

Lewis River Hydroelectric Projects

FERC Project Nos. 935, 2071, 2111, 2213



Photo courtesy of Jeremiah Doyle

2012 Annual Report

Lewis River Aquatic Fund Projects



April 2012

Introduction

This 2012 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 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 2011/2012 funding process, additional projects are expected to be selected and funded annually following the process established by the ACC.

This 2012 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/aquatic%20fund%20annual%20report.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). 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/Aquatics_Fund_Strategic_Plan_and_Administrative_Procedures_Sept_2005_Revised_January_2009.pdf

On September 16, 2011, PacifiCorp announced the availability of calendar year (CY) 2011/2012 funds for aquatic related projects in the Lewis River Basin (Letter to interested parties from T. Olson, PacifiCorp, see **Appendix B**). The letter requested that individuals or parties interested in obtaining project funding submit a Pre-Proposal to PacifiCorp. Pre-Proposals were due by October 17, 2011.

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

Applicant	Project Title
USDA Forest Service	Clearwater Creek Instream Habitat Restoration
USDA Forest Service	Lewis River Side Channel III Instream Habitat Restoration
USDA Forest Service	Muddy River Floodplain Culvert Cleanup
Gifford Pinchot Task Force	Rush Creek Instream Pilot Project Habitat Restoration
WDFW	Upper Lewis River Spawning Grounds and Habitat Restoration Inventory

Following the Aquatics Fund – Strategic Plan and Administrative Procedures, PacifiCorp and Cowlitz PUD reviewed and evaluated the Pre-Proposals and, on December 1, 2011, provided the ACC with a list of projects recommended for further consideration (Email to ACC from Shrier – PacifiCorp, 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 projects be solicited to provide complete Proposals:

- USDA FS – Clearwater Creek Instream Habitat Restoration
- USDA FS – Lewis River Side Channel III Instream Habitat Restoration
- Gifford Pinchot Task Force – Rush Creek Instream Pilot Project Habitat Restoration
- *WDFW - Upper Lewis River Spawning Grounds and Habitat Restoration Inventory

On December 8, 2011, the ACC concurred with the Utilities evaluation to request full proposals for four of five submitted pre-proposals. *Although, specific discussion took place regarding the Upper Lewis River Spawning Grounds and Habitat Restoration Inventory proposal. The ACC indicated that while this proposal could have a study

component, the proposal should ultimately contain habitat restoration to meet the Aquatics Funds requirements. Shortly thereafter, PacifiCorp notified the project sponsors and requested full Proposals by January 30, 2012.

Upon the due date, four 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 9, 2012 with presentations of project proposals to include an opportunity for ACC questions and comments. On February 2, 2012, the ACC was provided an email (Subject: Review of CY 2012 Aquatic Fund Full Proposals, see **Appendix D**) containing a link that includes a description of the proposed Resource Projects. In addition, on March 1, 2012, the ACC was provided the Utilities evaluation of final proposals, and the Utilities basis for recommending or not recommending a project for funding, see **Appendix E**. On March 8, 2012, the Utilities requested review and ACC comment including its agreement or disagreement with the Utilities evaluation by April 5, 2012.

The ACC met on April 12, 2012 for an Aquatic Project Proposal Decision Meeting.



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

Applicant	Project Title	Approved Funding	Decision
USDA Forest Service	Clearwater Creek Instream Habitat Restoration	\$128,000	YES
USDA Forest Service	Lewis River Side Channel III Instream Habitat Restoration	\$50,000	YES

On April 13, 2012 the Utilities notified all ACC Participants of the selected 2011/2012 Aquatic Funding projects approved for full funding (email dated April 13, 2012, 2012 Annual Report Lewis River Aquatic Fund Projects, see **Appendix F**).

Consensus was reached to not select for funding:

Applicant	Project Title	Funding Requested	Decision
Gifford Pinchot Task Force	Rush Creek Instream Pilot Project Habitat Restoration	\$31,720	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) Clearwater Creek Instream Habitat Restoration

This USDA Forest Service proposed project will improve habitat complexity and diversity in the mainstem North Fork Lewis river and side channels using large woody material (LWM).

Approximately 40 locations were identified that could be enhanced by additions of LWM. Approximately 800 pieces of LWM would be installed. Most of the wood for this project will come from USFS Peppercat Timber Sale, and will have rootwads attached, some supplemental wood may come from Swift Reservoir cleaning operations. Two existing side channels are included in the project proposal that will also have LWM placed instream.

There is also an opportunity to treat non native invasive weeds in the area as we rehabilitate access roads and sites.

ACC representatives agreed to fund this project as proposed and granted funding of \$128,000.

The final Resource Project Plan is provided in **Appendix G** and would be completed in accordance with the schedule below pending acquiring additional funding through other resources:

Final Design and permitting	Summer 2012/Spring 2013
Monitoring	Summer/2012
Project Implementation	July 15, 2013

2) Lewis River Side Channel III Instream Habitat Restoration

This USDA Forest Service sponsored project is intended to improve habitat complexity and diversity in the Lewis River side channel using large woody material (LWM), to provide refugia during winter flows for juvenile salmonids and to provide increased spawning opportunities for adult salmonids.

Approximately 300 pieces of LWM are proposed under this project to be used to create 25 structures at strategic locations in the side channel to maximize natural channel characteristics while providing structure stability. Woody material would come from a nearby timber sale unit which would provide long pieces of wood with attached rootwads.

This side channel is located on US Forest Service (USFS) lands and is approximately 1/8 mile upstream of the Pepper Lewis Side channel, and on the south side of the Lewis River.

Rearing habitat for coho has been identified to be limited in the Upper Lewis River.

ACC representatives agreed to fund this project as proposed and granted funding of \$50,000.

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

Monitoring	Summer, 2012
Project Implementation	July 15, 2013
As-built documents	December, 2013
Pre & Post Project Data	December, 2014

Conclusion

This report provides the final CY2011/2012 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 by \$178,000. One of the projects selected by the ACC can be attributed to bull trout enhancement.

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 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 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 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 16, 2011
LETTER TO INTERESTED PARTIES FROM T. OLSON, PACIFICORP
AVAILABILITY OF FUNDS FOR AQUATIC RELATED PROJECTS

September 16, 2011

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 \$1,056,716.50 for Resource Projects and \$528,391.49 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 17, 2011**. 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 2012. Shortly thereafter the Utilities will submit the final list to the Federal Energy Regulatory Commission to meet the submittal deadline of April 15, 2012.

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,



Todd Olson
Director, Compliance Hydro Resources

Encl:	Cover Letter
	Attachment A
	Attachment B

Hc & email:	Diana M. Gritten-MacDonald PUD #1 of Cowlitz County, WA PO Box 3007 Longview, WA 98632-0307 dmacdonald@cowlitzpud.org	Hc & email:	Bill M. Bakke The Native Fish Society 7830 SW 40 th , Suite 6 Portland, OR 97219 bmbakke@nativefishsociety.org
Hc:	Bob Nelson Rocky Mountain Elk Foundation, Inc. 45 Overmeyer Rd Raymond, WA 98577	Hc:	Salley Sovey United States Bureau of Land Mgmt. 915 Walla Walla Ave Wenatchee, WA 98801
Hc:	Claire Lavendel USDA Forest Service 10600 NE 51st Circle Vancouver, WA 98682	Hc:	Kathryn Miller Trout Unlimited 227 SW Pine Street, Suite 200 Portland, OR 97204 kmiller@tu.org
Hc & 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	Hc:	John Clapp Lewis River Citizens at-Large 9315 NE Etna Road Woodland, WA 98674
Hc & email:	Steve Branz City of Woodland 100 Davidson, Box 9 Woodland, WA 98674 branzs@ci.woodland.wa.us	Hc:	Emily Platt Gifford Pinchot Task Force 917 SW Oak St., Suite 407 Portland, OR 97205
Hc:	Ryan Lopossa 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.	Hc:	Darlene G. Johnson Woodland Chamber of Commerce

