

# Regional Fisheries Enhancement Program

Annual Report For July 1, 2008 - June 30, 2009



"DEDICATED TO COMMUNITY-BASED SALMON

ENHANCEMENT IN WASHINGTON STATE"



Executive Summary.....	2
Regional Fisheries Enhancement Group Scientific Monitoring .....	3
Regional Fisheries Enhancement Group Advisory Board .....	4
Regional Fisheries Enhancement Group Mission and Overview .....	5
Regional Fisheries Enhancement Group Tables and Graphs .....	6
Geographical Boundries .....	7
Contact List.....	10
Project Descriptions.....	11

## **RFEG Overviews and Project Descriptions**

Region 1 - Nooksack Salmon Enhancement Group.....	12
Region 2 - Skagit Fisheries Enhancement Group .....	18
Region 3 - Stilly-Snohomish Fisheries Enhancement Task Force.....	24
Region 4 - Mid-Puget Sound Fisheries Enhancemenmt Group .....	30
Region 5 - South Puget Sound Salmon Enhancement Group .....	33
Region 6 - Hood Canal Salmon Enhancement Group.....	38
Region 7 - North Olympic Salmon Coalition .....	46
Region 8 - Pacific Coast Salmon Coalition.....	51
Region 9 - Chehalis Basin Fisheries Task Force.....	55
Region 10 - Willapa Bay Regional Fisheries Enhancement Group .....	58
Region 11 - Lower Columbia Fisheries Enhancement Group .....	60
Region 12 - Mid Columbia Fisheries Enhancement Group .....	65
Region 13 - Tri-State Steelheaders Regional Fisheries Enhancement Group .....	69
Region 14 - Upper Columbia Regional Fisheries Enhancement Group .....	72

***“DEDICATED TO COMMUNITY-BASED SALMON ENHANCEMENT IN WASHINGTON STATE”***

The Regional Fisheries Enhancement Groups are a statewide network of non-profit community-based salmon enhancement organizations. In 1990, the Washington State Legislature created the Regional Fisheries Enhancement Group Program to involve local communities, citizen volunteers and landowners in the state’s salmon recovery efforts.

The 14 Regional Fisheries Enhancement Groups (RFEGs) share the unique role of involving communities in salmon enhancement activities across the state. The RFEGs have a common goal of enhancing salmonid populations and habitat in their regions and leveraging contributions and support from local communities. The RFEGs create dynamic partnerships with local, state and federal agencies, Native American tribes, local businesses, citizen groups and landowners. Through these collaborative efforts RFEGs help lead their communities in successful enhancement, restoration, assessment, education and monitoring projects.

Each RFEG works within a specific geographic region based generally on watershed boundaries (see map on page 10). Every group is a separate, non-profit organization led by their own board of directors and supported by their members. The RFEG Advisory Board, made up of citizens appointed by the Washington Department of Fish and Wildlife (WDFW) Director, advocates for and helps coordinate the efforts of the RFEG Program.

Individual donations and in-kind contributions from local community members and businesses are essential to the success of each RFEG. While partial funding for the RFEG Program comes from a portion of commercial and recreational fishing license fees and egg and carcass sales administered by the WDFW. Individual RFEGs also obtain many grants from other government and private entities. In recent years the RFEG Program has successfully worked with U.S. Representatives and Senators to secure funding from the US Fish and Wildlife Service.

During the 2008-2009 fiscal year, the RFEGs collectively completed 127 projects ranging from education and outreach to monitoring and, of course, on the ground salmon enhancement projects. RFEG volunteers donated over 60,000 hours to these salmon enhancement efforts in 2008-09. A third of the RFEGs participated in fish production projects, releasing 2.4 million fish into local watersheds. Thirty-seven fish passage improvement projects opened 50 miles of habitat for migrating salmon. Forty-two miles of habitat was enhanced and restored for salmonids and 83,500 salmon carcasses were returned to streams to add nutrients to local watersheds for juvenile salmon, bears, eagles and over 130 other species of wildlife.

Over a 14-year history, these accomplishments add up to:

- » 2,927 total salmon projects;
- » 1,010,669 volunteer hours;
- » 66 million salmon released into Washington waters;
- » 667 fish passage problems fixed;
- » 758 miles of fish habitat opened;
- » 455 additional miles of habitat restored;
- » 808,571 fish carcasses placed back in streams for nutrient enhancement;
- » \$117 million in additional leveraged funding for salmon restoration efforts.

The RFEG program makes a special contribution to Washington’s salmon recovery efforts by:

- » leveraging local and private money;
- » promoting stewardship through volunteer involvement;
- » working cooperatively with diverse interest groups; and,
- » building on each year’s successes.

In addition to on-the-ground habitat restoration, outreach and education, Washington's Regional Fisheries Enhancement Groups (RFEGs) regularly implement scientific monitoring programs to assess salmon populations, salmon habitat, and salmon habitat restoration projects.

RFEGs use scientific protocols to measure project effectiveness, to quantify salmon populations, assess long-term impacts of projects, and analyze cost effectiveness of projects and progress.

Scientific monitoring activities currently performed by RFEGs include:

- » spawning ground surveys
- » habitat assessments
- » adult and juvenile fish counts
- » macro invertebrate surveys
- » nutrient enhancement monitoring
- » pre- and post project vegetation monitoring for riparian planting projects
- » water quality data collection and analysis
- » effectiveness of large woody debris placement and in-stream projects
- » nearshore habitat monitoring

RFEGs utilize staff, interns, volunteers, and contractors, in collaboration with the Washington State Department of Fish and Wildlife, and other agencies, to implement scientific monitoring protocols, projects, and programs.

The monitoring activities of each RFEG are presented within their respective RFEG section in this report.

## **MISSION**

The Board acts in an advisory capacity to the department in setting operational and financial policies to promote and support the Regional Fisheries Enhancement Group Program.

## **OVERVIEW**

The RFEG Advisory Board is made up of nine members. The Director of the Department of Fish and Wildlife appoints seven members, of which two represent commercial fishing interests, two represent recreational fishing interests, and three are at-large positions. At least two of the advisory board members are required to be members of a regional fisheries enhancement group. The two tribal fisheries commissions also may each nominate one board member.

The Board, at its quarterly public meetings, reviews RFEG project proposals and makes recommendations to the director for funding approval. The Board operates under a committee structure with representatives from the RFEGs and board members. These committees are:

- 1) Administration & Finance
- 2) Project Review
- 3) RFEG Representative

## **BOARD MEMBERS**

Tom Crawford, Commercial Fishing Interest – Ellensburg, WA  
Doug Fricke, Commercial Fishing Interests – Hoquiam, WA  
Brian Johnson, Recreational Fishing Interest – South Prairie, WA  
David Ladd, Recreational Fishing Interest – Redmond, WA  
Jeanne Robinson, At-Large Position – Shelton, WA  
David Mills, At-Large Position – Bremerton, WA  
Doug Miller, At-Large Position – Goldendale, WA  
Terry Wright, Northwest Indian Fisheries Commission – Olympia, WA  
Laura Gephart, Columbia River Intertribal Fish Commission – Portland, OR

## MISSION

The Washington Department of Fish and Wildlife (WDFW) provides financial and technical resources to the RFEGs to engage citizens and their communities in salmon recovery.

## OVERVIEW

The Regional Fisheries Enhancement Groups provide grassroots salmon recovery efforts. These efforts include conducting outreach and education, maintaining relationships with citizens and landowners, and building local support for salmon recovery. The groups are also invaluable project sponsors, working with landowners, volunteers, and local contractors to complete on-the-ground restoration and enhancement projects. Much of the progress and success in salmon recovery is due to local citizen-driven actions such as those conducted by the Regional Fisheries Enhancement Groups.

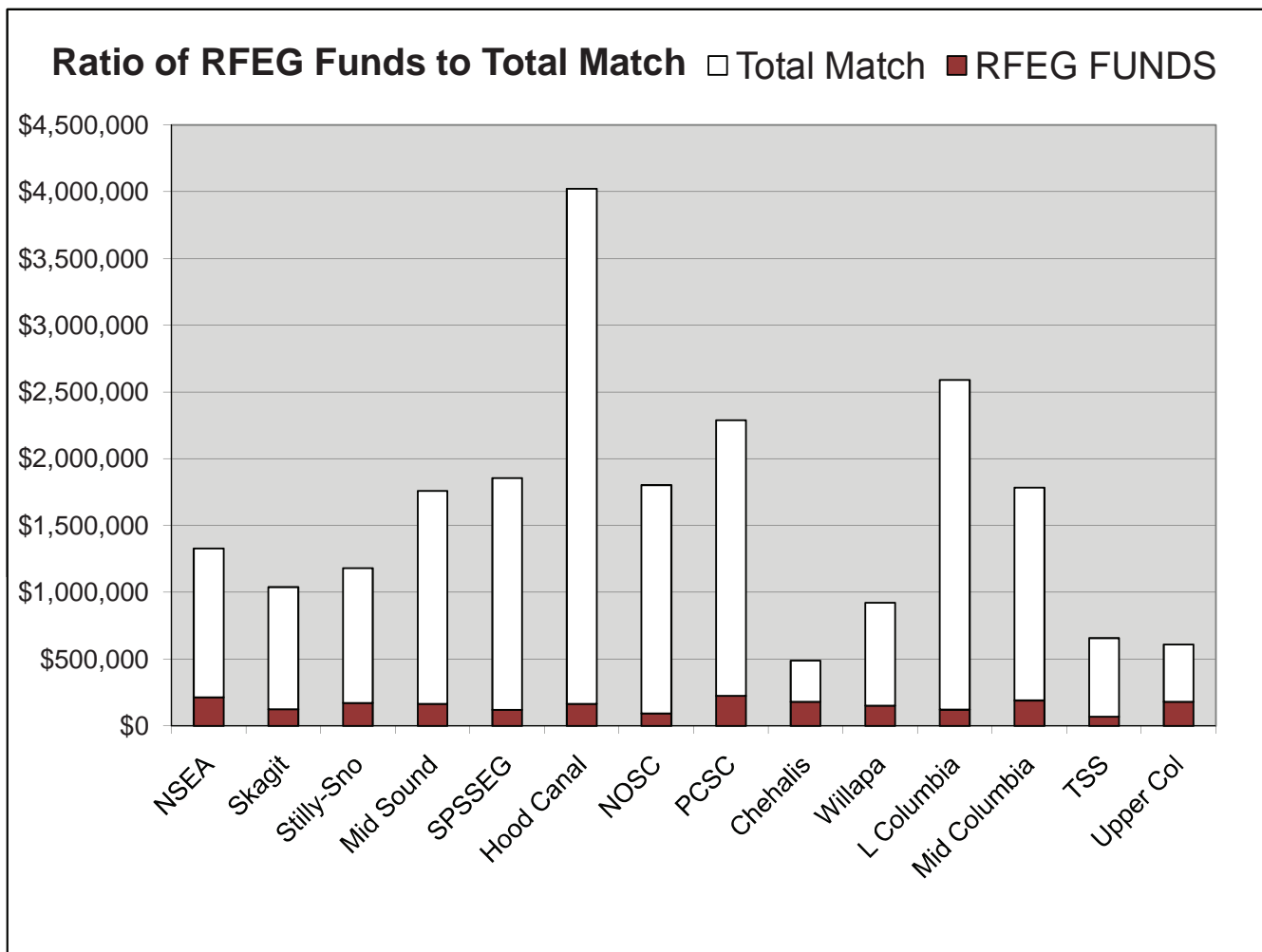
Funding for the RFEG Program comes from several sources, including a percentage of salmon license revenue (both commercial and recreational) and egg and carcass sales from state-funded hatcheries. WDFW also manages annual federal contracts granted to the RFEG Program. RFEG funds administered by WDFW are equally apportioned to the groups. In turn, the individual RFEGs utilize state and federal funding to attract tremendous local support for their work often recruiting upwards of nine or ten times their base funding in additional grants.

In addition to its fiduciary (contracting and accounting services) responsibility to the RFEG Program, WDFW reviews all RFEG project proposals to ensure compatibility with existing laws, WDFW policies, co-management, and other salmon recovery efforts conducted within a specific watershed.

Regional Fisheries Enhancement Group Program Expenditures: July 1, 2008 to June 30, 2009

Group	RFEG Funds	Volunteer Hours	Volunteer Dollars*	Funds Leveraged	Total Spent
NSEA	\$216,114	12,577	\$188,655	\$896,506	\$1,112,620
Skagit	\$125,535	6,422	\$96,323	\$691,882	\$913,740
Stilly-Sno	\$172,907	12,044	\$186,432	\$650,015	\$1,009,354
Mid Sound	\$165,590	768	\$11,520	\$1,416,491	\$1,593,601
SPSSEG	\$120,703	1,375	\$20,625	\$1,594,547	\$1,735,875
Hood Canal	\$167,168	5,560	\$83,400	\$3,603,794	\$3,854,362
NOSC	\$94,245	3,492	\$52,373	\$1,562,694	\$1,709,312
PCSC	\$224,889	2,615	\$39,695	\$1,799,681	\$2,064,265
Chehalis	\$180,970	8,682	\$120,126	\$7,200	\$308,296
Willapa	\$153,334	1,151	\$41,731	\$574,225	\$769,290
L Columbia	\$121,621	4,843	\$72,645	\$2,275,425	\$2,469,691
Mid Columbia	\$191,464	281	\$4,775	\$1,398,153	\$1,594,392
TSS	\$70,816	1,301	\$24,017	\$493,248	\$588,081
Upper Col	\$181,750	79	\$1,185	\$246,000	\$428,935
<b>Total</b>	<b>\$2,187,106</b>	<b>61,190</b>	<b>\$943,502</b>	<b>\$17,209,861</b>	<b>\$20,340,469</b>

\*Volunteer Dollars is based on an average of \$15 for each volunteer hour worked.





## **Region 1: Nooksack Salmon Enhancement Association**

Includes most of WRIA 1: The major watershed is the Nooksack River. This region also includes nearshore habitat and other watersheds located from the Canada-U.S. border south to Oyster Creek in Samish Bay and also watersheds flowing from Whatcom County to the Fraser River.

## **Region 2: Skagit Fisheries Enhancement Group**

Includes WRIAs 2, 3 and 4, and parts of 1 and 6: The major watersheds are the Skagit and Samish Rivers. This region also includes nearshore habitat and other watersheds located from Samish Bay, south of Oyster Creek, south to and including, Penn Cove on Whidbey Island, out to and including, the San Juan Islands.

## **Region 3: Stilly-Snohomish Fisheries Enhancement Task Force**

Includes WRIAs 5 and 7 and parts of 6 & 8: The major watersheds are the Stillaguamish and Snohomish Rivers. This region also includes nearshore habitat and other watersheds located; south of Penn Cove on Whidbey Island, including Camano Island; the mainland south to the Edmonds ferry dock.

## **Region 4: Mid-Sound Salmon Enhancement Group**

Includes WRIAs 8 and 9 and part of 15: The major watersheds are those entering Lake Washington and the Green/Duwamish River. This region also includes nearshore habitat and other watersheds located from the Edmonds ferry dock south to Brown's Point, across to the north side of Gig Harbor, and north around Foulweather Bluff down to the Hood Canal Bridge.

## **Region 5: South Puget Sound Salmon Enhancement Group**

Includes WRIAs 10, 11, 12, 13, 14, and parts of 15: The major watersheds are the Puyallup, Nisqually, and Deschutes Rivers. This region also includes nearshore habitat and other watersheds draining into Puget Sound south of a line between Brown's Point and the north side of the entrance to Gig Harbor.

## **Region 6: Hood Canal Salmon Enhancement Group**

Includes WRIA 16 and parts of 14, 15 and 17: Major watersheds include the Skokomish, Hamma Hamma, Duckabush, Dosewallips, and Quilcene Rivers. This region also includes nearshore habitat and other watersheds located in Hood Canal south of the Hood Canal Bridge.

## **Region 7: North Olympic Salmon Coalition**

Includes WRIAs 18 and 19 and part of 17: Major watersheds include the Dungeness, Elwha, Lyre, Pysht, Clallam, and Hoko Rivers. This region also includes nearshore habitat and other watersheds located north and west of the Hood Canal Bridge, to Cape Flattery.

## **Region 8: Pacific Coast Salmon Coalition**

Includes WRIAs 20 and 21: Major watersheds include the Sooes, Ozette, Quillayute, Hoh, Queets, and Quinault Rivers. This region also includes nearshore habitat and other watersheds entering directly into the Pacific Ocean between Cape Flattery and the north side of Grays Harbor.

## **Region 9: Chehalis Basin Fisheries Task Force**

Includes WRIAs 22 and 23: Major watersheds include the Humptulips, Hoquiam, Wishkah, Johns and Chehalis Rivers. This region also includes nearshore habitat within, and other watersheds flowing into Grays Harbor.

## **Region 10: Willapa Bay Regional Fisheries Enhancement Group**

Includes most of WRIA 24: Major watersheds include the North, Willapa, Palix, Nemah, Bear, Long Island and Naselle Rivers. This region also includes nearshore habitat within, and other watersheds flowing into Willapa Bay.

## **Region 11: Lower Columbia Fish Enhancement Group**

Includes WRIAs 25, 26, 27 and 28 and parts of 24 and 29: Major watersheds include the Chinook, Grays, Elochoman, Cowlitz, Kalama, Lewis, and Washougal Rivers. This region also includes Columbia River habitat and other watersheds entering the Washington side of the Columbia River below Bonneville Dam.

## **Region 12: Mid-Columbia Regional Fisheries Enhancement Group**

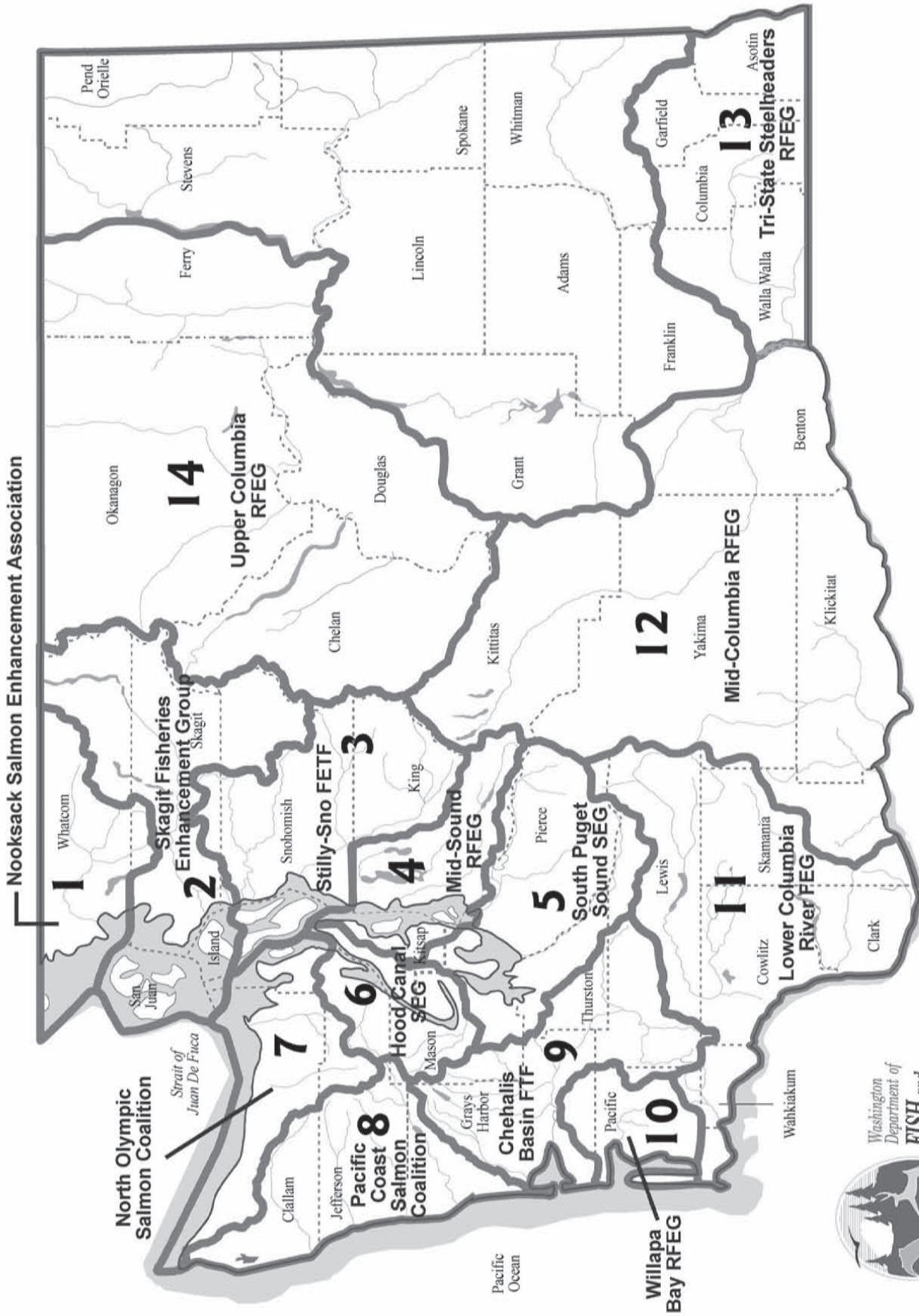
Includes WRIAs 30, 31, 37, 38, 39 and 40 and most of 29: Major watersheds include the Little White Salmon, White Salmon, Wind, Yakima, and Klickitat Rivers. This region also includes Columbia River habitat and other watersheds entering the Columbia River from the north and west above Bonneville Dam, up to Rock Island Dam.

## **Region 13: Tri-State Steelheaders Regional Fisheries Enhancement Group**

Includes WRIAs 32, 33 and 35 and parts of 34 and 36: Major watersheds include the Snake and Walla Walla Rivers. This region also includes Columbia River habitat and other watersheds entering the Columbia River from the east between McNary Dam and the Interstate 182 Bridge at Richland.

## **Region 14: Upper Columbia Fisheries Enhancement Group**

Includes WRIAs 44, 45, 46, 47, 48, 49, 50, 51 and 52: Major watersheds include the Wenatchee, Entiat, Methow, Okanogan and San Poil Rivers. This region also includes Columbia River habitat and other watersheds entering the Columbia River above Rock Island Dam up to and including the San Poil watershed.



Regional Fisheries Enhancement Group Boundaries



**Nooksack Salmon Enhancement Association**

2445 East Bakerview Road  
Bellingham, WA 98226  
Phone: 360-715-0283  
Fax: 360-715-0282  
Website: [www.n-sea.org](http://www.n-sea.org)  
Email: [info@n-sea.org](mailto:info@n-sea.org)

**Skagit Fisheries Enhancement Group**

P.O. Box 2497 – 407 Main Street, Suite 212  
Mount Vernon, WA 98273  
Phone: 360-336-0172  
Fax: 360-336-0701  
Website: [www.skagitfisheries.org](http://www.skagitfisheries.org)  
Email: [sfeg@skagitfisheries.org](mailto:sfeg@skagitfisheries.org)

**Stilly-Snohomish Fisheries Enhancement Task Force**

P.O. Box 5006  
Everett WA 98206  
Phone: 425-252-6686  
Fax: 425-252-6686  
Website: [www.stillysnofish.org](http://www.stillysnofish.org)  
Email: [info@stillysnofish.org](mailto:info@stillysnofish.org)

**Mid-Sound Fisheries Enhancement Group**

7400 Sand Point Way NE, Suite 202 North  
Seattle, WA 98115  
Phone: 206-529-9467  
Fax: 206-529-9468  
Website: [www.midsoundfisheries.org](http://www.midsoundfisheries.org)

**South Puget Sound Salmon Enhancement Group**

6700 Martin Way East Suite 112  
Olympia, WA 98516  
Phone: 360-412-0808  
Fax: 360-412-0809  
Website: [www.spsseg.org](http://www.spsseg.org)  
Email: [spsseg@spsseg.org](mailto:spsseg@spsseg.org)

**Hood Canal Salmon Enhancement Group**

22881 NE State Route 3, P.O. Box 2169  
Belfair, WA 98528  
Phone: 360-275-3575  
Fax: 360-275-0648  
Website: [www.hcseg.org](http://www.hcseg.org)  
Email: [hcseg@hcseg.org](mailto:hcseg@hcseg.org)

**North Olympic Salmon Coalition**

P.O. Box 699  
Port Townsend WA 98368  
Phone: 360 379-8051  
Website: [www.nosc.org](http://www.nosc.org)  
Email: [rbenjamin@nosc.org](mailto:rbenjamin@nosc.org)

**Pacific Coast Salmon Coalition**

P.O. Box 2527  
Forks, WA 98331  
Phone: 360-374-8873  
Fax: 978-359-0478  
Website: [www.cohosalmon.com](http://www.cohosalmon.com)  
Email: [pacsac@olyphen.com](mailto:pacsac@olyphen.com)

**Chehalis Basin Fisheries Task Force**

115 S Wooding Street  
Aberdeen, WA 98520  
Phone: 360-533-1766  
Fax: 360-533-1766  
Website: <http://www.cbfff.com>  
Email: [cbfff@reachone.com](mailto:cbfff@reachone.com)

**Willapa Bay Regional Fisheries Enhancement Group**

P.O. Box 46  
South Bend, WA 98586  
Phone: 360-875-6402  
Fax: 360-875-5802  
Website: [www.wbfeg.com](http://www.wbfeg.com)  
Email: [rcraig@willapabay.org](mailto:rcraig@willapabay.org)

**Lower Columbia Fisheries Enhancement Group**

12404 SE Evergreen Highway  
Vancouver, WA 98683  
Phone: 360-882-6671  
Website: [www.lcfeg.org](http://www.lcfeg.org)  
Email: [info@lcfeg.org](mailto:info@lcfeg.org)

**Mid-Columbia Regional Fisheries Enhancement Group**

P.O. Box 1271  
White Salmon, WA 98672  
Phone: 509-281-1322  
Website: [www.midcolumbiariefeg.com](http://www.midcolumbiariefeg.com)  
Email: [fish@midcolumbiariefeg.com](mailto:fish@midcolumbiariefeg.com)

**Tri-State Steelheaders Regional Fisheries Enhancement Group**

216 N. Roosevelt  
P.O. Box 1375  
Walla Walla, WA 99362  
Phone: 509-529-3543  
Fax: 509-529-3543  
E-mail: [info@tristatesteelheaders.com](mailto:info@tristatesteelheaders.com)

**Upper Columbia Regional Fisheries Enhancement Group**

P.O. Box 932  
Oroville, WA 98844  
Phone: 509-476-3444  
Fax: 509-476-2883  
Website: [www.ucrfeg.org](http://www.ucrfeg.org)  
Email: [info@ucrfeg.org](mailto:info@ucrfeg.org)

Region 1 - Nooksack Salmon Enhancement Group.....	pages 12-17
Region 2 - Skagit Fisheries Enhancement Group .....	pages 18-23
Region 3 - Stilly-Snohomish Fisheries Enhancement Task Force.....	pages 24-29
Region 4 - Mid-Puget Sound Fisheries Enhancemenmt Group .....	pages 30-32
Region 5 - South Puget Sound Salmon Enhancement Group .....	pages 33-37
Region 6 - Hood Canal Salmon Enhancement Group.....	pages 38-45
Region 7 - North Olympic Salmon Coalition .....	pages 46-50
Region 8 - Pacific Coast Salmon Coalition.....	pages 51-54
Region 9 - Chehalis Basin Fisheries Task Force.....	pages 55-57
Region 10 - Willapa Bay Regional Fisheries Enhancement Group .....	pages 58-59
Region 11 - Lower Columbia Fisheries Enhancement Group .....	pages 60-64
Region 12 - Mid Columbia Fisheries Enhancement Group .....	pages 65-68
Region 13 - Tri-State Steelheaders Regional Fisheries Enhancement Group .....	pages 68-71
Region 14 - Upper Columbia Regional Fisheries Enhancement Group.....	pages 72-73

### **MISSION STATEMENT**

The Nooksack Salmon Enhancement Association is a community-based nonprofit organization dedicated to restoring sustainable wild salmon runs in Whatcom County.

### **RFEG OVERVIEW**

Established in 1990, Nooksack Salmon Enhancement Association (NSEA) works cooperatively with landowners, agencies, tribes, businesses, service organizations, students, schools, and community volunteers in order to increase involvement in community-based salmon recovery projects.

NSEA works cooperatively with private landowners, public agencies, tribes, local businesses, service organizations, students, schools, and community volunteers in order to increase the awareness of, support for, and involvement in salmon restoration and education. The NSEA Board of Directors meets monthly, using a Strategic Plan to implement projects and programs and address goals. NSEA's Board and staff manage operations and the fiduciary responsibilities of over 50 grants and contracts and an annual budget of over \$1 million.

### **PROJECT HIGHLIGHTS** See Table 1

**Riparian Restoration:** NSEA implemented 15 salmon habitat riparian restoration projects on 5,800 linear feet of stream.

