

Regional Fisheries Enhancement Program

Annual Report For July 1, 2009 - June 30, 2010



“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	17
Region 3 - Stilly-Snohomish Fisheries Enhancement Task Force.....	22
Region 4 - Mid-Puget Sound Fisheries Enhancemenmt Group	28
Region 5 - South Puget Sound Salmon Enhancement Group	31
Region 6 - Hood Canal Salmon Enhancement Group.....	36
Region 7 - North Olympic Salmon Coalition	44
Region 8 - Pacific Coast Salmon Coalition.....	49
Region 9 - Chehalis Basin Fisheries Task Force.....	53
Region 10 - Willapa Bay Regional Fisheries Enhancement Group	56
Region 11 - Lower Columbia Fisheries Enhancement Group	58
Region 12 - Mid Columbia Fisheries Enhancement Group	63
Region 13 - Tri-State Steelheaders Regional Fisheries Enhancement Group	67
Region 14 - Upper Columbia Regional Fisheries Enhancement Group.....	70

“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 2009-2010 fiscal year, the RFEGs collectively completed 146 projects ranging from education and outreach to monitoring and, of course, on the ground salmon enhancement projects. RFEG volunteers donated over 63,000 hours to these salmon enhancement efforts in 2009-10. One-half of the RFEGs participated in fish production projects, releasing 1.9 million fish into local watersheds. Fifty-three fish passage improvement projects opened 65 miles of habitat for migrating salmon. Fifty-two miles of habitat was enhanced and restored for salmonids and 85,000 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 15-year history, these accomplishments add up to:

- » 3,073 total salmon projects;
- » 1,073,669 volunteer hours;
- » 68 million salmon released into Washington waters;
- » 720 fish passage problems fixed;
- » 823 miles of fish habitat opened;
- » 507 additional miles of habitat restored;
- » 893,292 fish carcasses placed back in streams for nutrient enhancement;
- » \$129,703,000 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

Jeanne Robinson, At-Large Position – Shelton, 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.

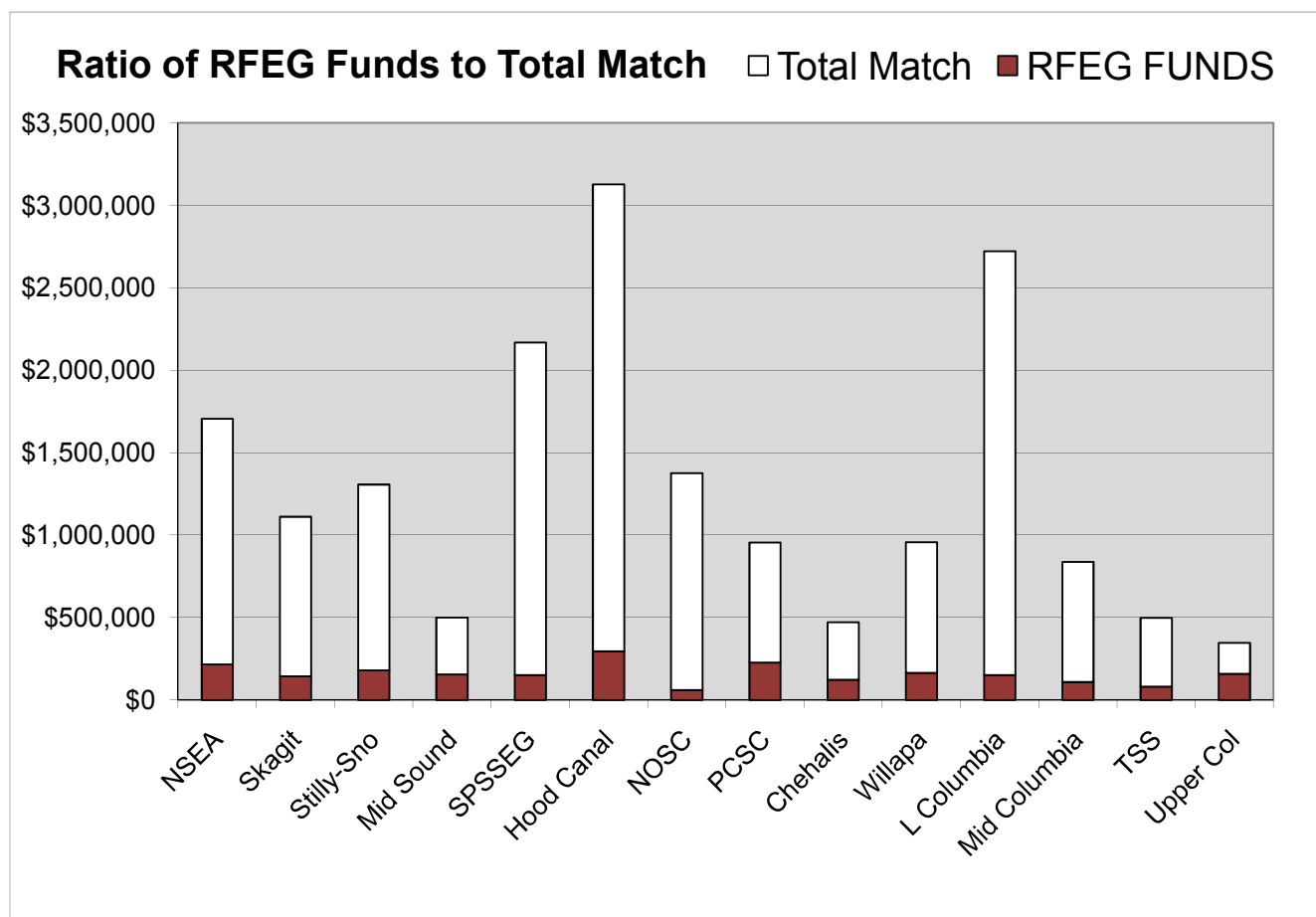
Funding for the RFEG Program comes from several sources, including a percentage of salmon license revenue (both commercial and recreational) and egg and carcass sales from state-funded hatcheries. WDFW also manages annual federal contracts granted to the RFEG Program. RFEG funds administered by WDFW 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, 2009 to June 30, 2010

Group	RFEG Funds	Volunteer Hours	Volunteer Dollars*	Funds Leveraged	Total Spent
NSEA	\$216,114	12,577	\$188,655	\$1,085,161	\$1,489,930
Skagit	\$143,997	6,988	\$104,820	\$719,430	\$968,247
Stilly-Sno	\$180,947	8,576	\$128,640	\$816,013	\$1,125,600
Mid Sound	\$155,223	843	\$12,645	\$178,198	\$346,066
SPSSEG	\$151,207	1,340	\$20,100	\$1,846,048	\$2,017,355
Hood Canal	\$295,167	6,691	\$100,365	\$2,436,933	\$2,832,465
NOSC	\$61,016	2,975	\$44,625	\$1,209,647	\$1,315,288
PCSC	\$226,883	3,222	\$48,330	\$453,747	\$728,960
Chehalis	\$122,643	5,534	\$83,010	\$143,015	\$348,668
Willapa	\$164,542	1,540	\$23,100	\$604,992	\$792,634
L Columbia	\$151,027	9,526	\$142,890	\$2,276,834	\$2,570,751
Mid Columbia	\$108,997	181	\$2,715	\$617,595	\$729,307
TSS	\$80,378	3,112	\$46,680	\$290,377	\$417,435
Upper Col	\$159,655	172	\$2,580	\$25,055	\$187,290
Total	\$2,217,796	63,277	\$949,155	\$12,703,045	\$15,869,996

*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

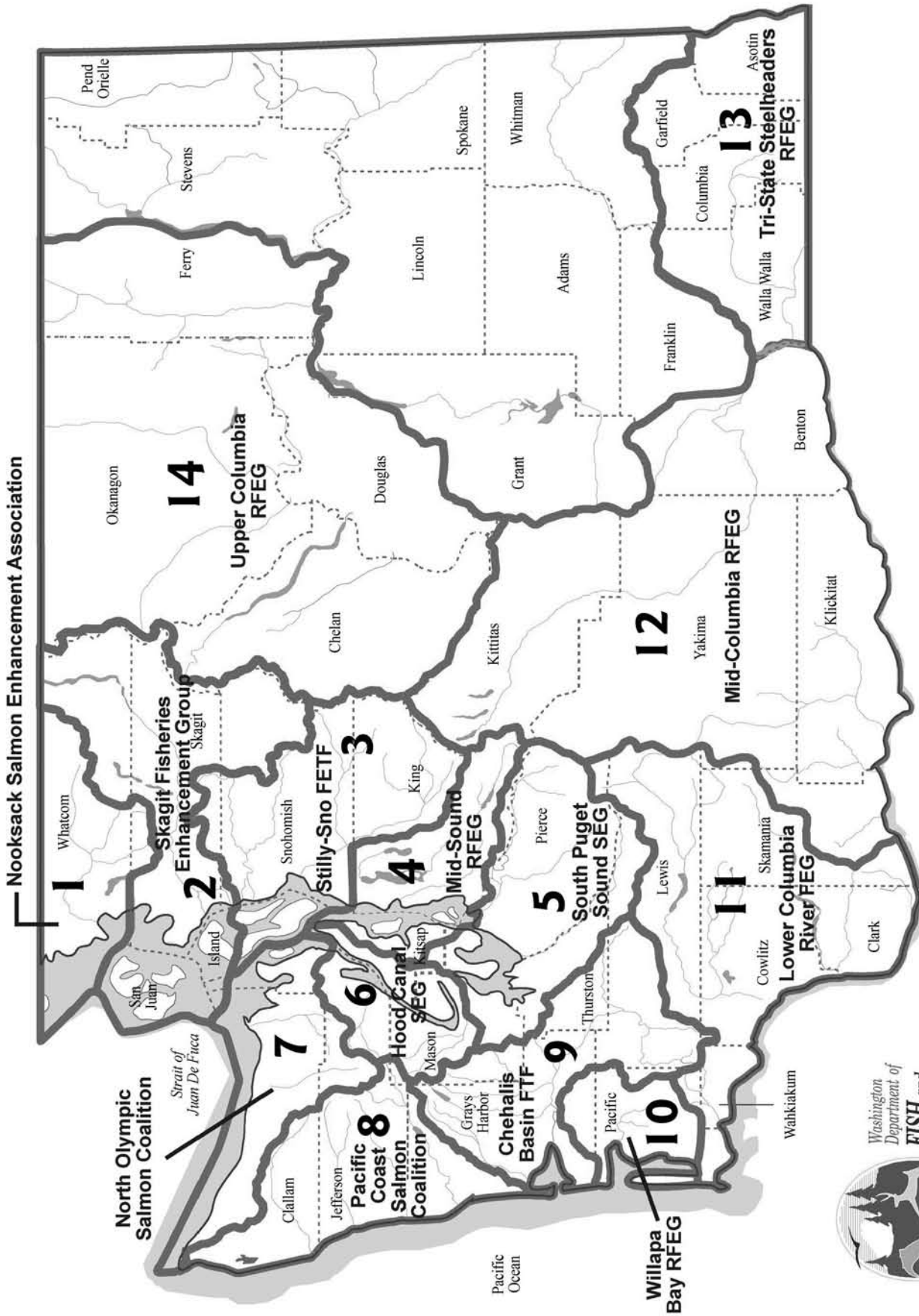
Includes WRIAs 30, 31, 37, 38, 39 and 40 and most of 29: Major watersheds include the Little White Salmon, White Salmon, Wind, Yakima, and Klickitat Rivers. This region also includes Columbia River habitat and other watersheds entering the Columbia River from the north and west above Bonneville Dam,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

