

Lewis River Hydroelectric Projects

FERC Project Nos. 935, 2071, 2111, 2213



Photo courtesy of Joel Sartore – National Geographic photographer

2013 Annual Report

Lewis River Aquatic Fund Projects



April 2013

Introduction

This 2013 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 2012/2013 funding process, additional projects are expected to be selected and funded annually following the process established by the ACC.

This 2013 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). 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 5, 2012, PacifiCorp Energy announced the availability of calendar year (CY) 2012/2013 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 5, 2012.

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

Applicant	Project Title
USDA Forest Service	Lewis River Side Channel near Little Creek
USDA Forest Service	Muddy River Tributary near Hoo Hoo Bridge
USDA Forest Service	Little Creek Fish Habitat Restoration
USDA Forest Service	Survey of Bull Trout Stream habitat features to develop future habitat restoration projects
Lower Columbia Regional Fisheries Enhancement Group	Eagle Island North Channel Restoration
Lower Columbia Regional Fisheries Enhancement Group	Cedar Creek Reach 1A Restoration

Following the Aquatics Fund – Strategic Plan and Administrative Procedures, PacifiCorp Energy and Cowlitz PUD reviewed and evaluated the Pre-Proposals and, on October 25, 2012, 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 projects be solicited to provide complete Proposals:

- USDA FS – Lewis River Side Channel near Little Creek
- USDA FS – Muddy River Tributary near Hoo Hoo Bridge
- USDA FS – Little Creek Fish Habitat Restoration
- Lower Columbia Regional Fisheries Enhancement Group - Eagle Island North Channel Restoration
- Lower Columbia Regional Fisheries Enhancement Group Cedar Creek Reach 1A Restoration

On December 13, 2012, the ACC concurred with the Utilities evaluations, however, the ACC also determined that the one project not selected by the Utilities had merit so all six

were selected for full proposal to include the project titled, Survey of Bull Trout Stream habitat features to develop future habitat restoration projects.

To accommodate those ACC participants not in attendance, the Utilities provided an additional 7-day comment period until December 21, 2012. Shortly thereafter, PacifiCorp Energy notified the project sponsors and requested full Proposals by January 31, 2013.

Upon the due date, five 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 14, 2013 with presentations of project proposals to include an opportunity for ACC questions and comments. On February 1, 2013, the ACC was provided an email (Subject: Lewis River 2012/2013 Aquatic Fund Full Proposals, 30-day Review and Comment Period see **Appendix D**) containing a link that includes a description of the proposed Resource Projects. On February 1st and 14th, 2013, the Utilities requested review and ACC comment by March 1, 2013.

The ACC met on March 14, 2013 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 26, 2013.



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

Applicant	Project Title	Approved Funding	Decision
USDA Forest Service	Lewis River Side Channel near Little Creek	\$60,000	YES
USDA Forest Service	Little Creek Fish Habitat	\$69,000	YES
USDA Forest Service	Survey of Bull Trout Stream habitat features to develop future habitat restoration projects	\$59,226	YES
LCFEG	Cedar Creek Reach 1A	\$53,000	YES

On March 27, 2013 the Utilities notified all ACC Participants of the selected 2012/2013 Aquatic Funding projects approved for full funding (email dated March 27, 2013, 2012/2013 Lewis River Aquatic Fund Project Final Selection, see **Appendix E**).

Consensus was reached to not select for funding:

Applicant	Project Title	Funding Requested	Decision
USDA Forest Service	Muddy River Tributary near Hoo Hoo Bridge	\$39,000	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 near Little Creek

This USDA Forest Service proposed project is intended to restore instream fish habitat in two side channels of the Lewis River to its full potential prioritizing opportunities for ESA listed fish species. It will maximize summer and winter rearing habitat for coho and spring Chinook salmon, winter steelhead and bull trout.

ACC representatives agreed to fund this project as proposed and granted funding of \$60,000.

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

Final Design and permitting	Summer 2013 to Spring 2014
Monitoring	Summer/2013
Project Implementation	July 15, 2014

2) Little Creek Fish Habitat Restoration

The USDA Forest Service sponsored project is intended to enhance 2,700' of Little Creek with instream structures composed of large woody material with rootwads.