**Fish Passage Projects:** NSEA designed, permitted, and implemented 7 fish passage barrier removals in 2009 which opened or improved access to over 5.8 miles of stream.

**Habitat Improvements:** NSEA placed 51 LWD structures to improve habitat complexity along 9,700 feet of stream in 2009.

**Maintenance:** NSEA maintained over 30 previously planted sites on approximately 18,000 linear feet of stream channel.

### **NSEA PROGRAM HIGHLIGHTS**

#### **NSEA Education Programs: Totals**

57 classes located in 22 different schools throughout Whatcom County participated in education programs in 2009. Just over 1,200 students participated in classroom and field activities and learned about salmon, salmon habitat and also planted trees for restoration projects.

#### **Students for Salmon: Elementary Education Program**

NSEA's elementary *Students for Salmon* program grows steadily each year, reaching 1,023 from 42 classes in 2009. Students spent a total of 12,120 hours studying salmon and watershed science both in the classroom and out in the field with the guidance of NSEA educators. SFS students volunteered 511 hours and planted 233 native trees on degraded stream sites to help restore habitat for salmon!



#### **Streamside Science: High School Program**

In 2009, NSEA worked with 117 high school students from Squalicum, and Bellingham High Schools. Students met at NSEA for six Saturdays and spent over 400 hours learning about salmon and stream ecology, water quality, macroinvertebrates and the Squalicum Creek Watershed. Additionally, students applied their knowledge by designing and implementing a riparian restoration project on Squalicum Creek.

#### **Swimming Upstream: NSEA's Newest Education Program**

In 2009, NSEA continued the *Swimming Upstream Program* to help reach underserved high school youth throughout Whatcom County with meaningful science and stewardship activities. This year, *Swimming Upstream Curriculum* became available on-line at <http://www.n-sea.org/index.cfm?do=page&pageID=3947>. SUP includes a fly fishing component that deepens awareness and appreciation for our local watershed ecosystem through recreation. In 2009, SUP participants included: Timber Ridge High School, Ferndale High School, and Squalicum High School. Through the program, a total of 261 students devoted 982 hours to learning about salmon and streams, in addition to helping improve streamside salmon habitat through invasive species removal and riparian re-vegetation.

### Nooksack Salmon Enhancement Association

#### **Windward High School Stormwater Monitoring:**

In 2009 NSEA worked with Windward High School (WHS) and the City of Ferndale (COF) to involve local high school students in the Stormwater Monitoring Plan for the City of Ferndale. They continue to implement a bi-weekly monitoring schedule. Students are currently compiling their water quality data and using their newfound watershed expertise to create a Schell Creek State of the Watershed Report for public distribution in 2010.



**Windward High School junior, Erin Weisenhorn, takes a fecal coli form sample at Schell Ditch off Main Street in Ferndale**

Alongside collecting water quality data to help the City better manage the Ferndale Watershed, Windward students also contributed to stream habitat restoration throughout the Ferndale Watershed. In 2009 students removed invasive Himalayan blackberries from Schell Creek and began re-vegetating a site on Deer Creek with native trees and shrubs. By combining science with service, Windward's Stormwater Monitoring program has cultivated a powerful sense of stewardship the Ferndale community.

#### **Liam Wood Flyfishers and River Guardians:**

For the sixth summer, students and community members in Whatcom and Skagit counties were able to participate in two sessions of the *Art, Science and Ethics of Flyfishing* course, offered through Huxley College at Western Washington University (WWU). This 3 credit upper-division environmental science class is a program of the Liam Wood Flyfishers and River Guardians and is implemented by WWU in partnership with NSEA. Huxley College professor and department chair Dr. Leo Bodensteiner focuses this hands-on course on stream ecology concepts and uses flyfishing as a window into the structure, function, and

restoration of river ecosystems and human interaction with these systems. Labs and field trips teach students about fish species and macroinvertebrates while community volunteers from the Fourth Corner Fly fishers club instruct students during casting practice and fly tying sessions. NSEA staff members act as guest lecturers throughout the course and speak on ethics and stewardship issues, as well as the restoration goals for the Nooksack River Basin.

#### **Higher Education: College Programs**

NSEA provided service learning experience, volunteer opportunities, and internships for students from Whatcom County Colleges including: Northwest Indian College (NWIC), Western Washington University (WWU), Bellingham Technical College (BTC), and Whatcom Community College (WCC).

Service Learning projects are designed to enhance academic learning through relevant and meaningful service within the community. NSEA works the Service Learning Advisory Committee for NWIC, and with WWU's Center for Service Learning. NSEA staff makes presentations to the classes and students from WWU, NWIC and WCC completed projects ranging from riparian restoration to implementing a fundraising silent auction.



NSEA also offers students volunteer opportunities and internships, providing students with valuable experience. Some of these projects included BTC students assisting with scientific monitoring programs, and WWU Huxley students leading Students for Salmon lessons.

#### **Adult and Community Education and Involvement:**

2009 was a great year to volunteer; and nearly 1,200 people chose to spend their free time volunteering for NSEA at community work parties; planting thousands of native trees and shrubs and restoring thousands of feet of streamside habitat. During the course of these work parties nearly local citizens devoted 3,540 hours to habitat restoration projects within their community and

### Nooksack Salmon Enhancement Association

their local watersheds. Community work parties took place on the Black Slough, Connelly Creek, Padden Creek, Scott Creek, Squalicum Creek, Ten Mile Creek, Terrell Creek, Tinling Creek, Whatcom Creek, and at the NSEA Native Plant Nursery.

#### **River Stewards:**

NSEA renewed its' partnership with the United States Forest Service (USFS) Mount Baker Ranger District to implement the fifth year of the award-winning Nooksack River Stewards Program in 2009. This program is a collaboration designed to provide salmon-focused environmental educational opportunities to recreational users of the Nooksack River. The 2009 River Stewards team consisted of one NSEA staff member and eight interns; five from Western Washington University, one from Whatcom Community College, one from the University of Texas in Austin, and community member. River Stewards are recruited and trained at the beginning of the summer recreation season and maintain a strong presence in the North Fork Nooksack Basin throughout the summer; operating out of a field base at the USFS Public Service Center in Glacier, WA. River Stewards promote stewardship and provide information about native wild fish and their habitat requirements to people visiting the river; including giving presentations to commercial white water rafting groups, campground guests, fishermen, and other recreationists. More than 2,300 contacts were made with the public and 65 presentations were given. Volunteer interns and Glacier community members contributed more than 800 hours to the program.

#### **Birch Bay State Park Interpretive Programs:**

In the summer of 2009 NSEA Naturalists once again provided campers and visitors to Birch Bay State Park with 10 *Wild About Salmon* interpretive campfire talks and stream walks focusing on salmon and stream ecology, the Terrell Creek watershed, and environmental stewardship.

#### **Monitoring Water Quality:**

Volunteer student interns from Western Washington University monitored water quality at seven sites in Terrell Creek through June of 2009. This water quality monitoring project came to an end after collecting 5 years of data on stream flow, fecal coliform bacteria levels, temperature, dissolved oxygen (DO), pH, conductivity, salinity, and turbidity. This data has been analyzed and put into a report recommending Terrell Creek for more extensive water quality monitoring in the future and for consideration by the Department of Ecology (DOE) for 303(d) listing as an impaired water body. Many temperature, DO, and fecal coliforms levels recorded over the years were outside of the DOE's preferred range of water quality standards for healthy stream ecosystems.

#### **Spawner Surveys:**

Under the direction of the Washington Department of Fish and Wildlife (WDFW), NSEA conducted its tenth year of spawning grounds surveys for late-run Chinook salmon, coho salmon, and chum salmon in 13 streams in the Nooksack River Basin. Additional surveys were conducted on Schell Creek (a tributary to the Lummi River), Terrell Creek (an independent drainage of

the Strait of Georgia), and on four streams (independent drainages) within the city limits of Bellingham – Chuckanut, Padden, Squalicum, and Whatcom creeks. Surveys were conducted from September 2009 through January 2010. Late-run pink salmon were also found in Fishtrap, Squalicum, and Whatcom creeks and a small number of Kokanee were observed spawning in Padden Creek.

Spawning grounds surveys are implemented by NSEA to provide data to the fisheries co-managers of the Nooksack River Basin (the Lummi Nation, the Nooksack Indian Tribe, and WDFW). Survey data is used to help measure pre- and post-rehabilitation success in areas where riparian restoration projects are planned or located. The survey results also provide insight into the health of Nooksack River Chinook salmon, coho salmon, and chum salmon populations over time. This year's spawning season was characterized by a relatively dry early fall and periodic heavy rains in November and early December, followed by a cold snap in mid December, which froze several creeks and made surveys difficult during that period of time. Overall, the spawning ground survey season was a success and many thanks are owed to the seven dedicated volunteers who made it all possible.





## Nooksack Salmon Enhancement Association

**NSEA 2009 Project Schedule**

Creek	Landowner	Project
Anderson	Graham	Replace ford with bridge
Bertrand	Clark	Maintain riparian planting
Bertrand	Francisco	Maintain riparian planting
Bertrand	Loop	Maintain riparian planting
Bertrand	Zylstra	Replace barrier culvert
Black Slough	Anderson	Daylight channel / LWD placement
Deer	Bouma	Maintain riparian planting
Deer	Larson	Maintain riparian planting
Fishtrap	Gish	LWD placement
Fishtrap	Dickenson	LWD placement
Fishtrap	Multiple	Plant and maintain past riparian planting
Fishtrap	Smith	Maintain riparian planting
Hardscrabble	ELT	Repair bridge, regrade upstream channel
Landingstrip	Whatcom Land Trust	Remove barrier culvert, modify 3000 feet of channel and place LWD
Landingstrip trib	Chivers	Maintain riparian planting
Landingstrip trib	Ohern	Remove excess sediment
Landingstrip trib	Smith	Remove excess sediment
Macauley	Heath	Channel modification / LWD placement
McCarty	Patz / Gates	Channel modification / LWD placement
Middle Fork	WDNR	Install 6 LWD structures
Nooksack Mainstem	Barrar	Install 11 LWD structures
Nooksack Mainstem	Maricle	Install 2 LWD structures
North Fork	Multiple	Install 11 LWD structures
Power	Dalgren	Maintain riparian planting
Scott Ditch	Hoksbergen	Plant and maintain past riparian planting
Silver Springs	Sundstrom	Maintain riparian planting
Silver Springs	Vreiling	Maintain riparian planting
Silver Springs	Wilson	Maintain riparian planting
Silver Springs	Yeakel	Maintain riparian planting
Squalicum	Sanders	Culvert replacement
Squalicum	Thomas	Culvert replacement
Tenmile	Stone	Remove barrier culvert
Terrell	BP CPR	Plant and maintain past riparian planting
Terrell	Butler	Plant and maintain past riparian planting
Tinling	Stavik	LWD placement and planting
Toss	Jack Little	Remove 2 culverts



**PROJECT EXPENDITURES**

Project Name	RFEG Funds	#Volunteer Hours	Volunteers @ \$15.00/hr	Other Funds	TOTAL
Alcoa Foundation - Environmental Interns				\$14,695	\$14,695
ALEA - Water Quality Monitoring		87	\$1,305	\$4,276	\$5,581
ALEA - Support of Students for Salmon				\$5,974	\$5,974
ALEA - Habitat Restoration Materials				\$58,735	\$58,735
ALEA - Fish Monitoring		1,232	\$18,480	\$7,840	\$26,320
ALEA - WRIA 1 Fish Passage Project				\$13,160	\$13,160
Bellingham Cold Storage				\$488	\$488
Birch Bay State Park - Education/Presentations				\$650	\$650
BP Cherry Point Refinery - Support for Terrell Creek				\$22,755	\$22,755
BP Cherry Point Refinery - Students for Salmon		511	\$7,665	\$33,670	\$41,846
Caitac - Developmental Support					0
City of Ferndale - Water Quality Monitoring				\$2,112	\$2,112
Conoco/Phillips - Middle School Service Learning				\$780	\$780
DOE CCW- Squalicum Creek				\$2,306	\$2,306
DOE CCW - South Fork Trib Riparian Restoration		540	\$8,100	\$17,531	\$26,171
DOE CCW - Fistrap Creek		1,200	\$18,000		\$19,200
DOT - Terrell Creek Buffer Mitigation				\$10,627	\$10,627
Flyfishing Program - Brabec/Robinson				\$13,023	\$13,023
Lummi Indian Business Council				\$7,888	\$7,888
Miscellaneous Habitat Restoration Materials				\$10,736	\$10,736
Mountaineers - Stream Stewards				\$1,089	\$1,089
NFWF - Community Salmon Fund		900	\$13,500	\$43,716	\$58,116
NFWF - Pioneers in Conservation		810	\$12,150	\$32,844	\$45,804
Nooksack Recovery Team Support		90	\$1,350	\$5,579	\$7,019
NRCS - Wildlife Habitat Incentive Programs		360	\$5,400	\$47,700	\$53,460
Puget SoundKeepers Alliance		120	\$1,800	\$19,279	\$21,199
RESources				\$4,602	\$4,602
SRFB - Family Forest Fish Passage		180	\$2,700	\$199,780	\$202,660
USFS - Nooksack River Stewards		798	\$11,970	\$7,771	\$19,741
USFWS- Partners for Fish & Wildlife		300	\$4,500	\$22,267	\$27,067
WA State Parks & Recreation - No Child Left Inside				\$24,140	\$24,140
Whatcom Community Foundation				\$23,748	\$23,748
Whatcom County Public Works				\$1,955	\$1,955
WDFW Landowner Incentive Program		240	\$3,600	\$18,500	\$22,340
WDFW- RFEG Funds - Administration	\$96,753	594	\$8,910		\$105,663
WDFW- RFEG Funds - Ed, Volunteer, Monitoring	\$78,476	8,265	\$123,975		\$202,451
WDFW- RFEG Funds - Habitat Restoration - Generic	\$40,885	6,000	\$90,000		\$130,885
Yamato Engines Fine Recovery - Streamside Science Ed.				\$3,384	\$3,384
Cash Donations				\$125,023	\$125,023
Donated Services				\$6,250	\$6,250
<b>TOTAL</b>	<b>\$216,114</b>	<b>22,227</b>	<b>\$333,405</b>	<b>\$814,873</b>	<b>\$1,369,643</b>

Nooksack Salmon Enhancement Association

**BOARD OF DIRECTORS**

President: Philip Humphries, Retired Boeing Engineer/Marketing Analyst  
Vice-President: Analiese Burns, Biologist/ Landscaper Designer, Common Ground Environmental  
Treasurer: Russ Wilson, Partner, Certified Public Account, Moss-Adams  
Secretary: Dr. David Beatty, Professor of Zoology (Retired) University of Alberta  
Gregg Dunphy, Fisheries Biologist, Lummi Natural Resources, Lummi Nation  
Ken Carrasco, Marine Biologist, (Retired)  
Jeremy Brown, Commercial Fisherman  
Brady Green, Aquatic Biologist Environmental Consultant, DB Green Environmental Consulting  
Phelps McIlvaine, Principal, Saturna Capital  
Bret Simmons, Attorney at Law, Roy and Simmons  
Don Hunger, Senior Director for Partnership Development, Student Conservation Association  
Russ Casteel, Seafood Buyer, Haggen Inc.  
Stan Smith, Retired Engineer  
Leif Embertson, River Engineer, GeoEngineers  
John Thompson, VP Communications, Western Washington University  
Lauren Bell, Student on Board, MBA Candidate Western Washington University  
Selina Doran, Student on Board, Bellingham High School  
Madeline Eckmann, Student on Board, Western Washington University  
Dr. Michael McRory, Honorary Board Member, Retired Dentist

**NSEA STAFF**

Executive Director: Rachel Vasak  
Project Manager: Darrell Gray  
Finance Manager: Molly DePope  
Education Coordinator: Kerry McManus  
Volunteer Coordinator: Lindsay Taylor

**Stream Restoration Technicians**

Dave Barker, John Hymas

**Washington Conservation Corps/AmeriCorps placements**

Crew Supervisors: Justin Lamb  
2008-2009 Washington Conservation Corps Crewmembers: Tiffany Coleman, Graham Foster, Michael Garl, Greg Horch, Kara Kuhlman, Ryan Janke,  
2009-2010 Washington Conservation Corps Crewmembers: Erica Bachiniski, Taylor Currier, Jonathan Downey, Deborah Molsberry, Andrew Ryznar  
2008-2009 Washington Service Corps AmeriCorps Placements: Teresa Fish, Nate Lundgren  
2009-2010 Washington Service Corps AmeriCorps Placements: Eleanor Hines, Gwendolyn DuVall



**CONTACT INFORMATION**

Nooksack Salmon Enhancement Association  
2445 East Bakerview Road, Bellingham, WA 98226  
Phone: 360-715-0283 Fax: 360-715-0282  
Web site: [www.n-sea.org](http://www.n-sea.org) Email: [info@n-sea.org](mailto:info@n-sea.org)

Skagit Fisheries Enhancement Group

**MISSION STATEMENT**

The mission of the Skagit Fisheries Enhancement Group is to build partnerships that educate and engage our community in habitat restoration and watershed stewardship opportunities in order to enhance salmonid populations.

**RFEG OVERVIEW**

The Skagit Fisheries Enhancement Group is proud to present its accomplishments from another great year of salmon habitat restoration and stewardship projects in the Skagit Watershed. These accomplishments would not be possible without our volunteers, members, private landowners, and incredible partnerships that exist in the Skagit Valley. From the federal land managers that protect the upper watershed to the small nonprofits working to educate bay side homeowners, it takes all of us working tirelessly together to engage our community in restoring wild salmon populations for future generations.



We are very fortunate to work in a watershed where so many individuals and organizations are dedicated to protecting and preserving this incredibly special landscape we all call home. It is this passion found throughout our community that helps us come closer each year to achieving our mission of restoring wild salmonid populations. In 2005 we updated our three-year Strategic Plan with new goals and objectives related to accomplishing our mission. The revision to our Strategic Plan was primarily done to incorporate the new concept of Focal Areas into our planning process. Upon reviewing the results of this three-year plan, we are proud to report that we have completely integrated the Focal Area concept into all that we do and have shown great successes in these geographic areas. We are especially proud of the fact that we met and exceeded the habitat restoration goals included in this plan and are doing more

projects specifically targeting the recovery of threatened salmon species such as Chinook. Our Junior Stream Stewards middle school program which began as a pilot program for one school in 2006 is now engaging over 350 students in four school districts covering all of our Focal Areas. Targeting outreach programs to communities in Focal Areas has resulted in greater volunteer involvement and participation from those living in the areas. Community members who live in Focal Areas are volunteering more and more for restoration and stewardship projects.

We are thrilled to have exceeded our own expectations over the last three years and look forward to the upcoming challenges that face us to achieve the new goals we have set for the next three years. If you are reading this Annual Report, you are most likely one of the many people that helped make the accomplishments of 2005-2008 possible. We thank you for your generous contribution towards making the Skagit Watershed a healthy and beautiful place for all humans and critters to live and hope you will continue to be involved in stewardship actions that leave a lasting legacy for future generations.

**PROJECT HIGHLIGHTS**

**Restoration and Education Highlights**

**ESTUARY AND NEARSHORE**

**Thatcher Bay**

Thatcher Bay is located on the southwest side of Blakely Island in the San Juan Islands. A Feasibility Report was completed for assessing the impact of wood waste deposited by an old saw mill in the nearshore environment. New grant funds were received to prepare final designs and permits for removing the wood waste to improve habitat for forage fish important to salmonids.

**Deepwater Slough**

A partnership with the WDFW and the Skagit River System Co-operative continued to restore native vegetation to the estuary restoration project at Deepwater Slough along Skagit Bay, where dikes were removed in 2000 to reestablish valuable estuary habitat.

<b>Summary of Accomplishments</b>		
<b>Habitat Enhancement:</b>	Riparian plantings	3.5 miles
	Riparian maintenance	160 acres
	Riparian fencing installed	1,150 feet
	Instream habitat improved	2 miles
	Isolated habitat reconnected	0.3 miles
	Nutrient enhancement	2,500 carcasses
<b>Community Outreach:</b>	Community education	6,820 people
	Volunteer involvement	6,422 hours

## Skagit Fisheries Enhancement Group

### Junior Stream Stewards

Seventh graders from Conway School were some of the 350 students participating this year in SFEG's unique watershed education program designed to teach kids about the salmon habitat near their schools and homes. Conway students are learning and exploring the Bulson Creek, Fisher Slough and Skagit Estuary habitats through classroom activities, field tours and water quality studies. Their learning will culminate in designing a service learning project that benefits salmon in these watersheds.

### Dry Slough Monitoring

The Skagit Conservation District contracted SFEG to monitor the presence of juvenile salmonid species in Dry Slough along Skagit Bay as part of baseline monitoring for future restoration work of this important estuary habitat.

## **NOOKACHAMPS WATERSHED**

### Restoration

A 3 year Centennial Clean Water Fund Grant from the Department of Ecology was completed to improve water quality in the Nookachamps watershed. Riparian restoration, fencing and large woody debris projects were implemented to have an impact on reducing temperature in this important lower Skagit tributary stream.

### Outreach

Educational outreach continued in the Nookachamps Watershed with DOE grant funds. A watershed tour was held to familiarize residents with the watershed and a *Salmon Friendly Gardener* brochure was created and distributed to households in this urbanizing watershed. Multiple classroom presentations and service learning projects were offered to local students to get them out of their classroom doing hands-on learning.

## **DAY CREEK COMMUNITY WATERSHED**

### Day Creek Restoration

New grants from the Department of Ecology and the Salmon Recovery Funding Board are being used to plan large woody debris and riparian enhancement projects with local landowners for Lower Day Creek. Approximately one mile of stream and 10 acres of riparian area will benefit.

### Ross Island Slough Restoration

A partnership with NRCS and Seattle City Light is restoring riparian areas on over 150 acres of land permanently protected around Anderson Creek, Gilligan Creek and Ross Island Slough.

### Iron Mountain Ranch Habitat Enhancement

A partnership with Seattle City Light is protecting and restoring 2 miles of riparian habitat along the Skagit River. This property is adjacent to prime Chinook and steelhead spawning habitat. The

Skagit Land Trust holds the conservation easement for City Light and a local farmer continues to lease land that is currently not being restored. New fences have been built to exclude livestock from large riparian areas and at least 48 acres has been revegetated with native plants by volunteers and staff.

### Outreach and Education

New outreach efforts are being planned with new grant dollars from the Department of Ecology for the Day Creek Community Watershed for 2009 and beyond.

## **FINNEY CREEK WATERSHED**

### Habitat Restoration

28 new log jams were installed over a 1.6 mile reach in Lower Finney Creek on Hampton Timber property. To date SFEG's partnership with the Forest Service, National Park Service and private timber companies has enhanced over 7.6 miles of Upper and Lower Finney Creek through the addition of large woody debris since 1999.



### Outreach and Education

Community outreach was conducted through field tours, workshops, monitoring and the production of a new brochure that highlights the restoration work occurring on Finney Creek through this unique partnership since 1999.

## **MIDDLE SKAGIT WATERSHED**

### Elysian Meadows Riparian Restoration

Private property owners have protected 112 acres along the Skagit River through a perpetual conservation easement held by the Skagit Land Trust. SFEG is working with the landowners to restore native vegetation on about 8 acres of floodplain property along the edge of the dedicated agricultural zone.

### Junior Stream Stewards

Seventh graders at Cascade Middle School in Sedro Woolley were some of the 350 students in four school districts participating this year in SFEG's unique watershed education program designed to teach kids about the salmon habitat near their

### Skagit Fisheries Enhancement Group

schools and homes. Cascade students are learning about and exploring the Brickyard Creek and Middle Skagit River habitats through classroom activities, field tours and water quality studies. Their learning will culminate in designing a service learning project that benefits salmon in these watersheds.

#### Hansen Creek Riparian Restoration

Skagit County Parks Department contracted SFEG to restore the riparian area of lower Hansen Creek as part of a CREP project adjacent to large woody debris restoration. Approximately 12 acres were prepared for plantings in 2009.

### UPPER SKAGIT WATERSHED

#### Jackman Creek

The Nature Conservancy partnered with SFEG to mobilize volunteers to restore riparian area on a property recently purchased for its salmon conservation values at the mouth of Jackman Creek. Approximately 5 acres of the 26 acre property are being treated for invasive species and planting of native species. An Earth Day work party completed half of the planned riparian restoration. Funds are provided through the NFWF's Community Salmon Fund.



#### Cascade River

SFEG is working with land conservation partners to restore riparian areas along two protected sites on the Cascade River. The Nature Conservancy recently purchased 112 acres on the south bank of the Cascade River where SFEG is removing invasive species and engaging volunteers in revegetating the areas with native species. The second site is owned by the Forest Service near the mouth of the Cascade River and includes the Marblemount Boat Launch along the Skagit River. Here SFEG is using a grant from the Salmon Recovery Funding Board to continue riparian restoration efforts which were initiated by the Forest Service a number of years ago.

#### Sauk River

A partnership with the Forest Service is working to restore the riparian area of a floodplain site purchased for conservation purposes along the west side of the Sauk River near its confluence with the Skagit River. Invasive plants were removed over several acres and hundreds of new native plants were installed. SFEG is using a grant from the Salmon Recovery Funding Board to augment riparian restoration efforts initiated by the Forest Service some time ago.

#### Hobbit Creek

Hobbit Creek flows through this floodplain site owned by The Nature Conservancy before entering the Sauk River. The Nature Conservancy contracted SFEG to completely remove 150 feet of road and the perched culverts associated with this road to provide fish passage to Hobbit Creek upstream of this unused road. This project opened 1/3 mile of habitat for steelhead, coho salmon, and cutthroat trout. SFEG is pursuing the correction of several other known fish passage barriers upstream of this one.

#### Ovenell Slough

The Ovenell Slough site is located on the south side of the Skagit River across from Jackman Creek. This large floodplain property was purchased by the Forest Service for conservation purposes. In 2001, the Forest Service began restoration of the site; however funding shortfalls did not allow enhancement efforts to continue. SFEG received grant funds to remove invasive species, plant native species and install log jams on the floodplain in 2008. This year roughly 1,800 native plants were planted by volunteers and staff, 50 acres were treated for invasive species and 11 log jams were installed in lowland areas to trap logs during flood events and enhance shoreline habitat when the river occupies these floodplain channels in the future.

#### Nutrient Enhancement

Volunteers distributed more than 2,500 salmon carcasses from the Marblemount State Hatchery back to natural streams. Over 83 wildlife species are known to depend on nutrients from salmon carcasses, including salmon fry.

#### Howard Miller Steelhead Park

Revegetation efforts continued at Howard Miller Steelhead Park

## Skagit Fisheries Enhancement Group

in Rockport. This eastern Skagit County Park is a very popular spot for camping, boating and eagle viewing. SFEG staff and volunteers are manually removing invasive species and replanting the area with native plants, especially along the much used Skagit River trail.

### Junior Stream Stewards

Concrete Middle School students are learning and exploring the Lorenzan Creek and Upper Skagit River habitats through the Junior Stream Stewards Program. These students also had the special opportunity to visit the Marblemount Hatchery in their watershed and see coho spawners swimming in Clark Creek. A unique partnership with the National Park Service also enabled these students to visit North Cascades National Park and learn about the pristine habitat being protected there. Their learning will culminate in designing a service learning project that benefits salmon in the Upper Skagit.

### Community Outreach

SFEG's outreach efforts continued to grow in our up river communities. This year we attended two new festivals in Concrete and sponsored a new family day at Rasar State Park. The second annual Skagit River Family Fest in Rockport grew in popularity this year with music, food, activities, tours and learning opportunities. We continued to assist with increasing outreach capacity at the Marblemount Hatchery by creating a new self guided tour brochure, providing better signage, and training volunteers to give Hatchery Tours during the peak of eagle viewing season. These tours are meant to give visitors an opportunity to learn about salmon and how healthy salmon populations are vital to Skagit River eagle populations.

### Forest and Salmon Stewards

SFEG wrapped up educational work with Darrington Elementary students in partnership with the Stilly-Snohomish Fisheries Task Force, WSU Extension and Snohomish County. Students learned both about the rural forested environment and the more urbanized environment of Arlington through classroom presentations, field trips, and hands on project work.

## SAMISH WATERSHED

### Ennis Creek

Over 1,000 coho salmon were counted returning to this site restored on Whatcom Land Trust property through a partnership with Whatcom County Public Works in 2007. Additional revegetation efforts continued and monitoring shows the project objectives are being met.

### Lower Samish River

A partnership with WDFW and Dike District 25 repositioned fallen trees to form habitat enhancing features upstream of Chuckanut Drive.

### Junior Stream Stewards

Eighth graders from Allen School were some of the 350 students in four school districts participating this year in SFEG's unique watershed education program designed to teach kids about the salmon habitat near their schools and homes. Allen students are learning and exploring the Samish River, its tributaries and estuary habitats through classroom activities, field tours and water quality studies. Their learning will culminate in designing a service learning project that benefits salmon in the Samish Watershed.

