



## Annual Report of the Mid-Columbia Fisheries Enhancement Group July 1, 2007 – June 30, 2008

### Mission Statement

The mission of the Mid-Columbia Fisheries Enhancement Group is to restore self-sustaining salmon and steelhead populations through habitat preservation and restoration projects which assist landowners and promote community partnerships throughout our region.

### Overview

Mid-Columbia Fisheries Enhancement Group is a non-profit (501c3) organization dedicated to restoring and protecting fish habitat. Mid-Columbia Fisheries takes a three-pronged approach to protecting and restoring fish habitat.

- We sponsor and implement high-quality habitat restoration and protection projects throughout our region.
- We help support the work of our partners by providing financial support for restoration and protection projects.
- We help support educational and community outreach programs that will promote the long-term commitment our society needs to protect fisheries resources.

The Mid-Columbia region includes several important steelhead and salmon rivers, notably the Wind River, the White Salmon River, the Klickitat River, the Yakima River, and numerous tributaries to the Columbia River. Our region includes all of the waterways in seven of Washington's Water Resource Inventory Areas, fully encompassing all of Klickitat, Benton, Yakima, and Kittitas Counties, as well as portions of Skamania and Franklin counties.



*Excavator placing logs on Swale Creek, 2008.*

Along with its large geographic size, this region has a diversity of watershed and fisheries issues unique to each of the individual rivers and watersheds. These watersheds provide habitat for seven salmonid species listed as threatened or endangered under the Endangered Species Act, as well as a number of sensitive and culturally significant stocks. Water quantity and instream flows are critical issues on nearly all of the tributary streams in the arid portions of the region.

Population growth in the Yakima Basin is likely the biggest threat to salmonid resources in the region. The Yakima Basin also includes some of the best opportunities to protect and restore salmonid habitat in our region. This year, Mid-Columbia Fisheries was

able to hire a Program Manager to focus on project development and implementation in the Yakima Basin. Increased staffing for the Yakima Basin is already resulting in additional restoration and protection projects in Yakima and Kittitas Counties.

The Washington Department of Fish and Wildlife, the Yakama Nation, and the USDA Forest Service continue to be our strongest partners. Additional partners include conservation districts, land trusts, private landowners, local governments, federal agencies, schools and community groups.

## **Project Highlights**

### **Taneum Creek - Large Wood Replenishment**

This year, Mid-Columbia Fisheries funded a pilot project to improve in-channel habitat through the addition of large wood to Taneum Creek, a tributary to the Yakima River. The goal of the project is to add large wood to the creek in a low-cost manner by selectively thinning overstocked forest stands adjacent to the creek. The pilot project was conceived and managed by Yakama Nation biologist Scott Nicolai, and funded by Regional Fisheries Enhancement funds.

In many forest stands, fire exclusion has led to unnaturally dense conditions. In cooperation with the Washington Departments of Fish and Wildlife and Natural Resources, seven worksites were identified where trees could be removed from the riparian area without compromising shade or slope stability. Trees were individually selected for thinning with the goal of improving the health and vigor of the remaining riparian stand. All trees that were thinned were located more than thirty feet from the creek. The pilot project is located on the LT Murray Wildlife Area.



*Logs hand placed in Taneum Creek, 2008.*

A Washington Conservation Corps crew used a grip hoist and hand tools to manually move the trees into the stream channel. To-date, more than 200 trees have been placed in the stream. The majority of the trees are greater than ten inches in diameter. High flows in the spring of 2008 sorted the wood into a natural distribution, providing an indication of how large wood replenishment can serve to restore stream processes.

This project has a number of tangible benefits.

- The project improves in-stream habitat by adding complexity to the channel,
- The project improves the forested riparian area in sites where fire exclusion has led to overstocked and unhealthy forest stand conditions. The remaining riparian trees will benefit from increased light and reduced competition.
- The project reduces fuel loading, and the related threat of catastrophic wildfire.

Based on the success of this pilot project, Mid-Columbia Fisheries and the Yakama Nation are planning to expand this approach to eight other tributaries to the Yakima River basin in the next four years.

