

Lewis River Hydroelectric Projects

FERC Project Nos. 935, 2071, 2111, 2213



Clearwater Creek Instream – USDA Forest Service

2020 Annual Report

Lewis River Aquatic Fund Projects



April 2020

Introduction

This 2020 Annual Report prepared by PacifiCorp and the Public Utility District No. 1 of Cowlitz County, Washington (“Cowlitz PUD”) (collectively the “Utilities”) is provided to the Lewis River Settlement Agreement Parties to fulfill the reporting requirement in Article 7.5.3.2 (5) of the Lewis River Settlement Agreement (SA). This report identifies the actions and selection of Aquatic Resource Projects (Resource Projects) to be funded from the Lewis River Aquatic Fund established under terms of the SA (Article 7.5, see **Appendix A**). Although the funding process was managed by the Utilities, the Aquatic Coordination Committee (ACC) provided final approval of funded projects. This report includes only Resource Projects selected from the 2019/2020 funding process, additional projects are expected to be selected and funded annually following the process established by the ACC.

This 2020 report is available to the Public on PacifiCorp’s website at:

<https://www.pacificorp.com/energy/hydro/lewis-river/acc-tcc.html>

- Reports
- Lewis River Aquatic Fund Annual Reports

Copies of this report are available from PacifiCorp upon request.

Background

PacifiCorp 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. 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, September 2013, August 2016 and August 2017). 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’s website at: https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/08252017_LR_FINAL_Rev_AQ_Process_Doc.pdf

On May 3, 2019, PacifiCorp announced the availability of calendar year (CY) 2019/2020 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 September 27, 2019.

In response to the announcement letter, three entities provided the following four (4) project Pre-Proposals.

Applicant	Project Title
USDA Forest Service	Lewis River 21 Phase III
USDA Forest Service	Rush Creek Side Channel Reactivation
Washington Department of Fish and Wildlife (WDFW)	Eagle Island chum spawning channel construction
Cowlitz Conservation District	Anderson North Fork Lewis River Restoration

On September 30 2019, PacifiCorp requested the ACC representatives each submit an Evaluation Criteria document by the due date of October 9, 2019, (Email to ACC from McCune – PacifiCorp, see **Appendix C**).

On October 9, 2019, the ACC selected all four (4) projects to move forward to full proposals, however, a number of ACC representatives were not in attendance. To accommodate those ACC representatives not in attendance, the Utilities provided an additional 7-day comment period until October 18, 2019, see **Appendix D**. The project sponsors were notified of the ACC decisions on November 1, 2019.

Shortly thereafter, the project sponsors were invited to provide a PowerPoint presentation and opportunity to address any additional ACC questions at the December 12, 2019 ACC meeting.

On August 5, 2019 PacifiCorp received an email from the USDA Forest Service (USFS) stating that they will not be implementing the Lewis River 21 Phase II project (2018/2019 Funding cycle). PacifiCorp informed the ACC attendees on September 12, 2019 that a USFS hiking trail runs immediately adjacent to the Lewis River in the areas of Reach 21. If the floodable area was accessed then the hiking trail would need to either be relocated along the valley wall at the far side of the 30 acre floodplain areas, or have trail crossing structures (at least two) that could accommodate flood flows of the Lewis River. The Forest Service does not want to relocate the trail, nor has funds to invest in the trail crossing structures that would be necessary once the Lewis River side channels accessed the area. Funds awarded to the USFS in the amount of \$177,000 was returned to PacifiCorp on September 9, 2019. The funds are available for distribution to approved projects in the future, **Appendix E**.

The Utilities submitted the final proposals to the ACC via email February 4, 2020 for a 30-day review and comment period (**Appendix F**). A copy of the documents can be viewed on the Lewis River website at the following link:

<https://www.pacificorp.com/energy/hydro/lewis-river/acc-tcc.html> > Aquatics Coordination Committee > 2020 – February 13, 2020 Meeting Notes

The ACC met March 12, 2020 for an Aquatic Fund Project Proposal Decision Meeting. To accommodate those ACC participants not in attendance, the Utilities provided an additional 7-day review and comment period until March 19, 2020 with modifications. An additional week of review until March 26, 2020 was provided for the USFS projects to allow for ACC questions that required clarification. A decision was not reached on the USFS projects after this additional review so the ACC met on April 9, 2020 to discuss in detail how to proceed. While the ACC agreed that both USFS projects had biological merit, the ACC recommended that additional information or consultation was needed for these projects to move forward. Based on this recommendation, the USFS agreed to withdraw both projects, take additional project efforts to address ACC items, then resubmit in the Lewis River 2020/2021 Aquatic Fund cycle.

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

Applicant	Project Title	Funding Requested	Decision
USDA Forest Service	Lewis River 21 Phase III	\$305,423	USFS withdrew this project and will resubmit for 2020/2021 funding cycle
USDA Forest Service	Rush Creek Side Channel Reactivation	\$125,500	USFS withdrew this project and will resubmit for 2020/2021 funding cycle
WDFW	Eagle Island chum spawning channel construction	\$175,000	Yes
Cowlitz Conservation District	Anderson NF Lewis River Restoration	\$254,000	No

On April 10, 2020 the Utilities notified all ACC Participants of the selected 2019/2020 Aquatic Funding project approved for full funding (2019/2020 Lewis River Aquatic Fund Project, Funding Selection - **Appendix G**).

Project Selected for Funding

The following is a summary description of the individual Resource Project selected to be funded by the Aquatics Fund. The selected Project is 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 the selected project is an overview of the original proposal, any ACC modifications to the project, and identification of Resource Project nexus to the hydroelectric projects. A final Resource Project Plan is provided as an appendix to this document.

Eagle Island Chum Spawning Channel Construction - WDFW

ACC representatives agreed to fund this project as proposed and granted funding of \$175,000. The final Resource Project Plan is provided in **Appendix H** and will be completed in accordance with the schedule below:

The overall goal of the Eagle Island chum spawning channel project is to create protected high quality off-main channel spawning habitat that can support at least 500 spawner pairs and be expected to reliably provide egg-to-fry survival rates of ~50% or greater annually. Highly productive chum salmon spawning and incubation habitat is critical for the recovery of this species within the Lewis Basin due to the low smolt-to-adult survival rates that Lower Columbia River chum salmon experience. A long-term goal of the WDFWs regional chum salmon recovery strategy is to use a healthy and stable Lewis River population as a donor stock for reintroduction/enhancement programs in other Cascade strata populations.

Late spring & summer of 2021: Mobilize to site, install erosion and sediment controls, clear and convert existing vehicle trails into temporary roads for construction, place out of water floodplain wood, clear and excavate out of water channel alignment section, install pilings and log-toe components, install water level control elements, place spawning gravel. Prepare for in-water work.

August 2021: Place coffer dams, de-water work areas, excavate downstream entrance, install downstream entrance components, excavate for infiltration gallery placement, install infiltration gallery, backfill area and install Large Wood Debris component of infiltration gallery, remove coffer dams.

August through September 2021: Continue work on out of water elements as needed, general clean up and decommissioning of un-needed construction roads, de-mobilize from site.

October 2021: Complete revegetation plan.

October or November 2021: Conduct post project site visit with PacifiCorp, Cowlitz PUD, and ACC representatives, complete and submit photo documentation report.

Conclusion

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.