## EFFECTIVENESS MONITORING

### Volunteer Monitoring

Two workshops were held to train volunteers to monitor the effectiveness of restoration projects. One teaches volunteers how to collect physical data on streams such as gradient, width, substrate, vegetation, pools, and riffles. The second trains volunteers to count returning adult salmon and their redds during spawner surveys. Volunteers also assist in a variety of project specific monitoring for revegetation, juvenile salmon and macroinvertebrates. The data collected provides much needed information to funders and project partners related to the effectiveness of enhancement projects. Over 800 volunteer hours were contributed this year.



Skagit Fisheries Enhancement Group

**PROJECT EXPENDITURES**

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total
Administration	\$46,112	1,027	\$15,401	\$31,499	\$93,013
Ross Island Slough		13	\$195	\$16,001	\$16,196
Iron Mountain Ranch			\$-	\$7,058	\$7,058
Barnes			\$-	\$10,613	\$10,613
Day Creek			\$-	\$2,636	\$2,636
Deepwater Slough		16	\$233	\$5,241	\$5,473
Education & Outreach	\$21,648	724	\$10,856	\$19,423	\$51,927
Elysian Meadows		107	\$1,605	\$15,346	\$16,951
Ennis Creek		10	\$150	\$10,071	\$10,221
Finney Creek		209	\$3,135	\$188,005	\$191,140
Fundraising		44	\$660	\$9,133	\$9,793
General Restoration			\$-	\$14,734	\$14,734
Morgan Creek			\$-	\$9,467	\$9,467
Junior Stream Stewards		437	\$6,548	\$17,349	\$23,897
Monitoring	\$29,084	1,031	\$15,461	\$4,101	\$48,646
Hansen			\$-	\$9,983	\$9,983
Native Plant Nursery		458	\$6,870	\$15,949	\$22,819
Nookachamps Restoration		397	\$5,948	\$100,314	\$106,261
Nutrient Enhancement	\$227	46	\$690		\$917
Dry Slough		92	\$1,380	\$4,000	\$5,380
Project Development	\$14,881	72	\$1,080		\$15,961
Thatcher Bay		38	\$570	\$102,186	\$102,756
Upper Skagit Watershed		853	\$12,795	\$98,771	\$111,566
WCC/WSC Americorps	\$6,948	850	\$12,746		\$19,694
<b>TOTAL</b>	<b>\$118,900</b>	<b>6,422</b>	<b>\$96,323</b>	<b>\$691,882</b>	<b>\$907,104</b>





Skagit Fisheries Enhancement Group

**BOARD OF DIRECTORS**

- Bruce Freet, *President*, Retired Ecologist
- Jeanne Glick, *Vice President*, Nurse
- Dan Ballard, *Treasurer*, Retired Insurance Agency Owner
- Ned Currence, *Secretary*, Nooksack Tribe - Fisheries Biologist
- Deene Almvig, Retired Educator
- Kurt Buchanan, Fisheries Biologist
- Stephen Hopley, Port of Anacortes Commissioner
- Jim Johnson, Retired High School Teacher
- Chris Kowitz, Biologist
- Robin LaRue, Civil Engineer
- Boshie Morris, Self Employed

**STAFF MEMBERS**

- Alison Studley, Executive Director
- Lucy DeGrace, Outreach Coordinator
- Mary Mae Hardt, Finance Manager

**Restoration Technicians:**

- Joe George, Coordinator
- Andrew Beckman
- Kyle Koch
- Bengt Miller
- Neil Vargas

**AmeriCorps Interns:**

- Corinne Hughes, Restoration Assistant, Washington Conservation Corps
- Ona Strikas, Education Assistant, Washington Service Corps

**CONTACT INFORMATION**

Skagit Fisheries Enhancement Group  
PO Box 2497  
407 Main Street, Suite 212  
Mount Vernon, WA 98273  
Phone: 360-336-0172  
Fax: 360-336-0701  
[www.skagitfisheries.org](http://www.skagitfisheries.org)



**SKAGIT FISHERIES  
ENHANCEMENT GROUP**

### Stilly-Snohomish Fisheries Enhancement Task Force

## MISSION STATEMENT

The Stilly-Snohomish Fisheries Enhancement Task Force's (Task Force) mission is to ensure the future of salmon in the Stillaguamish and Snohomish Rivers, and Island County watersheds. To achieve our mission, we pursue the following goals:

- To restore salmon and enhance salmon habitat.
- To become the leading community-based salmon recovery advocate in our region.
- To facilitate the cultural shift necessary to complete our mission through public education and other means.
- To protect habitat through better regulation, acquisition, easements, and other means.
- To increase the capacity for change by partnering with other groups and agencies.

## RFEG OVERVIEW

The Task Force is a community-oriented, volunteer-supported organization with a dedicated base of volunteers, members, local business partners and donors, and private and public landowners. We cooperate with Federal, State, county and city agencies, tribes, other non-profits, Conservation Districts, local colleges, school districts and fishing clubs. These alliances provide an invaluable source of donated labor, in-kind services, and cash match to support our projects and activities in the Stillaguamish and Snohomish Rivers, and Island County watersheds. The Task Force provides opportunities in habitat restoration and enhancement activities for volunteers that include streamside plantings, native plant salvages, salmon carcass distributions, invasive plant surveys, river and beach cleanups, macroinvertebrate and vegetation monitoring, and on-the-job training for AmeriCorps members and college interns. Over the past year, Task Force staff coordinated more than 12,000 hours of donated time from community volunteers and students to create long-lasting results for future generations.

## HABITAT RESTORATION

### Pilchuck River Habitat Enhancement, Lake Stevens

The Task Force completed year one of a multi-year restoration project on private agricultural land. Along 550 feet of river, 86 pieces of large wood to stabilize erosion along the river bank; 155 cottonwood boles were placed to establish a cottonwood forest and create a floodplain fence to collect flood debris. Volunteers and staff planted 1,000 plants over 0.5 acres.

**Landowner:** Lund family

**Funding:** Salmon Recovery Funding Board (SRFB)

**Partners:** Snohomish County Surface Water Management (SWM), Washington Conservation Corps/AmeriCorps (WCC), Washington Department of Fish and Wildlife (WDFW), Snohomish Conservation District (SCD)



### Jim Creek Riparian Planting, Arlington

Jim Creek is a tributary to the South Fork Stillaguamish River. The Task Force completed a riparian planting with 44 volunteers installing 1,876 native plants (including 1,500 livestakes) along 500 linear feet of creek, restoring approximately 0.5 acres with an average buffer width of 45 feet. Future plans include feasibility and design for wood placement on this and several neighboring properties along a mile stretch of stream.

**Landowner:** Peterson

**Partners:** Peterson, WCC

**Funding:** Department of Ecology Centennial Clean Water, SRFB



### Pilchuck River Habitat Enhancement, Machias

In cooperation with private landowners, the Task Force, placed 30 pieces of large wood along 300 feet of river. Volunteers planted 821 native plants on 0.3 acres; the WCC field crew installed 2,000 livestake cuttings.

**Landowner:** McDowell Family

**Partners:** SWM, WCC

**Funding:** National Fish & Wildlife Foundation Snohomish Basin Community Salmon Fund, McDowell Family, SWM

## Stilly-Snohomish Fisheries Enhancement Task Force

### Snoqualmie River Riparian Planting, Carnation

The Task Force along with Washington Department of Fish and Wildlife (WDFW) continued a 25-acre riparian planting project adjacent to the Snoqualmie River at Stillwater Wildlife Area. Stillwater is a 450-acre property owned and managed by WDFW for wildlife habitat as well as hunting, fishing, and passive recreation. In the second year of work at Stillwater, volunteers planted 1,975 native trees and shrubs on 6.5 acres. In total, 5,025 plants have been installed across 18.5 acres.

**Landowner:** WDFW

**Funding:** King Conservation District, Seattle City Light

**Partners:** WDFW, WCC, Washington State Department of Corrections, Edmonds Community College's Learn-and-serve Environmental Anthropology Field School

### Education

An important piece of the salmon conservation puzzle is education. From brief demonstrations at volunteer tree plantings and community presentations to more in-depth lessons at local schools, the Task Force's Education Program serves to inform community members about the importance of healthy watersheds for people and salmon.

For the 2008-09 school year, the Task Force offered three specialized educational programs for teachers to choose from. Our Restoration Ecology for Young Stewards (REYS) program, now in its fifth year, reached about 375 students in 13 classrooms from three schools: English Crossing Elementary in Lakewood, Centennial Middle School in Snohomish, and Snoqualmie Middle School. In REYS, students perform three projects: 1) designing and implementing a salmon habitat restoration project (riparian tree planting); 2) creating and conducting a research project to support their restoration efforts, and 3) designing an interpretive sign for their restoration site. To prepare for these projects, REYS dives deeply into restoration ecology. Throughout 9 classroom lessons and fieldtrips, students engage in hands-on, inquiry-based learning about riparian ecosystems, native and invasive plants, water quality, non-point source pollution, and Pacific salmon. Examples of student investigations from this year included research on the effects of soil moisture, tree species or tree density on the germination of invasive reed canary grass. Overall, REYS promotes environmental stewardship by enhancing critical thinking skills and drawing specific links between human actions and their ecological impacts on the Puget Sound watersheds. Funding for this program was provided by the Washington State Department of Ecology.



The Forests and Fish for Kids (FFK) program guided students to draw connections between intact riparian forests and healthy salmon populations. This program engaged approximately 175 students from Hawthorne Elementary in Everett, Chain Lake Elementary in Monroe, and Machias and Totem Falls Elementary in Snohomish. Students visited the Youth-on-Age interpretive trail in the Mount Baker/Snoqualmie National Forest, where they learned about forest and salmon habitat along the beautiful South Fork Stillaguamish River and under the majestic canopy of old-growth Sitka spruce. The FFK program culminated with a capstone project of investigating, observing and growing native plants in the classroom, which will later be planted along Task Force restoration sites. Funding for this program was provided by the Washington State Department of Natural Resources.

As part of the Stream Detectives program, Task Force educators led fieldtrips for every fifth grade classroom in the Marysville School District to the District-owned Jones Creek Outdoor Learning Center. Onsite, students measured water quality the way real scientists do. They used physical and chemical tests to measure and record the levels of dissolved oxygen, water temperature, phosphate (stream nutrients), and turbidity (sediment). Students also performed a miniature BIBI test, or Benthic Index of Biotic Integrity, in which they identified stream macroinvertebrates and

used a simple math equation to calculate water quality based on the pollution tolerance of the bugs. Finally, students discussed how the results may affect salmon and the health of their watersheds. Funding for this program was provided by the Marysville School District, with staff support from the City of Marysville.

Besides the programs above, the Task Force worked with individual classrooms throughout the Stillaguamish and Snohomish River basins, and Island County watersheds, to provide an assortment of hands-on learning and service projects to local students. These efforts included partnering with WSU Extension/Snohomish County 4-H to serve students from Edmonds, Darrington, Tulalip and Granite Falls, to provide lessons for local Girl and Boy Scout troops and YMCA summer camps, and coordinate riparian planting projects for fifth graders from Camano Island and students at Cascadia Community College. Taken as a whole, the Task Force's education program engaged over 1,500 youth in the 2008/09 school year.

The Task Force also makes educational opportunities available to adults. Besides presentations to community groups, we recruit students from local community colleges and four-year universities as volunteer interns. This year students from Skagit Valley College took advantage of this opportunity. They were able to develop on-the-job skills while providing valuable data collection

### Stilly-Snohomish Fisheries Enhancement Task Force

and project support to the Task Force's staff and programs. Overall, the Task Force strives to offer a wide variety of educational opportunities which both suit the needs of community members and help facilitate the cultural shift necessary to complete our salmon-saving mission.

#### **Community Outreach**

Because aquatic debris poses a potential threat to the quality of habitat and the survival of salmon in Puget Sound and our watersheds, the Task Force established a **River and Beach Clean-up Program** in the summer of 2005. We have since helped establish the Snohomish-Camano Nearshore Cooperative Committee (NCC), a cooperative group that brings partners together to coordinate efforts and create synergistic relationships between like-minded organizations. Other participants in this committee include: *WSU Beach Watchers/Skagit and Snohomish Counties (Beach Watchers), People For Puget Sound, Snohomish County Marine Resources Committee, Puget Soundkeeper Alliance (PSA), Stillaguamish Tribe of Indians, Puget Sound Action Team, City of Edmonds Parks, City of Everett Parks, Edmonds Community College, Snohomish County Surface Water Management, Tulalip Tribes, and Port of Everett*. The primary goal of the River and Beach Clean-up Program is to provide citizens with education about, and involvement in, river and beach stewardship. In 2009, the NCC is becoming a major part of the Puget Sound Partnership's EcoNET program.

The Task Force worked with NCC partners to host "Beach Expos" at a couple of beach cleanups. The Task Force also held three river cleanups, two in the Stillaguamish, the third in the Snohomish. Nearly 1,000 hours of volunteer time was donated as they collected beach and river debris, removed invasive plant species, learned about the nearshore environment, experienced touch-tanks, and took low tide "beach walks" with Beach Watcher naturalists.

**Volunteers :** 174

**Volunteer Hours:** 982

**Volunteer Value:** \$14,730

**Pounds of Garbage Collected:** 2,500

**Funder:** Tulalip Charitable Foundation

The Task Force also performs outreach at local fairs and festivals throughout our region. This year, we attended the Everett Boeing Health and Safety Fair, the Stillaguamish Tribe's Festival of the River, the Sultan Shindig, and Earth Day at Union Slough. Through these outreach events, we reached more than 500 local citizens, engaged them in watershed education, and gained new volunteers in the process. Task Force staff also presented to several local forums and community groups.

In winter 2009, the Task Force created a very rewarding trend of incorporating outreach events while working on projects within specific sub-basins. Two such successful open houses afforded an excellent forum to connect with local landowners, and provided the Task Force with more than 25 site visits. Once a working relationship with a couple of landowners is established, either through habitat restoration projects, or via noxious weed

control efforts, a door is opened to the greater community that might not otherwise be available. This outreach has occurred over a 4-5 year period, allowing the Task Force to establish a positive reputation with local private landowners.

The **Lead Entity Process**, as part of the state-wide salmon recovery process, is another effort the Task Force takes seriously. Staff members sit on two citizen-based policy forming committees, the Stillaguamish Implementation Review Committee (SIRC) and the Snohomish Forum, and three technical groups, the Stillaguamish Technical Advisory Group, Snohomish Basin Salmon Recovery Technical Committee, and the Island County Technical Advisory Group (TAG). The Task Force plays a significant role in reviewing and prioritizing project proposals in these basins.

#### **Nutrient Enhancement**

Each fall, the Task Force and the Stillaguamish Tribal Hatchery work together to give back to local streams and forests something that has been lacking - marine derived nutrients - which play a key role in maintaining the productivity of freshwater and terrestrial ecosystems. Task Force staff and volunteers do this by tossing spawned chum salmon carcasses into creeks on the Pilchuck Tree Farm. But this year, the salmon fry hatched disappointed for lack of nutrients in the streams. Only 45 carcasses were flung this year, compared to previous "fish fling" counts between 250 and 750. This was because only about 200 adult chum salmon returned to the hatchery this year, which is about one third of the expected 600-800. WDFW hatcheries showed similar trends. We hope next years numbers improve, for both the fish and our volunteers' sake.

#### **Assessment, Monitoring, Research**

**Stillaguamish Knotweed Control Project** - The Stillaguamish River basin is quickly becoming infested with invasive knotweed, an aggressive noxious weed species. The Task Force and other members of the Stillaguamish Cooperative Weed Management Area (CWMA) are surveying and working to control knotweed throughout the basin in both the mainstems and the tributaries of the Stillaguamish. The Task Force and its partners work with willing landowners to treat knotweed in riparian areas. In 2008, the Task Force expanded the Stillaguamish Knotweed Control program to include riparian planting and water quality monitoring efforts, in addition to knotweed surveys and control. With assistance from volunteers, the Task Force surveyed 22.7 miles of Stillaguamish River tributaries for invasive knotweed, in order to monitor the infestation on previously-treated streams, and to identify patches on streams not previously surveyed. The Task Force reached out to over 150 property owners with knotweed to share information about invasive knotweed and to offer assistance in controlling the invader. In 2008, the Task Force treated a total of 0.82 acres of Japanese, Giant, Himalayan, and Bohemian knotweed on 77 parcels (for 58 landowners) along 12.55 river miles and within a 0.22 acre wetland. The 2008 survey of previously-treated knotweed areas suggests an 86% reduction in knotweed presence from 2007 observations.

### Stilly-Snohomish Fisheries Enhancement Task Force

**Funding:** Washington State Department of Agriculture (WSDA), DOECCW, SRFB

**Partners:** US Forest Service – Mt. Baker-Snoqualmie Forest, Stillaguamish Tribe of Indians, WA Department of Natural Resources, WDFW, WSDA, Snohomish County: Noxious Weed Control Board, SWM and Parks Department, Skagit County Noxious Weed Control Board, SCD, The Nature Conservancy

**Monitoring** is important to the success of habitat restoration projects. Several types of monitoring were conducted in the Stillaguamish and Snohomish River Basins last year. As part of a comprehensive monitoring program, the Task Force regularly assesses vegetation on restoration sites, performs stream habitat assessments, examines changes created by placement of large woody debris (LWD), conducts macroinvertebrate sampling, and surveys invasive vegetation for control efforts.

Task Force staff, with support from their WCC/AmeriCorps field crew conducted vegetation monitoring at twelve sites. Monitoring assessed plant vigor, species composition and presence of invasive plants. Growth rate of invasive plants was noted and used to determine maintenance regimes for sites.

In the Snohomish Basin, the Task Force initiated a habitat assessment project along the entire length of Tychman Slough, a 2-mile long overflow channel of the Skykomish River near Sultan, Washington. During the year, we collected base-line data on riparian vegetation, LWD, substrates, canopy cover, thalweg profile and channel gradient. This information supports a flow

model being designed for the slough. The model and surveys will guide future project development and implementation.

Three project sites along the Pilchuck River are currently being monitored for stability and function of LWD placed during 2007 and 2008. Sites are visited after flood events and during low flows to assess structural integrity, recruitment of additional LWD, and the presence or absence of fish use.

In the Stillaguamish Basin, macroinvertebrates were collected in Jim Creek, Canyon Creek and Turlo Creek as part of a long-term, biological index study. This activity relies on volunteers from the Evergreen Flyfishers Club, who are trained with collection protocol and sampling techniques. Stream temperatures were recorded continuously over a three-month period from July through September. Substrate samples, riparian vegetation assessment and canopy cover data were also collected to establish base-line data that will be incorporated into Snohomish County's stream monitoring database.

A final area that the Task Force is currently monitoring is the battle against invasive vegetation. Currently, the Task Force is working to control blackberry, butterfly bush, reed canary grass, and knotweed from many of our restoration sites. Various techniques are incorporated, including manual, mechanical, and chemical treatment. Plant density and area of coverage are monitored for effectiveness. Rate of re-growth is monitored for adaptive management of the treatment methods and timing.



**PROJECT EXPENDITURES**

PROJECT	Total Volunteer Hours	Total Value Volunteer Time	RFEF Funds	Other Funds	Total
Administration	0	\$0	\$5,154	\$94	\$5,248
Executive Director	691	\$10,365	\$17,389	\$2,688	\$30,442
Project Equipment	0	\$0	\$547	\$3,372	\$3,919
Program Infrastructure	0	\$0	\$53,601	\$5,266	\$58,868
Grant Writing	183.5	\$3,303	\$9,464	\$4,008	\$16,775
Lead Entity Process	37	\$666	\$3,080	\$0	\$3,746
RFEF/CAB Meetings, Reports, etc.	0	\$0	\$4,304	\$0	\$4,304
Fundraising	0	\$0	\$620	\$0	\$620
Annual Meeting	69	\$1,242	\$6,414	\$110	\$7,766
Bookkeeper	0	\$0	\$4,010	\$0	\$4,010
<b>Program Management Totals</b>	<b>980.5</b>	<b>\$15,576</b>	<b>\$104,583</b>	<b>\$15,539</b>	<b>\$131,688</b>
Education Program Manager	0	\$0	\$4,462	\$0	\$4,462
Volunteer Stipend*	0	\$0	\$360	\$0	\$360
Classrooms/Presentations	236	\$4,188	\$6,396	\$1,429	\$12,013
Jones Creek	42	\$630	\$0	\$130	\$760
Restoration Education for Young Stewards	119	\$2,142	\$0	\$64,911	\$67,053
Quilceda/Allen Education	178	\$3,204	\$576	\$3,611	\$7,391
WSU Salmon & Forest Education	26	\$468	\$0	\$6,120	\$6,588
Fish & Forests for Kids	257	\$4,248	\$0	\$10,950	\$15,198
Education & Outreach Assistant	187	\$3,366	\$5,600	\$400	\$9,366
<b>Education Program Totals</b>	<b>1045</b>	<b>\$10,164</b>	<b>\$17,393</b>	<b>\$70,081</b>	<b>\$92,038</b>
Habitat Program Manager	0	\$0	\$8,777	\$0	\$8,777
Volunteer & Education Coordinator	42	\$630	\$6,472	\$0	\$7,102
Buck Island	109.5	\$1,766	\$881	\$0	\$2,647
Prairie Creek Revegetation	302	\$4,572	\$0	\$2,481	\$7,053
Nursery	319	\$5,138	\$3,142	\$5,278	\$13,557
Sno-Isle Stream Habitat	889.5	\$13,731	\$4,941	\$1,226	\$19,898
Stillaguamish Stream Habitat	71.5	\$1,287	\$243	\$6,772	\$8,302
WCC Crew	0	\$0	\$0	\$80,686	\$80,686
Habitat Restoration Technician	956	\$17,208	\$13,667	\$0	\$30,875
Canyon Creek/Aldarra Golf Club	127	\$2,049	\$180	\$1,893	\$4,122
Pilchuck River - Dahl	52	\$846	\$726	\$4,849	\$6,421
Tychman Slough Restoration/Kissee/Barr	46	\$693	\$213	\$100	\$1,006
River & Beach Cleanups	296	\$4,833	\$0	\$4,189	\$9,022
Stilly Knotweed Control	21	\$378	\$378	\$10,963	\$11,718
Snoqualmie River-Duvall	367	\$5,913	\$315	\$14,880	\$21,108
West Fork Woods Creek-Gerdes	5	\$90	\$1,073	\$45,289	\$46,452
Stilly Knotweed Restoration	1750.5	\$27,495	\$0	\$52,141	\$79,636
Stillwater Restoration	1217.5	\$19,167	\$0	\$20,295	\$39,462
Pilchuck River - Reach	510	\$8,454	\$0	\$123,759	\$132,213
Habitat Restoration Specialist	0	\$0	\$6,297	\$0	\$6,297
Pilchuck - McDowell	449.5	\$7,158	\$714	\$53,361	\$61,232
Cemetery Creek	57	\$1,026	\$0	\$7,572	\$8,598
Jetty Island	976	\$15,117	\$0	\$12,873	\$27,990
Anthracite Creek	0	\$0	\$0	\$1,379	\$1,379
Tychman Slough Assessment	43	\$774	\$639	\$14,405	\$15,818
Stilly Knotweed Control & Riparian Restoration	0	\$0	\$0	\$2,168	\$2,168
NF Stilly Trib Riparian Enhancement	28	\$495	\$0	\$10,543	\$11,038
Pilchuck River - Russo	0	\$0	\$0	\$3,286	\$3,286
Tolt Restoration Project - RM2	36	\$648	\$0	\$7,530	\$8,178
City of Arlington - Eagle Creek	152	\$2,280	\$0	\$151	\$2,431
<b>Habitat Program Totals</b>	<b>8823</b>	<b>\$141,747</b>	<b>\$48,660</b>	<b>\$488,067</b>	<b>\$678,474</b>
Snohomish Monitoring	15	\$270	\$27	\$0	\$297
Stilly Knotweed & WQ Monitoring	574.25	\$9,750	\$0	\$16,397	\$26,147
<b>Monitoring Program Totals</b>	<b>589.25</b>	<b>\$9,750</b>	<b>\$0</b>	<b>\$16,397</b>	<b>\$26,147</b>
Carcass Distributions	39	\$690	\$223	\$178	\$1,091
<b>Carcass Distributions Totals</b>	<b>39</b>	<b>\$690</b>	<b>\$223</b>	<b>\$178</b>	<b>\$1,091</b>
Possession Bait Coho Rearing Pond	325	\$4,875	\$1,937	\$50,680	\$57,492
Everett Net Pen	242	\$3,630	\$111	\$9,073	\$12,814
<b>Fish Production Totals</b>	<b>567</b>	<b>\$8,505</b>	<b>\$2,048</b>	<b>\$59,753</b>	<b>\$70,306</b>
<b>SSFETF ORGANIZATION TOTAL</b>	<b>12,044</b>	<b>\$186,432</b>	<b>\$172,907</b>	<b>\$650,015</b>	<b>\$999,743</b>

\*Note: Hours donated for volunteer stipend awards are incorporated in the projects themselves.

Stilly-Snohomish Fisheries Enhancement Task Force

**DIRECTORS**

- Dave Ward, President**
- Tom Murphy, Vice President**
- Andy Loch, Treasurer**
- Chris Grieves, Secretary**
- Kip Killebrew, Director**
- Franchesca Perez, Director**

**AFFILIATION**

- Snohomish County Surface Water Management Outreach Steward
- Edmonds Community College, professor of LEAF class
- City of Bothell Surface Water Management
- Wild Steelhead Coalition; Fly Fisherman; Fly Fishing Guide
- Stillaguamish Tribe Hatchery Biologist
- Stillaguamish Tribe of Indians

**STAFF**

*Address staff mail to Task Force mailing address*

**Ann Boyce**  
**Executive Director**  
425-345-6326 cell phone  
[ann@stillysnofish.org](mailto:ann@stillysnofish.org) email

**Jason Anderson**  
**Habitat Program Manager**  
425-425-268-0612 cell phone  
[jason@stillysnofish.org](mailto:jason@stillysnofish.org) email

**Cara Ianni**  
**Education Program Manager**  
425-328-6415 cell phone  
[cara@stillysnofish.org](mailto:cara@stillysnofish.org) email

**Kristin Marshall**  
**Habitat Restoration Specialist**  
206-419-0730 cell phone  
[kristin@stillysnofish.org](mailto:kristin@stillysnofish.org) email

**Brian Boehm**  
**Habitat Restoration Specialist**  
425-328-7712 cell phone  
[brian@stillysnofish.org](mailto:brian@stillysnofish.org) email

**Kim Clark**  
**Finance Manager**  
[kim@stillysnofish.org](mailto:kim@stillysnofish.org) email

**Christi Hardy**  
**Fundraising Specialist**  
[nc\\_hardy@comcast.net](mailto:nc_hardy@comcast.net) email

**TASK FORCE OFFICE INFO**

**Mailing Address:**

P.O. Box 5006  
Everett WA 98206

**Physical/Shipping Address:**

2723 Hoyt Avenue  
Everett, WA 98201  
425-252-6686 office  
425-252-6686 fax  
[info@stillysnofish.org](mailto:info@stillysnofish.org) email  
[www.stillysnofish.org](http://www.stillysnofish.org) website



## **MISSION STATEMENT**

The mission of the Mid Puget Sound Fisheries Enhancement Group is to conserve and restore self-sustaining salmonid populations through close involvement with diverse community interests.

## **OUR VISION**

To the benefit of future generations, we envision that robust populations of naturally spawning salmonids will thrive in our region for the use and enjoyment of all.

## **HISTORY AND BACKGROUND**

Mid Puget Sound Fisheries Enhancement Group (Mid Sound), founded in 1991 as a 501 (c)(3) tax-exempt non-profit organization, includes volunteer members representing businesses, local governmental agencies, tribal interests and environmental organizations.

Mid Sound directly supports the enhancement of salmonid populations and habitat throughout our region. The geographic region includes the Lake Washington basin (WRIA 8), Green/Duwamish River basin (WRIA 9), streams draining along the King County shoreline and Kitsap County streams flowing into the Sound from the Northeast end of the Hood Canal Bridge, south to the Kitsap-Pierce County line (WRIA 15).

Since 1991 Mid Sound has completed more than 275 projects, including streambank fencing, native tree and shrub plantings, fish blockage removal, wetland restoration, fish enhancement and monitoring, education and training events. Each of these projects serve as a catalyst to building community partnerships in Puget Sound. Together, these partnerships contribute invaluable time and resources for the recovery of salmon in the Pacific Northwest. It is our belief that community-based salmon

Mid Puget Sound Fisheries Enhancement Group

recovery develops educational opportunities for volunteers to learn about, and become part of the interwoven complexities of our environment.

