Lewis River Hydroelectric Projects

FERC Project Nos. 935, 2071, 2111, 2213

2017 Lewis River main stem fish habitat restoration – USDA Forest Service and Mt. Saint Helens Institute

2021 Annual Report

Lewis River Aquatic Fund Projects

April 2021

Introduction

This 2021 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 2020/2021 funding process, additional projects are expected to be selected and funded annually following the process established by the ACC.

This 2021 report is available to the Public on PacifiCorp's website at:

- https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html - 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 September 4, 2020, PacifiCorp announced the availability of calendar year (CY) 2020/2021 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 Full Proposal to PacifiCorp. Full Proposals were due by November 20, 2020.

All application materials and process timeline were provided electronically via the Lewis River Aquatic Fund website at the following link:
https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html

Lewis River Aquatic Fund Process Timeline

Activity	Target Milestone Date
Request for proposals distributed along with landowner acknowledgement form	September 4
Draft Full Proposals due to ACC	November 20
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.	January 4
Final Full Proposals due (ACC requests for clarification need to be included as an Appendix)	January 29
Final Full Proposals submitted to ACC for 30-day review and evaluation	February 1
ACC scoring template due to Utilities	March 1
Distribute combined master scoring template to ACC	March 5
*Conduct Project Selection Meeting	March 11 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.

In response to the announcement letter, two entities provided the following four (4) project Full Proposals.

Applicant	Project Title
USDA Forest Service	Clear Creek and Clearwater Creek Restoration Design
USDA Forest Service	Rush Creek Side Channel
USDA Forest Service	Pepper Creek Culvert Removal and Road Hydro-Stabilization
Lower Columbia Fish Enhancement Group (LCFEG)	SW Washington Nutrient Enhancement Coalition: Lewis River Support

On November 22, 2020, PacifiCorp provided an electronic copy of each full proposal to the ACC representatives and an Evaluation Template for their review. (Email to ACC from McCune – PacifiCorp, **see Appendix C**).

At the December 10, 2020 ACC meeting, each applicant conducted a PowerPoint presentation for ACC review and opportunity to comment and ask additional questions.

On January 20, 2021 PacifiCorp received a refund of $59,795.10 from the USDA Forest Service for its 2015 Lewis River Side Channel V Project. The funds were returned to the aquatics fund account. A Project close out report was previously included in the ACC/ TCC 2017 Annual Report submittal to the FERC on April 10, 2018.

The Utilities submitted the final proposals and scoring template to the ACC via email on February 1, 2021 for a 30-day review and comment period (**Appendix D**). A copy of the electronic documents were provided to the ACC via the Lewis River website at the following link: https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html - Lewis River aquatic fund annual reports

The ACC met March 11, 2021 for an Aquatic Fund Project Proposal Decision Meeting and review of the master scoring template for each project. To accommodate those ACC representatives not in attendance, the Utilities provided an additional 7-day review and comment period until close of business March 19, 2021.

Consensus was reached on a final Resource Project list as follows and ACC comments and decisions were captured in the **Attachment A**:

Applicant	Project Title	Funding Requested	ACC Decision
USDA Forest Service	Clear Creek and Clearwater Creek Restoration Design	$333,520	Approved
USDA Forest Service	Rush Creek Side Channel	$192,850	Approved*
USDA Forest Service	Pepper Creek Culvert Removal and Road Hydro-Stabilization	$48,210	Approved
LCFEG	SW Washington Nutrient Enhancement Coalition	$143,966	Approved; conditioned on ACC and/or ATS approval regarding allocation, location and timing of carcass and analogs.

* *After an additional 7-day review period Trout Unlimited (TU) spoke with other TU members and TU reached a conclusion. Although TU does not approve the 2021 USFS -- Rush Creek habitat project; TU will not stand in the way.*

On March 22, 2021 the Utilities notified all ACC Participants of the selected 2020/2021 Aquatic Funding projects approved for full funding (Lewis River 2020/2021 Aquatic Projects Approved for Funding - **Appendix E**).

Projects Selected for Funding

The following is a summary description of the individual Resource Projects selected to be funded by the Aquatics Fund. The selected 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 the selected projects is an overview of the original proposals, any ACC modifications to the projects, and identification of Resource Project nexus to the hydroelectric projects. Final Resource Project Plans are provided as an appendix to this document.

- **Clear Creek and Clearwater Creek Restoration Design – USFS**

ACC representatives agreed to fund this project as proposed and granted funding of $333,520. The final Resource Project Plan is provided in **Appendix F** and will be completed in accordance with the schedule below:

The overall to restore hydrologic function and aquatic/riparian ecological function of Clear and Clearwater Creeks to benefit aquatic species and riparian dependent species. These objectives will lead to improved habitat complexity and diversity increasing the number, area, and depth of pools, increase stable wood accumulations, increase the extent and age of riparian and island vegetation, and increase the amount of suitable spawning and rearing

habitat (i.e., species-appropriate depth, velocity, substrate, and cover) for coho, spring Chinook, and winter steelhead. Providing refugia during winter flows for juvenile salmonids, rearing opportunities for juvenile salmonids during summer months and increased spawning opportunities for adult salmonids.

The design will begin in 2021 with a possibility of being pushed out one to two years depending on consultant availability.

Spring 2021 - Provide a detailed project schedule to include:

Winter 2021 - Completion date for each milestone or major task

Spring/ Summer - 2022 - Delineation of off channel and floodplain connectivity features

Summer/Fall 2022 - Discussion and decision on implementation strategy effectiveness and cost efficiency. Wood placement by excavator, helicopter, and/or both.

Winter 2022 – Spring 2023 - Engineered Large Wood Structure placement (Concept, Preliminary, and Final design)

Winter 2022-Spring 2023 - Access routes needed for construction implementation; pieces of wood needed based on what the Forest Service has available and other identified sources
Winter 2022 – Spring 2023 - Cost estimates for implementation

Summer/Fall 2023 - Project close-out site visit (with PacifiCorp, Cowlitz PUD, and ACC representatives)

Fall 2023 - Final Design Results

- **Rush Creek Side Channel – USFS**

ACC representatives agreed to fund this project as proposed and granted funding of $192,850. The final Resource Project Plan is provided in **Appendix G** and will be completed in accordance with the schedule below:

The objective of this project is to reactivate 3,145 feet of two side channels blocked by legacy roads and landings from timber harvest activities of the early 1970's. This project will include removing the landing, two remnant roads and a stream adjacent berm.

January 2020 - NEPA and required permits will be completed

August 2021 - Project Initiation will start

August 15, 2022 - Project Implementation will be completed

October 2022 - February 2023 - Monitoring will be completed and a final report submitted in February 2023

June 2022 - Project site visit would occur during June of 2022 after approximately one year of flow.

- **Pepper Creek Culvert Removal and Road Hydro-Stabilization – USFS**

ACC representatives agreed to fund this project as proposed and granted funding of $48,210. The final Resource Project Plan is provided in **Appendix H** and will be completed in accordance with the schedule below:

The objective of this project proposal is to remove an anadromous fish barrier and reduce the future potential of mass wasting and subsequent sediment delivery into Pepper Creek. Removal of this culvert will open 1.2 miles of juvenile habitat and 2 miles of adult salmon habitat. Hydrologic stabilization of the 9039-370 Road would reduce erosion and sedimentation and reduce the potential for mass wasting through removal of several deep fill culverts.

Deliverables	**Completion Date**
Preparation of plans and design drawings for contracting	Jan. 2021
NEPA compliance and programmatic permit consistency review completion	Feb. 2021
Contract solicitation and award	Mar.-May 2021
Instream implementation; culvert removals and floodplain restoration	July 15-Aug 15, 2021
Road treatments that can be accomplished outside the instream work window	Aug.-Sept. 2021
ACC project site visit	Aug. 2021
Implementation monitoring	Fall 2021
Completion report to ACC	Feb. 2022

- **SW Washington Nutrient Enhancement Coalition – LCFEG**

ACC representatives agreed to fund this project as proposed and granted funding of $143,966 conditioned on ACC and/or ATS approval regarding allocation, location and timing of carcass and analogs. The final Resource Project Plan is provided in **Appendix I** and will be completed in accordance with the schedule below:

As a "low impact" restoration strategy, LCFEG and its coalition of agencies and volunteers intend to replicate natural salmonid life cycle processes by placing hatchery origin carcasses and Salmon Carcass Analogs (SCA) within the Lewis River watershed. The overall objective of this project is to return the marine-derived nutrients (MDN) supplied by returning adult salmon carcasses in the fall and supplement using SCA during treatments performed in the spring. Through this approach, we strive to increase the presence of MDN found within the Lewis River watershed and boost the size and survival of salmonids of all age classes.

Summer 2021 - Start project. Consult (virtually) with partnering agencies (FS, PacifiCorp, and WDFW) and volunteers to address any maintenance issues/concerns, discuss placement locations, enhancement techniques, and protocols (i.e., tail removal) all before NE season begins. Create and update carcass dispersal maps using the GIS program. Plans will include access points, directions, GPS locations, images, and schedule. Preseason field observations (take field notes and quick stream bottom inventory/survey). Note and record data.

Fall 2021- Winter 2022 - Begin carcass distribution. Field Technicians (FT) will assist, coordinate, and mobilize the DOC crew and volunteer groups. Technicians will also direct carcass transport and dispersal. The Project Manager (PM) will provide oversight and assistance to field technicians to ensure the carcasses get adequately dispersed and data gets entered into the reporting sheet weekly. Take photos of the project (PM).

Spring 2022 - Wrap up carcass placement. Submit the carcass report to WDFW. Pursue and obtain AO (WA Ecology) permit to treat the watershed with SCA. Scout out new placement sites and meet with private landowners to discuss gaining access to optional carcass placement locations.

Summer 2022 – Pre-season field observations (take field notes and complete simple stream bottom inventory/survey). Note and record data. Consult with agencies and volunteers to discuss placement location, distribution techniques, tail removal requirements, and address any maintenance issues before NE season begins. Update subbasin NE carcass dispersal maps. Obtain SCA.

Fall 2022- Winter 2023 - Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2023 - Disperse SCA. Submit the carcass report to WDFW. Treat prescribed sites with SCA (if available). Scout out new placement sites and meet with private landowners to discuss gaining access to carcass placement locations.

Summer 2023 - Preseason field observations (take field notes and complete simple stream bottom inventory/survey). Note and record data. Consult with agencies and volunteers to discuss placement location, distribution techniques, tail removal requirements, and address any maintenance issues before NE season begins. Update subbasin NE carcass dispersal maps. Obtain more SCA (If needed).

Fall 2023-Winter 2024 - Start Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2024 - Disperse SCA. Submit the carcass report to WDFW. Treat prescribed sites with SCA (if available). Scout out new placement sites and meet with private landowners to discuss gaining access to carcass placement locations.

Fall 2024 -Winter 2025 – Start Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2025 - Summarize final results, calculate carcass totals, compile and submit project photos, and complete/submit a final report—Project close-out site visit (with PacifiCorp, Cowlitz PUD, and ACC representatives).

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.

2017 Lewis River side channel 5 project unloading large wood obtained from PacifiCorp
USDA FS Service

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 4, 2020

LETTER TO INTERESTED PARTIES FROM T. OLSON, PACIFICORP

AVAILABILITY OF FUNDS FOR AQUATIC RELATED PROJECTS

PACIFICORP

Pacific Power |
Rocky Mountain Power
825 NE Multnomah, Suite 1800
Portland, Oregon 97232

September 4, 2020

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 (SA) established the Lewis River Aquatic 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. To be considered for funding, the Projects must meet each of the following priority 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 $3,158,481.23 for Resource Projects and $816,962.35 for Bull Trout Projects. Design-only projects will be considered during this 2020/2021 funding cycle and will be evaluated for its biological merit. If you know of other entities that may have an interest in seeking funding, please forward this opportunity to them. All Lewis River Aquatic Fund documents and process timeline can be located at the following link: https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html

The Aquatic Fund Subgroup to the Aquatic Coordination Committee (ACC) completed a **Lewis River Aquatic Fund Priority Reaches** 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.
https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/LR_BT_Hab_Restor_FinalReport.pdf

To be considered, applicants must submit a completed draft **Full Proposal Form** by close of business **November 20, 2020** and obtain acknowledgement from all owners of land needed to access the proposed Resource Project. Landowner(s) must sign a **Landowner Acknowledgement Form** indicating they are aware that the project is being proposed on their property.

Each applicant will have an opportunity for a project presentation to the ACC on **December 10, 2020** with final full proposals due by **January 29, 2021**. Full proposals will be evaluated and scored based on four primary categories: (1) benefits to fish, (2) scientific validity, (3) feasibility and (4) cost effectiveness. The Utilities and representatives of the Lewis River ACC will finalize a list of selected Resource Projects on **March 11, 2021**. Shortly thereafter, the Utilities will submit the final list to the Federal Energy Regulatory Commission to meet the submittal deadline of April 15, 2021 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 November.

Sincerely,

Todd Olson
Director, Compliance Hydro Resources

McCune, Kimberly (PacifiCorp)

From: McCune, Kimberly (PacifiCorp)
Sent: Thursday, September 3, 2020 9:33 AM
To: Bill Bakke; Brice Crayne; 'Christine Champe'; Dan Roix; Gardner Johnston; Greg Robertson; 'Jim Fisher'; 'jkling@westernrivers.org'; 'Jody lando'; Noel Johnson; Pete Barber ; Rhidian Morgan; Rudy Salakory; Shauna Hanisch-Kirkbride; 'Shiloh Halsey '; Suzanne Whitney; 'toppacific2@msn.com'; Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Bridget Moran; Bryce Glaser; Carol Serdar; David Howe; Day, Kate; Denise Smee; Doyle, Jeremiah (PacifiCorp); Ed Meyer; Ferraiolo, Mark (PacifiCorp); Hudson, Michael; James Byrne; James H Malinowski; Joshua Ashline; Joshua Jones; Josua Holowatz; 'Kale Bentley'; Karchesky, Chris (PacifiCorp); Katie Pruit; Kelley Jorgensen; Lesko, Erik (PacifiCorp); Mariah Stoll-Smith Reese; Matt Harding; Morgan, David; Nathan Reynolds; Olson, Todd (PacifiCorp); Peggy Miller; Pienovi, Levi (PacifiCorp); Roberts, Aaron; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana (PacifiCorp); Wendy McDermott; Whitesel, Timothy; Bill Richardson; Bob Nelson; Emmerson, Kendel (PacifiCorp); Eric Holman; Erik White; John Clapp; Neil Chartier; Peterman, Summer (PacifiCorp); Ray Croswell
Subject: RE: 2020/2021 Lewis River Aquatic Fund Announcement
Attachments: 09042020 AQ Fund Anouncement.pdf

Attn: Aquatic and Terrestrial Coordination Committee Representatives and Interested Parties

As of September 4, 2020 please be advised of the opportunity to submit proposals for aquatic related projects in the Lewis River basin. If you know of other parties that may have an interest in seeking funding, please forward this opportunity. All Lewis River Aquatic Fund documents, process timeline and evaluation questions are located at the following link: https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html

To be considered, applicants must submit a completed draft **Full Proposal Form** by close of business **November 20, 2020**. Please submit materials to my attention or to:

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

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232

APPENDIX C

EMAIL DATED NOVEMBER 22, 2020

EMAIL TO ACC FROM K. MCCUNE – PACIFICORP

2020/2021 LEWIS RIVER AQUATIC FUND PROPOSALS

McCune, Kimberly (PacifiCorp)

From: McCune, Kimberly (PacifiCorp)
Sent: Sunday, November 22, 2020 8:54 AM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bridget Moran; Bryce Glaser; Carol Serdar; David Howe; Day, Kate; Denise Smee; Doyle, Jeremiah (PacifiCorp); Ed Meyer; Ferraiolo, Mark (PacifiCorp); Greg Robertson; Hudson, Michael; James Byrne; James H Malinowski; Jeffrey Garnett; Joshua Ashline; Joshua Jones; Josua Holowatz; 'Kale Bentley'; Karchesky, Chris (PacifiCorp); Katie Pruit; Kelley Jorgensen; Lesko, Erik (PacifiCorp); Mariah Stoll-Smith Reese; Matt Harding; Morgan, David; Nathan Reynolds; Olson, Todd (PacifiCorp); Peggy Miller; Pienovi, Levi (PacifiCorp); Rhidian Morgan; Roberts, Aaron; Sam Gibbons; Samuel Kolb; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana (PacifiCorp); Wendy McDermott; Whitesel, Timothy
Subject: RE: 2020/2021 Lewis River Aquatic Fund Proposals
Attachments: AF Evaluation templates 08132020.xlsx; 09042020 LR - Rev Lewis AQ Fund Process Document.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Attn: ACC Representatives

Please be advised that PacifiCorp received four (4) project proposals by the due date of November 20, 2020. I have placed each proposal on the Lewis River website and provided the links below:

- SW Washington Nutrient Enhancement Coalition: Lewis River Support - $143,966
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/SWWNEC-LRSP%20Draft%20Proposal.pdf

- Clear Creek and Clearwater Creek Restoration Design - $333,520
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/11202020%20USFS%20Clearwater.pdf

- Rush Creek Side Channel - $125,500
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/11202020%20USFS%20PineCrk.pdf

- Pepper Creek Culvert Removal and Road Hydro-Stabilization - $48,210
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/11202020%20USFS%20PepperCrk.pdf

In addition, please find attached the 2020 Aquatic Fund Process Document and Evaluation Template for your reference, and the timeline below.

Lewis River Aquatic Fund Process Timeline Activity Target Milestone Date

Request for proposals distributed along with landowner acknowledgement form	Sep 4, 2020
Draft Full Proposals due to ACC	Nov 20, 2020
Conduct Proposed Project Information Meeting (applicant presentations)	December, 2020 (ACC meeting)
ACC members submit written request for clarification of project information if questions not answered in previous meeting/presentation.	Jan 4, 2021
Final Full Proposals due (ACC requests for clarification need to be included as an Appendix)	Jan 29, 2021
Final Full Proposals submitted to ACC for 30-day review and evaluation	Feb 1, 2021
ACC scoring template due to Utilities March 1 Distribute combined master scoring template to ACC	Mar 5, 2021
*Conduct Project Selection Meeting	March 11, 2021 (ACC meeting)
Provide add'l 7-day review period for absentee ACC participants, if needed	Third Thursday in March, 2021
Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

From: McCune, Kimberly (PacifiCorp)
Sent: Thursday, September 3, 2020 9:33 AM
To: Bill Bakke <bmbakke@gmail.com>; Brice Crayne <bricecrayne@outlook.com>; 'Christine Champe' <christine@stillwatersci.com>; Dan Roix <droix@columbialandtrust.org>; Gardner Johnston <gjohnston@interfluve.com>; Greg Robertson <Greg.Robertson@usda.gov>; 'Jim Fisher' <jfisherbj@comcast.net>; 'jkling@westernrivers.org' <jkling@westernrivers.org>; 'Jody lando' <jblando@stillwatersci.com>; Noel Johnson <noel@lewisriver.com>; Pete Barber <pbarber@cowlitz.org>; Rhidian Morgan <rmmorgan@pnfarm.com>; Rudy Salakory <rsalakory@cowlitz.org>; Shauna Hanisch-Kirkbride <lcfegdirector@outlook.com>; 'Shiloh Halsey ' <shiloh@cascadeforest.org>; Suzanne Whitney <suzanne@cascadeforest.org>; 'toppacific2@msn.com' <toppacific2@msn.com>; Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfrb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Bridget Moran <bmoran@americanrivers.org>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Day, Kate <kate.day@usda.gov>; Denise Smee <dsmee@lcfrb.gen.wa.us>; Doyle, Jeremiah (PacifiCorp) <Jeremiah.Doyle@pacificorp.com>; Ed Meyer <ed.meyer@noaa.gov>; Ferraiolo, Mark (PacifiCorp) <Mark.Ferraiolo@pacificorp.com>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; James H Malinowski <jim.malinowski@icloud.com>; Joshua Ashline <joshua.ashline@noaa.gov>; Joshua Jones <joshua.d.jones@usda.gov>; Josua Holowatz <Josua.Holowatz@dfw.wa.gov>; 'Kale Bentley' <kale.bentley@dfw.wa.gov>; Karchesky, Chris (PacifiCorp) <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik (PacifiCorp) <Erik.Lesko@pacificorp.com>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Matt Harding <vmattharding@gmail.com>; Morgan, David <dmorgan@pnfarm.com>; Nathan Reynolds <nreynolds@cowlitz.org>; Olson, Todd (PacifiCorp) <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi (PacifiCorp) <Levi.Pienovi@pacificorp.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Steve Manlow <smanlow@lcfrb.gen.wa.us>; Steve West <swest@lcfrb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana (PacifiCorp) <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>; Bill Richardson

<brichardson@RMEF.org>; Bob Nelson <nelson338@aol.com>; Emmerson, Kendel (PacifiCorp) <Kendel.Emmerson@pacificorp.com>; Eric Holman <holmaewh@dfw.wa.gov>; Erik White <ewhite@cowlitz.org>; John Clapp <jmcmaple@gmail.com>; Neil Chartier <Neil.Chartier@usda.gov>; Peterman, Summer (PacifiCorp) <Summer.Peterman@pacificorp.com>; Ray Croswell <shedhunt@aol.com>
Subject: RE: 2020/2021 Lewis River Aquatic Fund Announcement

Attn: Aquatic and Terrestrial Coordination Committee Representatives and Interested Parties

As of September 4, 2020 please be advised of the opportunity to submit proposals for aquatic related projects in the Lewis River basin. If you know of other parties that may have an interest in seeking funding, please forward this opportunity. All Lewis River Aquatic Fund documents, process timeline and evaluation questions are located at the following link: https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html

To be considered, applicants must submit a completed draft **Full Proposal Form** by close of business **November 20, 2020**. Please submit materials to my attention or to:

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

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232

APPENDIX D

EMAIL DATED FEBRUARY 1, 2021

EMAIL TO ACC FROM K. MCCUNE – RESPONSE REQUESTED: 2020/2021 LEWIS RIVER AQUATIC FUND FINAL PROPOSALS; SCORING/EVALUATION TEMPLATE

McCune, Kimberly (PacifiCorp)

From: McCune, Kimberly (PacifiCorp)
Sent: Monday, February 1, 2021 10:31 AM
To: Amanda Froberg; Amelia Johnson; Asher, Eli; Bill Sharp; Brice Crayne; Bridget Moran; Bryce Glaser; Carol Serdar; David Howe; Day, Kate; Denise Smee; Doyle, Jeremiah (PacifiCorp); Ferraiolo, Mark (PacifiCorp); Greg Robertson; Hudson, Michael; James Byrne; James H Malinowski; Jeffrey Garnett; Joshua Jones; Josua Holowatz; Kale Bentley; Karchesky, Chris (PacifiCorp); Katie Pruit; Kelley Jorgensen; Lesko, Erik (PacifiCorp); Logan Negherbon; Mariah Stoll-Smith Reese; Matt Harding; Morgan, David; Olson, Todd (PacifiCorp); Peggy Miller; Pienovi, Levi (PacifiCorp); Rhidian Morgan; Roberts, Aaron; Sam Gibbons; Samuel Kolb; Scott Anderson; Steve Manlow; Steve West; Taylor Aalvik; Tim Romanski; Tom Sinclair; Weatherly, Briana (PacifiCorp); Wendy McDermott; Whitesel, Timothy
Subject: RE: RESPONSE REQUESTED: 2020/2021 Lewis River Aquatic Fund Final Proposals; Scoring/Evaluation Template

Thank you to the ACC reps that discovered an error in my email below.