March 2018

Haapa Habitat Restoration Phase I
Photographer: Brice Crayne, WDFW

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 MAY 3, 2019
LETTER TO INTERESTED PARTIES FROM T. OLSON, PACIFICORP
AVAILABILITY OF FUNDS FOR AQUATIC RELATED PROJECTS

May 3, 2019

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 (Projects) in the Lewis River basin. The Projects are evaluated for funding according to the following objectives as specified in the project operating licenses and the SA:

- (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.*

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 \$2,524,866.58 for Resource Projects and \$779,219.87 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 Aquatic Fund Subgroup to the Aquatic Coordination Committee completed a Lewis River Aquatic Fund Priority Reaches (Priority Reaches, **Attachment B**) document which provides priority rankings for stream reaches within the Lewis River watershed. The Priority Reaches document is aligned with the Lower Columbia Fish Recovery Board (LCFRB) Interactive map which is found on their website at www.lowercolumbiasalmonrecovery.org/mappage. The interactive maps provide a wealth of information that should help project proponents in selecting areas to focus their habitat improvement efforts. For consideration of funding the proponent must demonstrate that they have reviewed both the Priority Reaches and the LCFRB Interactive map and selected appropriate projects/reaches from those two tools. Additionally, proponent must show how proposed project is consistent with fund objectives and priorities. Projects proposed in reaches other than those identified in the Priority Reaches document or high priority reaches in the LCFRB habitat strategy (Tier 1 and Tier 2) need a clear explanation of why they still support Lewis River Aquatic Fund goals.

To be consistent with certain comprehensive plans such as the *Lower Columbia Salmon Recovery Plan and the Washington Department of Fish & Wildlife Subbasin Plan (LCFRB 2010)* relating to Lewis River reintroduction efforts and the recovery of ESA listed threatened salmon and steelhead species, higher priority will be given to Resource Projects that provide benefits to Recovery Plan priority fish species and stocks reintroduced to or originating from upstream of Merwin Dam, with emphasis on Spring Chinook. Resource Projects must have specific objectives and expected outcome(s) that help attain the objectives of the Aquatic Fund.

Bull Trout Project funding is available this year and we invite you to review the December 2017 Bull Trout project identification assessment. Proposals will be evaluated according to alignment with the assessment.

http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/Lewis_River/li/acc/Bull_Trout_LewisRiver_ACC_Distributed.pdf

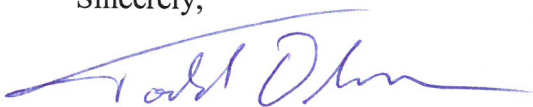
The selection of Resource Projects will be conducted in two phases. To be considered, applicants must submit a completed Pre-Proposal Form (see **Attachment A** for Form) by close of business **September 27, 2019** and obtain acknowledgement from all owners of land needed to access the proposed Resource Project. Landowner(s) must sign a Landowner Acknowledgement Form (**Attachment C** for Form) indicating they are aware that the project is being proposed on their property.

Pre-Proposals will be evaluated for further consideration using **Attachment D**, Section A. This evaluation may include feedback from the evaluators regarding the merits of the proposal. If the pre-proposal meets all of the objectives and priorities stipulated in Section A, the pre-proposal qualifies for full proposal. Author(s) will be notified in early November whether their pre-proposal qualifies. The author(s) must decide whether to submit a full proposal based on evaluator feedback. Full proposals are due by late January. Full proposals will be evaluated using Attachment D, sections B-E. The Utilities and representatives of the Lewis River Aquatic Coordination Committee will finalize a list of selected Resource Projects in mid-March 2020. Shortly thereafter, the Utilities will submit the final list to the Federal Energy Regulatory Commission to meet the submittal deadline of April 15, 2020 (see **Attachment E** for Funding Process Timeline) and notify proponents.

Please give attention to this excellent opportunity. If you have any questions please contact Mr. Erik Lesko, PacifiCorp (503) 813-6624.

We look forward to your response in September.

Sincerely,



Todd Olson
Director, Compliance Hydro Resources

Encl:	Attachment A – Pre-proposal Form
	Attachment B – Lewis River Aquatic Fund Priority Reaches
	Attachment C – Landowner Acknowledgement Form
	Attachment D – Evaluation Criteria
	Attachment E – Funding Process Time Line

APPENDIX C

EMAIL DATED SEPTEMBER 30, 2019

EMAIL TO ACC FROM K. McCUNE – PACIFICORP

2019/2020 AQUATIC FUND PREPROPOSAL EVALUATION DUE OCTOBER 9, 2019

McCune, Kimberly

From: McCune, Kimberly
Sent: Monday, September 30, 2019 10:00 AM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bryce Glaser; Carol Serdar; David Howe; Denise Smee; Doyle, Jeremiah; Ed Meyer; Ferraiolo, Mark; Hudson, Michael; James Byrne; James H Malinowski; Jonathan Stumpf; Joshua Ashline; 'Kale Bentley'; Karchesky, Chris; Katie Pruitt; Kelley Jorgensen; Lesko, Erik; Mariah Stoll-Smith Reese; Michelle Day; Morgan, David; Nathan Reynolds; Olson, Todd; Peggy Miller; Pienovi, Levi; Rhidian Morgan; Roberts, Aaron; Robertson, Greg -FS; 'Ruth Tracy'; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana; Wendy McDermott; Whitesel, Timothy
Subject: REVIEW REQUESTED: 2019/2020 Aquatic Fund Preproposal Evaluation
Attachments: 05032019 LR - D_Attachment D Eval Criteria.doc; Greg_Robertson_Resume_2019.pdf; WDFW Todd Hillson Resume.pdf; 09302019 - ACC Lewis River AQ Fund evaluation (2019-2020).xls

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Representatives

Please be advised that the Utilities received four (4) Pre-proposals by the due date of September 27, 2019. Project manager resumes' are attached in this email. For ease of review I've posted the pre-proposals to PacifiCorp's Lewis River website (see links below).

USFS - Lewis River 21 Phase III

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_LR21PhaseIII_2019.pdf

USFS - Rush Creek Side Channel Reactivation

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_RushCreek_2019.pdf

WDFW - Eagle Island chum spawning channel construction

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_RushCreek_2019.pdf

Cowlitz Conservation District - Anderson NF Lewis River Restoration

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/09272019_Anderson_PreProposal.pdf

In accordance with the Process Timeline below, we request that each ACC representatives submit an Evaluation Criteria document (attached) via email to my attention **no later than close of business Wednesday, October 9, 2019**. At the ACC Meeting Thursday, October 10, 2019 we will discuss the evaluations and select if the pre-proposal goes forward for further consideration.

Attachment E

Table 4.1. Funding Process Timeline

Activity	Target Milestone Date
Submit Request For Pre-Proposal Forms	Late May
Pre-Proposal Forms due	Late September
Pre-proposal forms distributed to ACC & Utilities	Late September
ACC submits Pre-Proposal Listing and Evaluation Sheets (Attachment D). Discuss and approve pre-proposals that qualify for full proposals. <i>Applicants are welcome to attend and observe only.</i>	October ACC meeting
ACC members shall provide written clarification, suggestions, comments or questions for Selected Projects to the Utilities for inclusion in the Request For Full Proposals.	Late October
Submit Request For Full Proposals to Selected Applicants	Early November
Conduct Proposed Project Information Meeting (<i>applicant presentations</i>)	December ACC meeting
ACC members submit written request for clarification of project information if questions not answered in previous meeting/presentation.	December 27
Final Full Proposals due (ACC requests for clarification need to be included as an Appendix)	February 3
Final Full Proposals submitted to ACC for 30-day review	February 4
ACC Proposal Evaluation Sheet (Attachment D, Part B-E) due to Utilities	March 6
*Conduct Project Selection Meeting	March ACC meeting
Provide add'l 7-day review period for absentee ACC participants, if needed	Third Thursday in March
Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

Thank you.