## **HABITAT PROJECT HIGHLIGHTS**

### **May Creek**

This project is a partnership between King County WLRD, Mid Sound, and local landowners to cooperatively implement a Reed's Canary Grass abatement project. This project is designed to improve water conveyance and reduce local flooding by keeping the grass from falling into the stream and slowing flows.

Specifically, Mid Sound is meeting the following goals:

- Reduced durations of flooding, compared to previous conditions;
- Compliance with applicable Federal, State, and Local permit processes;
- Voluntary cooperation of property owners;
- Minimal expected future maintenance;
- No significant negative impacts such as ecological damage or increased erosion or sediment deposition elsewhere in the May Creek basin or Lake Washington;
- Minimal liability to King County;
- Efficient and effective use of public funds.

To date Mid Sound and its consulting team have developed a DRAFT Conceptual Restoration Plan which details 33 specific actions being proposed within May Valley and the transition zone between the valley and the steep canyon section downstream. Additionally, we have worked with 4 landowners in the lower valley to remove Reed Canary Grass. These projects are providing temporary reduction of flooding in the immediate project area. The next step will be to conduct SEPA review on the entire plan. This step will allow permitting of future projects to occur more smoothly.





## Mid Puget Sound Fisheries Enhancement Group

### Newaukum Creek

Mid Sound completed a physical habitat survey of the Newaukum Creek sub-watershed and identified 67 culverts, 42 of which are barriers to fish passage. We then ranked the culverts and identified the highest priority barrier.

The barrier we decided to alleviate is a culvert under a secondary driveway and was in good physical condition. However, it was a slope barrier and perched on the streambed. Rather than replace the culvert, the project engineer designed an instream habitat restoration project utilizing large woody material to trap sediment, which naturally aggraded into the culvert, effectively removing the slope barrier. 120 feet of streambed was enhanced with the addition of spawning gravel and 18 pieces of large woody material. This project was funded by the King Conservation District WRIA 9 Forum Grant Program.

### Barker Creek

The Barker Creek culvert replacement project, was finished on February 7<sup>th</sup> 2009 with a total cost of \$1.2 million. The project replaced a 90-foot long, 5-foot diameter culvert with a 73-foot long, 36-foot wide, arched bottomless culvert. The previous culvert posed a passage barrier for fish at the estuary of this important salmon-bearing stream. Its removal opened the stream for Coho, Chum and Chinook, Steelhead and Cutthroat. The project not only allows for the stream to keep its natural bed, but it now allows for more natural tidal fluctuations. Mid Sound would like to thank the following for making this project such a huge success: Washington State Salmon Recovery Funding Board, Suquamish Tribe, Chums of Barker Creek, Kitsap County Public Works, People for Puget Sound, NOAA, Kitsap County Board of Commissioners, Port of Silverdale, Bella Vista Foundation, Department of Fish Wildlife, West Sound Watershed Counsel, Geo Engineers, All RFEG advisory board members, McDonald & Co, Contech and all of the other subcontractors, vendors, landowners and partners.



### Mill Creek Stream Survey

Mid-Sound has recently completed a physical survey of the main stem of Mill Creek. Over 13,000 meters of Mill Creek was walked by Mid-Sound's survey team; from the mouth at the Green River to the headwaters at Lake Dolloff. Mid Sound physically surveyed the habitat of the creek as well as culverts along the mainstem and major tributaries. Both qualitative and quantitative measurements were taken in accordance with the WDFW's protocol. The results of a physical survey will allow Mid-Sound to prioritize water quality and salmon habitat projects in the Mill Creek sub-basin. Some proposed projects include a Rain Garden at a highly used park-and-ride adjacent to the stream, or bank stabilization projects at the mouth of the stream. Mid-Sound's primary goal is to enhance the riparian function and water quality on Mill Creek and in the Green River watershed.

### Clean up by Kayak

The clean up by kayak on Lake Union is a coordinated volunteer event between Mid Sound and Puget Sound Keepers Alliance. Lake Union is a highly polluted lake, and yet very important for migratory salmon. Each week, a group of volunteers spend a few hours kayaking along the shores of the lake removing trash and surveying for water pollutants such as oil and gas slicks. Any liquid pollution is reported to the department of ecology. This is a great cleanup event with a high volunteer turnout; it is also great for introducing people to both Mid Sound and water quality issues within Puget Sound.

### Fish Fling 2008

During last year's events, a total of 64 volunteers contributed 92 service hours. A volunteer averaged approximately 1.43 hours during the Chinook and Coho salmon distribution. Our Coho distribution was accomplished with the help of a Boy Scout troop, their parents and Green River Community College ecology students. The Boy Scouts and students were flinging Coho averaging 12 pounds, with a few weighing in at 20 to 30 pounds. The Chinook Carcasses were distributed by another Boy Scout Troop and 28 students from a Totem Middle School in Federal Way. Our 2009 Fish Fling is currently underway.



**PROJECT EXPENDITURES**

Project Name	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total
Administration	\$56,736	198	\$2,970	\$4,712	\$64,418
Habitat Restoration	\$92,260	416	\$6,240	\$1,409,063	\$1,507,563
Outreach & Education	\$16,594	154	\$2,310	\$2,716	\$21,620
<b>TOTAL</b>	<b>\$165,590</b>	<b>768</b>	<b>\$11,520</b>	<b>\$1,416,491</b>	<b>\$1,593,101</b>

**BOARD OF DIRECTORS**

**President**

Paul Dorn Salmon Recovery Coordinator - Suquamish Tribe

**Vice-President**

Margaret Duncan

**Secretary**

Alan Miller Trout Unlimited

**Treasurer**

Bob Johnson

Rob Fritz King County DOT

Bill Robinson

Noel Gilbrough

Willy O'Neil *In Memorium*

**STAFF**

**Executive Director**

Troy Fields troy@midsoundfisheries.org

**Project Manager**

Brian Reese brian@midsoundfisheries.org

**Project Manager**

Danielle DeVoe Danielle@midsoundfisheries.org

**Outreach/Education Coordinator**

Mattia Boscolo mattia@midsoundfisheries.org

**CONTACT INFORMATION**

7400 Sand Point Way NE

Suite 202 North

Seattle, WA 98115

(206) 529-9467 (phone)

(206) 529-9468 (fax)

[www.midsoundfisheries.org](http://www.midsoundfisheries.org)



Mid-Puget Sound  
Fisheries  
Enhancement  
Group

### South Puget Sound Salmon Enhancement Group

## **MISSION STATEMENT**

Protect and restore salmon populations and aquatic habitat with an emphasis on ecosystem function through scientifically informed projects, community education, and volunteer involvement.

## **RFEG OVERVIEW**

SPSSEG covers a large, diverse area with several counties, watersheds, and opportunities for salmon restoration. The region includes the Puyallup, Nisqually, and Deschutes River systems, their respective tributaries and hundreds of small streams draining directly to South Puget Sound. From July 1, 2008 to June 30, 2009, we completed nine in-stream restoration projects, conducted and/or participated in numerous education and assessment projects and have eleven on-the-ground projects in progress.

A nine-member board provides a wealth of technical expertise and institutional knowledge for this 18 year-old RFEG. The Group has well established partnerships with federal, state, and local agencies including US Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), National Fish and Wildlife Foundation, Salmon Recovery Funding Board (SRFB), Department of Ecology, Pierce County, Thurston County, Mason County, Kitsap County, Pierce Conservation District, Thurston Conservation District, Mason Conservation District, Green Diamond Resources, Taylor Shellfish, South Sound Fly Fishers, Squaxin Island Tribe, Nisqually Indian Tribe, Puyallup Indian Tribe, Northwest Indian Fisheries Commission, among others. There are four full time SPSSEG employees, one part time field and office assistant, and a part time accounts manager.

Numerous property owners, businesses, families and other salmon supporters comprise SPSSEG membership. The membership is complimented by non-member donors and volunteers who contribute valuable time and money. A newsletter and annual meetings help the membership, staff, and board keep in touch with our supporters. SPSSEG has also recently updated our logo and website to provide additional information about salmon restoration.

## **RIPARIAN PLANTING**

### **Powell Creek (Completed)**

SPSSEG partnered with the Nisqually Land Trust to plant several hundred plants at Powell Creek adjacent to the Nisqually River.

### **Ohop Planting (In Progress)**

SPSSEG is partnering with Nisqually Land Trust, NRCS, and Nisqually Tribe to plant over 80 acres in the Ohop valley. The plantings are primarily scheduled to be installed in fall 2009 and 2010.

## **IN-STREAM HABITAT PROJECTS**

### **Greenwater ELJ and Road Removal (In Progress)**

The Greenwater Engineered Log Jam (ELJ) and Road Removal project, funded by SRFB, WSDOT, and the USDA Forest Service, will continue the restoration efforts in this clear-water tributary of the Upper White River. Construction is now scheduled for the summer of 2010. WRIA 10



### **Nisqually Pines Fish Passage (Completed)**

Nisqually Pines is a large community development on the Nisqually River near Yelm. The community has preserved a forest buffer between the river and housing development as a wildlife corridor and community green space for hiking trails and recreation. SPSSEG along with the community members removed an undersized culvert and replaced it with a small walking bridge. SPSSEG received funding from South Sound Fly Fishers and NFWF to cover materials, project management and engineering costs. The project was completed in the summer 2008. WRIA 11

### **Kronis Creek (Completed)**

This culvert replacement project was funded by the FFFPP and was completed during the summer of 2008. The creek is a small tributary to the Mashel River. WRIA 11

### **Powell Creek Culvert and Road Removal (Completed)**

SPSSEG partnered with the Nisqually Land Trust and Nisqually Tribe to remove three culverts and abandon a road in the Nisqually flood plain. The project was completed in fall 2008. WRIA 11

### **Powell Creek Culvert Replacement Z (Youngblood) (In Progress)**

This project is funded by FFFPP and NRCS and will replace a failing culvert with an appropriate alternative. Project is slated to begin in summer 2009. WRIA 11

### South Puget Sound Salmon Enhancement Group

#### **Ohop Restoration (In Progress)**

The Ohop Restoration project, funded by SRFB, USFWS, Nisqually Land Trust, Nisqually Tribe, and NRCS will correct historic ditching and draining of a one-mile reach of Lower Ohop Creek, one of two major tributaries to the Nisqually River. A new channel will be constructed to recreate a sinuous stream that is connected to the floodplain, the floodplain will be replanted with native vegetation, and the formerly ditched channel will be backfilled and planted. Construction on the Ohop project is scheduled to begin in 2009, but will continue in phases for years to come. WRIA 11

#### **Lackamas Creek (Chaffee) (In Progress)**

This project is funded by FFFPP and will removed a barrier culvert and install a 30 foot steel beam bridge. The bridge is scheduled to be installed in summer 2009. WRIA 11

#### **Clover Creek Stream Restoration (In Progress)**

NFWF and Pierce County have funded this pilot project to remove asphalt from the streambed. The banks will be reshaped and wood will be added to the channel for complexity. The project is slated to begin in summer 2009. WRIA 12

#### **Little Fish Trap (In Progress)**

This SRFB-funded nearshore project will repair a modified spit and estuary in Puget Sound. SPSSEG will utilize historical information to repair past human disturbances. The project will restore the tidal channel to its original location and reconfigure the spit to function naturally. Construction is scheduled for 2010. WRIA 13

#### **Woodland Creek (Completed)**

SPSSEG partnered with St. Martins University to restore a small reach in Woodland Creek. A partial fish barrier was fixed using a roughened channel approach. The project improved fish passage and sediment delivery downstream. A small timber bridge will also be replaced by the university. This project was completed in fall 2009. WRIA 13

#### **Beachcrest (In Progress)**

SPSSEG will restore a small pocket estuary in the Nisqually Reach. The project will restore fish passage and increase tidal inundation. WRIA 13

#### **Frye Cove Restoration (Completed)**

SPSSEG partnered with a private landowner and many agencies to develop and install a 'soft' shoreline armoring alternative along the Puget Sound nearshore. An encroached, concrete block bulkhead was removed and replaced with an appropriate boulder and LWD alternative. Construction was completed in August 2008. WRIA 14

#### **Frye Cove County Park (Completed)**

This SRFB-funded nearshore project removed 450' of a rock rip rap bulkhead along a local Puget Sound beach. LWD was

incorporated into the final design. The project is located at a Thurston County Park. Construction was completed in spring 2009. WRIA 14

#### **Pirates Cove Restoration (Completed)**

This SRFB-funded nearshore project repaired a human-modified spit and remove a tidal road prism from Puget Sound. The project improved natural tidal conditions and restored a historical barrier spit and estuary. Construction was completed in fall 2008. WRIA 14

#### **Hiawata Creek Fish Passage (Completed)**

SPSSEG and Mason County replaced an impassable culvert on Hiawata Creek, a small tributary to South Puget Sound. Construction was completed in summer 2008. WRIA 14



#### **Eld Inlet Culvert Removal (Istvan) (In Progress)**

SPSSEG will partner with NFWF and a private landowner to remove a barrier tidal culvert at the mouth of a small estuary. WRIA 14

#### **Jarrell Cove (In Progress)**

SPSSEG has been awarded a SRFB grant (partially funded by Mason County) to replace an impassable culvert at the tidewater mouth of Jarrell Cove Creek, a tributary to South Puget Sound. The project will result in better access for fish and increased tidal inundation. Construction is scheduled for summer 2010. WRIA 14

#### **Perry Creek (Galivan) (Completed)**

SPSSEG repaired a road/culvert washout and failed log control weir that was a result from recent storm damage. The project was funded by FFFPP. WRIA 14

#### **Big Cove (In Progress)**

SPSSEG will partner with three private landowners and SRFB to repair a failed earthen dam and restore a small estuary. The project is scheduled to begin in fall 2009. WRIA 14

### South Puget Sound Salmon Enhancement Group

## ASSESSMENTS, MONITORING, RESEARCH

### WRIA 11-12 Nearshore Assessment (In Progress)

This project will assess the shoreline between Point Defiance and the Nisqually Reach for quantity and quality of nearshore habitat available to support salmonids. Project goals and objectives include: compilation of new and existing data; restoration recommendations for the project reach; a list of potential restoration projects; and preliminary design for two to three site-specific projects. Data collection for the assessment is nearly complete. Data analysis, formulation of restoration recommendations, and project design are expected to continue through May 2009. Project partners include: the Nisqually Indian Tribe, Pierce County, WDFW, Burlington Northern-Santa Fe Railway Co. and others.

### Mashel River Effectiveness Monitoring (In Progress)

The Mashel Monitoring Project is funded by the Nisqually Indian Tribe as a pilot study to assist in the development of a Nisqually Basin Chinook Recovery Monitoring Plan. The Mashel River is the largest tributary to the Nisqually River and has been the focus of a myriad of restoration projects completed and in progress by SPSSEG. WRIA 11

### WRIA 13 Nearshore Restoration Design (Completed)

Assessments in the WRIA 13 nearshore have been conducted by SPSSEG and other stakeholders. SPSSEG used this information to select 10 projects and to work with many landowners to develop them into practical conceptual designs.

### Sherwood Creek Monitoring (In-Progress)

SPSSEG will partner with the Squaxin Island Tribe and Allyn Salmon Enhancement Group to monitor summer fish presence in the creek at several locations throughout the watershed. WRIA 14

### WRIA 14 Nearshore Project Development (Completed)

Assessments in the WRIA 14 nearshore have been conducted by SPSSEG and other stakeholders. SPSSEG used this information to select 10 projects and to work with many landowners to develop them into practical conceptual designs.

### WRIA 15 Nearshore Restoration Design (In Progress)

This project will utilize the Key Peninsula-Gig Harbor-Islands nearshore habitat assessment to identify high priority restoration areas and target specific salmon habitat restoration projects along WRIA 15 shorelines in Carr Inlet, part of Case inlet, Anderson Island, McNeil Island, and Fox Island. Up to 10 projects will be selected and designed preliminary levels.

## EDUCATION

### Kennedy Creek Salmon Trail (ongoing)

The trail provides public access to one of the South Sound's healthiest chum salmon runs. Taylor United Shellfish Co. donated a 20-year land lease for a half-mile interpretive trail along

Kennedy Creek. Over 40 volunteer trail guides educate school groups and visitors. During the 2008 season the trail had 5,200 total visitors. SPSSEG partners with Mason Conservation District, Taylor Shellfish and Green Diamond Resources, and the Kennedy Creek Advisory Committee to organize the trail. WRIA 14

### Kids with Conservation Knowledge (KWICK) (ongoing)

SPSSEG supports Mason Conservation District by teaching salmon ecology classes at their annual KWICK program. Over 300 Mason County 3<sup>rd</sup> graders take part in the two day event located at Little Skookum Shellfish Growers farm near Shelton.

### Shoreline Community Outreach (ongoing)

SPSSEG will coordinate local volunteers to help monitor and clean up sections of beach along the Pt. Defiance – Nisqually reach.

### Sound Gardens Save Salmon (ongoing)

SPSSEG is working with many stakeholders to incorporate local rain gardens that reduce storm water impacts on salmon streams.

### Education and Outreach (ongoing)

SPSSEG staff, Board, and volunteers are always looking for ways to provide salmon education and outreach for our community. This year SPSSEG participated in Kids with Conservation Knowledge, Northwest Fly fishing Academy, Nisqually Watershed Festival, and numerous other educational and outreach events.

### White River Stewards (USFS) (ongoing)

SPSSEG has partnered with the USFS to provide salmon focused education opportunities in the White River watershed from June through Labor Day. The program was developed using similar protocol from other RFEG's. WRIA 10

### Puget Sound Educational Signs

SPSSEG has partnered with Bri Communications to help sponsor 50 educational signs all across the Puget Sound region. These signs will be displayed for the next 2 years.

**Generic Projects (ongoing)** – Our Riparian Restoration, Office Operations, Project Management, Project Engineering, and Project Construction project funding allows SPSSEG to utilize RFEG funds for all our individual on-the-ground and education projects as well as to maintain and build our organizational infrastructure.

South Puget Sound Salmon Enhancement Group

**PROJECT EXPENDITURES**

	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total Spent	State	Federal
WRIA 11/12 Nearshore			\$-	\$139,561	\$139,561		
WRIA 13 Nearshore		100	\$1,500	\$12,415	\$13,915		
WRIA 14 Nearshore		100	\$1,500	\$21,576	\$23,076		
Hiawata Creek			\$-	\$346,721	\$346,721		
Frye Cove Bulkhead				\$51,248	\$51,248		
Lower Ohop				\$149,420	\$149,420		
Rocky Creek			\$-	\$4,164	\$4,164		
Jarrell Cove				\$479	\$479		
Greenwater				\$172,611	\$172,611		
Mashel River Assessment				\$29,441	\$29,441		
WRIA 15 Prioritization				\$15,506	\$15,506		
Frye Cove Park				\$45,618	\$45,618		
Little Fish Trap				\$6,624	\$6,624		
Pirates Cove				\$74,517	\$74,517		
Big Cove				\$3,414	\$3,414		
Beachcrest			\$-	\$12,604	\$12,604		
Greenwater II				\$6,539	\$6,539		
Ohop II		200	\$3,000	\$137,687	\$140,687		
Galivan-Perry				\$12,113	\$12,113		
McColm-WF Rocky Creek				\$173	\$173		
Coburg-Kronis				\$44,046	\$44,046		
Powell-Youngblood				\$4,918	\$4,918		
Chaffee				\$2,628	\$2,628		
Little Fish Trap				\$55	\$55		
Frye Cove Bulkhead/Park				\$21,541	\$21,541		
Clover Creek/Shera's Falls				\$305	\$305		
WRIA 11/12 Shoreline				\$487	\$487		
Clover Creek Pilot				\$6,560	\$6,560		
Nisqually Pines		75	\$1,125	\$17,217	\$18,342		
Goldsborough				\$584	\$584		
Istvan				\$413	\$413		
EPA Mashel Monitoring			\$-	\$15,792	\$15,792		
Powell Creek				\$32,094	\$32,094		
Lower Ohop				\$12,990	\$12,990		
Powell Creek		40	\$600	\$42,984	\$43,584		
Puyallup-Chambers				\$4,703	\$4,703		
White River				\$5,477	\$5,477		
Silver Creek				\$5,293	\$5,293		
Frye Cove Bulkhead		20	\$300	\$16,906	\$17,206		
Powell Creek				\$26,873	\$26,873		
Lower Ohop				\$18,976	\$18,976		
Frye Cove Bulkhead				\$11,000	\$11,000		
Pirates Cove		100	\$1,500	\$40,496	\$41,996		
Capacity Grants (WRIA Lead Entities)				\$303	\$303		
PSP Workshop				\$9,669	\$9,669		
Splash Grant				\$2,297	\$2,297		
Titlow Beach				\$532	\$532		
Riparian Restoration	\$-				\$-		\$-
Office Operations	\$98,718	200	\$3,000		\$101,718	\$12,785	\$85,933
Project Management	\$3,891		\$-		\$3,891	\$3,891	\$-
Project Engineering	\$-		\$-		\$-		\$-
Education & Outreach	\$17,568		\$-		\$17,568	\$16,337	\$1,231
Project Construction	\$-		\$-		\$-		\$-
Kennedy Creek Salmon Trail	\$526	540	\$8,100	\$6,978	\$15,604	\$526	\$-
<b>Totals</b>	<b>\$120,703</b>	<b>1,375</b>	<b>\$20,625</b>	<b>\$1,594,547</b>	<b>\$1,735,875</b>	<b>\$33,540</b>	<b>\$87,163</b>

South Puget Sound Salmon Enhancement Group

**BOARD**

- Jack Havens, President, Retired Veterinarian
- Tim Layton, Vice President, Washington State Medical Association
- Dan Wrye, Treasurer, Pierce County Water Programs
- Jessica Moore, Secretary, Department of Ecology
- Joe Williams, Retired WA Dept. of Ecology
- Duane Fagergren, Puget Sound Partnership
- Terry Wright, Northwest Indian Fisheries Commission
- Open position
- Open position

**STAFF**

- Lance Winecka, Executive Director
- Christine Garst, Contracted Accounts Manager
- Brian Combs, Project Manager
- Kimberly Gridley, Project Manager
- Kristin Williamson, Project Manager
- Sarah Clarke, Office Assistant

**CONTACT INFORMATION**

SPSSEG  
6700 Martin Way East Suite 112  
Olympia, WA 98516  
360-412-0808  
360-412-0809 fax  
[spsseg@spsseg.org](mailto:spsseg@spsseg.org)  
[www.spsseg.org](http://www.spsseg.org)



Hood Canal Salmon Enhancement Group

**MISSION STATEMENT**

To perpetuate and enhance the genetic diversity and stocks of wild salmon in Hood Canal through the protection and restoration of salmon habitat, stewardship and research for watershed and marine ecosystems, community education and outreach, and any other means appropriate. Adopted in 1990, modified in 1999, 2002, and 2003.

**OVERVIEW**

The region covered by the Hood Canal Salmon Enhancement Group ("HCSEG") includes all streams emptying into Hood Canal south of the Hood Canal floating Bridge. Among them, the Skokomish River is the largest drainage into Hood Canal and the Dosewallips, Duckabush, Hamma Hamma and Quilcene Rivers are also significant. These snow and glacier fed streams start high in the Olympic Mountains and descend steeply into the west side of the Hood Canal, creating very specific rearing conditions for salmon. Not surprisingly, most Hood Canal stocks are genetically distinct from Puget Sound and Coastal Salmon.

On the eastside of the Hood Canal, flowing from the Kitsap Peninsula, the streams are smaller than those of the westside and include some of the most intact salmon habitat on the Kitsap Peninsula. Among them are Big Beef Creek, Dewatto, Tahuya and Union rivers. These streams generally have more accessible spawning habitat and more extensive estuaries.



Hood Canal Steelhead Supplementation Project – Spring 2009

The Hood Canal region supports fall Chinook, summer Chum, Pink salmon, fall Chum, Coho, Steelhead and sea-run Cutthroat. HCSEG's numerous restoration projects and programs include the following partners: Washington Dept. of Natural Resources ("DNR"), WA Dept. of Ecology, Hood Canal Coordinating Council, Jamestown S'Klallam Tribe, Port Gamble S'Klallam Tribe, Skokomish Tribal Nation, Suquamish Tribe, Recreation and Conservation Office, Jefferson, Kitsap & Mason Counties, Long Live the Kings ("LLTK"), Mason Conservation District, National Fish and Wildlife Foundation ("NFWF"), National Oceanic and Atmospheric Administration Fisheries ("NOAA"), Puget Sound Action Team, Salmon Recovery Funding Board, US Forest Service ("USFS"), US Fish and Wildlife Service ("USFWS"), UW/ Applied Physics Lab, UW/School of Oceanography, UW/School of Aquatic Fishery Sciences, Washington Department of Fish and Wildlife ("WDFW"), Washington Department of Transportation, Washington State Parks, USDA Natural Resource Conservation Service ("NRCS"), North Mason Kiwanis, Northwest Indian Fisheries Commission, Pacific Northwest Salmon Center ("PNWSC"), Port of Port Townsend, South Sound Fly Fishers, U.S. Geological Survey, U.S. Navy, Wild Salmon Conservancy, Peterson Chiropractic, Kitsap Bank, Olympia Federal Savings and Loan and numerous others. These partners have amassed nineteen years of working together to make a better future for the wildlife and communities of Hood Canal.

As an organization, we have utilized our state and federal pass-through funds for basic infrastructure and support for the programs and projects we undertake. Each year we become better at approaching more extensive projects for salmon restoration.

**PROJECT HIGHLIGHTS**

For the time period of July 1, 2008 through June 30, 2009, the following are project highlights of the Hood Canal Salmon Enhancement Group:

**Big Quilcene – Quilcene Estuarine Wetlands Restoration – Schinke property**

This project involved reclaiming thirty eight acres of coastal wetlands habitat to proper functioning conditions. These goals were accomplished by permanently relocating livestock and removing 3,000 feet of saltwater levee which reestablished a tidal channel network and reconnected habitat to adjacent wetland plant communities. Additionally, nearly 3000 tires were removed from the property next to the dike. The restored area and an adjacent twelve acres of wetlands will be conserved in perpetuity using a conservation easement. This project was completed in the late summer of 2008.

**WDFW Rim Dike Removal**

Approximately 2,000 feet of saltwater levee and rim dike were removed surrounding an abandoned WDFW duck pond near the mouth of the Quilcene River. Approximately 7,500 cubic yards of material were removed. This project reestablished a more natural tidal function to two acres of previously isolated marsh, and



### Hood Canal Salmon Enhancement Group

reconnected the estuarine habitat. This project was completed in the late summer of 2008.

#### **Little Quilcene and Quilcene Bay – River Mouth Restoration**

The Little Quilcene River flows into Quilcene Bay just north of the town of Quilcene. Nearly one hundred years ago this river was channeled directly into Quilcene Bay and a substantial amount of fill was placed behind the dike disrupting natural estuarine function. This project benefited over 25 acres of the Little Quilcene River estuary. During August of 2008, 2,200 feet of dike were removed and over 800 feet of the river was re-configured within a historic channel location. Six acres of riparian habitat were also replanted.

#### **Little Quilcene River - Delta Cone Removal**

The Hood Canal Salmon Enhancement Group has used funds for development of plans and designs for removal of 35,000 cubic yards of sand and gravel from the delta of the Little Quilcene River. This project will reconstruct the mouth of the Little Quilcene River. Reconstruction will include excavation of a new meandering channel, placement of large woody debris and spawning gravel, removal of a sea dike and farm dikes, filling of ditches, and excavation of tidal channels. The cone of material has built up during the past century and blocks natural tidal action needed to cleanse the estuary and ensure fish passage. This project will improve about .5 miles of lower river channel. The Delta Cone Removal phase of the Little Quilcene project is scheduled for the summer of 2009.

#### **McClanahan property acquisition**

The acquisition of the McClanahan property, comprising ten acres, on the Little Quilcene River (including over 2,000 feet of riverfront) was finalized in August of 2008. This land acquisition is adjacent to property owned by Jefferson County and it will unify the north side of the Little Quilcene River and its estuary from the Center Road Bridge to Quilcene Bay, aiding further breaching of the north Little Quilcene River dike.

#### **Ward property acquisition**

The acquisition of the Ward property, comprising eighty six acres along the north side of the Little Quilcene River and estuary, was finalized in September 2008. These private lands are composed entirely of unaltered estuarine wetlands, including vegetated areas, gravel beaches and mudflats. This parcel provides a connecting corridor between lands already purchased at the mouth of the Big and Little Quilcene Rivers and improves both site specific protections and habitat fragmentation on a landscape scale. This acquisition will allow continuations of the breaching of the north Little Quilcene River dike and protect habitat from further degradation which will protect vital salmon habitat.

#### **Duckabush River – Robinson Road Levee Removal**

During the summer of 2008 approximately six hundred feet of dike was removed from the Robinson Road levee on the Duckabush River restoring roughly three acres of salt marsh. This

project has restored more natural tidal hydrology to one of Hood Canal's most pristine river delta systems. The affected area was replanted with native vegetation.

