

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).

Adam Haspiel
Mount St. Helens National Volcanic Monument
42218 NE Yale Bridge Road
Amboy, WA 98601
360-449-7833
360-449-7801-FAX
ahaspiel@fs.fed.us e-mail

Fishery Biologist

25+ years experience with fish habitat restoration projects

4. Project Title

Muddy River Tributary near Hoo Hoo Bridge

5. Summary of Project proposal

The Forest Service proposes to restore one mile of fish habitat on a tributary of the Muddy River that crosses the 8322 road at Hoo Hoo Bridge. The project is just upstream on the same tributary as the previous project completed in 2012, where large wood complexes were placed to enhance juvenile salmonid rearing habitat. Similarly, this upstream project will provide rearing pools to enhance juvenile salmonid rearing habitat. In addition these pools will be used for cover by spawning adult salmonids. Coho salmon will be the main species to benefit from these actions, however steelhead may also use this tributary to escape high winter flows in the mainstem Muddy River.

Approximately 200 pieces of large woody material with rootwads will be placed in the tributary to create 15 structures using a small 16,000lb- 28,000 lb excavator. Adult landlocked coho were observed spawning in this tributary in October 2011. Prior projects in this tributary included replacing a migration barrier culvert with a bridge (included partial ACC funding) and enhancing fish habitat in the lower tributary section.

The project will continue the control and removal of invasive species on the Muddy River floodplain which includes the areas adjacent to the project tributary. Approximately 5-10 acres will be treated in 2013 with follow up treatments in 2014 where necessary.

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

The Muddy River was affected by the eruption of Mt. St. Helens in 1980 when a lahar scoured it, eventually dumping sediment into Swift Reservoir. The floods of 1996 removed much of the riparian vegetation that had tried to establish following the lahar event. Some areas continue to be affected by the establishment of invasive vegetation species such as Scotch Broom which interferes with the natural re-establishment of native shrubs and trees on the flood plain. The continuation of invasive plant species removal will allow enhance growth rates of native shrubs, conifers and other trees. Native shrubs and trees on the floodplain will help stabilize side and tributary channels, and in the long term, develop shade to help reduce stream temperatures and improve habitat.

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 providing quality side channel habitat for rearing of juvenile salmonids. Spawning habitat will also be restored in the side channel for adult salmonids. The Lower Columbia Fish Recovery Boards Salmon Recovery Plan specifically cites high priority restoration needs for side channel habitat and stream channel habitat structure.

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

Creating quality rearing habitat in side channels will support reintroduction of anadromous fish in the Muddy River Watershed, of the Lewis River Basin. The ACC Synthesis Matrix rated this section of the river as having medium/high restoration potential and as a Primary coho population area.

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. It is well documented that coho salmon juveniles prefer slow water habitats with large wood components.

6. Project location

The project area for the fish habitat improvement in this project is located west of the 8322 road on the tributary flowing under the Hoo Hoo bridge. This is approximately $\frac{3}{4}$ mile upstream from Clearwater Creek confluence with the Muddy River. The invasive treatment areas are on the Muddy River floodplain near this tributary.

7. Expected products and results

This project will result in approximately 15 complex structures. Each structure will have an excavated pool and 10-15 pieces of large wood for cover. In slow water pockets of the tributary, additional pieces of large wood will be placed in random fashion to provide varied habitat niches.

Invasive weeds will be treated as continuation of a multiyear effort to remove scotchbroom and associated long lived seed banks. Other funding sources are being pursued for future years and additional downstream areas of the Muddy River floodplain.

8. Benefits of proposed Project

Increased numbers of juvenile salmonids above background levels from reintroduction activities are expected to occur from this project. Increased amount and quality of rearing pools in the Muddy River side channel and spawning habitat will be created in association with the log complexes. Invasive species removal will diminish competition for water and nutrients allowing for enhanced growth of the native shrubs and trees.

9. Project partners and roles.

Mount St. Helens Institute.

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, five volunteer urban youth and a supervisor to perform monitoring work. They will perform all aspects of the monitoring with supervision and training from the Forest Service.
- 2) Perform after project monitoring. This monitoring will occur following project implementation and will continue on an annual basis for several years following project completion. MSHI will provide two interns for this portion of the work supervised by the Forest Service.
- 3) Monitoring Report. A monitoring report will be written each year following project implementation. MSHI will provide raw data in excel format, the Forest Service will provide analysis of data and report.

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

NEPA – Complete

Project Implementation July 2014

Treat Invasive Weed Species 2014 and 2015

Post project monitoring 2015

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

Total ACC Funds-\$38,000

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- **\$29,000** (IK) (Co)

Mt. St. Helens Institute- **\$2,000** (IK)(Co).

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

None Needed

2013 Muddy River Tributary Proposal