Kimberly McCune

Sr. Business Administrator

PacifiCorp – Hydro Resources

825 NE Multnomah St., Suite 1800

Portland, OR 97232

Ph: (503) 813-6078

APPENDIX D
EMAIL DATED OCTOBER 10, 2019
EMAIL TO ACC FROM K. McCUNE – 2019/2020 AQUATIC FUND
7-DAY REVIEW PERIOD

McCune, Kimberly

From: McCune, Kimberly
Sent: Thursday, October 10, 2019 1:28 PM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bryce Glaser; Carol Serdar; David Howe; Denise Smee; Doyle, Jeremiah; Ed Meyer; Ferraiolo, Mark; Hudson, Michael; James Byrne; James H Malinowski; Jonathan Stumpf; Joshua Ashline; 'Kale Bentley'; Karchesky, Chris; Katie Pruit; Kelley Jorgensen; Lesko, Erik; Mariah Stoll-Smith Reese; Michelle Day; Morgan, David; Nathan Reynolds; Olson, Todd; Peggy Miller; Pienovi, Levi; Rhidian Morgan; Roberts, Aaron; Robertson, Greg -FS; 'Ruth Tracy'; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana; Wendy McDermott; Whitesel, Timothy
Subject: COMMENTS REQUESTED: 2019/2020 Aquatic Fund Preproposal Evaluation
Attachments: 05032019 LR - D_Attachment D Eval Criteria.doc; ACC AQUATIC FUND IMAGES 2019_2020.pdf

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Representatives

At the ACC meeting today the attendees agreed that each aquatic fund project submitted qualified to proceed to full proposal. Several ACC representatives were absent so the ACC attendees agreed that an additional 7-day review & comment period is appropriate for those ACC representatives not in attendance.

In addition, Erik Lesko put together an evaluation spreadsheet for the (4) four pre-proposals (attached) to include ACC comments received thus far. He also added some images to show where redds have been documented in the proposed areas.

Each ACC representative is to submit an Evaluation Criteria document (attached) to determine if the project “meets” or “does not meet” the resource project objectives as outlined below. Please reply via email to my attention **no later than close of business Friday, October 18, 2019.**

The ACC further agreed that written comments, clarifications, etc. **are due no later than Friday, October 25, 2019** in accordance with the timeline below.

Attachment E

Table 4.1. Funding Process Timeline

Activity	Target Milestone Date
Submit Request For Pre-Proposal Forms	Late May
Pre-Proposal Forms due	Late September
Pre-proposal forms distributed to ACC & Utilities	Late September
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ACC members shall provide written clarification, suggestions, comments or questions for Selected Projects to the Utilities for inclusion in the Request For Full Proposals.	Late October
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Conduct Proposed Project Information Meeting (applicant presentations)	December ACC meeting
ACC members submit written request for clarification of project information if questions not answered in previous meeting/presentation.	December 27
Final Full Proposals due (ACC requests for clarification need to be included as an Appendix)	February 3
Final Full Proposals submitted to ACC for 30-day review	February 4
ACC Proposal Evaluation Sheet (Attachment D, Part B-E) due to Utilities	March 6
*Conduct Project Selection Meeting	March ACC meeting
Provide add'l 7-day review period for absentee ACC participants, if needed	Third Thursday in March
Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

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.*

From: McCune, Kimberly

Sent: Monday, September 30, 2019 10:00 AM

To: Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfwb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Denise Smeed <dsmeed@lcfwb.gen.wa.us>; Doyle, Jeremiah <Jeremiah.Doyle@pacificorp.com>; Ed Meyer <ed.meyer@noaa.gov>; Ferraiolo, Mark <Mark.Ferraiolo@pacificorp.com>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; James H Malinowski <jim.malinowski@icloud.com>; Jonathan Stumpf <jstumpf@americanrivers.org>; Joshua Ashline <joshua.ashline@noaa.gov>; 'Kale Bentley' <kale.bentley@dfw.wa.gov>; Karchesky, Chris <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen

<kjorgensen@pnfarm.com>; Lesko, Erik <Erik.Lesko@pacificorp.com>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Michelle Day <michelle.day@noaa.gov>; Morgan, David <dmorgan@pnfarm.com>; Nathan Reynolds <nreynolds@cowlitz.org>; Olson, Todd <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Robertson, Greg -FS <greg.robertson2@usda.gov>; 'Ruth Tracy' <rtracy@fs.fed.us>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Steve Manlow <smanlow@lcfwb.gen.wa.us>; Steve West <swest@lcfwb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>

Subject: REVIEW REQUESTED: 2019/2020 Aquatic Fund Preproposal Evaluation

Importance: High

Attn: ACC Representatives

Please be advised that the Utilities received four (4) Pre-proposals by the due date of September 27, 2019. Project manager resumes' are attached in this email. For ease of review I've posted the pre-proposals to PacificCorp's Lewis River website (see links below).

USFS - Lewis River 21 Phase III

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_LR21PhaseIII_2019.pdf

USFS - Rush Creek Side Channel Reactivation

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_RushCreek_2019.pdf

WDFW - Eagle Island chum spawning channel construction

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/WDFW_Eagle_Island_Chum_2019.pdf

Cowlitz Conservation District - Anderson NF Lewis River Restoration

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/09272019_Anderson_PreProposal.pdf

In accordance with the Process Timeline below, we request that each ACC representatives submit an Evaluation Criteria document (attached) via email to my attention **no later than close of business Wednesday, October 9, 2019**. At the ACC Meeting Thursday, October 10, 2019 we will discuss the evaluations and select if the pre-proposal goes forward for further consideration.

Attachment E

Table 4.1. Funding Process Timeline

Activity	Target Milestone Date
Submit Request For Pre-Proposal Forms	Late May
Pre-Proposal Forms due	Late September
Pre-proposal forms distributed to ACC & Utilities	Late September
ACC submits Pre-Proposal Listing and Evaluation Sheets (Attachment D). Discuss and approve pre-proposals that qualify for full proposals. <i>Applicants are welcome to attend and observe only.</i>	October ACC meeting
ACC members shall provide written clarification, suggestions, comments or questions for Selected Projects to the Utilities for inclusion in the Request For Full Proposals.	Late October
Submit Request For Full Proposals to Selected Applicants	Early November
Conduct Proposed Project Information Meeting (<i>applicant presentations</i>)	December ACC meeting
ACC members submit written request for clarification of project information if questions not answered in previous meeting/presentation.	December 27
Final Full Proposals due (ACC requests for clarification need to be included as an Appendix)	February 3
Final Full Proposals submitted to ACC for 30-day review	February 4
ACC Proposal Evaluation Sheet (Attachment D, Part B-E) due to Utilities	March 6
*Conduct Project Selection Meeting	March ACC meeting
Provide add'l 7-day review period for absentee ACC participants, if needed	Third Thursday in March
Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

Thank you.