#### **Dosewallips Estuary Restoration – Wolcott**

Concrete raceways at a decommissioned USFWS hatchery facility near the Dosewallips River estuary were removed. This project helped to restore the proper function of the salt marsh habitat by restoring channel meander migration patterns within the estuary. The project area was replanted in the fall of 2008 with native plants and benefited sixty acres of salt marsh wetland.

#### **Brown Creek Decommissioning**

HCSEG collaborated with the U.S. Forest Service to decommission forest service roads near Brown Creek, a tributary to the Skokomish River. Brown Creek is one of many Pacific Northwest streams that have been degraded due to sediment erosion and road crossing failures. This project minimized the sediment coming off roads which affect spawning and rearing habitats of salmonids in Brown Creek and the lower south fork of the Skokomish River. Decommissioning of four miles of forest service roads and removal of nine culverts was completed in the summer of 2008. Thirteen miles of the South Fork Skokomish River and nine miles of the Skokomish River indirectly benefit from reduction of road-related sediment to the river channel. Native trees and shrubs were planted on the decommissioned road with application of seed and weed free mulch. This project was completed in September of 2008.



**Brown Creek Decommissioning - Restored perennial stream channel following removal of road fill, culvert and placement of in-stream channel rock steps**

#### **Ghost Net Removal**

In November of 2008, HCSEG staff and Skokomish Tribal Police removed a large portion of a derelict gillnet from Musqueti Point in Hood Canal. The abandoned net extended out from the beach

Hood Canal Salmon Enhancement Group

at low tide and posed a threat to benthic organisms and other marine life. During removal, the deep portion of the net was pulled into an HCSEG boat for proper disposal and entangled animals and algae were cut away and released.

**The Dewatto Nutrifcation study**

This study continued its ninth year. The project has been designed to determine the potential populations of juvenile Coho in eight tributaries of the Dewatto River and whether or not they can be self-sustaining based on available habitat. The project includes adult Coho spawner surveys, 8 smolt traps for data collections in the spring of 2009, macro-invertebrate sampling by HCSEG summer interns, marine derived nutrient sampling, pool riffle surveys, carcass-analog distributions and transport (approximately 1,320 pounds) in WRIA 15, and data entry and statistical analysis.

**The Union River/Tahuya Summer Chum Project**

This project completed its ninth year partnering with the WDFW George Adams Hatchery in the fall of 2008. The following lists final returning numbers of Summer Chum to the Union River in 2008 and returning numbers up to September 09:

2000	743
2001	1,486
2002	872
2003	11,916
2004	5,971
2005	1,987
2006	2,836
2007	1,967
2008	1,144
2009	588 up to 9/28/09

Fifty pairs of Union River Summer Chum were collected for spawning during the fall of 2008. During the winter of 2008, Union River fry were raised for spring release into the Tahuya system. Approximately 57,000 summer Chum fry were released into the Tahuya River system in March of 2009.

**The Hood Canal Dissolved Oxygen Program**

The HCSEG has co-managed the Hood Canal Dissolved Oxygen Program (HCDOP) since 2005 in partnership with the Applied Physics Lab at the University of Washington. The project has involved over 40 partners that represent local governments, state and federal agencies, tribes, academia, NGO's, and private partnerships. The goal of HCDOP has been to determine the factors affecting the low dissolved oxygen levels in Hood Canal and the effect the variable low oxygen has on marine life. The larger tasks of the program are to investigate the freshwater inputs, marine circulation, food web dynamics, and weather impacts to the mechanisms affecting Hood Canal. This is done through observations, measurements, and modeling. The HCSEG is involved in many of the separate tasks in order to meet the program objectives. The HCSEG has assisted with the storm water sampling activity since the fall of 2008. We continue to conduct bi-weekly marine water sampling at 32 stations from Foul Weather Bluff (northern Hood Canal) to Lynch Cove in the lower Hood Canal region. HCSEG assists in the maintenance of four instrumentation moorings that have been established from Lynch Cove to Admiralty Inlet. The HCSEG leads the emergency response to algal blooms and fish kills that are reported via a hotline established through the Washington Department of Ecology. The recent analysis of the data is revealing patterns in landscape inputs, ocean contributions and impacts of weather to the function of Hood Canal. It has been demonstrated that nitrogen is the limiting factor in Hood Canal, and the additional contribution is measurable and can affect oxygen levels which affect biota. Fish kill events in 2004 and 2006 demonstrated both the variability in the system and the factors that must align for an event to occur. The findings have shown that Hood Canal has naturally low oxygen concentrations with very high inter-annual variation. Oxygen concentrations are strongly affected by climate and ocean conditions. The human contribution of nitrogen appears to have little influence on oxygen concentrations in northern/central Hood Canal. The human contribution of nitrogen in lower Hood Canal is of the magnitude to cause lower oxygen concentrations. Whether the magnitude of the human nitrogen contribution is a problem for the biota depends on the degree of natural variability. Anthropogenic nitrogen will push the variability closer to the oxygen threshold for biota stress and mortality.

The Hood Canal Coordinating Council is now working closely with the HCDOP scientist during the development of corrective action recommendations. Technical Advisory Committees comprised of appropriate state, federal, tribal, local representation are convening to discuss means for addressing such things as wastewater, land-use, agriculture, forestry, and riparian and near shore restoration and protection. These efforts link well with the efforts of the Puget Sound Partnership as well as the ongoing

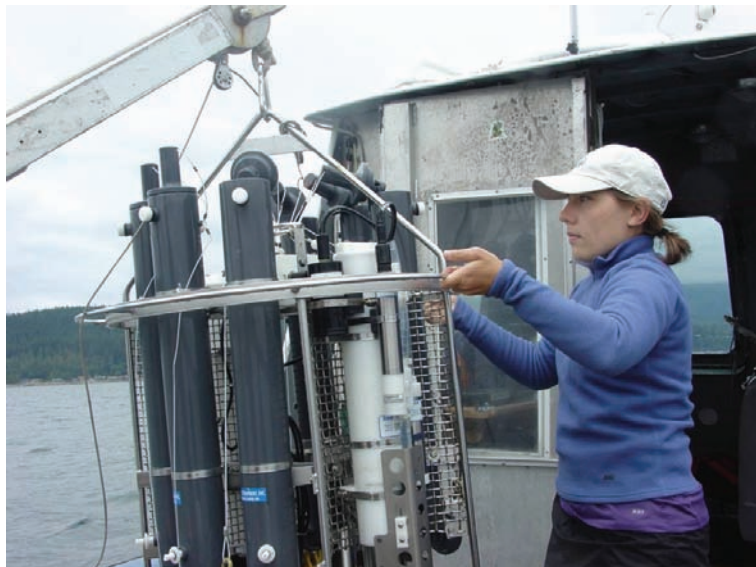


**Union River/Tahuya Summer Chum Project DNA sampling**

## Hood Canal Salmon Enhancement Group

work by regional WRIA groups, other state and federal agencies, and other local conservation groups.

For additional information, visit the HCDOP website at [www.hoodcanal.washington.edu](http://www.hoodcanal.washington.edu).



Hood Canal Dissolved Oxygen Project Marine sampling

### Mission Creeks Water Quality Sampling

This water quality sampling program funded under a Department of Ecology Centennial Clean Water grant was completed this summer. HCSEG partnered with the Mason County Department of Environmental Health on a two-year investigation to document the occurrence of fecal coliform ("f.c.") bacteria and dissolved metals within the Big Mission and Little Mission Creeks. Each of these watersheds has growing residential development along the lower portions of the streams. These streams border Belfair State Park, and these residential areas have been implicated in water quality issues. The park is adjacent to the marine shoreline and has recently taken significant steps to restore the shoreline habitat as well as the stream functions before they discharge into lower Hood Canal. Based on previous f.c. levels documented, both streams had been identified as risk for impacting the commercial and recreational shellfish harvests because of the f.c. bacterial pollution.

Monthly ambient water samples over the first year recorded the levels of f.c. bacteria and dissolved metals. The findings demonstrated that the lower watershed of Big Mission Creek represented significant seasonal sources of f.c. pollution. Dissolved metals were either non-detectable or were measured at extremely low levels in both watersheds. The second year shifted to more investigative water sampling for f.c. in conjunction with sanitary surveys with the cooperation of the community. Properties identified at risk for f.c. contribution were guided towards corrective actions

### The Molluscan Study

The Hood Canal Salmon Enhancement Group, the University Of Washington School Of Aquatic and Fisheries Science, the Department of Natural Resources, and Taylor Shellfish are nearing completion of a collaborative study to evaluate the ecosystem value of geoduck to the marine system of Hood Canal. The tasks of the program include bottom-typing and mapping to determine preferential habitats, modeling larval advection to determine dispersal potential, estimating geoduck distribution and abundance through ROV and dive surveys, shell aging to determine population structure, and geoduck filtration experiments. This information is intended to provide a status of the geoduck populations and abundance. It is also intended to provide a scope of the geoduck contribution as filter feeders to the dynamics of oxygen concentrations and other associated marine system functions.

### Hood Canal Steelhead Supplementation Project

The Hood Canal Steelhead Project began in 2007 and is a 16-year project designed to help rebuild steelhead populations in the Dewatto River, Skokomish River, and the Duckabush River. Fertilized eggs are collected from each of these rivers each spring through 2014. The fish are captively reared until they are released back into their natal rivers. They are released at the smolt stage and the adult stage. The first two-year old smolts were released this spring of 2009.

The project is modeled after steelhead supplementation on the Hamma Hamma River, where the number of steelhead redds constructed has increased substantially since the start of the project. We are currently in the pre-supplementation phase of the larger Hood Canal Steelhead Project where information is being collected on abundance, genetic composition, and life-history traits, but no captively reared steelhead have yet spawned in the rivers. Data is gathered through redd surveys, smolt trapping, summer parr sampling, and egg collections.

The study will test the effects of hatchery supplementation on natural steelhead populations by monitoring both test and control streams. Control streams, where no supplementation will occur, include the Tahuya River, the Little Quilcene River, and Big Beef Creek.

The Hood Canal Salmon Enhancement Group's primary role is to lead field activities on the Dewatto and Tahuya rivers and to conduct out-migrant trapping on the Little Quilcene River.

Project participants include NOAA Fisheries, Long Live the Kings, the Skokomish Tribe, WDFW, USFWS, USFS, the Jamestown S'Klallam Tribe, Point No Point Treaty Council and Port Gamble S'Klallam Tribe.

### Environmental Explorations

Partnered with North Mason School District's Hood Canal Institute in this educational event. Environmental Explorations occurred on May 20<sup>th</sup>, 2009 at the future home of the Pacific Northwest Salmon Center on Roessal Rd., in Belfair, WA. The center is located on a ninety acre parcel adjacent to the Union River Estuary. This event was organized for seventh graders

### Hood Canal Salmon Enhancement Group

living in the Hood Canal Watershed and designed to incorporate learning explorations of the natural environment. It began with a series of classroom activities in spring 2008 utilizing the WildWise program and culminated into a one-day outdoor event. Students were offered hands-on environmental learning applications. Venues included Bionic Bats, Amazing Birds, Exciting Estuaries, Amazing Art, Carbon for Lunch, Stream Fun, Water Wanderers and a Bug Safari. Additionally, all students participated in a Nature Mapping activity in the morning and reconvened to discuss post collection results. Students were able to experience the Salmon Center's lands while travelling from venue to venue and conducting nature mapping investigations.

#### Students in the Watershed

Partnered with North Mason School District's Hood Canal Institute ("HCI") and DNR in this event at the Tahuya River Horse Camp in the Tahuya State Forest on 5/14/09. Approximately 200 fourth grade students from Belfair Elementary and Sand Hill Elementary were mentored by North Mason High School students. HCI students designed hands-on inquiry based activities to give student attendees a better understanding of the Hood Canal Watershed. Environmental learning stations offered the following topics: "Products of the Forest", "Harvesting the Forest", "Creatures of the Forest", "Tracks and Scat" and "Caring for the Forest".



Adventure Salmon Camp August 2008 Dewatto

#### Adventure Salmon Camp

Adventure Salmon Camp was held for sixth through ninth graders in August of 2008. Seventeen children attended this overnight travelling camp. Young people were provided with opportunities to explore Hood Canal's diverse watershed first-hand while gaining knowledge in relation to the salmon life cycle, its role in the ecosystem and salmon related issues. Campers traveled around Hood Canal and participated in numerous activities such as kayaking, snorkeling, aquatic and terrestrial investigations, tracking, games, art, journaling and discussions. The influence of salmon to the culture of the northwest was portrayed as well as learning traditional knowledge from our tribal neighbors. An appreciation for the natural environment is gained while learning how to become a better steward at this unique camp.

#### Summer Internships

In the summer of 2008 seven internships were awarded to Hood Canal region high school graduates. HCSEG summer interns collected data on the tributaries of the Dewatto River system. The interns' responsibilities start with measuring the length of the streams, beginning at the stream's mouth and ending at its headwaters. They consider salmon habitat, and put up a benchmark every one hundred meters for future reference. While on the streams interns conduct stream surveys that involve gathering data along the entire length. Working together, the interns fulfill many jobs including measuring gradient, stream and channel width, pool depth and surface area and counting and measuring large woody debris. They also collect benthic macro invertebrates for the Dewatto Nitrification project to help determine the health of a stream. The collection of this data allows changes in

### Hood Canal Salmon Enhancement Group

the watershed to be monitored and any threats to salmon habitat to be noted and managed. Data collection in the summer of 2008 will be compared to data collected by summer interns on the Dewatto system in previous years.

#### Scholarships

In the fall of 2008 the HCSEG awarded seven \$2000.00 scholarships to college students from the Hood Canal Watershed.

#### Community Outreach

HCSEG staff and interns participated in community outreach at Allyn Days, Belfair Elementary School, Country Montessori School, Donkey Creek Chum Festival, Evergreen Internship Fair, Hood Canal Environmental Achievement Awards, North Mason Chamber of Commerce, Quilcene School, Shelton Civic Center/Earth Day and South Sound Fly Fishers.

#### Pacific Northwest Salmon Center

HCSEG took part in the development of the Pacific Northwest Salmon Center. The development of the Pacific Northwest Salmon Center as a major environmental and educational center in Belfair, WA is one of the goals of the Hood Canal Salmon Enhancement Group. Collaborating partners on this project are WDFW, NFWF, Washington State Dept. of Community Trade and Economic Development, Olympic College, The Boys and Girls Club of West Sound and the North Mason School District. The center will be located on a ninety acre farm site adjacent to Lynch Cove and the Theler wetlands in Belfair, WA. WDFW finalized it's acquisition of fifty two acres at the former Johnson Farm in April of 2008. The Salmon Center finalized it's acquisition of the remaining 38 acres in December of 2008. Plans are underway for remodeling of existing buildings to bring them up to commercial code to provide office and research facility space for both the Salmon Center and HCSEG.

HCSEG provided Board participation, staff support and logistics for the 6<sup>th</sup> annual Wild Salmon Hall of Fame which was held on September 13<sup>th</sup>, 2008 at the Admiral Theatre in Bremerton, WA. The 2008 winner was Christine Keff, Chef and Owner of Flying Fish, an award winning restaurant in Seattle. Chef Christine Keff has dedicated her culinary career to sustainability and sustainable seafood. Since 1996, she has been serving only wild-caught salmon in her restaurant establishing herself as a leader in seafood sustainability and the food service industry. She and her staff have been sharing the story of wild salmon and sustainability from the Northwest one plate at a time. In 2005, Flying Fish marked it's 10th anniversary with celebratory events and monumental undertakings that include Keff's subsidizing of an 18-acre farm in the Kent Valley, south of Seattle, which provides the certified naturally grown produce for the restaurant and converting 100% of the restaurant's raw ingredients to being 100% organic or harvested in the wild. When Keff is not attending meetings, speaking on organics or seafood sustainability or representing the Pacific Northwest at national conferences as the area's premier seafood expert, she is teaching cooking classes at Flying Fish. She hosts cooking classes/luncheons

every year to which local fishermen are invited to discuss life as a commercial fisherman and the importance of wild salmon to the Pacific Northwest. Chef Keff offers educational information to consumers on subjects such as sustainability, the sources of her products and how they were harvested. Chef Keff regularly offers her time and talent to numerous fundraising & non-profit groups that include support of Seattle's Neighborhood Farmer's Market Alliance, Lifelong AIDS Alliance, Share Our Strength, the Women's Funding Alliance and Long Live the Kings.

Four other finalists were honored at the event: Don Bayes, retired conservation and agricultural teacher for Stanwood School District and active community member; Rick Endicott, Manager, Lilliwaup Hatchery, Long Live the Kings and Hood Canal Salmon Enhancement Group Board member; Dick Knight, retired environmental engineer, avid volunteer, former President of the Regional Fisheries Enhancement Group Coalition, founding member and past President of the Skagit Conservation Education Alliance; and Earl Sande, former Board member and volunteer of the Hood Canal Salmon Enhancement Group from 1994 to 2007.

David Montgomery, Director of the Quaternary Research Center and a professor in the Department of Earth & Space Sciences at the University of Washington was the keynote speaker for the event. He is the author of *King of Fish: The Thousand Year Run of Salmon* and *Dirt: The Erosion of Civilizations*.



Little Quilcene River Planting Project – Fall 2008

**PROJECT EXPENDITURES**

Project Name	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total Spent	WRIA
WDFW #07-1281	\$167,167.55				\$167,167.55	14-17
USFWS #13410-8-J009				\$65,274.63	\$65,274.63	14-17
RCO # 05-1611 Brown Creek Rd. Decommissioning	\$0.00		\$0.00	\$57,290.18	\$57,290.18	15
WDFW CWC #08-1533 Quilcene Est. Wetland Rest. - Schinke	\$0.00			\$349,298.94	\$349,298.94	15
NRCS #66-0546-7-062 Schinke Wetland Restoration	\$0.00			\$253,612.64	\$253,612.64	15
RCO #06-2225 Quilcene Est. Wetland Rest. - Schinke				\$76,323.22	\$76,323.22	
WDFW LIP #08-1236 Schinke Quil. Est. cons. easemt.	\$0.00			\$11,827.90	\$11,827.90	
WDFW #07-1689 ESRP Big Quilcene ring dike removal	\$0.00			\$204,796.95	\$204,796.95	
RCO #07-1635 WDFW B. Quil. Dike Removal	\$0.00			\$71,868.55	\$71,868.55	16
NFWF #2006-0098-070 B. Quil. levee removal, feas. & design	\$0.00			\$14,600.00	\$14,600.00	17
RCO # 04-1647 Little Quilcene	\$0.00			\$182,889.38	\$182,889.38	
WDFW 07-1686 ESRP Little Quilcene Estuary Restoration				\$204,796.95	\$204,796.95	
NRCS #66-0546-5-008 Little Quilcene	\$0.00			\$734,940.75	\$734,940.75	
RCO #08-2104 Little Quilcene Delta Cone Removal				\$50,000.00	\$50,000.00	
RCO #06-2226 Quilcene Bay - McClanahan acquisition				\$100,000.00	\$100,000.00	14-17
RCO #07-1640 Quilcene Bay - Ward acquisition				\$339,865.69	\$339,865.69	
WDFW #08-1132 Dosewallips Estuary Restoration - Wolcott				\$47,164.32	\$47,164.32	17
USFWS #13245-7-J001 Dosewallips Est. Rest. - Wolcott				\$2,000.00	\$2,000.00	15
RCO #07-1635 Duckabush Robinson Rd.. Levee removal				\$55,477.08	\$55,477.08	
WDFW #07-1690 Duckabush Robinson Rd.. Levee Removal				\$110,610.18	\$110,610.18	
RCO #06-2221 Hama Hama River Estuary Restoration				\$1,211.07	\$1,211.07	
UW/APL HCDOP #978561- Year 4		289	\$4,335.00	\$159,869.00	\$164,204.00	
NRCS # 65-0546-8-009 Klingel				\$3,171.76	\$3,171.76	
RCO # 05-1602 Klingel				\$9,169.87	\$9,169.87	15
USFWS #13410-8-J017 Klingel Wetlands Dike Removal				\$10,421.53	\$10,421.53	
RCO #05-1665 Little Anderson IMW				\$51,436.79	\$51,436.79	
ECY # G0600304 Mission Cks WQ	\$0.00			\$7,112.96	\$7,112.96	15
DNR Molluscan Ill #PSC 07-101				\$52,656.17	\$52,656.17	14-17
Federal Habitat Restoration appropriation				\$200,000.00	\$200,000.00	14-17
NOAA #NFFP7230-7-14013 Steelhead tagging project				\$4,923.50	\$4,923.50	14-17
NOAA #NFFP7230-8-46665 Steelhead tagging project				\$43,776.07	\$43,776.07	15
Jefferson Cty. DPW - Little Quilcene				\$47,665.48	\$47,665.48	
Nutrication - carcass analogs				\$1,227.60	\$1,227.60	
WSI's				\$954.00	\$954.00	
Environmental Explorations May 08, VH 0509		431	\$6,465.00	\$8,150.00	\$14,615.00	15
Students in the Watershed - HCI Project 2008		116	\$1,740.00	\$708.70	\$2,448.70	
Experience Salmon Camp 2009			\$0.00	\$7,702.52	\$7,702.52	
Volunteer Hours July - Sept, 2008		164	\$2,460.00		\$2,460.00	14-17
Volunteer Hours Oct - Dec, 2008		316	\$4,740.00		\$4,740.00	14-17
Volunteer Hours Jan - Mar, 2009		340	\$5,100.00		\$5,100.00	14-17
Volunteer Hours Apr - Jun, 2009		1,090	\$16,350.00		\$16,350.00	14-17
Union Summer Chum Trap Aug 2008 thru Oct 08		2,814	\$42,210.00		\$42,210.00	15
Knotweed - Davis Wire				\$25,000.00	\$25,000.00	
PNWSC - Education, outreach, WSHF, support				\$36,000.00	\$36,000.00	14-17
<b>Totals</b>	<b>\$167,167.55</b>	<b>5,560</b>	<b>\$83,400.00</b>	<b>\$3,603,794.38</b>	<b>\$3,854,361.93</b>	

### Hood Canal Salmon Enhancement Group

## BOARD OF DIRECTORS

John Burgess, President – Retired Attorney  
Dan O'Neal, Vice President – Retired Attorney  
Richard Chwaszczewski, Treasurer – SAIC  
Michelle Licari, Secretary – Olympic College, Scientific Instr. Tech  
Al Adams, Board Member – Retired Dentist  
Paul Ancich, Board Member – Commercial Fisherman  
Jim Culver, Board Member – Retired Profession Forester  
Larry DePaul, Board Member – Resort Owner  
Rick Endicott, Board Member – LLTK, Lilliwaup Hatchery manager  
Bob Hager, Board Member – Retired Boeing Space Program Vice President  
Joel Pillers, Board Member – Area Manager, Belfair State Park/Twanoh State Park  
Bob Sund, Board Member – Retired School Administrator

## STAFF

Neil Werner, Executive Director  
Dan Hannafious, Assistant Director / Co-Manager HCDOP  
Mona Pillers, Executive Assistant  
Julie Easton, Volunteer Coordinator  
Kimberly Gower, Project Administrator  
Mendy Harlow, Habitat Biologist  
Sean Hildebrandt, Stream sensor and Debris Specialist  
Don Husted, Field and Maintenance Technician  
Michelle Myers, Education and Outreach Coordinator / Research Assistant  
Renee Rose-Scherdnik, Water Quality Specialist / HCDOP  
Teresa Sjostrom, Steelhead and Marine Specialist

## CREW INFORMATION

### Intern - Summer 2008

Kiley Barbero  
Daniel Brody  
Adrianna Lippy  
Andrew Lurker  
Ben Masters  
Breann Ohman  
Leah White

## CONTACT INFORMATION

Hood Canal Salmon Enhancement Group  
P.O. Box 2169  
22881 NE State Route 3  
Belfair, WA 98528  
360-275-3575 Office  
360-275-0648 Fax  
hcseg@hcseg.org  
Website: [www.hcseg.org](http://www.hcseg.org)



### **MISSION STATEMENT**

The mission of the North Olympic Salmon Coalition is to restore, enhance and protect habitat of North Olympic Peninsula wild salmon stocks and to promote community volunteerism, understanding, cooperation and stewardship of these resources.

### **RFEG OVERVIEW**

As a non-profit, community-based salmon recovery organization, North Olympic Salmon Coalition (NOSC) provides funding, guidance, technical assistance and ongoing support for salmon habitat restoration and enhancement. Our region includes the watersheds along the coast of the Strait of Juan de Fuca, extending from the Hood Canal Bridge west to Neah Bay. We have formal working relationships with the Washington Department of Fish and Wildlife (WDFW), the Jefferson and Clallam County Conservation Districts (JCCD and CCD), and Point No Point Treaty Council. We cooperate with a variety of agencies, tribes, schools, community organizations, volunteers and landowners to work on key areas of wildlife habitat in Morse, Snow-Salmon, and Chimacum Creeks and the Pysht River and are seeking to expand into watersheds in the west end of our region. In addition to creek and river systems, we are undertaking nearshore projects and are providing educational programs to shoreline landowners to raise awareness of these important habitats.

NOSC participates in the Salmon Recovery Funding Board processes through two lead entities ~ the Hood Canal Coordinating Council Lead Entity and the North Olympic Peninsula Lead Entity Technical Review Group. NOSC's priority watersheds are Morse Creek in WRIA 18 and the variety of rural watersheds in WRIA 19. The Salmon-Snow watershed in Discovery Bay is our action priority in the Hood Canal Coordinating Council Lead Entity. From its Eaglemount headwaters to Port Townsend Bay, the Chimacum watershed remains a high community priority for NOSC in the HCCC Lead Entity Area. The Regional Recovery Plan for Hood Canal and Strait of Juan de Fuca Summer Chum is lead by HCCC who looks to NOSC and the rest of the "Chumsortium" as the local outreach partners to develop community support for recovery of ESA listed summer chum in these watersheds.

### **PROJECT HIGHLIGHTS**

#### **Fish Enhancement**

Previous efforts to restore ESA listed summer chum in Salmon and Chimacum Creeks have been successful, and these creeks are no longer dependent on broodstock programs. NOSC continues to monitor these populations with WDFW assistance and funding from ALEA to ensure broodstocking does not need to occur in the future. NOSC continued into its 10<sup>th</sup> year of summer chum broodstocking supplementation on Jimmycomelately Creek, which continues to show positive returns with this year's spawning run numbers reaching over 1,000 returning adults. This program was adopted by NOAA as part of the 2007 Summer Chum Salmon Recovery Plan. The Jimmycomelately broodstock supplementation

#### North Olympic Salmon Coalition

program is expected to reach completion in 2011, after which supplementation will cease and NOSC volunteers will continue to monitor the population with WDFW assistance to ensure the run is self-sustaining.

### **WATER QUALITY PROJECTS**

#### **Roads Decommissioned**

Since the 1940's, Deep Creek and East and West Twin Rivers were subject to mass wasting and sediment accumulation from Forest Service road 3040 (an inactive logging road.) The Olympic National Forest proposed decommissioning of Forest Service road 3040 from milepost (MP) 7.2 to MP 13.2 and all the spur roads off this road, totaling eleven miles of road. Because the Forest service lacked adequate funding, NOSC secured a SRFB grant in 2006 to pass funding through to the Forest Service to begin decommissioning of this road system. With these funds, two culverts were replaced and sections of the FS 3040 road were decommissioned, with work reaching completion over this past fiscal year.

#### **Morse Creek Stormwater Ponds**

Morse Creek is located within Clallam County and runs under Highway 101 as it heads toward the Strait of Juan de Fuca. Stormwater ponds were constructed in summer 2008 to treat the highway runoff prior to it flowing into Morse Creek. Funding for the project came from ALEA and NFWF grants. The area was planted with over 1,400 native grass plugs and plants this last year following project site construction to improve surrounding habitat and further reduce runoff of pollutants. The site is currently being maintained through weeding and watering efforts using staff guided volunteer help.

### **IN-STREAM HABITAT PROJECTS**

#### **Morse Creek Floodplain Reconnection**

The Morse Creek project reconnects Morse Creek (located in Clallam County) with its historic floodplain by using a remnant channel that was isolated by diking activities after 1940. This past year, the project design engineering was completed to 60%, and is now awaiting geotechnical information in order to take it to final design. The design work included the creation of a hydraulic model to achieve a design with zero upstream backwatering at 100 year flood flow levels. NOSC has filed for and received all permits related to the geotechnical work. This past year NOSC also conducted meetings with the neighboring communities in order to keep local citizens and landowners up to date on project plans. Large woody debris (LWD) for the project will be secured this winter with plans for construction of the project in summer 2010 or 2011.