Approximately 8 to 10 pieces of large woody material 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 large woody material will be interwoven into these key pieces and riparian vegetation.

ACC representatives agreed to fund this project as proposed and granted funding of \$87,000*.

*Total ACC funds would be \$69,000 if the Lewis River Side Channel near Little Creek project is funded and equipment move-in and NEPA costs are shared between the projects.

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

Monitoring	Summer 2013
Project Implementation	July 15, 2014
As-built documents	December 31, 2014
Pre & Post Project Data	December 31, 2015

3) Survey of Bull Trout Stream habitat features to develop future habitat restoration projects

This USDA Forest Service sponsored project proposes to fill the project scoping and prioritization void by initially using results of past or ongoing data collection efforts to characterize bull trout spawning and rearing habitat in Pine, P8, Rush, and Cougar Creeks. Subsequent portions of this project would conduct additional spawning and habitat surveys to collect habitat parameter data that would be used to site and scope specific restoration projects for future bull trout funding rounds.

The ultimate goal of this project is to develop concept scoping design of habitat restoration projects in areas outside of existing spawning and rearing locations to expand the range of

available bull trout spawning and rearing habitat. The expected outcome of this project is improved long term stability of the bull trout population in the upper Lewis Basin.

ACC representatives agreed to fund this project as proposed and granted funding of \$59,226.

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

Collect and synthesize existing bull trout data	Summer/Fall 2013
Collect temperature data and collected habitat parameter data in selected streams in the upper Lewis Basin	Summer/Fall 2013
Conduct spawning surveys	Fall, 2013
Finalize field data collection study design	Fall 2013 – Winter 2014
Conduct habitat parameter surveys	Summer/Fall 2014
Data summarization and analyses	Fall 2014 – Winter 2015
Develop conceptual project scoping designs	Winter 2014 – Spring 2015
Project Implementation	Summer 2013 – Summer 2015
Project Completion	Summer 2015

4) Cedar Creek Reach 1A Restoration

The Lower Columbia Fisheries Enhancement Group sponsored project is intended to increase stream habitat function in a manner that leads to increased reproductive success of anadromous and freshwater salmonids in EDT Reach 1A of Cedar Creek, tributary to the North Fork Lewis River.

Place approximately 15 pieces of large woody material and small multi-log structures along channel margins and within the active channel to create the desired habitat conditions to benefit both rearing and spawning salmonids. The project proposes to increase the frequency of pool: riffle habitat, increase channel margin cover, and increase connectivity with adjacent floodplain features.

ACC representatives agreed to fund this project as proposed and granted funding of \$53,000.

The final Resource Project Plan is provided in **Appendix I** and would be completed in accordance with the schedule below (to include but not limited to):

Project Design/Permitting	January 2013 – July 2014
Lamprey Monitoring	August – September 2014
Install of riparian plantings	November 2014 – June 2015
As-built survey/photo doc	July 2015 – August 2015
Complete final reports	October 2015 – December 2015

Conclusion

This report provides the final CY2012/2013 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 \$241,226. 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 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 5, 2012
LETTER TO INTERESTED PARTIES FROM T. OLSON, PACIFICORP ENERGY
AVAILABILITY OF FUNDS FOR AQUATIC RELATED PROJECTS

APPENDIX C
EMAIL DATED OCTOBER 25, 2012
MEMO TO ACC FROM K. McCUNE – PACIFICORP ENERGY
REVIEW OF CY 2013 AQUATIC FUND PRE-PROPOSALS

APPENDIX D
EMAIL DATED FEBRUARY 1ST AND 14TH, 2013
MEMO TO ACC FROM K. MCCUNE – PACIFICORP ENERGY
Lewis River 2012/2013 Aquatic Fund Full Proposals, 30-day Review and
Comment Period

APPENDIX E
EMAIL DATED MARCH 27, 2013
TO THE ACC FROM K. McCUNE – PACIFICORP ENERGY
CY 2012/2013 LEWIS RIVER AQUATIC FUND PROJECT FINAL SELECTION

APPENDIX F
Lewis River Side Channel near Little Creek

APPENDIX G
Little Creek Fish Habitat Restoration

APPENDIX H
Survey of Bull Trout Stream habitat features
to develop future habitat restoration projects

APPENDIX I
Cedar Creek Reach 1A Restoration