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
Email: 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
Email: hcseg@hcseg.org

North Olympic Salmon Coalition

P.O. Box 699
Port Townsend WA 98368
Phone: 360 379-8051
Website: www.nosc.org
Email: 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
Email: 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

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
Email: rcraig@willapabay.org

Lower Columbia Fisheries Enhancement Group

12404 SE Evergreen Highway
Vancouver, WA 98683
Phone: 360-882-6671
Website: www.lcfeg.org
Email: 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
Email: 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: tssf@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
Email: jason@ucrfeg.org

Region 1 - Nooksack Salmon Enhancement Group.....	pages 12-16
Region 2 - Skagit Fisheries Enhancement Group	pages 17-21
Region 3 - Stilly-Snohomish Fisheries Enhancement Task Force.....	pages 22-27
Region 4 - Mid-Puget Sound Fisheries Enhancemenmt Group	pages 28-30
Region 5 - South Puget Sound Salmon Enhancement Group	pages 31-35
Region 6 - Hood Canal Salmon Enhancement Group.....	pages 36-45
Region 7 - North Olympic Salmon Coalition	pages 44-48
Region 8 - Pacific Coast Salmon Coalition.....	pages 49-52
Region 9 - Chehalis Basin Fisheries Task Force.....	pages 53-55
Region 10 - Willapa Bay Regional Fisheries Enhancement Group.....	pages 56-57
Region 11 - Lower Columbia Fisheries Enhancement Group	pages 58-62
Region 12 - Mid Columbia Fisheries Enhancement Group	pages 63-66
Region 13 - Tri-State Steelheaders Regional Fisheries Enhancement Group	pages 67-69
Region 14 - Upper Columbia Regional Fisheries Enhancement Group.....	pages 70-71

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 Squilicum, 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 Squilicum Creek Watershed. Additionally, students applied their knowledge by designing and implementing a riparian restoration project on Squilicum 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 Squilicum 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.

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.

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 sci-

Nooksack Salmon Enhancement Association

ence 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 their local watersheds. Community work parties took place on the Black Slough, Connelly Creek, Padden Creek, Scott Creek, Squaticum 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.



A pink salmon makes his way up Thompson Creek in September 2009 - Photo by Heidi Anderson

Nooksack Salmon Enhancement Association

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 - Lower Nooksack Trib Restoration					0
DOE CCW - Squalicum Creek				2,306	2,306
DOE CCW - South Fork Trib Riparian Restoration				17,531	17,531
DOE CCW - Tenmile Creek Riparian Restoration				81,633	81,633
DOT - Terrell Creek Buffer Mitigation				10,627	10,627
Flyfishing Program - Brabec/Robinson				13,023	13,023
Landowner Incentive Projects				18,500	18,500
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				43,716	43,716
NFWF - Pioneers in Conservation				32,844	32,844
Nooksack Recovery Team Support		90	1,350	5,579	7,019
NRCS - Wildlife Habitat Incentive Programs				47,700	47,700
Puget SoundKeepers Alliance				19,279	19,279
RESources				4,602	4,602
SRFB - Family Forest Fish Passage				199,780	199,780
USFS - Nooksack River Stewards		798	11,970	7,771	19,741
USFWS - Partners for Fish & Wildlife				22,267	22,267
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 - 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	1,000	15,000		55,885
Yamato Engines Fine Recovery - Streamside Science Ed.				3,384	3,384
Cash Donations				125,023	125,023
Donated Services				6,250	6,250
TOTAL	216,114	12,577	188,655	896,506	1,301,876

BOARD OF DIRECTORS

President: John Thompson, Western Washington University
Vice-President: Philip Humphries, Retired Boeing Engineer/Marketing Analyst
Treasurer: Russ Wilson, Partner, Certified Public Account, Moss-Adams
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
Stan Smith, Retired Engineer
Leif Embertson, River Engineer, GeoEngineers
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
Analiese Burns, Biologist/ Landscaper Designer, Common Ground Environmental at large

NSEA STAFF

Executive Director: Rachel Vasak
Project Manager: Darrell Gray
Finance Manager: Molly DePope
Program 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 Email: 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 the community in habitat restoration and watershed stewardship in order to enhance salmonid populations.

RFEG OVERVIEW

The 2009 Annual Report for the Skagit Fisheries Enhancement Group includes an increasing diversity of accomplishments related to salmon habitat restoration and stewardship projects in the Skagit, Samish and Island watersheds. It was an exciting year for volunteers to count returning salmon, with over 2 million humpies returning to the Skagit River and much larger coho runs than we have seen in recent years. Volunteers sent many pictures to us from the field of the fish they were counting to share their excitement. There was also the first sport Chinook fishery on the lower Skagit in 16 years for local fishers to enjoy! While we cannot take credit for these increased salmon returns, it is encouraging and satisfying to see so many community members, families and sportsman enjoying their time on the river.

2010 marks the 20th year for the Skagit Fisheries Enhancement Group (SFEG) engaging our local community in salmon enhancement activities. We are fortunate to have many accomplishments to celebrate over this 20 year period, none of which would be possible without our volunteers, members, private landowners, and incredible partnerships that exist throughout our region. What started as a small group of passionate volunteers in the Skagit Basin has become a staff of 11 highly skilled and educated individuals working in three watersheds (Skagit, Whidbey and San Juan Islands) as well as hundreds of community members contributing thousands of hours annually to restore miles of habitat each year.

SFEG's habitat restoration program has grown by leaps and bounds since our beginning in 1990, planting nearly 40,000 native plants in riparian areas in 2009. We have developed educational programs that utilize local hatcheries as a learning opportunity to teach visitors and students about the salmon life cycle and wild salmon habitat needs. And we have re-distributed over 91,000 adult salmon



SFEG Volunteer counting carcasses for coho spawner surveys

carcasses returning to the Marblemount Hatchery to streams in the Upper Skagit Watershed to provide much needed nutrients to our aquatic ecosystem. We have a well established monitoring program that trains volunteers to collect data that is shared with state agencies to track the effectiveness of restoration projects and the number of salmon returning to our watersheds. We have developed a highly successful education program for local

middle school students, Junior Stream Stewards, which engaged 350 students this year in learning about their watershed and implementing stewardship projects. And our outreach programs as a whole in 2009 reached over 11,425 individuals of all ages from throughout our region. And while funding for education and outreach programs may remain difficult in the near term, we are very excited and optimistic about our future, in most part because of the support we receive from our volunteers, members, landowners and project partners.

Summary of Accomplishments 2009:

Habitat Enhancement:

Riparian plantings	39,192 plants
Riparian maintenance	200 acres
Isolated habitat reconnected	2 miles
Nutrient enhancement	5,536 carcasses

Community Outreach:

Community education	11,425 people
Volunteer involvement	6,950 hours

PROJECT HIGHLIGHTS

ESTUARY AND NEARSHORE

Thatcher Bay:

Thatcher Bay is located on the southwest side of Blakely Island in the San Juan Islands. A partnership with the University of Washington continued to sample and analyze sediment and wood waste to be removed from the nearshore environment. Approval for disposal of these materials was received, a design was created and permits were filed. Nearly \$310,000 was secured for project implementation which will improve habitat for forage fish important to salmonids on these tidelands owned by the Blakely Island Trust.

Swan Lake Feasibility Study:

A new partnership was formed with the Swan Lake Watershed Preservation Group. This nonprofit organization is comprised of citizens living around Swan Lake, a 300 acre estuarine marsh located on the western side of Whidbey Island just south of the Navy base. The Group is working to restore fish and tidal access to this valuable habitat which was purchased for conservation values by Island County in 1999. A preliminary feasibility study was funded by the Salmon Recovery Funding Board (SRFB) in December 2009 to determine the likelihood of providing long-term sustained access into and out of Swan Lake for juvenile salmonids, marine fishes, and marine invertebrates.

South Fork Skagit River:

SFEG partnered with The Nature Conservancy to plant a conservation easement in their ownership. The site was prepped and a volunteer planting event was held, in which 19 volunteers installed 437 trees and shrubs. The project is along 2,000 feet of shoreline on the South Fork of the Skagit River which provides valuable habitat for all species of salmonids, including ESA listed Chinook.

Skagit Fisheries Enhancement Group

DAY CREEK COMMUNITY WATERSHED

Morgan Creek Fish Passage:

Culverts were removed which blocked fish passage due to high velocity on a private driveway crossing off the South Skagit Highway near Day Creek. The crossing was replaced with a 40 foot recycled railroad flatcar bridge. This work opens 2.08 miles of habitat. The project was completed through cooperation with a private landowner and grants from the Salmon Recovery Funding Board and WDFW's ALEA program. This work builds upon previous work completed downstream near the mouth of the creek to make 4.3 miles of valuable tributary habitat available to coho, cutthroat, and Chinook.

Day Creek Restoration:

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. Log donations were secured through a Forest Service partnership and site preparation was performed for 2,500 plants to be installed in early 2010. Approximately one mile of stream and 10 acres of riparian area will benefit through these grants.

Ross Island Slough Restoration:

Over 19,000 native plants were installed on this floodplain habitat through a partnership with NRCS and Seattle City Light. Additional work removed culverts on an overflow channel which provides fish habitat during high water. Much more work is planned for 2010 continuing the restoration of riparian areas on over 150 acres of land permanently protected around Anderson Creek, Gilligan Creek and Ross Island Slough.

Iron Mountain Ranch Habitat Enhancement:

Work continued on this vast property owned by Seattle City Light which protects and allows for 2 miles of riparian habitat restoration along the Skagit River where key Chinook and steelhead spawning habitat exists. This year work was focused along the eastern end of the property and restoring riparian habitat along O'Toole Creek and the Skagit River. An old fence was removed to allow a new fence to be built to continue cattle grazing on the property but with a larger riparian area. New native plants will be installed once this fence is built.

Outreach and Monitoring:

Outreach and monitoring efforts were undertaken with new grant dollars from the Department of Ecology for the Day Creek Community Watershed. Volunteers were involved in collecting macroinvertebrates to help gauge stream health prior to restoration actions taking place. National Park Service staff wrote a temperature monitoring plan and installed monitoring devices to track water and air temperatures during the summer months. This information will be used as pre-project data for riparian and log jams projects planned for 2010 and beyond.

MIDDLE SKAGIT WATERSHED

Elysian Meadows Riparian Restoration:

SFEG is continuing this work with dedicated private property owners who have ensured the permanent protection of 112 acres of Skagit River floodplain through a conservation easement held by the Skagit Land Trust. Volunteers planted 4.5 acres with native plants and shrubs and SFEG staff removed 2 acres blackberries and treated other invasive species on 5.5 additional acres.

Hansen Creek Riparian Restoration:

A partnership with Skagit County Parks Department restored 12 acres of riparian habitat along over 1700 feet on lower Hansen Creek as part of a CREP project adjacent to large woody debris restoration. Nearly 6,000 plants were installed by staff and volunteers. A fantastic Earth Day work party was held in cooperation with many partners including the Upper Skagit Indian Tribe, Skagit County Parks Foundation, Healthy Communities Project, and Starbucks.



SFEG Reg 2 AmeriCorps volunteer, Sarah Davis, planting trees at Presentin park

Larsen Memorial Floodplain Restoration:

The Larsen Memorial site is owned by the Forest Service along the south side of the Skagit River floodplain. This past year, SFEG staff worked in cooperation with the Forest Service to rid the site of invasive species such as blackberries and knotweed. Over 900 conifers were planted at the site and three culverts were removed with associated road fill from three locations in order to better facilitate natural floodplain processes.