### **RIPARIAN PLANTING AND MAINTENANCE**

Volunteers from Jefferson Land Trust, WSU Water / Beach Watchers, Greywolf Ranch, Jefferson County Juvenile Services, Washington Conservation Corps, and local schools are valuable



## North Olympic Salmon Coalition

partners on these riparian planting projects. Many volunteer hours were logged in riparian plantings and site maintenance on Chimacum Creek, Chimacum Beach, Salmon Estuary, Snow Creek and Morse Creek riparian areas this fiscal year. NOSC also continues to maintain two plant nurseries using volunteer help in Jefferson County (one on donated farmland, another at Chimacum School). Combined, these nurseries hold over 1,780 native trees and shrubs. Within the Chimacum watershed, NOSC continues to maintain nearly 8,800 plants and trees on 17.7 acres of riparian plantings. This past year, 1,535 new trees and shrubs were planted within the watershed. In addition to plantings, maintenance efforts were extended throughout the watershed to cover over 16,000 linear feet of creek frontage. The extra maintenance work was made possible by Dept. of Ecology (DOE) funds allocated by the WRIA 17 planning unit to Jefferson County Conservation District (JCCD) for water quality improvements in Chimacum Creek. With these funds, JCCD contracted NOSC to do extra weed removal work throughout the watershed to help address problems with low levels of dissolved oxygen. A Washington Conservation Corps (WCC) crew and three restoration technicians were hired for this purpose. Problematic weed species were targeted by the crews through mowing and hand clearing and together they removed over 50 cubic yards of noxious weeds and debris from the watershed.

### Chimacum Creek – Bishop Property

Last year, NOSC secured a LIP USFW grant to target a particularly troublesome infestation of European bittersweet nightshade on the upper East Fork that acted as a barrier to spawning salmon. Last summer, after this 500-foot section was cleared of fish, the creek water was re-routed while an excavator removed over 6 tons of nightshade. Following weed removal, the banks were stabilized with jute matting in preparation for planting this upcoming fall. Fish were already documented spawning in this area of the creek following weed excavation last spawning season.



**Restoration technicians at work in the Chimacum Creek watershed. Over 50 cubic yards of noxious weeds were removed by the crew**

## ESTUARY AND NEARSHORE

### Salmon Creek Estuary Restoration

Construction at the Salmon Creek Estuary Restoration site was completed in fall 2008. Over 20,000 cubic yards of wood waste and 46,000 cubic yards of gravel and other materials (including five derelict mill buildings leftover from the old mill production site) have been removed from the two sites at the mouth of Salmon Creek. Removal of the wood waste and other materials transformed this manmade upland area back to the estuarine salt marsh that existed historically. The excavation effort resulted in the immediate creation of approximately 11 acres of accessible estuarine habitat and approximately 1,100 meters of newly constructed tidal channels. Additional development of channels over time will likely yield an additional 4200 meters of channel for a total gain of over 5200 meters of tidal channels spread out over the 11 acres.



**Overhead aerial of finished estuary construction sites at Salmon Estuary showing both the North and the South sites together. Note newly created tidal channels within both estuary areas**

### Chimacum Beach

NOSC continued beach restoration efforts at this site with plantings and site maintenance. Approximately 500 trees and shrubs were planted with volunteer help and assistance from the WCC crew and restoration technicians. Invasive weed removal continued this year as well, especially sweet white clover (*Melilotus alba*) eradication.

## MONITORING

### Macro-invertebrate Study

NOSC completed its 6<sup>th</sup> year of the baseline macroinvertebrate monitoring program which was established in 2002 on Salmon and Chimacum Creeks. The program was initiated to gauge changes in biological integrity pre- and post- summer chum recovery and habitat restoration. The project has been dependent on volunteers from the community, Americorps and Chimacum School's 6<sup>th</sup> grade science classes for its accomplishments. This year,

### North Olympic Salmon Coalition

NOSC also completed preliminary data analysis of all gathered macro-invertebrate data in order to correlate Benthic Index of Biotic Integrity (B-IBI) scores with Jefferson County Conservation District's water quality monitoring data. B-IBI scores are created from yearly macro-invertebrate sampling data, and reflect the numbers and kinds of macro-invertebrates present (the higher the B-IBI score, the "healthier" the stream conditions.) Results show that the strongest indicator of successful B-IBI scores is intra-gravel dissolved oxygen (IGDO) levels, but dissolved oxygen (DO) and temperature are also significantly correlated. Overall, report recommendations are that more data sets are necessary to both strengthen this correlation and to further examine other factors that may be affecting macro-invertebrate communities.

#### Water Quality

For the 8<sup>th</sup> year, NOSC funded a Washington Conservation Corps intern to work with Jefferson County Conservation District's water quality monitoring program in Chimacum, Salmon, Snow and other watersheds. Through this program, data was collected on temperature, flow, nitrates, turbidity, dissolved oxygen, and inter-gravel dissolved oxygen. This work adds to the continuous 19-year data set documenting watershed conditions throughout East Jefferson County.

#### Fish Monitoring

NOSC volunteers assisted Lower Elwha K'lallam Tribal staff in the installation of smolt traps on Deep Creek and East Twin River. Spawning surveys for summer chum and coho took place with volunteers in the Chimacum watershed in cooperation with WDFW and the Point No Point Treaty Council. NOSC volunteers also participated in beach seining at Chimacum Beach to monitor the effects of the beach fill removal project completed in 2006 (see above). NOSC volunteers continued to provide extensive volunteer labor support for the WDFW Snow Creek Coho Recovery Program; a research based broodstock and RSI effort using multiple rearing and release strategies in the Discovery Bay watershed. NOSC volunteers attended adult traps at Jimmycomelately and Salmon Creeks and walked Chimacum Creek counting summer chum and collecting otoliths, scales and tissue samples for DNA and identification analysis. NOSC volunteers also conducted fyke net sampling in tidal channels at the Salmon Estuary as part of an ongoing monitoring effort which will continue as the Salmon Creek Estuary Restoration Project is completed.

#### Salmon Estuary Restoration Monitoring

(See full project description in "Nearshore" section above.) Pre-project baseline monitoring in preparation for the estuary restoration at Salmon Creek began in June 2007. From 2007 through 2008, New Fields Northwest performed initial sediment and water toxicity analysis related to wood waste existing on the site, NOAA completed invertebrate sampling in existing tidal channels, and Shreffler Environmental, NOSC staff and volunteers performed baseline vegetation monitoring at control sites. Following pre-project baseline monitoring protocols, monitoring both during and post-project construction followed protocols

outlined in the 'Salmon-Snow Estuary Monitoring Plan,' which was developed specifically to describe recommended tasks for monitoring the overall health of the Salmon-Snow Estuary in regards to work completed with the Project. This comprehensive plan includes protocols developed to monitor fish utilization (with fyke net sampling and ocular surveys), vegetation recruitment, sediment accretion, tidal channel development, and water quality toxicity monitoring.

#### Chimacum Beach

With funds from the Puget Sound Partnership (PSP), NOSC staff and volunteers continued to monitor changes in the berm formation, sediment deposition, and many other factors at the old Irondale smelting site - now known as Chimacum or Irondale Beach. The PSP funds allowed NOSC to continue monitoring the naturally occurring changes to the beach restoration site and create a report analyzing the data gathered during beach profile surveys conducted from 2003-2009.



**Chimacum Beach seining crew. Annual fish utilization monitoring continues at the Chimacum Beach Restoration Site, following project construction in 2006.**

#### Pysht River – Bowlby Cross-Sections

Following channel restoration and LWD placement that took place at the Bowlby property on the Pysht River in 2005, follow-up monitoring of the channel bed continues to occur. Elevations taken along established transects together with channel lengths are documented annually in addition to photos taken at pre-determined photo point stations. Monitoring was completed for this year in Summer 2008.

## COMMUNITY OUTREACH AND EDUCATION

#### Marine Riparian Restoration

In an effort to educate marine shoreline landowners in a positive, non-regulatory setting, NOSC developed the North Olympic Marine Riparian Restoration project to educate marine shoreline landowners about the physical and biological processes that take place on their property. A total of 34 shoreline landowners participated at 3 educational events, and NOSC volunteers (including landowners), installed 1,250 native trees and shrubs along

North Olympic Salmon Coalition

3.5 miles of shoreline throughout Clallam County. Participants learned about coastal processes, the importance of the near-shore environment (including marine riparian areas), native plant identification, planting plan design, and noxious weed control. This shoreline mileage covered a total of 15 individual properties participating in the project and over 80 hours of volunteer labor were contributed in assisting with plant installation. This project was made possible with NFWF funds.

**Volunteers and Outreach**

NOSC again provided education and training for volunteers for all our monitoring and riparian projects. NOSC continued to provide watershed and salmon ecology educational opportunities to Chimacum school science classes, Billings Middle School from Seattle, Grant Street Elementary School, and a private school located in Port Angeles. Additionally, NOSC has continued educational training for WSU's Jefferson and Clallam County Water/Beach Watcher volunteer programs. There were a variety of annual festivals and events that NOSC participated in this year including the North Olympic Land Trust's Streamfest, the Dungeness River Festival, and Joyce Daze. NOSC also made educational presentations at the *Go Native!* workshop together with the Jefferson County Conservation District (JCCD) and Washington State University (WSU) in support of the JCCD native plant sale. In addition, NOSC representatives made presentations to the Jefferson County

Marine Resource Committee and to various nearshore community organizations such as Discovery Baywatchers and the WSU Cooperative Extension Water/Beach Watcher classes in two counties. FIN, the Migrating Salmon sculpture, was again made available for reservations for school group educational events, local and out-of-state festivals, and other meetings and events. NOSC continued its general outreach efforts through publication of newsletters and a new e-newsletter, maintenance of its website and creation of blog sites to highlight special project activities. Finally, NOSC continued printing and distribution of 'Tracking the Dragon', an educational watershed-based learning book, making it available to local school groups and to the public.



**Jimmycomelately Creek Summer Chum Recovery crew.** These volunteers (plus a few that are not shown here) worked over 900 hours on the Summer Chum Recovery program at Jimmycomelately Creek

**PROJECT EXPENDITURES**

	<b>RFEF Funds</b>	<b>Volunteer Hours</b>	<b>Volunteer Dollars</b>	<b>Other Funds</b>	<b>Total Spent</b>
<b>Project Director</b>	\$32,849.78	413.50	\$6,202.50		<b>\$39,052.28</b>
<b>Project Coordinator</b>	\$39,338.85				<b>\$39,338.85</b>
Clallam MRI		168.50	\$2,527.50	\$23,879.18	<b>\$26,406.68</b>
Macroinvertebrates		170.50	\$2,557.50		<b>\$2,557.50</b>
Morse Log Cabin		12.00	\$180.00	\$20,920.23	<b>\$21,100.23</b>
Chimacum Estuary	\$941.38	390.50	\$5,857.50	\$4,407.82	<b>\$11,206.70</b>
Smolt Trap Deep Creek, East Twin		66.00	\$990.00		<b>\$990.00</b>
Membership & Fin		68.00	\$1,020.00	\$1,290.15	<b>\$2,310.15</b>
<b>Office Operations</b>	\$9,356.45				<b>\$9,356.45</b>
<b>Restoration</b>	\$11,758.05	35.00	\$525.00		<b>\$12,283.05</b>
Summer Chum Hatcheries		1672.00	\$25,080.00	\$37,808.57	<b>\$62,888.57</b>
Chimacum Creek		129.00	\$1,935.00	\$32,722.10	<b>\$34,657.10</b>
Deep Creek				\$22,542.91	<b>\$22,542.91</b>
Morse Re-Meander		80.00	\$1,200.00	\$189,207.27	<b>\$190,407.27</b>
Morse Stormwater Ponds		73.50	\$1,102.50		<b>\$1,102.50</b>
Salmon Estuary		213.00	\$3,195.00	\$1,216,078.05	<b>\$1,219,273.05</b>
Pitship				\$13,837.79	<b>\$13,837.79</b>
<b>TOTALS</b>	<b>\$94,244.51</b>	<b>3491.50</b>	<b>\$52,372.50</b>	<b>\$1,562,694.07</b>	<b>\$1,709,311.08</b>

## BOARD OF DIRECTORS

### COALITION OFFICERS 2008-2009

President: Tom Ammeter - Chimacum School staff, Snohomish Tribal Council

VICE PRESIDENT: Terry O'Brien - Sport fisher, brewmaster, retired

Secretary/Treasurer: Richard Wojt - Teacher, county commissioner, retired

### BOARD MEMBERS 2008-2009

Harry Bell - Silviculturist, Green Crow Partnership

Karolyn Burdick - Riparian project site landowner

Ron Deisher - Sport fisher, executive, retired

Jean Erreca - Sport fisher, shoreline resident, landscaper, retired

Jim Hackman - Dedicated volunteer, former president of Wild Olympic Salmon

Mike Langley - Shoreline landowner, dedicated volunteer

Karl Meyer - Dedicated volunteer, Master Gardener

Hannah Merrill - Natural Resources officer, Clallam County

Doug Morrill - Biologist with Lower Elwha Klallam Tribe

Bob Triggs (non-voting board member) - Professional fly fisherman and guide

### STAFF MEMBERS 2008-2009

Rebecca Benjamin - Executive Director

Kevin Long - Project Manager

Owen French - Restoration Steward

Alicia Aguirre - Education & Stewardship Coordinator

Randy Pendergrass - Financial Manager

Nancy Erreca - Administrative Assistant

Alisa Meany - Outreach Coordinator

Betsy Kain - Americorps Intern

Heather Noel - Americorps Intern

### CONTACT US:

North Olympic Salmon Coalition

205 B West Patison Street

Port Hadlock, WA 98339

Ph. (360) 379-8051

Fax. (360) 379-3558

e-mail: [rbenjamin@nosc.org](mailto:rbenjamin@nosc.org)

web: [www.nosc.org](http://www.nosc.org)



### Pacific Coast Salmon Coalition

## **MISSION STATEMENT**

The Pacific Coast Salmon Coalition is a regional fisheries enhancement group actively involved in local volunteer-based habitat restoration to achieve a healthy salmonid resource within our region.

## **VISION STATEMENT**

We envision a restored environment that maintains a healthy self-sustaining salmonid population.

We envision having a salmonid resource we can utilize and enjoy far into the future.

We see a local community that not only utilizes the resource but one that takes responsibility and is actively involved in the well being of that resource.

We envision a strong working relationship with all relevant entities that have a vested interest in salmonid habitat restoration.

## **RFEG OVERVIEW**

The coverage area for the Pacific Coast Salmon Coalition (PCSC) includes the western portion of the Olympic Peninsula north of the Chehalis River drainage and south of Cape Flattery. This region covers parts of three counties: Clallam, Jefferson, and Grays Harbor. There are several significant rivers in this region including the Sol Duc, Calawah, Dickey and Bogachiel - Quillayute River complex, the Hoh River, the Queets River and the Quinault River. These rivers are glacial fed and have short, but steep drops to ocean. High levels of precipitation characterize the region and streams with cold water, high average flows, and relatively long duration peak flows, including a second peak later in the year from snow melt.

Much of this area is within the Olympic National Park and Olympic National Forest, the state Experimental Forest, or one of several Native American reservations. The majority of the land base in the river drainage is in timber production. The remaining land base is primarily a mixture of National Park and Native American Reservation.

One of the primary challenges PCSC faces is obtaining volunteers in a very large area with a very low population density. The challenges for the volunteers are to blend the needs of salmon with the area's economic dependence on logging and fishing and because so much of the region is in public lands their efforts must be coordinated with various state, federal, and tribal land managers. However, because of this unique circumstance several beneficial partnerships have formed. To date, the Pacific Coast Salmon Coalition has formed partnerships with the Quillayute Tribe, the Hoh Tribe, the Makah Tribe, Quinault Tribe, USDA Forest Service, National Park Service, WDF&W, DNR, Forks School system, Rayonier, Green Crow, Blodell, the City of Forks and numerous small private landowners.

## **PROJECT HIGHLIGHTS**

The Pacific Coast Salmon Coalition, the Bogachiel Salmon Hatchery and the Sol Duc River Salmon Hatchery are working together to enhance the food chain for salmon with the **Quillayute Nutrient Enhancement project**. The Sol Duc, Bogachiel, Calawah, and Dickey rivers were enhanced with over 22,200 surplus salmon carcasses dispersed by volunteers using their own vehicles in almost 750 hours of volunteer service. Hatchery personnel gather and spawn the necessary fish for next years run. Several thousand food-quality salmon are collected for the local areas food banks, senior centers and tribal centers. The remaining salmon, nearing the spawning stage, are too old for the area food banks. These salmon are collected and their tails are removed for identification as hatchery fish. Volunteers work with the hatchery employees to place these fish into the river systems. As these fish decay, they release nutrients that make their way up the food chain. Aquatic insects such as caddis flies, stoneflies, and midges, feed on these Coho salmon carcasses. The aquatic insects are an important part of a Coho fry's diet. Salmon have five life stages; eggs, fry, smolt, adult and carcasses. So here we have the fifth stage helping to improve the second stage. As we put these carcasses in streams they deposit marine derived (Pacific Ocean) nitrogen, carbon, and phosphorous. Juvenile Coho, steelhead, and cutthroat in small western Washington streams obtain 25% to 40% of these elements from Coho salmon carcasses. Besides feeding on aquatic insects, Coho fry have been seen feeding directly on the carcasses. Salmon are called a "keystone" species. They have a positive impact on 138 species of wildlife in Washington and Oregon. WDFW, Rayonier USDA Forest Service Olympic Region, and DNR are important partners in this project.

The **Alder Creek Side Channel** pilot project consists of building 13 engineered logjams into what is called an "island edge tree reinforced log lattice." This is the first of many engineered logjam projects on the Upper Quinault River. Entrix, Inc. (Tim Abbe, Arthur Fleming, Jeremy Bunn and many others), Do Construction, Quinault Valley Forestry are working with Quinault Tribe on this project. This pilot project rivals the DOT Hoh River ELJ project in scale but provides significantly greater benefit to salmon. The project area covers a distance of nearly 0.5 river miles. Driving east on the South Shore Road, the site is located approximately 0.5 miles past the Grays Harbor-Jefferson County Line. The objectives of the project are to protect the Alder Creek Side Channel (ACSC) from being destroyed by the Quinault River this winter or the next and to reestablish a forested surface on the logjams within the bankfull river channel. Overtime we expect the logjams to coalesce into a mature, forested floodplain terrace surface. ACSC is one of only four side channels remaining in the entire upper Quinault that supports blueback sockeye and coho spawning. Not only does this project have immense importance as a habitat project but it also has enormous political and community implications and upon its successful completion combined with the Restoration Plan, will be the spring board for creating a Quinault River restoration coalition and funding consortium. Quinault River restoration is landscape-scale river

### Pacific Coast Salmon Coalition

restoration approach encompassing a distance of over 18 km in the upper river from the Forks to Lake Quinault. Nothing like this, on this scale has ever been done before. We are attempting to restore the entire Quinault River system (WRIA 21 TRG) meaning its riverine-forest habitat forming processes, and its wild salmon runs. The project is funded by 5 different grants, has both State and National attention (scientific and political) with support, contribution, and partnerships with multiple state, local, and federal agencies (ONF, ONP, USFWS, NMFS, NOAA, ACE, WDFW, DNR, DOE, JeffCo, SHPO, RCO/SRFB, PCSRF, Dicks, Murray, Cantwell; not to forget the local Quinault Valley community and landowners). Existing grants funding this project include: SRFB 2007 = \$383,000; three Pacific Coast Salmon Recovery fund grants = \$464,000, and \$28,000 from USFS Title 2 grant and JeffCo mitigation for a total of \$875,000.

The **Borde Pond** project is an ongoing RSI project. The intent of the project is to augment the existing Coho run in Mill creek. Borde pond is an ongoing supplementation project being done in partnership with private landowners, Phil & Beverly Borde and WDFW. The project has been implemented in cooperation with WDF&W for several years now.

The **Haberman Pond** project is a streamlined fish habitat enhancement project on an unnamed tributary of Beaver Creek in WRIA 20. The pond is located along an old railroad spur located off of HWY 113. There were two pipes under the road at different places along the pond perimeter. The primary culvert was blocked and the secondary pipe was extremely undersized with a five-foot drop to the channel below. The undersized culvert at the far end of the pond was replaced by 36" PVC pipe reset at an elevation that allows it to function as an overflow. PCSC placed an appropriate sized culvert, roughly fifteen log structures and 100' of new channel. The objective of this project is to provide

off-channel habitat by allowing salmonid access to the existing pond for the purpose of overwintering while maintaining pre-construction water levels within the pond. Haberman Pond is one of PCSC's on-going monitoring projects it will be monitored for effectiveness and utilization.

The **Paradise Pond** project is located on a small tributary of the Clearwater River which is in the Queets river drainage. The pond was created during the summer of 1985 as a means to provide overwintering habitat for juvenile salmonid. A cedar plank dam was built across a spring fed channel to pond the water and a wooden pool and weir fishway were constructed and connected to the downstream end of the dam. Explosives were used to deepen sections of the 5,000 square meter pond that range in depth from 1-3 meters. This site was studied over a four-year period both before and after construction of the pond. Nearly 15,000 Coho salmon smolts were captured during this period results showed an overwinter survival rate of 16% pre-construction and 58% post-construction (Cedarholm, Scarlett & Peterson 1988). The dam and fishway were in a severely degraded condition and had become a barrier to juvenile fish. During the past couple of years, the Pacific Coast Salmon Coalition (PCSC) has monitored this site and made repairs when needed. However, these were only temporary "fixes" and the problem needed a permanent solution. With a generous grant from the Salmon Recovery Funding Board PCSC replaced the dam with a hardened overflow and fishway with 350' of new channel allowing passage to all species of salmon under all flow conditions and during all life stages. Off-channel overwintering habitat has been listed as a limiting factor in WRIA 21 and this project is considered a high priority due to its well documented history. The final phase of the project was implemented this summer and involved planting the entire area with native vegetation, including spruce, cedar and maple along with swamp grasses & ferns.



## Pacific Coast Salmon Coalition

The **N.F. Calawah LWD** project is an on-going, multi-phase project. The project is a cooperative effort with USDA Forest Service Olympic Region and involves the placement of LWD within the river channel of the N.F. Calawah River. The N.F. project seeks to place woody debris in specific sections of the river that have been monitored for a number of years and are known to have a significant number of spawning salmon. The engineered log jams are being placed in areas that lack the complexity and gravels that are created by the adding wood to the river. The ultimate goal of this project is to increase the wood within the channel, increase the successful spawning of salmonids, increase channel complexity and decrease bank erosion. This year we continue our restoration activities by converting alder forests, planting and creating stream diversity.

The **Lake Pleasant** project is an ongoing project in which we place gravel along one of the most prolific spawning areas of Lake Pleasant. We partner with a small private landowner to provide the gravel for Sockeye to spawn in. There is an upwelling in this area that attracts the Sockeye so the area is extremely sensitive to disturbance. For that reason, all gravel is placed onsite by hand. Wheel barrel loads of gravel are transported several hundred feet to the shore where the Sockeye spawn. Volunteers then carefully rake the gravel out along the shoreline.

The **Smith Overwintering Pond** project is also an on-going project. The previous components of this project were the replacement of the outlet culvert, the placement of gravels and an on-site, under water camera system that monitors fish usage. This year volunteers placed more gravel, planted trees, erected fencing, maintained and operated the camera system and placed signage.

The **Brandeberry Lots** project is an on going effort to stabilize a section of river along the Hoh River. PCSC placed 8 to 10 log truck loads of limb, logs, and stumps on the bank to reduce sediment input and provide refuge and cover for salmonids. PCSC has been involved with this project, partnering with several local land owners, WDNR and many others. Over the last several years the river has stabilized along a half mile section and in some portions it has created a new side channel off the main stem. The side channel maintains a consistent flow along the bank where logs and stumps have been placed. A significant number of juvenile and adult salmonid can be seen seeking the refuge and safety provided by the woody debris in the side channel. The Hoh Tribe, in cooperation with local landowners, planted the whole area along the Brandeberry Lots buffer.

The **Hagen Creek** project is a cooperative project with the Hoh River Trust. Two non-functioning undersized, perched culverts that were a complete fish passage barrier were removed. The road was put to bed and at each crossing the slopes were pulled back to create natural, stable stream banks. The streams will now allow fish passage for all species in all life stages under all flow conditions. The entire area was replanted with native vegetation using volunteers. The project is a part of the Hoh River Trust's plan to restore and rehabilitate all their currently acquired properties.

The **Dry Creek** project, built in cooperation with WDNR, addressed a ten foot perched culvert that was impassable to salmonids under most flow conditions. Four truck loads of logs were placed down stream and over a thousand cubic yards of gravel was placed in the stream over the logs. The constructed channel back watered the stream through the pipe and provides access through the culvert to all salmonid under all flow conditions.

The **Monitoring and Maintenance** project involves the on-going responsibility of monitoring and maintaining over forty WDF&W restoration sites, as well as, all of the past PCSC project sites. Due to WDF&W's dwindling involvement in the area we were asked to step in and assist with the upkeep of these constructed sites. The sites are a variety of different restoration activities including fish ways, log and rock weirs, and roughened channels. Primarily, PCSC will ensure the sites are functioning properly and allowing access, fish ways are clear of debris, beaver dams are fish-passable and that ponds have proper cover where needed. We also have continued to repair and replace structures where necessary due to the projects reaching the end of their life span or natural occurrence such as floods. Our volunteers have put in over 750 hours throughout the year, saving valuable dollars to be used on larger projects.

The **FMS Water Quality** project (Forks Middle Schools) is an on-going project that gets kids interested in salmon and educates them not only in the classroom, but in the field as well. This project provides funds for water quality education, how to do water quality testing and why water quality is important to salmon. The Alternative school has also provided an enormous amount of data they have collected on water quality in the Bogachiel and tributaries. Funding provides field trips for alternative, middle and elementary schools to the Bogachiel and Sol Duc hatcheries. Our Salmon in the Classroom program has been a success in its first year. Forks Elementary School received 150 green eyed Coho eggs from the winter spawn at Sol-Duc hatchery. The kids set up the tank and prepared time schedules so that each student had the opportunity to care for their new swimming classmates. All but one egg survived so 149 Coho fry were released in the early spring to the Sol-Duc River.

The **Administrative and Executive Director** projects are, unfortunately, some of the least glamorous of the projects P.C.S.C. has. However, without these projects none of the other "dirt turning" jobs could be accomplished. It is on these vital funds that all other things depend.

**PROJECT EXPENDITURES**

<b>Project Name</b>	<b>RFEF Funds</b>	<b>Vol. Hours</b>	<b>Vol. Dollars</b>	<b>Other Funds</b>	<b>Total Spent</b>
Quillayute R. N.E.	\$11,082.00	427	\$6,500.00	\$75,200.00	\$92,782.00
Fletcher-pole creek	\$3,050.00			\$22,016.00	\$25,066.00
Borde Pond RSI	\$482.00	145	\$2,100.00	\$6,000.00	\$8,582.00
FS Water Quality	\$5,189.00	650	\$10,200.00	\$17,000.00	\$32,389.00
Alder Creek Pilot	\$10,000.00			\$1,500,000.00	\$1,510,000.00
N.F. Calawah LWD	\$8,190.00	30	\$450.00	\$12,265.00	\$20,905.00
Admin. Cost	\$56,976.00	216	\$3,240.00		\$60,216.00
Executive Dir. 08	\$51,785.00				\$51,785.00
Dry Creek	\$623.61	16	\$240.00	\$27,500.00	\$28,364.00
Brandeberry Lots	\$5,250.00			\$38,400.00	\$43,650.00
Monitoring and Maint.	\$15,152.00	757	\$11,355.00	\$12,000.00	\$38,507.00
Grant Writing	\$12,829.00				\$12,829.00
Thomas Springs	\$7,212.00	150	\$2,250.00	\$11,500.00	\$20,962.00
Paradise Pond	\$1,049.00	52	\$780.00	\$12,300.00	\$14,129.00
Haberman Pond	\$31,000.00	100	\$1,500.00	\$26,000	\$58,500.00
Hagen Creek	\$5,019.00	72	\$1,080.00	\$29,500.00	\$35,599.00

**BOARD OF DIRECTORS**

Wayne Haag	President	Retired Centurytel
Don Nordstrom	Vice President	WSDOT
Richard Haberman	Treasurer	Retired Centurytel
Steve Allison	Secretary	Biologist
Phil Borde	Board Member	Retired Teacher
Ron Shearer	Board Member	Retired Centurytel
Ron Thompson	Board Member	Retired Teacher

**STAFF**

Carl Chastain, Executive Director  
 Alex Huelsdonk, Assistant Project Manager  
 Jenny Wells-Hogan, Administrative Assistant

**CONTACT INFORMATION**

P.C.S.C.  
 PO Box 2527  
 Forks, WA 98331  
 Phone: 360.374.8873  
 Fax: 978.359.0478  
 Email: [pacsac@olypen.com](mailto:pacsac@olypen.com)  
 Website: Cohosalmon.com





### Chehalis Basin Fisheries Task Force

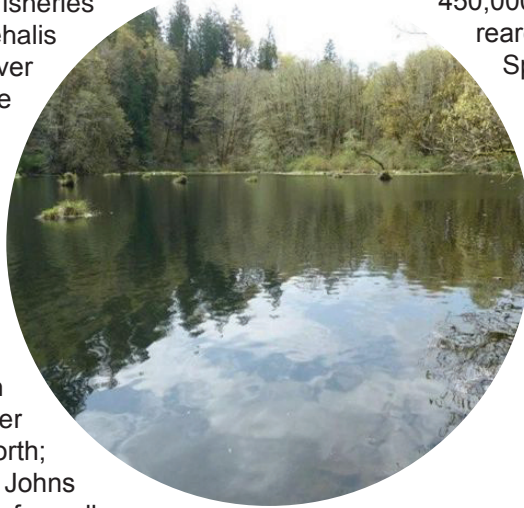
## MISSION STATEMENT

The Chehalis Basin Fisheries Task Force is dedicated to producing salmon for sport and commercial fisheries; enhancing Steelhead and sea run Cutthroat trout resources; and restoring, enhancing and protecting stream habitat critical to these anadromous species.

