIS RIVER AQUATIC FUND
PROJECTS – FULL PROPOSAL SELECTION

McCune, Kimberly

From: McCune, Kimberly
Sent: Thursday, December 11, 2014 3:18 PM
To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; Al Thomas; Baker Holden III (Bakerholden@fs.fed.us); 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; Heather Bowen (heatherlbowen@gmail.com); James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfrb.gen.wa.us); 'Patrick Lee'; Peggy Miller; Rhidian Morgan (rmmorgan@pnfarm.com); 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana
Subject: RE: ACTION REQUESTED: 2014/2015 Lewis River Aquatic Fund Projects - Full Proposal Selection
Attachments: 12122014 - ACC Lewis River AQ Fund evaluation (2014-2015) Utilities'_ACC comments.xls

Attn: ACC Participants

Please be advised that consensus was reached at the December 11, 2014 ACC meeting for those Aquatic Fund Projects identified on the attached Excel spreadsheet. To accommodate those ACC participants not in attendance today, the Utilities are providing an additional 7-day comment period. Please see the Tab labeled *ACC & Utilities Evaluation*.

For those who have yet to comment, please provide your comments and decisions to my attention on or before close of business December 18, 2014.

In addition, you may view each Pre-Proposal on the Lewis River website at the link provided below:

<http://www.pacificorp.com/es/hydro/hl/lr.html#>

- License Implementation
- ACC
- Aquatics Coordination Committee 2015

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp Energy - Hydro Resources
825 NE Multnomah, Suite 1500
Portland, OR 97232

APPENDIX E

EMAIL DATED FEBRUARY 2, 2015

MEMO TO ACC FROM K. McCUNE – PACIFICORP ENERGY

LEWIS RIVER 2014/2015 AQUATIC FUND FULL PROPOSALS, 30-DAY REVIEW
AND COMMENT PERIOD

McCune, Kimberly

From: McCune, Kimberly
Sent: Monday, February 02, 2015 8:49 AM
To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; Al Thomas; Baker Holden III (Bakerholden@fs.fed.us); 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; Heather Bowen (heatherlbowen@gmail.com); James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; Mark Celedonia; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfwb.gen.wa.us); 'Patrick Lee'; Peggy Miller; Rhidian Morgan (rmmorgan@pnfarm.com); 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana Peter Barber (peter.e.barber@outlook.com)
Cc:
Subject: RE: ACTION REQUESTED: Lewis River 2014/2015 Aquatic Fund full proposals, 30-DAY REVIEW AND COMMENT PERIOD
Attachments: 02122015 - ACC Lewis River AQ Fund evaluation (2014-2015) Utilities'_ACC comments.xls
Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Participants and interested parties

Please be advised that the Utilities received three (3) Lewis River habitat enhancement full proposals by the deadline of January 30, 2015.

Complete and detailed electronic copies of the full proposals can be located at: <http://www.pacificorp.com/es/hydro/hl/lr.html#>

- License Implementation
- ACC
- 2015

A representative(s) from USFS and LCFEG will be providing more detailed presentations of their proposed projects to the ACC on Thursday, February 12, 2015.

We ask that you provide your written comments on the full proposals **on or before Tuesday, March 3, 2015** to my attention at kimberly.mccune@pacificorp.com

In addition, I've attached the ACC/Utilities evaluation matrix for your reference.

Thank you.

Kimberly McCune
Sr. Project Coordinator

APPENDIX F
EMAIL DATED MARCH 25, 2015
TO THE ACC FROM K. McCUNE – PACIFICORP ENERGY
CY 2014/2015 LEWIS RIVER AQUATIC FUND PROJECT FINAL SELECTION

McCune, Kimberly

From: McCune, Kimberly
Sent: Wednesday, March 25, 2015 10:14 AM
To: (Aaron.roberts@dfw.wa.gov); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); 'Adam Haspiel (ahaspiel@fs.fed.us)'; Al Thomas; Baker Holden III (Bakerholden@fs.fed.us); 'Bart Stepp'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; cser461@ECY.WA.GOV; 'Diana MacDonald'; Doyle, Jeremiah; Ed Meyer; Eli Asher (easher@cowlitz.org); 'Eric Kinne'; Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; Heather Bowen (heatherlbowen@gmail.com); James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; 'Kathryn Miller (kmiller@tu.org)'; Ken Weiman (kwieman@fs.fed.us); Lesko, Erik; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; Mark Celedonia; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; Patrick Frazier (pfrazier@lcfwb.gen.wa.us); 'Patrick Lee'; Peggy Miller; Rhidian Morgan (rmmorgan@pnfarm.com); 'Ruth Tracy'; Samagaio, James; 'Shannon Wills'; Shrier, Frank; Taylor Aalvik (taylor.a@cowlitz.org); Weatherly, Briana
Cc: Peter Barber (peter.e.barber@outlook.com)
Subject: RE: 2014/2015 Lewis River Aquatic Fund Project Final Selection
Attachments: 03242015 - ACC Lewis River AQ Fund evaluation (2014-2015) Utilities'_ACC comments.xls

Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Participants and Interested Parties

Please be advised that to accommodate those ACC participants not in attendance at the March 12, 2015 meeting, the Utilities also provided an additional 7-day comment period until March 20, 2015. On March 18, 2015 the Forest Service (FS) informed the Utilities that they *did not approve* of funding the LCFEG project and would stand in the way.

A special informal ACC meeting was conducted on March 24, 2015 (meeting notes to follow) in order to review and discuss all 2014/2015 Resource Project ACC comments before referring the FS objection to the Alternative Dispute Resolution (ADR) procedure. Consensus was reached at the

March 24, 2015 ACC meeting to proceed with the final Resource Project list as follows:

Project No.	Applicant	Project Title	Funding Requested	Decision
1	USDA Forest Service	Lewis River Side Channel 5	\$88,000 (Resource Funds)	YES

3	Lower Columbia Regional Fisheries Enhancement Group	North Fork Lewis River RM 13.5 Restoration Project, Phase II	\$77,000 (Resource Funds & LWD Funds)	YES
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Consensus was reached to *not* select the following project for funding:

Project No.	Applicant	Project Title	Funding Requested	Decision
2	USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration	\$72,000	NO

The 2015 Aquatics Fund Annual Report will be submitted to the Commission prior to April 15, 2015 and the final document will be posted to the Lewis River website.

We greatly appreciate your time and efforts in participating in the Lewis River 2014/2015 Aquatic Fund selection process.

Kimberly McCune

Sr. Project Coordinator

PacifiCorp Energy - Hydro Resources

825 NE Multnomah, Suite 1500

Portland, OR 97232

Ph: (503) 813-6078

				2014/2015 LR Aquatics Fund Evaluation Matrix		
ACC						
Decision for full proposal						
	Applicant	Project Title	WDFW	Fish First	LCFRB	
YES		USDA Forest Service	Lewis River Side Channel 5	Provide more detail regarding measures to prevent non-native species. Yes, proceed to full proposal.	No comment	Project is in a Tier 2 reach; however, reach potential is low for coho, which is main species to benefit from this project. The project is well located and sequenced because it builds upon other projects completed in similar location. Density of large wood structures is excellent with 1 structure occurring every 80 feet. Density of pools is good with 1 pool occurring every 3 bank widths. Gravel is a limiting factor in this location so need to show your project will increase gravel recruitment. Should consider extending wood farther into the stream to capture gravel. Will capturing of gravel fill in side channel too quickly and cause river to quit using side channel? Overall project would benefit Off Channel & Side Channel Habitat, which is a high priority for this reach. Increases habitat quantity and habitat diversity, which are primary limiting factors for Age 0 rearing and incubation for chinook, coho and steelhead. Recommend this project go forward for final proposal.
YES		USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration	Yes, proceed to full proposal.	No comment	Project is in a Tier 2 reach; however, reach potential is low for coho, which is main species to benefit from this project. The project is well located and sequenced because it builds upon other projects completed in similar location. Density of large wood structures is good with 1 structure occurring every 200 feet. Density of pools is very good with 1 pool occurring every 2 bank widths. Depth and size of pools appears to be adequate to support summer rearing, which is one of the goals of this project. Should consider extending wood farther into the stream to create additional habitat, sort gravels better and address steelhead incubation needs in this reach. Overall project would benefit Stream Channel Habitat Structure & Bank Stability, which is a high priority for this reach. Increases habitat quantity and channel stability, which are primary limiting factors for Age 0 rearing and incubation for coho, chinook and steelhead. Recommend this project go forward for final proposal.
YES		LCFEG	North Fork Lewis River RM 13.5 Restoration Project, Phase II	Yes, proceed to full proposal.	No comment	Project is in a Tier 1 reach and reach potential is high for chum and coho, medium for fall chinook and low for steelhead. The project is well located and sequenced because it builds upon other projects completed in similar location. Only requesting funds for match, majority of project funding will come via SRFB grant. Project has been reviewed by the LCFRB TAC and received a positive review and score; however, it finished below the funding level and considered an alternate project in 2014. Placement of mainstem structures will need to be strategically placed to not impact any spawning or rearing currently occurring in this reach. Overall project would benefit Off Channel & Side Channel Habitat and Stream Channel Habitat Structure & Bank Stability, which are high priorities for this reach. Recommend this project go forward for final proposal.