Please email the ACC scoring templates to my attention (kimberly.mccune@pacificorp.com) on or before **close of business Monday, March 1, 2021.**

My apologies for the inconvenience.

K

From: McCune, Kimberly (PacifiCorp)
Sent: Monday, February 1, 2021 8:33 AM
To: Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfrb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bridget Moran <bmoran@americanrivers.org>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Day, Kate <kate.day@usda.gov>; Denise Smee <dsmee@lcfrb.gen.wa.us>; Doyle, Jeremiah (PacifiCorp) <Jeremiah.Doyle@pacificorp.com>; Ferraiolo, Mark (PacifiCorp) <Mark.Ferraiolo@pacificorp.com>; Greg Robertson <Greg.Robertson@usda.gov>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; James H Malinowski <jim.malinowski@icloud.com>; Jeffrey Garnett <jeffrey_garnett@fws.gov>; Joshua Jones <joshua.d.jones@usda.gov>; Josua Holowatz <Josua.Holowatz@dfw.wa.gov>; Kale Bentley <kale.bentley@dfw.wa.gov>; Karchesky, Chris (PacifiCorp) <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik (PacifiCorp) <Erik.Lesko@pacificorp.com>; Logan Negherbon <logan.negherbon@noaa.gov>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Matt Harding <vmattharding@gmail.com>; Morgan, David <dmorgan@pnfarm.com>; Olson, Todd (PacifiCorp) <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi (PacifiCorp) <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Scott Anderson <scott.anderson@noaa.gov>; Steve Manlow <smanlow@lcfrb.gen.wa.us>; Steve West <swest@lcfrb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana (PacifiCorp) <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>
Subject: RESPONSE REQUESTED: 2020/2021 Lewis River Aquatic Fund Final Proposals; Scoring/Evaluation Template
Importance: High

Attn: ACC Representatives

Please be advised that the 2020/2021 Aquatic Fund Proposals are now final and available for a 30-day review and comment period (links provided below). Please email the ACC scoring templates to my attention (kimberly.mccune@pacificorp.com) on or before **close of business Tuesday, March 1, 2021**. The scoring templates will be distributed to the ACC shortly thereafter.

Lewis River Aquatic Fund Process Timeline Activity Target Milestone Date

Request for proposals distributed along with landowner acknowledgement form	Sep 4, 2020
Draft Full Proposals due to ACC	Nov 20, 2020
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ACC members submit written request for clarification of project information if questions not answered in previous meeting/presentation.	Jan 4, 2021
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Submit Project Selection Report to FERC	By April 15th

*Project applicants not permitted to attend this meeting.

- SW Washington Nutrient Enhancement Coalition: Lewis River Support - $143,966
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021SWWNEC-LRSP%20Final%20Proposal.pdf

- Clear Creek and Clearwater Creek Restoration Design - $333,520
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021Clearwater_Final.pdf

- Rush Creek Side Channel - $192,850
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021RushCreek_Final.pdf

- Pepper Creek Culvert Removal and Road Hydro-Stabilization - $48,210
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021PepperCreek_Final.pdf

Thank you.

K

From: McCune, Kimberly (PacifiCorp)
Sent: Sunday, November 22, 2020 8:54 AM
To: Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfrb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bridget Moran <bmoran@americanrivers.org>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>;

David Howe <David.Howe@dfw.wa.gov>; Day, Kate <kate.day@usda.gov>; Denise Smee <dsmee@lcfrb.gen.wa.us>; Doyle, Jeremiah (PacifiCorp) <Jeremiah.Doyle@pacificorp.com>; Ed Meyer <ed.meyer@noaa.gov>; Ferraiolo, Mark (PacifiCorp) <Mark.Ferraiolo@pacificorp.com>; Greg Robertson <Greg.Robertson@usda.gov>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; James H Malinowski <jim.malinowski@icloud.com>; Jeffrey Garnett <jeffrey_garnett@fws.gov>; Joshua Ashline <joshua.ashline@noaa.gov>; Joshua Jones <joshua.d.jones@usda.gov>; Josua Holowatz <Josua.Holowatz@dfw.wa.gov>; 'Kale Bentley' <kale.bentley@dfw.wa.gov>; Karchesky, Chris (PacifiCorp) <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik (PacifiCorp) <Erik.Lesko@pacificorp.com>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Matt Harding <vmattharding@gmail.com>; Morgan, David <dmorgan@pnfarm.com>; Nathan Reynolds <nreynolds@cowlitz.org>; Olson, Todd (PacifiCorp) <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi (PacifiCorp) <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Steve Manlow <smanlow@lcfrb.gen.wa.us>; Steve West <swest@lcfrb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana (PacifiCorp) <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>
Subject: RE: 2020/2021 Lewis River Aquatic Fund Proposals

Attn: ACC Representatives

Please be advised that PacifiCorp received four (4) project proposals by the due date of November 20, 2020. I have placed each proposal on the Lewis River website and provided the links below:

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<brichardson@RMEF.org>; Bob Nelson <nelson338@aol.com>; Emmerson, Kendel (PacifiCorp) <Kendel.Emmerson@pacificorp.com>; Eric Holman <holmaewh@dfw.wa.gov>; Erik White <ewhite@cowlitz.org>; John Clapp <jmcmaple@gmail.com>; Neil Chartier <Neil.Chartier@usda.gov>; Peterman, Summer (PacifiCorp) <Summer.Peterman@pacificorp.com>; Ray Croswell <shedhunt@aol.com>
Subject: RE: 2020/2021 Lewis River Aquatic Fund Announcement

Attn: Aquatic and Terrestrial Coordination Committee Representatives and Interested Parties

As of September 4, 2020 please be advised of the opportunity to submit proposals for aquatic related projects in the Lewis River basin. If you know of other parties that may have an interest in seeking funding, please forward this opportunity. All Lewis River Aquatic Fund documents, process timeline and evaluation questions are located at the following link: https://www.pacificorp.com/energy/hydro/lewis-river/aquatic-fund-applications.html

To be considered, applicants must submit a completed draft **Full Proposal Form** by close of business **November 20, 2020**. Please submit materials to my attention or to:

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

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232

APPENDIX E

EMAIL DATED MARCH 22, 2021

EMAIL TO ACC FROM K. MCCUNE – LEWIS RIVER 2020/2021 AQUATIC PROJECTS APPROVED FOR FUNDING

McCune, Kimberly (PacifiCorp)

To: McCune, Kimberly (PacifiCorp)
Subject: RE: Lewis River 2020/2021 Aquatic Projects Approved for Funding

From: McCune, Kimberly (PacifiCorp)
Sent: Monday, March 22, 2021 7:12 AM
To: Alex Maslov <alex.maslov@northforkcomposites.com>; Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfrb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bridget Moran <bmoran@americanrivers.org>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Day, Kate <kate.day@usda.gov>; Denise Smee <dsmee@lcfrb.gen.wa.us>; Doyle, Jeremiah (PacifiCorp) <Jeremiah.Doyle@pacificorp.com>; Ferraiolo, Mark (PacifiCorp) <Mark.Ferraiolo@pacificorp.com>; Gary Loomis <gary.loomis@edgerods.com>; Greg Robertson <Greg.Robertson@usda.gov>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; Janae Brock <janae@edgerods.com>; Jeffrey Garnett <jeffrey_garnett@fws.gov>; Joshua Jones <joshua.d.jones@usda.gov>; Josua Holowatz <Josua.Holowatz@dfw.wa.gov>; 'Kale Bentley' <kale.bentley@dfw.wa.gov>; Karchesky, Chris (PacifiCorp) <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik (PacifiCorp) <Erik.Lesko@pacificorp.com>; Logan Negherbon <logan.negherbon@noaa.gov>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Matt Harding <vmattharding@gmail.com>; Morgan, David <dmorgan@pnfarm.com>; Olson, Todd (PacifiCorp) <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi (PacifiCorp) <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Scott Anderson <scott.anderson@noaa.gov>; Steve Manlow <smanlow@lcfrb.gen.wa.us>; Steve West <swest@lcfrb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana (PacifiCorp) <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>
Subject: RE: Lewis River 2020/2021 Aquatic Projects Approved for Funding

Attn: ACC Representatives

Please be advised that after an additional 7-day review period all projects listed in the table below have been approved for funding.

Applicant	Project Title	Decision to Fund	Funding
USDA Forest Service	Clear Creek and Clearwater Creek Restoration Design	Approved	$333,520 (Resource funds)
USDA Forest Service	Rush Creek Side Channel	Approved*	$192,850 (Bull trout funds)
USDA Forest Service	Pepper Creek Culvert Removal and Road Hydro-Stabilization	Approved	$ 48,210 (Resource funds)
Lower Columbia Fish Enhancement Group (LCFEG)	SW Washington Nutrient Enhancement Coalition: Lewis River Support	Approved; conditioned on ACC and/or ATS approval regarding allocation, location and timing of carcass and analogs.	$143,966 (Resource funds)

** After an additional 7-day review period Trout Unlimited (TU) spoke with other TU members and TU reached a conclusion. Although TU does not approve the 2021 USFS -- Rush Creek habitat project; TU will not stand in the way.*

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232

From: McCune, Kimberly (PacifiCorp)
Sent: Thursday, March 11, 2021 1:06 PM
To: Alex Maslov <alex.maslov@northforkcomposites.com>; Amanda Froberg <afroberg@cowlitzpud.org>; Amelia Johnson <ajohnson@lcfrb.gen.wa.us>; Asher, Eli <easher@cowlitz.org>; Bill Sharp <shab@yakamafish-nsn.gov>; Brice Crayne <bricecrayne@outlook.com>; Bridget Moran <bmoran@americanrivers.org>; Bryce Glaser <glasebgg@dfw.wa.gov>; Carol Serdar <carol.serdar@ecy.wa.gov>; David Howe <David.Howe@dfw.wa.gov>; Day, Kate <kate.day@usda.gov>; Denise Smee <dsmee@lcfrb.gen.wa.us>; Doyle, Jeremiah (PacifiCorp) <Jeremiah.Doyle@pacificorp.com>; Ferraiolo, Mark (PacifiCorp) <Mark.Ferraiolo@pacificorp.com>; Gary Loomis <gary.loomis@edgerods.com>; Greg Robertson <Greg.Robertson@usda.gov>; Hudson, Michael <michael_hudson@fws.gov>; James Byrne <byrnejim7@gmail.com>; Janae Brock <janae@edgerods.com>; Jeffrey Garnett <jeffrey_garnett@fws.gov>; Joshua Jones <joshua.d.jones@usda.gov>; Josua Holowatz <Josua.Holowatz@dfw.wa.gov>; Kale Bentley <kale.bentley@dfw.wa.gov>; Karchesky, Chris (PacifiCorp) <Chris.Karchesky@pacificorp.com>; Katie Pruit <Katie.pruit@rco.wa.gov>; Kelley Jorgensen <kjorgensen@pnfarm.com>; Lesko, Erik (PacifiCorp) <Erik.Lesko@pacificorp.com>; Logan Negherbon <logan.negherbon@noaa.gov>; Mariah Stoll-Smith Reese <mariah@lelooska.org>; Matt Harding <vmattharding@gmail.com>; Morgan, David <dmorgan@pnfarm.com>; Olson, Todd (PacifiCorp) <Todd.Olson@pacificorp.com>; Peggy Miller <peggy.miller@dfw.wa.gov>; Pienovi, Levi (PacifiCorp) <Levi.Pienovi@pacificorp.com>; Rhidian Morgan <rmmorgan@pnfarm.com>; Roberts, Aaron <Aaron.roberts@dfw.wa.gov>; Sam Gibbons <sam.gibbons@dfw.wa.gov>; Samuel Kolb <samuel.kolb@dfw.wa.gov>; Scott Anderson <scott.anderson@noaa.gov>; Steve Manlow <smanlow@lcfrb.gen.wa.us>; Steve West <swest@lcfrb.gen.wa.us>; Taylor Aalvik <taylor.a@cowlitz.org>; Tim Romanski <tim_romanski@fws.gov>; Tom Sinclair <thomas_sinclair@fws.gov>; Weatherly, Briana (PacifiCorp) <Briana.Weatherly@pacificorp.com>; Wendy McDermott <wmcdermott@americanrivers.org>; Whitesel, Timothy <Timothy_Whitesel@fws.gov>
Subject: Lewis River 2020/2021 Aquatic Projects Approved for Funding

Attn: ACC Representatives

Please be advised that the following decisions were reached at the March 11, 2021 ACC meeting for the four (4) projects identified below. To accommodate those ACC participants not in attendance, the Utilities are providing an additional 7-day review and comment period.

Applicant	Project Title	Decision to Fund	
USDA Forest Service	Clear Creek and Clearwater Creek Restoration Design	Approved	$3
USDA Forest Service	Rush Creek Side Channel	Not Approved; reserving an additional 7-day review period to reconsider.	$1
USDA Forest Service	Pepper Creek Culvert Removal and Road Hydro-Stabilization	Approved	$

Lower Columbia Fish Enhancement Group (LCFEG)	SW Washington Nutrient Enhancement Coalition: Lewis River Support	Approved; conditioned on ACC and/or ATS approval regarding allocation, location and timing of carcass and analogs.	$1

Please provide your comments and/or decisions to my attention **on or before close of business Friday, March 19, 2021.**

- Clear Creek and Clearwater Creek Restoration Design - $333,520
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021Clearwater_Final.pdf

- Rush Creek Side Channel - $192,850
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021RushCreek_Final.pdf

- Pepper Creek Culvert Removal and Road Hydro-Stabilization - $48,210
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021PepperCreek_Final.pdf

- SW Washington Nutrient Enhancement Coalition: Lewis River Support - $143,966
  https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/hydro/lewis-river/license-implementation/acc/01292021SWWNEC-LRSP%20Final%20Proposal.pdf

Thank you.

Kimberly McCune
Sr. Project Coordinator
PacifiCorp – Hydro Resources
825 NE Multnomah St., Suite 1800
Portland, OR 97232

APPENDIX F

CLEAR CREEK AND CLEARWATER CREEK RESTORATION DESIGN EAGLE

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 Draft Full Proposal Form submission is **January 29, 2021**. Please submit materials to:

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

1. Project Title
   Clear Creek and Clearwater Creek Restoration Design

2. Requested Funding Amount $333,520; total cost of design including In-kind funds $345,520

3. Project Manager
   Greg Robertson, greg.robertson2@usda.gov, (360) 395-3366

4. Identification of problem or opportunity to be addressed

Problem:
Sections of Clear Creek and Clearwater Creek contain essential habitat for species listed under the Endangered Species Act (ESA) and include Coho and Chinook salmon, and Steelhead trout. Effects to aquatic habitat in these creeks include the 1980 eruption of Mt. St Helens and past land management activities such as logging, road building, stream wood removal, and development of hydro-resources, which until recently has blocked all anadromous species access to the Upper North Fork Lewis River watershed. To ensure reintroduction efforts of salmon and steelhead into the Lewis River and its tributaries above the dams are successful, the Forest Service in partnership with the Aquatic Coordination Committee has implemented a variety of aquatic habitat improvement projects including; construction of acclimation ponds for juvenile spring Chinook salmon, road decommissioning, replacement of migration blocking culverts with bridges, and numerous streambank and instream fish habitat restoration projects. However, additional work remains to improve habitat for Chinook, Coho, and Winter Steelhead.

Past instream restoration projects in Clear and Clearwater Creeks were limited in scope and scale with project objectives focusing on bank protection and log scour rather than process-based restoration. Previous projects were not designed with 2D hydraulic model and were not designed or stamped by a certified hydraulic engineer. Many of the log jams and acclimation ponds washed out during floods in 2016. Lessons learned from past aquatic restoration projects in these creeks have highlighted the need for a broader-scale process-based restoration planning and design effort to improve aquatic habitat, build stream habitat resiliency, and improve floodplain and side channel connectivity.

Opportunity:
The Clear Creek and Clearwater Creek project is in alignment with Lewis River goals by benefiting federal ESA-listed species, through enhancing fish in habitat in the Lewis River Basin that will help support the reintroduction of anadromous fish throughout the basin. Clear Creek and Clearwater are above the Lewis River hydropower system, which has blocked upstream adult migration from the mid-1930s until eight years ago. As part of the most recent FERC license, PacifiCorp and Cowlitz PUD (utilities) are implementing salmon and steelhead reintroduction in the upper basin. Adult Coho, Steelhead, and spring Chinook are transported and released to the upper basin to spawn naturally. Coho are currently using the site in sufficient numbers to populate off-channel areas, and we anticipate greater numbers of upstream-bound adults as populations grow above the hydropower system. This project is well-timed to take advantage of increasing numbers of adults we expect to be using the reach in future years.

The 2010 Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan's EDT analysis predicts high potential for Coho production throughout the project area, and medium to low production potential for spring Chinook and winter steelhead. Spring Chinook is the only Primary population in the upper Lewis subbasin, and must be recovered to a high level of viability to meet regional recovery goals. Coho and winter steelhead are contributing populations and must be recovered to a medium level of viability to meet regional salmon recovery goals; the Tier-2 reach designation of Clear Creek and Clearwater Creek reflects the lower priority of Coho recovery. Surveyors have documented bull trout in the area, but their level and pattern of use is unknown.

The Gifford Pinchot National Forest are partnering with the Cascade Forest Conservancy (CFC) to accomplish several pieces of the project more fluidly. Cascade Forest Conservancy has better availability to lead the contracting of the design, with Forest Service staff will sharing design oversight responsibilities. In the future Forest Service can take on NEPA documentation for the implementation, CFC can contract out the implementation and we can work together for large wood sourcing for the project.

The Gifford Pinchot National Forest and the Cascade Forest Conservancy, propose to develop comprehensive habitat restoration designs for Clear Creek and Clearwater Creek with a focus on process-based geomorphic restoration to improve aquatic function and habitat, and build resiliency to the potential impacts of climate change. Clear Creek and Clearwater Creek Restoration Design planning and future implementation will focus on restoring broader stream function to encourage resilient aquatic ecosystems that will respond to climate change stressors.

Aquatic Funds would be used to contract a certified restoration engineering consultant to develop stamped project designs. This project will restore habitat in the Clear and Clearwater drainages by providing a holistic design in the expectation that future grant rounds will be utilized to implement designed stream restoration in the next several years.

5. 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.)

The proposed Clear Creek and Clearwater Creek Design project are above Swift Reservoir and North Fork Lewis River, WA, Skamania County. Each begin at the confluence with the Muddy River and end further up each stream to the upstream extent of anadromous habitat (Figure 1). Approximate restoration design river miles (RM) for Lower Clear Creek RM 0-6.2, Upper Clear Creek RM 6.2-8.7 and Clearwater Creek RM 0-5.2 (Table 1). The restoration design will focus on where excavator access is feasible and where the stream it is not accessible by excavator, to helicopter wood into those areas. This incorporates the strategy of implementing the excavator reaches first so as to capture mobilized wood that has been helicoptered or recruited naturally at a later date and to retain the wood in the system. Both Clear and Clearwater Creeks have a disrupted wood recruitment cycle through past land management and the eruption of Mt St Helens.

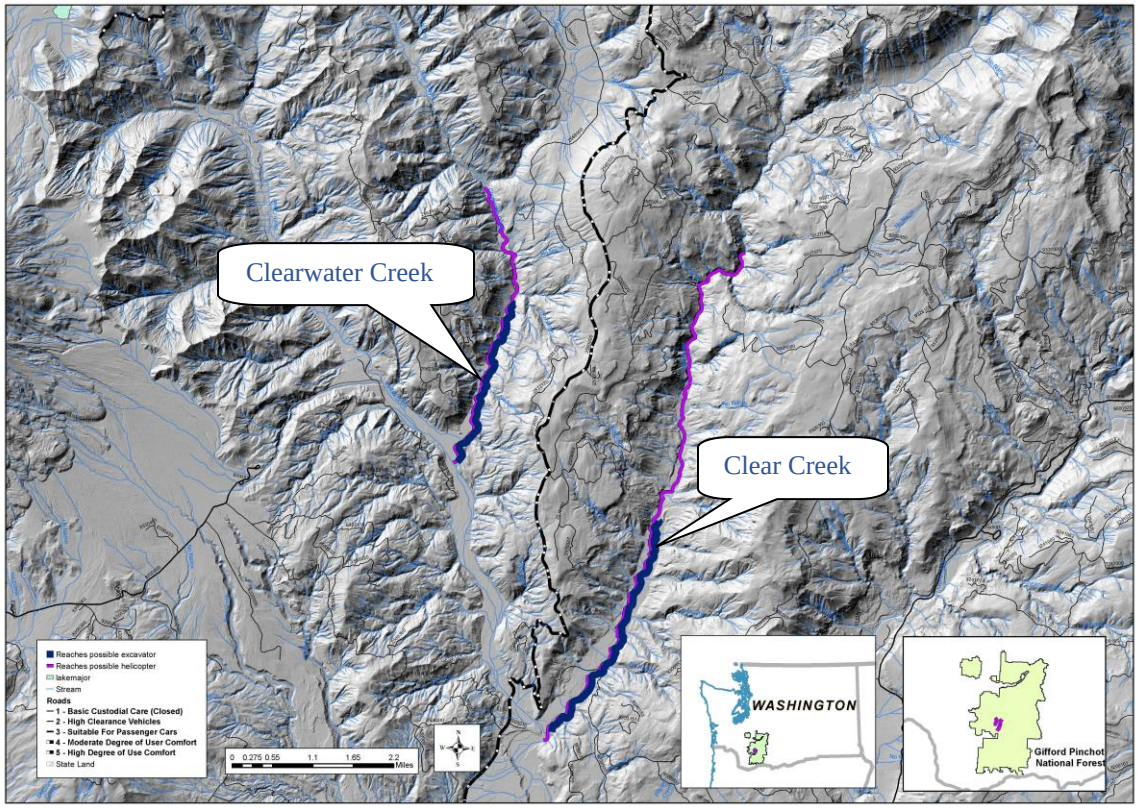


Figure 1. Clear Creek and Clearwater Creek stream restoration design locations.

Table 1. Fish resources present at the site and targeted by this project.

Reach Name	LCFRB Tier	Length		Tier Length	Strategy Excavator (Length)	Strategy Helicopter (Length)
	Ranking	Feet	Miles	Tier II	Tier II	Tier II
Lower Clear Creek	2	32646	6.2	6.2	3.8	2.4
Upper Clear Creek	2	13200	2.5	2.5	0	2.5
Clearwater Creek	2	27451	5.2	5.2	2.2	3.0

Focal fish species of both reintroduced anadromous and of resident life histories use Clear and Clearwater Creeks for spawning, incubation, rearing, and foraging as adults and would benefit from implementing the proposed design (Table 2). Recent data on the spatial distribution of spring Chinook and Coho from redd surveys collected by PacifiCorp in 2017 indicate that spring Chinook utilize both Clear and Clearwater Creeks for spawning, in addition to the mainstem North Fork Lewis below the Lower Lewis River falls and the confluence of Swift Reservoir, the Muddy River near the confluence of Clear Creek, and at Drift Creek near the confluence of Swift Reservoir (Figure 2). Coho have also used Clear and Clearwater Creeks and have distributed their presence within the Upper North Fork Lewis River at greater levels in both release from trap and haul and in numbers of redds (Figure 3).