Skagit Fisheries Enhancement Group

UPPER SKAGIT WATERSHED

Floodplain Restoration:

SFEG is working with the Forest Service to restore floodplain habitat at 5 sites located throughout the Upper Skagit. Sites are located along the east side of Skagit River upstream of Marblemount, at the confluence of the Cascade and Skagit Rivers at the Marblemount Boat Launch, a small site at the confluence of Diobsud Creek and the Skagit, along the Sauk River near its confluence with the Skagit, and at Ovenell Slough on the south side of the Skagit River across from Jackman Creek. Over 2100 native trees and shrubs were planted by volunteers and staff at these sites in 2009. Work is funded by the Salmon Recovery Funding Board and supported through the Forest Service partnership.

Nutrient Enhancement:

Volunteers distributed 5,536 salmon carcasses from the Marblemount State Hatchery back to natural streams in the Upper Skagit watershed. Research demonstrates that over 83 wildlife species are known to depend on nutrients from salmon carcasses, including salmon fry.

Pressentin Park:

SFEG partnered with Skagit County Parks Department to restore new floodplain property added to Pressentin Park. Invasive species including blackberry, reed canary grass, clematis and tansy were treated at the park along 1100 feet of a side channel to the Skagit River utilized by chum salmon. Over 800 plants were installed on the site on approximately 2 acres with assistance from volunteers.

Howard Miller Steelhead Park:

With a new grant from the US Fish and Wildlife Service, SFEG continued the riparian restoration efforts at Howard Miller Steelhead Park in Rockport. This year, SFEG worked with the Skagit County Parks Foundation to plant along a tributary stream that flows into the Skagit River in the Park. Nearly 1,300 native plants were planted by volunteers covering nearly 4 acres and 1,200 feet of stream.

Community Outreach:

SFEG's outreach efforts are now well established in the up river communities. We continued to assist with increasing outreach capacity at the Marblemount Hatchery by training volunteers to lead hatchery tours during the busy bald eagle 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.

JUNIOR STREAM STEWARDS EDUCATION PROGRAM

Junior Stream Stewards is a highly successful education program engaging over 350 local middle school students this year from 5 school districts in learning about their watershed and implementing stewardship projects. Seventh and eighth graders from Conway, LaConner, Sedro Woolley, Concrete and Allen learned about their local creeks and watershed habitats through classroom activities, field tours and water quality studies. Their learning culminated in service learning project such as riparian restoration efforts and creating and posting educational signs that benefit salmon in these watersheds.



SFEG Junior Stream Stewards from Concrete Middle School post new signs for their local stream

Skagit Fisheries Enhancement Group

EFFECTIVENESS MONITORING

Stream Monitoring:

Two workshops were held to train 33 volunteers to monitor the effectiveness of restoration projects. Once trained, volunteers collected physical data for 13 streams including parameters such as gradient, width, substrate, vegetation, pools, and riffles. 28 streams covering over 17.35 miles were walked each and every week by volunteers and staff to count returning adult salmon and their redds for spawner surveys during the fall and winter. 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. Nearly 900 volunteer hours were contributed this year.

Bird Monitoring:

Restoring riparian habitat recovers more than just salmon populations, it also supports other wildlife such as birds. This year for the first time, SFEG partnered with volunteers from the Skagit

Audubon Society to attempt to document what species of birds utilize SFEG's restoration and in what numbers. Six sites are currently being monitored and 56 bird species have been documented by volunteers. Ultimately, we hope to learn if the number and diversity of birds change as the riparian area becomes established. Many thanks to the Audubon volunteers for making this new program a success.

PROJECT EXPENDITURES

Project Name	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total
Anderson Creek Restoration		11	\$165	\$89,389	\$89,554
Day Creek Restoration & Education		72	\$832	\$22,065	\$22,897
Elysian Meadows Restoration		116	\$1,733	\$19,157	\$20,890
Ennis Creek Restoration		15	\$225	\$20,112	\$20,337
Finney Creek Restoration		83	\$1,245	\$24,163	\$25,408
Fundraising		75	\$1,118	\$18,540	\$19,658
Hansen Creek Restoration		297	\$4,455	\$866	\$5,321
Hatchery Education		155	\$2,325	\$-	\$2,325
Howard Miller Steelhead Park Restoration		204	\$3,053	\$17,439	\$20,492
Iron Mountain Ranch Restoration		49	\$728	\$16,302	\$17,030
Junior Stream Stewards		430	\$6,921	\$20,424	\$27,345
McElroy Slough Monitoring		89	\$1,058	\$7,027	\$8,085
Morgan Creek Fish Passage		64	\$953	\$47,679	\$48,632
Native Plant Nursery		1,124	\$16,861	\$7,757	\$24,618
Natural Resource Stewardship Program				\$12,888	\$12,888
Skagit County Clean Water Project		535	\$8,026	\$54,272	\$62,298
Skagit Floodplain Restoration		78	\$1,509	\$63,638	\$65,147
South Fork Skagit Restoration		81	\$1,208	\$7,200	\$8,408
Thatcher Bay Nearshore Restoration Design				\$44,025	\$44,025
Upper Skagit Riparian Restoration		195	\$2,925	\$75,503	\$78,428
Administration	\$53,876	941	\$15,869	\$32,633	\$102,378
AmeriCorps Match	\$15,601	504	\$7,553	\$-	\$23,154
Education Programs	\$25,034	759	\$10,898	\$2,925	\$38,857
Monitoring	\$33,584	951	\$14,261	\$7,162	\$55,007
Nutrient Enhancement	\$117	52	\$780	\$-	\$897
Project Development	\$15,785	112	\$1,673	\$1,890	\$19,348
TOTAL	\$143,997	\$6,988	\$106,374	\$613,056	\$863,427

Skagit Fisheries Enhancement Group

BOARD OF DIRECTORS

- Bruce Freet, *President*, Retired Ecologist
- Jeanne Glick, *Vice President*, Nurse
- Deene Almvig, *Treasurer*, Retired Educator
- Ned Currence, *Secretary*, Nooksack Tribe - Fisheries Biologist
- Kurt Buchanan, Fisheries Biologist
- Oscar Graham, Environmental Planner
- Jim Johnson, Retired High School Teacher
- Chris Kowitz, Biologist
- Robin LaRue, Civil Engineer
- Boshie Morris, Self Employed
- Patrick O'Hearn, Retired CPA and part owner of Emerald Marine Carpentry
- Mike Olis, Tribal Forest & Fish Biologist - Skagit River System Cooperative

STAFF MEMBERS

- Alison Studley, Executive Director
- Lucy DeGrace, Outreach Coordinator
- Sue Madsen, Restoration Ecologist
- Mary Mae Hardt, Finance Manager

Restoration Technicians:

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

AmeriCorps Interns:

- Sarah Davis, Restoration Assistant, Washington Conservation Corps
- Katie Moyer, Education Assistant, Washington Service Corps



**SKAGIT FISHERIES
ENHANCEMENT GROUP**

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



SFEG Volunteers learn to conduct physical monitoring of habitat

MISSION STATEMENT

The Stilly-Snohomish Fisheries Enhancement Task Force's mission is to ensure the future of healthy salmon runs in the Stillaguamish and Snohomish River basins and Island County watersheds.

To achieve our mission, we pursue the following goals:

- To support and enhance natural salmon populations through habitat restoration
- To empower communities to be stewards of their watersheds by providing education and volunteer opportunities
- To partner with other groups and agencies to maximize salmon recovery
- To advocate for salmon recovery in our region

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 community colleges, school districts and fishing clubs and other interested groups. 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 8,500 hours of donated time from community volunteers and students to create long-lasting results for future generations.

HABITAT PROGRAM:

Whitehorse Creek Cooperative Enhancement Project, Arlington

The Task Force teamed up with landowners Jackie Berg, Darren Scates, and the Olson Family to tackle a riparian restoration project along 1,500 feet of Whitehorse Creek near Trafton. In total, three acres of weeds were controlled and six volunteer planting events resulted in the installation of 2,027 native plants along the creek. In a few years, the project will grow into a native forest that will provide habitat benefits for fish, primarily coho salmon, and other wildlife. Project Partners include the Berg-Scates family, Olson family, Washington Conservation Corps (WCC)/AmeriCorps, Washington State Department of Corrections (WSDOC), and Centennial Middle School. Funding was provided by the National Fish and Wildlife Foundation (NFWF) – Community Salmon Fund (CSF) - Stillaguamish Basin; Stillaguamish Capacity Funds - Salmon Recovery Funding

Stilly-Snohomish Fisheries Enhancement Task Force

Board (SRFB); First Heritage Bank Employee's Giving Program; and the Snohomish County Surface Water Management (SWM) Education Program.

Jim Creek Riparian Planting Projects, Arlington

The Task Force continued work along Jim Creek, a tributary to the South Fork Stillaguamish River. Working with private landowners, the Task Force worked on three riparian planting project sites, and planted 1,845 trees and shrubs along 2,700 linear feet over 11.3 acres. 335 volunteers donated 1,230 hours toward these projects. The Task Force has also begun work on a feasibility study on a 1-mile reach of Jim Creek. Partners include the Britt-Smith family, Wester family, Merjanian family, WCC. Funding was provided by Department of Ecology Centennial Clean Water, Stillaguamish Basin SRFB



An AmeriCorps crew member assists Arlington students to install native plants along Jim Creek

Tolt River Riparian Enhancement, Carnation

In partnership with Seattle City Light, the Task Force tackled a riparian restoration project on the Tolt River near river mile 2. The first step was 5 acres of weed control targeting butterfly bush. The second step was planting 3 acres of riparian habitat with the help of volunteers. In total, more than 2,500 native plants were installed along 1,600 feet of stream. Funding was provided by National Fish & Wildlife Foundation, Seattle City Light. Partners included Seattle City Light, WCC, and WSC.

Snoqualmie River Riparian Restoration, Stillwater Wildlife Area, Carnation

The Task Force worked with Washington Department of Fish and Wildlife (WDFW) to wrap up 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 third year of work at this site, volunteers planted

Stilly-Snohomish Fisheries Enhancement Task Force

nearly 3,000 native trees and shrubs on 6 acres. In total, more than 8,000 plants have been installed across 25 acres of the Snoqualmie floodplain. Funding provided by King Conservation District, Seattle City Light, Recreational Equipment Incorporated (REI), and Aquatic Lands Enhancement Account (ALEA). Partners included WDFW, WCC, WSC, WSDOC, EdCC LEAF, and the Snoqualmie Watershed Forum.

Woods Creek Basin Fish Passage, Machias

Working on private forest land, the Task Force replaced 3 partial barrier culverts on a tributary to Carpenter Creek in the Woods Creek Basin. Primarily inhabited by coho, salmon are now able to access 2.5 miles of near-pristine upstream habitat including beaver-impounded wetlands. This project occurred upstream of a culvert that was recently replaced by Snohomish County. Volunteers assisted in planting riparian buffers along disturbed areas of the creek. Funding was provided by Family Forest Fish Passage Program, National Fish and Wildlife Community Salmon Fund, and Regional Fisheries Enhancement Group funds. Partners included Waterfall Engineering, WCC, WSC.

EDUCATION PROGRAM:

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.



Salmon Stewards check out the salmon at Twin Rivers Park

The Task Force offers several educational programs from which teachers can choose. During the 2009-10 school year, our **Restoration Ecology for Young Stewards (REYS)** program, now in its fifth year, reached approximately 300 students in 10 classrooms from two schools: English Crossing Elementary in Lakewood, and Snoqualmie Middle School in Snoqualmie. 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 nine 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 Puget Sound watersheds. Funding for this program was provided by the Washington State Department of Ecology Public Participation Grant program, the Anne and Mary Arts and Environmental Education Fund, and the Department of Ecology Centennial Clean Water fund.