	227 Frasier Rd. Amboy, WA 98601		P.O. Box 1808 Woodland, WA 98674
Hc & email:	Mariah Stoll-Smith Reese Lewis River Community Council 14900 Lewis River Rd. Ariel, WA 98603 m.reese@tds.net	Hc & email:	Jim Eychaner Washington Recreation & Conservation Office P.O. Box 40917 Olympia, WA 98504-0917 jim.eychaner@rco.wa.gov
Hc:	Susan Rosebrough National Park Service 909 First Avenue Seattle, WA 98104-1060	Hc:	Susan Cierebiej Washington Dept. Fish & Wildlife 600 Capitol Way North Olympia, WA 98504-0001
Hc & email:	James Malinowski Fish First PO Box 127 Amboy, WA 98601 jmalinowski@clark.edu	Hc:	Ruth Tracy USDA Forest Service 10600 NE 51 st Circle Vancouver, WA 98682 rttracy@fs.fed.us
Hc:	Noel Johnson Lewis River Citizens at-Large 6412 NW Amidon Road Woodland, WA 98674	Hc:	Nathan Reynolds Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632
Hc:	Don Stuart Cowlitz-Skamania Fire Dist. No. 7 11670 Lewis River Road Ariel, WA 98603	Hc:	Pat Spurgin Yakama Nation P.O. Box 151 Toppenish, WA 98948
Hc:	Betty Sue Morris, Chair Clark County, 1013 Franklin Street PO Box 5000 Vancouver, WA 98666-5000	Hc:	William Iyall Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632
Hc:	Jeff Breckel Lower Columbia River Fish Recovery 2127 8 th Avenue Longview, WA 98632	Hc:	Gary Stuart Cowlitz-Skamania Fire District No. 7 11310 Lewis River Road Ariel, WA 98603
Hc & email:	Bob Rose Yakama Nation P.O. Box 151 Toppenish, WA 98948 rosb@yakamafish-nsn.gov	Hc:	Kemper M. McMaster Wildlands of Washington 2713 NW 140th St Vancouver, WA 98685
Hc & email:	Adam Haspiel USDA Forest Service 10600 NE 51 st Circle Vancouver, WA 98682 ahaspiel@fs.fed.us	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
Hc & email:	Shannon Wills Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632 biologist@cowlitz.org	Hc & email:	LouEllyn Jones US Fish & Wildlife Services 510 Desmond Drive SE, Suite 102 Lacey, WA 98503-1263 louellyn_jones@fws.gov
Hc:	Paul J. Pearce Skamania County PO Box 790 Stevenson, WA 98648	Hc:	Dave Burlingame Cowlitz Indian Tribe PO Box 2547 Longview, WA 98632

Hc:	Eric Holman Washington Dept. Fish & Wildlife 2108 Grand Blvd. Vancouver, WA 98661	Hc:	Olympic Resource Management 321 Maurin Road Chehalis, WA 98520
Hc:	Erich Gaedeke Federal Energy Regulatory Commission 805 SW Broadway, Suite 550 Portland, OR 97205 Erich.Gaedeke@ferc.gov	Hc & email:	Bryan Nordlund NMFS 510 Desmond Drive Lacey, WA 98503 bryan.nordlund@noaa.gov
Hc & email:	David Hu USFS, Gifford Pinchot National Forest 10600 NE 51st Circle Vancouver, WA 98682 dh@fs.fed.us	Hc & email:	Eli Asher Lower Columbia Fish Recovery Board 2127 8th Ave Longview, WA 98632 easher@lcfrb.gen.wa.us
Hc & email:	Eric Kinne WDFW 2108 Grand Blvd Vancouver, WA 98661 kinneebk@dfw.wa.gov	Hc & email:	Lindsay Wright USFWS 510 Desmond Drive SE, Ste. 102 Lacey, WA 98503-1263 lindsay_wright@fws.gov
Hc & email:	Chris Maynard Department of Ecology PO Box 47600 Olympia WA 98504-7600 cmay461@ecy.wa.gov	Hc & email:	Melody Tereski Lower Columbia Fish Recovery Board 2127 8th Ave Longview, WA 98632 Melodyt@lcfrb.gen.wa.us
Hc & email:	Pat Frazier WDFW 2108 Grand Blvd Vancouver, WA 98661 frazipaf@dfw.wa.gov	Hc & email:	Rhidian Morgan PO Box 428 Ridgefield, WA 98642 rmmorgan@plasnewydd.org
Hc & email:	Taylor Aalvik PO Box 2547 Longview, WA 98632 taalvik@cowlitz.org		

APPENDIX C

EMAIL DATED DECEMBER 1, 2011

MEMO TO ACC FROM F. SHRIER – PACIFICORP
REVIEW OF CY 2012 AQUATIC FUND PRE-PROPOSALS

McCune, Kimberly

From: Shrier, Frank
Sent: Thursday, March 15, 2012 9:20 AM
To: McCune, Kimberly
Subject: FW: Agenda & Meeting Note Distribution - ACTION REQUIRED
Attachments: 120811_LR-ACC_Agenda_DRAFT.doc; 11102011_LR-ACC_MeetingNotes_DRAFT (for ACC Review).docx; ACC Lewis River AQ Fund evaluation (2011-2012) MASTER COMMENTS.xls

From: Bendickson, Beth
Sent: Thursday, December 01, 2011 1:47 PM
To: Bendickson, Beth; (michael_hudson@fws.gov); Adam Haspiel (ahaspiel@fs.fed.us); Bernadette Graham Hudson (bghudson@lcfwb.gen.wa.us); Bill Bakke; Bob Rose (brose@yakama.com); Bryan Nordlund; Craig Olds (colds@cowlitz.org); David Hu; Diana MacDonald; Doyle, Jeremiah; Eli Asher (easher@lcfwb.gen.wa.us); HML LRN (Kinne, Eric); Eychaner, Jim (RCO); James Dixon (dixonjfd@dfw.wa.gov); 'Jeff Breckel'; Jim Byrne (byrnejbb@dfw.wa.gov); Jim Malinowski; John Weinheimer; Kathryn Miller (kmiller@tu.org); Lesko, Erik; LouEllyn Jones; Mariah Stoll-Smith Reese (M.Reese@tds.net); Maynard, Chris (ECY); Melody Tereski; Michelle Day; Neil Turner (turnenet@dfw.wa.gov); Olson, Todd; Pat Frazier (frazipaf@dfw.wa.gov); peggy.miller@dfw.wa.gov; HML LRN (Morgan, Rhidian); Rich.Turner@noaa.gov (Rich.Turner@noaa.gov); Shannon Wills; Shrier, Frank; HML LRN (Branz, Steve); Steve Manlow (smanlow@lcfwb.gen.wa.us); Taylor Aalvik (taalvik@cowlitz.org)
Subject: Agenda & Meeting Note Distribution - ACTION REQUIRED

Attention ACC Participants:

Attached are the following documents for your review:

- Draft Meeting Notes from 11/10/11 meeting
- Draft Agenda for 12/8/11 meeting
- LR Aquatic Fund – ACC Evaluation of 2011/2012 Project Proposals (with comments received so far)

Additionally, the following documents have been or will soon be, posted to the website:

- Final Agenda from 11/10/11 meeting
- Final Meeting Notes from 10/13/11 meeting

These documents can be accessed via the following hyperlink pathway:

<http://www.pacificorp.com/es/hydro/hl/lr.html> > License Implementation > ACC > Aquatics Coordination Committee 2011

Please let me know if you have any questions or if I may be of further assistance.

Best regards,

Beth Bendickson
Project Coordinator
(503) 553-4650



APPENDIX D

EMAIL DATED FEBRUARY 2, 2012

MEMO TO ACC FROM B. BENDICKSON – PACIFICORP
REVIEW OF CY 2012 AQUATIC FUND PROPOSALS

McCune, Kimberly

From: Shrier, Frank
Sent: Thursday, March 15, 2012 9:59 AM
To: McCune, Kimberly
Subject: FW: ACC Funding Documents - ACTION REQUIRED

From: Bendickson, Beth
Sent: Thursday, February 02, 2012 1:26 PM
To: Bendickson, Beth; (michael_hudson@fws.gov); Adam Haspiel (ahaspiel@fs.fed.us); Bernadette Graham Hudson (bghudson@lcfwb.gen.wa.us); Bill Bakke; rosb@yakamafish-nsn.gov; Bryan Nordlund; Craig Olds (colds@cowlitz.org); David Hu; Diana MacDonald; Doyle, Jeremiah; Eli Asher (easher@lcfwb.gen.wa.us); HML LRN (Kinne, Eric); Eychaner, Jim (RCO); James Dixon (dixonjfd@dfw.wa.gov); 'Jeff Breckel'; Jim Byrne (byrnejbb@dfw.wa.gov); Jim Malinowski; John Weinheimer; Kathryn Miller (kmiller@tu.org); Lesko, Erik; LouEllyn Jones; Mariah Stoll-Smith Reese (M.Reese@tds.net); Maynard, Chris (ECY); Melody Tereski; Michelle Day; Neil Turner (turnenet@dfw.wa.gov); Olson, Todd; Pat Frazier (frazipaf@dfw.wa.gov); peggy.miller@dfw.wa.gov; HML LRN (Morgan, Rhidian); Rich.Turner@noaa.gov; Shannon Wills; Shrier, Frank; HML LRN (Branz, Steve); Steve Manlow (smanlow@lcfwb.gen.wa.us); Taylor Aalvik (taalvik@cowlitz.org)
Subject: ACC Funding Documents - ACTION REQUIRED

Attention ACC Participants:

The **2012 Aquatic Funding Full Proposals** are ready for review. As they were too large to send via e-mail, I have posted them on the Lewis River website. These four proposals will be presented at next week's ACC meeting on February 9.