Table 2. Fish resources present at the site and targeted by this project.

Species	Life History Present (egg, juvenile, adult)	Current Population Trend (decline, stable, rising)	ESA Coverage (Y/N)	Life History Target (egg, juvenile, adult)
Coho	Egg, juvenile, adult	Rising (reintroduction)	Y	Egg, juvenile, adult
Spring Chinook	Egg, juvenile, adult	Rising (reintroduction)	Y	Egg, juvenile, adult
Winter Steelhead	Egg, juvenile, adult	Rising (reintroduction)	Y	Egg, juvenile, adult
Bull trout	Adult	Decline or stable	Y	Egg, juvenile, adult

Recent data on the spatial distribution of spring Chinook and Coho redd surveys (2017) shared by PacifiCorp indicate that spring Chinook have used both Clear and Clearwater Creeks for spawning. Other areas of spawning are focused in the mainstem North Fork Lewis below the Lower Lewis River falls and the confluence of Swift Reservoir, the Muddy River near the confluence of Clear Creek, and at Drift Creek near the confluence of Swift Reservoir (Figure 3, Figure 4).

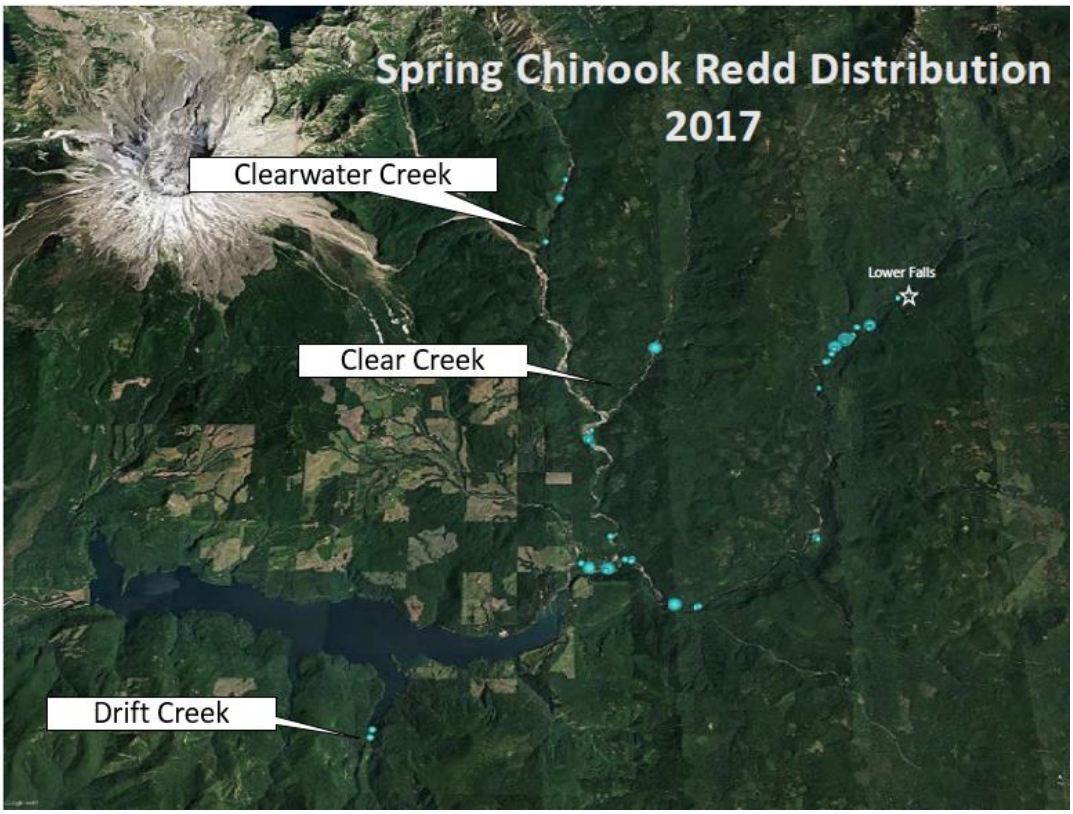


Figure 3. 2017 spring Chinook redd distribution within the Upper North Fork Lewis River. Source: PacifiCorp.

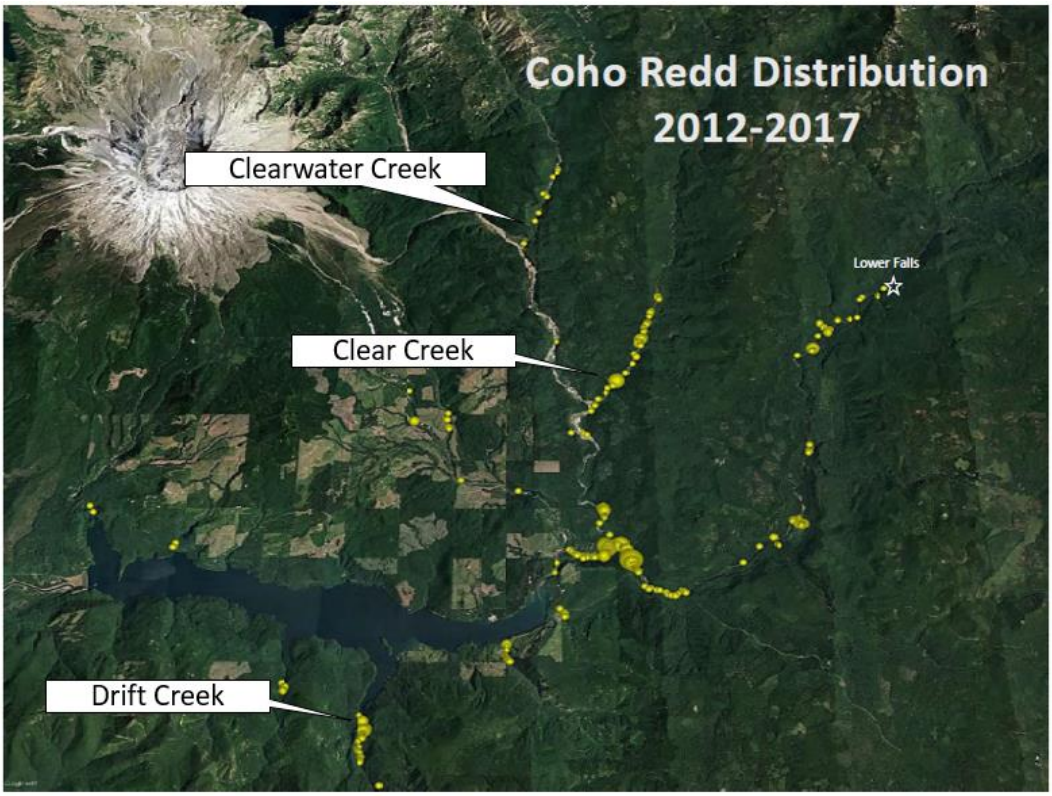


Figure 4. 2012-2017 Coho redd distribution within the Upper North Fork Lewis River. Source: PacifiCorp.

Lower Columbia River Salmon Recovery Board, Ecosystem Diagnosis and Treatment Analysis, and Aquatic Coordination Group Synthesis Rankings

Clear Creek

The 2009 Lower Columbia Salmon Recovery Board (LCFRB) identifies Clear Creek (Reach 23) as a Tier 2 medium priority reach. Ecosystem Diagnosis and Treatment (EDT) analysis identifies medium production potential for spring Chinook, high for winter Steelhead, and low potential for Coho. The ACC Synthesis Matrix rated this section of the river as having low restoration potential and as a Primary Coho population area, and a low rating for Coho reach potential. Habitat needs in this reach were identified as low for instream LWM, and high for competition and predation. It has a Primary population designation for Chinook, a Contributing population designation for Coho, and a Contributing population designation for winter Steelhead.

Table 3. Lower Clear Creek (Tier 2) RM 0-8.7 reach and multiple species priority LCFRB ranking.

Species	Reach Potential
Coho	H
Spring Chinook	M
Winter Steelhead	L
Restoration Needs	**Multiple Species Priority**
Floodplain function and channel migration Process	H
lnstream flows	H
Off channel & side channel habitat	H
Riparian conditions & functions	H
Stream channel habitat structure and bank stability	H
Watershed conditions & hillslope processes	H
Access to blocked habitats	L
Regulated stream management for habitat functions	L
Water quality	L

Clearwater Creek

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

Table 4. Clearwater Creek (Tier 2) RM 0-5.2 reach and multiple species priority LCFRB ranking.

Species	Reach potential
Coho	H
Spring Chinook	M
Winter Steelhead	M
Restoration Needs	**Multiple Species Priority**
Floodplain function and channel migration Process	H
Instream flows	H
Off channel & side channel habitat	H
Riparian conditions & functions	H
Stream channel habitat structure and bank stability	H
Watershed conditions & hillslope processes	H
Access to blocked habitats	L
Regulated stream management for habitat functions	L
Water quality	L

Climate Change Resiliency

The Gifford Pinchot National Forest completed a climate change vulnerability assessment in October 2019. With respect to watershed stewardship, this analysis focused on potential thermal impacts to anadromous fish species, emphasizing the need to build aquatic habitat resiliency and connectivity. Key themes from this analysis include strategic prioritization and restoration of natural thermal, hydrologic, and wood regimes, and management of fluvial connectivity and assisted migration.

Previous Restoration Efforts

Previous instream projects have occurred on both Clear and Clearwater Creeks in 2010 and 2013 respectively. The Clear Creek restoration effort added approximately 950 trees from river mile 0-1.3 in 36 structure sites and the Clearwater Creek restoration effort added 900 trees from river mile 0-1.7 in 62 structure sites. Both projects structure implementation and construction mainly focused on bank protection and channel margin work and (Figure 4).

Figure 5. Example of a bank protection structure constructed on Clear Creek, 2010. Approximately 50 trees were used in this structure.

After an approximate 50-year recurrence flood event in December of 2016 there were many waterways within the Upper North Fork Lewis River that experienced significant channel change. This flood induced movement of placed wood in Clear and Clearwater Creeks, failures at the acclimation ponds on the Muddy River and Clear Creek and also impacted several additional projects funded through the Aquatic Fund.

6. Project Objective(s)

This project aims to restore hydrologic function and aquatic/riparian ecological function of Clear and Clearwater Creeks to benefit aquatic species and riparian dependent species. The objectives of the project are:

- Restore instream fish habitat for all accessible miles of fish habitat for native fish species;
- Improve water storage and hyporheic exchange by restoring floodplain connectivity;
- Establish reconnection with floodplain terraces to help restore riparian areas and decrease erosive power. Riparian/Instream restoration will strengthen ecosystem resistance against extreme floods and altered surface flows anticipated from climate change;
- Strengthen linkages between aquatic and terrestrial systems, making both more resilient and resistant to the stresses imposed by climate change.

These objectives will lead to improved habitat complexity and diversity increasing the number, area, and depth of pools, increase stable wood accumulations, increase the extent and age of riparian and island vegetation, and increase the amount of suitable spawning and rearing habitat (i.e., species-appropriate depth, velocity, substrate, and cover) for

coho, spring Chinook, and winter steelhead. Providing refugia during winter flows for juvenile salmonids, rearing opportunities for juvenile salmonids during summer months and increased spawning opportunities for adult salmonids.

The project fits well with regional recovery plan and habitat strategy guidance. This project is proposed in reaches identified in the Priority Reaches document and high priority reaches in the LCFRB habitat strategy (Each Stream is designated as Tier 2). EDT analysis that underpins the Lower Columbia's habitat strategy indicates that the reaches identified will benefit from restoration efforts, with off-channel & side channel habitat, riparian conditions & functions, and stream channel habitat structure and bank stability all meriting high multi-species priorities.

This project addresses the following Aquatic Fund priorities:

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

Lower Columbia ESU Chinook, Coho, and Steelhead trout are listed as a threatened species under the ESA. This project will contribute to the recovery of these species by increasing the amount and quality of water and pools. In addition, constructed log complexes will increase spawning habitat.

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

This proposal will complete the design for enhancement of over 13 miles of rearing and refugia habitat for juvenile anadromous salmonids. Once implemented, the project will improve the habitat characteristics that will promote survival and promotion of reintroduced anadromous fish.

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

This project is located in the North Fork Lewis River basin and will restore and enhance habitat in Clear Creek and Clearwater Creek, which are tributaries to the North fork Lewis River. This project will improve aquatic function and increase instream habitat diversity and is expected to contribute toward increasing fish production in the North Fork Lewis River and its tributaries.

7. Tasks

1) **Hire consultant**. The Cascade Forest Conservancy (CFC), as a project partner, will solicit proposals from certified engineering consulting firms to complete the technical work necessary for this project. CFC and Forest Service staff will perform project management and stakeholder coordination. CFC and Forest Service staff will work closely to ensure that the consultant selection process and outcomes serve both parties and that design is suitable for implementation on Forest Service land. Based on preliminary discussions with qualified consultants, the general tasks to be completed as part of the design contract will include:

2) **Topographic survey**. A survey crew will use Total Station or RTK GPS technology to create a base layer for hydraulic modeling and project design. Since the project reach is relatively large, we will evaluate the cost effectiveness of flying a new LiDAR dataset to inform the model and design. Consultants will take bed and bank sediment samples to assist in modeling and assessment.

3) **Hydraulic Modeling**. 2D hydraulic analysis (or other acceptable modeling recommended by consultant). Consultants will develop a hydraulic model to inform design criteria for ELJs or other in-stream structures. Final hydraulic model selection will be the contracted design team's preference in consultation with the FS and CFC, but we expect them to use 2-D hydraulic model such as HEC-RAS. The model will help determine floodplain inundation at a variety of discharges, calculate maximum probable scour at structures to ensure stability, estimate 100-year flood elevations to inform design heights of self-ballasted structures and buoyancy calculations on structures designed to be overtopped. The model outputs will also inform sediment transport characteristics in the reach and provide the potential for self-sustaining scour pools to form at structures.

4) **Geomorphic/hydraulic assessment**. A geomorphologist will examine historical aerial photographs, sediment samples, and model results to evaluate the likely response to a range of treatment alternatives and target restoration efforts in reaches proposed for treatment.

5) **Stamped Project Design Package Suitable for Contracting.** Designs will be developed by progressing through typical design stages (e.g., Concept, Preliminary, and Final) including specs and engineer's estimate of probable cost. Project may be designed to implement log placement by helicopter, excavator, and/or a combination of both.

6) **Cost Estimates -** Engineer's cost estimate to implement the project

7) **Wood sourcing** (while design is occurring)- CFC will initiate the planning phases and secure nearby wood banks for the sourcing and storage of non-commercial wood, e.g., fallen trees on Forest Service roads and hazard trees that will be used for the instream work. The Forest Service will also be looking at nearby stands to evaluate where wood can come from to implement the project successfully.

Post Project Design (Future):
Post Design Task 1: Project NEPA (Forest Service will ensure all requirements are met) Forest Service staff will initiate NEPA documentation for the project and work with the design team to ensure proposed treatments comply with recent revisions in Forest Service programmatic biological opinion coverage.

Post Design Task 2: Project Implementation – Future funding needed.

8. Methods

This proposal is a standalone design project. Designs will include bankfull width, 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 will also be provided for instream projects involving large wood. Design will take into account implementation and cost and look for the most effective and cost efficient instream work that is possible.

9. Specific Work Products

Deliverables on Clear Creek and Clearwater Creek:

- 2D hydraulic analysis or similar model
- Engineered Large Wood Structure placement (Concept, Preliminary, and Final design)
- Delineation of off channel and floodplain connectivity features
- Access routes needed for construction implementation (including if sites are helicopter only).
- Pieces of Wood needed based on what the Forest Service has available and other identified sources.
- Cost estimates for implementation.

10. Project Duration

The design will occur begin in 2021 with a possibility of being pushed out one to two years depending on consultant availability.

Provide a detailed project schedule to include:

- Initiation of project- As soon as funding is available (Spring 2021)

- Completion date for each milestone or major task
  - 2D hydraulic analysis or similar model (Winter 2021)
  - Delineation of off channel and floodplain connectivity features (Spring, Summer 2022)
  - Discussion and decision on implementation strategy effectiveness and cost efficiency. Wood placement by excavator, helicopter, and or both. (Summer, Fall 2022)
  - Engineered Large Wood Structure placement (Concept, Preliminary, and Final design) (Winter 2022-Spring 2023)
  - Access routes needed for construction implementation (Winter 2022-Spring 2023)
  - Pieces of Wood needed based on what the Forest Service has available and other identified sources (Winter 2022 -Spring 2023)
  - Cost estimates for implementation (Winter 2022 – Spring 2023)

- Project close-out site visit (with PacifiCorp, Cowlitz PUD, and ACC representatives) (Summer/Fall 2023)

- Final Design Results (Fall 2023)

During and after completion of the design, the wood sourcing process will be underway. Once a design is completed for work further funds will be requested to implement project design.

11. 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. 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.**

No permits are needed to initiate project design. Project designs will be consistent with provisions in the Forest Service's MOU with WDFW, the Aquatic Restoration Biological Opinion II, Regional General Permit 8 with the US Army Corps of Engineers, and the WA Department of Ecology Water Quality Certification, an Appendix of RGP-8.

12. Matching Funds and In-kind Contributions

The Forest Service and the CFC will provide project design oversite and provide resources necessary to the consultant (Table 5)

Table 5. USFS in-Kind funds for the Clear and Clearwater Creek Design.

USFS In-Kind Funds	Quantity	Cost
Resource Exchange with Consultant (data, field visits, etc.)	**30 days @ $400/day**	**$12,000**

13. Peer Review of Proposed Project

Proposed Project has been reviewed by FS employees, Cascade Forest Conservation and Interfluve.

14. Budget

Table 6. Budget for the Concept, Preliminary, and Final Clear and Clearwater Creeks Design.

For CFC general project coordination work/admin work and labor/time focused on setting the foundation for wood sourcing and possibly beginning those efforts, estimates:	
Item	**Cost**
Administration and general project coordination:	$16,220
Labor associated with the planning phases of wood sourcing and banking for the implementation phases of the instream work	$18,300
For Site Assessment and Existing Conditions Hydraulic Model – estimated 11.4 total miles of stream, with 6 miles of excavator access and 5.4 miles of helicopter access. An assumed higher level of design and lower mobility tolerance for the excavator access portions of the site.	
Item	
Fieldwork, desktop work, and survey	
Drone mapping for the entire length	
Assumes a higher level of survey detail for the excavator-accessible reaches; survey in the helicopter reaches would be rapid and more focused on structure placement locations and relative channel measurements (e.g., bankfull widths and depths, etc)	
Includes the use of the survey data to build 2D hydraulic models for existing conditions	
Includes geomorphic analysis to understand how structure size, configuration, and placement can influence channel processes to achieve the goals (rearing and spawning habitat creation)	
Cost of data collection and interpretation:	$170,000
For Design completion	
Item	
Includes drawings, cost estimates, and reporting for each stage of design (Concept, Preliminary, and Final)	
Includes an interim Draft Final design step that is critical for success	
Includes proposed conditions 2D hydraulic modeling at each phase of design	
Assumes more strict performance criteria for the excavator-accessible reaches (to keep wood in the system at design flows), requiring a higher level of design and analysis	
Cost of design:	$129,000
Total Funding Request	**333,520**

There are some options in reducing cost. Either reduce field effort or reduce the performance criteria for the structures. Options for reducing the field survey effort include collecting green LiDAR but that does not eliminate the field survey effort. We can also reduce the performance criteria. As mentioned above, we assumed that some portion (i.e., the excavator-accessible reaches) would need to be designed to withstand larger magnitude floods, maybe this is just the lower mile or so of each creek, as an example. The Forest Service and CFC will try to create the most effective and cost-efficient implementation designs as possible. Current estimates are for the "Cadillac of survey and designs." We believe this is necessary because currently there is not a way to ask for more funds from ACC fund if needed. We would rather ask for possible total than fall short. **All funds that are not spent will be given back.**

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

    Photos will be collected during design field exploration and shared during 60% design.

16. 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

Appendix A
Insurance Requirements
(Risk Mgmt to evaluate risk by project and report needed insurance limits to Lewis River Project Coordinator)

1. INSURANCE

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

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

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

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

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

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

1.4 Business Automobile Liability. The most recently approved ISO policy, or its equivalent, with a minimum single limit of $1,000,000 each accident for bodily injury and property damage including sudden and accidental pollution liability, with respect to [CONTRACTOR]'s vehicles whether owned, hired or non-owned, assigned to or used in the performance of the Project.

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

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

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

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

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

A certificate in a form satisfactory to PacifiCorp certifying to the issuance of such insurance shall be furnished to PacifiCorp prior to commencement of the Project by [CONTRACTOR] or its volunteers or contractors. If requested, [CONTRACTOR] shall provide a copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, to PacifiCorp.

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

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

Appendix B

Response to ACC Requests for Clarification

Request: Is project occurring in a mapped floodway, per FEMA?

The project is in an area where floodways have not been mapped by FEMA. However, the project is located within the channel and floodplain of Clear and Clearwater creeks. Project activities are designed to restore natural channel and floodplain function, and will likely raise water levels in areas where channel incision has resulted in altered flood elevations. The risk to Forest Service or private infrastructure from the project is minimal. The project is located entirely on National Forest System Lands, with no private lands on Clear or Clearwater Creeks downstream of the project area. In addition, there are no roads or other infrastructure adjacent to or downstream of the project.

APPENDIX G
RUSH CREEK SIDE CHANNEL

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 Draft Full Proposal Form submission is **November 20, 2020**. Please submit materials to:

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

1. Project Title

Rush Creek Side Channel

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

Greg Robertson
Fisheries Habitat Restoration Biologist
Mt Adams Ranger District
2455 Hwy 141
Trout Lake, WA 98650
360-395-3412
greg.robertson2@usda.gov

3. Identification of problem or opportunity to be addressed

The project area lies within the Rush Creek alluvial fan which consists of multiple channels upstream of the confluence with the N.F. Lewis River. Past road construction and logging activities altered a couple of flow paths within the alluvial fan in the early 1970's. The northern side channel flow path was disconnected by a road and a landing construction while the southern side channel was disconnected by a berm that presumably occurred during a timber harvest operation. The two disconnected side channels have limited the active channel migration processes of Rush Creek to the east of the disconnected side channels, which is roughly half of the alluvial fan area. Reconnecting the two side channels will provide additional juvenile bull trout rearing and adult

spawning opportunity by returning the natural migration processes back to the Rush Creek alluvial fan.

The Rush Creek Side Channel Reactivation Project proposes to reactivate 3,145 feet of two side channels blocked by legacy roads and landings from timber harvest activities of the early 1970's. This project will include removing the landing, two remnant roads and a stream adjacent berm. One channel near the confluence of the Lewis River (northern side channel) would require the removal of approximately 225 feet of overburden from an old landing construction to reactivate the flow to the side channel. The side channel further upstream of the Rush Creek mainstem (southern side channel) would require berm removal, and boulder and substrate material placement to reactivate the flow to the blocked side channel. Full length trees will be either tipped or placed by an excavator to for channel complexity. Both side channels would require moving approximately 400 cubic yards of material each to achieve perennial flow. Further upstream at approximately River Mile 6, vehicles are illegally fording Forest Road 65 crossing with Rush Creek at a location that used to have a bridge. The project will eliminate the vehicular access across Rush Creek, hydrologically disconnect the roadbed, and rehabilitate the damaged riparian vegetation.