Kimberly McCune
 Sr. Business Administrator
 PacifiCorp – Hydro Resources
 825 NE Multnomah St., Suite 1800
 Portland, OR 97232
 Ph: (503) 813-6078

APPENDIX E
EMAIL DATED AUGUST 26, 2019
EMAIL TO USFS FROM K. McCUNE – PACIFICORP
LEWIS RIVER 21 PHASE II; PROJECT WITHDRAWAL

McCune, Kimberly

From: McCune, Kimberly
Sent: Monday, August 26, 2019 8:09 AM
To: 'Tracy, Ruth -FS'
Cc: Robertson, Greg -FS; Lesko, Erik
Subject: RE: Lewis River 21 Phase II; Project withdrawal

Ruth:

We will provide the update at the Sept. ACC meeting and I'll make the necessary updates in the 2020 Aquatic Fund annual report. I'll also watch for the refund check to credit the ACC Aquatic Fund account.

Thank you.

Kimberly McCune

Sr. Business Administrator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232
Ph: (503) 813-6078

From: Tracy, Ruth -FS [mailto:ruth.tracy@usda.gov]
Sent: Wednesday, August 14, 2019 9:31 AM
To: McCune, Kimberly <Kimberly.McCune@pacificorp.com>
Cc: Robertson, Greg -FS <greg.robertson2@usda.gov>; Lesko, Erik <Erik.Lesko@pacificorp.com>
Subject: [INTERNET] RE: Lewis River 21 Phase II; Project withdrawal

Hi Kim, The trail runs immediately adjacent to the Lewis River in that area of Reach 21. If the floodable area was accessed then the trail would need to either be relocated along the valley wall at the far side of the 30 acre floodplain area, or have trail crossing structures (at least two) that could accommodate flood flows of the Lewis River. As I stated below, "the Forest Service does not want to relocate the trail, nor has funds to invest in the trail crossing structures that would be necessary once the Lewis River side channels accessed the area. We recognized this should have been fully vetted prior to requesting the funds, and apologize to the ACC for the time spent."

Are there other specific details you are looking for?

Ruth E Tracy
Gifford Pinchot NF
Soil and Water Program Manager
360-891-5112
rtracy@fs.fed.us

From: McCune, Kimberly [mailto:Kimberly.McCune@pacificorp.com]
Sent: Friday, August 09, 2019 8:27 AM
To: Tracy, Ruth -FS <ruth.tracy@usda.gov>
Cc: Robertson, Greg -FS <greg.robertson2@usda.gov>; Lesko, Erik <Erik.Lesko@pacificorp.com>
Subject: RE: Lewis River 21 Phase II; Project withdrawal

Good morning, Ruth.

I would like to provide an update to the ACC at the September meeting to memorialize withdrawing of the LR 21 Phase II project in the ACC meeting notes followed by an update in the Aquatic Fund Annual Report next April. Can you please provide a bit more detail about the trail and crossing structures that you are speaking of? Upon review of the final proposal (Pg. 8) it states.....

A separate trail project will be designed to accommodate more frequent flows in the small channels on the floodplain not only at the trail section with the two locations where an inlet will be formed but throughout the trail section as it crosses this 30 acres floodplain area.

Is there any other detail or statement you would like to add for the ACC and annual report update?

Thank you, Ruth.

K

From: Tracy, Ruth -FS [<mailto:ruth.tracy@usda.gov>]

Sent: Monday, August 5, 2019 11:25 AM

To: McCune, Kimberly <Kimberly.McCune@pacificcorp.com>; Lesko, Erik <Erik.Lesko@pacificcorp.com>

Subject: Lewis River 21 Phase II

Hi Erik and Kim, The FS will not be implementing the Lewis River 21 Phase II project, and will initiate returning these funds. The reason is that, at this time, the Forest Service does not want to relocate the trail, nor has funds to invest in the trail crossing structures that would be necessary once the Lewis River side channels accessed the area. We recognized this should have been fully vetted prior to requesting the funds, and apologize to the ACC for the time spent. Please let me know if you have any questions.

Ruth E Tracy
Gifford Pinchot NF
Soil and Water Program Manager
360-891-5112
rtracy@fs.fed.us

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APPENDIX F
EMAIL DATED FEBRUARY 4, 2020
EMAIL TO ACC FROM K. McCUNE – 2019/2020 AQUATIC FUND FULL
PROPOSALS; 30-DAY REVIEW PERIOD

McCune, Kimberly

From: McCune, Kimberly
Sent: Tuesday, February 4, 2020 8:00 AM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bryce Glaser; Carol Serdar; David Howe; Denise Smee; Doyle, Jeremiah; Ed Meyer; Ferraiolo, Mark; Greg Robertson; Hudson, Michael; James Byrne; James H Malinowski; Jonathan Stumpf; Joshua Ashline; Josua Holowatz; 'Kale Bentley'; Karchesky, Chris; Katie Pruit; Kelley Jorgensen; Lesko, Erik; Mariah Stoll-Smith Reese; Matt Harding; Michelle Day; Morgan, David; Nathan Reynolds; Olson, Todd; Peggy Miller; Pienovi, Levi; Rhidian Morgan; Roberts, Aaron; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Tracy, Ruth; Weatherly, Briana; Wendy McDermott; Whitesel, Timothy
Subject: REVIEW REQUESTED: 2019/2020 Aquatic Fund full Proposals; 30-day Review Period
Attachments: 05032019 LR - D_Attachment D Eval Criteria.doc
Importance: High
Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Representatives

Please be advised that the Utilities received four (4) full proposals by the due date of February 3, 2020. For ease of review I've posted the full proposals to PacifiCorp's Lewis River website (see links below).

USFS - Lewis River 21 Phase III

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_AQ_Fund_full_proposal_LR_21_Phase_III_FINAL_02032020.pdf

USFS - Rush Creek Side Channel Reactivation

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_AQ_full_proposal_Rush_Creek_FINAL_020320.pdf

WDFW - Eagle Island chum spawning channel construction

<https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/Eagle%20Island%20Chum%20Channel%20Lewis%20ACC%20full%20proposal.pdf>

Cowlitz Conservation District - Anderson NF Lewis River Restoration

<https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/WDFW%20Anderson%20NF%20Lewis%20full%20proposal%20without%20All%20Appendices.pdf>

In accordance with the Process Timeline below, we request that each ACC representative submit an Evaluation Criteria document (attached) via email to my attention **no later than close of business Friday, March 6, 2020**. At the ACC Meeting Thursday, March 13, 2020* the ACC will discuss the evaluations and make project selections for funding.