Also posted on the website are two **2011 Aquatic Funding Project Closeout Reports**.

These documents can be accessed via the following hyperlink pathway:

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

> License Implementation > ACC > Aquatics Coordination Committee 2011 (for the closeout reports) and Aquatics Coordination Committee 2012 (for the full proposals)

Please let me know if you have any problems accessing the documents.

The other meeting materials (agenda & January meeting notes) will be forthcoming in a separate e-mail.

Beth Bendickson, Project Coordinator

PacifiCorp Energy
825 NE Multnomah, Suite 1500
Portland, OR 97232
503-553-4650

These documents can be accessed via the following hyperlink pathway:

<http://www.pacificorp.com/es/hydro/hl/lr.html> > License Implementation > ACC > Aquatics Coordination Committee 2011

APPENDIX E
EMAIL DATED MARCH 1, 2012
TO THE ACC FROM B. BENDICKSON – PACIFICORP
CY 2011/2012 LEWIS RIVER AQUATIC FUNDING EVALUATION MATRIX

McCune, Kimberly

From: Bendickson, Beth
Sent: Thursday, March 01, 2012 4:53 PM
To: Bendickson, Beth; (michael_hudson@fws.gov); Adam Haspiel (ahaspiel@fs.fed.us); Bernadette Graham Hudson (bghudson@lcfrb.gen.wa.us); Bill Bakke; rosb@yakamafish-nsn.gov; Bryan Nordlund; Craig Olds (colds@cowlitz.org); David Hu; Diana MacDonald; Doyle, Jeremiah; Eli Asher (easher@lcfrb.gen.wa.us); HML LRN (Kinne, Eric); Eychaner, Jim (RCO); James Dixon (dixonjfd@dfw.wa.gov); 'Jeff Breckel'; Jim Byrne (byrnejbb@dfw.wa.gov); Jim Malinowski; John Weinheimer; Kathryn Miller (kmiller@tu.org); Lesko, Erik; LouEllyn Jones; Mariah Stoll-Smith Reese (M.Reese@tds.net); Maynard, Chris (ECY); Melody Tereski; Michelle Day; Neil Turner (turnenet@dfw.wa.gov); Olson, Todd; Pat Frazier (frazipaf@dfw.wa.gov); peggy.miller@dfw.wa.gov; HML LRN (Morgan, Rhidian); Rich.Turner@noaa.gov (Rich.Turner@noaa.gov); Shannon Wills; Shrier, Frank; HML LRN (Branz, Steve); Steve Manlow (smanlow@lcfrb.gen.wa.us); Taylor Aalvik (taalvik@cowlitz.org)
Subject: Agenda & Meeting Note Distribution - ACTION REQUIRED
Attachments: 20912_LR-ACC_MeetingNotes_DRAFT (for ACC review).docx; 030812_LR-ACC_Agenda_DRAFT.doc; 02172011 LR - ACC Lewis River AQ Fund evaluation - 2011_2012_Utility- ACC decision.xls

Attention ACC Participants:

For the meeting next week on March 8, attached are the following documents for your review:

- Draft Meeting Notes from 2/9/12 meeting
- Draft Agenda for 3/8/12 meeting
- ACC Lewis River Aquatic Funding Evaluation-2011/2012 Utility-ACC Decision

Additionally, the following documents have been posted to the website:

- Final Meeting Notes from 1/12/12 meeting
- Final Agenda from 2/9/12 meeting

These documents can be accessed via the following hyperlink pathway:

<http://www.pacificorp.com/es/hydro/hl/lr.html> > License Implementation > ACC > Aquatics Coordination Committee 2011 / 2012

Please let me know if you have any questions or if I may be of further assistance.

Beth Bendickson
Project Coordinator
(503) 553-4650



APPENDIX F
EMAIL DATED APRIL 13, 2012
TO THE ACC FROM K. McCUNE – PACIFICORP
CY 2011/2012 LEWIS RIVER AQUATIC FUNDING EVALUATION MATRIX,
PROJECTS APPROVED FOR FUNDING

McCune, Kimberly

From: McCune, Kimberly
Sent: Friday, April 13, 2012 8:34 AM
To: 'Adam Haspiel (ahaspiel@fs.fed.us)'; 'Bart Stepp'; 'Bill Bakke'; 'Bob Rose (rosb@yakamafish-nsn.gov)'; 'Bryan Nordlund'; 'Craig Olds (colds@cowlitz.org)'; 'David Hu'; 'Diana MacDonald'; Doyle, Jeremiah; 'Eli Asher (easher@lcfrb.gen.wa.us)'; 'Eric Kinne'; 'Eychaner, Jim (RCO)'; 'Jeff Breckel'; 'Jim Malinowski'; 'Kathryn Miller (kmiller@tu.org)'; Lesko, Erik; 'lindsay_wright@fws.gov'; 'LouEllyn Jones'; 'Mariah Stoll-Smith Reese (M.Reese@tds.net)'; 'Maynard, Chris (ECY)'; 'Melody Tereski'; 'Michelle Day'; Olson, Todd; 'Pat Frazier (frazipaf@dfw.wa.gov)'; 'Patrick Lee'; 'Paul Pearce'; 'peggy.miller@dfw.wa.gov'; 'Rhidian Morgan (rmmorgan@plasnewydd.org)'; 'Ruth Tracy'; 'Shannon Wills'; Shrier, Frank; 'Taylor Aalvik (taalvik@cowlitz.org)'
Cc: 'lisa@gptaskforce.org'
Subject: 2011/2012 Lewis River Aquatic Fund Project Final Selection
Attachments: 04122012 LR - ACC Lewis River AQ Fund evaluation - 2011_2012_Utility- ACC decision.pdf

Attn: ACC Participants and Interested Parties

Please be advised that consensus was reached at the April 12, 2012 ACC meeting on a final Resource Project list as follows:

Applicant	Project Title	Funding Requested	Decision
USDA Forest Service	Clearwater Creek Instream Habitat Restoration	\$128,000 (Resource Funds)	YES
USDA Forest Service	Lewis River Side Channel III Instream Habitat Restoration	\$50,000 (Resource Funds)	YES

Consensus was reached to *not* select the following project for funding:

Applicant	Project Title	Funding Requested	Decision
Gifford Pinchot Task Force	Rush Creek Instream Pilot Project Habitat Restoration	\$31,720 (Bull Trout Funds)	NO

The 2012 Aquatics Fund Annual Report will be submitted to the FERC today 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 Aquatic Fund selection process.

Kimberly McCune

Lewis River Aquatic Fund - Utilities' Evaluation of 2011/2012 Project Proposals										
No.	Applicant	Project Title	Project Schedule	Benefit	Bull Trout	Project Partners	Funding	Cost Share?	Consistency with Fund Objectives	Selected by Utilities for Funding
1	USDA Forest Service	Clearwater Creek Instream Habitat Restoration	late 2011-early 2012; late summer 2012; multi-year monitoring until 2022; last treatments applied 2015	Improve habitat complexity and diversity in the mainstem North Fork Lewis River and side channels using large woody material.	N	USFS-GPNF, Mt. St. Helens Institute	\$ 128,000.00	FS \$137,000; Partner Funds \$4,000	Benefit recovery-Y Support Reintro - Y Enhance LR Fish habitat - Y	Yes
2	USDA Forest Service	Lewis River Side Channel III Instream Habitat Restoration	summer 2012; as built docs by Dec. 2012; monitoring report Dec. 2013	Improve habitat complexity and diversity in the Lewis River side channel using large woody material; provide refugia during winter flows for juvenile salmonids; provide increased spawning opportunities for adult salmonids.	N	Forest Service, Mt. St. Helens Institute, Swift Community Action Team (SCAT), Fish First, Equipment Rental Services	\$ 50,000.00	USFS-\$8,000 IK; MSHI-\$2,000 IK; SCAT-Machine operation if rented; Fish First - \$800; ERS - Machine time	Benefit recovery-Y Support Reintro - Y Enhance LR Fish habitat - Y	Yes
3	GP Task Force	Rush Creek Instream Pilot Project Habitat Restoration	July 2013 - instream work; report by December 2013; Monitoring fish reponse in 2014; final report December 2014	Improve habitat complexity and diversity in the side channel using large woody material; provide refugia during winter flows for juvenile bull trout; provide increased spawning opportunities for adult bull trout.	Y	Forest Service, WDFW, USFWS	\$ 31,720.00	USFS-\$19,000; WDFW IK - \$2,000; USFWS IK \$3,000	Benefit recovery-Y Support Reintro - Y Enhance LR Fish habitat - Y	Neutral
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						Resource Funds (requested)	\$ 209,720.00			
						Resource Funds (recommended projects)	\$ 178,000.00			
						Bull Trout Funds (recommended projects)	\$ 31,720.00			
						Total Aquatic Funds	\$ 209,720.00			