4. Background

In 2017, The Lewis River Bull Trout Habitat Restoration Project Identification Assessment included a habitat suitability matrix which incorporated stream temperature, stream depth, channel complexity and distance to known populations, to guide selection of potential restoration. Using this matrix, Rush Creek Side Channels were one of the six restoration priorities although due to the coarse sediment and wood load within reactivated braided channels after the 2015 flood event, the recommendation was to monitor and re-evaluate on a regular basis. In 2019, Jamie Lamperth, WDFW Bull Trout Biologist, and primary author of the Assessment reviewed the project proposal on the ground during the summer of 2019 and agreed with the Rush Creek Side Channel Reactivation Project concept. In 2020, USFS met with USFWS at the project work site. The USFWS were supportive of the project as well and added some design features that will help support the success of the project.

5. Project Objective(s)

The project objectives to address the problems are:

- Reconnect two disconnected channels, the northern side channel and the southern side channel to reactivate 870 and 2,275 feet of side channel, respectively.
- Reconstruct 225 feet of the filled in channel previously used as a timber harvest landing.
- Remove two road crossings within the northern and southern side channel flow paths.
- Restrict vehicle access to Rush Creek headwaters at Forest Road 65 road crossing.

The USFWS Recovery Plan for the U.S. Coterminous United States Population of Bull Trout (2015) refer to the four C's: Cold, Clean, Complex, and Connected habitat as specific habitat requirements for bull trout. The proposed action will add to the complexity and connectivity in Rush Creek while also meeting one of the recovery plan's goals of a conserved and connect essential cold water habitat by reconnecting two relict side channels within a core spawning and rearing reach of Rush Creek. The Bull Trout Recovery Plan listed roads and habitat isolation and fragmentation as limiting factors for bull trout and the proposed project would address those limiting factors.

The LCFRB reach information for Rush Creek from the mouth to river mile 2.5 listed restoration needs for floodplain function and off channel and side channel habitat both of which would be addressed by the proposed project. While Rush Creek is rated as Tier 3, the primary intent of this project is to enhance Bull Trout Habitat although restoring flow to the southern side channel which has a low gradient may provide habitat for coho. The primary limiting factors for Coho in Rush Creek are key habitat quantity, sediment, channel stability and habitat diversity.

6. Tasks

Task 1: NEPA and required permits.

- Field work for this NEPA document was accomplished during the fall of 2019 and a final decision memo is expected to be signed in February 2020. The project would be implemented from July 16th -August 15th 2020.
- Instream restoration activities are covered under a Memorandum of Understanding (MOU) with the Washington Department of Fish and Wildlife, and ARBO II programmatic consultation with the USFWS and NOAA. The project will be in compliance with ARBO II which allows the project to meet the terms and conditions of the regional US Army Corps of Engineers RGP-8 permit.
- The Forest Service is the landowner and project sponsor, and the District Ranger is supportive of this project.

Task 2: Project Contracting.

- Project contracting for implementation would occur when project funds are obtained which would likely be in April 2020.
- The contract would be a Request for Quotation using a time and equipment contract.

Task 3: Project Implementation

- Side channel reactivation (removal of barriers), channel reconstruction (tree and boulder placement), and hydrologically stabilizing Road 65 crossing on Rush Creek would occur between July 16th -August 15th 2020.
- Qualified USFS personnel will administer the contract to ensure project specifications and BMP's are met.

Task 4: Monitoring

- Baseline monitoring will occur pre and post project implementation and include a longitudinal profile, cross-sections, pebble counts, and photo-documentation.
- A monitoring report will be provided to PacifCorp February 2021.

7. Methods

Side Channel Reactivation and Reconstruction:
A closed and stabilized legacy road would be used to access the areas to be excavated for opening the northern and southern side channels. The bankfull widths for the northern and southern side channel mainstem Rush Creek are 58 and 45 feet, respectively (Figure 1). Low flow target mean depths within the side channel will be from 15-20 cm which are suitable and preferred spawning depths for bull trout within the Upper Lewis River Basin (Lamperth et al 2017). To reach those target depths, approximately 0.6-0.8 feet will need to be excavated below the current water surface at the side channel entrances. Current mean flow depth from the Bull Trout Habitat Restoration Project Assessment (Lamperth et al. 2017) measured much greater depths within the proposed project area with most of the mean depth of 25-30 cm within the northern side channel site to 30-35 cm mean depth within the southern side channel site. Reducing flows at these side channel sites will provide additional suitable and preferable spawning conditions in both the main channel and the proposed side channels of Rush Creek.

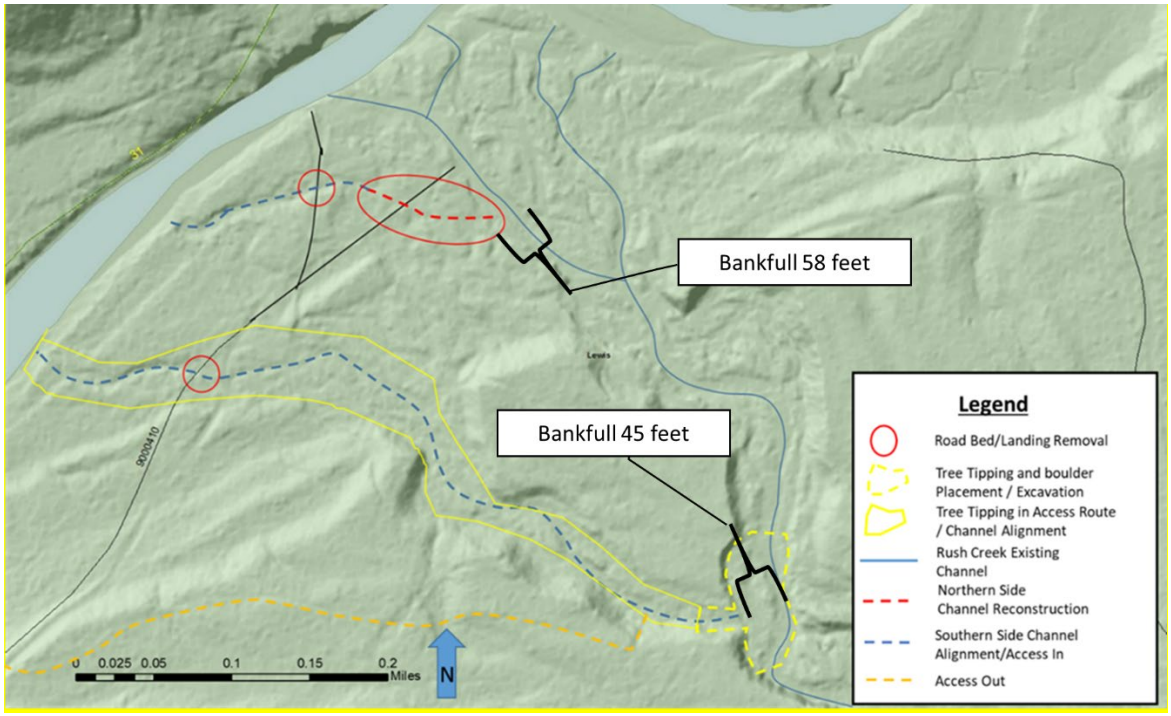


Figure 1. LiDAR DEM of the Rush Creek alluvial fan and proposed opening of two side channels.

The northern side channel excavation would remove legacy roadbed material where it is blocking stream access to a relict side channel. The legacy roadbed spur and old landing behind it will be excavated from approximately 3 feet at the edge of the active channel to 0 feet at native ground within the side channel reconstruction over a length of approximately 200 feet (Figure 2). The bankfull width of the proposed side channel would be approximately 16 feet with 2:1 side slope. The approximate 400 cubic yards of excavated spoils would be hauled by dump truck and disposed of on top the legacy roadbed outside of the floodplain and any potential alluvial fan activation.

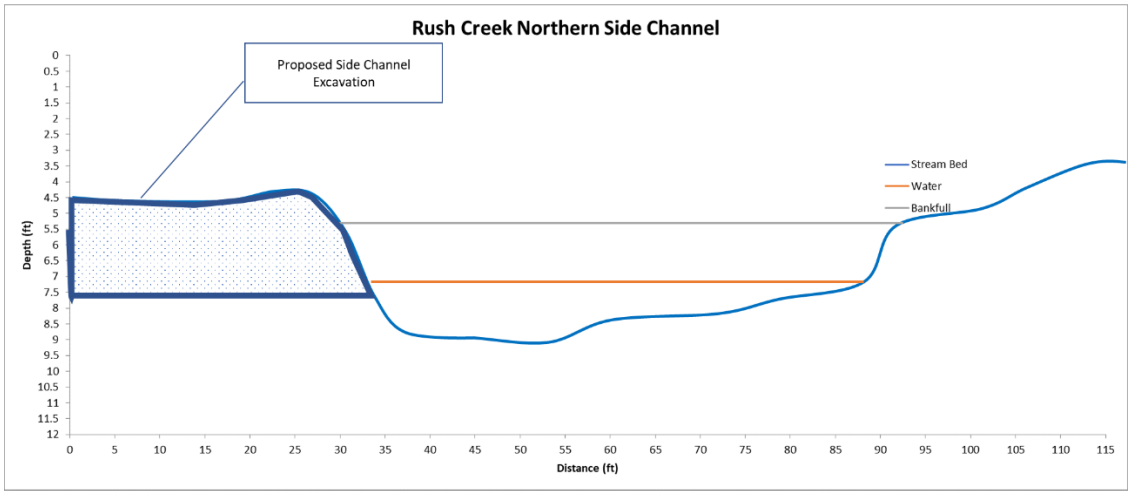


Figure 2. Proposed excavation and cross-sectional profile of Rush Creek southern side channel.

The southern side channel would be opened by redistributing channel bed material and woody debris within the active Rush Creek channel and removing a two-foot berm at the entrance to the side channel. The southern side channel will be used to access the mainstem Rush Creek side channel entrance from the legacy roadbed by an excavator. Approximately 800 trees, within the side channel alignment/access route would be tipped by an excavator and left in place. Tree tipping orientation will be perpendicular to the flow when possible and existing trees will be used as anchor points. At the southern side channel confluence with the mainstem active channel of Rush Creek, excavation of a 2.8 feet high by 80 feet wide berm would occur to allow water to flow down the side channel (Figure 3). Approximately 400 cubic yards of boulders would need to be redistributed and the existing large wood at the confluence of the side channel and Rush Creek would be used to construct a log jam. Any spoils from the side channel excavation would be used in the construction of the log jam. Upon completion of the opening of the side channel, the excavator may have to use a skid trail to connect to the legacy spur road to exit the project area if the tree tipping creates an impassable route. If the route is passable, the same access through the channel alignment will be used to the legacy roadbed and it will be closed in a manner consistent with the existing closed and stabilized condition.

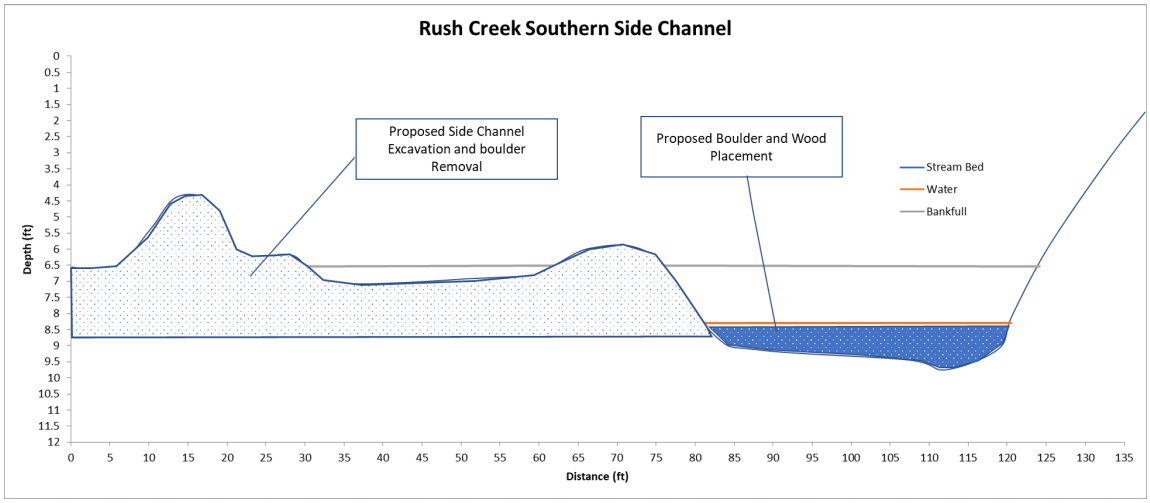


Figure 3. Proposed excavation and boulder placement cross-sectional profile of Rush Creek southern side channel.

Both the northern and southern side channel entrance slopes are designed to be less than the main channel to decrease the risk of capturing the entire flow of the main channel. Southern side channel slope design would be 3.5% and the mainstem Rush Creek channel slope design would be 5.5%. The northern side channel side channel slope design would be 1.5% with the existing main channel slope being 3.8%. A temporary and erodible berm will be constructed at each side channel entrance that would be washed away after the first high water event to limit turbidity during the summer months and limit stress to aquatic species.

Similar Project with a berm removal:

A similar project on Still Creek, Mt Hood National Forest, Clackamas County, Oregon re-connected multiple side channels that were blocked from push up berms constructed after the 1964 floods to convey water downstream to presumably reduce flooding in the valley downstream. Figures 4-6 show photos of that project…

Figure 4. Photo of a similar project site on Still Creek with a push up berm in the background overgrown with alder trees. Still Creek, Mt Hood National Forest, Clackamas County, Oregon.

Figure 5. Photo sequence showing the elevation of the streambed with wood and boulders to reach the relict channel elevation after the removal of the push up berm. Still Creek, Mt Hood National Forest, Clackamas County, Oregon.

Figure 6. Photo one-year post project showing relict channel and floodplain activation after being disconnect for almost fifty years. Still Creek, Mt Hood National Forest, Clackamas County, Oregon.

Hydrologically Stabilized Road 65 Crossing on Rush Creek:

Additionally, a bridge washout on the 65 road at the Rush Creek crossing, mile post (MP) 20.6, will be re-closed and the road will be hydrologically stabilized for 400 feet on either side of the crossing to disconnect the road from Rush Creek (Figure 7). Currently, the crossing closure has been breached by vehicles and there is evidence of riparian vegetation cutting and sedimentation into Rush Creek. Currently, the 65 road is classified as a Seasonal Designated road from MP 12-20.6 and from MP 20.7-21.9 and is open from 04/01-11/30 (2019 MVUM). The tenth of a mile gap is where the re-closure will take place.

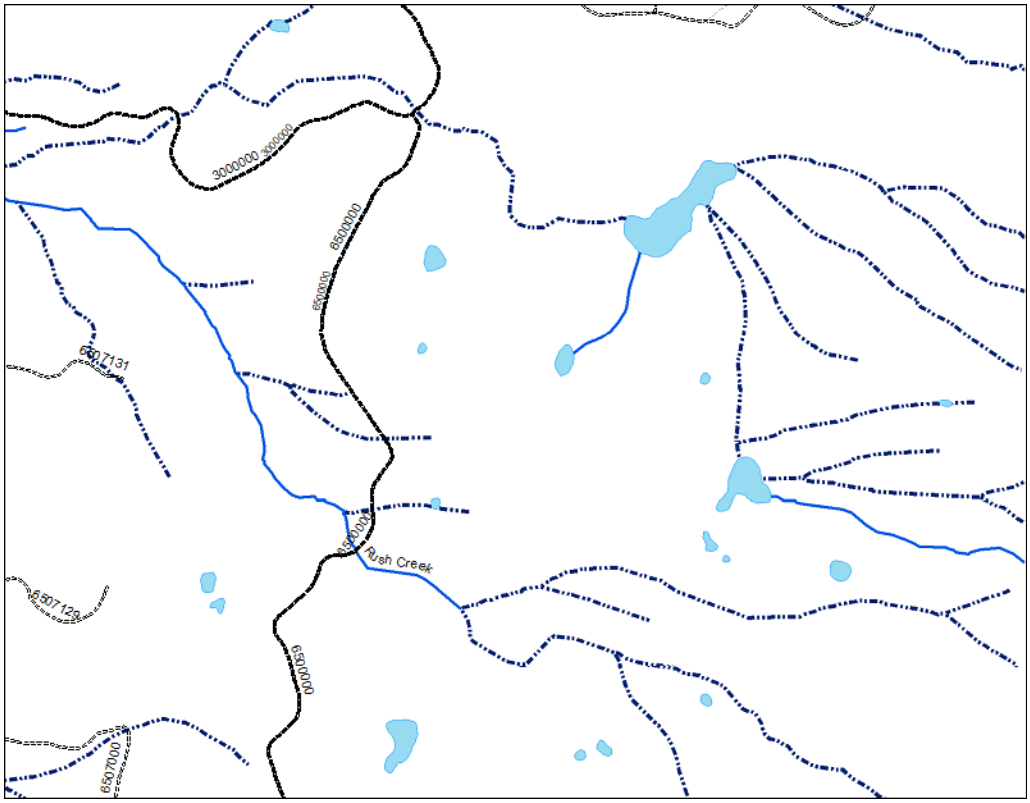


Figure 7. Location of the proposed re-closure at the 65 road and Rush Creek crossing.

Best Management Practices:
Specific BMPs for the Rush Creek Side Channel project are specified in the NEPA document. The project will meet the provisions within the MOU. ARBO II specifies resource protection requirements. The project will be in compliance with ARBO II which, as intended, incorporates the terms and conditions of the regional US Army Corps of Engineers RGP-8 permit.

Using BMPs, the provisions of the MOU and requirements within ARBO II ensure that minimal resource damage will occur when implementing instream projects. Examples include worksite isolation to minimize instream turbidity or erosion control measures that limit sediment delivery to the waterbody.

Short- and Long-Term Benefits:
The short-term benefits of the project will be the immediate juvenile refuge from high flow events in the side channels and large wood structure habitats. An increase in juvenile summer rearing, increased spawning gravel retention, and an increase in available cold-water habitat would be achieved.

Long term benefits will include additional highly complex, connected, and cold-water channels from the proposed project. Channel migration processes within the Rush Creek alluvial fan will also be restored and would provide benefits by new potential aquatic habitat in the future.

8. Specific Work Products

Deliverable 1: Contract submission to the Forest Service contracting department for the Rush Creek project will be completed the first week of April, 2021 and obligated to a qualified contractor by June, 2021.

Deliverable 2: Tree harvest on USFS land will begin August and will be completed and hauled to the project site September 2021. Instream work will be completed within the instream work window (July 16-August 15) 2022.

Deliverable 3: A project completion report that includes project narrative, financial information, description of project successes and lessons learned, and photo documentation of the completed project will be submitted to the ACC by February, 2022.

9. Project Duration

Task 1: NEPA and required permits will be completed by January 2020.
Task 2: Project Initiation will start August 2021.
Task 3: Project Implementation will be completed by August 15, 2022
Task 4: Monitoring will be completed by October 2022 and a final report submitted in February 2023
Task 5: Project site visit would occur during June of 2022 after approximately one year of flow.

10. Permits and Authorizations

Resource surveys have been completed for Rush Creek project area and NEPA will be completed March 2018. As per requirements under ARBO II programmatic consultation with the USFWS and NOAA, tipped trees are selected by a wildlife biologist during a site visit immediately prior to implementation.

Permitting and BMP requirements are covered under a Memorandum of Understanding (MOU) with the Washington Department of Fish and Wildlife, a regional US Army Corps of Engineers RGP-8 permit, and an ARBO II programmatic consultation with the USFWS and NOAA.

11. Matching Funds and In-kind Contributions

Table 1. USFS In-Kind Funds for the Rush Creek Side Channel Project.

USFS IK Funds		
Rush Creek Side Channel		
Stewardship Funds	Pepper Cat Timber Sale	
Excavator #2 (Large)	200 hrs @ $225	$45,000
Directional Tree Cable	100 @ $200	$20,000
NEPA Analysis @400/day	Heritage	$2,000
	Hydrology	$2,000
	Botany	$2,000
	Fisheries	$2,000
	Wildlife	$2,000
	Silviculture	$2,800
Contracting	Contracting Officer	$2,000
Full lengthTrees (estimated number from stand density/trees per acre)	825 @ $50	$41,250
Project Management	30 days	$12,000
	USFS In-Kind SUB-TOTAL	**$133,050**

12. Peer Review of Proposed Project

An invitation for a level I WDFW review team, as required by the USFS MOU with WDFW, is anticipated for the spring of 2020. A field review was also conducted in the spring of 2019 for USFS personnel and the Lewis River Bull Trout Recovery Team in which USFS resource specialist and one member of the LRBTRT (J. Lamperth) attended.

13. Budget

Table 2. Requested ACC funds for the Rush Creek Side Channel Project.

Requested ACC Funds		
Rush Creek Side Channel		
Mobilization (based on current BPA task order cost)	Lump Sum	$15,500
Skidder	100 @ $135	$13,500
Off Road Haul Truck 20 Ton minimum	100 hrs @ $250	$22,500
Excavator #1 (w/Harvester Cage)	200 hrs @ $200	$40,000
Erosion Control/Revegetation/ Pre-treat Weeds (Ska Co.)	Sediment control, plants, and weed treatment	$8,500
Laborer/Sawyer	Install erosion control/sawyer when needed	$2,500
Dewatering/Sediment Control		$7,000
COR Construction Oversite/ Implementation	30 days @ $400	$12,000
Monitoring/ Reporting	Hydro Technician (2) @$200/day 10 days	$4,000
	ACC SUB-TOTAL	**$125,500**

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

Photo documentation will be collected by photo point locations marked by rebar and identified with latitude and longitude. To provide a similar pre and post photographic view, azimuths will be included. Each photo will be labeled with a date, time, project name, photographer's name, and documentation of the subject activity. Both close-up and panoramic views will be included.

Photo documentation will be included in the completion report provided to PacifiCorp in February 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.

Appendix A
Insurance Requirements
(Risk Mgmt to evaluate risk by project and report needed insurance limits to Lewis River Project Coordinator)

1. INSURANCE

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

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

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

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

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

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

1.4 Business Automobile Liability. The most recently approved ISO policy, or its equivalent, with a minimum single limit of $1,000,000 each accident for bodily injury and

property damage including sudden and accidental pollution liability, with respect to [CONTRACTOR]'s vehicles whether owned, hired or non-owned, assigned to or used in the performance of the Project.

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

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

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

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

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

A certificate in a form satisfactory to PacifiCorp certifying to the issuance of such insurance shall be furnished to PacifiCorp prior to commencement of the Project by [CONTRACTOR] or its volunteers or contractors. If requested, [CONTRACTOR] shall provide a copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, to PacifiCorp.