Another Task Force Education program is **Stream Detectives at Jones Creek**, in which Task Force educators lead field trips for every 5th grade classroom in the Marysville School District to the District-owned Jones Creek Outdoor Learning Center. Onsite, students measure water quality the way real scientists do, using physical and chemical tests to measure and record the levels of dissolved oxygen, water temperature, phosphate (stream nutrients) and turbidity (sediment). Students also perform a miniature BIBI test, or Benthic Index of Biotic Integrity, where they identify stream macroinvertebrates caught in the creek and use a simple math equation to calculate water quality based on the pollution tolerance of the bugs. Finally, students discuss how the results may affect salmon and the health of their watersheds. Funding for this program is provided by the Marysville School District, with staff support from the City of Marysville.

Starting in October 2009 the Task Force added a new facet to its Education Program: Task Force educators are under contract with **Snohomish County Surface Water Management** to provide education on water resources and aquatic ecosystems to K-12 students. During the 2009-10 and 2010-11 school years, the Task Force will provide over 200 classroom lessons and 25 fieldtrips to students within Snohomish County. Classroom lessons focus on Pacific salmon, watersheds, native plants and water resources. Fieldtrips offer a range of activities including water quality testing to planting riparian trees, to collecting and analyzing stream bug communities.

Besides the programs above, the Task Force has 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

Stilly-Snohomish Fisheries Enhancement Task Force

students. These efforts include partnering with WSU Extension/Snohomish County 4H to serve students from Darrington, providing lessons for local Girl and Boy Scout troops, Boys and Girls Clubs and YMCA summer camps, and coordinating riparian planting projects for K-12 students from Camano Island, Mountlake Terrace, Woodinville and Snohomish, and students from Edmonds Community College.

Overall, the Task Force's Education Program reached more than 4,500 youth in the 2009-10 school year.

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 work cooperatively with EcoNET program members, coordinating outreach, education and stewardship efforts and creating synergistic relationships between like-minded organizations. Some of these partners 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.*

EcoNET partners hosted "Beach Expos" at a couple of beach cleanups. The Task Force also held two river cleanups, one in the Stillaguamish, the other in the Snohomish. In total, 28 volunteers donated 136 hours to collect debris, remove invasive plant species, learn about the nearshore environment, experience touch-tanks, and take low-tide "beach walks" with Beach Watcher naturalists. Since the beginning of the Clean-up Program, community members have collected nearly 10,000 pounds of debris that might otherwise have ended up in our rivers and marine nearshore. This program was funded by the Tulalip Tribes Charitable Foundation.

In winter 2010, the Task Force continued a very rewarding trend of incorporating outreach events while working on projects within a specific sub-basin. Three successful **open houses** afforded an excellent forum to connect with local landowners, and provided the Task Force with more than 15 site visits in two sub-basins. 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 6 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.

FISH ENHANCEMENT

For the past 20 years, the Task Force has financially supported fish enhancement through local fishing clubs. In the past year, 25,000 coho smolts were reared and released with the assistance of 275 volunteer hours at the Everett Marina by the Everett Steelhead and Salmon Club, valued at \$4,125.

ASSESSMENT, MONITORING AND RESEARCH:

Stillaguamish Knotweed Control Program

The Task Force began work in 2005 on the Stillaguamish Tributaries Knotweed Control Program, a project that incorporates landowner education with on-the-ground knotweed monitoring and treatment. The Stillaguamish Tributaries Knotweed Control Program is part of an ongoing strategic knotweed control effort in the Stillaguamish watershed coordinated by the Stillaguamish Cooperative Weed Management Area (CWMA). The CWMA is a group of agencies and organizations that agreed to work together against the spread of knotweed.



A Task Force volunteer creates a survey point for knotweed on the Stillaguamish River

In 2005 and 2006, the Task Force surveyed approximately 225 miles of tributaries to the North Fork (NF), South Fork (SF), and main-stem Stillaguamish Rivers for knotweed presence. Following Integrated Pest Management (IPM) strategies and utilizing the information gained during the 2005-06 surveys, the Task Force began performing outreach to targeted landowners and strategic knotweed control activities. Starting in 2007, the Task Force focused efforts in three SF Stillaguamish tributaries (Jim, Canyon, and Turlo Creeks), and several upper NF

Stilly-Snohomish Fisheries Enhancement Task Force

Stillaguamish tributaries. The purpose of surveying is two-fold: to monitor previously-treated knotweed patches and streams, and to identify patches on streams not previously surveyed. Control efforts focus on both newly discovered patches of knotweed, and re-treatment of any re-sprouting knotweed that was sprayed in previous years.

Last year, the Task Force and 26 volunteers surveyed 21.6 miles of Stillaguamish River tributaries, and treated 1.1 acres of knotweed along approximately 9.9 river miles. The Task Force reached over 190 property owners to share information about this invasive plant and offer assistance with its control. By the end of 2009, the Task Force had enrolled 19 new landowners in the knotweed program, bringing the total number of landowners cooperating with the project to 134! Funding: Washington State Department of Agriculture (WSDA), DOECCW, SRFB

Partners include the 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; and 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 in 2009. 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 WSC & WCC AmeriCorps interns and 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 completed 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, Task Force staff collected base-line data on salmon utilizing the Slough for migration and rearing habitat. A second year of water temperature monitoring in the Slough and nearby Haystack Creek was also completed.

On other project sites in the Snoqualmie Valley, periodic vegetation monitoring alerted Task Force staff to severe damage to native plants caused by beaver. Because of this discovery, 200 conifer trees on three restoration sites were wrapped with woven wire cages to prevent further beaver damage.

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 and will be incorporated into Snohomish County's stream monitoring database. Four new restoration sites were established for vegetation monitoring along Jim Creek and Whitehorse Creek.



Heavy Equipment preparing to install flood fencing along the Pilchuck River

Stilly-Snohomish Fisheries Enhancement Task Force

A final area that the Task Force is currently monitoring is the battle against invasive vegetation. Currently, the Task Force is battling to control blackberry, butterfly bush, reed canary grass, and knotweed at many of our restoration sites. Various techniques are incorporated, including manual and mechanical

cutting and removal, 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 Vol Time	RFEG Funds	Other Funds	Total
Administration Staff	642	\$9,630	\$41,050	\$5,805	\$56,485
Program Infrastructure	0	\$0	\$45,785	\$4,950	\$50,735
Grant Writing	0	\$0	\$2,326	\$1,138	\$3,464
Fundraising	0	\$0	\$1,394	\$193	\$1,587
Annual Meeting	13	\$195	\$4,671	\$1,774	\$6,640
Program Management Totals	655	\$9,825	\$95,226	\$13,860	\$118,911
Education Program Manager	0	\$0	\$27,191	\$5,607	\$32,798
Education - General	272	\$4,080	\$5,290	\$10,104	\$19,474
Restoration Education for Young Stewards	1343.5	\$20,153	\$0	\$30,370	\$50,523
Quilceda/Allen Education - Marysville School District	42	\$630	\$0	\$4,092	\$4,722
River Stewards	0	\$0	\$0	\$6,202	\$6,202
City of Arlington - Eagle Creek	156	\$2,340	\$0	\$0	\$2,340
SWM Education Program	56	\$840	\$0	\$42,894	\$43,734
Education Program Totals	1869.5	\$28,043	\$32,481	\$99,269	\$159,793
Habitat Staff	0	\$0	\$32,528	\$9,622	\$42,150
WCC Crew - Miscellaneous Projects	0	\$0	\$3,405	\$31,717	\$35,122
Project Equipment	0	\$0	\$247	\$5,687	\$5,934
Lead Entity Process	0	\$0	\$4,285	\$0	\$4,285
RFEG Activities	0	\$0	\$5,892	\$0	\$5,892
Jim Creek Feasibility Study	0	\$0	\$0	\$4,809	\$4,809
Prairie Creek Revegetation	73	\$1,095	\$0	\$2,613	\$3,708
Nursery	6	\$90	\$4,059	\$11,100	\$15,249
Sno-Isle Stream Habitat	182.25	\$2,734	\$1,347	\$17,483	\$21,564
Stillaguamish Stream Habitat	28	\$420	\$0	\$10,093	\$10,513
Kissee Creek - Robbins	0	\$0	\$0	\$5,844	\$5,844
River & Beach Cleanups	84	\$1,260	\$0	\$6,500	\$7,760
Stilly Knotweed Control & Restoration	1861	\$27,915	\$0	\$68,744	\$96,659
Snoqualmie River-Duvall	0	\$0	\$0	\$1,303	\$1,303
West Fork Woods Creek-Gerdes	4	\$60	\$139	\$95,757	\$95,956
Stillwater Restoration	1410.5	\$21,158	\$0	\$51,986	\$73,144
Pilchuck River - Reach	463	\$6,945	\$0	\$20,699	\$27,644
Maxwelton Creek - Morgan Culvert	0	\$0	\$0	\$546	\$546
Cemetery Creek	0	\$0	\$0	\$22,740	\$22,740
Anthracite Creek	0	\$0	\$0	\$2,184	\$2,184
Tychman Slough Assessment	93.5	\$1,403	\$0	\$68,383	\$69,786
Stilly Knotweed Control & Riparian Restoration	39.5	\$593	\$0	\$37,176	\$37,769
NF Stilly Trib Riparian Enhancement	884	\$13,260	\$0	\$27,279	\$40,539
Pilchuck River-Hendrickson	22	\$330	\$0	\$4,899	\$5,229
Tolt Restoration Project - RM2	375	\$5,625	\$0	\$26,247	\$31,872
Tolt Restoration Project - RM4	0	\$0	\$0	\$4,728	\$4,728
SF Snoqualmie - Wattenbarger	0	\$0	\$0	\$1,187	\$1,187
Habitat Program Totals	5525.75	\$82,886	\$51,902	\$539,326	\$674,114
Stilly Knotweed Monitoring	193	\$2,895	\$0	\$11,798	\$14,693
Stilly Water Quality Monitoring	42	\$630	\$0	\$13,100	\$13,730
Monitoring Program Totals	235	\$3,525	\$0	\$24,898	\$28,423
Carcass Distributions	16	\$240	\$534	\$486	\$1,260
Carcass Distributions Totals	16	\$240	\$534	\$486	\$1,260
Possession Bait Coho Rearing Pond	0	\$0	\$276	\$0	\$276
Everett Net Pen	275	\$4,125	\$528	\$9,530	\$14,183
Fish Production Totals	275	\$4,125	\$804	\$9,530	\$14,459
SSFETF ORGANIZATION TOTAL	8,576	\$128,644	\$180,947	\$687,369	\$996,959

Stilly-Snohomish Fisheries Enhancement Task Force

DIRECTORS

Kip Killebrew, Director
Tom Murphy, Vice President
Andy Loch, Treasurer
Chris Grieves, Secretary
Phil Taylor

AFFILIATION

Stillaguamish Tribe Hatchery Biologist
Edmonds Community College, professor of LEAF class
City of Bothell Surface Water Management
Wild Steelhead Coalition; Fly Fisherman; Fly Fishing Guide
Retired Boeing Employee; Task Force Volunteer

STAFF

Ann Boyce
Executive Director
425-345-6326 cell phone
ann@stillysnofish.org email

Jason Anderson
Restoration Coordinator
425-425-268-0612 cell phone
jason@stillysnofish.org email

Cara Ianni
Volunteer & Education Coordinator
425-328-6415 cell phone
cara@stillysnofish.org email

Kristin Marshall
Habitat Restoration Specialist
206-419-0730 cell phone
kristin@stillysnofish.org email

Brian Boehm
Habitat Restoration Specialist
425-328-7712 cell phone
brian@stillysnofish.org email

Kim Clark
Financial Specialist
kim@stillysnofish.org email

Washington Conservation Corps/AmeriCorps

Lauren Waters – Crew Supervisor
Amy Witt – Crew Assistant Supervisor
Kevin Wilen – Crew Member
John Newbery – Crew Member
Jacquelyn Platt – Crew Member
Danielle Larsen – Crew Member

INTERNS

Washington Conservation Corps/AmeriCorps
Jessica Tupper – Habitat Restoration Technician

Washington Service Corps/AmeriCorps
Abby Kuranz – Education & Outreach Assistant

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 email
www.stillysnofish.org website



Mid Puget Sound Fisheries Enhancement Group

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

HABITAT PROJECT HIGHLIGHTS

Strawberry Creek

In the fall of 2009, Mid Sound partnered with Central Kitsap High School and Bill Wilson's senior AP Environmental Science class to find a solution to a fish barrier on Strawberry Creek. Because migrating salmon could not get into (or through) the culvert under Silverdale loop road, approximately 20 kids from the class spent their morning filling sandbags and hauling them into the stream to create a temporary sandbag weir as a short term solution.