			2014/2015 LR Aquatics Fund Evaluation Matrix			
Yakama Nation	USFS	Cowlitz Indian Tribe	USFWS	Utilities	NMFS	Next Step
Abstain	Yes, proceed to full proposal.	Yes, proceed to full proposal.	No comment	Yes, proceed to full proposal.	Yes, proceed to full proposal.	Provide 7-day review period for absentee ACC members
Abstain	Yes, proceed to full proposal.	Yes, proceed to full proposal.	No comment	Yes, proceed to full proposal.	Yes, proceed to full proposal.	Provide 7-day review period for absentee ACC members
Abstain	Yes, proceed to full proposal.	Yes, proceed to full proposal.	No comment	Yes, proceed to full proposal. Cowlitz PUD: Suggests eliminating the proposed clearing of 2 acres of scotch broom.	Yes, proceed to full proposal.	Provide 7-day review period for absentee ACC members

ACC/Utilities													
Decision for Funding		Applicant	Project Title	Funding	WDFW	Fish First	LCFRB	Yakama Nation	USFS	Cowlitz Indian Tribe	USFWS	Utilities	NMFS
YES	1*	USDA Forest Service	Lewis River Side Channel 5	\$ 88,000.00	Not enough reintroduction data to support funding in the upper Lewis River - No, but won't stand in the way.		Share WDFW's opinion; however a tier 2 is a good reach but reach potential low for coho.		Yes	Yes	Abstain	Yes	No, but will not stand in the way.
NO	2*	USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration	\$ 72,000.00	Concerned about flooding taking out structures - No		Not confident about wood structure holding or the habitat benefit - No, but won't stand in the way.		Yes	No	Abstain	Yes - PacifiCorp concerned about LWD structures and their ability to hold up over time	No
YES	3	LCFEG	North Fork Lewis River RM 13.5 Restoration Project, Phase II	\$ 77,000.00	Yes		Yes		No, but will not stand in the way.	Yes	Abstain	PacifiCorp - Yes Cowlitz PUD - No; does not support weed control for habitat funding; suggest remove that component of the proposal. If remaining ACC agree with funding then Cowlitz PUD will not stand in the way.	Yes
			Resource Funds	\$ 165,000.00									
			Bull Trout Funds	\$ -									
			Total Aquatic Funds	\$ 165,000.00									
		* Funding reduced by \$6,000 if both USFS projects are funded											

Lewis River Aquatic Fund - Utilities' Evaluation of 2014/2015 Project Proposals											
No.	Applicant	Project Title	Project Schedule	Benefit	Bull Trout	Project Partners	Funding	Cost Share?	Consistency with Fund Objectives	Selected for Utilities for Full-Proposal - Y or N	Comments - Utilities
1	USDA Forest Service	Lewis River Side Channel 5	2015/2017	Restore approx 800' of side channel habitat; create appx 10 complex structures within side channel; provide quality rearing and overwinter habitat; provide benefit to juvenile coho and steelhead trout, with some benefit to Chinook salmon. Channel will act as refugia from high flows in the mainstem Lewis River.	No	Gifford Pinchot National Forest, Mt. St. Helens Institute	\$ 82,000.00	Yes	1 Benefit Recovery Y 2 Support reintro. Y 3 Enhance habitat Y	Y	Somewhat concerned as to how the side channel will be kept functional and not fill in as it has in the past. How will the FS control potential sediment input from all the road work and skidding? (Erik) Recent inspections of the proposed side channels and area upstream of the proposed project through coho carcass surveys reveals a system with inadequate spawning substrate (primary substrate is bedrock, large/medium cobble and angular rock). As we continue to fund projects to enhance rearing habitat, spawnable habitat should be included with these types of projects in the upper most reaches that lack adequate gravels to realize the benefits of these rearing enhancement projects. Are there plans to add gravels at a later date? The benefits of gravel supplementation would improve spawning and increase the net benefit of the project by having fry/smolts produced upstream or in the side channels actually use the cover provided. Side channels in the lower portion of the Lewis (downstream of Curly Creek) appear to contain adequate gravels and are the key spawning area for coho. (Mark) The upper mainstem Lewis appears to contain preferred spawning size gravels within its' sedimentary budget. However, these gravels are often found in parafluvial zones, active floodplains, back eddies, as small patches, or in lower gradient reaches such as the side channels below Curly Creek. Creating an increase in hydraulic roughness through LWD installment may be enough to retain these desired gravels from the sediment budget. Gravel augmentation also poses various risk, such as invasive species introduction in both plant and animal form.
	USDA Forest Service	Lewis River Mainstem Fish Habitat Restoration	2015/2017	Restore approx. 1,000' of Lewis River mainstem habitat; create appx. 20 complex structures within the project area; each structure will create a pool for overwintering and summer rearing habitat; benefit to juvenile coho and steelhead trout, with some benefit to adult/junvenile Chinook. Structures will facilitate gravel sorting, increasing spawning opportunities.	No	Gifford Pinchot National Forest, Mt. St. Helens Institute	\$ 57,000.00	Yes	1 Benefit Recovery Y 2 Support reintro. Y 3 Enhance habitat Y	Y	How will the FS control potential sediment input from all the road work and skidding? Is this project intended to scour out a deeper channel? If so please explain how and what the expected outcome will be. (Erik) see response to proposal #1.
	2	Lower Columbia Fish Enhancement Group	North Fork Lewis River RM 13.5 Restoration Project, Phase II	2015/2019	Final restoration phase will maximize salmonid productivity by eliminating known stranding areas and crating a total of 1,850' of low flow side channel; increase fish access to the 2,800' side channel; enhance 1,500' of mainstem margin rearing conditions. benefit to Chinook, coho, chum and steelhead habitat.	No	Interfluve, Larch Mtn Corrections, Sam and Joan Kysar, DNR Aquatic Lands, WA SRFB	\$ 72,000.00	Yes	1 Benefit Recovery Y 2 Support reintro. Y 3 Enhance habitat Y	Y
3							\$ 211,000.00				
Totals							\$ 211,000.00				
Total non-bull trout Funds							\$ 211,000.00				
Fund Objectives:							\$ -				
1. Benefit fish recovery throughout the North Fork Lewis River, priority to federal ESA-listed species											
2. Support the re-introduction of anadromous fish throughout the basin											
3. Enhance fish habitat in the Lewis River Basin, with priority given to North Fork Lewis River											

APPENDIX G
Lewis River Side Channel 5

1. Project Title

Lewis River Side Channel Five

2. Project Manager

Adam Haspiel

Mt. St. Helens National Volcanic Monument
42218 NE Yale Bridge Road
Amboy, WA 98604
360-449-7833
360-449-7801 (fax)
ahaspiel@fs.fed.us

3. Identification of problem or opportunity to be addressed

Problem:

Minimal high quality side channel spawning and rearing habitat exists in the Upper North Fork Lewis River. This habitat is essential for species listed under the Endangered Species Act (ESA) that use the Lewis River Basin and include coho and Chinook salmon, steelhead trout, and bull trout. These species have endured many effects that threaten the survival of the species. Effects to their habitats include past land management activities such as logging, road building, and development of hydro-resources, which until recently has blocked all anadromous species access into the Upper North Fork Lewis River. To ensure reintroduction efforts of salmon and steelhead into the watersheds above the dams are successful, the Forest Service has worked with PacifiCorp on a variety of projects including acclimation ponds for juvenile spring Chinook salmon, road decommissioning, replacement of migration blocking culverts with bridges, and various streambank and instream fish habitat restoration projects.

Opportunity:

This project proposal develops the opportunity to ensure fish reintroduction efforts into the upper North Fork Lewis River are successful. This project will restore habitat in an old side channel of the Lewis River. This will restore the side channel to its full potential, and prioritizes opportunities for ESA listed fish species. Enhancement and restoration of instream habitat will increase the overall abundance of functional habitat in the Upper North Fork Lewis River.

The Forest Service proposes to reopen the side channel by removing sediment deposits and using structures created from Large Woody Material (LWM) and boulders to divert water from the Lewis River into the side channel. The structures will be designed to keep water flowing into the side channel year round. Sorting of existing gravels in the side channel will occur when LWM is strategically placed, developing both spawning and rearing opportunities for fish. Structures will also be placed at the side channel outlet location to ensure sediment does not build up in the river and eventually block the outlet. Approximately 100 pieces of LWM with rootwads will be used to create project objectives.

This project is located in the Lewis River, 500 feet downstream of Spencer Creek, and is less than 1 mile downstream of the future Crab Creek acclimation pond. Research has

shown that side channels provide preferred summer and overwintering habitat for juvenile coho (Everest et al. 1985; Everest et al. 1986). Each structure will contain an average of 8-12 pieces of large wood, and be strategically located to maximize summer and winter rearing habitat for coho and spring Chinook salmon, winter steelhead, and possibly bull trout. The project will reopen and improve 800 feet of old side channel. The Forest Service will hire a contractor to log and haul LWM to the site, and use an excavator and skidder to place wood in strategic locations. A tracked excavator and skidder will access the area via an old logging road, and will build the instream structures. Wood for this project will come from USFS lands Peppercat unit 21 and/or from Swift Reservoir cleaning operations.