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

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

APPENDIX H

PEPPER CREEK CULVERT REMOVAL AND ROAD HYDRO-STABILIZATION

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 **January 29, 2021**. Please submit materials to:

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

1. Project Title

Pepper Creek Culvert Removal and Road Hydro-Stabilization

2. Requested Funding Amount $48,210

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

Greg Robertson, greg.robertson2@usda.com, (509) 395-3366

4. Identification of problem or opportunity to be addressed

Problem:
Forest Road 9039-370 parallels and crosses Pepper Creek, and is a chronic source of erosion and sedimentation, with a high risk of failure. One culvert is a barrier to anadromous fish passage, and there are twelve road stream crossings that provide a potential source of sediment; three of which have a potential for significant mass wasting events. The undersized barrier culvert on Pepper Creek has incised and/or scoured the channel and disconnected the creek from its floodplain. The 9039-370 road is currently in a closed status on the forest Motor Vehicle Use Map and is unlikely to receive maintenance from Forest Service staff over the next few decades. The combination of these problems can have a negative impact to the reintroduction of anadromous salmonids within the Upper North Fork Lewis River.

Opportunity:
To mitigate current passage, sediment, and future failure risk, The Gifford Pinchot National Forest proposes to hydrologically stabilize 2.6 miles of the 9039-370 Road (Figure 1). Hydrological stabilization is a treatment technique to avoid, minimize, and mitigate adverse effects to water quality, aquatic habitat, and riparian resources on forest roads that are not needed for near-term management, but are necessary for access to future management actions. Hydrologically stabilized roads minimize road erosion and road hydrologic connectivity to the stream system by removal of culverts and fill material that present an unacceptable risk of failure or flow diversion, and suitable measures to ensure the road surface will intercept, collect, and remove water from the road surface in a manner that reduces concentrated flow in ditches, culverts, and over fill slopes and road surfaces without frequent maintenance. Because hydrologically stabilized roads remain on the National Forest System road system, the integrity of the roadway is retained to the extent practicable and measures are implemented to reduce sediment delivery from the road surface and fills and reduce the risk of crossing failure and stream diversion. Removal of the passage barrier culvert on Pepper Creek will restore longitudinal connectivity for over 2 miles of habitat for aquatic species including Coho and Steelhead. In addition, road material will be pulled out of the floodplain of Pepper Creek, restoring lateral connectivity, and reducing potential erosion and sedimentation. The project will create and sustain diverse habitats and allow full migration of aquatic organisms.

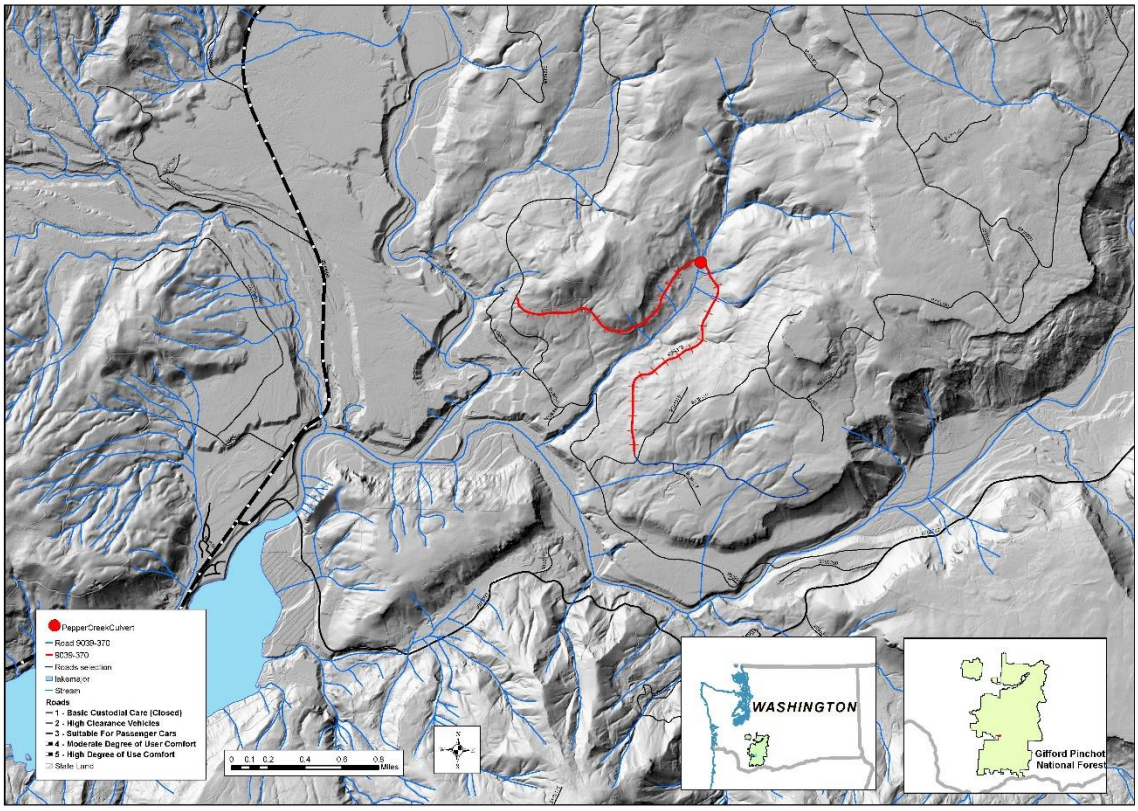


Figure 1. Pepper Creek Culvert Removal and Road Hydro-Stabilization project location.

5. Background

Pepper Creek is ranked as a Tier 3 reach by the Lower Columbia Fish Recovery Board with Contributing designation for Coho and winter Steelhead, Primary designation for spring Chinook, and Stabilizing designation for summer Steelhead. Pepper Creek is not ranked by the EDT analysis or the ACC matrix synthesis.

The Forest Service believes this project is a high priority because recent spawning surveys have documented Coho carcasses approximately 800 feet below the culvert on the 9039-370 road (Shappart, Meridian Environmental, personal communication) and Coho juveniles were observed in 2020 by Forest Service personnel at the culvert outlet (Figure 2).

Figure 2. Culvert outlet on the 9039-370 road. Note the lack of a jump pool at culvert outlet.

The current LCFRB SalmonPort GIS layer shows the Tier 3 available habitat available up to the 9039-370 culvert. However, Forest Service habitat data and personal observations indicate approximately two additional miles of habitat above the culvert barrier. Habitat above the culvert barrier is in an old growth stand with intact and desirable habitat conditions (Figure 3.)

Figure 3. Photo of habitat above the 9039-370.

Previous Forest Service habitat surveys have been conducted in 2008 and a culvert was removed in 2006 on the 9039 road to allow unobstructed fish passage up to the next culvert on the 9039-370 road which is the last anthropogenic barrier on Pepper Creek to anadromous salmonids.

Table 1 summarizes potential natural barriers identified during the 2008 Pepper Creek Habitat Survey. Of note are the pool depths associated with the jump heights for each waterfall. Two waterfalls of 3 and 4 feet in height are in Reach 1 and are downstream of where Coho have been observed. The third waterfall at river mile 2.81 is above the 9039-370 culvert which is at river mile 1.6.

Table 1. Listing of waterfalls/barriers in Pepper Creek.

Reach #	Sequence Order	Channel Unit Type	RM	Length of Structure (ft)	Width (ft)	Percent Gradient	Spill Pool Depth (ft)	Height (ft)	Migration Barrier
1	5	WF1	0.02	2	3.5	160	1.8	3	Potential
1	32	WF2	0.21	1	10	190	2.7	4	Potential
3	190	WF3	2.81	2	8	190	1.3	2.8	Potential

Redd surveys conducted by Meridian Environmental have been taking place on Pepper Creek for many years and can occur until high flows or snow prevent survey. Given the relatively short redd survey window and the late timing of discharge in the Pepper Creek drainage, it is believed that Pepper Creek would well support the late run or "N-type" Coho life history (Shappart, Meridian Environmental, personal communication). Higher spring flows would also benefit migrating Steelhead.

6. Project Objective(s)

The objective of this project proposal is to remove an anadromous fish barrier and reduce the future potential of mass wasting and subsequent sediment delivery into Pepper Creek. Removal of this culvert will open 1.2 miles of juvenile habitat and 2 miles of adult salmon habitat. Hydrologic stabilization of the 9039-370 Road would reduce erosion and sedimentation and reduce the potential for mass wasting through removal of several deep fill culverts. Fill depths range from 45-70 feet and when including the fill at the 9039-370 culvert crossing, a combined +/- 5,000 cubic yards of fill is perched for potential sediment delivery into Pepper Creek. The rationale for hydrologic stabilization versus decommissioning is related to timber stands off the 9039-370 road that will need commercial thinning in the future. If or when the road is opened back up to commercial thinning, it would be returned to the hydro-stabilized condition. There are currently no plans to enter the road for logging purposes within the next 20 years according to the current plan of work.

Other project objectives that coincide with the culvert removal are to add large wood into the channel and floodplain in the area where the road prism fill will be removed from the floodplain. This would accelerate floodplain development where it has been disconnected by the culvert and would provide an opportunity for sediment retention. Retaining sediment behind the large wood would provide in increase in adult spawning opportunities through gravel retention and juvenile rearing by creating forced pools, retention of nutrients, cover, and habitat complexity.

7. Tasks

All tasks will be completed by the Forest Service

Task 1: Consult with Forest Service botanist and archeologist for potential resources that may be affected by culvert removal for aquatic EA. NEPA previously completed for road closure.

Task 2: Contract Preparation.

Task 3: Solicit and award contract.

Task 4: Project implementation July 16th-September 30 2021.

8. Methods

The project will hydrologically stabilize the 9039-370 road by removing culvert crossings and fill over twelve streams. Slope outsloping of the road prism, scarification, and water bar to facilitate drainage and prevent erosion would occur along the length of the treated road. At the 9039-370 culvert, the road prism fill will be removed in its entirety and placed within cut areas of the upland road prism to reactivate the historic floodplain. Trees from an immediate young growth stand will be used to roughen the denuded area and reconnect the floodplain by loading wood into the channel where the culvert was located. It is estimated that approximately 20 full length trees will be needed to accomplish that work.

Hydrological stabilization includes scarifying compacted surfaces (>6"), removing cross-drain ditch relief culverts, providing drainage at deep fill crossings to avert culvert failure, placing water bars at natural drainage locations such as swales and gullies, and mulching and seeding exposed soils to provide long term erosion control. These efforts will hydrologically store the closed road, reduce sediment input, and allow the road to be re-used in the future by reducing sheet flow on the road surface and providing natural hydraulic connectivity to existing drainage patterns. Typical engineering plans for the project are in Figures 4, 5, 6, 7, and 8.

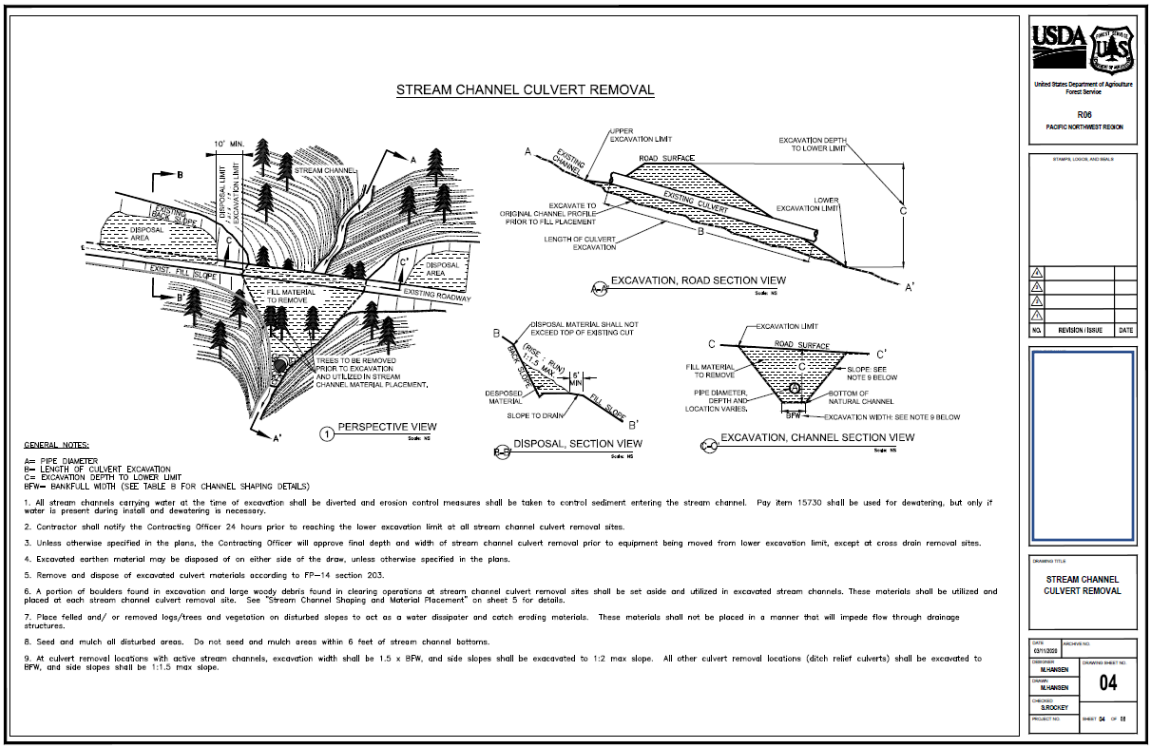


Figure 4. Stream channel culvert removal engineering typical.

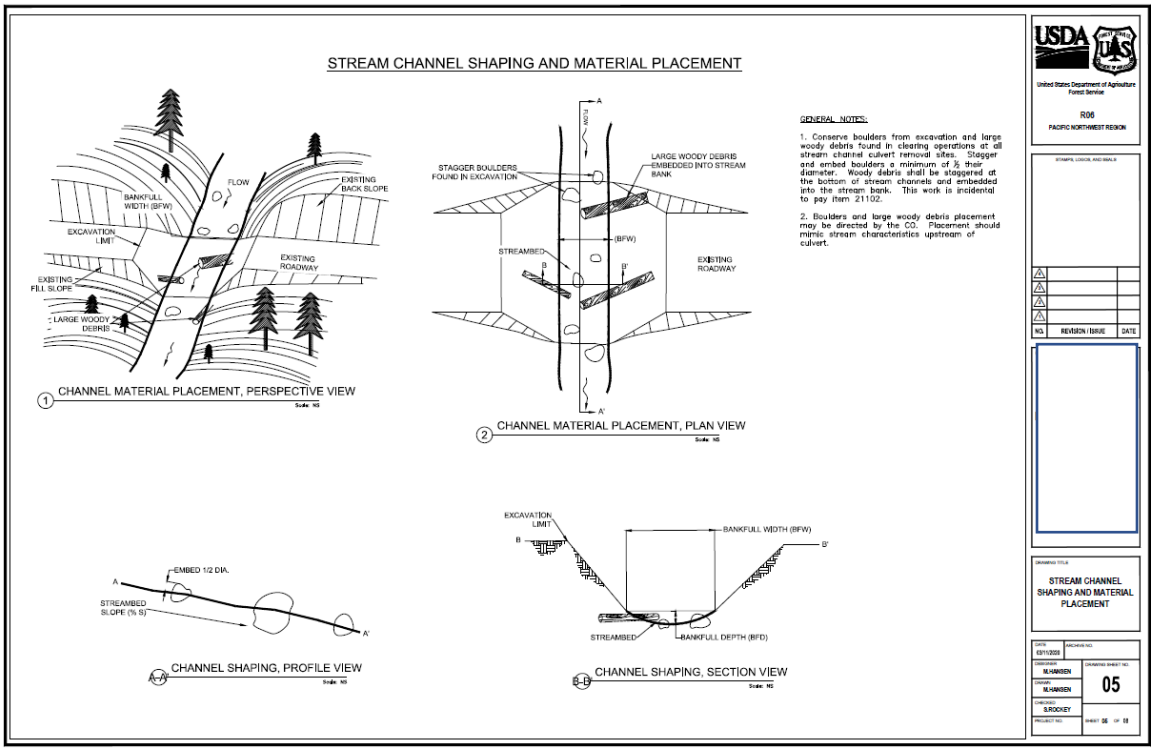


Figure 5. Stream channel shaping and material placement engineering typical.

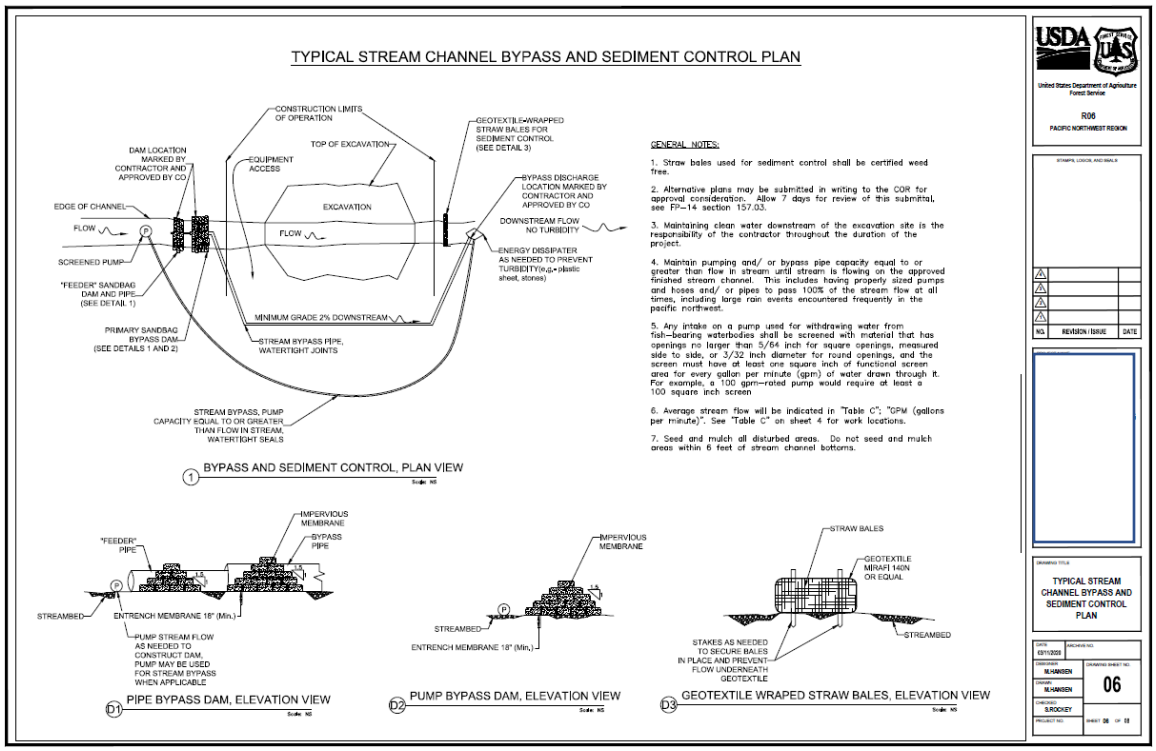


Figure 6. Stream channel bypass and sediment control engineering typical.

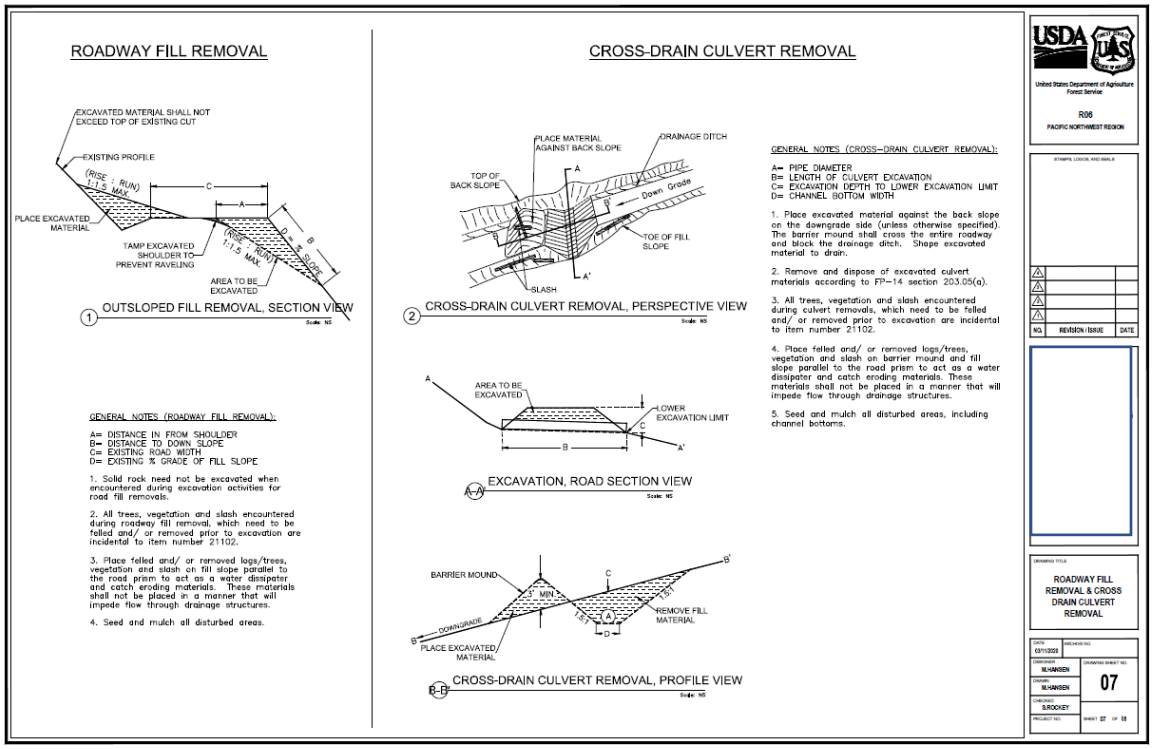


Figure 7. Cross drain culvert removal engineering typical.

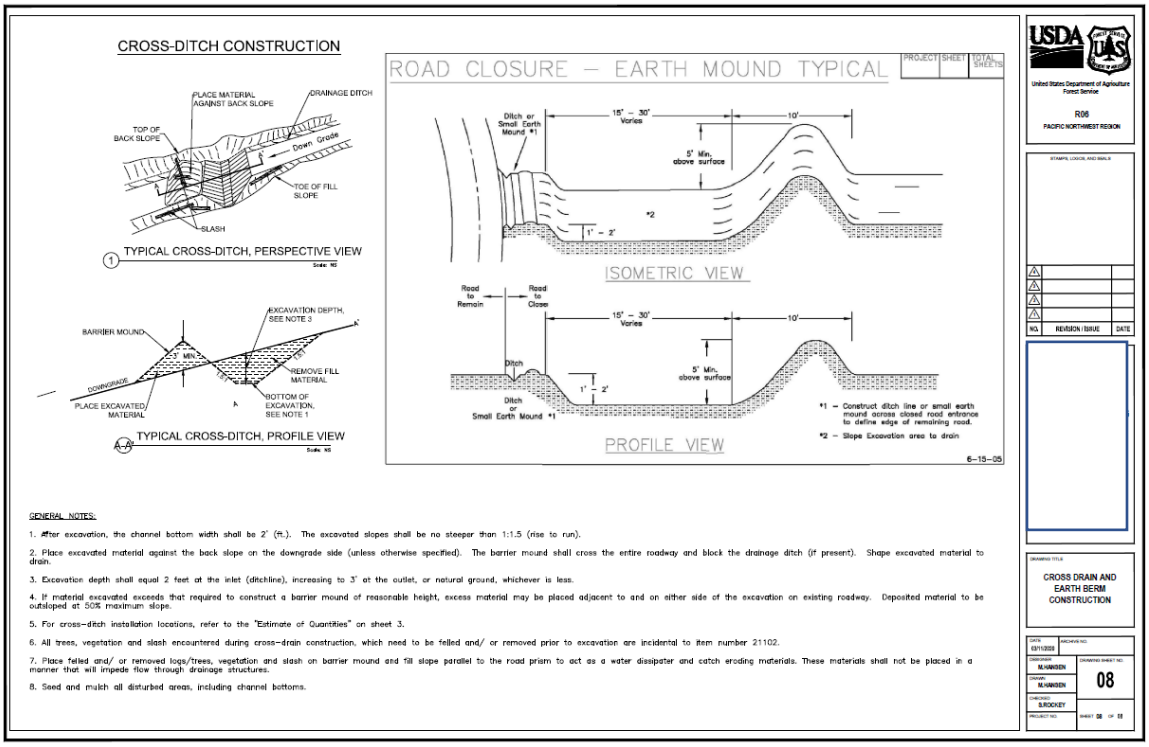


Figure 8. Cross ditch construction engineering typical.