The weir created a pool to raise water levels high enough to allow fish access to the culvert and upstream habitat. With additional sandbags, Mid Sound and the high school class created a small slide for fish downstream of the culvert to swim over and have access to the pool. As the high school class was monitoring the site, they reported seeing salmon using the slide and migrating

upstream. Once the salmon migrated upstream for the season, the sandbag weir was removed.

With the help of Central Kitsap High School, over 60 volunteer hours have already been put into the project. We will be going back this fall with Mr. Wilson's class to repeat the project for this migratory season.



Bill Wilson's Senior AP Environmental Science class at Strawberry Creek

We have also been actively pursuing grant funds to have this culvert replaced and the riparian area downstream of the culvert enhanced. We have discussed this project with Mr. Wilson and he is excited and ready to have his class help in any way possible when the project time comes. During a grant review, we talked with Chris May from Kitsap's Surface and Stormwater Management (SSWM) and have since had meetings with him regarding this project. His team has plans to start design work for this project sometime in 2012. We are currently working with him to incorporate Mid Sound in the restoration efforts after culvert replacement with his department and have a Memorandum of Agreement being reviewed.

Fish Fling

During the fall and winter of 2009, we had our annual Fish Fling event where we and our volunteers, distribute spawned out salmon carcasses back into the Green River system. We partnered with the Soos Creek Salmon Hatchery, east of Auburn, WA, who donated large totes of salmon carcasses for our event. We had one volunteer who helped out almost every day of the event (Oct – early Dec.) and many other volunteers who help for one or two of the event days. 15 kids from Totem Lake Middle school were able to come out for one of our events and fling fish and learn about the hatchery and the importance of healthy streams and salmon. We took the carcasses to many different locations in the Green River system that are known to be nutrient poor. The carcasses biodegrade in and near the river and add nutrients back to the river system for the next generation of salmon. Not only do salmon greatly benefit from fish fling projects, but other organisms from insects to trees depend on the nutrients the salmon bring back from the ocean each year.

Mid Puget Sound Fisheries Enhancement Group

Big Spring Creek Smolt Trap

Mid-Sound operated a Coho Smolt Trap near the mouth of this important tributary to Newaukum Creek each spring through 2003 to 2006. In 2010, a two way trap was installed early spring and removed in the summer.



Smolt Trap volunteers learning to identify fish species

The purpose of the Coho Smolt Trap was to track juvenile Coho numbers in Big Spring Creek prior to King County’s re-channelization project that will remove the creek from a low quality habitat ditch and direct it back into the historic creek channel. Information provided by the 2-way Smolt Trap survey

will demonstrate how the re-channelization project has affected the Big Spring Creek juvenile salmon population before and after implementation.

We had several consistent volunteers checking the trap at least twice a day (more during storm events) counting and identifying captured fish species. Some of our volunteers come from the Green River Community College and Puget Sound Anglers. Our trap captured a total of 697 out migrating and 7 up migrating Coho for 2010.

North Fork Newaukum Creek

Mid Sound received funds through Puget Soundkeeper Alliance to do a project to enhance water quality in WRIA 9. Two projects came to us from private land owners to remove invasive plants and restore the riparian area on the North Fork Newaukum Creek in Enumclaw. Mid Sound worked with both landowners to cut down and remove several square yards of dense blackberry and then replant with native vegetation. Mid Sound staff did all of the invasive removal using hand tools and had the assistance of volunteers to help plant both sites.

We have been out to both sites since planting to maintain the sites and remove emergent blackberries to give the native plants the best chance possible to mature. We hope that native species will shade out and out-compete invasive plants over their years of maturing on the site. Vegetation will also improve water quality by providing shade and cooler temperatures to the area, as well as filtering out pollutants.

PROJECT EXPENDITURES: JULY 1, 2009 – JUNE 30, 2010

Project Name	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total
Administration	91,194.55	276	4,140	2,369.29	97,703.84
Habitat Restoration	52,689.24	380	5,700	158,179.50	216,568.74
Outreach & Education	11,339.18	187	2,805	5,004.46	19,148.63
TOTAL	155,222.97	843	12,645	165,553.24	333,421.21

BOARD OF DIRECTORS

President

Paul Dorn Salmon Recovery Coordinator -
Suquamish Tribe

Vice-President

Margaret Duncan

Secretary

Alan Miller Trout Unlimited, RFEG Coalition
Representative

Treasurer

Bob Johnson

Bill Robinson
Noel Gilbrough

WRIA 9 Forum Representative
(Alternate)

Willy O'Neil

In Memorium

STAFF

Executive Director
Troy Fields

Project Manager
Danielle DeVoe

CONTACT INFORMATION

7400 Sand Point Way NE, Suite 202 North, Seattle, WA 98115
(206) 529-9467 (phone), (206) 529-9468 (fax),
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

The South Puget Sound Salmon Enhancement Group (SPSSEG) is a local voice for regional salmon recovery. From the highest peaks in the Cascades, to the fertile shorelines and estuaries of South Puget Sound, SPSSEG restores salmon habitat while working with willing landowners. SPSSEG believes that by collaborating with local communities, schools, and individuals in King, Pierce, Kitsap, Thurston, and Mason Counties, we can increase salmon numbers in our rivers and streams. Working closely with local, state, federal, non-profit, and tribal agencies, SPSSEG provides education opportunities, technical assistance, construction services, and pursues grant funding to find win-win solutions for people and salmon. Our non-profit, non-governmental, non-political, status helps SPSSEG get real results, real quick.

From July 1, 2009 to June 30, 2010, SPSSEG completed six in-stream restoration projects, conducted and/or participated in numerous education and assessment projects and have eight on-the-ground projects in progress.



Nisqually Watershed Tour with Ciscoe Morris

A nine-member board provides technical expertise and institutional knowledge. SPSSEG has well established partnerships with tribal, federal, state, and local agencies including US Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), National Fish and Wildlife Foundation (NFWF), 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.

RIPARIAN PLANTING

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 will continue through 2011. WRIA 11

Clover Creek (Completed)

SPSSEG planted approximately 3 acres of native prairie vegetation including 500 feet of stream side riparian vegetation along a pilot project in Pierce County. WRIA 12

Frye Cove Bulkhead (Completed)

SPSSEG planted hundreds of native plants along 250 feet of the shoreline. WRIA 14

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 install fourteen ELJ's in this clear-water tributary of the Upper White River. Construction is scheduled for the summer of 2010 and will continue into 2011. WRIA 10

Clearwater River Log Jams (In Progress)

SPSSEG and partners will design and install several ELJ's in the Clearwater River. Project is scheduled for 2011 or 2012. WRIA 10

Powell Creek Youngblood Bridge (Completed)

SPSSEG partnered with the FFFPP and a private landowner to replace a barrier culvert with a 50-foot steel bridge. This project was completed during the summer of 2009. WRIA 11

Elbow Lake Creek (In Progress)

SPSSEG will partner with the Nisqually Land Trust, USFWS, and NFWF to remove a culvert on an abandoned road. Project will be completed in fall 2010. WRIA 11

South Puget Sound Salmon Enhancement Group

Ohop Restoration (In Progress)

The Ohop Restoration project is funded by multiple funding resources including SRFB, USFWS, Nisqually Land Trust, Nisqually Tribe, and NRCS. The project will correct historic ditching of a one-mile reach of Lower Ohop Creek, one of two major tributaries to the Nisqually River. A new channel will be constructed in 2009 and reconnected in 2010. The project will recreate a sinuous stream that is reconnected to the floodplain. WRIA 11



Thirty foot steel bridge on Lackamas Creek

Lackamas Creek Chaffee Bridge (Completed)

This project was funded by FFFPP and removed a barrier culvert and installed a 30 foot steel beam bridge. The bridge was installed in summer 2009. WRIA 11

Clover Creek Stream Restoration (Completed)

NFWF and Pierce County funded this pilot project to remove asphalt from the streambed. The banks were reshaped and wood was added to the channel for complexity. The project was completed during the summer of 2009. Monitoring will continue through 2010. WRIA 12

Little Fish Trap (Not Completed)

Project was closed without being completed.

Beachcrest (In Progress)

SPSSEG restored a small pocket estuary and 250 feet of shoreline in the Nisqually Reach. The project restored fish passage and increased tidal inundation. The project was completed in spring 2010. Native plantings will continue through 2011. WRIA 13

Frye Cove (Completed)

SPSSEG completed two bulkhead restoration projects near Frye Cove. Work continues to plant native vegetation along the shoreline. WRIA 14

Pirates Cove (Completed)

SPSSEG completed the final planting plan for the successful near shore restoration project in Case Inlet. WRIA 14

Eld Inlet Culvert Removal (Istvan) (Completed)

SPSSEG partnered 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 will partner with Mason County and SRFB to replace a tidal barrier culvert with a 14 foot box culvert. Construction is scheduled for summer 2010. 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 2010. WRIA 14

Alison Springs (In-Progress)

SPSSEG will partner with the Capitol Land Trust to restore two sites in Mud Bay. Construction is scheduled for 2011. WRIA 14

ASSESSMENTS, MONITORING, RESEARCH

Mashel River Effectiveness Monitoring (Ongoing)

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 by SPSSEG and others. WRIA 11

Sherwood Creek Monitoring (In Progress)

SPSSEG will continue to 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 3-Year Work Plan (In Progress)

Assessments in the WRIA 14 have been conducted by SPSSEG and other stakeholders. SPSSEG will use this information to select 10 projects and to work with many landowners to develop them into practical conceptual designs that are listed on the Lead Entity 3-year work plan.

South Puget Sound Salmon Enhancement Group

WRIA 13 3-Year Work Plan (In Progress)

Assessments in the WRIA 13 have been conducted by SPSSEG and other stakeholders. SPSSEG will use this information to select 10 projects and to work with many landowners to develop them into practical conceptual designs that are listed on the Lead Entity 3-year work plan.

Goldsborough Project Development (In Progress)

SPSSEG has partnered with NFWF and Squaxin Island Tribe to research and investigate restoration opportunities within the watershed. The Project will be completed in fall 2010. WRIA 14

Titlow Beach (In Progress)

SPSSEG and many stakeholders including Tacoma Parks, and Nisqually Tribe have been involved in project planning for this pocket estuary along the WRIA 12 shoreline.