4. Background

Reconnaissance surveys conducted for this project occurred during the fall of 2013, and October 2014. The side channel is located on the west side of the river and is no longer functional due to the lack of flow. The inlet and outlet are both blocked by sediment deposits, about 20 feet in width. This side channel will provide excellent habitat once flow is reestablished and LWM is added. This side channel width varies from 10 to 20 feet and the location is stabilized by a large gravel bar/terrace with trees and established vegetation. The inlet is approximately 4,000 feet downstream from the Crab Creek Acclimation Pond. This location will directly benefit juvenile fish released from the acclimation pond, and lead to overall success of both the acclimation pond and this side channel restoration project.

Large woody material will provide additional cover in the side channel allowing full use of the channel by juvenile salmonids. In addition to enhancing cover, gravels will be sorted during high flow events increasing spawning opportunities.

The 2009 Lower Columbia Salmon Recovery Plan Six Year Habitat Work Schedule identifies this as a Tier 2 (Medium priority) reach (reach 23). Ecosystem Diagnosis and Treatment (EDT) analysis identifies Medium production potential for spring Chinook, high for winter steelhead, and low potential for coho. EDT results suggest that off channel and side channel habitat and channel structure restoration are high multi-species priorities in the reach. The ACC Synthesis Matrix rated this section of the river as having low restoration potential and as a Primary coho population area, and a low rating for coho reach potential. Habitat needs in this reach were identified as low instream LWM, high competition and predation. It has a Primary population designation for Chinook, coho, and a contributing population designation for winter steelhead.

5. Project Objective(s)

GOAL:

Enhance the quality of fish habitat in the Lewis River by:

- ◆ Improving habitat complexity and diversity in the side channel using LWM
- ◆ Providing refugia during winter flows for juvenile salmonids.
- ◆ Providing rearing opportunities for juvenile salmonids during summer months.
- ◆ Providing increased spawning opportunities for adult salmonids.

This project addresses the following Aquatic Fund priorities.

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

Chinook, coho, and steelhead trout are listed as a threatened species under the ESA. This project will contribute to the recovery of these species by increasing the amount and quality of rearing pools in side channels. In addition, spawning areas will be associated with the log complexes.

Lower Columbia ESU coho salmon are listed as a threatened species under the ESA

Lower Columbia ESU steelhead trout are listed as a threatened species under the ESA

Lower Columbia ESU Chinook Salmon are listed as a threatened species under the ESA

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

Juvenile anadromous salmonids will have a quality rearing and refugia reach when this project is complete, thus ensuring survival and promotion of the various species during reintroduction efforts.

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

This project is located in the North Fork Lewis River basin. This project consists of reopening an old side channel and placing large woody material to build structures in the side channel designed specifically to enhance and restore fish habitat. This project will increase instream habitat diversity, and in turn it is expected that this project will contribute to increasing fish production in this area.

6. Tasks:

Task 1: NEPA and required permits.

- 1) Complete NEPA documentation. Field work for this NEPA document would be accomplished during the fall and winter of 2014/2015. The final document should be completed and signed by winter 2015, and the project would be implemented July 2016.
- 2) Instream restoration activities are covered within the WDFW-MOU, and the Regional Permit with the Army Corps of Engineers.
- 3) The Forest Service is the landowner and project sponsor, and permission has been obtained to do this project.

Task 2: Project Design.

- 1) Finalize project design and project preparation details. Preliminary designs were completed during reconnaissance visits in 2014.
- 2) An engineer survey using a total station will be done to develop project specific elevations for excavation and inlet/outlet structure design. This includes longitudinal profile and cross-sectional information as we finalize designs.
- 3) A 35 acre Peppercat timber sale unit is set aside to use for fish habitat restoration activities over the next ten years. An area within this stand will be designated for harvest operations and laid out to thin. Additional material may be acquired from PacifiCorp Swift Reservoir Cleaning operations.

Task 3: Project Implementation

- 1) Develop equipment and logging contract. A standard RFQ contract will be developed specifying the scope of the project and project requirements. We will use an equipment rental contract to perform the actual work, which will allow us the flexibility to make changes to the project as implementation is occurring.
- 2) Administer contract. A Fish Biologist or Fisheries Technician will administer the contract to ensure contract compliance and project specifications are met.

Task 4: Monitoring

- 1) Perform baseline monitoring. This monitoring will occur prior to project implementation and include a longitudinal profile, cross-sections, pebble counts, photo-documentation and snorkel surveys. Mount St. Helens Institute (MSHI) will provide two interns and volunteers including urban youth to perform monitoring work, they will perform most aspects of the monitoring with supervision and training from the Forest Service. Snorkel surveys will be conducted by the Forest Service
- 2) Perform after project monitoring. This monitoring will occur following project implementation and will continue on an annual basis for several years following project completion. MSHI will provide two interns and volunteers for this portion of the work supervised by the Forest Service
- 3) Monitoring Report. A monitoring report will be written each year following project implementation. MSHI will provide raw data in excel format, provide analysis of data and will complete the report with USFS assistance.

7. Methods:

The Mt. St. Helens Fisheries department will oversee all phases of this project including project design, implementation and monitoring.

Approximately 100 pieces of LWM would be harvested during thinning operations from a nearby timber sale unit which would allow us to use long stems (60+ feet) with attached rootwads.

Woody material will be trucked via Forest Road 9039 and FR90 spur road (90000480). Wood will be stockpiled at the end of FR 9000480. From there, a skidder will transport the wood to the structure locations. Once at the structure locations, the logs will be moved and placed by an excavator. The excavator would gain access to the Lewis River using FR 9000480 road, and then on a skid trail created through the woods to access the Lewis River. The FR 9000480 will be temporarily opened for this project activity, and will be re-closed after all activities are completed, by re-establishing drainage and blocking vehicular access.

Wood for this project would primarily come from USFS lands; however any opportunity to acquire large wood from Swift Reservoir cleaning operations will also be pursued.

Approximately 8 to 12 pieces of LWM will be used at each structure location to form complex habitat. Structures will protrude 1/2 to 2/3 of the way into the channel to create a meandering thalweg and sort gravels

Key pieces of wood at each location will be anchored into the streambanks by placing logs into trenches (up to 30 feet long) and then buried with an excavator. Other pieces of LWM will be interwoven into these key pieces and riparian vegetation. The overall design will appear natural and meet scenery management objectives.

The FR 9000480 will be opened for the implementation of this project and re-closed after all activities are completed, by re-establishing drainage and blocking vehicular access.

Established US Forest Service protocol to prevent introduction of non- native species will be followed during project implementation. This involves pressure washing machinery offsite to remove all dirt and debris, inspecting machinery prior to project implementation, and mulching exposed areas of dirt to prevent non-native vegetation from establishing itself. Follow up monitoring will occur after project implementation and non-native vegetation treated, if found.

8. Specific Work Products

Deliverable 1: Completed project.

Deliverable 2: A report describing the project. Report to include project narrative, financial information, and photographs of completed projects.

Deliverable 3: Monitoring Report.

9. Project Duration

Monitoring for this project would begin during the summer of 2016. Project implementation would occur July 15th 2016 and is expected to take two weeks to complete. 'As built' documents will be completed by December 31st, 2016. An initial report documenting fish response to the structures will be completed by December 31st, 2017. The first monitoring report with pre and post project data will be available December 31, 2017.

A project closeout meeting would occur at an ACC meeting following project completion.

10. Permits

NEPA- Field work will be completed during the fall and winter of 2014/2015, NEPA document will be completed winter 2015.

The Gifford Pinchot National Forest has a Memorandum of Agreement with the Washington State Department of Ecology (DOE). The agreement recognizes the Forest Service will ensure that 1) all waters on National Forest lands meet or exceed water quality laws and regulations (Sections 301, 302, 303, 306 and 307) of the Clean Water Act and 2) activities on those lands are consistent with the level of protection of the Washington Administrative Code relevant to state and federal water quality requirements. This agreement is neither a fiscal nor a funds obligation document.

The Gifford Pinchot National Forest has a Memorandum of Understanding (MOU) with the Washington State Department of Fish and Wildlife Regarding Hydraulic Projects conducted by USDA Forest Service Northwest Region (2005). Compliance with the instream restoration provisions within this MOU replaces the need for an individual hydraulic project approval (HPA). This fish habitat enhancement project will be conducted within the provisions set forth in this MOU.

The Clean Water Act (as amended by the Water Quality Act of 1987, Public Law 100-4) authorizes the states to regulate the “fill and removal” activities of Federal agencies. In Washington, the Forest Service has authorization for its fill and removal projects through the MOU with WDFW when the projects comply with the provisions of the MOU.

The US Forest Service has a state wide Regional General Permit (RGP) with the Army Corps of Engineers to perform aquatic restoration activities in waterways. Permit CENWS-OD-RG-RGP-8 authorizes the USFS to perform 13 restoration activities including Large Wood, Boulder and Gravel Placement on National Forest Lands.

Land ownership in this section of the Lewis River is comprised of public lands administered by the Forest Service. The project is wholly on public lands.

11. Matching Funds and In-kind Contributions

Partner	Contribution	Funds
Forest Service	Project development, Contracting, Permitting, Monitoring	\$29,000 In-kind
Materials from USFS	Trees with rootwads	\$20,000 In-kind
Mt. St. Helens Institute	Monitoring	\$3,000 In-kind

12. Professional Review of Proposed Project

This project proposal was reviewed by Gifford Pinchot National Forest (GPNF) Soil and Water program manager, Ruth Tracy, Mt St. Helens Institute Science and Education Programs Manager, Abi Groskopf, and Forest Fisheries program manager Baker Holden.