### **Lower Taneum Creek**

A number of small restoration actions have been undertaken in the last five years on private ownership in Lower Taneum Creek. In the fall of 2007, we re-opened access to two (previously blocked) side channels and installed several large logs with rootwads to move water away from an eroding bank. We also installed three rock-drop structures to address on-going head-cutting in this reach. New riparian vegetation was planted in disturbed areas. An additional side-channel was re-opened in the summer of 2008. The goal of

these actions is to improve the ability of the creek to access the floodplain during high flow events, which will reduce scour and down cutting, provide refugia habitat, and protect existing habitat complexity in the main channel.

### Cle Elum River Floodplain Restoration: Cooper Bridge Phase 2

In the last two years, Mid-Columbia Fisheries has partnered with the Cle Elum Ranger District on a project to protect refugia habitat for Threatened bull trout and enhance floodplain function on the Cle Elum River near the confluence of the Cooper River.

The upper Cle Elum River is located just two hours from Seattle and is a popular dispersed camping area. A 2005 survey of 19 miles of the Cle Elum River showed 200 high-use campsites, accounting for 30 acres with heavily-compacted soil and little to no vegetation within the riparian zone. The user-created roads to access these sites accounted for another seven acres of non-functional floodplain habitat.

The “Cooper Bridge” area, near the confluence of the Cooper and Cle Elum Rivers, was the Forest Service’s highest priority for restoration work. Groundwater upwelling in this area creates valuable thermal refugia in the otherwise warm river system. Camping activity was compromising the function of the refugia, accelerating bank erosion, removing large wood from the river and floodplain, compacting floodplain soils, and in some cases blocking juvenile fish passage (through the construction of play dams).

With support from the Forest Service and many project partners, the project has resulted in:

- enhanced floodplain function and wildlife habitat on 72 riparian acres
- closure and restoration of 1.2 miles of road
- decompaction of floodplain soils
- protection of 2,000 feet of streambank
- designation of campsites and acceptable motorized routes and parking
- improved sanitation
- removal of vehicular access from the floodplain
- outreach to campers via educational signs and contact with rangers.

The project partners and funders include: *USDA Forest Service, RIDGE, Suncadia, The Plum Creek Foundation, The Mountaineers Foundation, The National Forest Foundation, Student Conservation Association, Washington Department of Transportation, Kittitas County Commissioners, Central Washington University, USDI Fish and Wildlife Service, Kittitas Conservation Trust, Kittitas County Conservation District, and the Washington State Department of Ecology.*

### Holmes Side Channel

Regional Fisheries Enhancement Funding supported engineering to improve passage into a pond on the Holmes side channel to the Yakima River. The passage project is now complete. The pond is used for coho acclimation as part of the Yakama Nation’s successful coho re-introduction program.

### Simmons Creek

Simmons Creek is located in the Klickitat Basin. Historic grazing and logging practices and the reduction of the abundance of beaver, have left Simmons Creek in a degraded condition and deeply incised in many locations. During historic conditions, meadows like those associated with Simmons Creek performed wetlands functions, such as slowing flood flows and recharging groundwater. The downstream system (Snyder Creek) suffers from both flashy, high winter flows and extremely low summer flows.

In the fall of 2007, a hand crew planted and built sediment capture structures in Simmons Creek with the goal of reducing down cutting, and eventually re-building the bottom of the stream channel. We constructed a number of “live check dams” out of locally collected willows. The check dams will create an area where vegetation within the stream channel slows the water velocity enough to allow sediment deposition. Once established, these structures can also prevent the upstream movement of head cutting and channel incision. As these structures mature, they should also function to increase groundwater absorption.

The crew also planted several “side gullies” with the hope of stabilizing these areas and preventing further gully formation during high flow events.

### Klickitat River Riparian Planting

Four sites along the Klickitat River were planted in March, 2008. The sites were de-compacted with a ripper and planted with a hydraulic stinger. The sites were planted with locally-collected live cuttings (black cottonwood, coyote willow, and scoulers willow) and Ponderosa pines. Extensive monitoring data was collected and will be used to analyze the effect of a number of variables on plant survival. Livestock exclusion fencing was erected at two of these sites to prevent open-range cattle from damaging the plantings.