Puget Sound Workshops (Completed)

SPSSEG received funding from the Puget Sound Partnership to host a series of workshops to increase South Sound coordination.

WRIA 10-14 Capacity Funds (In Progress)

SPSSEG has received funding from several Lead Entities to increase participation in the planning and installation of projects listed on their respective 3-year work plans.

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. This projects ends in fall 2010.

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 has 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 each year. During the 2009 season the trail had over 5,000 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 3rd graders take part in the two day event located at Little Skookum Shellfish Growers farm near Shelton. WRIA 14

Shoreline Community Outreach (Completed)

SPSSEG partnered with other stakeholders to conduct beach walks and other citizen science based monitoring opportunities. This Project was funded by NFWF. WRIA 11/12

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.



Chum jaw from Kennedy Creek

Generic Projects (Ongoing)

Our Riparian Restoration, Office Operations, Project Management, Project Engineering, and Project Construction project funding allows SPSSEG to utilize RFEF funds for all our individual on-the-ground and education projects as well as to maintain and build our organizational infrastructure.

PROJECT EXPENDITURES

Project Name	RFEG Funds	Vol Hours	Vol Dollars	Other Funds	Total Spent
Frye Cove Bulkhead				\$3,224	\$3,224
Lower Ohop		200		\$806,208	\$806,208
Jarrell Cove				\$89,374	\$89,374
Greenwater				\$48,381	\$48,381
Mashel River Assessment				\$10,112	\$10,112
WRIA 15 Prioritization				\$17,193	\$17,193
Frye Cove Park				\$8,036	\$8,036
Big Cove				\$5,774	\$5,774
Beachcrest			\$-	\$10,476	\$10,476
Greenwater II				\$56,209	\$56,209
Ohop II				\$127,247	\$127,247
Beachcrest		50		\$116,428	\$116,428
WRIA 13 3-Year Work Plan				\$8,429	\$8,429
WRIA 14 3-Year Work Plan				\$3,672	\$3,672
Clearwater				\$666	\$666
Ohop Design				\$2,781	\$2,781
WRIA 10/12 5%				\$18,326	\$18,326
WRIA 11 5%				\$1,855	\$1,855
WRIA 13 5%				\$4,606	\$4,606
WRIA 14 5%				\$7,664	\$7,664
Allison Springs				\$1,040	\$1,040
Powell-Youngblood		30		\$129,598	\$129,598
Chaffee				\$74,591	\$74,591
Little Fish Trap				\$1,450	\$1,450
WRIA 11/12 Shoreline		100		\$8,698	\$8,698
Clover Creek Pilot				\$29,213	\$29,213
Goldsborough				\$20,542	\$20,542
Istvan				\$4,400	\$4,400
Beachcrest				\$31,642	\$31,642
Elbow Lake Creek				\$7,706	\$7,706
EPA Mashel Monitoring			\$-	\$8,956	\$8,956
Beachcrest				\$17,000	\$17,000
Puyallup-Chambers				\$4,703	\$4,703
Pierce Co Parkland Prairie				\$42,844	\$42,844
People for Puget Sound - Titlow				\$11,524	\$11,524
Puyallup Tribe - EPA Monitoring				\$6,664	\$6,664
Elbow Lake Creek				\$1,975	\$1,975
Penrose				\$51	\$51
Powell Creek				\$86	\$86
Frye Cove Bulkhead				\$11,000	\$11,000
Pirates Cove				\$1,455	\$1,455
PSP Workshop				\$127	\$127
WA DOT Clay Creek-Greenwater				\$8,821	\$8,821
Titlow Beach				\$56,328	\$56,328
RFEG Event	\$1,616				\$1,616
RFEG Travel	\$305				\$305
Riparian Restoration	\$-				\$-
Office Operations	\$131,105	300	\$4,500		\$135,605
Project Management	\$6,697		\$-		\$6,697
Project Engineering	\$-		\$-		\$-
Education & Outreach	\$9,183	60	\$900		\$10,083
Project Construction	\$-		\$-		\$-
Kennedy Creek Salmon Trail	\$2,299	600	\$9,000	\$4,570	\$15,870
Totals	\$151,207	1,340	\$14,400	\$1,831,648	\$1,997,254

South Puget Sound Salmon Enhancement Group

BOARD

- Jack Havens, President
- Bob Barnes, Vice President
- Steve Brink, Treasurer
- Jessica Moore, Secretary
- Joe Williams
- Duane Fagergren
- Terry Wright
- Linton Wildrick
- Open position



STAFF

- Lance Winecka, Executive Director
- Christine Garst, Accounts Manager, The Non Profit Center
- Brian Combs, Project Manager
- Kimberly Gridley, Project Manager
- Kristin Williamson, Project Manager
- Jerilyn Walley, Part-time Project Manager

CONTACT INFORMATION

SPSSEG
6700 Martin Way East Suite 112
Olympia, WA 98516
360-412-0808
360-412-0809 fax
spsseg@spsseg.org
www.spsseg.org



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.

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 twenty 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, 2009 through June 30, 2010, the following are project highlights of the Hood Canal Salmon Enhancement Group:

Big Quilcene River Channel Restoration

HCSEG completed a river channel restoration project on the Big Quilcene River approximately 2 miles from the river mouth. The project involved the installation of three engineered log jams and the reconnection of the river channel to the historical floodplain. The river channel was adversely affected by logging, diking, dredging, and bank armoring that has occurred over the last 50 years. High river velocity and increased gradient incised the river channel within the floodplain.

The river became disconnected from most of its floodplain and secondary channels. Three engineered log jams were installed in the Big Quilcene River. Each contained approximately 30 logs. The engineered log jams will increase channel complexity and halt incision by slowing velocities, capturing sediment, increasing channel complexity and activating existing side channels. In addition, reconnecting the river with the floodplain will help reduce in-channel velocities and reduce the continued incision the channel has been experiencing. Future plans include adding topsoil and/or soil amendment to the riparian corridor on the north side of the river to provide a medium for riparian plant establishment. Two levees will be removed, and more engineered log jams will be installed to increase habitat quality. The long term goal is to create a channel that has the ability to access the floodplain and a mature riparian corridor with abundant wood jams providing cover and channel complexity, spawning gravel entrainment and side channel enhancement, benefiting all life stages and species of salmon present in the Big Quilcene River.

Little Quilcene River - Delta Cone Removal

This project reconstructed the mouth of the Little Quilcene River. Prior to project completion, the lower reach of the river lacked large woody debris. The high river velocity carried and deposited large amounts of sediment to the river delta. 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. Dikes had also channelized the Little Quilcene River. Salmon were prevented from entering the river during summer when tides were lower than 9.5 feet. Juvenile salmon lacked shelter from predators and poor estuary habitat. This project removed approximately 42,000 cubic yards of sediment from the Little Quilcene River Delta. The lower reach of the river was restored to its historical winding path. Forty large conifer logs were used in four large woody debris sites along the lower river channel to create fish habitat. The removal restored seven acres of salt marsh, improved estuary function, and eliminated a fish passage barrier affecting salmon during the summer months. HCSEG worked cooperatively with Coast Seafoods and the Port of Port Townsend to prevent negative impacts the project may have caused to the shellfish beds of Quilcene Bay. A salt water ex-

Hood Canal Salmon Enhancement Group

traction well was installed to prevent silt from harming shellfish during sediment removal. The project is part of a massive effort by many groups and agencies to restore lower-river and estuary habitat that ESA listed summer chum depend on.

Donkey Creek Restoration Design

Pre-design work was completed for this project to restore a reach of Donkey Creek located at the head of Gig Harbor Bay and Austin Estuary. This restoration project will include day lighting a reach of Donkey Creek approximately 300 feet in length along with associated creek improvements aimed at the reintroduction of a more natural creek bed and adjacent native creek planting. These improvements will reestablish the historic creek channel to a more native state allowing preservation and protection of wildlife and marine habitat. Donkey Creek provides critical shelter and foraging habitat to salmon and it is particularly important to chum smolts as a physiological transition zone from fresh to salt water. The large estuary supports five salmon species; chum, coho, steelhead, chinook and cutthroat.

Donovan Creek Restoration Design

Pre-design work was completed for this project. Restoration actions will include re-meandering approximately 3,300 feet of the channelized portion of Donovan Creek, adding large woody debris for habitat value and replanting approximately 15 acres of riparian corridor along the newly meandered channel. The creek is home to ESA listed summer chum.

Little Anderson Large Woody Debris

Ninety-eight individual logs were placed in Little Anderson Creek by Chinook helicopter. Sixty-eight of these logs were whole Douglas fir trees ranging in size from 16" – 26" in diameter and 60' – 100' tall with intact root wads. The other thirty logs consisted of different coniferous species 24" in diameter and 60' long with root wads. The creek valley is wooded with an immature third growth forest. There is very little large woody debris in the creek. Large woody debris creates upstream pools, downstream plunge pools, and excellent cover for salmon and other organisms. They help control stream channel grade by stabilizing sediment transport. Large woody debris absorbs energy during large stream flow events and prevents extreme channel erosion. It also adds to the biological diversity of streams. Microscopic algae attach to it, and provide food for aquatic insects that many other organisms depend on. Coho, steelhead and cutthroat trout are present in the stream within the project site, and chum exist further downstream. Washington Conservation Corp crew members aided in moving some logs to their final positions within the stream channel. They planted willow and placed salmon berry bushes in the riparian area. All of the logs were large enough to avoid anchoring. Their locations were recorded with a GPS unit with sub-meter accuracy. Log locations will be monitored for stability following large flood events.

Tahuya River Assessment

The Tahuya River supports several species of Pacific salmon and trout, including summer chum and steelhead listed under

the Endangered Species Act. HCSEG hired a consultant to conduct a reach assessment study on the lower 4.25 miles of the main stem of the Tahuya River. The consultant evaluated and identified habitat that would benefit from the addition of large woody debris and riparian planting projects. HCSEG and WDFW are partners in a project to reintroduce ESA-listed summer chum to the Tahuya River from the Union River where a stable run exists. Chum salmon primarily rely on the lower reaches of rivers for spawning habitat. The addition of large woody debris can increase the pools and riffles, and improve spawning habitat for salmon. Planting native vegetation in the riparian area creates shade and can lower river temperatures during the warmer months that summer chum return. Of the 4.25 miles of the Tahuya main stem evaluated, a total of 48 sites were identified within six reaches (400-900 meters in length) which would benefit from the addition of large woody debris. HCSEG will be seeking landowner permissions and applying for funding to engineer and install large woody debris and plant native vegetation to improve the salmon habitat of the Tahuya River.

Knotweed Control

Knotweed is a non-native plant that increases bank erosion in streams and rivers. The root systems of Knotweed are weak. Large amounts of sediment enter the stream when they fail. Increased sediment can smother salmon eggs and reduce spawning habitat. Knotweed rhizome and stem pieces wash downstream, and create new infestations. As knotweed begins to fill the stream banks, it changes the quality and timing of leaf litter, and negatively impacts the aquatic bugs that are the primary food source for juvenile fish. During June through October 2009, in the project's first year, HCSEG treated 76.4 acres of knotweed on the Union and Dewatto Rivers. Knotweed was treated with the herbicide glyphosate using both stem injection and foliar spray. The knotweed control methods used by HCSEG followed protocols in the Hood Canal Regional Knotweed Control Strategy. We partnered with the Mission Creek Women's Correctional Facility who provided crews that were trained by HCSEG staff in herbicide application. Funding has been received for the 2010 season and knotweed removal will continue during the summer and fall of 2010.