Lewis River Aquatic Fund - ACC Evaluation of 2011/2012 Project Proposals											
ACC Decision		Applicant		Funding Request	WDFW	USFS	Cowlitz Indian Tribe	USFWS	NMFS	LCFRB	Utilities
YES	1	USDA Forest Service	Clearwater Creek In stream Habitat Restoration	\$ 128,000.00	Support funding	Forest Service takes the position of Neutral. The FS would like to see more project specificity in the future but trust that the FS will put the funds to good use. Will not stand in the way.	The Tribe agrees with the Utilities. We do not see benefit for Bull trout. For salmon, adding complexity to any system is always beneficial and there are a few species that will benefit. Large Wood is always good. Recommendation: Do select project for funding	Support for funding	Not opposed but did not have time for full review. NMFS is neutral but will not stand in the way.	The LCFRB supports full funding for this project. The project site is located in Clearwater Creek, identified in the LCFRB Habitat Strategy as a tier 2 (medium) priority reach. EDT modeling indicates that the reach has high potential for coho production, and medium potential for winter steelhead and spring Chinook. In-stream habitat enhancement is a high multi-species priority for the reach. Wood placement seems to be an appropriate approach to increase habitat complexity in the stream. The final application did a fair job of answering questions and concerns posed at the pre-proposal stage. The full proposal would have benefitted from greater detail on concept-level designs and layout.	Doubt any benefits directly assigned to bull trout. We expect steelhead and coho to benefit the most from this project. Since the habitat definitely needs some help. Recommended for funding.
YES	2	USDA Forest Service	Lewis River Side Channel III Instream Habitat Restoration	\$ 50,000.00	Support funding	Forest Service takes the position of Neutral but will not stand in the way.	The Tribe believes this to be a good side channel project which will benefit Chinook as well as coho and steelhead. As stated by the LCFRB, the proposal would have benefited from greater detail on the concept/design. Please respond to this observation should the entity request funds in the future. Recommendation: Do select project for funding	Support for funding	Not opposed but did not have time for full review. NMFS is neutral but will not stand in the way.	The LCFRB supports full funding for this project. The project site is located in Lewis 20, identified in the LCFRB Habitat Strategy as a tier-1 (highest priority) reach. Off-channel and sidechannel habitat enhancement is identified as a high priority multi-species project type. EDT modeling indicates that the reach has high production potential for spring Chinook and medium potential for coho and winter steelhead. This appears to be a good opportunity to improve sidechannel spawning and rearing habitat in a high priority reach of the upper Lewis. The full proposal would have benefitted from greater detail on concept-level designs and layout.	LWM DBH not mentioned - what are the criteria? Recommended for funding.
NO	3	Gifford Pinchot Task Force	Rush Creek Instream Pilot Project Habitat Restoration	\$ 31,720.00	WDFW is not positive this is the best step for Bull Trout in Rush Creek. Neutral but will not stand in the way.	Forest Service takes the position of Neutral but will not stand in the way.	(cautious) support for funding. We agree with the facts stated in the comments provided by the utility, WDFW, and the Lower Columbia Fish Recovery Board. This project could disrupt bull trout rearing and possibly spawning. We, too, want to see sustainable restoration projects in locations where disrupted ecological or geomorphic processes have been well documented, and not on sites that appear to be relatively pristine as is Rush Creek. However, given the recent downward trend of this population, the fact that spawning appears to be limited in the upper Lewis River, and that rearing in Rush Creek may also be limited, we feel that actions performed to increase habitat complexity and provide more sites that harbor spawning-sized gravels may be justified if done on a small scale with strict monitoring and adaptive response criteria as part of the project design. The side channels identified for this treatment appear not to receive much gravel bedload from the main channel of Rush Creek and not to express much local gravel recruitment. However, in comparison to the main channel, these side channels benefit from less severe hydraulic conditions during peak flows due to more overbank relief and lower exposure to extreme discharge. They also receive a larger portion of their discharge from hyporheic sources during baseflow. Thus, the potential for artificially-placed wood structures to function and gravel to persist is greater here than in the main channel, and is less risky. The Aquatics Fund was set up to support on-the-ground projects, so we haven't been able to learn very much about how bull trout use these basins, the specific limiting factors for bull trout, and what kinds of projects may best benefit bull trout. Because this proposal is now generally designed as an experiment, performed on a small scale and affecting only a portion of the total available habitat, we think that it is reasonable. It will help us to determine if spawning and rearing can be enhanced by this type of treatment and if so, for how long. Strictly speaking, the project is a form of enhancement rather than restoration, but is distinguished by pre- and post-project monitoring of bull trout use and physical processes as an integral part of the design. However, we do want to caution that this type of a project would need to undergo formal Section 7 consultation to assess potential adverse effects to bull trout and their spawning and rearing habitat, and weigh those effects against the potential for benefit. Please note that the permitting for this alone would likely be more time consuming than indicated on the full proposal.	Support for funding	NMFS wants to avoid a situation whereby Coho superimpose on the Bull Trout. The importance of working together with GP Task Force but does not want to support a project that is potentially not viable for Bull Trout.	The LCFRB does not support funding for this project. Several pre-proposal comments were not addressed adequately in the final proposal. The LCFRB remains concerned that the project, as proposed, does not appear to provide clear benefits to fish, works against natural stream processes to create a particular habitat type, and may adversely affect currently functional bull trout rearing habitat. At best, the project would result in a temporary gain in spawning habitat. According to the information supplied, the sidechannel currently provides bull trout rearing habitat for Rush Creek, but is not a primary spawning area. If the sidechannel is currently functional as rearing habitat, and spawning habitat is limited in mainstem Rush Creek, attempting to create unsustainable spawning habitat through wood and gravel placement in the sidechannel seems ill-advised. The analysis contained in the application indicates that gravel recruitment in the side channel is limited by the logjam at the head of the channel. While this may be the case, flow metering by logjams into side channels is a valuable function, not an unnatural process to be circumvented. Gravel supply in mainstem Rush Creek may be reduced over recent levels as a result of stabilizing conditions upstream. This, too, seems to be a natural process that needs no repair. The stream survey report and photographs supplied as part of the final proposal were helpful in characterizing the habitat currently in place in the treatment reach. This information did not, however, support the need for the proposed project, instead showing what appears to be functional habitat with greater than average wood loading and recruitment potential.	Question proposing a project that will obliterate the only habitat where juvenile bull trout have been found and replacing it with spawning habitat. Bull trout are not typically side channel spawners. We do not like to see that this may also create suitable steelhead spawning habitat. Timber costs seem excessive - typo? Staff has mixed opinion on merits of this project.
			Resource Funds (recommended projects)	\$ 178,000.00							
			Bull Trout Funds (recommended projects)	\$ 31,720.00							
			Total Aquatic Funds Requested	\$ 209,720.00							
			Total Aquatic Funds Awarded	\$ 178,000.00							
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
CLEARWATER CREEK INSTREAM HABITAT RESTORATION

1. Project Title

Clearwater Creek Instream Habitat Restoration

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

An opportunity to enhance approximately 1.7 miles of the mainstem Clearwater Creek, including two side channels exists.

Approximately 40 locations were identified that could be enhanced by additions of Large Woody Material (LWM). Approximately 800 pieces of LWM would be installed. Most of the wood for this project will come from USFS Peppercat Timber Sale, and will have rootwads attached, some supplemental wood may come from Swift Reservoir cleaning operations. Two existing side channels are included in the project proposal that will also have LWM placed instream.

There is also an opportunity to treat non native invasive weeds in the area as we rehabilitate access roads and sites.

4. Background

Reconnaissance surveys conducted for this project occurred on October 14 2011. Minimal instream LWM was observed during the survey.

The lack of large woody material in this section of creek appears to be the result of several factors including the residual effects from the 1980 eruption of Mt. St. Helens (fire), past timber harvest, effects of the 1996 floods and landslides caused by the floods in the headwaters of the creek, and a lahar flow in the confluence area.

The Lower Columbia Salmon Recovery Plan 2009 Six Year Habitat Work Schedule identifies this as a Tier 2 reach. For coho salmon it has an Overall Preservation rank of 4 of 100, and Overall Restoration rank of 21 of 103, this means it is highly valued and should respond very well to restoration efforts. An EDT analysis concludes there are high concerns from lack of habitat diversity and quantity, and altered thermal regimes as well as excessive sediment load and lack of food. Moderate concerns were identified for channel stability, hatchery fish competition, and water flow (EDT). This reach is also designated as a Primary Population for coho and has coho reach potential rating of High. It is designated a Primary Population for Chinook and has Chinook reach potential rating of Medium. It is also designated as a Contributing Population for Steelhead and has steelhead reach potential rating of Medium. Bull trout are not officially documented in

Clearwater Creek, although presence in Clearwater Creek exist in several anecdotal stories of their.

The Muddy River Watershed Analysis (GPNF 1997) identified High sediment issues and need of in stream large woody debris.

The ACC Synthesis Matrix rated this section of Clearwater Creek as having unknown restoration potential.