13. Budget

	NEPA	Final designs	Project Mgmt	Construction	Monitoring/Labor /Reporting/Coord.
Personnel Costs					
FS - Zone Team or Contract	\$12,000 (IK) \$12,000 (ACC)				
FS –Fish Bio and Hydrologist		\$3,000 (IK) \$3,000 (ACC)			
FS - Fish Bio and Bio technician			\$5,000 (IK) \$5,000 (ACC)		\$1,000 (IK) \$1,000 (ACC)
FS - Contract administrator -				\$5,000 (IK) \$5,000 (ACC)	
FS - Contract Specialist				\$2,000 (IK)	
Mt St. Helens Institute					\$3,000 (IK)
Mt. St. Helens Institute Community Education					\$3,000 (ACC)
Travel			\$1,000 (IK) \$1,000 (ACC)		
Materials					
Forest Service 100 Pieces of LWM with rootwads				\$20,000 (IK)	
Contract Payables					
Engineer survey/total station				\$13,000 (ACC)	
Excavator Contract				\$21,000 (ACC)	
Logging and hauling of trees				\$23, 000 (ACC)	
Materials and Supplies			\$ 1,000(ACC)		
Total ACC Funds	\$88,000	\$12,000	\$3,000	\$7,000	\$62,000
<i>Total FS Funds</i>	<i>\$49,000</i>	<i>\$12,000</i>	<i>\$3,000</i>	<i>\$6,000</i>	<i>\$27,000</i>
<i>Total Partner Funds</i>	<i>\$3,000</i>				<i>\$3,000</i>
Project Total	\$140,000				
FS personnel estimated as \$400/day.					

**ACC Funds
would be would
be \$82,000 if
both projects are
funded (\$6,000
less for NEPA)**

Lewis River Side Channel Five Expanded Budget 2015

Item	Personnel	Estimated Days/units*	Cost Per Unit	Total*
NEPA Environmental Assessment required by Federal Law	Fish Biologist Wildlife Biologist Hydrologist Botanist Archeologist Soil Scientist Recreation NEPA Coordinator	10 6 5 8 10 3 3 15	\$400 per day per person	\$12,000 (ACC) \$12,000 (IK)
Final Designs	Fish Biologist Hydrologist Fish Technician	7 2 6	\$400 per day per person	\$3,000 (IK) \$3,000 (ACC)
Project Management	Fish Biologist Fish Technician Mileage	15 10	\$400 per day per person	\$5,000 (IK) \$5,000 (ACC)
Travel	½ ton PU	Fleet Cost 2000 miles	\$500 \$0.75/mile	\$1,000 (IK) \$1,000 (ACC)
Construction	Contract Administration/Prep Logging contract Equipment contract	30	\$400 per day per person	\$7,000 (IK) \$5,000 (ACC) \$23,000(ACC) \$21,000 (ACC)
Materials & Supplies	Field Equipment, Notebooks, Misc Supplies			\$1,000 (ACC)
Trees with rootwads		100		\$20,000 (IK)
Engineer Survey/Total Station	Survey includes inlet and outlet structure design	1 Lump Sum		\$13,000 (ACC)
Monitoring <i>MSHI</i>	Supervisor Assistant Volunteers Travel	25 20 500	\$300 per day per person \$100/EA 1.00/mile	\$1,000 (IK) \$2,500 (ACC) \$2,000 (IK) \$500 (ACC)
<i>USFS</i>	Fish Biologist Fish Technician	2.5 2.5	\$400/day	\$1,000 (IK) \$1,000 (ACC)
Total				\$140,000

*Values are rounded up or down as need to display whole number and days

Lewis Side Channel Five Equipment Budget 2015

Item	Cost per unit	Number of units	ACC cost	Total Cost
Excavator/Skidder Operator/Fuel/Supplies, misc.	\$150 hour	120	\$18,000	\$18000
Equipment Move in/out (shared cost)	\$3,000	1	\$3,000	\$3,000
Logging and Hauling cost: Based on Previous Contract	\$23,000	1	\$23,000	\$23,000
Total			\$44,000	\$44,000

14. Photo Documentation (Per National Marine Fisheries Service's Biological Opinion for Relicensing of the Lewis River Hydroelectric Projects):

Identify process or methodology project will include to provide photo documentation of habitat conditions at the project site before, during, and after project completion.

- a. Include general views and close-ups showing details of the project and project area, including pre- and post-construction.
- b. Label each photo with date, time, project name, photographer's name, and documentation of the subject activity.

15. Insurance. All qualifying applicants shall comply with PacifiCorp's insurance requirements set forth in Appendix E. The policy limits are deemed sufficient by PacifiCorp for project activities involving significant risk, including placement of large woody debris in navigable waterways, and are presumed to be sufficient for all activities likely to be funded under this RFP.

Should applicant's insurance program not meet these requirements, bid pricing should include any additional costs applicant would incur to comply with these requirements.

Questions from ACC members

All projects: Proposals should demonstrate that the project is scientifically supported, has a clear nexus to the Lewis River hydroelectric projects, and clearly supports the Aquatic Fund objectives. Please prepare the document with the assumption that the reader is not familiar with the Lewis River basin, its issues, or its resources.

Lewis River Side Channel 5

ACC: Provide more detail regarding measures to prevent non-native species.

We will follow established US Forest Service protocol to prevent introduction of non native species during project implementation. This involves pressure washing machinery offsite to remove all dirt and debris, inspecting machinery prior to project implementation, and mulching exposed areas of dirt to prevent non-native vegetation from establishing itself. Follow up monitoring will occur after project implementation and non-native vegetation treated if found.

LCFRB: Gravel is a limiting factor in this location so need to show your project will increase gravel recruitment. Should consider extending wood farther into the stream to capture gravel. Will capturing of gravel fill in side channel too quickly and cause river to quit using side channel?

The Forest Service proposes to reopen the side channel by removing sediment deposits and using structures created from Large Woody Material (LWM) and boulders to divert water from the Lewis River into the side channel. The structures will be designed to keep water flowing into the side channel. Sorting of existing gravels in the side channel will occur when LWM is strategically placed, developing both spawning and rearing opportunities for fish. Structures will also be placed at the side channel outlet location to ensure sediment does not build up in the river and eventually block the outlet. Approximately 100 pieces of LWM with rootwads will be used to create project objectives.

Approximately 8 to 12 pieces of LWM will be used at each structure location to form complex habitat. Structures will protrude 1/2 to 2/3 of the way into the channel to create a meandering thalweg and sort gravels. Key pieces of wood at each location will be anchored into the streambanks using an excavator to dig trenches up to 30 feet long, and to bury the wood. Other pieces of LWM will be interwoven into these key pieces and riparian vegetation. The overall design will appear natural and meet scenery management objectives.