**Project applicants are not permitted to attend the March 13th, ACC meeting.*

Attachment E

Table 4.1. Funding Process Timeline

Activity	Target Milestone Date
Submit Request For Pre-Proposal Forms	Late May
Pre-Proposal Forms due	Late September
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ACC submits Pre-Proposal Listing and Evaluation Sheets (Attachment D). Discuss and approve pre-proposals that qualify for full proposals. Applicants are welcome to attend and observe only.	October ACC meeting
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*Conduct Project Selection Meeting	March ACC meeting
Provide add'l 7-day review period for absentee ACC participants, if needed	Third Thursday in March
Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

From: McCune, Kimberly

Sent: Monday, September 30, 2019 10:00 AM

To: Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfwb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Denise Smee <dsmee@lcfwb.gen.wa.us>; Doyle, Jeremiah <Jeremiah.Doyle@pacificorp.com>; Ed Meyer <ed.meyer@noaa.gov>; Ferraiolo, Mark <Mark.Ferraiolo@pacificorp.com>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; James H Malinowski <jim.malinowski@icloud.com>; Jonathan Stumpf <jstumpf@americanrivers.org>; Joshua Ashline <joshua.ashline@noaa.gov>; 'Kale Bentley' <kale.bentley@dfw.wa.gov>; Karchesky, Chris <Chris.Karchesky@pacificorp.com>; Katie Pruitt <Katie.pruitt@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik <Erik.Lesko@pacificorp.com>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Michelle Day <michelle.day@noaa.gov>; Morgan, David <dmorgan@pnfarm.com>; Nathan Reynolds <nreynolds@cowlitz.org>; Olson, Todd <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Robertson, Greg -FS <greg.robertson2@usda.gov>; 'Ruth Tracy' <rtracy@fs.fed.us>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Steve Manlow <smanlow@lcfwb.gen.wa.us>; Steve West <swest@lcfwb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>

Subject: REVIEW REQUESTED: 2019/2020 Aquatic Fund Preproposal Evaluation

Importance: High

Attn: ACC Representatives

Please be advised that the Utilities received four (4) Pre-proposals by the due date of September 27, 2019. Project manager resumes' are attached in this email. For ease of review I've posted the pre-proposals to PacifiCorp's Lewis River website (see links below).

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https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_LR21PhaseIII_2019.pdf

USFS - Rush Creek Side Channel Reactivation

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_RushCreek_2019.pdf

WDFW - Eagle Island chum spawning channel construction

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/USFS_RushCreek_2019.pdf

Cowlitz Conservation District - Anderson NF Lewis River Restoration

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/09272019_Anderson_PreProposal.pdf

In accordance with the Process Timeline below, we request that each ACC representatives submit an Evaluation Criteria document (attached) via email to my attention **no later than close of business Wednesday, October 9, 2019**. At the ACC Meeting Thursday, October 10, 2019 we will discuss the evaluations and select if the pre-proposal goes forward for further consideration.

Thank you.

Kimberly McCune

Sr. Business Administrator

PacifiCorp – Hydro Resources

825 NE Multnomah St., Suite 1800

Portland, OR 97232

Ph: (503) 813-6078

APPENDIX G
EMAIL DATED APRIL 10, 2020
EMAIL TO ACC FROM K. McCUNE – 2019/2020 AQUATIC FUND;
PROJECT SELECTIONS

McCune, Kimberly

From: McCune, Kimberly
Sent: Friday, April 10, 2020 7:44 AM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bryce Glaser; Carol Serdar; David Howe; Denise Smee; Doyle, Jeremiah; Ed Meyer; Ferraiolo, Mark; Greg Robertson; Hudson, Michael; James Byrne; James H Malinowski; Jonathan Stumpf; Joshua Ashline; Joshua Jones; Josua Holowatz; 'Kale Bentley'; Karchesky, Chris; Katie Pruitt; Kelley Jorgensen; Lesko, Erik; Mariah Stoll-Smith Reese; Matt Harding; Morgan, David; Nathan Reynolds; Olson, Todd; Peggy Miller; Pienovi, Levi; Rhidian Morgan; Roberts, Aaron; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana; Wendy McDermott; Whitesel, Timothy
Subject: RE: 2019/2020 Aquatic Fund; Project Selections

Attn: ACC Representatives and interested parties

At the ACC meeting on April 9, 2020 the following aquatic fund project selection decisions were confirmed. The ACC agreed that both USFS projects had biological merit but recommended that additional information or consultation was needed for these projects to move forward. Based on this recommendation, the USFS agreed to withdraw both projects and will resubmit for the Lewis River 2020/2021 Aquatic Fund cycle. Consensus was reached on a final Resource Project list as follows:

Applicant	Project Title	Funding Request	Decision
USDA Forest Service	Lewis River 21 Phase III	\$305,423	USFS withdrew this project and will resubmit with modifications for the 2020/2021 funding cycle
USDA Forest Service	Rush Creek Side Channel Reactivation	\$125,500	USFS withdrew this project and will resubmit with modifications for the 2020/2021 funding cycle
WDFW	Eagle Island chum spawning channel construction	\$175,000	Yes
Cowlitz Conservation District	Anderson NF Lewis River Restoration	\$254,000	No

The Lewis River Aquatic Fund Annual Report will be filed with the FERC no later than April 15, 2020 and posted to PacifiCorp's Lewis River website.

Kimberly McCune

Sr. Business Administrator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232
Ph: (503) 813-6078

APPENDIX H
EAGLE ISLAND CHUM SPAWNING CHANNEL CONSTRUCTION
WDFW PROJECT PROPOSAL

Attachment 1

FULL PROPOSAL FORM

Lewis River Aquatic Fund

Form Intent:

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

Full Proposal format:

Please complete the following form for your Full Proposal. Maps, design drawings and other supporting materials may be attached.

The deadline for a Full Proposal Form submission is **February 3, 2020**. Please submit materials to:

Erik Lesko
PacifiCorp – LCT 1800
825 NE Multnomah Street
Portland, OR 97232
Erik.lesko@pacificorp.com

1. Project Title

Eagle Island chum spawning channel construction

2. Project Manager (name, address, telephone, email)

Todd Hillson
Environmental Planner 5
ESA/Anadromous Fish Investigations Unit Lead
5525 South 11th Street
Ridgefield WA 98642
(360) 906-6730
Hillsth@dfw.wa.gov

3. Identification of problem or opportunity to be addressed

Summarize information about the problem or opportunity addressed by your Full Proposal.

Based on historical commercial landings and habitat availability, it has been estimated that between 0.5-1 million chum salmon returned annually to the Lower Columbia River (LCR) and its tributaries (Johnson et al. 1997). A combination of several factors (loss & degradation of spawning and rearing habitats, changes to estuary ecology and habitat, altered mainstem and tributary hydrology, and harvest) resulted in a significant decline in chum salmon abundance beginning in the 1940s. The decline continued through the 1950s even after the harvest pressure was removed. In 1999, LCR chum salmon populations were listed as threatened under the auspices of the Endangered Species Act. Of the 17 historic LCR chum salmon populations, 90% are considered extirpated or nearly so. The Lewis population of chum salmon falls into the “nearly so” group. This population is at high risk as a result of low population size, low productivity due to loss of preferred/ needed spawning habitat, low diversity, and limited temporal and spatial distribution.

Recent adult returns of LCR chum salmon to the Lewis Basin are estimated to be less than 25-50 adults annually. This compares to estimated historical return sizes between 120,000 and 300,000 adults (LCFRB North Fork Lewis Subbasin Plan, 2010). The Lewis, Cowlitz and Sandy chum salmon populations are identified as the primary recovery populations within the Cascade strata of the LCR chum salmon ESU (NMFS 2013). Recovery plan goals include increasing the Lewis basin population viability from low (current state) to high, decreasing population risk from high (current state) to low, and reaching a target adult abundance level of 1,300 annually. De-listing requires at least two primary populations within each of the ESUs strata be “recovered”. Due to the low smolt-to-adult survival rates that LCR chum salmon experience, significant increases in freshwater productivity in this population will be necessary to achieve recovery plan goals.