5. Project Objective(s)

GOAL:

Enhance the quality of fish habitat in Clearwater Creek by:

- ◆ Improving habitat complexity and diversity in the mainstem and side channels using LWM
- ◆ Providing refugia during winter flows for juvenile salmonids.
- ◆ 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. Coho and steelhead trout will likely benefit more from restoration efforts in Clearwater Creek than Chinook salmon, however there is suitable spawning habitat for Chinook (EDT), and could also benefit from the restoration.

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 area when this project is complete, thus ensuring survival and promotion of the various species during reintroduction efforts. Adult fish will benefit by increased spawning habitat with associated pools and cover.

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 large woody material placed instream in the mainstem and side channels, 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 completed during the summer and fall of 2012. The final document should be crafted and signed by March 2013, and the project would be implemented July 2013.
- 2) Instream restoration activities are covered within the WDFW-MOU, and the Regional Permit with the Army Corps of Engineers.

Task 2: Project Design.

- 1) Finalize project design and project preparation details. Preliminary designs have been planned during reconnaissance visits in 2011. We will use a laser level to run a longitudinal profile and collect cross-sectional information as we finalize designs.
- 2) Secure materials. We have a 35 acre Peppercat timber sale unit set aside to use for fish habitat restoration activities over the next ten years. We will layout an area within this stand to thin and prepare for harvest operations. Additional material may be acquired from PacifiCorp Swift Reservoir Cleaning operations.

Task 3: Project Implementation

- 1) Develop 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, ten volunteer youth from the youth stream team, and a supervisor to perform monitoring work. They will perform all aspects of the monitoring with supervision and training from 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 ten 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, the Forest Service will provide analysis of data and report.

7. Methods:

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

Approximately 800 pieces of LWM would be harvested during thinning operations from a timber sale unit which would allow us to use long stems (60+ feet) with attached rootwads. Woody material will be trucked to a staging area near the confluence of Muddy River and Clearwater Creek. From there, the wood will be moved to the project site via a skidder and excavator. Wood for this project would primarily come from USFS

lands, however if an opportunity exists to acquire large wood from Swift Reservoir cleaning operations, we may pursue that avenue as well.

Approximately 15 to 20 pieces of LWM will be used at each structure location to form complex habitat. Structures will protrude 1/2 to 1/3 of the way into the channel to minimize water shear stress and create a meandering thalweg. 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 bury the wood. Other pieces of LWM will be interwoven into these key pieces and riparian vegetation.

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 2012, project implementation would occur July 15th 2013 and is expected to take one month to complete. 'As built' documents will be completed by December 31st, 2013. An initial report documenting fish response to the structures will be completed by December 31st, 2014. The first monitoring report with pre and post project data will be available December 31, 2014. If funding or other issues arise, project dates would be delayed by one year from above.

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

10. Permits

NEPA- Field work will be completed during the summer of 2012, NEPA document will be completed Spring 2013.

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 activity types including Large Wood, Boulder and Gravel Placement on National Forest Lands.

Land ownership in this section of the Clearwater Creek is comprised of public lands. The project is wholly on public lands,

11. Matching Funds and In-kind Contributions

Partner	Contribution	Funds
Forest Service	Project development, Contracting, Permitting, Monitoring	\$17,000 In-kind
Materials from USFS	Trees with rootwads	\$120,000 In-kind
Mt. St. Helens Institute	Monitoring	\$4,000 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 and GPNF Fisheries program manager, Dave Hu.

13. Budget

	NEPA	Final designs	Project Mgmt	Construction	Monitoring/Labor /Reporting/Coord.
Personnel Costs					
FS - Zone Team or Contract	\$8,000 (ACC)				
FS –Fish Bio and Hydrologist		\$5,000 (IK) \$2,000 (ACC)			
FS - Fish Bio and Hydrologist			\$6,000 (IK) \$4,000 (ACC)		\$1,000 (ACC)
FS - Contract administrator -				\$3,000 (IK) \$5,000 (ACC)	
FS - Contract Specialist				\$3,000 (IK)	
Mt St. Helens Institute					\$4,000 (IK)
Mt. St. Helens Institute Community Education					\$4,000 (ACC)
Materials					
Forest Service 160 Pieces of LWM with rootwads				\$120,000 (IK)	
Contract Payables					
Excavator and Skidder Contract				\$63,000 (ACC)	
Logging and hauling of trees				\$40,000 (ACC)	
Materials and Supplies			\$ 2,000(ACC)		

Total ACC Funds	\$128,000	\$8,000	\$2,000	\$6,000	\$108,000	\$4,000
<i>Total FS Funds</i>	<i>\$137,000</i>		<i>\$5,000</i>	<i>\$6,000</i>	<i>\$126,000</i>	
<i>Total Partner Funds</i>	<i>\$4,000</i>					<i>\$4,000</i>
Project Total	\$269,000					

FS personnel estimated as
\$300/day.

Clearwater Creek expanded budget 2012

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 Forester NEPA Coordinator	4 2 4 4 4 1 0.5 0.5 3	\$350 per day per person	\$8,000 (ACC)
Final Designs	Fish Biologist Hydrologist Fish Technician	11 3 9	\$300 per day per person	\$5,000 (IK) \$2,000 (ACC)
Project Management	Fish Biologist Fish Technician Mileage	19 11 2000 miles	\$300 per day per person \$0.50	\$5,000 (IK) \$4,000 (ACC) \$1,000 (IK)
Construction	Contract Administration/Prep Transportation Logging Equipment	28 1,000 miles	\$300 per day per person \$0.50	\$5,500 (IK) \$5,000 (ACC) \$500 (IK) \$40,000 (ACC) \$63,000 (ACC)
Materials & Supplies	Field Equipment, Sorbent booms, Misc Supplies			\$2,000 (ACC)
Trees with rootwads		800		\$120,000 (IK)
Monitoring <i>MSHI</i> <i>USFS</i>	Supervisor Assistant Fish Biologist Volunteers Transportation	23 25 1,000	\$300 per day per person \$20 \$0.50	\$3,500 (IK) \$3,500 (ACC) \$500 (IK) \$500 (ACC)
Total				\$269,000

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

Clearwater Creek Equipment Budget 2012

Item	Cost per unit	Number of units	ACC cost	Total Cost
Excavator Operator/Fuel/Supplies, misc	\$125 hour	338	\$42, 250	\$42,250
Excavator Move in/out	\$1,000	1	\$1,000	\$1,000
Skidder	\$125/Hour	150	\$6,750	\$18,750
Skidder Move in/out	\$1,000	1	\$1,000	\$1,000
Logging and Hauling cost: Based on Previous Contract	\$40,000	1	\$40,000	\$40,000
Total			\$30,000	\$103,000

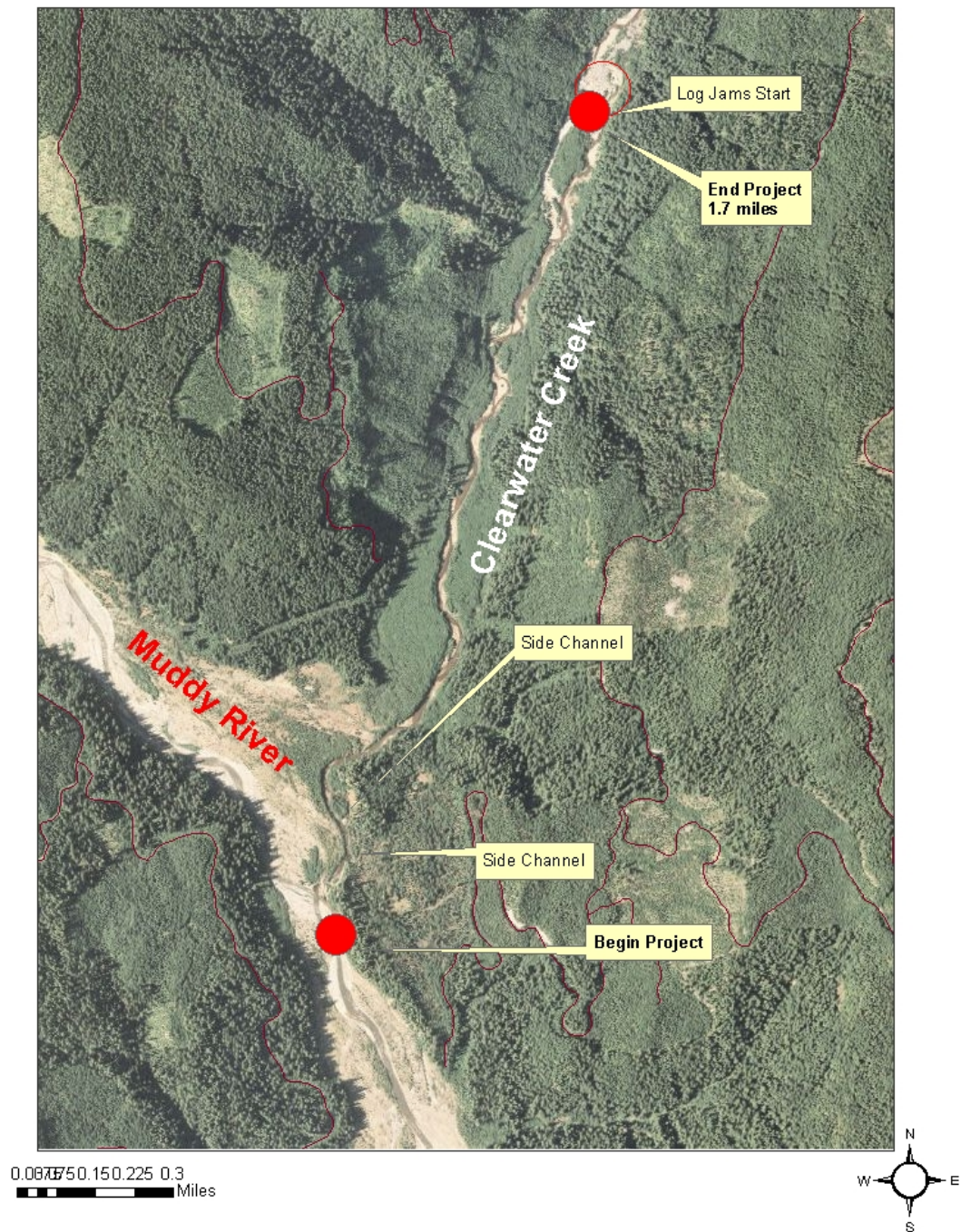
Questions from ACC members to address in this proposal