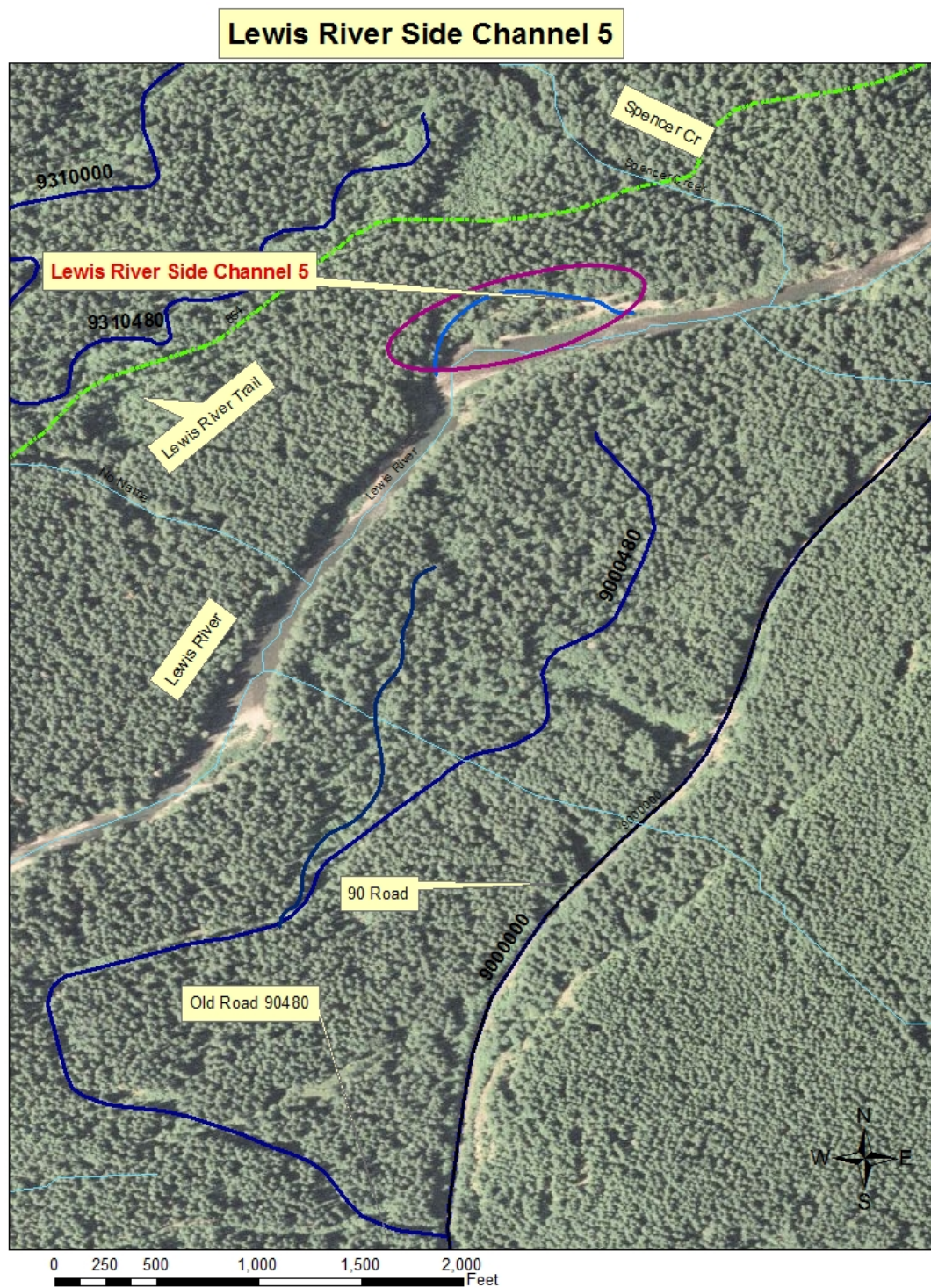


Figure 1. Map of side channel, and road used to access the project

Lewis River Side Channel 5



Figure 2. Enlarged view of side channel

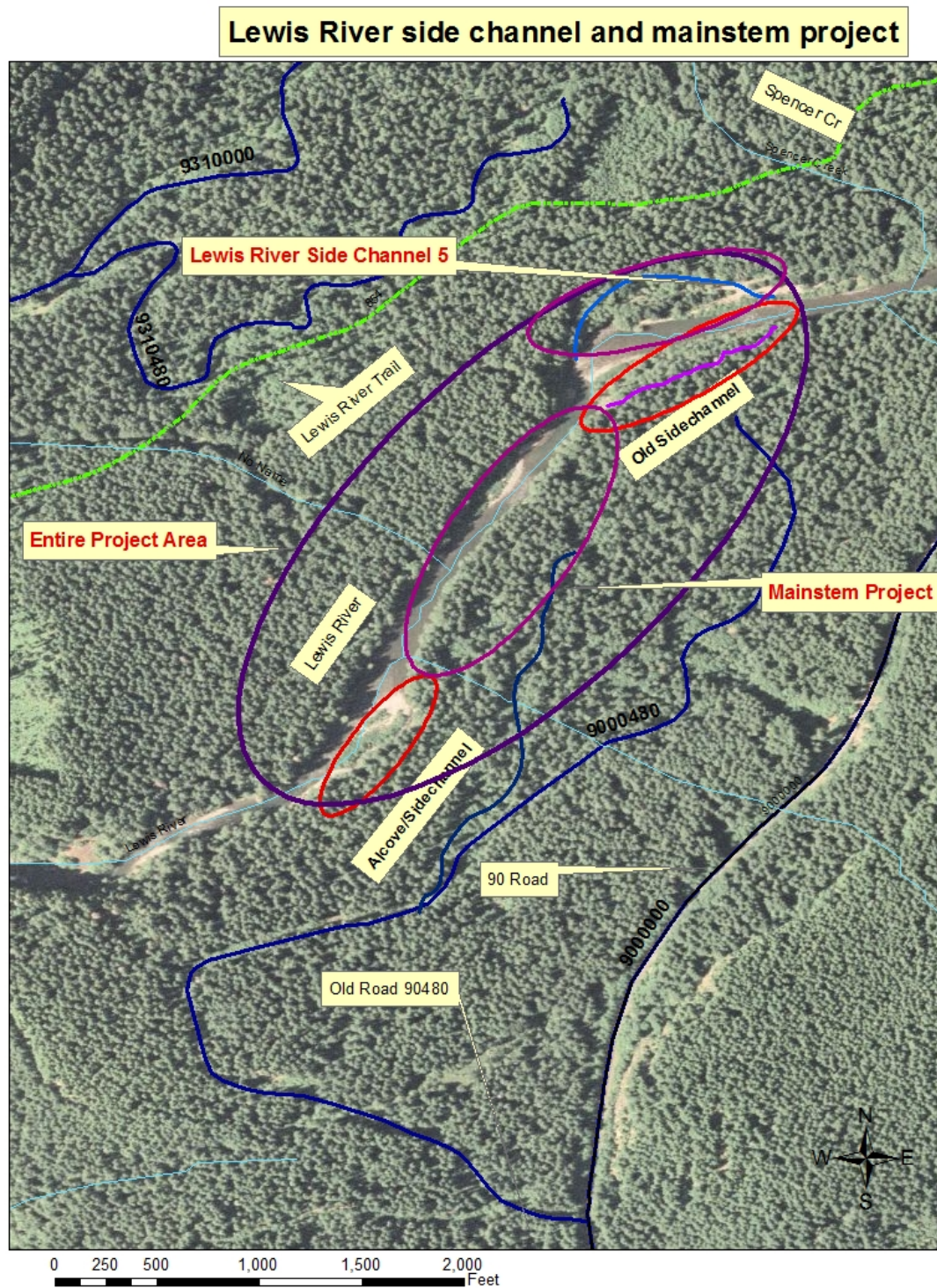


Figure 3. Side channel project in relation to other projects proposed or already funded in the area.



Figure 4. Side Channel to restore



Figure 5. Side channel to restore



Figure 6. Middle section of side channel

References

Everest, Fred, James Sedell, John Wolfe, 1985. "Fisheries Enhancement in the Fish Creek Basin", Project No. 1984-01100, 234 electronic pages, (BPA report DOE/BP-16726-1)

Everest, Fred H. Gordon H. Reeves, James R. Sedell, Pacific Northwest Forest and Range Experiment Station 1986. Abundance, Behavior, and Habitat Utilization by Coho Salmon and Steelhead in Fish Creek, Oregon as Influenced by Habitat Enhancement 1985 Annual Report.

APPENDIX H
North Fork Lewis River RM 13.5 Restoration Project, Phase II

Attachment 1

PROPOSAL FORM - *Lewis River Aquatic Fund*

1. Project Title: North Fork Lewis River RM13.5 Restoration Project, Phase II
2. Project Manager: LCFEG Project Manager: Peter Barber
3. Identification of problem or opportunity to be addressed

The aquatic and riparian habitat conditions of the North Fork (NF) Lewis River has been heavily impacted by past clearing and snagging, past gravel mining, residential development, blockage of large wood transport due to hydro-electric dams, and flow regulation (Inter-Fluve et al 2008, historic aerial photo analysis, and site visits). These cumulative impacts have reduced wood loading, reduced channel complexity, reduced the development of side-channels and off-channels, and have reduced habitat-forming processes (e.g. floods) necessary for creating and maintaining complex habitats. Restoration of this area has been recommended as part of multiple previous reports including the large wood study (Inter-Fluve et al. 2008) and the LCFRB habitat assessment (R2 Resource Consultants 2004).

The North Fork Lewis River RM 13.5 Restoration Project, Phase II project addresses Aquatic Fund priorities #1 & #3:

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

&

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

The North Fork Lewis River RM 13.5 Restoration Project, Phase II will maximize salmonid productivity at this site by eliminating known stranding areas and creating a network of new perennial side channels containing numerous pieces of wood/log complexity. This project will also increase fish access to an existing 2,800ft side channel and removing non-native weed species (Scotch Broom & Japanese Knotweed) from a minimum of two acres NF Lewis floodplain. Native tree/shrub species will be replanted after noxious weed removal.

This project will contribute to the recovery of ESA listed Chinook, chum, Coho and steelhead species by increasing the amount and quality of complex rearing and spawning habitat in the NF Lewis River.

4. Background

Provide information related to how this project fits into greater watershed objectives and any previously collected information at the project site (e.g. fish surveys, habitat delineation, etc.)

During 2008, the WA Salmon Recovery Funding Board (SRFB) funded the NF Lewis RM 13.5 restoration project (#08-1733) which placed margin and off-channel Large Woody Debris (LWD) along the left (east) bank. In addition, LCFEG received SRFB support for the NF Lewis Side-channel Design project (#08-2059) that led to the future construction of a 2,800 foot long side channel along the floodplain terrace. These projects have been monitored since completion (2011) and we have documented a dramatic increase in spawning activity by returning NF Lewis salmonid populations.

The NF Lewis River RM 13.5 Restoration Project, Phase II will build upon those previous projects and the lessons learned that continue to limiting the full productivity of this project site. Three specific areas have been identified within this RM 13.5 Phase II project reach that continue to handicap the productivity, including;

1.) Ephemeral side channel conversion: Post completion of the SRFB project #08-1733, monitoring activities by project staff and the local landowner, we have documented ephemeral side channels that frequently strand hundreds of chinook & coho sack fry, due to fluctuating river levels. We are proposing to excavate two new side channels (1,100ft & 750ft) and connecting the documented stranding depressions located in the floodplain. The new side channels will contain surface flow even at summer low flows. The 750ft side channel outlet will enter a 2.5 acre off channel pond that periodically become stagnant/anaerobic due lack of flow interchange with the NF Lewis main stem. We believe this off channel will once again become productive with an active year-round side channel connection. The side channels will also contain an abundance of LWD secured to log piles to create a grand total of 1,850 feet of complex perennial side channel habitat. Fish Benefits: salmonid sac-fry, sub-yearlings, yearlings, spawning adult steelhead & coho.