Spawning channels have proven to be an effective tool to increase freshwater productivity (egg-to-fry survival rate) of chum salmon populations. Egg-to-fry survival rates in similarly constructed chum salmon spawning channels in the LCR have documented average egg-to-fry survival rates in the 50-55% range (Hillson and Ronne, 2016) compared to similarly estimated egg-to-fry survival rates from run-of-the-river spawners which can vary from near zero to 22% depending on the year (Salo 1991). Adults who utilize the spawning channel will realize a significant boost in productivity compared to adults spawning in the mainstem Lewis River.

4. Background

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

Section 3.2.4 (page 3-31) of the LCR salmon recovery plan states "Chum habitats have been reduced by 75% or more for the majority of the populations by changes or loss of low elevation reaches and off-channel areas due to channel stabilization, loss of floodplain connectivity and function, and sedimentation due to land use activities

throughout the entire watershed." (LCFRB 2010). This statement is especially true in the areas of the Lewis River basin that chum salmon historically utilized. Additionally, there is a hydropower/flow regulation component on the North Fork Lewis River further reducing the likelihood of natural habitat processes creating the productive side- and off-channel spawning habitat types that chum salmon need within the basin.

This project is in alignment with WDFWs regional chum salmon recovery plan objectives which are to 1) protect, restore, or create protected high quality off-main channel spawning habitats to increase fresh-water productivity (egg-to-fry survival), 2) supplement existing populations using a genetically appropriate donor stock to jumpstart usage of the new habitat and begin local adaptation of donor stock, 3) monitor adult and juvenile outmigrant monitoring at the spawning channel to estimate egg-to-fry survival rates by marking all fish produced via Parental Based Tagging (PBT; Anderson and Garza 2005) so that channel-origin adults can be identified, and 4) adaptively manage the project by using results of prior chum salmon monitoring activities within, and from outside, the basin to inform future decisions.

The Eagle Island chum salmon spawning channel (spawning channel) project has a long history. In 2010, a scoping project, funded by the Bonneville Power Administration (BPA) through the LCR chum salmon BiOp project ([2008-710-00](#)), was initiated to identify potential chum salmon spawning channel sites within the East Fork Lewis and North Fork Lewis river basins. Over the course of several years, multiple sites in both basins were monitored and evaluated. At the end of this process, it was determined that the Eagle Island site had the highest potential for a successful spawning channel ([Lewis Basin Groundwater Investigations and Spawning Channel Design](#) chapter). A mixture of funding sources (BPA, the Odessa Water Withdrawal mitigation fund, and WA State) have been used over the last four to five years to complete the spawning channel project up to the construction phase. We have final designs and all the necessary State, local, and Federal construction permits including ESA coverage and a completed cultural resources review (106 permit) in hand. A copy of the completed design report and permit drawings are included in our application package. In 2018, we applied for and received a \$100K grant through the LCFRBs Salmon Funding Recovery Board (SFRB) ([project ID 18-1413](#)) to use towards construction of the spawning channel. In the fall of 2018, the access road to the site was improved and approximately \$450K of construction materials (rock, spawning gravel, and logs), purchased through BPA project 2008-710-00, were moved on-site and the out-of-water section of the spawning channels alignment was cleared. Our plan, if all the necessary funding can be secured, is to complete construction of the spawning channel in the late spring and summer of 2021. As of the date that this proposal was submitted, the intent is to use staff from WDFWs Construction and Asset Management Program (CAMP) to accomplish the construction of the spawning channel.

5. Project Objective(s)

State the objectives of your Full Proposal including how the project is consistent with Aquatics Fund objectives and priorities, and recovery plans. Clearly describe the

biological benefits and expected outcome of your project. Describe the technical basis for the objectives including the identification of any supporting technical references. Identify biological metrics to help quantify the benefit of the project. Describe effects to other resource areas such as recreation and wildlife.

The overall goal of the Eagle Island spawning channel project is to create protected high quality off-main channel spawning habitat that can support at least 500 spawner pairs and be expected to reliably provide egg-to-fry survival rates of ~50% or greater annually. Highly productive chum salmon spawning and incubation habitat is critical for the recovery of this species within the Lewis Basin due to the low smolt-to-adult survival rates that LCR chum salmon experience. As a result of the increased productivity within the population, abundance is expected to increase thereby increasing diversity and species spatial and temporal distribution, which will reduce the extinction risk to the population. A long-term goal of the WDFW's regional chum salmon recovery strategy is to use a healthy and stable Lewis population as a donor stock for reintroduction/enhancement programs in other Cascade strata populations.

This project is consistent with the Aquatic Fund objectives and priorities to consider when reviewing and funding projects detailed in Section 3 of the Aquatic Funds – Strategic Plan and Administrative Procedures (2005). Specifically, this project will (1) benefit fish recovery throughout the North Fork Lewis River, with priority to 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 NF Lewis River. As mentioned above in the Background section above, this project is in alignment with both the overall LCR salmon recovery plan and WDFW's LCR chum salmon recovery strategy.

The Aquatics Fund Subgroup to the ACC has completed a Lewis River Aquatic Fund Priority Reaches (Priority Reaches) document which provides priority rankings for stream reaches within the Lewis River watershed. The Priority Reaches document is aligned with the LCFRB Interactive map which is found on their website at www.lowercolumbiasalmonrecovery.org/mappage. The interactive maps provide a wealth of information that should help project proponents in selecting areas to focus their habitat improvement efforts. For consideration of funding the proponent must demonstrate that they have reviewed both the Priority Reaches and the LCFRB Interactive map and selected appropriate projects/reaches from those two tools. Additionally, proponent must show how proposed project is consistent with fund objectives and priorities. Projects proposed in reaches other than those identified in the Priority Reaches document or high priority reaches in the LCFRB habitat strategy (Tier 1 and Tier 2) need a clear explanation of why they still support Lewis River Aquatic Fund goals.

The project is located inside the geographic scope of the Aquatic Fund boundary (Figure 1, Aquatic Funds – Strategic Plan and Administrative Procedures, 2005). While outside (between) reaches identified in the Lewis River Aquatic Fund Priority Reaches document, the Eagle Island chum spawning channel project is located in a reach (Lewis

4B) of the North Fork Lewis River considered high priority (Tier 1) in the Lower Columbia Fish Recovery Board's (LCFRB) habitat strategy ([SalmonPort](#) web site).

6. Tasks

State the specific actions which must be taken to achieve the project objectives. [NOTE: if the project will cause any latent, dangerous condition (e.g. submerged wooden structures in a waterway used by boaters and/or tubers) include installation of permanent warning signs in the project tasks.]

This project is essentially "shovel ready". The three remaining tasks are 1) securing the remaining funds needed to complete the spawning channel construction, 2) the construction phase itself, and 3) completing reporting requirements of funding entities. There will be post construction monitoring to document usage and performance of the spawning channel. However, at this time, ACC funds are not being requested for post construction monitoring and evaluation activities.

7. Methods

Describe methods to be used, by including the following:

- Preliminary Design including existing site plan with bankfull width indicated, plan view drawing overlaid with proposed actions of specific dimensions, and project profile and cross sections at important project locations showing water surface elevations relevant to the design including design flows. Structure design details should also be provided for instream projects involving large wood.

Final construction design drawings which include the relevant elements asked for above are included with this proposal.

- Identify sources of Best Management Practices (BMPs) and how they will protect resource values.

As a state agency, BMPs for WDFW have been defined by the Washington State Legislature through Washington Administrative Code (WAC). The WAC specific to habitat project BMPs and how they protect resource values are covered under Title 220, Chapter 220-660 and can be [found here](#).