The Dewatto Nutrifcation study

This study continued its tenth 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 collection during the spring of 2010, macro-invertebrate sampling by HCSEG summer interns, marine derived nutrient sampling, pool riffle surveys, carcass-analog distributions and transport (approximately 1,760 pounds) in WRIA 15, and data entry and statistical analysis. This study is evaluating the significance of marine-derived nutrients to the health of a watershed by monitoring the populations of macro invertebrates (aquatic bugs) and juvenile fish. Of the eight tributaries of the Dewatto River watershed

Hood Canal Salmon Enhancement Group

included in the study, three of them are test streams. The test streams have received extra nutrients in the form of carcasses or carcass analogs. All tributaries have been monitored to assess the benefits of additional marine derived nutrients. Each spring, temporary smolt traps have been installed near the mouth of each tributary. The traps catch juvenile fish migrating to salt water. Volunteers and staff weigh and measure the smolts. Macro invertebrate data is collected during the summer and used as an index to evaluate the health of the stream. Large stainless steel cylinders with catch nets are used to collect samples of the tiny water bugs at three locations on every tributary. Summer Interns identify and classify these aquatic bugs by genus, the taxonomic rank above species. Each fall, spawner surveys are conducted to estimate adult salmon returns. Volunteers and Staff walk the streams every week during the adult coho return. All live and dead salmon are counted and recorded. Based on the estimated adult salmon returns and the calculations of the potential capacity of the streams, carcass analogs are distributed at various levels to the test tributaries in late winter. Samples of juvenile coho are collected from each stream during the summer months. These fish are sent to a laboratory for marine derived nutrient analysis. The lab measures the levels of Nitropogen Isotope 15 in each tissue sample. The data is used to compare levels of marine derived nutrients found between test and control streams. The results are showing that the test streams are showing higher averages of marine derived nutrients in tissue after carcasses and/or carcass analogs have been added to the test streams. These findings appear to substantiate the need for nutrification to streams for salmon population sustainability.

The Union River/Tahuya Summer Chum Project

This project completed its tenth year partnering with the WDFW George Adams Hatchery in the fall of 2009. The following lists final returning numbers of Summer Chum to the Union River in 2009 and returning numbers up to September 2010:

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	611
2010	956 as of 9/27/10

The Union River trap is manned by volunteers twenty four hours a day from August 15th to October 15th each year. Volunteers logged nearly 3,290 hours of service at the trap site during 2009. They record the species and sex of each fish before releasing them upstream. Lower numbers of summer chum returned

during 2009. A total of 611 were counted at the Union trap. Crews conducted spawner surveys on the Tahuya River where the summer chum return was estimated at 200. Thirty two pairs of Union River Summer Chum were collected for spawning at the Union River trap during the fall of 2009. During the winter of 2009, Union River fry were raised for spring release into the Tahuya system. Approximately 110,000 summer chum fry were released into the Tahuya River system in March of 2010.



Steelhead Supplementation Project - Tahuya Screw Trap

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. During the project period, over 40 partners have been involved 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 has been done through observations, measurements, and modeling. The HCSEG has been 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 Hood Canal Dissolved Oxygen Program will have been congressionally funded through mid-2010. Continued funding to maintain monitoring of marine conditions as well as corrective ac-

Hood Canal Salmon Enhancement Group

tions is pending. The information derived from the HCDOP-IAM investigative science is being transitioned to Technical Advisory Committees (TAC) convened by the Hood Canal Coordinating Council. The committees, comprised of regional stakeholders with some science advisors, are tasked with formulating appropriate correction action recommendations for reducing input of nitrogen, as well as other mechanisms that contribute to low oxygen conditions and hypoxic events in Hood Canal. The committees will target topics ranging from storm water (inclusive of OSS), land development (inclusive of forest/ag management), and habitat concerns (inclusive of riparian and near shore restoration and protection), while focused on the reduction of nitrogen to the marine waters. The TACs will need to maintain a dialog with the HCDOP science teams, and rely on the ongoing monitoring and modeling to evaluate the effectiveness of corrective actions.

For more information on the science results, visit the HCDOP website at www.hoodcanal.washington.edu. For more information about the TAC process visit the Hood Canal Coordinating Council website at hccc.wa.gov.

The Molluscan Study

This study has recently come to conclusion. The Washington Department of Natural Resources, Taylor Shellfish, University of Washington School of Aquatic and Fishery Sciences, the University of Puget Sound, and the Hood Canal Salmon Enhancement Group collaborated on an investigation of the ecological role of geoducks to Hood Canal. The research has 1) investigated the distribution and abundance of the geoduck populations in Hood Canal, 2) measured regional population compositions based on shell aging, 3) calculated the individual and regional filtration capacities, and 4) modeled the larval distribution patterns. A final report has been submitted to the WADNR. Geoducks are large and long-lived filter feeders. The largest was reported to be 14 pounds. They can grow to be over 160 years old. Geoducks typically attain their large size between 10-14 years. They continue to grow throughout their lives, but their growth rate is significantly less after that. Based on these factors and an intuitive size to filtration rate, it has been held that mature geoducks likely have a significant influence on their surrounding ecosystem.

Distribution and Abundance in Hood Canal: Crews conducted extensive ROV, diver, and drop-camera surveys over representative areas of Hood Canal. Geoduck populations were found to be highly patchy in their distribution. The highest densities were in loose unconsolidated sandy sediments. Geoduck densities were greatest in the northern region of Hood Canal and became considerably less towards the southern region of Hood Canal. Densities were greatly reduced in the southern region even in areas that otherwise had optimal (sandy) substrate. The southern regions of Hood Canal are exposed to seasonal low dissolved oxygen conditions. The observed distribution patterns support the hypothesis that persistent hypoxia (low oxygen conditions) likely affects geoduck population abundance.

Assessing Historical Dynamics of Hood Canal Geoduck Populations: Through the analysis of geoduck shell aging, it was found

that there were significant differences in the geoduck population structure across the northern, central and southern populations of Hood Canal. The northern population demonstrated an age class and age range typical of geoduck populations found outside Hood Canal. The central Hood Canal population had a larger population of geoducks 20 years and older and smaller fractions of younger age classes than the other sites. The southern geoduck populations had a much smaller percentage of geoducks over 20 years old, and a much larger amount of younger geoducks. The relationship between geoduck weight and age is very similar between the northern Hood Canal and central Hood Canal sites, but they differed markedly with the southern Hood Canal site. Although geoduck growth rate estimates based on the shell analysis for the three areas are quite similar, the size/weight of geoducks in southern Hood Canal is almost three times smaller than that of the populations in central and northern Hood Canal. The differences in the geoduck age and size between the three regions suggest that hypoxia (low oxygen) may present different risks to geoducks populations in their respective regions. Two types of oxygen stress have been identified in Hood Canal based on the investigation by the Hood Canal Dissolved Oxygen Program. One type of oxygen stress is the chronic low oxygen that is persistent in lower Hood Canal and characteristically develops from the slow flushing/replacement of the marine waters. The waters furthest from the entrance to Hood Canal are slowest to flush, and chronically the lowest in oxygen. This is also the area of the study in southern Hood Canal represented by the Tahuya River delta and the smaller geoduck population.

Modeling larval advection: The movement of larval geoduck was investigated using marine modeling of surface circulation. The results demonstrated that larval geoduck in northern portions of Hood Canal had great potential for wide distribution, even outside of Hood Canal. Due to greatly reduced circulation patterns and more moderate tidal influences, the larval geoduck in southern Hood Canal was not distributed much beyond their point of origin. The risk of hypoxia combined with the results of the respective larval advection models, suggest the geoducks in central and especially southern Hood Canal face great challenges to survival.

Estimating individual filtration rates of geoduck clams: It was found that the filtration capacity in geoducks is highly variable and strongly influenced by environmental responses. Geoducks exhibit complex behaviors that enable selective control over the intake and selection of food stuff. Feeding behaviors are influenced by water temperature, salinity, and particle densities. Seasonal water circulation patterns and local currents also affect feeding behaviors. Results from this study have shown, that compared to other bivalves such as clams and oysters, geoducks demonstrate rather low filtration rates relative to their size. Regardless, a positive relationship was identified relating higher filtration rates to overall increased body mass. The findings indicate these animals are not constantly pumping large volumes of water. The intermittent filtering behavior is likely due to changes in daily and seasonal environmental conditions.

Hood Canal Salmon Enhancement Group

DISCUSSION

Although geoduck densities are exceptionally high in the North region, individual daily filtration capacity is limited to roughly 4 liters per hour. Consequently, the volume of water filtered by geoducks paled in comparison to the water volume of the environment. Filtration capacity in other regions are even less than those in the North region. For those reasons, the analysis of the project results reveals that geoduck fail one key criteria that would promote control of phytoplankton and possibly hypoxia: they do not filter sufficient quantities of water to make consumer control at large spatial scales likely. It is difficult to know the specific factors which have contributed to the differences in the population structure of the regional geoduck populations in Hood Canal, but it is likely a combination of environmental conditions related to dissolved oxygen, mechanisms affecting larval transport, and limitations to available habitat. Based on the analysis of the population structures, it is likely that environmental conditions influenced different recruitment histories in each region. Northern Hood Canal seems to have had more consistent recruitment patterns, with strong recruitment events particularly in 1978, 1982 and in the early 1990s. Based on the smaller fraction of younger age classes within the central Hood Canal populations, it reflects a period with more recently declining recruitment. The recruitment estimates for southern Hood Canal suggest recruitment pulses during the early 1970s, mid 1980s and mid 1990s, but shell aging indicates the possibility of some mortality event or poor environmental conditions in a time period more than 20 years ago. For more information on the full report, contact the Washington Department of Natural Resources.

Hood Canal Steelhead Supplementation Project

This sixteen year study was designed to rebuild steelhead populations in Hood Canal while testing the effects of hatchery supplementation on natural populations. In 2007, the Hamma Hamma River Steelhead Project was expanded upon to become a larger collaborative effort, titled, The Hood Canal Steelhead Project. Three rivers, the Duckabush River, Dewatto River, and Skokomish River were selected for supplementation. The Tahuya River, Big Beef Creek, Little Quilcene River, and Dosewallips River are included to monitor differences between supplemented and non-supplemented populations. The partnership focus for the HCSEG has been to carry out the work on the Dewatto River, Tahuya River, and Little Quilcene River (smolt trapping only on the Little Quilcene River). Survey crews identified and counted steelhead redds (gravel "nests" of salmon eggs) beginning in late February. Low numbers of steelhead returned to the rivers during 2009. An estimated 15 adult steelhead returned to the Dewatto River, based on the total of nine redds found. Thirty-three redds were counted in the Tahuya River. Fifty-three adult steelhead are estimated to have returned there. Approximately 9,500 fertilized eggs were collected from the redds of the Dewatto River. Staff and volunteers used a hydraulic pump and catch nets to collect a portion of the eggs in each redd deposited by wild, naturally-spawning fish. The eggs were incubated at the Quilcene National Fish Hatchery initially. Fry were later transported to the Lilliwaup

Hatchery operated by Long Live the Kings where the young steelhead live and grow until their release. Most of them will be released in two years as steelhead smolts (the stage during their migration to sea). The rest will remain at the hatchery for four years. They will be released as adult fish in time to spawn with the returning wild fish. 7,375 steelhead smolts were released into the Dewatto River. They were the result of the eggs collected in the spring of 2007, and the first fish released in the Dewatto River. The majority of smolts moved out of the river within a few days. A portion were captured, counted, and released from the screw trap near the river mouth. Crews conducted snorkel surveys in August 2009 to count hatchery-reared steelhead that remained in the river rather than migrated to sea. Snorkelers found few project fish in the surveyed area (the lower three miles of the river). The survey results indicate that their seaward migration was generally not hindered by time spent in a hatchery environment. HCSEG operated three rotary screw traps in spring 2009 to monitor out-migrating steelhead. A population of 3666 smolts was estimated to have left the Dewatto River. The Tahuya River smolt migration was 3843 fish. 1424 smolts migrated from the Little Quilcene River. The population estimates were calculated using the actual numbers of fish caught in the traps and the trapping efficiency as determined by recapture rate. In September 2009, steelhead and cutthroat parr were sampled at Big Beef Creek using a combination of hook-and-line and seining capture methods. The steelhead sampling was a continuation of work done since summer 2006 to monitor life history and population characteristics. The addition of cutthroat data will be used to determine the incidence of spawning between steelhead and cutthroat trout that creates hybrids, and the effects of natural hybridization. The project partners include NOAA, WDFW, USFWS, USFS, HCSEG, the Skokomish Tribal Nation, the Port Gamble S'Klallam Tribe, and Long Live the Kings.