2.) Side channel sediment wedge: Post completion of SRFB project #10-1498 and the creation of a 2,800ft side channel, project staff have observed the formation of a large sand wedge at the outlet of the active side channel. The sand wedge continues to seasonally restrict juvenile and adult access into the new side channel habitat. We propose to address this issue by diverting surface flows, isolating the worksite and excavating a portion of the sediment wedge from the channel between the left bank and island. To ensure this sediment doesn't form in the future, we will install a few pieces of strategically placed LWD along the shoreline to scour a low flow connective channel. The LWD will constrict flows and induce scour that will allow a better connection to the main stem. Fish Benefits: Adult and juvenile chinook, coho and steelhead.

3.) Riparian Enhancement: After the completion of side channel construction activities a huge number of scotch broom seeds sprouted and overwhelmed the floodplain understory. The scotch broom seeds can remain viable for 5-60 years and become active after a ground disturbance or flood. We propose to remove all noxious weed species, such as Scotch Broom and Japanese Knotweed from the surrounding floodplain and replant with native tree/shrub floodplain species such as willow, dogwood, and nine bark. The project site will be maintained for 3 years.

5. Project Objective(s)

The goal of the project is to restore long-term habitat function and to provide an immediate increase in habitat availability, quality, and complexity in order to benefit NF Lewis River ESA-listed Chinook, steelhead, Coho, and chum. This proposal requests ACC funds to acquire and transport large wood in the event supplies of suitable wood in the reservoirs are unavailable. The donated wood value will be utilized as cost-share to increase support for a future 2015 Salmon Recovery Funding Board grant proposal. If SRFB NF Lewis 13.5 Phase II construction funds are not secured during 2015, the entire sum of ACC Funds will be returned.

The following restoration objectives have been developed to address process impairments, and to create and enhance habitats from lesson learned from experience at the project site. This effort is based upon recent observations of habitat function and fish use resulting from implementation of project #08-1733 & #10-1498.

Project Objectives:

1. Enhance fish access to 2,800ft of side channel/off channel habitat by installing 700 feet of LWD and removing a portion of the sand wedge.
2. Enhance connectivity to 2.5 acres of off-channel rearing habitat by excavating new 750-foot low flow side channel and adding large wood structures.
3. Create 1,100 feet of new low flow side-channel spawning and enhancing rearing/spawning side channel habitat by adding large wood structures.
4. Remove a minimum of 2.0 acres of invasive plant species (Himalayan blackberry, scotch broom, Japanese knotweed) and under-planting with greater than 5,000 native riparian plantings.

The project area falls within reach Lewis 5, a Tier 1 reach according to the Lower Columbia Salmon Recovery and Fish & Wildlife Sub-basin Plan (LCFRB 2010). The proposed NF Lewis RM 13.5 Phase II project site is located between RM 13.2 & 13.7 of the NF Lewis River. The reach is one of the highest priority reaches for chum and Coho. Lewis River Chinook and chum are designated as ‘primary’ populations with respect to regional recovery objectives, which include objectives to meet NOAA Technical Recovery Team species recovery targets. This project satisfies two of the measures included in the North Fork Lewis River Sub-basin Plan: “Restore channel structure and stability”, and “Restore riparian conditions throughout the basin” (LCFRB 2010). The project area is owned Samuel Kysar and DNR State Owned Aquatic Lands (SOAL).

6. Tasks

Key Assumption – LCFEG is successful in securing SRFB funding during 2015.

Engineering designs will be completed by Interfluve using data they previously collected during development of designs for project #08-1733 & #10-1498. Additional data to be acquired in support of this proposal should be minimal. The following tasks will be conducted in order to address the project objectives and habitat impairments described previously:

Task 1: Dec. 2015 – July 2016 Update design. This task involves acquiring updated topographic and hydraulic data to support designs for the various project elements. Interfluve will be the design consultant.

Task 2: Dec 2015 – Feb 2016 Permitting. Permit applications (including HPA, USACE, and DNR Right of Entry) will be submitted in sufficient time to acquire permits in time for summer 2016 construction.

Task 3: June 2016 Materials acquisition/Construction contractor selection. This process will begin in 2015 and be completed in time for construction in 2016.

Task 4: August – September 2016 Project implementation. In-water work will occur only within the in-water work window that is allowable according to the permit requirements.

Task 5: Oct 2016 – May 2017 Periodic project monitoring. Observation and photo documentation of project results, coordination with WDFW and PacifiCorp spawning surveyors.

Task 6: August – September 2017. Maintenance of side channel and LWD structures as needed.

Task 7: March - June 2018. Summarize results, project final report.

Schedule: The project will be constructed in summer 2016. Project monitoring and maintenance (if needed) will extend to 2017. Boater warning signage is already posted within the proposed project reach.

7. Methods

Methods for design and construction will follow established protocols that have a proven track record for successfully improving habitat conditions in the Lewis River Basin and in the Lower Columbia Region as a whole. Design, engineering and construction techniques, as well as benefits of proposed enhancements for fish habitat, are well-documented (e.g. Washington Stream Habitat Restoration Guidelines). The project sponsor (LCFEG) and project consultant (Inter-Fluve) have an extensive experience designing these types of enhancement features and successfully placed and secured 22 log complexity structures and constructed a 2,800ft side channel within the project reach. We expect to hire a contractor with tracked excavators with capabilities to drive log piles and implement the permitted construction designs. Access for construction will occur from Samuel Kysars property. Any areas disturbed by construction will be monitored for Scotch Broom and re-planted with native riparian species and follow accepted stream restoration and engineering standards, best management practices and guidelines (e.g. Saldi-Caromile et al. 2004).

8. Specific Work Products

Benefits of project will be increased habitat complexity, sorting of spawning gravels, enhanced off channel rearing, flood refugia, increased spawning and rearing habitat associated with LWD placement, noxious weed removal and riparian plantings. We expect to see an increased number of juvenile Chinook, Coho and steelhead occupying the new complex habitat additions similar to the results observed after the completion of the 2,800 side channel.

Deliverables:

- 1) Preliminary Design, Final designs
- 2) Permits
- 3) Construction, placement of >100 pieces of wood
- 4) As-built drawings
- 5) Tech memo of monitoring results

Habitat Enhancement Deliverables:

- 1) Placement > 15 side channel complexity log structures
- 2) Enhancement of 2 acres of floodplain understory via the removal of non-native plant species
- 3) Planted a minimum of 5,000 native tree/shrub species
- 4) Increase juvenile and adult salmonid access by the removal of a sand wedge near the outlet of the 2,800 foot side channel
- 5) Placement > 10 off channel complexity log structures
- 6) Increase in observed juvenile and adult fish use/productivity near LWD structures

9. Project Duration

- a. Identify project duration.

Project will be initiated once 2015 SRFB funding is secured. We would expect to start the project during Jan 1 2016 and complete all project objects by Dec 31 2018 (at the latest).

- b. Provide a detailed project schedule to include:

Feb 2015 thru July 2015

- Complete/Submit SRFB NF Lewis 13.5 Restoration Phase II project proposal.

December 2015 - June 2016 (if SRFB are secured)

- Finalize project design, coordinate with partners
- Collect landowner agreements
- Submit permitting documents for construction
- Contractor selection
- Material acquisition
- Photo documentation

July 2016 thru September 2016

- Construction: Side channel excavation, LWD placement in side channel & backwater channel
- Photo documentation

November 2016 - June 2017

- Installation of riparian plantings in disturbed areas
- Monitoring of wood structures and fish response, documentation of channel changes
- Begin clearing two acres of flood plain invasive plant species (Scotch Broom)
- Photo documentation

July 2017 thru September 2018

- Side channel and LWD maintenance (if needed)
- Photo documentation

October 2018 thru December 2018

- As-built survey, photo documentation
- Installation of riparian plantings
- Complete final reports, closeout project

10. Permits and Authorizations

The North Fork Lewis River RM13.5 Restoration Project, Phase II will require the following permitting documents; USACE NWP 27, WDFW HPA, WDFW Streamlined permit, NOAA Limit 8, and landowner agreements with one private landowner (Samuel Kysar) and WA DNR.

11. Matching Funds and In-kind Contributions

Larch Mountain Corrections – IK Inmate labor

Sam and Joan Kysar – Landowner, \$15,000 IK slash/woody debris donation

WA SRFB – Future restoration project funding partner

12. Peer Review of Proposed Project

This proposal was reviewed during 2014 by and approved as an alternate for funding by numerous resource professionals on behalf of the Lower Columbia Fish Recovery Board and Salmon Recovery Funding Board (SRFB). We have since strengthened the proposal and expect it to secure SRFB funding during 2015.

13. Budget

See detailed budget attached.