- Describe how the restoration methods relate to specific fish habitat benefits and seasonal flow conditions, including expected short- and long-term functional habitat responses.

The specific fish habitat benefits this project will provide is ~18,200 square feet of groundwater fed high quality off-main channel spawning and incubation habitat for chum salmon. At optimal chum salmon spawner densities (2-2.5 square meters per female), this

channel has the capacity for ~700 pairs of spawners. It will provide protected and reliable high productivity spawning habitat for Lewis population natural-origin adults. The two in-stream areas of the project, the channel entrance and the log structure overlay on the infiltration gallery, were not designed to elicit functional habitat responses, therefore none are expected.

8. Specific Work Products

Identify specific deliverable results of the project. Project managers will be required to provide status updates with submission of project invoices.

We propose two deliverables for ACC funds, the first being completion of the spawning channel construction and the second being the project close-out site visit post construction and photo documentation submitted per items #9b and #14 respectively of this proposal form.

9. Project Duration

- a. Identify project duration. Note that duration of a project funded from Fiscal Year 2020 appropriations may extend beyond the end of the fiscal year.

Construction is expected to begin in the late spring/ summer of 2021 and end by October 2021. Construction will be phased with “out of water” work beginning first followed by the two in-water elements (channel entrance and infiltration gallery) during the in-water work window. Any remaining out of water work, clean up and revegetation will take place once the in-water work is completed.

- b. Provide a detailed project schedule to include:
 - o Initiation of project
 - o Completion date for each milestone or major task
 - o Project close-out site visit (with PacifiCorp, Cowlitz PUD, and ACC representatives)
 - o Monitoring & reporting on results

Late spring & summer of 2021:

Mobilize to site, install erosion and sediment controls, clear and convert existing vehicle trails into temporary roads for construction, place out of water floodplain wood, clear and excavate out of water channel alignment section, install pilings and log-toe components, install water level control elements, place spawning gravel. Prepare for in-water work

August 2021:

Place coffer dams, de-water work areas, excavate downstream entrance, install downstream entrance components, excavate for infiltration gallery placement, install infiltration gallery, backfill area and install LWD component of infiltration gallery, remove coffer dams.

August through September 2021:

Continue work on out of water elements as needed, general clean up and decommissioning of un-needed construction roads, de-mobilize from site.

October 2021:

Complete revegetation plan.

October or November 2021:

Conduct post project site visit with PacifiCorp, Cowlitz PUD, and ACC representatives, complete and submit photo documentation report.

Please note the schedule provided above makes the assumption that staff from WDFW's Construction and Asset Management Program will be doing the construction.

10. Permits and Authorizations

Identify any applicable permits and resource surveys required for project. Please include timeline for obtaining and any action taken to-date. Applicant will be responsible for securing all such necessary permits.

All required local, state, and federal construction and ESA permits have been secured. The project also has a completed cultural resources review (106 permit) in hand.

Obtain permission of all owners of land used for access to and completion of the project. **Landowner(s) must sign PacifiCorp's Release Agreement prior to finalization of a Funding Agreement with PacifiCorp (Attachment C).**

The project will occur on WDFW owned property. An ingress, egress and utilities easement will provide access to the project site. A signed Landowner Acknowledgment form is attached to this proposal.

11. Matching Funds and In-kind Contributions

If applicable, describe any matching funds and/or in-kind contributions that you have secured or have requested through other means. Matching funds are those funds contributed to the project from other funding sources. In-kind contributions may include donated labor, materials, or equipment. Please be specific in your description of contributions and use of volunteers (e.g. ACE construction is donating 8 hours of backhoe operation including operator).

Matching spent to date (scoping, groundwater monitoring, design, permits, and construction materials purchased to date)

- Cash – Bonneville Power Administration - ~\$575K (includes ~\$450K in purchased construction materials)
- Cash – Odessa Water Withdrawal mitigation fund - ~\$215K
- In-kind – WDFW Fish Management, Habitat and Engineering staff - ~\$100K

Available in hand

- Cash – LCFRB SFRB grant - \$100K

Pending

- Cash – \$525K – WDFW is seeking the remaining construction cost from other funding sources including the Bonneville Power Administration.

12. Peer Review of Proposed Project

It is encouraged that the Full Proposal be reviewed by an independent resource professional prior to submission for funding. Focus of such review should be on biological value, site selection and proposed methodology. Please note who completed the review and contact information. This does not have to be a third party review and can come from someone associated with the sponsoring organization. For large wood projects in the mainstems of the Lewis or Muddy River, a peer review is required.

WDFWs overall LCR chum salmon recovery program and this specific habitat project have both been through multiple reviews.

In 2010 and again in 2019, WDFWs BPA funded LCR chum recovery project underwent reviews by staff from the Northwest Power and Conservation Council (NPCC) and the Independent Scientific Review Panel (ISRP) as part of the NPCCs category review process. The project received positive reviews each time.

The chum salmon recovery strategy being proposed, construct a spawning channel to support other recovery efforts, is similar to another WDFW chum salmon reintroduction program being conducted in Duncan Creek. In 2009, the Duncan Creek program received a favorable review when it underwent a NPCC three-step review.

The spawning channel design generated under contract by Inter-Fluve was reviewed by staff from WDFWs Habitat Engineering unit in 2014. Additionally, in 2014 the spawning channel design was reviewed for fatal flaws by the Lower Columbia Fish Recovery Board's (LCFRB) Salmon Funding Recovery Board Technical Advisory Committee (SFRB TAC) as a condition of receiving funds from the Odessa Subarea Water Withdrawal Mitigation Fund. No fatal flaws were found in this review. In 2018, the project designs were reviewed and passed again by the LCFRB SFRB TAC as a condition of receiving a SFRB grant.

13. Budget

Provide a **detailed** budget for the project stages (Final design, Permitting, Construction, Signage, Monitoring/Reporting) by work task. Include:

Personnel costs

Labor and estimated hours for each project employee

Operating expenses

Supplies and materials

Mileage

Administrative overhead

Insurance expense, in accordance with Appendix A

If in-kind contributions have been acquired, please note contributions according to project stage within the budget.

An estimate for construction is attached to this proposal. If this proposal is chosen to be funded, the ACC grant will be one of at least three funding sources being used for construction. The budget was generated assuming WDFW CAMP staff would be doing the construction. However, it's possible that the work will instead be put out under a Public Works bid. Due to that possibility, each line item task cost is broken down into three sub-categories: Materials, Fees/Taxes, and Equipment/Work. These splits are a best guess but should be close and reflect labor and materials cost regardless of who does the work. The estimate includes some items that either will, or will not be, needed depending on who does the work, e.g. final design bid prep will not be needed and oversight cost will be reduced if CAMP does the work.

The attached estimate is a "worst case" budget. It does not include reductions for pre-purchased materials (logs, logs w/roots, and spawning gravel, ~\$450K worth). It is likely that some, possibly the majority, of logs intended to be pile driven will no longer be usable (dry now and will split when driven) and replacements will need to be purchased. The amount of indirect is likely over estimated. The Eagle Island spawning channel project is considered an improvement to WDFW owned land and as such, some of the materials purchased will be exempt from indirect. Also, the amount of indirect will change significantly if the construction work goes out under a Public Works bid.

14. Photo Documentation (*Per National Marine Fisheries Service's Biological Opinion for Relicensing of the Lewis River Hydroelectric Projects – August 27, 2007*):

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

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

Please provide schedule of when photo documentation will be provided to the ACC.