## RFEG OVERVIEW

The Chehalis Basin Fisheries Task Force is a non-profit organization dedicated to increasing populations of salmon, Steelhead, and Searun Cutthroat trout by and for the citizens and the communities in the Chehalis River Basin.

The area served by the Chehalis Basin Fisheries Task Force encompasses the entire Chehalis River watershed; the second largest river system in the state of Washington. The basin includes 90% of Grays Harbor, 30% of Mason, 55% of Thurston, 50% of Lewis, and small parts of Pacific, Jefferson, Cowlitz, and Wahkiakum Counties, encompassing 1,694,951 acres. This region consists of two major and a number of minor, independent drainages; 1,391 rivers and streams containing 3,353 linear stream miles. The Hoquiam and Humpulips Rivers, plus several smaller systems, enter Grays Harbor from the north; the Chehalis River from the east; and the Johns and Elks Rivers, along with a number of smaller drainages, from the south.



by providing information to the public in a way that showcases community partnerships regarding regional fisheries enhancements in the Chehalis Basin. Over the long term (our goal is a minimum of 10 years) this project will provide information to a variety of user groups in a setting, occasion, or medium for exhibiting collaborative on the ground, community based, grass roots efforts for salmonid enhancement in an attractive and favorable aspect. The concept is geared towards connecting people of all ages and backgrounds to take personal ownership and responsibility for the Chehalis Basin and its resources.

### Satsop Springs

With assistance from local volunteers, the 2009 releases of 130,100 Chum smolt, 330,000 Fall Chinook smolt and 450,000 Coho smolt went as planned. The program reared 4,500 rainbow "trophy" trout at Satsop Springs. These Rainbows averaged 5-7 lbs. each, with the biggest at 12 lbs. which were planted local area lakes.

Satsop Springs volunteers released 600 trout into Stump Lake in August of 2008. Stump Lake is under consideration for being closed to public access due to chronic dumping of trash around the property. A volunteer group of 14 individuals hauled away several dump truck loads of trash from around the property.

## PROJECT HIGHLIGHTS

### ENHANCEMENT PROJECTS

#### Carlisle Project

The Carlisle facility has two sites being used by the Onalaska High School Future Farmers of America Aquaculture Program, providing field and class study and hands on experience. Students learn proper sanitation methods, genetics, temperature unit measurements, picking of eggs and daily upkeep of incubation techniques, water quality monitoring, water sampling techniques in temp, ph, fecal coli form, and boating safety. In 2008 the students raise 106,000 Coho in Carlisle Lake, and adult returns for coded wire tags, and plant carcasses in area streams for nutrient enhancement. 8,000 rainbow trout and 35,000 Steelhead have also incorporated into the curriculum. Student volunteers play a large part in the success of the project. For 2008, these high school students volunteered over 2600 hours.

#### Education & Outreach Project

This project educates and extends the assistance of the CBFTF

### Satsop Nutrient Enhancement Project

Conducted during salmon runs between the months of October and December, fish carcasses are distributed within the Satsop River Watershed last fall. The project seeks to enhance nutrient levels of the West Fork Satsop River, the Middle Fork Satsop River, and a number of their primary tributaries by distributing fish carcasses in strategic areas. The intent is to increase ocean-derived nutrients in areas of the basin with adult salmon.

### Poggie Club/Mayr Project

The CBFTF in partnership with the Grays Harbor Poggie Club restored the Mayr Bros hatchery steelhead pond which had not been in operation for over 20 years. The Poggie Club volunteers removed stumps and trees which had overgrown in and around the pond. They replaced waterlines and installed a 100' X 200' pond liner into this pond. In May of 2009 230,000 juvenile Coho were transferred from Mayr Bros hatchery to the rearing pond.

**PROJECT EXPENDITURES**

Project Name	RFEF Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$8,2547	883	\$13,246	\$7,200	\$103,876
Poggie/Mayr	\$11,350	1060	\$15,900		\$28,310
Carlisle	\$2,857	2682	\$40,230		\$45,769
SS Alea	\$30,800	2030	\$25,375		\$58,205
Satsop Springs	\$42,415	2030	\$25,375		\$69,820
Egg and Carcass	\$11,000				\$11,000
<b>Totals</b>	<b>\$180,970</b>	<b>8682</b>	<b>\$120,126</b>	<b>\$7,200</b>	<b>\$316,981</b>



### Chehalis Basin Fisheries Task Force

## BOARD OF DIRECTORS

### Upper Basin Representatives

- Chanele Holbrook, Heernett Environmental Foundation, Seat #1
- Lori Sanderson, Carlisle Environmental Education, Seat #3
  - Jim Tyner, Carlisle Environmental Education, Alternate Seat #3

### Middle Basin Representatives

- Ron Schuttie, Seat #6
- Bob Balcombe, Seat #7
- Greg Jones, Elma Game Club, Seat #8
- Commissioner Terry Willis, Grays Harbor County, Seat #9
  - Commissioner Al Carter or Commissioner Mike Wilson, Grays Harbor County, Alternate Seat #9
- Frank Jongenburger, Weyerhaeuser, Seat #10 Steve Barnowe-Meyer, Weyerhaeuser, Alternate Seat #10
- Herman Ohlde, Seat #11,
- Lonnie Crumley, Streamworks, LLC, Seat #12, Chairman

### Lower Basin Representatives

- Allan Hollingsworth, Grays Harbor Gillnetters, #14
- Steve Berggren, Seat #15
- Joel Green, Grays Harbor College, Seat #16
- Terry Baltzell, Seat #17, Project Team Leader
- Commissioner Stan Pinnick, Port of Grays Harbor, Seat #18, Financial Team Leader
  - Ken Rausch, Port of Grays Harbor, Alternate Seat #18
- Lloyd Case, Seat #19, Secretary
- Keith Burns, Grays Harbor Poggie Club, Seat #20
  - Doug Warnken, Grays Harbor Poggie Club, Alternate Seat #20

## STAFF MEMBERS

Teri Liomin, Administrative Director

Steven Franks, Satsop Springs Hatchery Manager

## CONTACT INFORMATION

Chehalis Basin Fisheries Task Force

115 S Wooding Street, Aberdeen, WA 98520

Phone/FAX: 360-533-1766 360-533-1767

E-mail: [cbfff@reachone.com](mailto:cbfff@reachone.com)

Website: <http://www.cbfff.com>



### Willapa Bay Fisheries Enhancement Group

## **MISSION STATEMENT**

Return sustainable natural spawning salmon to rivers and streams of Willapa Bay, WRIA 24. Assist local communities/organizations with project development. Goal: return Willapa Bay salmonids to a healthy population mix and population: Salmonids: 65% Chum, Coho 25%, and Chinook 10%, and a population of 304,000

## **RFEG OVERVIEW**

2009 has been focused on design development, and collecting/evaluating data on the continued decline of all natural spawning population of salmonids, especially Chum salmon, in the Willapa Bay. A great deal of our time has been spent on designs for construction in 2009. We have been completing monitoring of Lost and Chum stream/salmon blockages we completed in 2003, 2005, and 2007. Our Board has been alarmed with the steady decline of returning natural spawning salmon to the restored streams we have completed in the past 10 years which had good runs re-established, and have either had no returns or the returns have been very small. The 2008/2009 season we were able to obtain about 810,000 Coho and steelhead eggs for our RSI's. No Chum or Chinook eggs. We have joined WDFW and other stake holders in the Willapa in developing goals for the Willapa Bay 2009 Plan which establishes planning for the next 50 years for salmon in the Willapa Bay. Our projected construction cost for next year (2010) is over \$400,000.

## **PROJECT HIGHLIGHTS:**

### **Skidmore Slough Tide Project**

We were funded by SRFB to develop a design to remove two blocking Tide Gates in Skidmore Slough, and apply for funds to implement the design. We completed the design and the applications for funding, JARPA, and Shoreline application. However, the Port of Willapa has blocked our submittal of the funding application, so after almost four years of working with all neighbors the project is dead. The Port of Willapa wants to fill their wetlands for industrial development and they feel allowing salmon passage will prevent their ability to get a permit.

### **Skidmore Slough, Blocked City Culvert**

Funding was received from SRFB to remove the two blocking culverts and replace with a bridge. This project was completed September 30, 2009. This opens 7.5 miles of stream for spawning and rearing.

### **South Stream**

We have completed the design for restoration of 3.25 miles of stream. This year we completed the Tidal Section of the Stream placing 36 pieces of LWD into the stream. We have applied for funding to the SRFB for phase two for \$152,000 to complete the remainder of the 3.5 miles.

### **Bear River Estuary**

Willapa National Wildlife Refuge (WNWR) asked Willapa Bay to develop a design for them to accomplish their 15 year plan in Willapa Bay, Bear River Estuary. WNWR wants to remove over 5 miles of dikes, roads, numerous culverts, ditches, tide gates, and two fish ladders, to return the over 750 areas of estuary to their historic conditions. We have applied for the funding to accomplish this; the first phase (complete cross sectional digital mapping) will occur summer of 2009, design and permitting in 2010, and construction in 2011, 2012, and 2013.



### **Summary**

The single most important message that one should take away from our report: Willapa Bay natural salmonids populations are continuing their sharp decline for the past 10 years, although this is a decline that started in 1950's time period, it has now reached the point where populations of Chum salmon are below their sustainable level. During the past 10 years our organization has completed projects that restored 41 miles of streams, removed 29 blockages, restored over 700 acres of wetlands, completed 38 habitat Assessments. However, the salmon have declined; NOAA, Governors Salmon Board, WDFW, and Salmon Recovery Funding Board strategy of focusing on habitat, and developing "plans" and setting up review committees is not working in Willapa Bay. We are not getting enough returning salmon to sustain our natural salmon populations. In the Willapa Bay habitat is not the limiting factor, but salmon are. All the habitat work we have completed has been important in providing damaged or lost habitat especially for Chum salmon. The few projects we have yet to construct are very important to restore habitat to high priority areas. We feel our work with WDFW to get a realistic and measurable set of goals, and that are achievable is our next priority. The NOAA strategy of focusing on habitat only is not working in Willapa Bay.

The NOAA/WDFW strategy of build it and they will come, combined with the "wild salmon" myth has been a very destructive strategy for Willapa Bay. The Strategy is the cause of the salmon decline, not the solution.

### Willapa Bay Fisheries Enhancement Group

## PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hrs	Volunteer Skill (\$85/hr)/ unskilled \$15/hr	Other \$	Total \$
Lost Creeks	0.0			\$3,100	\$3,100
Tide Gate	\$15,721			\$70,086	\$85,807
Lamprey	0.0			\$7,674	\$7,674
Bear River Survey	\$7,810	59.48	\$4,997	\$69,784	\$82,591
Skidmore Slough Bridge	\$36,619	202	\$17,000	\$359,581	\$413,200
Risk Creek		10	\$850	\$12,500	\$13,350
South Stream	\$25,000	60	\$5,000	\$51,500	\$81,500
Project Development	\$5,000			n/a	\$5,000
Fish Enhancement	\$3,910	700	\$10,500	n/a	\$14,410
Board Members	0.0	50	\$600	n/a	\$600
Project Manager	\$23,000	37		n/a	\$23,000
Administrative	\$36,281	33	\$2,784	n/a	\$39,065
Total	\$153,334	1151	\$41,731	\$574,225	\$769,297

## BOARD OF DIRECTORS:

Mark Ashley, Commercial Fisherman

Ron Craig Retired Senior Engineering Manager, the Boeing Co. Manager WBRFEG

Bruce Ogren, Commercial Fisherman

Bob Lake, Businessman and Commercial Fisherman

Jewel Hardy, Banking Manager

## STAFF MEMBERS:

We have no staff, our Manager volunteers about 50% of his time in managing the organization, developing projects, design development, permitting, and construction oversight.

## CREW INFORMATION

We have developed a qualified list of over 60 consultants we call upon to develop our designs, accomplish our assessments and perform the post construction monitoring. We also have over 16 pre-qualified construction contractors to accomplish our in-stream projects.

## CONTACT INFORMATION

Ron Craig, PO Box 46  
South Bend, WA 98586  
360 875 6402 (V)  
360 875 5802 (F)  
rcraig@willapabay.org  
www.wbrfeg.org



## Lower Columbia Fish Enhancement Group

Includes WRIs 25, 26, 27, and 28 and parts of 24 and 29. Major watersheds include the Chinook, Grays, Elochoman, Cowlitz, Kalama, Lewis, and Washougal side of the Columbia River below Bonneville Dam.

### **MISSION STATEMENT**

To lead the process of salmon and steelhead recovery in a way that ensures community involvement in habitat restoration so that abundant, naturally self-sustaining runs occur throughout the Lower Columbia River region.

### **RFEG OVERVIEW**

Lower Columbia Fish Enhancement Group has been actively involved in salmonid habitat restoration and nutrient enhancement since its inception in 1991. The Lower Columbia River region covers all or parts of Skamania, Clark, Cowlitz, Lewis, Wahkiakum, and Pacific Counties. Our region covers Water Resource Inventory Areas (WRIs) 25 through 28, extending from Bonneville Dam down the Columbia River to the Pacific Ocean. The major tributaries are the Cowlitz and Lewis River watersheds, both of which have extensive hydroelectric development. The Washougal, Kalama, Toutle, Grays and Elochoman River watersheds round out the remainder of our primary salmon producing watersheds.

Designated as a Regional Fisheries Enhancement Group, LCFEG works with Private and Public land owners to restore salmon habitat and recover the salmon and steelhead populations. As a community-based non-profit organization, LCFEG receives valuable support from government agencies, property owners and local businesses through a multitude of donations, grants, and volunteer hours. Our region spans five counties, diverse watersheds, and both rural and densely populated communities. The Lower Columbia watersheds have a rich history of salmon and steelhead runs with whole communities depending on salmon as a cultural and economic resource that sustain the communities.

Because each of these watersheds contains at least one salmon hatchery, the Lower Columbia RFEG is focusing on projects that benefit wild salmon production. The fish habitat in the region has been severely degraded by urban/ industrial development, timber harvest, road building, diking and drainage, railroads, and a host of other activities. We work closely with WDFW Habitat and Fish Program Managers, USFS biologists, our Lead Entity, USGS scientists, local governments, private landowners, conservation districts, and volunteers to identify and implement priority habitat restoration projects.

In 2008/9, LCFEG continued implementation of both its Strategic Plan and the *Lower Columbia Salmon Recovery Plan* and *Watershed Sub-Basin Assessments* for SW WA approved by NOAA Fisheries in 2005. In working to fulfill its intent to become the region's primary habitat restoration organization, LCFEG and its landowners/partners worked closely to link projects with regional Recovery Plan and Sub-Basin Assessment Priori-

ties, and to utilize the 6-Year Habitat Work Schedule reflecting projects completed or underway. When practical and feasible, these documents are also utilized to help prioritize projects for the upcoming year.

The LCFEG has five areas focused on when doing restoration work, and public education. These five areas are the areas where we feel have the greatest benefit to salmon with our limited financial resources. Utilizing these areas we can identify how we can leverage the most out of each project and contribute best to it. It is our greatest hope that we are able to provide public education and gain landowner continued support and trust for future projects.



Juvenile coho using our off-channel rearing pond built in 2008 at Ostenson property

### **PROJECT HIGHLIGHTS**

#### **Completed and On-going 2008/09 Projects Highlights**

Cispus River Assessment	Lower Kalama Assessment
Cowlitz-Filla Side Channel	Lower Washougal Phases 1&2
Dean Creek Restoration	Muddy River Road Decommissioning
Duncan Creek Restoration	NF Toutle Elk Refuge
Elochoman Restoration	Nutrient Enhancement
Grays River Restoration	Steelhead Landing
Hamilton Design	Upper Washougal Phases 1&2
Little Washougal Riparian	Washougal Reach 8 Restoration
Lockwood Creek Restoration	Woodard Assessment
Lower Cowlitz Assessment	WRIA 27/28 Enhancements

Participation in 29 projects brought in 18,091 volunteer and Restoration crew hours during the 2008-2009 fiscal year.

### **OUTREACH AND EDUCATION**

2008/9's Education and Outreach Program involved numerous year-round activities including volunteer (student and/or citizen) planting parties at our various project sites, regular educational presentations on local salmon species and their habitat require-

### Lower Columbia Fish Enhancement Group

ments to community programs and/or schools groups, on-site data collection by volunteers to meet LCFEG monitoring objectives, LCFEG displays and volunteer recruitment/sign-ups at local festivals, fairs, salmon celebrations and community events along with website updates.

We work with various local businesses that support our organization. Columbia Land Trust, Clark Public Utilities and local high schools are among the many groups that provide volunteers and in-kind donations.

Our salmon habitat restoration and nutrient enhancement projects are made possible in part by the many partnerships we have with our community members.

The Better Living Show, a 3-day outreach and education program, brought in over 20,000 attendees giving them the opportunity to explore earth-friendly products and services from more than 250 exhibitors. Lower Columbia Fish Enhancement Group was able to explain our projects to those interested in learning about our area's salmon and water quality. A big draw to our booth was the video showing a nutrient enhancement project. We were not only able to gather a list of 90 people interested in learning more about Lower Columbia Fish Enhancement Group and volunteering but accepting financial support by donations for our riparian planting.

## **NUTRIENT ENHANCEMENT**

### Nutrient Enhancement (Multi-WRIA)

This is a continuation of a project that was initiated in 2004 with funding from a Community Salmon Fund grant as well as funding from ALEA. To date we have purchased several freezers to allow us to extend the nutrient enhancement over time and to allow us to "chip" the carcasses into bite size pieces. Chipping the carcasses reduces landowner complaints, reduces the chances of family dogs getting salmon poisoning and allows us to place the chips where we want them. We have underwater video showing how juvenile salmonids congregate around the chips and feed directly on the salmon flesh at a time of year when no other food is available. Partners include WDFW, Fish First, Lower Columbia Fly Fishers, Cowlitz Indian Tribe, Clark-Skamania Fly Fishers, SWWA Anglers and WDFW.

This project benefited fish, wildlife and the local riparian plant community by increasing the level of nutrients available in the watershed through salmon carcass placement. These carcasses provide a valuable food source for juvenile salmon as well as other wildlife.

LCFEG and volunteers from high schools, conservation groups and public agencies placed 54,650 Chinook and Coho carcasses back in the watershed from the hatchery located in Washougal. Partners contributing to this nutrient enhancement effort include the United States Forestry Service (USFS) and Aquatic Lands Enhancement Account Volunteer Cooperative Funds (ALEA).

A \$25,000 ALEA grant enabled the Lower Columbia Fish Enhancement Group to purchase freezers for salmon carcass

storage, pay electricity costs for running the freezers, rent chippers and reimburse volunteers for travel mileage.

A portion of this plan was to "reach out to maintain and develop volunteer opportunities for citizen stewardship to help fulfill the Fish and Wildlife mission." The total of labor at our current rate amounted to more than \$81,000.00 worth of donated time, exceeding our expected goal of \$60,000.00. We believe that this project was a springboard for multiple volunteer programs being implemented that will lead to a formal education program for volunteers on Nutrient Enhancement.



**Extremely dedicated volunteers pitching salmon carcasses in upper Washougal River**

## **RIPARIAN PLANTING AND RESTORATION**

### **Reach 8 (Ostenson) Washougal Restoration**

In 2008 we initiated work that included restoring access to > 4,000' of tributary habitat, creation of 2 acres of off-channel rearing habitat and riparian plantings. Shortly after construction we observed over 20 pairs of adult Coho and several pairs of adult steelhead spawning in the new habitat which is especially gratifying given the stream had been blocked for many years! The Ostenson family which owns this property was honored with an award from Clark County for their contributions to salmon recovery. Funding is being provided by SRFB with partnerships from Gary and Dana Ostenson, WADNR and WDFW.

### **Little Washougal Riparian**

This project is a continuation of a multi-reach riparian planting effort that was started in 2003. Our crew and volunteers have removed extensive patches of non-native vegetation and planted over 10,000 native plants. Project partners have included the Stauffer and Marks families, NFWF/ SRFB and WDFW LIP.

Lower Columbia Fish Enhancement Group

**IN-STREAM HABITAT PROJECTS**

**Hamilton Creek Engineered Logjams**

In 2008, we completed the assessment and design for a large in-stream project in lower Hamilton Creek, a small but very important tributary to the Columbia River located in the City of North Bonneville. The construction phase of the project was funded by SRFB in 2008 and implementation is underway.

**Grays River LWD Complexity**

In early 2007, we initiated work on a SRFB funded project in the Grays River that is designed to enhance in-stream complexity necessary for improving adult holding cover and for improving juvenile rearing success in the highest priority reaches in the Grays River basin. This reach of the Grays River is characterized by lack of pools, lack of in-stream complexity and high depth-to-width ratios. In 2008, we constructed 12 in-stream structures which resulted in new pools and gravel bars forming over the course of the following winter.

**Washougal River Projects:**

The Washington Department of Fish and Wildlife (WDFW) identified a 7-mile portion of the Washougal River as a limited salmon and steelhead production area in the upper watershed. The project specifically addressed that area as it had become deeply incised in a bedrock channel due to log drives and catastrophic fires in the late 1800's and early 1900's. The project directly benefits ESA-listed summer Steelhead, as well as contributing populations of ESA listed Chinook and Winter Steelheads. Many other species are present and will benefit from our work.

The objective was to increase in-stream cover, spawning and rearing areas, pool depth, sub-service flows, and decrease channel width. The In-Stream Habitat Projects or constructed Engineered Log Jams, ("ELJ"s), are designed by a team of engineers and geologist to ensure long-term stability capable of withstanding peak flows and function as fish habitat. LCFEG believes in these projects applies the lessons we learn at restoration locations elsewhere in our region. The Department of Natural Resources, ("DNR"), Longview Fibre, Washington Department of Fish and Wildlife, and Skamania County were valuable partners in this habitat restoration project.



HSBC bank employee volunteers stuffing recycled Christmas trees into a logjam

**Lower Washougal Restoration Phases I & II**

In the summer of '08 the LCFEG placed in-stream complexity on the lower Washougal River along with the construction of several engineered log jams. A large rock riffle containing approximately 10,000 tons of boulders was also supplemented, which helped re-meander the river. Extensive re-grading was begun on three off-channel gravel quarry ponds that will eventually be utilized as off-channel rearing habitat for juvenile salmonids. Since January, 2008, over 50,000 wetland plants have been planted through a grant funded by the Department of Natural Resources. The Clark Noxious weed team has also become a partner to assist in maintaining and eradicating invasive species. The main Project funding is provided by SRFB, Burlington Northern Railroad and Georgia Pacific Corporation. Project partners include City of Camas, Georgia Pacific and WDFW. Over 125 volunteers have been part of the Lower Washougal restoration.



Volunteers collecting willows for planting in our Lower Washougal River project site

**Assessment, Monitoring, and Development**

LCFEG is currently engaged in multiple assessments designed to identify habitat restoration projects. Locations where the assessments are underway include the Cispus River, Lower Kalama, Germany, Hamilton, Woodard and Duncan Creeks. Project types we are developing include spawning channels, in-stream structure, Riparian restoration and off-channel rearing habitat.

An excellent way to engage volunteers is through monitoring. In order to check the effectiveness of our work we must assess and monitor not only prior to but after a project is completed. The data collected provides the necessary information to funding sources and project partners.



## Lower Columbia Fish Enhancement Group

**PROJECT EXPENDITURES**

Project Name	RFEG FUNDS	Volunteer Hours	Volunteer Dollars	Other Funds	In Kind Contributions	Total Spent
Administration	\$39,542.80	305	\$4,575.00	\$0.00	\$0.00	\$44,117.80
Brim Bar	\$0.00	0	\$0.00	\$1,745.05	\$0.00	\$1,745.05
Cispus/Columbia Springs	\$0.00	114	\$1,710.00	\$30,574.61	\$4,000.00	\$32,284.61
Cowlitz-Filla	\$0.00	0	\$0.00	\$18,082.58	\$0.00	\$18,082.58
Dean Creek	\$0.00	1043	\$15,645.00	\$44,392.87	\$282,000.00	\$342,037.87
Duncan Creek Rehabilitation	\$0.00	180	\$2,700.00	\$77,186.00	\$31,280.00	\$111,166.00
Education and Outreach	\$14,790.49	497	\$7,455.00	\$15,000.00	\$12,000.00	\$49,245.49
Engineered Log Jams	\$0.00	0	\$0.00	\$15,650.00	\$66,000.00	\$81,650.00
Hamilton Design	0.00	0	\$0.00	\$17,410.67	\$0.00	\$17,410.67
Hamilton Ck Restoration	\$0.00	288	\$4,320.00	\$19,876.21	\$75,000.00	\$99,196.21
Grays Complexing	\$0.00	0	\$0.00	\$1,606.41	\$0.00	\$16,06.41
Grays-Schmand	\$0.00	4	\$60.00	\$126,732.98	\$36,000.00	\$162,792.98
Lil Washougal IV	\$0.00	1200	\$18,000.00	\$10,005.43	\$16,350.00	\$44,355.43
Little Wash Riparian	\$0.00	0	\$0.00	\$5,000.00	\$2,200.00	\$7,200.00
Lockwood Creek	\$0.00	241	\$3,615.00	\$65,259.60	\$106,500.00	\$175,374.60
Lower Kalama Assess	\$0.00	133	\$1,995.00	\$25,139.46	\$21,800.00	\$48,934.46
Lower Washougal II	\$0.00	1430	\$21,450.00	\$76,347.63	150,000.00	\$247,797.63
Monitoring & Assessment	\$19,568.68	70	\$1,050.00	\$5,000.00	\$0.00	\$25,618.68
Mud Creek	\$0.00	10	\$150.00	\$33,000	\$0.00	\$33,150.00
Muddy Rr Road Decom.	\$0.00	200	\$3,000.00	\$54,718.83	\$83,000.00	\$140,718.83
NF Lewis Design	\$0.00	0	\$0.00	\$47,665.73	\$0.00	\$47,665.73
North Fork Lewis Rest.	\$0.00	0	\$0.00	\$51,502.53	\$0.00	\$51,502.53
Nutrient Enhancement III	\$0.00	4523.5	\$67,852.50	\$22,031.65	\$75,000.00	\$164,884.15
Lwr Washougal Reach 8 (Ostenson)	\$0.00	2980.5	\$44,707.50	\$174,794.58	\$76,871.00	\$299,353.58
Partnership Assistance (Cooperative projects)	\$21,256.70	30	\$450.00	\$0.00	\$0.00	\$21,706.70
Woodard Creek	\$0.00	0	\$50,000.00	\$10,000.00	\$108,000.00	\$168,000.00
Project Development	\$26,462.35	20	\$300.00	\$0.00	\$0.00	\$26,762.35
Upper Washougal II	\$0.00	4800	\$72,000.00	\$99,085.40	\$79,000.00	\$250,085.40
South Fork Toutle	\$0.00	0	\$0.00	\$2,616.11	\$0.00	\$2,616.11
<b>Totals:</b>	<b>\$121,621.02</b>	<b>18,069</b>	<b>\$321,035.00</b>	<b>\$1,050,424.33</b>	<b>\$1,225,001.00</b>	<b>\$2,717,061.85</b>

Lower Columbia Fish Enhancement Group

## 2008/09 PARTNERS

City of Camas  
City of North Bonneville  
City of Vancouver Water Resources Center  
Clark Public Utility  
Clark Skamania Fly Fishers  
Clark, Cowlitz, Lewis, Skamania, Pacific, & Wahkiakum Counties  
Columbia Springs Environmental Ed Center  
Conservation Districts (Clark, Lewis, & Cowlitz)  
Cowlitz Indian Tribe  
Department of Corrections - Larch Mountain facility  
Fish First  
HSBC  
Kalama Sportsman's Club  
Killian Pacific  
Longview Timber  
Lower Columbia Fish Recovery Board  
Lower Columbia Fly Fishers  
Mark's Marine  
National Fish and Wildlife Foundation  
Ostenson Family  
Mike Watters Excavation

Native Fish Society  
NW Power and Conservation Council  
Port of Kalama  
Private Landowners (Multiple)  
Salmon Recovery Funding Board  
SW WA Anglers  
Tacoma Power  
US Fish and Wildlife Service  
US Forest Service & Resource Advisory Committee  
US Geological Survey (Columbia River Lab)  
WA Department of Ecology  
WA Department of Fish & Wildlife  
WA Department of Natural Resources  
Washougal, Vancouver, Evergreen School Dist.  
Watershed Stewards  
Weyerhaeuser  
Williams Pipeline  
WSU Environmental Information Coop  
Schmand Family Trust  
ENTRIX, Waterfall Engineering, Inter-Fluve  
Skamania Landing Owners Association  
Port of Kalama

## BOARD OF DIRECTORS

Hal Mahnke, President, Retired Police Officer  
Scott Donaldson, Vice President,  
Jeff Wittler, Environmental Resources Manager  
Rick Yahrmarkt, Secretary Consultant  
Harry Barber, Past President, Salmon Funding Recovery Board Director  
Richard Kennon, Retired Firefighter  
Ed McMillan, Treasurer, Retired Engineer  
Bob Morgan, Retired educator  
Shannon Wills, Cowlitz Indian Tribe Biologist  
Donna Bighouse, WDFW Watershed Steward

## STAFF MEMBERS

Tony Meyer, Executive Director  
Tammy Weisman, Operations Director  
Vicki Jenkins, Office Manager

## FIELD CREW

Peter Barber, Project Manager Field Biologist  
Darric Lowery, Restoration crew Supervisor  
Jeffrey Stixrud, Restoration Crew manager

## CONTACT INFORMATION

12404 SE Evergreen Highway  
Vancouver WA 98683  
(360) 882-6671  
[www.lcfeg.org](http://www.lcfeg.org)  
[info@lcfeg.org](mailto:info@lcfeg.org)



### Mid-Columbia Fisheries Enhancement Group

## **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.

## **RFEG OVERVIEW**

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

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 eight salmonid species listed as threatened or endangered under the Endangered Species Act, as well as a number of sensitive and culturally significant stocks.