Summary

Total budget: \$363,875

2015 SRFB request: \$260,100

SRFB Match/Cost-share: \$53,775

ACC Request: \$50,000 + \$22,000 (insurance) = \$77,000

14. Photo Documentation (Per National Marine Fisheries Service's Biological Opinion for Relicensing of the Lewis River Hydroelectric Projects):

Monitoring procedures will be developed collaboratively with Interfluve. Reporting of results will be done using ACC protocols (if existing), or standard SRFB protocols which include a final as-built report and photo summary (before/after).

15. Insurance. All qualifying applicants shall comply with PacifiCorp's insurance requirements set forth in Appendix E. The policy limits are deemed sufficient by PacifiCorp for project activities involving significant risk, including placement of large woody debris in navigable waterways, and are presumed to be sufficient for all activities likely to be funded under this RFP. Should applicant's insurance program not meet these requirements, bid pricing should include any additional costs applicant would incur to comply with these requirements.

Attachment 2

ACC Comments and Questions on Pre-Proposal North Fork Lewis River RM 13.5 Restoration Project, Phase II project

Note: Questions that follow are directly from emails and/or discussions by the ACC.

All projects: Proposals should demonstrate that the project is scientifically supported, has a clear nexus to the Lewis River hydroelectric projects, and clearly supports the Aquatic Fund objectives. Please prepare the document with the assumption that the reader is not familiar with the Lewis River basin, its issues, or its resources.

North Fork Lewis River RM 13.5 Restoration Project, Phase II

LCFRB: Placement of mainstem structures will need to be strategically placed to not impact any spawning or rearing currently occurring in this reach.

LCFEG Response: We have discussed this concern with Interfluve and their design engineers and we have ultimately decided to remove the main stem margin LWD component from this final proposal.

The ACC would also like each project applicant to acknowledge or provide written affirmation in its full proposal that they have contacted landowner(s) associated with project access and the landowner(s) are aware of required access agreements/approvals.

Appendix E

Insurance Requirements

1. INSURANCE

Without limiting any liabilities or any other obligations of [CONTRACTOR], [CONTRACTOR] shall, prior to commencing the Project, secure and continuously carry with insurers having an A.M. Best Insurance Reports rating of A-:VII or better the following insurance coverage:

1.1 Workers' Compensation. [CONTRACTOR] shall comply with all applicable Workers' Compensation Laws and shall furnish proof thereof satisfactory to PacifiCorp prior to commencing the Project.

All Workers' Compensation policies shall contain provisions that the insurance companies will have no right of recovery or subrogation against PacifiCorp, its parent, divisions, affiliates, subsidiary companies, co-lessees, or co-venturers, agents, directors, officers, employees, servants, and insurers, it being the intention of the parties that the insurance as effected shall protect all parties.

1.2 Employers' Liability. Insurance with a minimum single limit of \$1,000,000 each accident, \$1,000,000 disease each employee, and \$1,000,000 disease policy limit.

1.3 Commercial General Liability. The most recently approved ISO policy, or its equivalent, written on an occurrence basis, with limits not less than \$1,000,000 per occurrence/ \$2,000,000 general aggregate (on a per location and/or per job basis) bodily injury (with no exclusions applicable to injuries sustained by volunteers working or participating in the Project) and property damage, including the following coverages:

- a. Premises and operations coverage
- b. Independent contractor's coverage
- c. Contractual liability
- d. Products and completed operations coverage
- e. Coverage for explosion, collapse, and underground property damage
- f. Broad form property damage liability
- g. Personal and advertising injury liability, with the contractual exclusion removed
- h. Sudden and accidental pollution liability, if appropriate
- i. Watercraft liability, either included or insured under a separate policy

1.4 Business Automobile Liability. The most recently approved ISO policy, or its equivalent, with a minimum single limit of \$1,000,000 each accident for bodily injury and property damage including sudden and accidental pollution liability, with respect to

[CONTRACTOR]'s vehicles whether owned, hired or non-owned, assigned to or used in the performance of the Project.

1.5 Umbrella Liability. Insurance with a minimum limit of \$4,000,000 each occurrence/aggregate where applicable to be provided on a following form basis in excess of the coverages and limits required in Employers' Liability insurance, Commercial General Liability insurance and Business Automobile Liability insurance above. [CONTRACTOR] shall notify PacifiCorp, if at any time their minimum umbrella limit is not available during the term of this Agreement, and will purchase additional limits, if requested by PacifiCorp.

1.6 In addition to the requirements stated above any and all parties providing underground locate, engineering, design, or soil sample testing services including [CONTRACTOR], subcontractor and all other independent contractors shall be required to provide the followings insurance:

Professional Liability: [CONTRACTOR] (or its contractors) shall maintain Professional Liability insurance covering damages arising out of negligent acts, errors or omissions committed by [CONTRACTOR] (or its contractors) in the performance of this Agreement, with a liability limit of not less than \$1,000,000 each claim. [CONTRACTOR] (or its subcontractors of any tier) shall maintain this policy for a minimum of two (2) years after completion of the work or shall arrange for a two (2) year extended discovery (tail) provision if the policy is not renewed. The intent of this policy is to provide coverage for claims arising out of the performance of work or services contracted or permitted under this Agreement and caused by any error, omission for which the [CONTRACTOR] its subcontractor or other independent contractor is held liable.

Except for Workers' Compensation insurance, the policies required herein shall include provisions or endorsements naming PacifiCorp, its affiliates, officers, directors, agents, and employees as additional insureds.

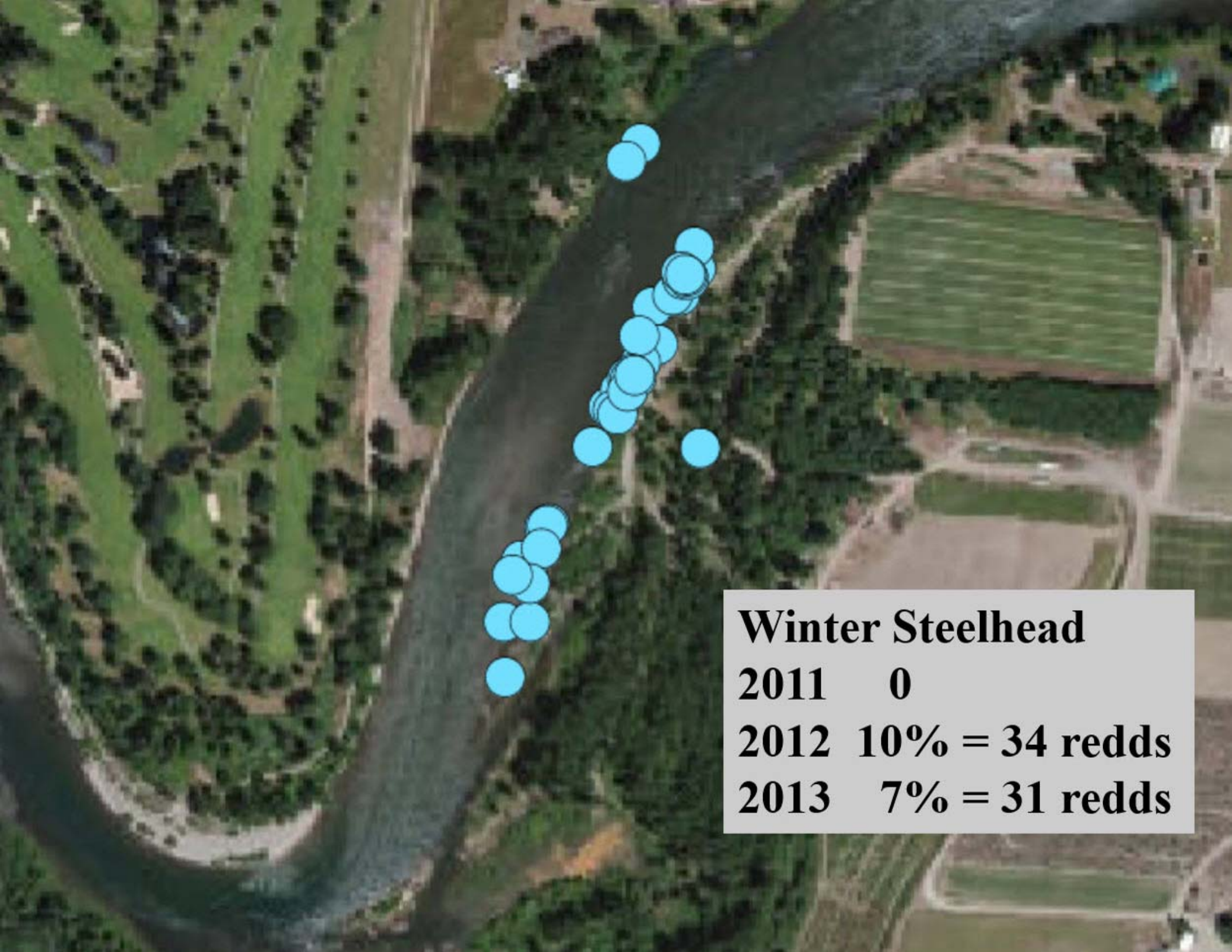
To the extent of [CONTRACTOR]'s negligent acts or omission, all policies required by this Agreement shall include provisions that such insurance is primary insurance with respect to the interests of PacifiCorp and that any other insurance maintained by PacifiCorp is excess and not contributory insurance with the insurance required hereunder, provisions that the policy contain a cross liability or severability of interest clause or endorsement, and that [CONTRACTOR] shall notify PacifiCorp immediately upon receipt of notice of cancellation, and shall provide proof of replacement insurance prior to the effective date of cancellation. No required insurance policies, except Workers' Compensation, shall contain any provisions prohibiting waivers of subrogation. Unless prohibited by applicable law, all required insurance policies shall contain provisions that the insurer will have no right of recovery or subrogation against PacifiCorp, its parent, affiliates, subsidiary companies, co-lessees, agents, directors, officers, employees, servants, and insurers, it being the intention of the Parties that the insurance as effected shall protect all parties.

