

PRE- PROPOSAL FORM -

Lewis River Aquatic Fund

1. Applicant organization.

USDA Forest Service
Gifford Pinchot National Forest

2. Organization purpose

Resource management agency

3. Project manager (name, address, telephone, email, fax).

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Fishery Biologist
20+ years experience with fish habitat restoration projects

4. Project Title

Muddy River Mainstem Channel Restoration

5. Summary of Project proposal

Large woody material will be placed in the Muddy River from RM 4.5-5.0 to increase bank stability, enhance and restore juvenile salmonid rearing habitat, and create adult spawning habitat. Coho salmon and steelhead will be the main species to benefit from these actions; however Chinook salmon could also use these structures. Approximately 300 pieces of large woody material will be placed in this section to create complex clusters along the stream margins using a large excavator.

The Muddy River was considered a top coho producing stream in the Upper North Fork Lewis River sub-basin prior to dam construction.

A lahar from the eruption of Mt. St. Helens in 1980 scoured the Muddy River, eventually depositing sediment into Swift Reservoir. The floods of 1996 removed much of the riparian vegetation that had established following the lahar event, causing the continuance of the Muddy River floodplain and stream banks to have minimal root strength from large trees and relatively vertical unstable banks.

This project address the following Aquatic Fund priorities.

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

Coho salmon and steelhead trout are listed as a threatened species under the ESA. This project will directly benefit recovery of listed species by reducing sediment contributions from bank instability and providing rearing and spawning habitat. Chinook Salmon will benefit from increased spawning opportunities. The Lower Columbia Fish Recovery identifies this reach as Muddy River 1A, and ranked it as Tier 2. The Plan rates this reach's potential restoration as High for Coho and Medium for Steelhead with top two critical life stages identified as Egg incubation and 0-age active rearing. The Plan also suggests measures of active restoration necessary to fish recovery which include restoring channel structure and stability.

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

Creating quality rearing habitat will support reintroduction of anadromous fish by increasing rearing habitat in the Muddy River Basin. Increasing bank stability along the Muddy River will decrease sediment contributions from vertical bank sloughing and horizontal channel migration which allows for the development of root stability from old large trees that can further stabilize vertical banks and minimize horizontal channel migration during flood flows. Decreased sediment inputs will contribute to the success of egg incubation.

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. The large wood complexes of this project will provide slow water habitats with cover which coho prefer, and sort sediments providing localized spawning habitat.

6. Project location

This project is located on the Muddy River at River Mile 4.5-5.0, the half mile reach just above the confluence of Clear Creek.

7. Expected products and results

This project will result in approximately 20 complex structures. Each structure will have an excavated pool and 10-15 pieces of large wood for cover. These stream structures will also help to stabilize erosive streambanks.

8. Benefits of proposed Project

Increased numbers of juvenile salmonids over expected background levels (from reintroduction activities) are expected to occur from this project. Slow water areas will be created. This project also increase spawning habitat.

9. Project partners and roles.

Mount St. Helens Institute Youth Stream Team will provide pre and post project monitoring.

10. Community involvement (to date and planned).

The Forest Service maintains active community involvement by scheduling regular events with legislators, scientists, members, and key individuals for continual program

and project development along with cultivating strong ties with agencies, academia, and local citizen groups.

11. Procedure for monitoring and reporting on results.

- 1) Perform baseline monitoring. This monitoring will occur prior to project implementation and include a longitudinal profile, cross-sections, pebble counts, photo-documentation and snorkel surveys. MSHI will provide two interns (ACC funds), five volunteer youth from the youth stream team (ACC funds), and a supervisor (MSHI IK) to perform monitoring work. They will perform all aspects of the monitoring with supervision and training from the Forest Service.
- 2) Perform after project monitoring. This monitoring will occur following project implementation and continue on an annual basis for several years following project completion. MSHI will provide two interns for this portion of the work supervised by the Forest Service (MSHI IK).
- 3) Monitoring Report. A monitoring report will be written each year following project implementation. MSHI will provide raw data in excel format, the Forest Service will provide analysis of data. The Report will describe the length of stream bank stabilized with wood structures, approximate fish presence and slow water areas, and quantify areas with spawning substrates.

12. Project schedule (anticipated start date, major milestones, completion date).

2011 Complete final designs, procure large wood for the project

2012

- Write contracts
- Implement projects
- Pre and post project monitoring

2013 Post project monitoring

13. Funding requested (estimated cost for project design, permitting (including necessary resource surveys), construction, and monitoring).

Total ACC Funds-\$43,000

14. Type and source of other contributions (Identify cash (C) and/or in-kind (IK), and status, pending (P) or confirmed (Co)).

Gifford Pinchot National Forest- **\$37,000** \$22,000- Personnel, \$15,000 trees (IK)(Co)
Mt. St. Helens Institute- **\$2,000** \$2,000 Personnel, (IK)(Co).

15. If you have technical assistance needs for this project, please briefly describe such needs.

None Needed

13. Budget

	NEPA	Final designs	Project Mgmt	Construction	Monitoring/Labor /Reporting/Coord.
Personnel Costs					
FS - Zone Team or Contract	Complete \$8,000				
FS –Fish Bio and Hydrologist		\$4,000 (IK) \$1,000 (ACC)			
FS - Fish Bio and Hydrologist			\$5,000 (IK) \$3,000 (ACC)		\$1,000 (ACC)
FS - Contract administrator -				\$3,000 (IK) \$4,000 (ACC)	
FS - Contract Specialist				\$2,000 (IK)	
DNR Specialist					
Mt St. Helens Institute					\$2,000 (IK)
Mt. St. Helens Institute Community Education					\$2,000 (ACC)
Materials					
Forest Service 300 Pieces of LWM				\$15,000 (IK)	
Contract Payables					
Excavator and Skidder Contract				\$18,000 (ACC)	
Logging and hauling of trees				\$13,000 (ACC)	
Materials and Supplies			\$ 1,000(ACC)		
Administrative Overhead					
Total ACC Funds	\$43,000	\$1,000	\$4,000	\$35,000	\$3,000
<i>Total FS Funds</i>	<i>\$37,000</i>	<i>\$8,000</i>	<i>\$4,000</i>	<i>\$20,000</i>	
<i>Total Partner Funds</i>	<i>\$2,000</i>				<i>\$2,000</i>
Project Total	\$82,000				

2011 Muddy River Project Proposal