## **PROJECT HIGHLIGHTS**

### **Hemlock Dam Removal & Trout Creek Restoration**

The Hemlock Dam Removal and Trout Creek Restoration project removed an obsolete dam, improved fish passage, and restored natural channel and sediment transport conditions on Trout Creek. The project site is on the Gifford Pinchot National Forest and the project has been a priority for the USDA Forest Service for many years. The 2.1 million dollar project received support from many sources, including four grants sponsored by MCF totaling nearly \$500,000. The Forest Service managed the project. During the summer of 2009, Trout Creek was re-routed around the project area, the dam (which measured 26 feet high by 112 feet long at the spillway) was removed

along with the accumulated sediments, a natural channel was re-construction, and wood was installed in the channel and floodplain. Riparian planting is planned for the fall of 2009.

### **Swale Creek River Mile 2**

Five large woody debris jams were constructed on private property along 800 feet of stream channel to provide pool habitat for juvenile salmonids, particularly Mid-Columbia steelhead. The Yakama Nation staff designed and managed the project. Construction of the log jams was completed in the late summer of 2008, and we have documented significant use of the project area by juvenile salmonids.

### **Middle Wind River Riparian Planting**

MCF provided RFEG funding to the Underwood Conservation District for riparian planting at a restoration site on the middle Wind River. The seven acre site was planted with a hydraulic stinger in the fall of 2008. First year survival of the plants is approximately 90%. Other restoration actions at the site include installation of multiple woody debris jams.

### **Coleman Creek**

With funding from the ALEA grant program, MCF hired a contractor to remove a dilapidated farm bridge at Olmstead State Park. The bridge created a velocity barrier to juvenile salmonids. The Kittitas Conservation Trust and the Yakama Nation assisted with construction management on this project.

### **Columbia River Mainstem Literature Review**

In June, 2009, MCF completed a review of existing literature and research affecting salmonid survival in the mainstem Columbia River between Bonneville Dam and the Yakima River confluence.



Mid-Columbia Fisheries Enhancement Group

**Cle Elum River**

Mid-Columbia Fisheries and the Okanogan–Wenatchee National Forest completed work on the Cle Elum River Floodplain Restoration: Cooper Bridge project this year. The goal of this project was to restore floodplain function while accommodating recreational activity along the Cle Elum River. We placed 229 large boulders to prevent vehicles from accessing the Cle Elum River and its floodplain, and installed 150 tons of small boulders to prevent parking along a vulnerable river bank. We obliterated roads within the floodplain and floodway. We also prevented recreationists from pioneering new roads to the floodplain by constructing 610 feet of guardrail along the county road. We installed 30 logs in the floodplain to trap sediment during high flows, and create pockets of soils that will support vegetative recovery. In other parts of the project area, parking, picnic areas, and pedestrian trails were constructed. This year's work was funded by the USDA Forest Service, the National Forest Foundation and the Washington Department of Ecology, and was done in cooperation with the Kittitas Conservation Trust and the Kittitas County Conservation District.

**Large Wood Replenishment – Yakima Tributaries**

Based on a successful pilot project in 2008, Mid-Columbia Fisheries is continuing with the effort to replenish large wood in Yakima basin tributaries. In the 2008 pilot project, Washington Conservation Corps and AmeriCorps crews thinned dense forest stands adjacent to Taneum Creek, and manually moved the trees and logs into the creek with the use of a grip hoist. High

flows have sorted the downed trees into a natural distribution in the stream. The project is a partnership between Yakama Nation and MCF. We are continuing the work on Taneum Creek and have received a Salmon Recovery Funding Board grant to expand this work onto public lands on other key tributaries.

**Yakima Riparian Restoration**

Mid-Columbia Fisheries is implementing, funding, and planning a number of riparian planting projects in the Yakima Basin, including projects along the river and on key tributaries including Lmuma Creek, Swauk Creek, the Naches River, Wilson Creek, and Cowiche Creek. In the fall of 2008, we provided grant support to the Kittitas County Conservation District to install "clump" plantings along Lmuma Creek, a tributary to the Yakima River. These plantings are contained within pre-fabricated fence panels, and will provide shade and eventual wood recruitment without requiring complete exclusion of cattle from the riparian area. Also in the fall of 2008, we assisted a community along the Yakima River with a riparian planting project. Additional projects are planned for the fall of 2009.

**PROJECT PLANNING & DEVELOPMENT**

**Cowiche Creek**

Cowiche Creek has been the focus of a multi-agency effort to improve watershed conditions for the benefit of salmonids. Currently, Mid-Columbia Fisheries is planning a dike removal project below Cowiche Canyon and assisting the project partners with downstream acquisitions. Site preparation began in the summer of 2009 with dike removal and riparian planting planned for the fall.



### Mid-Columbia Fisheries Enhancement Group

#### **Reecer Creek Floodplain Restoration Project**

Several milestones were reached in the planning for this large-scale, multi-partner project. The project will relocate 4,000 feet of Ellensburg's Reecer Creek to its historic floodplain, and increase the length of available fish habitat in the reach to 6,000 feet. Suver levee, which currently constrains the creek, will be set back to allow for 69 acres of floodplain and upland habitat. We hired Anchor QEA to assist WDFW with project engineering, and all permitting for the project was completed. Project partners are hoping to begin construction of the project in the spring of 2010. Partners include the South Central Washington RC&D, the City of Ellensburg, WDFW, the Kittitas County Conservation District, and the Yakama Nation.

#### **Naches River Off-channel Habitat Restoration**

This project will utilize irrigation return flow water to restore a wetlands area and improve off-channel rearing immediately adjacent to the Naches River. The project will be implemented in the fall of 2009.

#### **Upper Rattlesnake Creek, White Salmon Basin**

This project will stabilize multiple headcuts located in the upper watershed. The project is in the design stage. The goal of the project is to prevent additional headcutting and reduce the likelihood of channel incision which threatens to degrade upstream wetlands.

#### **Salmon in our Backyards**

This Community Salmon Fund-supported project will allow us to develop riparian planting "templates" for the Northern Kittitas County, Ellensburg, and Yakima areas. We will seek one demonstration site for each template. It will also support the salmon education days in both Ellensburg and Naches.

#### **Jack Creek**

With grant support from the Salmon Recovery Funding Board (SRFB), MCF contracted Inter-fluve, Inc. to develop restoration alternatives for the lowest two miles of Jack Creek, a tributary to the North Fork Teanaway River. The creek and its floodplain are degraded from historic logging, road building, and agriculture. The creek travels subsurface in the summer months, creating a passage barrier for fish. The restoration alternatives will focus on minimizing channel dewatering and enhancing floodplain function.

#### **Swauk and Iron Creeks**

MCF also hired Inter-fluve, Inc. to develop a feasibility analysis of restoration work in Swauk and Iron Creeks, near their confluence. The construction of Highway 97 forced Swauk Creek into a simplified, uniform channel above its confluence with Iron Creek, and disconnected the floodplain from the creek. The feasibility analysis will evaluate potential ways of increasing groundwater storage and hyporheic connectivity in this reach of Swauk Creek, and of enhancing groundwater storage potential along Iron Creek. With this analysis, we hope to identify how restoration work in the headwaters might enhance downstream habitat quality, which is currently limited by low flows and high temperatures.

### **EDUCATION & OUTREACH**

This year, Mid-Columbia Fisheries organized two major educational events in our region and helped staff four additional education events. In combination, these events reached approximately 1,700 students and adults with hands-on educational activities on watershed health, restoration, salmon life cycle, conservation themes.

- Water Jam – 210 students from Klickitat & Skamania Counties
- Salmon Education Days at the Holmes property – 250 students from Ellensburg
- Salmon Summit at Horn Rapids State Park, attended by 1,000 local students from Benton and surrounding counties.
- Monument Middle School Watershed Festival – 100 students in Quincy
- Public salmon viewing field trip with biologist Bob Tuck of the Yakima Basin Environmental Education Program – 40 people in Ronald
- E3 Winter Fair – 100 people in Ellensburg

In addition to these events, Mid-Columbia Fisheries also provided Regional Fisheries Enhancement funding to help establish a small educational hatchery on Ahtanum Creek in conjunction with La Salle High School and the Yakama Nation. The hatchery will rear coho salmon in coordination with the Yakama Nation's coho program, which is working to re-establish naturally reproducing coho populations to this basin. The hatchery should be operational by the winter of 2009-2010.

Finally, we re-designed our website to allow for frequent updates and more comprehensive information about our projects.

**PROJECT EXPENDITURES**

<u>Project Name</u>	<u>RFEF Funds</u>	<u>Vol. Hours</u>	<u>Volunteer Value @ \$15/hr.</u>	<u>Other in-kind Donations</u>	<u>Grant Funds Through MCF</u>	<u>Other Funds Through Project Partners</u>	<u>Total Value</u>
Hemlock Dam Removal/Trout Creek Restoration	\$17,700				\$75,160	\$800,000	<b>\$892,860</b>
Swale Creek Restoration	\$26,450	10	\$150	\$7,190	\$23,207	\$40,425	<b>\$97,432</b>
Cowiche Creek Restoration	\$3,119	56	\$1,400		\$8,092		<b>\$12,667</b>
Coleman Creek Bridge Removal	\$1,356				\$5,934	\$1,000	<b>\$8,290</b>
Cle Elum River Restoration	\$2,033				\$154,543		<b>\$156,576</b>
Jack Creek Restoration Feasibility	\$2,711				\$19,637		<b>\$22,348</b>
Swauk & Iron Creeks Restoration Feasibility	\$8,970				\$15,035		<b>\$24,005</b>
Wind River Restoration, Middle Wind	\$14,200					\$181,000	<b>\$195,200</b>
Little Wind River Sediment Reduction	\$380				\$6,560		<b>\$6,940</b>
Lower Taneum Creek Restoration	\$410				\$4,936		<b>\$5,346</b>
Taneum Cr. Wood Replenishment	\$15,394					\$2,000	<b>\$17,394</b>
Mainstem Literature Review	\$1,400				\$10,000		<b>\$11,400</b>
Naches Off-Channel Restoration	\$8,568				\$2,273		<b>\$10,841</b>
Reecer Creek Restoration	\$6,946	15	\$225		\$20,018	\$3,000	<b>\$30,204</b>
Klickitat Tributaries Restoration	\$2,400	32	\$480		\$1,485		<b>\$4,397</b>
Yakima River and Tributaries Restoration (multiple projects)	\$19,460	60	\$900		\$14,542		<b>\$34,962</b>
White Salmon River Tributaries Project Development	\$2,160				\$2,016		<b>\$4,176</b>
Education & Outreach	\$14,396			\$100			<b>\$14,496</b>
Mileage, grant writing, bookkeeping, administration, and management	\$43,411	108	\$1,620				<b>\$45,139</b>
<b>Total</b>	<b>\$191,464</b>	<b>281</b>	<b>\$4,775</b>	<b>\$7,290</b>	<b>\$363,438</b>	<b>\$1,027,425</b>	<b>\$1,594,673</b>

**BOARD OF DIRECTORS**

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

**STAFF**

Margaret Neuman, Executive Director  
Rebecca Wassell, Yakima Basin Program Manager

**CONTACT INFORMATION**

Mid-Columbia Fisheries Enhancement Group  
P.O. Box 1271  
White Salmon, WA 98672  
Phone: 509-281-1322  
Email: [fish@midcolumbiarfeg.com](mailto:fish@midcolumbiarfeg.com)  
Website: [www.midcolumbiarfeg.com](http://www.midcolumbiarfeg.com)



Tri-State Steelheaders Fisheries Enhancement Group

### **MISSION STATEMENT**

The Tri-State Steelheaders Fisheries Enhancement Group, by completing habitat enhancement projects, crafting coalitions with conservation organizations, conducting educational outreach, securing volunteer assistance, and promoting sustainable recreational angling will perpetuate salmonid populations and create measurable increases in their habitat in southeastern Washington, northeastern Oregon and north central Idaho.

### **OVERVIEW**

Tri-State Steelheaders has been actively involved in salmonid habitat restoration since its inception in the mid-1960's. The group was granted 501(c)3 status by Washington State in 1989 and was designated a Regional Fisheries Enhancement Group in December 2000. As a community-based non-profit organization, the Tri-State Steelheaders receives valuable support from its members—property owners, local businesses, and concerned citizens.

The Tri-State Steelheaders' RFEG district covers southeastern Washington, WRIAs 32 and 35. Major watersheds include the Snake and Walla Walla Rivers. Activities include restoration projects such as in-stream and riparian habitat enhancement as well as community outreach and education programs. Creating partnerships with landowners, government agencies, and other conservation organizations is of paramount importance to the Tri-State Steelheaders.

During the 2008-09 fiscal year Tri-State Steelheaders participated in 10, and completed 3 habitat restoration projects. Our volunteers donated a total 1384 hours working on habitat enhancement projects and educational programs.

### **PROJECT HIGHLIGHTS**

#### **Creating Urban Riparian Buffers (CURB)**

Through the collaboration of the Walla Walla County Conservation District, Kooskooskie Commons and Tri-State Steelheaders twelve urban riparian buffers were completed along Yellowhawk, Stone, and Garrison Creeks. Nine of these projects were located on private properties, one on a local business property, and another with the cooperation of a homeowner's association. A project at Garrison Middle School was planted in part by the middle school students and students from nearby schools. Assessments to evaluate water quality and habitat condition were conducted along Yellowhawk Creek, and landowners in potential reaches of concern were introduced to the CURB program through mailings and brochures.

#### **Kids Fishing Day**

In June, TSS held its annual Kids Fishing Day for local children up to age 14 at Bennington Lake. There is no charge for the event, which provides an opportunity to bring families together to enjoy the outdoors and is a great way to introduce local youth to a life-long sport that supports conservation of natural resources.

Kids Fishing Day is held on Washington Department of Fish and Wildlife's free fishing weekend in June which allows fishing for all ages without an official license. TSS provides tackle, bait, and often rods and reels. In addition, there is a casting contest with prizes along with hot dogs and soda for the young fishermen and women to enjoy.

Kids Fishing Day is a special event, and there are many groups who volunteer their time to make it a fun time for the kids. These volunteers include TSS board members and club members, US Forest Service, WA Dept. of Fish & Wildlife, US Army Corps of Engineers, as well as other good community members. The local Pepsi Cola distributor provides the soda while Dairy Queen and Burger King traditionally donate the casting contest prizes.



#### **Project Success Monitoring Using WHEP (Watershed Health Evaluation Procedure)**

Teacher/student teams from nine regional public, private, and alternative schools monitor over twenty riparian restoration sites on streams ranging from Asotin Creek in the east to the Touchet River in the west. Currently in its eleventh year, this ongoing monitoring project collects water quality information at appointed project sites. Participating teachers are trained in monitoring protocols by a scientist, furnished with professional quality monitoring equipment, and provided workbooks and lab manuals for student use. The students measure water temperature, stream flow, dissolved oxygen, pH level, macroinvertebrate presence, stream bank profiles, and tree coverage at their assigned project site. A scientist replicates a sample of the student tests to ensure accurate results. Every year the students dedicate over a 1000 hours towards collecting this data.

### Tri-State Steelheaders Fisheries Enhancement Group

#### Touchet River Large Woody Debris

Engineering, design, and permitting have been completed for this project to install eight engineered log jams on the Touchet River. Land use practices led to poor riparian and instream habitat, and accelerated bank erosion. Water quality on this reach has also been impaired. Completion of the project will provide instant instream habitat benefits, reduce sedimentation with bioengineering bank treatments, and begin the restoration of the riparian buffer. By addressing the bank erosion, the landowner will become eligible for CREP, adding up to eight more acres of riparian planting.

#### Mill Creek Fish Passage Assessment

The Mill Creek flood control project, completed in the late 1940s, includes over 260 spill-weirs (for energy dissipation) within a four mile section, and a two mile section of concrete flume that runs through downtown Walla Walla. Fish passage has been assumed by fish managers to be problematic. While some fish are able to make the trip, the exceptionally high quality of habitat in upper

Mill Creek is considered to be underutilized by steelhead. This assessment used an energetics modeling approach to identify and describe the type and location of passage barriers. The results showed that many depth and velocity barriers exist in the channel, and that lack of resting areas lead to stamina failure. Conceptual designs and cost estimates were completed for the sections with the worst passage.

#### Brewer Farm Wetland

The Tri-State Steelheaders have formed an agreement with WA Dept of Transportation to provide wetland mitigation for the current US Hwy 12 construction. A conservation easement was completed on 22 acres southeast of Walla Walla that includes a three acre wetland. The Blue Mountain Land Trust will hold the permanent easement. Ducks Unlimited is working to design improvements to the wetland. The Walla Walla County Conservation District, Confederated Tribes of the Umatilla Indian Reservation, and WDFW will assist with native grass and woody vegetation plantings to buffer the wetland from the surrounding wheat fields.



## PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$22,569	48	\$720	0	\$23,289
ALEA Kids Education Program	\$264	207	\$3,105	\$653	\$4,022
Bridge to Bridge	0	0	0	\$110	\$110
Community Outreach & Education	\$10,158	1,086	\$16,290	0	\$11,448
Creating Urban Riparian Buffers	\$172	484	\$7,260	\$7,0929	\$78,361
Demand FFFPP	\$1,000	0	0	\$139,424	\$140,424
Enhanced Flow Monitoring	0	0	0	\$20,247	\$20,247
Touchet LWD	\$5,052	0	0	\$33,500	\$38,552
Mill Creek Fish Passage Barrier Assessment	\$4,084	301	\$4,515	\$62,190	\$75,291
NF Coppei Land Easement	0	0	0	\$6,726	\$6,726
Project Development & Management	\$27,363	0	0	0	\$27,363
Russell Cr Livestock Exclusion & Rip Planting	0	90	\$1,350	\$6,641	\$7,991
Yellowhawk Cr Livestock Exclusion & Rip Planting	0	85	\$1,275	\$7,037	\$8,312
Training	\$154	0	0	0	\$154
Brewer Farm Wetland	0	0	0	\$145,791	\$145,791
<b>Totals</b>	<b>\$70,816.00</b>	<b>2,301</b>	<b>\$34,51500</b>	<b>\$493,248.00</b>	<b>\$588,579.00</b>



Tri-State Steelheaders Fisheries Enhancement Group

### **BOARD OFFICERS:**

President: Larry Zalaznik, Vice-President, Banner Bank

Vice President: Jon Cole, Ph. D., Professor, Walla Walla

Treasurer: Mike Loney, Coachman Body and Frame Service

Secretary: Mike Denny, CREP Coordinator, Walla Walla County Conservation District

### **BOARD MEMBERS:**

Steve Brown, Owner, Steve's Hallmark

Jed Volkman, Biologist, Confederated Tribe of Umatilla Indian Reservation

Kevin Crum, R.A., Architect, US Army Corps of Engineers

Rick Jones, Director, Walla Walla County Conservation District

Delbert Hutchison, Professor Whitman College

### **STAFF:**

Nichole Curet, Executive Director

Brian Burns, Project Manager

Steve Gwinn, Outreach Coordinator

Cheryl Cockerline, Secretary

Thomas Ewing, Flow Monitoring Technician

Tara Patten, Habitat Restoration Technician

Tri-State Steelheaders project partners July 1, 2008 – June 30, 2009: Asotin High School, Berney Elementary School, Burbank High School, Clarkston High School, Confederated Tribes of the Umatilla Indian Reservation, Cooperative Trout Enhancement Program, DeSales Catholic High School, Farm Service Agency, Garrison Middle School, Hook N' More Sports, National Marine Fisheries Service, National Park Service, National Resource Conservation Service, Opportunity Program, Palouse Community School, Pepsi-Cola of Walla Walla, Royse Hydroseeding, Sportsman's Warehouse of Kennewick, Touchet Elementary School, Touchet High School, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Forest Service, Waitsburg Elementary School, Walla Walla Basin Watershed Council, Walla Walla Community College, Walla Walla County Watershed Planning, Walla Walla University, Walla Walla Watershed Alliance, Walla Walla County Conservation District, Walla Walla High School, Walla Walla, Wal-Mart, Washington Department of Ecology, Washington Department of Fish and Wildlife, Washington Salmon Recovery Funding Board, Whitman College, and many additional local and regional businesses that supported the Tri-State Steelheaders' projects.

### **CONTACT INFORMATION**

Tri-State Steelheaders, RFEG

216 N. Roosevelt

P.O. Box 1375

Walla Walla, WA 99362

Phone (509) 529-3543

Fax (509) 529-3543

E-mail: [tssfsh@charterinternet.com](mailto:tssfsh@charterinternet.com)

Web site: [www.tristatesteelheaders.com](http://www.tristatesteelheaders.com)



## **MISSION STATEMENT**

The Upper Columbia Regional Fisheries Enhancement Group (Upper Columbia RFEG) works with willing landowners to protect good habitat and to facilitate and implement fish restoration projects. UCRFEG also informs the public through education, training, and public information to improve the health of our region's environment, increase fish populations, promote a more sustainable and environmentally sound regional economy, and minimize community conflicts over natural resource management.

## **UCRFEG OVERVIEW**

As a non-profit community based salmon recovery organization, the Upper Columbia Regional Fisheries Enhancement Group provides funding, guidance, technical assistance and ongoing support for fisheries habitat restoration and enhancement. The UCRFEG is an independent 501(c)(3) non-profit organization incorporated since 2000 which covers RFEG area #14 (Okanogan, Douglas, Chelan and Ferry Counties), and includes nine WRIA regions (numbers 44 through 52). The UCRFEG Strategic Plan developed by our Board guides all our fisheries programming and projects, and includes the following categories: Regional Economic Development, Landowners, Agencies, Volunteers, Members, Restoration Projects, Facilitation, Public Information, Education, Accountability, Improving Social Climate, and Strategic Plan Implementation. UCRFEG's major programmatic and project areas, further described below, include landowner networking, education and outreach, projects, and partnership development.

UCRFEG's landowner networking occurs through regular contact with residents and businesses throughout Okanogan, Douglas, Chelan and Ferry Counties. Without this, UCRFEG would not be able to develop or implement any initiatives due to public opinion in the region about salmon recovery.

UCRFEG's education and outreach occurs through our events, programs and other opportunities as they arise. Examples of some of our education and outreach venues include community events such as garbage cleanups and creek awareness nights, interpretive signage and trail plans, and county fairs.

UCRFEG undertakes a wide variety of projects because landowner opinion in this region demands flexibility in approach. To date UCRFEG projects have included in-stream and riparian planting and fencing, biological and engineering assessments, employment of alternative stock-watering techniques, irrigation water source replacements, economic development of fisheries eco-tourism, watershed planning, school and community group projects, and more. Initially many of our field-only projects are used as a starting point for broader education and outreach, and vice versa. UCRFEG education and outreach programs opportunistically capitalize on various projects. UCRFEG does not undertake carcass replacement as many areas of our regions have had stocks cut off by downstream dams. Hatchery programs are run by the Colville Confederated Tribes and other agencies that have their own nutrification programs.

Upper Columbia River Regional Fisheries Enhancement Group

UCRFEG has engaged in partnership development with a large number of both government and non-government organizations in the course of delivering its programs and projects. UCRFEG works with city, county, state, federal, and tribal governments, whose roles range by project to include: project partners, funding source, scientific advice, field support, inter-coordination of parallel initiatives, and more. In addition to government organizations, strong key partnerships have been made with trails, land conservancy, water rights, economic development, and other types of non-profit organizations.

We participate in the Salmon Recovery Funding Board processes in the Okanogan County/Colville Confederated Tribe lead entity. The UCRFEG participates in the technical review, citizen project ranking and strategy development.

In addition to paid staff time, the above progress has been made due to the efforts of our volunteer Board and others, who have contributed 79 hours of volunteer time.

## **PROJECT HIGHLIGHTS**

### **Oroville Elementary School – Classroom Education**

This year the UCRFEG partnered with the Oroville Elementary School and worked with a 5<sup>th</sup> grade class to provide fisheries education in the classroom, as well as support fisheries education field trips. Funding was provided to OES to assist with transportation costs associated with visiting a local dam and picking up the fish eggs that are used in the classroom. The students grow fish in the classroom, observe their growth, and then release the fish into the wild. This partnership and program provide education and outreach that might not otherwise we obtained. This is the second year the UCRFEG has partnered with OES.

### **Fulton Dam**

The existing dam was a partial passage barrier for listed species (Spring Chinook, UCR Steelhead and Bull Trout as well as non listed Summer Chinook). The Fulton has unsuccessfully been used by Douglas PUD and WDFW as a brood stock collection site since installation of the current ladder. Use of the site for fish trapping and collection has been abandoned by Douglas PUD and WDFW. Re-construction of the dam as a roughened channel provides improved passage for listed species at all flow levels while maintaining irrigation viability. This project brought together numerous agencies and partners to make it a successful project.



Fulton Trailhead

Upper Columbia River Regional Fisheries Enhancement Group



Crest of the new Fulton structure



Fulton - completed structure looking downstream

**PROJECT EXPENDITURES**

Project Name	RFEF Funds	Volunteer Hours	Volunteer Dollars (unskilled @ \$15.00 / hr, professional @ ESD rates)	Other Funds	Total
Admin & office expenses	\$132,306	79	\$1,185		\$133,491
Partnerships & Project Development	\$16,669				\$16,669
Habitat Projects Assessment, Restoration & Monitoring *	\$12,095			\$246,000*	\$258,095*
Education & Outreach	\$17,415				\$17,415
Training, Travel & Conferences	\$3,265				\$3,265
<b>TOTAL</b>	<b>\$181,750</b>	<b>79</b>	<b>\$1,185</b>	<b>\$246,000</b>	<b>\$428,935</b>

\* indicates totals are subject to change as they are the best estimates for project end totals at time of report writing, as project carries on until next fiscal.

**BOARD OF DIRECTORS**

Jerry Kendrick, Software Developer  
Bill Colyar, Operations Director, SES Americom Earth Station  
Marcus Bertrand, Retired Mayor

**STAFF MEMBERS**

Daphne Booker, Executive Director  
Andrea Field, Financial Manager

**CONTACT INFORMATION:**

Phone: 509 476 3444  
Fax: 509 476 2883  
Email: [info@ucrfeg.org](mailto:info@ucrfeg.org)  
Mail: PO Box 932, Oroville, WA 98844  
Physical Address: 814 Central Ave #4, Oroville, WA 98844  
Website: [www.ucrfeg.org](http://www.ucrfeg.org)





## Washington Department of Fish and Wildlife

600 Capitol Way N  
Olympia, WA 98501-1091

Phone: (360) 902-2200

[www.wdfw.wa.gov/about/volunteer/rfeg](http://www.wdfw.wa.gov/about/volunteer/rfeg)