A certificate in a form satisfactory to PacifiCorp certifying to the issuance of such insurance shall be furnished to PacifiCorp prior to commencement of the Project by [CONTRACTOR] or its volunteers or contractors. If requested, [CONTRACTOR] shall

provide a copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, to PacifiCorp.

[CONTRACTOR] shall require subcontractors who perform work at the Project to carry liability insurance (auto, commercial general liability and excess) workers' compensation/employers' or stop gap liability and professional liability (as required) insurance commensurate with their respective scopes of work. [CONTRACTOR] shall remain responsible for any claims, lawsuits, losses and expenses including defense costs that exceed any of its subcontractors' insurance limits or for uninsured claims or losses.

PacifiCorp does not represent that the insurance coverage's specified herein (whether in scope of coverage or amounts of coverage) are adequate to protect the obligations [CONTRACTOR], and [CONTRACTOR] shall be solely responsible for any deficiencies thereof.

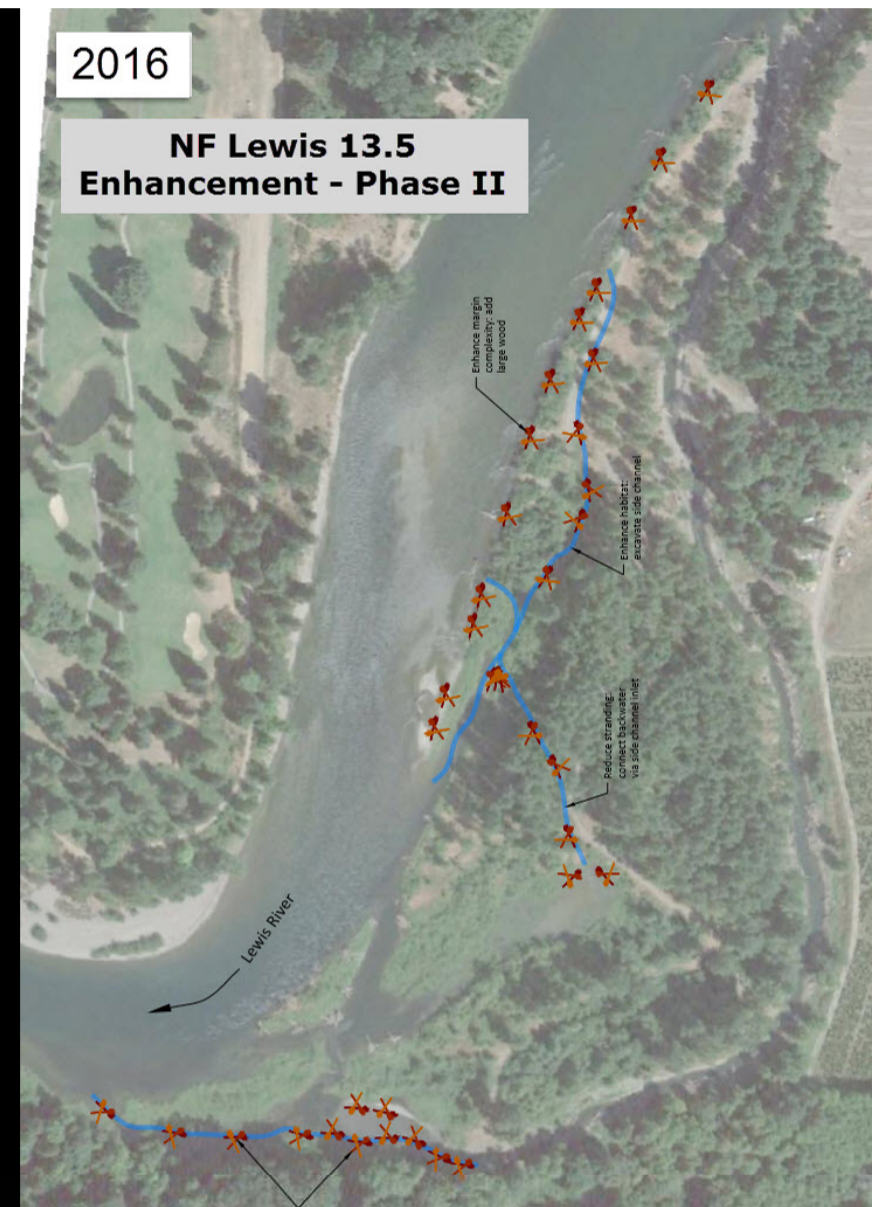


Winter Steelhead

2011 0

2012 10% = 34 redds

2013 7% = 31 redds



NF Lewis RM 13.5, Phase II Restoration

SRFB budget and ACC request

				OVERALL PROJECT	GRANT REQUEST	MATCH	ACC Request
Category	Qty	Rate	Amount	Amount	Match	Grant/match	
Mobilization and demobilization	1	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -
Site Access Measures	1	\$ 8,000	\$ 8,000	\$ 8,000	\$ -	\$ -	\$ -
Dewatering and environmental protection measures	1	\$ 5,000	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ -
Misc. Project Materials	1	\$ 15,000	\$ 15,000	\$ 15,000	\$ -	\$ -	\$ -
Misc.rented tools and equipment repair	1	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -
STotal			\$ 48,000	\$ 48,000	\$ -	\$ -	\$ -
Riparian Enhancement							
Riparian plants- rooted Dee pot Willow/Dogwood	3,000	\$1.05	\$ 3,150	\$ -	\$ 3,150	\$ -	\$ -
Riparian plants, T-1 One gallon containerized	2,000	\$2.50	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ -
Riparian plants- Native live-cuttings Willow sp.	2,500	\$0.81	\$ 2,025	\$ -	\$ 2,025	\$ -	\$ -
Potting Soil	40	\$40	\$ 1,600	\$ 1,600	\$ -	\$ -	\$ -
Licensed Herbicide applicator	2	\$900	\$ 1,800	\$ 1,800	\$ -	\$ -	\$ -
STotal			\$ 13,575	\$ 8,400	\$ 5,175	\$ -	\$ -
Side Channel Construction Component							
LWD- 40ft logs 18-32" dia & rootwads	50	\$ 600	\$ 30,000	\$ -	\$ -	\$ 30,000	\$ -
Purchase & Install LWD/vertical piles	1	\$ 18,000	\$ 18,000	\$ 18,000	\$ -	\$ -	\$ -
Slash/brush	5	\$ 1,500	\$ 7,500	\$ -	\$ 7,500	\$ -	\$ -
Bulk Excavation/hauling - Side channel construction	2,800	\$ 10	\$ 28,000	\$ 28,000	\$ -	\$ -	\$ -
STotal			\$ 83,500	\$ 46,000	\$ 7,500	\$ 30,000	\$ -
Off channel Restoration							
LWD- 40ft logs 18-32" dia & rootwads	50	\$ 600	\$ 30,000	\$ 10,000	\$ -	\$ 20,000	\$ -
Purchase & Install LWD/vertical piles	1	\$ 18,000	\$ 18,000	\$ 18,000	\$ -	\$ -	\$ -
Slash/brush	5	\$ 1,500	\$ 7,500	\$ -	\$ 7,500	\$ -	\$ -
STotal			\$ 55,500	\$ 28,000	\$ 7,500	\$ 20,000	\$ -
Construction Stotal			\$ 200,575	\$ 130,400	\$ 20,175	\$ 50,000	\$ -
Contract Labor							
Labor- LCFEG Construction Mgmnt. Hrly	180	\$65	\$ 11,700	\$ 11,700			
Labor- LCFEG Crew Supervision per day	40	\$300	\$ 12,000	\$ 12,000			
Labor- DOC Contract/officer per day	30	\$200	\$ 6,000	\$ 6,000			
Labor- Donated (DOC Larch Mtn Crew)	2,400	\$14	\$ 33,600	\$ -	\$ 33,600	\$ -	\$ -
STotal			\$ 63,300	\$ 29,700	\$ 33,600	\$ -	\$ -
Design/Environmental Compliance							
Interfluve Inc; Final Designs, as-built, tech memo	Engineering	1.00	\$ 30,000.00	\$ 30,000	\$ 30,000	\$ -	\$ -
Permitting; USACE,WDFW HPA, Landowner agreement	Permits	1.00	\$ 10,000.00	\$ 10,000	\$ 10,000	\$ -	\$ -
STotal			\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -
Section Total			\$ 303,875	\$ 200,100	\$ 53,775	\$ 50,000	\$ -
A&E							
A&E-audit, accounting, operations, project management			\$ 60,000	\$ 60,000			
Insurance coverage for ACC grant			\$ 27,000	\$ -	\$ -	\$ 27,000	\$ -
GTOTAL			\$ 363,875	\$ 260,100	\$ 53,775	\$ 77,000	\$ -