A Word document containing the required photos and accompanying notes will be provided to the ACC once construction has been completed. Barring unforeseen delays, we expect to be able to provide this deliverable in the fall of 2021.

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

If this proposal is chosen to be funded, insurance coverage will need to be negotiated. WDFW is self-insured and our insurance liabilities and coverage are dictated by state law. I'm confident though that WDFWs and PacifiCorp's risk managers will be able to work out a mutually agreeable solution.

Cost Breakdowns

Chum Channel

	unit	quantity	unit cost	total cost
Cofferdam	LF	40	250	\$ 10,000
Control water	LS	1	12500	\$ 12,500
Excavation to SG	CY	8174	8	\$ 65,392
Haul to fill site, grade	CY	6593	10	\$ 65,930
Toe logs	LF	8500	20	\$ 170,000
Piles	EA	200	375	\$ 75,000
Fastening	EA	588	185	\$ 108,780
Spawning Gravel	CY	1205	75	\$ 90,375
Backfill	CY	1581	10	\$ 15,810
8' sheet pile weirs	LF	60	375	\$ 22,500
Channel Subtotal				\$ 636,287

Material Cost			
Est %	Material	Fees/Taxes	Equip/work
30	\$ 3,000	\$ 240.00	\$ 6,760.00
20	\$ 2,500	\$ 200.00	\$ 9,800.00
0	\$ -	\$ -	\$ 65,392.00
0	\$ -	\$ -	\$ 65,930.00
50	\$ 85,000	\$ 6,800.00	\$ 78,200.00
60	\$ 45,000	\$ 3,600.00	\$ 26,400.00
30	\$ 32,634	\$ 2,610.72	\$ 73,535.28
70	\$ 63,263	\$ 5,061.00	\$ 22,051.50
0	\$ -	\$ -	\$ 15,810.00
50	\$ 11,250	\$ 900.00	\$ 10,350.00
	\$ 242,647	\$ 19,411.72	\$ 374,228.78

Flow Supplementation

	unit	quantity	unit cost	total cost
Cofferdam	LF	200	250	\$ 50,000
Control water and turbidity	LS	1	6250	\$ 6,250
Excavate riverbank	CY	956	15	\$ 14,340
Rirpap, Class A, at river	CY	70	63	\$ 4,410
Drain rock	CY	60	31	\$ 1,860
16" sloted PVC well screen	LF	160	31	\$ 4,960
16" PVC caps	EA	2	63	\$ 126
Marmac dissimilar pipe couplers	EA	2	250	\$ 500
24x18 HDPE-S eccentric reducer	EA	2	375	\$ 750
24" HDPE-S Tee	EA	2	900	\$ 1,800
Conveyance pipe (24") HDPE-S	LF	180	33	\$ 5,940
24" pipe cap	EA	1	125	\$ 125
Pipe trench and backfill, with 6' trench box	LF	160	65	\$ 10,400
Riprap, Class A, at outlet	CY	21	63	\$ 1,323
Trash rack	EA	1	375	\$ 375
Gate valve	EA	1	5000	\$ 5,000
Gallery Subtotal				\$ 108,159

30	\$ 15,000	\$ 1,200.00	\$ 33,800.00
20	\$ 1,250	\$ 100.00	\$ 4,900.00
0	\$ -	\$ -	\$ 14,340.00
50	\$ 2,205	\$ 176.40	\$ 2,028.60
70	\$ 1,302	\$ 104.16	\$ 453.84
60	\$ 2,976	\$ 238.08	\$ 1,745.92
70	\$ 88	\$ 7.06	\$ 30.74
60	\$ 300	\$ 24.00	\$ 176.00
70	\$ 525	\$ 42.00	\$ 183.00
70	\$ 1,260	\$ 100.80	\$ 439.20
60	\$ 3,564	\$ 285.12	\$ 2,090.88
70	\$ 88	\$ 7.00	\$ 30.50
0	\$ -	\$ -	\$ 10,400.00
50	\$ 662	\$ 52.92	\$ 608.58
70	\$ 263	\$ 21.00	\$ 91.50
70	\$ 3,500	\$ 280.00	\$ 1,220.00
	\$ 32,982	\$ 2,638.54	\$ 72,538.76

Riverbank Log Structure

	unit	quantity	unit cost	total cost
Logs with roots	EA	18	625	\$ 11,250
Logs	EA	21	450	\$ 9,450
Piles	EA	39	375	\$ 14,625
Cabling	LS	1	4875	\$ 4,875
Backfill structure	CY	716	8	\$ 5,728
Fill to disposal site	CY	240	19	\$ 4,560
Gallery Armor Subtotal				\$ 50,488

70	\$ 7,875	\$ 630.00	\$ 2,745.00
70	\$ 6,615	\$ 529.20	\$ 2,305.80
60	\$ 8,775	\$ 702.00	\$ 5,148.00
20	\$ 975	\$ 78.00	\$ 3,822.00
0	\$ -	\$ -	\$ 5,728.00
0	\$ -	\$ -	\$ 4,560.00
	\$ 24,240	\$ 1,939.20	\$ 24,308.80

Floodplain Wood

	unit	quantity	unit cost	total cost
Logs with roots	EA	18	625	\$ 11,250
Logs	EA	30	450	\$ 13,500
Piles	EA	48	375	\$ 18,000
Cabling	LS	1	6000	\$ 6,000
Floodplain Subtotal				\$ 48,750

70	\$ 7,875	\$ 630.00	\$ 2,745.00
70	\$ 9,450	\$ 756.00	\$ 3,294.00
60	\$ 10,800	\$ 864.00	\$ 6,336.00
20	\$ 1,200	\$ 96.00	\$ 4,704.00
	\$ 29,325	\$ 2,346.00	\$ 17,079.00

Site access measures	EA	1	6250	\$ 6,250
Mob	EA	1	80000	\$ 80,000
Clear and grub	AC	2	10000	\$ 20,000
Reveg	AC	2	12500	\$ 25,000
other BMPs	LS	1	6250	\$ 6,250
				\$ 131,250

20	\$ 1,250	\$ 100.00	\$ 4,900.00
20	\$ 16,000	\$ 1,280.00	\$ 62,720.00
0	\$ -	\$ -	\$ 20,000.00
60	\$ 15,000	\$ 1,200.00	\$ 8,800.00
50	\$ 3,125	\$ 250.00	\$ 2,875.00
	\$ 35,375	\$ 2,830.00	\$ 99,295.00

Project Subtotal	\$	974,934
10% Contingency	\$	97,493

Material Cost				
	Est %	Material	Fees/Taxes	Equip/work
Project Totals	\$	364,568	\$ 29,165	\$ 587,450
+ 10% Contingency	\$	36,457	\$ 2,917	\$ 58,745

Construction Grand Total	\$	1,072,427
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Grand Total	\$	1,079,302
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	WDFW	Inter-Fluve	
Project Mgmt	\$ 10,000		\$ 10,000
Final Design Bid Prep	\$ 5,000	\$ 20,000	\$ 25,000
Const Prep/Oversight	\$ 35,000	\$ 20,000	\$ 55,000
Totals	\$ 50,000	\$ 40,000	\$ 90,000

Indirect (30.29%)	\$	339,983.26
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Grand total estimate	\$	1,412,411
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**Some materials have already been purchased.
This budget reflects total construction cost
likely some logs will not be usable due to age
i.e. will split when pile driven**