This project augmented stinger planting completed in 1996. In total, twelve acres along the Klickitat River were planted with support from a grant from the Salmon Recovery Funding Board. The sites are primarily composed of gravel and cobble river deposits. Despite the harsh growing conditions, three-year survival data from the 2006 sites indicates successful plant establishment on these sites.



*Hydraulic stinger planting willows, 2008.*



*Site planted in 2006, Klickitat River.*

### Little Klickitat River Riparian Planting

An island between two channels of the Little Klickitat River was hand planted in the fall of 2007. The island is adjacent to a 600 feet length of river bank that was planted the previous spring. A drip irrigation system and browse protection cages were installed. Initial survival of the conifers at this site is good.

### Little Wind River Sediment Reduction

Roads along the north side of the lower end of the Little Wind River were “storm proofed” during the fall of 2007. Roads along the south side were treated in the summer of 2008. Project work focused on improving road drainage, with the goal of reducing the potential of catastrophic slope failures above the river. The project area is extremely steep. Geology students from Portland State University studied the area and reported that the entire hillside is part of a large historic landslide. Logging in the 1980s contributed to current slope failures on the site.

### Education & Outreach

This year, Mid-Columbia Fisheries helped staff the Benton Conservation District’s Salmon Summit, an event attended by 1,000 local students who learn about watershed and fisheries issues and release classroom-reared salmon into the Lower Yakima. Based on the success of this event, Mid-Columbia Fisheries helped organize a similar experience for students from eastern Skamania and western Klickitat counties. This event, dubbed the “Water Jam,” was held in May and attended by more than 200 fourth and fifth graders. The event included hands-on educational activities on watershed health, restoration, salmon life cycle, conservation and related themes.

This year, Mid-Columbia Fisheries also provided outreach to anglers in Benton and Kittitas Counties.

## Financial Summary

<u>Project Name</u>	<u>RFEG Funds</u>	<u>Volunteer Hours</u>	<u>Volunteer Value @ \$15/hr.</u>	<u>Other in-kind Donations</u>	<u>Grant Funds</u>	<u>Total Value</u>
Little Wind River Sediment Reduction		\$15	\$225		\$7,451	<b>\$7,691</b>
Little Klickitat Riparian Restoration		\$60	\$900	\$650	\$2,228	<b>\$3,838</b>
Simmons Creek Sediment Reduction				\$1,200	\$2,100	<b>\$3,300</b>
Cle Elum River Restoration & Protection					\$159,756	<b>\$159,756</b>
Klickitat River Mile 12 Riparian Restoration					\$1,312	<b>\$1,312</b>
Hemlock Dam Removal, Trout Creek Restoration (Engineering)					\$25,000	<b>\$25,000</b>
Klickitat River Riparian Restoration	\$14,151				\$22,156	<b>\$36,307</b>
Swale Creek	\$2,165			\$11,700	\$2,762	<b>\$16,627</b>
Lower Taneum Creek	\$81				\$11,211	<b>\$11,292</b>
Taneum Creek WDFW	\$4,000	\$24	\$360			<b>\$4,384</b>
Holmes Side Channel Restoration	\$1,448					<b>\$1,448</b>
Naches River Side Channel Restoration	\$1,295			\$2,000		<b>\$3,295</b>
Administration / Project Management / Travel / Insurance	\$57,361	\$96	\$1,440		\$8,250	<b>\$67,147</b>
Outreach	\$532					<b>\$532</b>
<b>Totals</b>	<b>\$81,033</b>	<b>\$195</b>	<b>\$2,925</b>	<b>\$15,550</b>	<b>\$242,226</b>	<b>\$341,929</b>

## Board of Directors

<u>Name</u>	<u>Position</u>	<u>Affiliation</u>	<u>Watershed</u>
Glenn Miller	<i>President</i>	Construction Manager, Yakima County Road Department	Yakima Basin
Doug Miller	<i>Secretary</i>	Regional Fisheries Enhancement Advisory Board; Retired - Klickitat PUD	Klickitat Basin
Mark Harvey	<i>Board Member</i>	Environmental compliance & management	Klickitat Basin
Blake Murphy	<i>Treasurer</i>	Washington Dept. of Natural Resources, White Salmon Watershed Management Committee	White Salmon Basin

## Staff

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## Contact Information

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