1. In the pre-proposal USFS suggests that this project will benefit coho, steelhead, Chinook and bull trout. There is no mention of benefit to bull trout in the proposal and WDFW does not believe this project will provide much, if any, benefit to Chinook or bull trout. Final proposal should focus on benefits to steelhead and coho, which WDFW believes will occur. Final proposal should clearly articulate costs requested and how in-kind costs are calculated. *This is addressed in “Background” section of the proposal.*
2. Wood placement seems to be an appropriate approach to increase habitat complexity in the stream, but the application does not explain the reason for the lack of wood structure. Was Clearwater Creek affected by lahars? What is the long-term potential for natural wood recruitment after the project is implemented? Is any riparian enhancement planned (including invasive species management)? Has other habitat work been implemented in the creek? Additional information on current and historic fish use in the reach would be helpful to support the relatively large scope and request, and its location in a tier-2 reach. Clarification of the number and type and layout of structures being proposed would be helpful. *Lack of wood is addressed in the “Background” Section of the proposal. This area was harvested prior to the 1980 Eruption of Mt. St. Helens. The riparian area has young conifers growing that will eventually recruit to the stream. Much of the streamside adjacent vegetation is Alder established after the 1996 floods. Riparian work that is planned is invasive weed mgmt. No other habitat restoration/enhancement work has been implemented in Clearwater Creek. In 1956 surveys of the Upper North Fork Lewis River, including Clearwater Creek were made by John S. Chambers, an employee of WDFW. Results were published in 1957. In the report Chambers identifies Clearwater Creek as one of the top three coho spawning tributaries in the Upper North Fork Basin. In particular he describes the first 3 miles of Clearwater Creek as an*

“excellent” silver spawning stream. Juvenile coho 2 ½ to 3 ¾ inches were also observed by Chambers in Clearwater Creek, “This indicates a good growth rate for these streams as rearing areas”. Numerous coho redds were observed by Chambers in Clearwater Creek in November and December 1956.

3. The application materials indicate that additional funding may be sought from the Whole Watershed Joint Venture Fund, but it is unclear how the additional grant monies would be used. *Additional monies in the amount of \$22,000 are being sought from the Whole Watershed Joint Venture program. If successful the funds will allow us to install approximately 100 more pieces of wood in another 10 structures at the upper end of the project.*
4. Please make it clearer as to what the \$128,000 is applied to. Are log costs a part of the proposal funding? *The \$128,000 will be applied as described in the expanded budget and equipment budget sections of the grant proposal.*

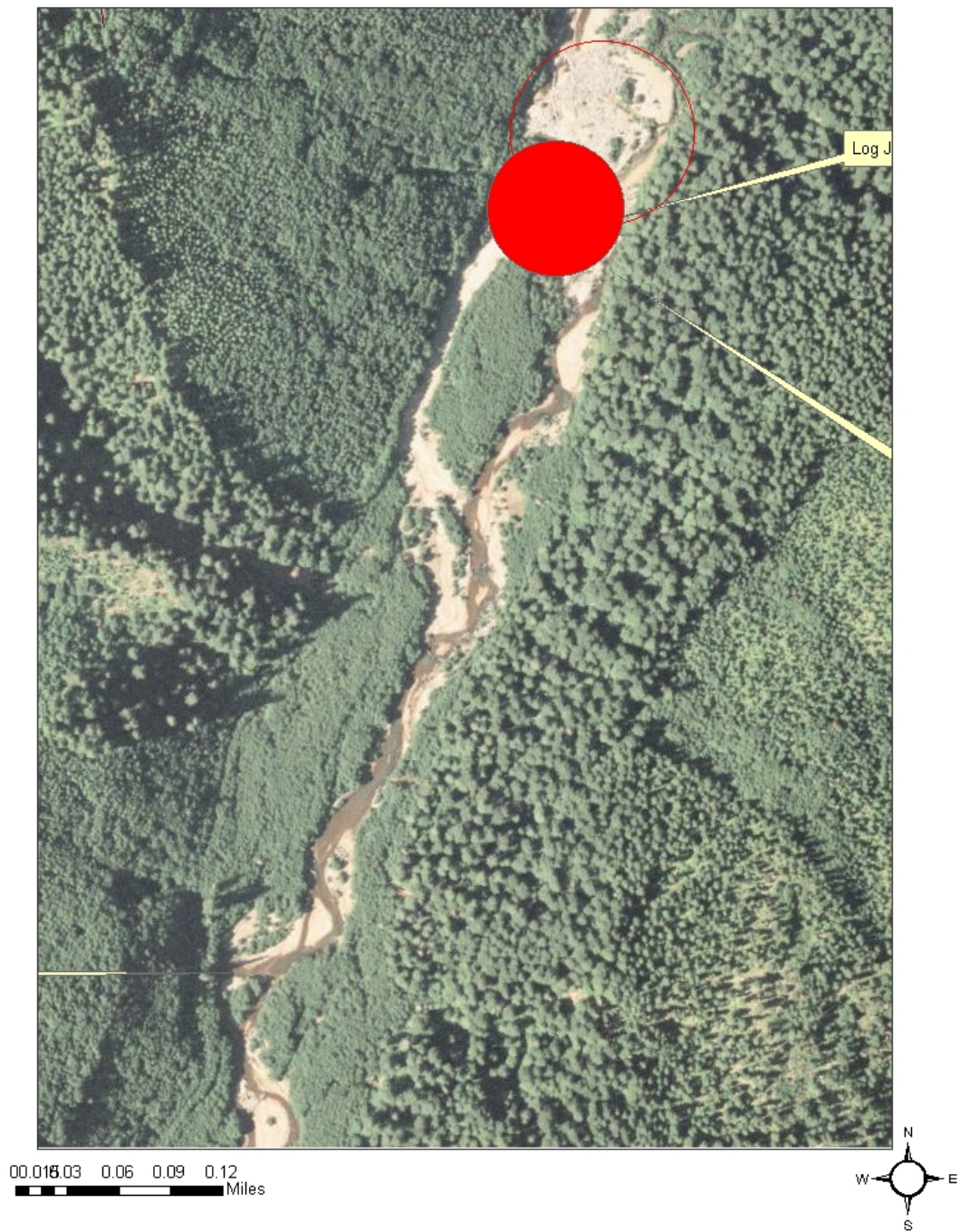
2012 Clearwater Creek Project



2012 Clearwater Creek Project Lower Photo



2012 Clearwater Creek Project Upper Photo





Clearwater Creek-Typical Slow-water found.