9. Specific Work Products

See Project Duration

10. Project Duration

Deliverables	**Completion Date**
Preparation of plans and design drawings for contracting	Jan. 2021
NEPA compliance and programmatic permit consistency review completion	Feb. 2021
Contract solicitation and award	Mar.-May 2021
Instream implementation; culvert removals and floodplain restoration	July 15-Aug 15, 2021
Road treatments that can be accomplished outside the instream work window	Aug.-Sept. 2021
ACC project site visit	Aug. 2021
Implementation monitoring	Fall 2021
Completion report to ACC	Feb. 2022

Note: Status updates will be provided to ACC as project invoices are processed.

11. 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.

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.**

U.S. Forest Service BMP standards will be incorporated into the implementation of the project to ensure environmental compliance is meet through the USFS programmatic consultations and Memorandum of Understandings with regulatory agencies that govern aquatic and terrestrial projects on USFS lands.

12. 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).

Pepper Creek Culvert and Road Hydro-Stabilization In-kind Items	**Quantity**	**Cost**
Contract Administration	30 days @ $400/day	$12,000
NEPA (Botany and Archeology)	6 days @ $400/day	$2,400
Vehicle Mileage	0.58/mile @ 1200 miles	$696
Trees	20 trees @ $50/tree	$1,000
	Total Cost	$16,096

13. 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.

14. Budget

Pay Item	Item Description	Pay Unit	Estimated Quantity	Unit Price	Item Cost
	Base pay items				
15101	Mobilization	Lump Sum	1	$ 4,628.16	$3,918
15713	Soil Erosion & Pollution Control	Lump Sum	1	$ 4,000.00	$4,000.00
20302a	Removal of stream channel culvert	Each	3	$ 1,500.00	$4,500.00
20302b	Removal of ditch relief culvert	Each	12	$ 500.00	$6,000.00
20303	Removal of fill material at aquatic organism stream crossing	Each	1	$ 10,000.00	$10,000.00
21101	Roadway hydro stabilization	Mile	2.6	$ 2,000.00	$5,200.00
	Time and equipment wood placement	Hour	30	$ 165.00	$4,950.00
			Subtotal		$38,568.00
			Contingency	**25%**	**$9,642.00**
			Total		**$48,210.00**

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

Photos will be provided at project status updates July-September, 2020 and in the close out report in February, 2021.

16. 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.

Appendix A
Insurance Requirements
(Risk Mgmt to evaluate risk by project and report needed insurance limits to Lewis River Project Coordinator)

1. INSURANCE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix B

Response to ACC Requests for Clarification

Request: Is project occurring in a mapped floodway, per FEMA?

The project is in an area where floodways have not been mapped by FEMA. However, the project is located within the floodplain of Pepper Creek. Project activities are designed to restore natural channel and floodplain function and reduce potential threat to Forest infrastructure. The project is located entirely on National Forest System Lands, with no private lands on Pepper Creek downstream of the project area.

APPENDIX I

SW WASHINGTON NUTRIENT ENHANCEMENT COALITION

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 Draft Full Proposal Form submission is **November 20, 2020**. Please submit materials to:

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

1. Project Title

SW Washington Nutrient Enhancement Coalition: Lewis River Support

2. Requested Funding Amount

$143,966.00

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

Maurice Frank
Lower Columbia Fish Enhancement Group
12404 SE Evergreen Highway
Vancouver, WA 98683
C: 360 953-1480
E: Lcfegfield@outlook.com

Project Partners

- **PacifiCorp**
- **United States Forest Service (FS)**
- **Washington Department of Fish and Wildlife (WDFW)**

4. Identification of problem or opportunity to be addressed

The Lower Columbia Fish Enhancement Group (LCFEG) and its coalition of staff members and volunteers intend to address the lack of and diminished presence of naturally occurring marine-derived nutrients (MDN) within the Lewis River and its tributaries (WRIA 27). Tossing salmon carcasses and seasoning streams with salmon carcass analogs (SCA)- marine fish material that has been pasteurized and then ground and shaped into approximately 2 – 5 cm diameter pellets are our two primary methods for nutrient enhancement (NE). The primary goal of this project is to uplift instream nutrient levels that benefit and sustain ESA-listed anadromous salmonid populations (i.e., Bull Trout, Chum, Coho, Fall/Spring Chinook, and Summer/Winter Steelhead) in the North Fork Lewis River. Nutrient enhancement activities associated with the SWWNEC-LRSP will enhance multiple reaches within the North Fork Lewis River, including priority reaches selected by the Aquatic Fund Subgroup (Lewis 1 Tidal A, Lewis 2 Tidal B, Lewis 2 Tidal D, Lewis 3, Lewis 4 A, Lewis 4 C, Lewis 18, Lewis 19, Lewis 21, Muddy R1, and Muddy R1A). [See attached SWWNEC-LRSP map packet.]

5. Background

Emerging from the summit of Mt Adams and supplementally fed by Mt St Helens, the mighty Lewis River has a 95-mile long flow path and a drainage area covering approximately 1,406 square miles before pouring into the Columbia River. Multiple tributaries such as Cedar Creek, Clear Creek, Clearwater Creek, Colvin Creek, Muddy River, Pine Creek, and Rush Creek, to name a few, provide anadromous fish the perfect opportunity to spawn and rear within sufficient ecosystems located throughout the basin.

Historically, vast amounts of salmonid carcasses provided the entire watershed with nutrients derived from the ocean (MDN). But due to diminished anadromous fish populations and four dams located on the main stem, the transfer of nutrients from marine to freshwater ecosystems was significantly reduced, creating an ecological nutrient deficiency. This deficiency not only hampers the recovery of fish populations but also hinders the survival of many other organisms that depend on MDN as a primary source of food.

Between 1931 and 1958, a 313-foot high concrete arch type dam (Merwin) and three similar barriers (Swift 1, 2, and Yale) were constructed between river-mile 21 and 40 by Inland Power Company on the North Fork Lewis River. All structures combined totaled a ceiling height of 1,254 feet, creating many passage problems. Additionally, the dams isolated anadromous fish from their natural ecosystems and dismantled the lifecycle for some through the process.

In 1932, the Lewis River Salmon Hatchery, located just 4 miles downstream of Merwin Dam, was constructed. It has produced fall Chinook, Spring Chinook, and Coho ever since it opened. Two other hatcheries opened a short while after the Lewis River Hatchery was complete, Speelyai Hatchery (1958) and Merwin Hatchery (1983).

SW Washington Nutrient Enhancement Coalition: Lewis River Support Project (SWNEC-LRSP) seeks to connect all of the dots with an ecosystem-based restoration approach. The five dams on the Lewis River prevent sufficient amounts of anadromous fish from reaching spawning and rearing habitat found throughout the watershed. These persistent passage problems have created a gap in the MDN supply chain, which is essential to sustaining life within this ecosystem (e.g., birds, fish, mammals, macro-invertebrates, terrestrials, plant life, etc.).

Science shows that salmon carcasses are utilized at every level of the food chain and then cycled through the system by consumption as prey items (Michael 1998; citing Bilby et al. 1996). More than 95% of anadromous salmonid's body mass accumulates in a marine environment. This material is then transported and deposited in freshwater habitats, providing an essential nutrient and organic matter subsidy to freshwater and terrestrial ecosystems (Bibly et al. 2001; citing Groot and Margolis 1991; Kline et al. 1990; Bilby et al. 1996; and Ben-David et al. 1997). These vital nutrients are spread even further through the ecosystem in the form of animal scat. Our primary goal is to reconnect this dot in the ecological food chain by delivering the nutrients needed at the right time of the year.

LCFEG is well known for having completed multiple NE projects within the SW Washington, including the some in Lewis River; each one has achieved a high rate of success with these types of stream enrichment projects. Unfortunately, we don't have many scientific evaluations that have thoroughly analyzed nutrient enhancement, and the few studies out there are far in-between. Luckily, we have excellent anecdotal evidence supporting such programs' effectiveness.

6. Project Objective(s)

As a "low impact" restoration strategy, LCFEG and its coalition of agencies and volunteers intend to replicate natural salmonid life cycle processes by placing hatchery-origin carcasses and SCA within the Lewis River watershed. The overall objective of this project is to return the MDN supplied by returning adult salmon carcasses in the fall and supplement using SCA during treatments performed in the spring. Through this approach, we strive to increase the presence of MDN found within the Lewis River watershed and boost the size and survival of salmonids of all age classes.

Following the recovery guidelines set by the Lewis River Aquatics Fund and the Lower Columbia Fish Recovery Board (LCFRB), we aligned the SWWNEC-LRSP closely with their objectives and priorities to ensure consistency. Nutrient placement will occur during the fall and spring and dependant on the availability of carcasses and SCA. Our goal is to treat the system with MDN several times a year over the next four years, to replicate past historic run timing, ultimately supplementing the nutrients within the watershed.

According to the guidelines set by the Lewis River Aquatics Fund, proposed projects must enhance and improve wetlands, riparian, and riverine habitats and increase the probability of a successful reintroduction program. SWWNEC-LRSP seeks to address each one of those problems by using an ecosystem-based restoration approach. We expect to see a significant boost in biological and ecological benefits over time due to

increased carcass deposition. Increased availability of carcasses has been shown to translate into more and larger juvenile fish and presumed improved marine survival (Larkin and Slaney 1997, Bilby et al. 1996, 1998, Wipfli et al. 1999). We anticipate seeing a boost in sub-yearling size growth given current upper watershed conditions (i.e., intact forest, adequate water temps, excellent wood, and sediment supply), an increase in taxa richness, and substantial forest growth.

7. Tasks

Before starting the NE season, the project manager and the field technicians will perform general site reconnaissance at all sites associated with the project. Another important preseason task is the annual environmental compliance (i.e., consultation every year for FS land activities). The purpose of this action is to ensure we retain upper watershed access throughout the project. This process typically takes a couple of weeks to assess the entire watershed.

After gathering all of our field data (i.e., GPS coordinates, pictures, field notes), it is then compiled into maps and KMZ files using Google Earth. We would like to purchase GIS mapping software and a new computer capable of running vital programs (i.e., Avenza maps, Excel, GIS, Global mapper, Outlook, etc.) to complete these tasks. Having the ability to record and compile important information and create detailed site maps better serves the program and simplifies reporting.

LCFEG will be in charge of all tasks associated with project coordination and logistics. Field technicians, volunteers, and WDFW staff will receive a weekly update throughout the season to ensure that everyone is informed and the project runs smoothly. SWWNEC-LRSP will use two forms of MDN, fish carcasses and SCA. Each will have a separate season for dispersal. Carcass placement will take place in the fall when adult fish are typically returning, and SCA treatments will take place during mid-late spring (to replicate historic spring runs).

After hatchery staff completes their tasks associated with the salmon, we (LCFEG) get contacted. There are two hatcheries on the Lewis River involved in this project, Lewis River Salmon Hatchery, and Speelyai Hatchery. Typically, at the beginning of the workweek or the next day after fish spawning occurs. Our primary transportation source for the project will be a Department of Enterprise Services (DES) state leased truck. A state-owned trailer will get used at times to assist us with hauling multiple totes of carcasses. The lease will be for four years and paid for through the ACC grant if awarded.

Once the carcasses have arrived at the NE site (bridge, boat launch, or pullout), we always perform a safety check and briefing to ensure volunteers and technicians are staying safe. We disperse the carcasses by hand using a specialty tool(wooden-handled fish Peugh). This method has successfully worked for many years but can be labor-intensive. Distributing the SCA is a little different, but the process of transport remains the same. The SCA comes from the vendor in 50lb sacks. Each analog is supposed to represent a salmon carcass. One of the simplest ways to spread the nutrients is by using a medium-sized hand scoop. 15-30 analogs weekly per enhancement site should ensure an even distribution of the MDN.

8. Methods

All of the methods we have established for the SWWNEC-LRSP identify as Best Management Practices (BMPs) because they are low impact and don't leave an overbearing and lasting human footprint from the project. If landowners approve, background material and signage will get placed at NE sites to advise and inform the public of NE activity in the area and its benefits. The goal of this project is to replicate the natural processes of this ecosystem using a common-sense approach of general knowledge and process-based restoration. At the same time, the restoration work will protect and sustain the values of a multitude of resources and species within the watershed.

The SWWNEC-LRSP closely follows guidelines developed by WDFW for in-stream placement of carcasses for NE. To achieve restoration success without altering or further damaging watershed ecology, we enlist simple, low impact placement methods that focus on enhancing but not overloading the system. The timing of carcass placement is also crucial as nutrients should be made available to young salmon upon their emergence from the gravel. Placement timing may be early, mid or late, and may get used to influence the ecological response to loading within watersheds. For example, the use of carcasses from later runs of native salmon (fall and winter) may benefit the next growing season, provided that some nutrients get stored through the winter (Wipfli et al. 2003).

Returning adult salmon are considered a keystone species. If removed, the ecosystem would change drastically. The intentional act of pairing NE carcass placement with natural run timing is vital. It clarifies the biotic interactions (the links between species in the food chain and awareness of one species' impacts when another species disappears) occurring when these fish are in the system spawning and depositing MDN.

Flow and structure (i.e., wood, boulders, instream habitat) are essential components we consider in all of our enhancement reaches. During our initial preseason scouting fieldwork, we assess each proposed site for adequate streamflow. We observe for the ordinary highwater mark, which indicates how much water the stream reach will most likely have during fall rain events.

The presence of in-stream roughness will help avoid the rapid downstream transport of carcasses. Streamflow will mobilize the MDN throughout the reach, carrying carcasses hundreds of yards downstream until boulders and woody debris trap it. Carcasses placement should occur in stable stream areas, where possible. Optimal sites include shallow backwater pools, side-channels, small headwater tributaries, areas with abundant woody debris, and beaver-dam complexes.

9. Specific Work Products

- ✓ Enhance the upper Lewis River and its tributaries with ~ 8,000 carcasses over four years.
- ✓ Enhance the lower North Fork Lewis River and its tributaries with ~ 12,000 carcasses over four years.
- ✓ Obtain an Administrative Order (AO) permit from the Washington Department of Ecology (WACEY) to enhance the Lewis using SCA (upper and lower sites).
- ✓ Enhance North Fork Lewis River with ~15,000-20,000 lbs. of SCA over four years.
- ✓ Enlist ten additional volunteers to join the SW WA NE Lewis River Coalition.

10. Project Duration

Summer 2021 - Start project. Consult (virtually) with partnering agencies (FS, Pacificorp, and WDFW) and volunteers to address any maintenance issues/concerns, discuss placement locations, enhancement techniques, and protocols (i.e., tail removal) all before NE season begins. Create and update carcass dispersal maps using the GIS program. Plans will include access points, directions, GPS locations, images, and schedule. Preseason field observations (take field notes and quick stream bottom inventory/survey). Note and record data.

Fall 2021- Winter 2022 - Begin carcass distribution. Field Technicians (FT) will assist, coordinate, and mobilize the DOC crew and volunteer groups. Technicians will also direct carcass transport and dispersal. The Project Manager (PM) will provide oversight and assistance to field technicians to ensure the carcasses get adequately dispersed and data gets entered into the reporting sheet weekly. Take photos of the project (PM).

Spring 2022 - Wrap up carcass placement. Submit the carcass report to WDFW. Pursue and obtain AO (WA Ecology) permit to treat the watershed with SCA. Scout out new placement sites and meet with private landowners to discuss gaining access to optional carcass placement locations.

Summer 2022 - Preseason field observations (take field notes and complete simple stream bottom inventory/survey). Note and record data. Consult with agencies and volunteers to discuss placement location, distribution techniques, tail removal requirements, and address any maintenance issues before NE season begins. Update sub-basin NE carcass dispersal maps. Obtain SCA.

Fall 2022- Winter 2023 - Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2023 - Disperse SCA. Submit the carcass report to WDFW. Treat prescribed sites with SCA (if available). Scout out new placement sites and meet with private landowners to discuss gaining access to carcass placement locations.

Summer 2023 - Preseason field observations (take field notes and complete simple stream bottom inventory/survey). Note and record data. Consult with agencies and volunteers to discuss placement location, distribution techniques, tail removal requirements, and address any maintenance issues before NE season begins. Update sub-basin NE carcass dispersal maps. Obtain more SCA (If needed).

Fall 2023-Winter 2024 - Start Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2024 - Disperse SCA. Submit the carcass report to WDFW. Treat prescribed sites with SCA (if available). Scout out new placement sites and meet with private landowners to discuss gaining access to carcass placement locations.

Fall 2024 -Winter 2025 – Start Carcass distribution. FT will assist, coordinate, and mobilize the DOC crew and volunteer groups. PM assists, compiles data into the reporting sheet weekly and provides project oversight. Take photos of the project (PM).

Spring 2025 - Summarize final results, calculate carcass totals, compile and submit project photos, and complete/submit a final report—Project close-out site visit (with PacifiCorp, Cowlitz PUD, and ACC representatives).

11. Permits and Authorizations

N/A.

LCFEG contacted Greg Robertson and Kate Day with the Forest Service to discuss the proposed project's activities and scope of work. During the initial process, the questions surrounding the project's permits and acknowledgment from the landowner came up. I sent a copy of the ACC form to the Forrest Service, and it was then signed and returned (See Attachment A). After they reviewed our proposal for compliance with the regulations found at 36 CFR 251.50, it was determined that our proposed use, as we described, will have nominal effects on the lands, resources, and programs of the National Forest; therefore, a special use permit was not required. We intend to obtain an AO permit from the Washington Department of Ecology to enhance the lower Lewis River with SCA.

12. Matching Funds and In-kind Contributions

The existing SW WA NE Coalition program has received support from WDFW and SRFB through grant funds. It has also built an impressive match bank over the years, leveraging volunteer hours and the Department of Corrections labor. Additional match funds are in-kind contributions from volunteer labor to monetary values of fish carcasses.

13. Peer Review of Proposed Project

We sent our SWWNEC-LRSP draft proposal to Greg Robertson and Kate Day with the Forest Service for peer review.

14. Budget

Cost Item or Category	Cost Basis	ACC Funding Request	Total Non-Federal Match	Match Source	Total Cost
Personnel					
LCFEG Project Manager	500 hours @ $38.00/hr (Project Management & NE Project Operations)	$19,000	$10,000	SRFB NE Grant: 19-1210 (Federal)	$29,000
LCFEG Field Technician	400 hours @ $30.00/hr (NE Project Operations)	$12,000	$8,000	SRFB NE Grant: 19-1210 (Federal)	$20,000
LCFEG Stewardship Coordinator	200 hours @ $30.00/hr (NE Project Operations)	$6,000	$3,000	SRFB NE Grant: 19-1210 (Federal)	$9,000
Field Technician	300 hours @ $ 16.00/hr (NE Project Operations)	$9,600	$5,000	SRFB NE Grant: 19-1210 (Federal)	$14,600
LCFEG Director	200 hours @ $48.00/hr (Administration)	$9,600	$6,000	SRFB NE Grant: 19-1210 (Federal)	$15,600
LCFEG Volunteers	400 hours @ $25.43/hr	$ -	$10,172	In-kind (Local)	$10,172
Total Personnel:		**$56,200**	**$42,172**		**$98,372**
Fringe					
Fringe, LCFEG Staff	Included with staff hourly rates	N/a	N/a	N/a	N/a
Total Fringe:	-	-	-	-	-
Travel					
DES Truck Lease	48 month DES lease @ $442/month	$21,216	$10,000	ALEA NE	$31,216

				Grant: 19-13411 (State)	
Volunteer Mileage	2,000 miles @ $0.575/miles	$1,150	$1,463	ALEA NE Grant: 19-13411 (State)	$2,613
Total Travel:		**$22,366**	**$11,463**		**$37,829**
Equipment					
DACO Fish Totes	15 @ $400/per tote (shipping included	$6,000	$8,000	ALEA NE Grant: 19-13411 (State)	$14,000
Office Computer	See Narrative: (Tasks)	$1,500	$2,000	ALEA NE Grant: 19-13411 (State)	$3,500
Essential Tools and Equipment	Fish peughs, tail cutters, shovels, etc.	$5,000	$7,000	SRFB NE Grant: 19-1210 (Federal)	$12,000
Total Equipment:		**$12,500**	**$17,000**		**$29,500**
Supplies					
ArcGIS Mapping Software	See Narrative: (Tasks)	$1,500	$2,000	ALEA NE Grant: 19-13411 (State)	$3,500
Microsoft Programs (Word, Excel, Outlook,	See Narrative: (Tasks)	$100	$100	ALEA NE Grant: 19-13411	$200

Powerpoint, etc.)				(State)	
GoPro Waterproof Camera	This item will collect underwater imagery for reporting	$300	$500	ALEA NE Grant: 19-13411 (State)	$800
Salmon Carcass Analogs (SCA's)	Logistics & Traportation from vendor (AmCan)	$4,000	$4,000	ALEA NE Grant: 19-13411 (State)	$8,000
Standard Supplies	Hand wipes, gloves, raingear, etc.	$ 2,000	$4,000	SRFB NE Grant: 19-1210 (Federal)	$6,000
Total Supplies:		**$7,900**	**$10,600**		**$18,500**
Contractual					
DES Truck Lease Insurance	$5,000 per year (4 years) for liability and comprehensive/collision coverage	$20,000	$10,000	SRFB NE Grant: 19-1210 (Federal)	$35,000
Contracted Larch DOC CREW (Project Labor)	100 days @ $250.00/day (crew/officer/mileage)	$25,000	$14,500	Donated Labor (Local)	$39,500
Total Contractual:		**$45,000**	**$24,500**		**$74,500**
Total Direct:		**$143,966**	**$105,735**		**$258,701**

Indirect		**-**	**-**	**-**	**-**
Grand Total (Direct + Indirect)		**$143,966**	**$105,735**		**$258,701**

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

The SW WA NE Coalitions heavily documents their work through pictures and videos as part of their community outreach efforts. (See Project Duration section for a detailed schedule for photo documentation.) The project manager will provide photos of the project to the ACC throughout the year and upon request.

Figure 1 Photo from upper Lewis River NE Fall 2019

Figure 2 Photo of Muddy River NE Fall 2019

16. Insurance.

Our insurance policy meets all of the requirements.

References.