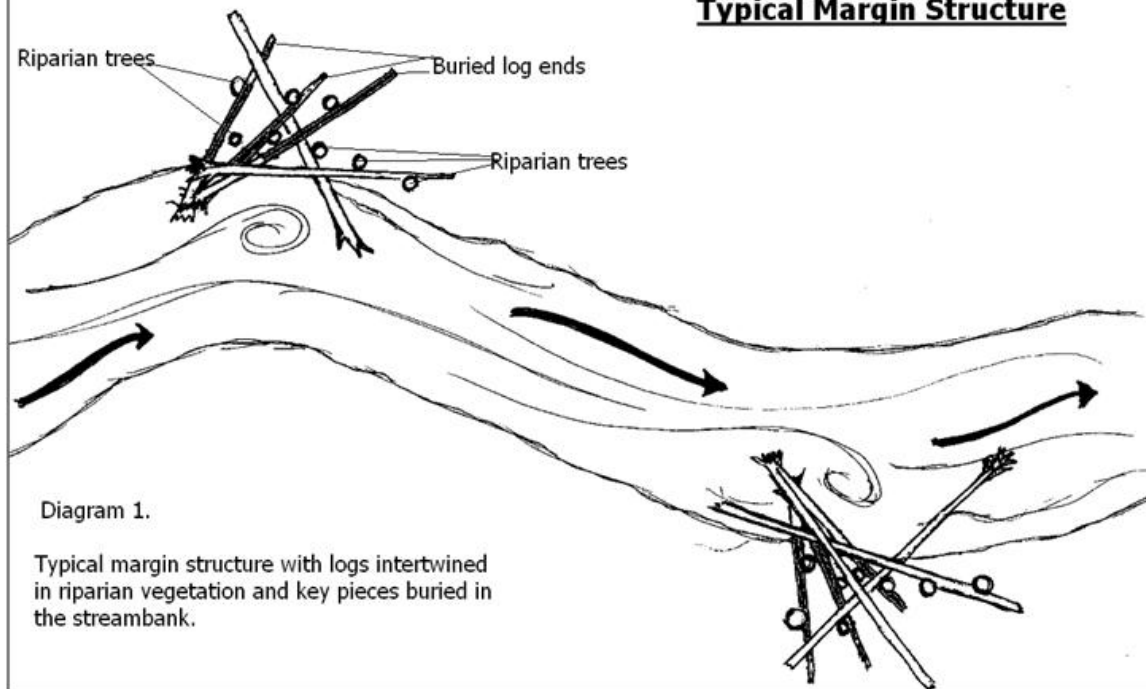


Clearwater Creek- Top of Side Channel



Cutthroat Trout Clearwater Creek October 2011

Typical Margin Structure



APPENDIX H
LEWIS RIVER SIDE CHANNEL III INSTREAM HABITAT RESTORATION

1. Project Title

Lewis River Side Channel III Instream Habitat Restoration

2. Project Manager

Adam Haspiel

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Amboy, WA 98604
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3. Identification of problem or opportunity to be addressed

An opportunity to enhance approximately 0.5 miles of quality side channel habitat in the Upper Lewis River with large woody material (LWM) exists.

Approximately 300 pieces of LWM are proposed under this project to be used to create 25 structures at strategic locations in the side channel to maximize natural channel characteristics while providing structure stability. Woody material would come from a nearby timber sale unit which would provide long pieces of wood with attached rootwads.

This side channel is located on US Forest Service (USFS) lands and is approximately 1/8 mile upstream of the Pepper Lewis Side channel, and on the south side of the Lewis River.

Rearing habitat for coho has been identified to be limited in the Upper Lewis River.

4. Background

Reconnaissance surveys conducted for this project occurred during September and October of 2011. Water flows into the side channel from the river year round, the amount is controlled by a large log jam at the head of the channel, and an outlet to the river is always present, providing easy access into and out of the side channel. The side channel varies between 20 and 30 feet in width, and is well protected by a stable island.

The Lower Columbia Salmon Recovery Plan 2009 Six Year Habitat Work Schedule identifies this as a Tier 1 reach. For coho salmon it has an Overall Preservation rank of 2 of 100, and Overall Restoration rank of 31 of 103, this means it is highly valued and should respond very well to restoration efforts. The conclusion of the EDT analyses suggests habitat diversity and side channel habitat is one of the highest concerns in this reach and should respond well to restoration activities. Concern rating were high for habitat diversity, and moderate for hatchery fish competition, food availability, and sediment. The ACC Synthesis Matrix rated this section of the river as having medium restoration potential and as a Primary coho population area.

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 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.*

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 area 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 large woody material placed instream in side channels, 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 completed during the summer and fall of 2012. The final document should be crafted and signed by March 2013, and the project would be implemented July 2013.
- 2) Instream restoration activities are covered within the WDFW-MOU, and the Regional Permit with the Army Corps of Engineers.

Task 2: Project Design.

- 1) Finalize project design and project preparation details. Preliminary designs have been planned during reconnaissance visits in 2011. We will use a laser level to run a longitudinal profile and collect cross-sectional information as we finalize designs.
- 2) Secure materials. We have a 35 acre Peppercat timber sale unit set aside to use for fish habitat restoration activities over the next ten years. We will layout an area within this stand to thin and prepare for harvest operations. Additional material may be acquired from PacifiCorp Swift Reservoir Cleaning operations.

Task 3: Project Implementation

- 1) Develop 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, ten volunteer youth from the youth stream team, and a supervisor to perform monitoring work. They will perform all aspects of the monitoring with supervision and training from 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 ten 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, the Forest Service will provide analysis of data and report.

7. Methods:

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

Approximately 300 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 down a spur road through private land to a staging area at the confluence of the Muddy River and Lewis River. From there, the wood will be moved to the project site via a skidder and excavator. This project would create and improve rearing opportunities for coho salmon. 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 10 to 15 pieces of LWM will be used at each structure location to form complex habitat. Structures will protrude 1/2 to 1/3 of the way into the channel to minimize water shear stress and create a meandering thalweg. 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.

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.

9. Project Duration

Monitoring for this project would begin during the summer of 2012. Project implementation would occur July 15th 2013 and is expected to take two weeks to complete. 'As built' documents will be completed by December 31st, 2013. An initial report documenting fish response to the structures will be completed by December 31st, 2014. The first monitoring report with pre and post project data will be available December 31, 2014. If funding or LWM supply becomes an issue, project dates would be delayed by one year from above.

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

10. Permits

NEPA- Field work will be completed during the summer of 2012. NEPA document will be completed Spring 2013.

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. The project is wholly on public lands, however the access route is through both Forest and private lands. We have received permission from the landowners to use the private spur road to access this project area.

11. Matching Funds and In-kind Contributions

Partner	Contribution	Funds
Forest Service	Project development, Contracting, Permitting, Monitoring	\$8,000 In-kind
Materials from USFS	Trees with rootwads	\$45,000 In-kind
Mt. St. Helens Institute	Monitoring	\$2,000 In-kind
Swift Community Action Team (SCAT)	Machine Time (if equipment is rented from ERS)	\$800
Fish First	Monitoring design and assistance	\$800
Equipment Rental Services	Machine Time (if equipment is rented from ERS)	\$800

12. Professional Review of Proposed Project

This project proposal was reviewed by Gifford Pinchot National Forest (GPNF) Soil and Water program manager, Ruth Tracy and GPNF Fisheries program manager, Dave Hu.

13. Budget

	NEPA	Final designs	Project Mgmt	Construction	Monitoring/Labor /Reporting/Coord.
Personnel Costs					
FS - Zone Team or Contract	\$8,000 (ACC)				
FS –Fish Bio and Hydrologist		\$4,000 (IK) \$1,000 (ACC)			
FS - Fish Bio and Hydrologist			\$5,000 (IK) \$3,000 (ACC)		\$1,000 (ACC)
FS - Contract administrator -				\$3,000 (IK) \$4,000 (ACC)	
FS - Contract Specialist				\$2,000 (IK)	
Mt St. Helens Institute					\$2,000 (IK)
Mt. St. Helens Institute Community Education					\$2,000 (ACC)
Materials					
Forest Service 300 Pieces of LWM with rootwads				\$45,000 (IK)	
Contract Payables					
Excavator and Skidder Contract				\$20,000 (ACC) \$2,400 Fish First, SCAT, ERS)	
Logging and hauling of trees				\$10,000 (ACC)	
Materials and Supplies			\$ 1,000(ACC)		
Total ACC Funds	\$50,000	\$8,000	\$1,000	\$4,000	\$34,000
<i>Total FS Funds</i>	<i>\$59,000</i>	<i>\$4,000</i>	<i>\$5,000</i>	<i>\$50,000</i>	
<i>Total Partner Funds</i>	<i>\$4,400</i>			<i>\$2,400</i>	<i>\$2,000</i>
Project Total	\$113,400				
FS personnel estimated as \$300/day.					