1. Bilby, R.E., B.R. Fransen, P.A. Bisson, and J.K. Walter. 1998. Response of juvenile coho salmon (*Oncorhynchus kisutch*) and steelhead (*O. mykiss*) to the addition of salmon carcasses to two streams in southwestern Washington, U.S.A. Can. J. Fish. Aquat. Sci. 55: 1909-1919.

2. Ashley, K.I., and P.A. Slaney. 1997. Accelerating recovery of stream, river and pond productivity by low-level nutrient replacement (Chapter 13). In: Fish Habitat Rehabilitation Procedures. P.A. Slaney and D. Zaldokas (eds.). Province of B.C., Ministry of Environment, Lands and Parks, and Ministry of Forests. Watershed Restoration Technical Circular No. 9: 341 p.

3. Wipfli, M.S., J.P. Hudson, D.T. Chaloner, and J.P. Caouette. 1999. Influence of salmon spawner densities on stream productivity in Southeast Alaska. Can. J. Aquat. Sci. 56: 1600-1611.

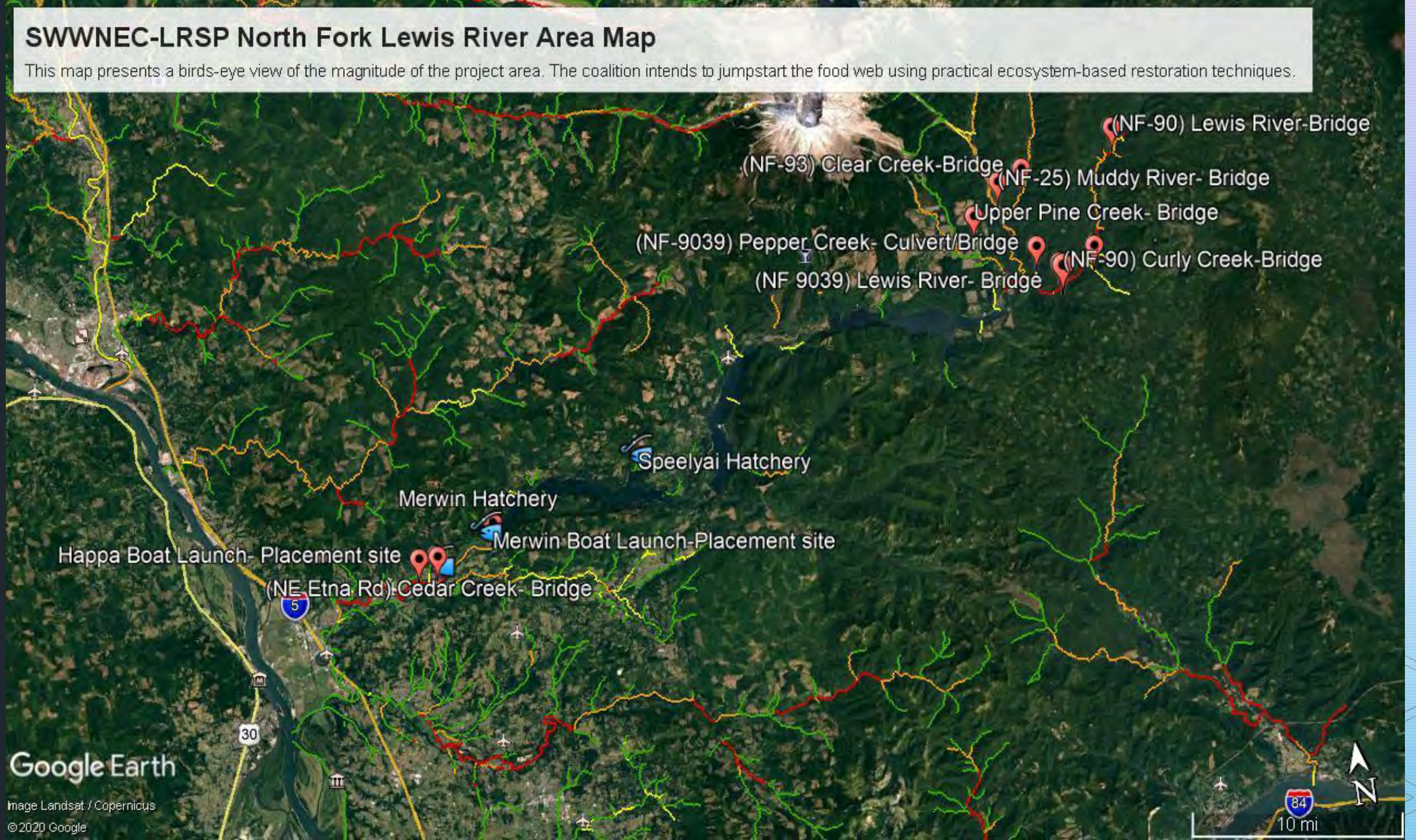
4. Wipfli, M. S., J. P. Hudson, J. P. Caouette, ad D. T. Chaloner. 2003. Marine subsidies in freshwater ecosystems: salmon carcasses increase growth rates of stream-resident salmonids. Trans. Am. Fish. Soc. 132:371-381.

SW Washington Nutrient Enhancement Coalition: Lewis River Support (SWWNEC-LRSP)

Sponsored By: Lower Columbia Fish Enhancement Group

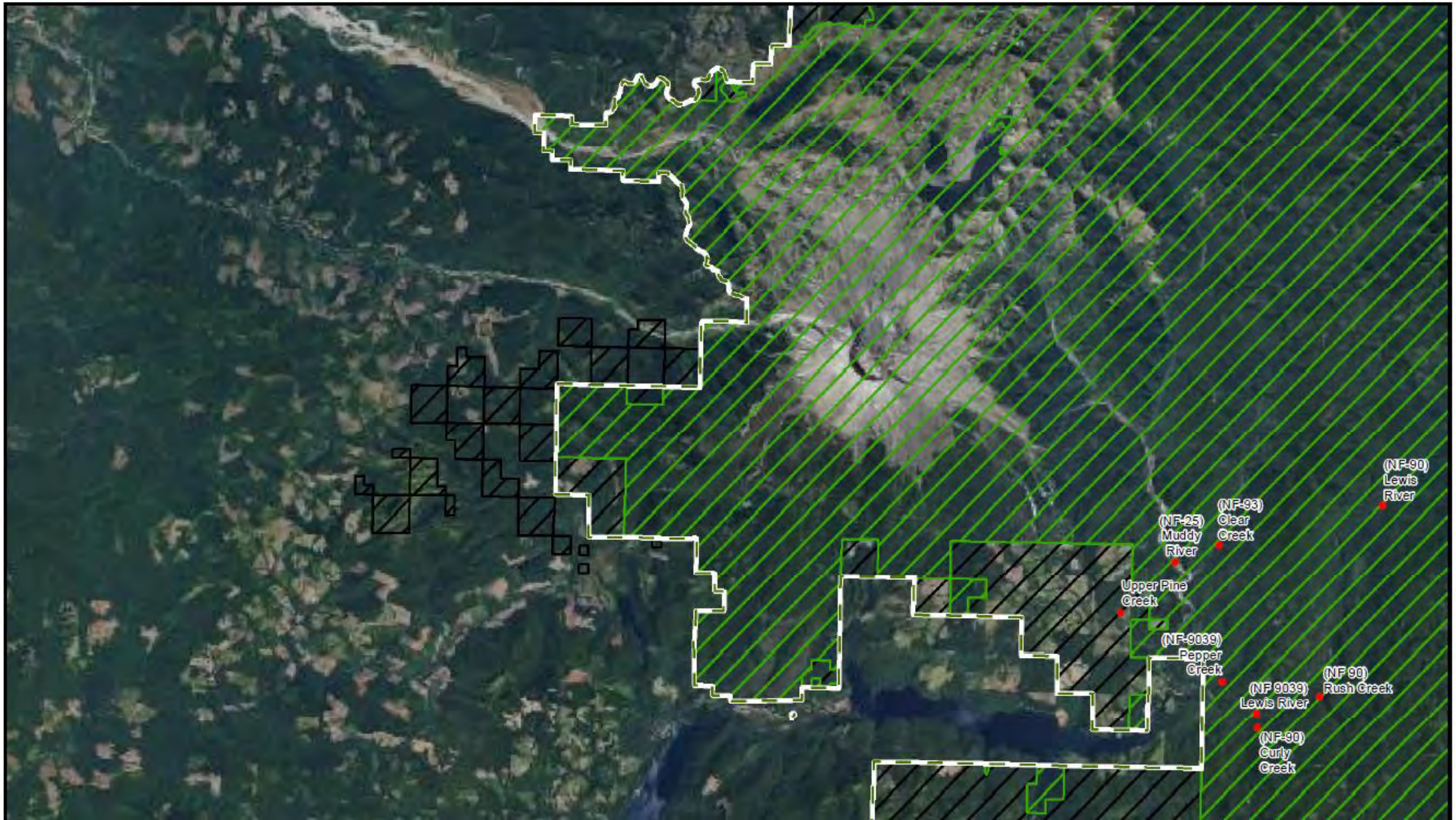
SWWNEC-LRSP North Fork Lewis River Area Map

This map presents a birds-eye view of the magnitude of the project area. The coalition intends to jumpstart the food web using practical ecosystem-based restoration techniques.



Lower Columbia Fish Enhancement Group - Entire Project Area

Gifford Pinchot National Forest & Land Off NFS



Authorization Information

Contact Name: Lower Columbia Fish Enhancement Group
Authorization ID: NA
Primary Use Code: NA
Use Code Name: NA
Issue Date: NA
Legal Description: Multiple, see map

Road Number(s): 90, 9039, 93, 25

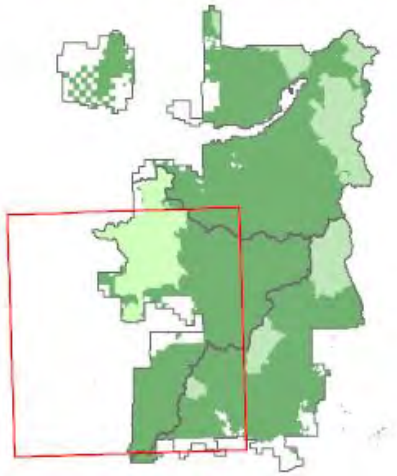
Disclaimer

The USDA Forest Service makes no warranty, expressed or implied regarding the data displayed on this map, and reserves the right to correct, update, modify, or replace this information without notification.
Map Creation Date: 10/9/2020

Legend

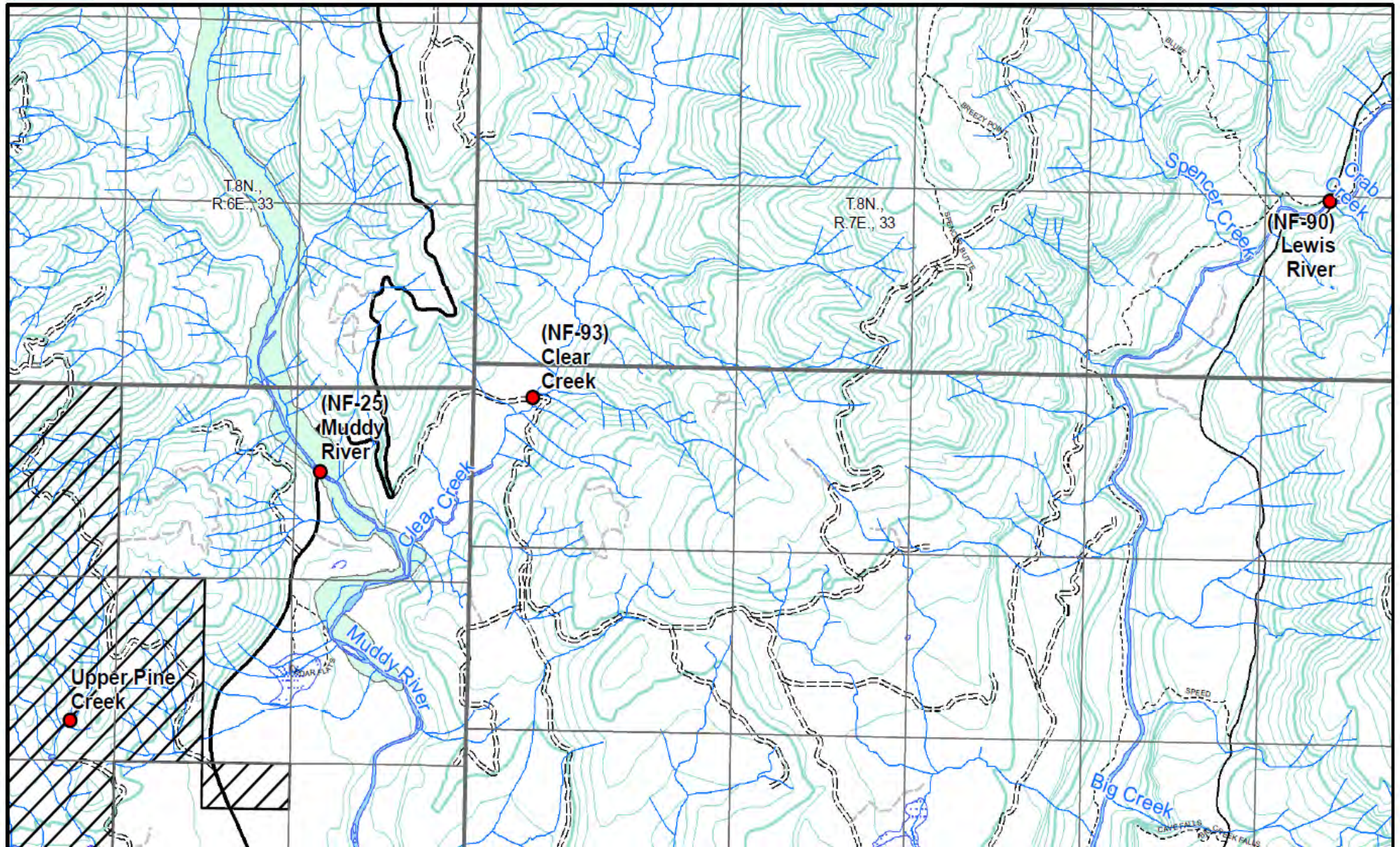
- Placement Site
- Bridge
- Hatchery
- National Forest Administrative Boundary
- NON-FS
- USDA FOREST SERVICE

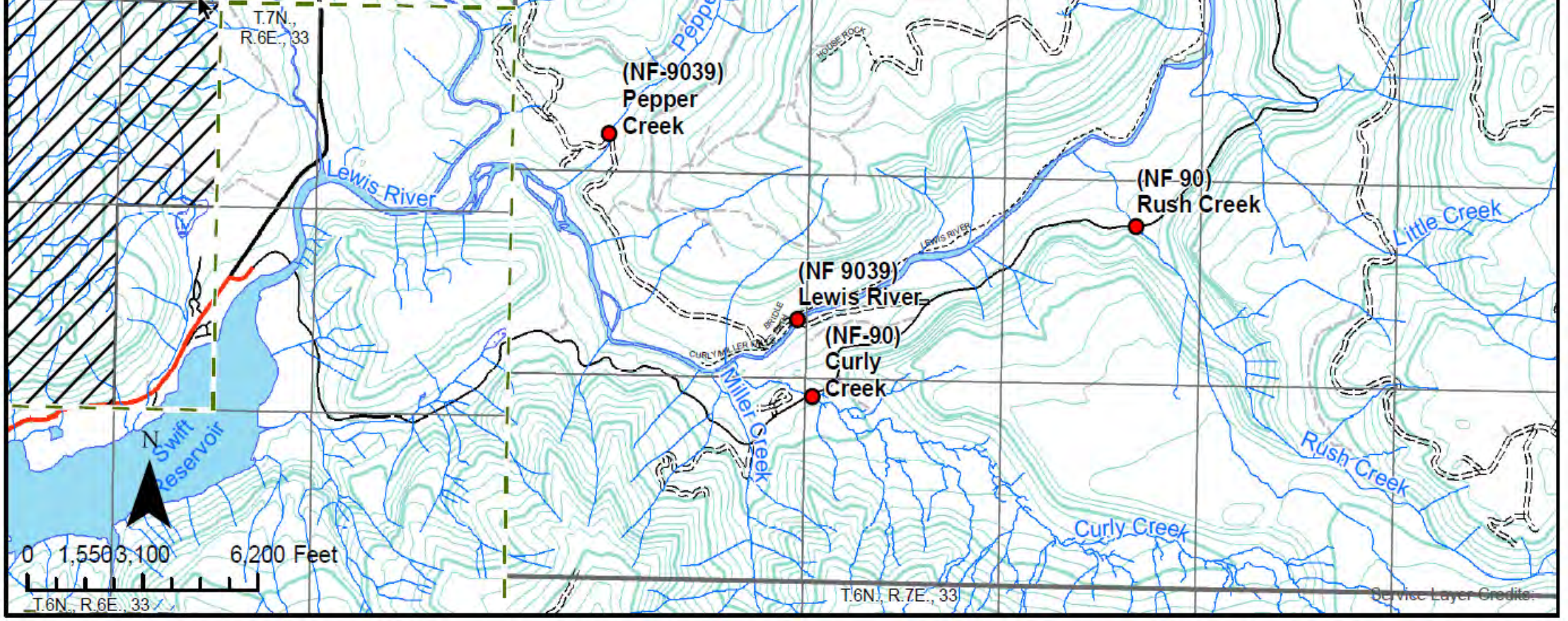
Context Map - Gifford Pinchot National Forest



Lower Columbia Fish Enhancement Group - NFS Area of Interest - Identified Bridges

Gifford Pinchot National Forest





Authorization Information

Contact Name: Lower Columbia Fish Enhancement Group
Authorization ID: NA
Primary Use Code: NA
Use Code Name: NA
Issue Date: NA
Legal Description: Multiple, see map

Road Number(s): 90, 9039, 93, 25

Disclaimer

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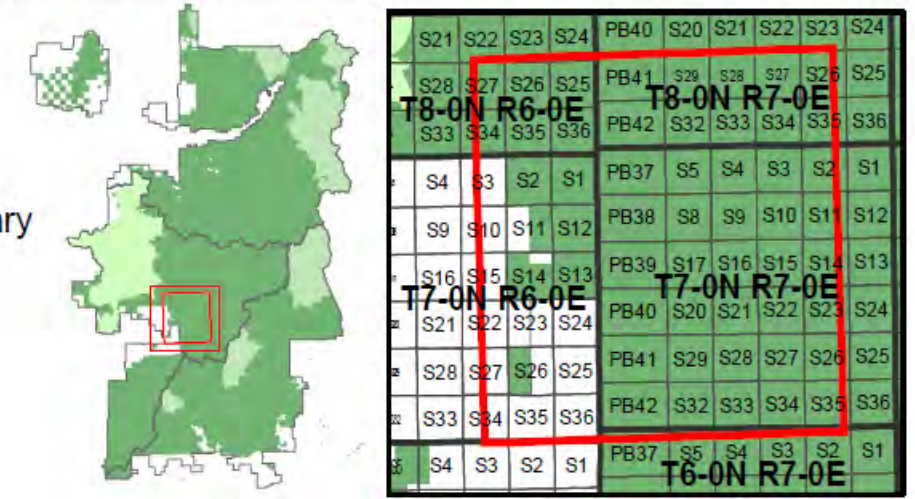
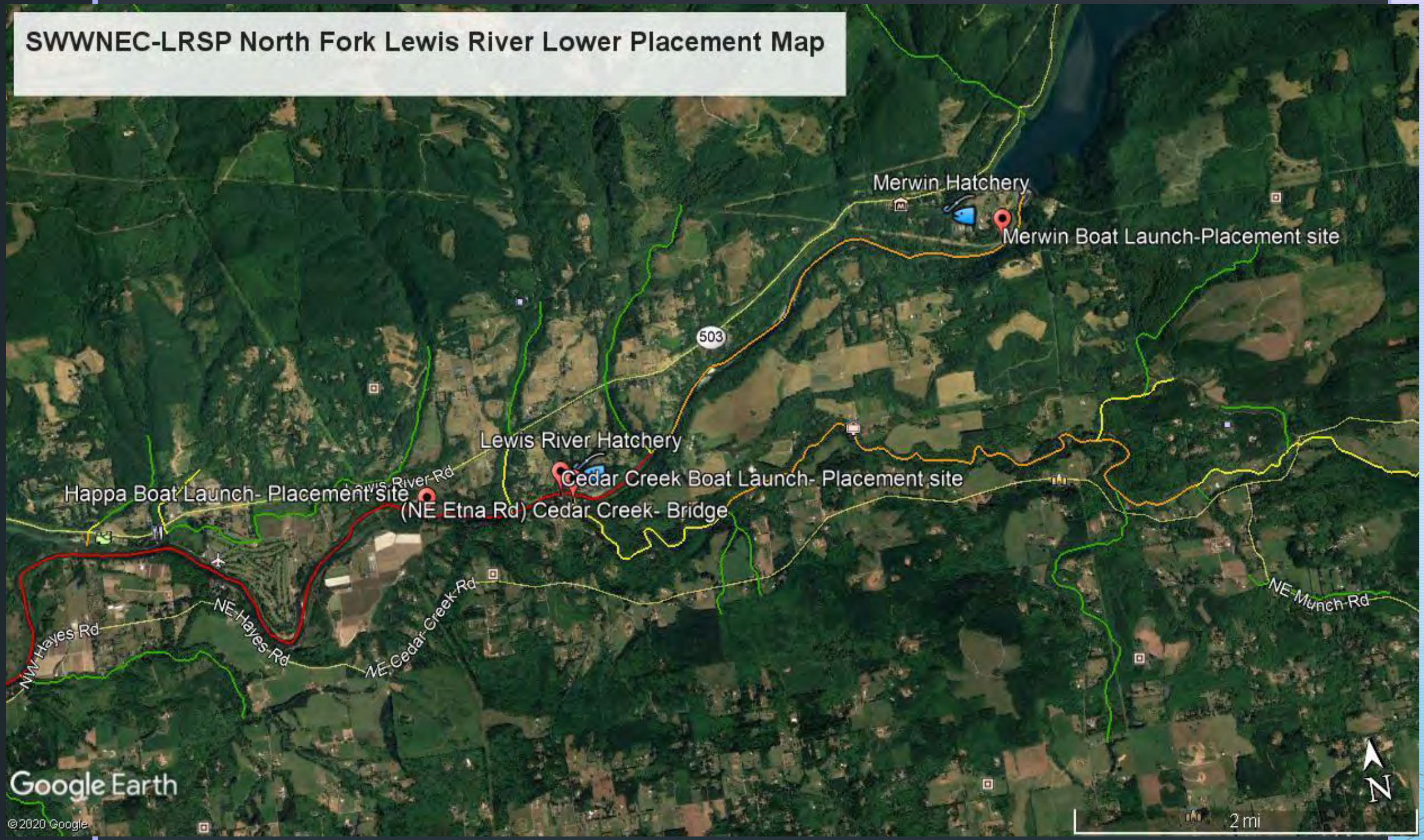
Map Creation Date: 10/9/2020