Lewis Side Channel III expanded budget 2012

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 Forester NEPA Coordinator	4 2 4 4 4 1 0.5 0.5 3	\$350 per day per person	\$8,000 (ACC)
Final Designs	Fish Biologist Hydrologist Fish Technician	5 3 9	\$300 per day per person	\$4,000 (IK) \$1,000 (ACC)
Project Management	Fish Biologist Fish Technician Mileage	12 11 2000 miles	\$300 per day per person \$0.50	\$4,000 (IK) \$3,000 (ACC) \$1,000 (IK)
Construction	Contract Administration/Prep Transportation Logging Equipment	28 1,000 miles	\$300 per day per person \$0.50	\$4,500 (IK) \$4,000 (ACC) \$500 (IK) \$10,000 (ACC) \$20,000 (ACC)
Materials & Supplies	Field Equipment, Notebooks, Misc Supplies			\$1,000 (ACC)
Trees with rootwads		300		\$45,000 (IK)
Monitoring <i>MSHI</i> <i>USFS</i>	Supervisor Assistant Fish Biologist Volunteers Transportation	10 25 1,000	\$300 per day per person \$20 \$0.50	\$1,500 (IK) \$2,500 (ACC) \$500 (IK) \$500 (ACC)
Partner Donations	Technical input and Equipment	3	\$800	\$2,400
Total				\$113,400

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

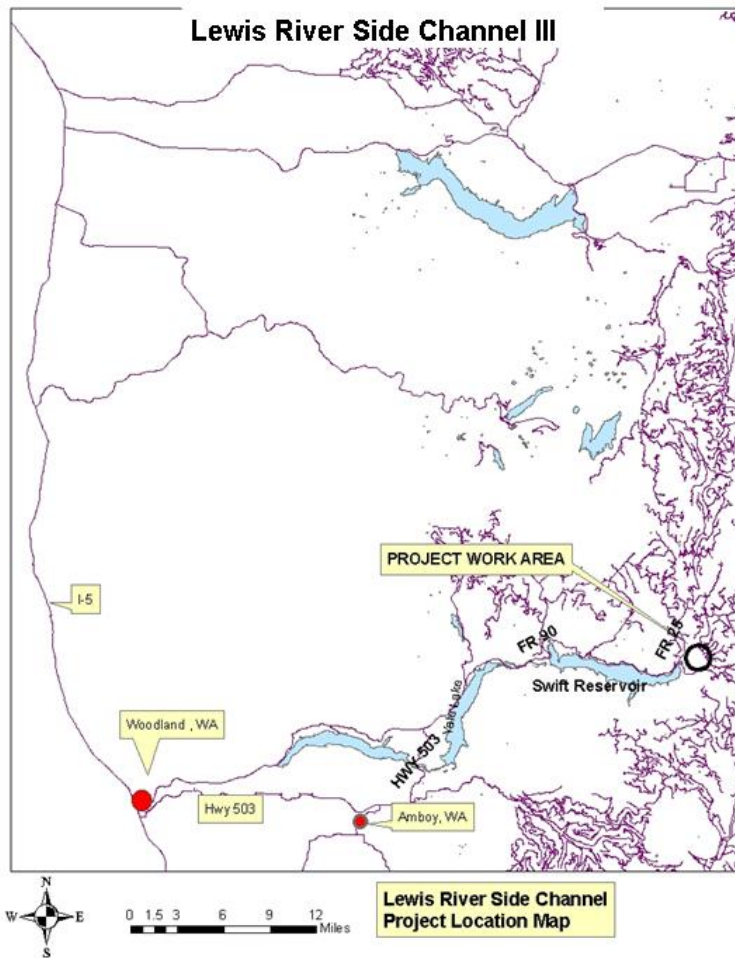
Lewis Side Channel III Equipment Budget 2012

Item	Cost per unit	Number of units	ACC cost	Total Cost
Excavator Operator/Fuel/Supplies, misc	\$125 hour	100	\$12,500	\$12,500
Excavator Move in/out	(\$800)	1		\$800
Skidder	\$125/Hour	60	\$7,500	\$7,500
Skidder Move in/out	\$(800)	1		\$800
Logging and Hauling cost: Based on Previous Contract	\$10,000	1	\$10,000	\$10,000
Total			\$30,000	\$31,600

Questions from ACC members to address in this proposal

1. USFS has done a couple of other side channel projects in the Lewis River. The final proposal should include what has been learned from those projects and how the implementation and results of those projects have been used in developing this proposal. WDFW does believe this proposal will benefit all four listed species. The final proposal will need to include detailed outline of costs, especially those associated with NEPA process. Cost shares and what is provided as part of these cost shares will need to be fully articulated in the proposal. *We have implemented on side channel project in the Lewis River to date. We used what we learned from that project to refine this proposal and the associated contract. Refinements include better estimates on equipment contract prices, logging techniques for trees with rootwads, hauling full length trees down a narrow winding road, and use of multiple locations of oil sorbent booms to access the Lewis River from private property. Many of these items will be incorporated in the actual contract, but the concept level designs include lessons learned like how far to bury structures for stability and how far into the channel we can extend the structures. Detailed costs of NEPA and other items are provided in the expanded budget worksheets. Cost shares by partners are found under section 11 “**Matching Funds and In-kind Contributions heading**”.*
2. The full proposal will benefit from concept level designs and layout. *See attachments for these concerns.*

3. Recommend full proposal that includes clearly identified costs. *The expanded budget has addressed this concern.*



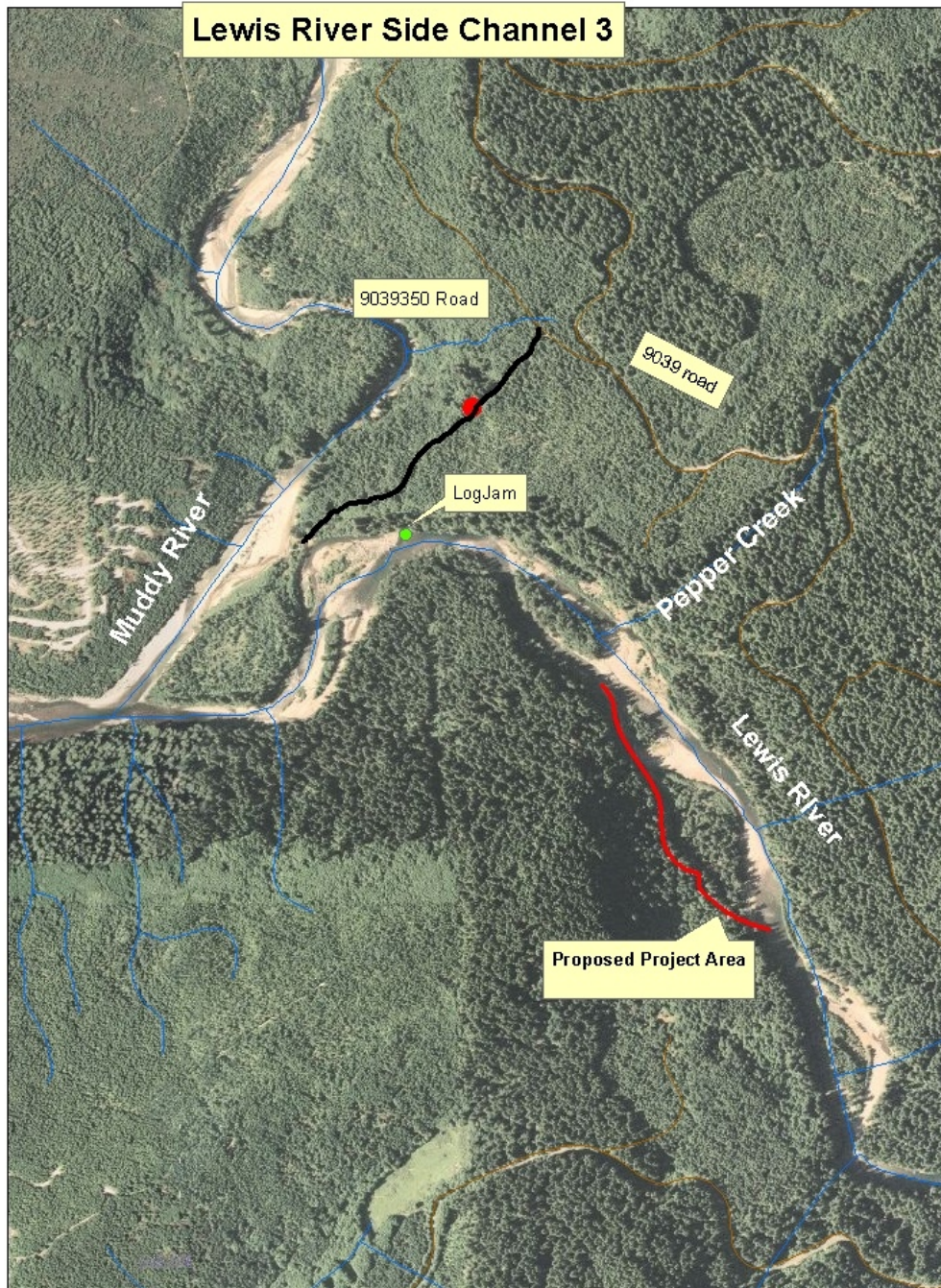
Lewis River Side Channel 3



0 275 550 1,100 1,650 2,200 Feet



Lewis River Side Channel 3



0 600 1,200 2,400 3,600 4,800 Feet





Lewis River Side Channel 3 at low flow.



Lewis River Side Channel 3 at low flow



Lewis River Side Channel 3 at low flow