Legend

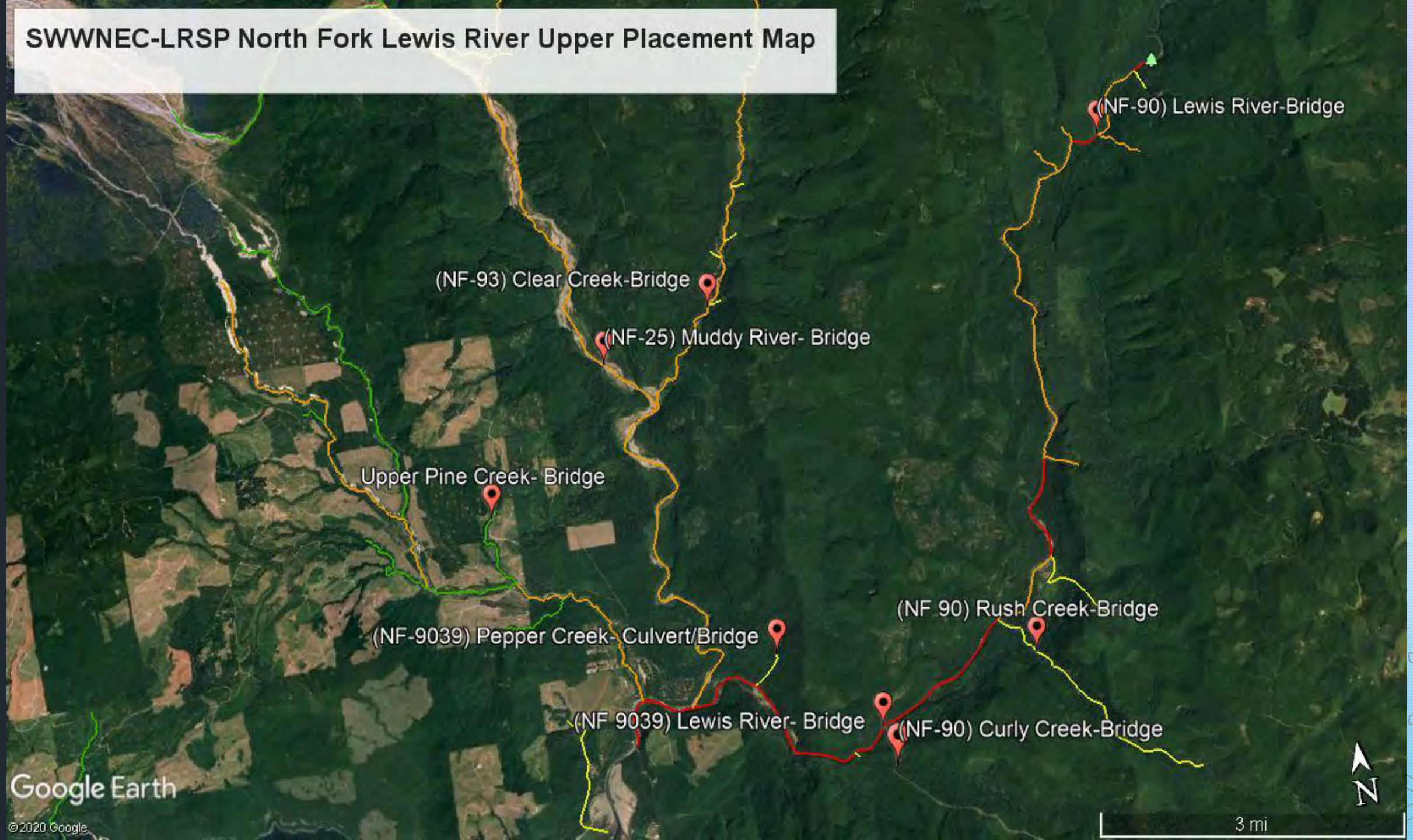
- Identified Bridge
- NON-FS
- Stream
- National Forest Administrative Boundary
- Township
- Section
- Lake/River
- Wash

Context Maps - Gifford Pinchot National Forest




SWWNEC-LRSP North Fork Lewis River Lower Placement Map
Merwin Hatchery
Merwin Boat Launch-Placement site
503
Lewis River Hatchery
Cedar Creek Boat Launch- Placement site
Happa Boat Launch- Placement site
(NE Etna Rd) Cedar Creek- Bridge
NW Hayes Rd
NE Hayes Rd
NE Cedar Creek Rd
NE Munch Rd
Google Earth
© 2020 Google
2 mi
N

SWWNEC-LRSP North Fork Lewis River Upper Placement Map

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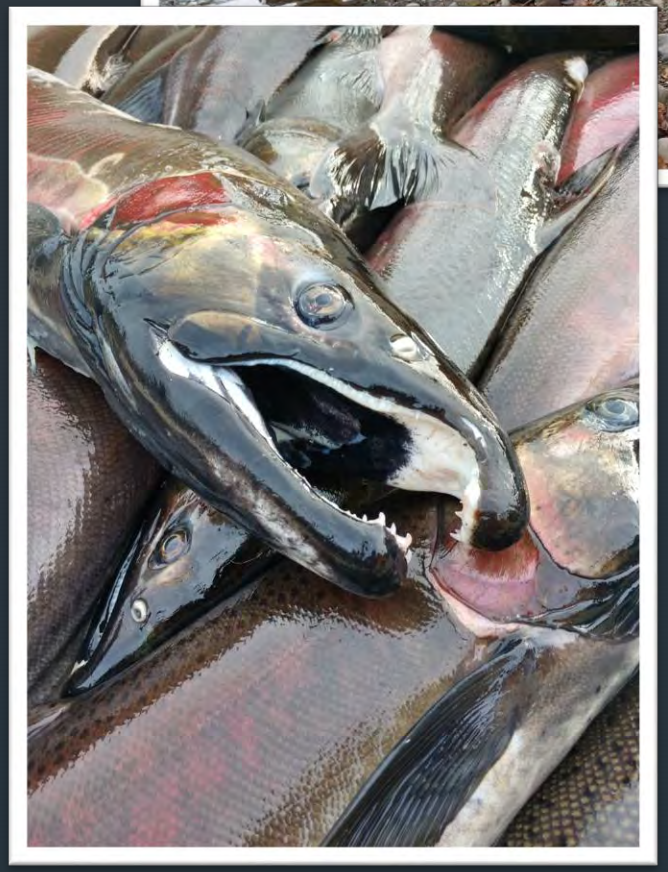

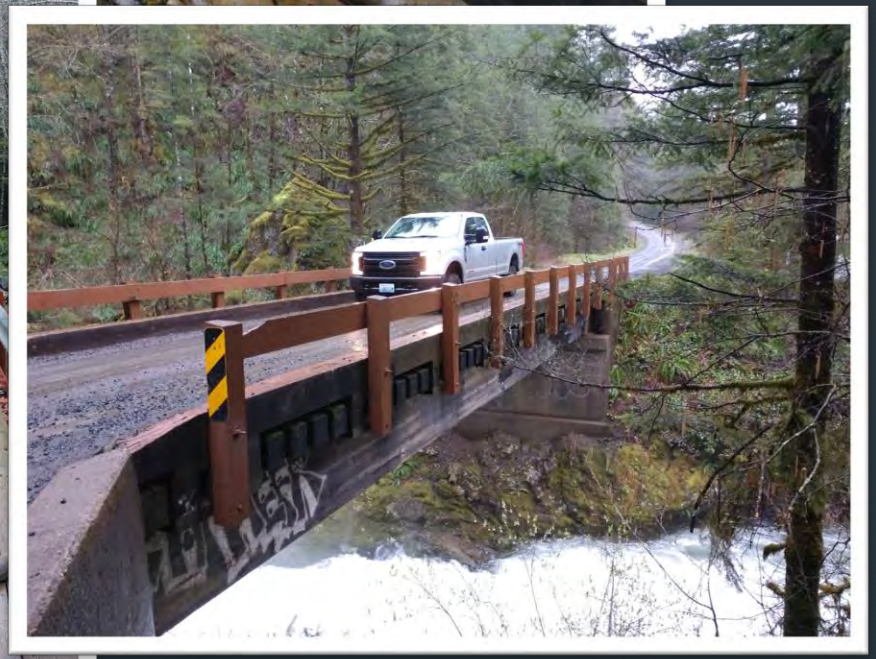

Landowner Acknowledgement Form

Landowner Information

☐ Mr. ☐ Ms. Title: **District Ranger**

First Name: **Erin** Last Name: **Black**

Contact Mailing Address: **2455 Hwy 141, Trout Lake, WA 98650**

Contact E-Mail Address: **erin.black@usda.gov**

Property Address or Location:

I certify that **__the USDA Forest Service_____** *(Landowner or Organization)* is the legal owner of property described in this grant application to the Lewis River Aquatic Fund. I am aware the project is being proposed on my property or access across my property is needed. **My signature authorizes the applicant listed below to seek funding for project implementation, however, it does not represent authorization of project implementation pending my final approval of plans and specifications and signature on a formal landowner access agreement.**

Erin K. Black _____ 10/28/2020

Landowner Signature Date

Project Applicant Information

Project Name: **SW Washington Nutrient Enhancement Coalition Lewis River Support**

Project Applicant Contact Information:

☐ Mr. ☐ Ms. Title: **Project Manager (Lower Columbia Fish Enhancement Group)**

First Name: **Maurice** Last Name: **Frank**

Mailing Address: **12404 SE Evergreen Highway, Vancouver, WA 98683**

E-Mail Address: **Lcfegfield@outlook.com**

Lead Entity Organization: PacifiCorp and Cowlitz PUD

Landowner Agreements

Landowner agreements are required for restoration projects on land that the sponsor does not own. Provide PacifiCorp with a signed landowner agreement with your Lewis River Aquatic Fund Application.

The agreement is a document between the sponsor and the landowner that, at a minimum, allows access to the site by the sponsor and Lead Entity Organization staff for project implementation, inspection, maintenance, and monitoring; clearly states that the landowner will not intentionally compromise the integrity of the project; and clearly describes and assigns all project monitoring and maintenance responsibilities.

The landowner agreement remains in effect for a minimum of 10 years from the date of project completion. The date of project completion is the date indicated in the sponsor's fund application. It is the sponsor's responsibility to inform the landowner of this date.

ATTACHMENT A
ACC COMMENT & DECISION TEMPLATE

COMBINED SCORES (from all score templates received)

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)														Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)					Score	% of max. Score	Rank
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14				
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	7	7	6	7	9	6	9	8	10	9	9	8	6	3	X	**98.68**	**70%**	**4**
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	8	7	8	8	8	8	7	8	8	7	4	6	7	6	#DIV/0!	104	1	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	8	10	9	9	9	8	9	9	9	9	7	9	10	9		**122.88**	**88%**	**1**
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	8	9	7	7	8	8	8	7	9	8	9	9	8	7	X	**112.15**	**80%**	**2**

= 1 or more representatives indicated a NoGo

X = 1 or more representatives indicated as a POC

AQUATIC FUNDS PROJECT SCORING TEMPLATE

ACC member Organization: Utilities

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	8	6	6	6	7	4	9	9	9	9	7	4	4	2		91	65%	4
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	8	8	9	5	8	8	5	7	9	10	2	4	4	5		100	71%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	6	10	10	9	9	8	10	10	10	8	2	8	10	8		120	86%	1
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	9	10	7	6	7	5	9	5	8	9	8	8	9	4	X	105	75%	2

ACC member Organization: American Rivers

Project Number	Project Title	Priority Objectives (Go - NoGo)*					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	10	10	6	8	10	10	8	9	10	9	9	10	8	6		124	89%	3
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	10	5	10	9	9	10	8	8	8	8	5	7	9	8		118	84%	4
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	7	10	10	10	8	10	8	9	9	9	7	9	10	9		126	90%	2
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	10	10	9	10	10	10	9	8	9	9	10	9	10	9		134	96%	1

ACC member Organization: LCFRB

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support						4	5	4	5	6	5	8	8	10	5	10	8	8	4		81	58%	4
2021-02	Clear Creek and Clearwater Creek Restoration Design						9	9	9	8	7	8	7	7	8	7	6	9	9	7		113	81%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization						9	10	9	8	9	7	10	9	10	8	10	10	10	10		126	90%	2
2021-04	Rush Creek Side Channel Reactivation Project						10	10	9	9	10	8	9	7	10	9	10	9	9	7		128	91%	1

ACC member Organization: USFS

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	6	7	7	6	10	9	10	9	10	10	9	7	6	6		110	78%	4
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	8	9	8	10	10	10	10	9	9	10	7	6	8	9		125	89%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	8	9	9	10	9	9	10	10	10	10	8	10	10	10		130	93%	1
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	9	9	9	9	9	10	8	8	10	10	7	10	10	7		126	90%	2

ACC member Organization: Trout Unlimited

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	10	10	10	9	10	8	10	9	10	10	9	10	10	2		130	93%	2
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	5	5	5	8	3	4	6	6	5	2	3	2	3	3	X	65	46%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	10	10	8	10	10	10	10	9	10	10	7	10	10	9		134	96%	1
2021-04	Rush Creek Side Channel Reactivation Project	NOGO	GO	GO	NOGO	GO	3	6	1	3	5	3	1	6	8	4	9	9	2	8	X	60	43%	4

ACC member Organization: WDFW

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	6	7	7	8	8	3	8	5	9	9	8	5	3	1	X	86	61%	4
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	8	5	8	8	9	8	7	8	9	8	5	8	8	4		101	72%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	9	9	8	8	9	6	8	8	8	8	7	8	8	8		110	79%	1
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	8	8	8	8	8	8	8	7	9	8	8	8	8	8		110	79%	2

ACC member Organization: Cowlitz Tribe

Project Number	Project Title	Priority Objectives (Go - NoGo)					Scores (use only whole numbers, 0 - 10 with 10 being best)													Project of Concern?	TOTAL PROJECT		
							Benefits to Fish (35%)			Scientific Validity (30%)			Feasibiltiy (20%)				Cost Effectiveness (15%)						
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14		Score	% of max. Score	Rank
2021-01	SW Washington Nutrient Enhancement Coalition: Lewis River Support	GO	GO	GO	GO	GO	2	4	2	4	9	2	9	8	9	9	9	9	1	1		69	49%	4
2021-02	Clear Creek and Clearwater Creek Restoration Design	GO	GO	GO	GO	GO	7	7	9	9	9	9	7	8	6	6	3	7	7	9		108	77%	3
2021-03	Pepper Creek Culvert Removal and Road Hydro-Stabilization	GO	GO	GO	GO	GO	4	9	9	9	9	9	7	8	9	9	7	9	9	7		114	81%	2
2021-04	Rush Creek Side Channel Reactivation Project	GO	GO	GO	GO	GO	9	9	9	7	9	9	9	8	9	9	9	9	9	9		122	87%	1

General

LCFRB	Design only projects while approved for submittal are not easily scored with existing template questions. Reviewer has to predict benefits withpotentially only a conceptual design in place. For example, benefits to fish are not part of a design phase of the project. May need to modify template for design only proposals.
Utilities and AM. Rivers	Questions that do not lend themselves to numeric scores - how should these be scores as zeros or 5 (neutral) would adversely affect the total score and possibly whether the project is approved. See American Rivers comments.
Utilities	Should be a notes section to describe specific concerns to include why a project is marked as a project of concern

SW Washington Nutrient Enhancement Coalition: Lewis River Support
Type: "Build"
Sponsor: LCFEG
Total Cost: $258,701
ACC Request: $ 143,966
Match: $105,735

Utilities	Benefits are not long-term
Utilities	permitting not approved by WDOE yet for analog placement
Utilities	Group has already been implementing project with good results
Utilities	Carcass placement is prioritized DS of Merwin (upper = 8000, lower=12000)
Utilities	Locations need to be resolved downstream of Merwin as habitat projects prioritize mainstem NFK Lewis over all other tributaries - not clear yet from proposal
Utilities	Truck lease = $41,000 ACC funds - seems excessive. Don't equipment and tools already exist? Asking 5K
TU	I am on the board of LCFEG. To avoid conflict of interest I recuse myself. $144 K , not sure if yearly or total (4 year) cost.
LCFRB	Project could be considered a "short term fix", but does not "restore normal watershed processes", as outlined in the subbasin plan.
LCFRB	implementation and results.
LCFRB	Project has significant match, and has substantial volunteer effort. Great public outreach and education opportunity.
LCFRB	seems low.
LCFRB	The subbasin plan does not directly contemplate nutrient enhancement as providing significant benefits to broader salmon recovery, relative to other recovery actions that produce longer term and sustained benefits.
LCFRB	The benefits of nutrient enhancement for rearing salmon ware assessed in the Lower Columbia region in the Lower Columbia IMW and for rearing steelhead in the Wind River. Long-term growth and survival benefits for rearing coho salmon were not found in the Lower Columbia IMW, and the Wind River study did not consider long-term survival benefits. While broader ecological benefits may accrue based on the literature, regional results suggest survival bottlenecks other than short term

Clear Creek and Clearwater Creek Restoration Design

Type: Design Only
Sponsor: USFS and CFC
Total Cost: $345,520
ACC Request: $333,520
Match: $12,000

Utilities	support reintroduction goal of the Agreement
Utilities	Cost share is relatively small and all in-kind ($12,000 of $333,520 design project)
Utilities	Implementation costs are likely in the millions and pose a risk with commitment of design only funds
TU	$334 K just for planning is expensive. Too vague in descriptions. Limited access in mid and upper reaches. Previous projects failed.
TU	Why not have USFS do the engineering instead of contracting out?
LCFRB	Treatment of 13.9 miles of T2 stream reaches.
LCFRB	Direct benefits to SpCh (Primary), Coho (Contributing), and Winter Steelhead (Contributing and historical "Core").
LCFRB	High SRP for Coho and Medium SRP for SpCh.
LCFRB	Significant Coho spawner activity; minor SpCh spawner activity.
LCFRB	High Multi-Species Priorities incl. "riparian conditions", "stream channel habitat structure", and "off-channel and side channel habitat". This project should target all of these priorities.
LCFRB	Key habitat quantity is identified as a primary limiting factor for all three species.
LCFRB	Cost seems high for a design, but equals approx. $24,000/ mile.
LCFRB	Certainty of success appears to be high, as this is a design only. Given that stream surveys have occurred in the area, and prior restoration efforts have occurred nearby, it appears that field work can be accomplished. This project builds on prior investments.

Pepper Creek Culvert Removal and Road Hydro-Stabilization
Type: Design/ Build
Sponsor: USFS
Total Cost: $64,306
ACC Request: $48,210

Match: $16,096

Utilities	Project has benefits to coho and steelhead, but not Chinook. Therefore, it is limited in its benefits by species and geographic area.
Utilities	adds 2 miles of habitat for reasonable cost (no brainer)
Utilities	synergies with nutrient enhancement proposal if both approved
Utilities	Lower priority Tier 3 reach
TU	$48.2K total cost. USFS $16 K in-kind costs. Opens ≈ 2 miles of adult salmon habitat.
LCFRB	Opens up approx. 2 miles of stream habitat of modeling "Type F" stream habitat, per WDNR FPA website. Note: this model assumes all fish, and does not differentiate between resident and anadromous fish. Additional modeling indicates that SpCh and Coho occupy area within .75 miles; winter steelhead are modeled to occur within .2 miles.

Rush Creek Side Channel Reactivation Project

Type: Design/ Build
Sponsor: USFS

Total Cost: $325,900
ACC Request: $192,850
Match: $133,050
Species: Bull Trout Funds

LCFRB	EDT model only accounts approx. 0.4 miles of Pepper Ck, which is over a mile DS of the proposed fish barrier culvert.
LCFRB	Application indicates that juvenile coho were surveyed below the culvert, which makes sense, as coho tend to rear in this type of habitat, and the stream is low gradient.
LCFRB	This proposal appears to be more of a watershed process-based approach with most benefits being more indirect. The subbasin Plan identifies sediment as the #1 primary limiting factor for coho, SpCh, and winter steelhead. This proposal directly addresses this limiting factor as well as channel stability, which is influenced by sediment.
LCFRB	Barrier removal proposals tend to be very straightforward, and are generally dictated by regulatory agencies, incl. the USFS. While the application does not contain sufficient
LCFRB	information/ plans for design and permitting, we assume that the "typicals" provide enough information to understand what the eventual project will be. Certainty of success is very high.
LCFRB	Cost is low, and includes approx. 25% match. Two miles of road stabilization is substantial for a basin this size.

Utilities	X Decomissioning FS 65 may not achieve priority objectives by not providing direct benefits to priority species. The road crossing is upstream of falls and proposal would be stronger without this task, no separate budget provided for this task.
Utilities	High risk project to bull trout, however it has received approval of USFWS and BT working group with the addition of adaptive management and post project monitoring.
Utilities	Side channel creation may enhance coho spawning and rearing more than bull trout?
TU	Limited discussion of BT/CO interaction study. Need completed study prior to habitat reconfiguration. $193 K seems expensive. After additional 7-day review period TU spoke with other Trout Unlimited members, we (TU) have reached a conclusion. Although we do not approve the 2021 USFS -- Rush Creek habitat project; we will not stand in the way.
LCFRB	Project would "reactivate" 3,145 lineal feet of channels; 870' in channel 1, and 2,275' in channel 2
LCFRB	Hydrologically disconnects Forest Road 65.
LCFRB	Removes two road crossings, which will improve natural watershed processes.
LCFRB	Rush Ck. is Tier 3; however, this proposal is specific to Bull Trout.
LCFRB	Project appears to provide additional benefits to Coho and winter steelhead, as SRP is Low and Medium, respectively.
LCFRB	Project elements will benefit both adult and juvenile life stages (Coho and steelhead) by improving "key habitat quantity", as outlined in the subbasin plan.
LCFRB	Cost is reasonable, and match is substantial (>40%)
LCFRB	Certainty of Success (COS) is difficult to determine, as working in the alluvial fan came prove difficult. However, even in the event of a catastrophic failure, it likely does not mean substantial loss of habitat.

PRIORITY 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?**		
3	**Enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River?**		
4	**Is the proposal consistent with applicable Federal, State, and local laws and plans to the extent feasible?**		
5	**Are any funds requested that would otherwise be required by law to perform?**	Am Riv	Not a binary question. Does not make sense

EVALUATION QUESTIONS

Q1	Does the project provide direct benefit(s) to priority species and habitat reaches?		
Q2	Does the project provide tangible, on the ground benefits?		
Q3	Does the project address a limiting factor(s) to the target species, life history stage, or habitat process?	TU	added..."without adversely impacting other species, life history stages, or habitat processees?"
Q4	Does the proposal apply appropriate and proven methods, designs and technologies?		
Q5	Are the project objectives identified appropriate and justified given the proposed scope and schedule?		
Q6	Does the project describe and consider long term benefits and influences (e.g., watershed processes, hydro operations, climate change, etc.)?		
Q7	What contraints or contingencies affect project implementation (permitting, legal, location, funding, etc.)	Am Riv	This is not a 1-10 question
Q8	Is the probability of success high, medium or low?		
Q9	How qualified and experienced is the project team in successfully completing projects of similar scope, nature, and magnitude?		
Q10	How might other habitat protection, assessments, or restoration actions in the watershed impact the project?	Am Riv	Also not a 1-10 question
Q11	Will the project be cost shared with other funding sources (e.g., matching contributions, in-kind participation, grants, etc.)?	Am Riv	This is a binary question, not 1-10 scale
Q12	Are project costs reasonable by work effort and type (administration, permitting, goods and services, rentals, labor, contracts, etc.)?		
Q13	Are the total costs justified based on expected short and long term benefits to fish?		
Q14	Is the project self-maintaining once completed? If not, how will maintenance be achieved?	Am Riv	The first part of this question is binary. The second part of this question is not a 1-10 scale question