Environmental Explorations

Environmental Explorations occurred on May 19th, 2010 at the Pacific Northwest Salmon Center on Roessel Rd., in Belfair, WA. The center is located on a ninety acre parcel adjacent to the Union River Estuary. This event was organized for students from Grapeview Middle School, Hood Canal Middle School and Central Kitsap High School and Middle Schools. It has been designed to incorporate learning explorations of the natural environment. Students learned inquiry based wildlife observation skills in class prior to the event to prepare them for the all day event at the Pacific Northwest Salmon Center. During the first half of the event, students participated in the Washington Nature Mapping Program where they separated into small groups. Each group was accompanied by a trained field mentor that provided guidance with wildlife identification and habitat associations during field observations. Students reconvened in the afternoon to discuss post collection results. Students also learned awareness and discovery skills through interactive games which offered boating safety procedures, a geocaching nature hunt and eagle eye awareness activities. Lessons presented throughout the day deepened students understanding of the intricacies of the natural environment and their connections to nature. Students were

Hood Canal Salmon Enhancement Group

able to experience the Salmon Center's lands while conducting nature mapping investigations and travelling from venue to venue all day.

DogFest

The Hood Canal DogFest occurred at the Pacific Northwest Salmon Center on Roessel Rd., in Belfair, WA. on June 5, 2010. Admission to this community wide event was free and approximately 200 people with their canine companions attended this successful event. Hood Canal Salmon Enhancement Group and the Puget Sound Partnership collaborated in this community wide event for Hood Canal and the Kitsap Peninsula. This event is was one of many around the Hood Canal Watershed focusing on educating the public to discover and help restore the fragile ecosystems of Hood Canal. It was part of a month of volunteer and educational activities around Hood Canal entitled "Do Some Good for the Hood". It focused on water quality issues and environmental concerns relating pet waste education as a critical public education issue. It also provided the public with an opportunity to learn about dog behavior, agility training, health, grooming tips and other dog related issues. Other activities included at DogFest included Art stations, a geocaching GPS pet waste education game, vendor booths, dog trail walking and a silent auction.

Adventure Salmon Camp

Adventure Salmon Camp was held for sixth through ninth graders in August of 2009. Fourteen children attended this overnight travelling camp for a four day, three night adventure. 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. Some of the activities included kayaking the Lynch cove estuary and the lower reach of the Union River while participating in a geocaching game, practicing orienteering skills and terrestrial investigations at the Hamma Hamma River and stream bug identification while snorkeling the Dewatto River. An afternoon was spent on the 65 ft. research vessel, Indigo, provided by Service Education Adventure ("SEA"). On board, the camper's collected and viewed phytoplankton and zooplankton under microscopes, practiced mariner's knots, and participated in vessel navigation and steering. Other activities included a visit with the Port Gamble S'Klallam Tribe, who shared stories and gave them a tour of their carving house, longhouse and traditional canoes. Campers also partook in 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 2009 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 Nutrifcation project to help determine the health of a stream. The collection of this data allows changes in the watershed to be monitored and any threats to salmon habitat to be noted and managed. Data collection in the summer of 2009 will be compared to data collected by summer interns on the Dewatto system in previous years.

Scholarships

In the fall of 2009 the HCSEG awarded seven \$2,500.00 scholarships to college students from the Hood Canal Watershed pursuing degrees in natural sciences.

Community Outreach

HCSEG staff and interns participated in community outreach at Allyn Days, Belfair Elementary School/Environmental Studies Club, Taste of Hood Canal, Hawkins Middle School, Donkey Creek Chum Festival, Evergreen College Internship Fair, Olympic College Internship Fair, Olympic College Environmental Studies program, Hood Canal Environmental Achievement Awards, Boys and Girls Club of North Mason and Kitsap County, Harbor Wild-Watch, North Mason Chamber of Commerce, Pacific Education Institute/Earth Day event, Quilcene School, Silver Ridge Elementary School, Esquire School, Hood Canal School/Science Career Day and South Sound Fly Fishers. Additionally, HCSEG staff have guided and assisted several North Mason High School students with service projects for cleanup on the Union River and Mission Creek and for riparian enhancement along Belfair Creek. HCSEG has also conducted Nature Mapping outreach events during the summer of 2010.

Pacific Northwest Salmon Center

HCSEG continues to take part in the development of the Pacific Northwest Salmon Center as a major environmental and educational center in Belfair, WA. Collaborating partners on this project include 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 is now located on a ninety acre 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. Remodeling of existing buildings was completed in September of 2009 bringing them up to commercial code. The remodeled farmhouse contains offices and meeting rooms and a freestanding garage on the property has been converted to a laboratory and classroom. In the future, a large barn possibly will be converted to classroom space. The Salmon Center now provides office space to Hood Canal Salmon Enhancement Group and research space for both the Salmon Center and HCSEG.

Hood Canal Salmon Enhancement Group

Project #	Project Name	RFEF Funds	Vol Hours	Vol Dollars	Other Funds	Total Spent	WRIA
1	WDFW #07-1281	\$20,297.76				\$20,297.76	14-17
2	WDFW #09-1206	\$111,356.57				\$111,356.57	14-17
3	USFWS #13410-8-J009	\$163,512.83				\$163,512.83	14-17
4	NFWF 2008-0053-006 Everson Creek restoration				\$14,000.00	\$14,000.00	15
5	RCO #05-1665 Little Anderson IMW Treatments in Hood Canal				\$177,515.00	\$177,515.00	15
6	RCO #09-1642 Lower Big Beef Creek Design				\$25,000.00	\$25,000.00	15
7	RCO #06-2221 Hama Hama River Estuary Restoration				\$68,507.00	\$68,507.00	16
8	ESRP # 08-1603 Klingel Levee				\$54,000.00	\$54,000.00	15
9	NRCS 65-0546-8-009 Klingel				\$23,585.74	\$23,585.74	15
10	RCO #05-1602 Klingel Estuary Restoration				\$30,478.16	\$30,478.16	15
11	USFWS # 13410-8-J017 Klingel Wetlands Dike Removal				\$14,578.47	\$14,578.47	15
12	RCO #08-1995 Lower Tahuya River Reach Assessment				\$90,729.13	\$90,729.13	15
13	RCO #09-1706 Big Quilcene Engineered Log Jam - Ph 1				\$291,668.74	\$291,668.74	17
14	NFWF 2006-0098-070 Big Quilcene Engineered Log Jam - Ph 1				\$25,400.00	\$25,400.00	17
15	RCO #08-1990 Big Quilcene Engineered Log Jam - Ph 2				\$76,622.50	\$76,622.50	17
16	RCO #08-2104 Little Quilcene Delta Cone Removal - Design				\$46,084.32	\$46,084.32	17
17	RCO #09-1438 Little Quilcene Delta Cone Removal				\$813,494.69	\$813,494.69	17
18	RCO #09-1639 Union Estuary Johnson Farm Dike Design				\$20,000.00	\$20,000.00	15
19	RCO # 08-1994 Knotweed Control and Riparian Enhancement				\$34,688.15	\$34,688.15	15
20	ECY # G0600304 Mission Cks WQ				\$35,298.77	\$35,298.77	15
21	DNR Molluscan Study III #PSC 07-101				\$18,729.31	\$18,729.31	14-17
22	UW/APL HCDOP #978561- Year 4		99	\$1,485.00	\$71,162.00	\$71,162.00	14-17
23	NOAA #NFFP7230-8-46665 Steelhead tagging project				\$5,411.93	\$5,411.93	15-17
24	ALEA #08-1276 Environmental Explorations				\$7,550.00	\$7,550.00	15
25	City of Gig Harbor - Donkey Creek Daylighting - Design				\$46,325.90	\$46,325.90	15
26	Sweetwater Creek Restoration				\$6,000.00	\$6,000.00	15
27	Federal Habitat Restoration grant				\$200,000.00	\$200,000.00	14-17
28	Jefferson Cty. DPW - Little Quilcene				\$47,000.00	\$47,000.00	15
29	Nuttrification - carcass analogs				\$1,636.80	\$1,636.80	15
30	WSI's				\$813.00	\$813.00	
31	Adventure Salmon Camp 2009		137	\$2,058.75	\$7,667.65	\$7,667.65	14-17
32	Environmental Explorations May 2010		113	\$1,687.50	\$11,712.00	\$13,399.50	15
33	Students in the Watershed - HCI Project 2009		116	\$1,740.00	\$908.70	\$2,648.70	15
34	Volunteer Hours July - Sept, 2009		320	\$4,803.75		\$4,803.75	14-17
35	Volunteer Hours Oct - Dec, 2009		714	\$10,710.00		\$10,710.00	14-17
36	Volunteer Hours Jan - Mar, 2010		501	\$7,507.50		\$7,507.50	14-17
37	Volunteer Hours Apr - Jun, 2010		1,347	\$20,208.75		\$20,208.75	14-17
38	Union Summer Chum Trap Aug 2009 thru Oct 09		3,344	\$50,163.75		\$50,163.75	15
39	PNWSC - Education, outreach, support				\$70,000.00	\$70,000.00	14-17
	Totals	\$295,167.16	6,691	\$100,365.00	\$2,336,567.96	\$2,732,100.12	14-17

Hood Canal Salmon Enhancement Group

BOARD OF DIRECTORS

Jim Culver, President – Retired Forester
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
Tom Brown, Board Member – Retired Nuclear Engineer
Larry DePaul, Board Member – Resort Owner
Bob Hager, Board Member – Retired Boeing Space Program Vice President
Bruce Moran, Board Member – Deputy Court Administrator, Pierce County
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
Bonnie Organ, Administrative Assistant
Mendy Harlow, Habitat Biologist
Daniel Heide, Field Technician
Sean Hildebrandt, Field Specialist
Don Husted, Field and Maintenance Technician
Michelle Myers, Education and Outreach Coordinator / Research Assistant
Renee Rose-Scherdrik, Water Research Scientist / HCDOP
Teresa Sjostrom, Steelhead Biologist

CREW INFORMATION

Stream Team Interns - Summer 2009
Nick Barrantes
Caelan Colyer
Andrew Holm
Ariel Gower
Ben Masters
Nate May
Sarah Simmons

CONTACT INFORMATION

Hood Canal Salmon Enhancement Group
P.O. Box 2169
600 NE Roessel Rd.
Belfair, WA 98528
360-275-3575 Office
360-275-0648 Fax
hcseg@hcseg.org
Website: 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 Cape Flattery. We partner 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. 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 evaluate long term success. NOSC in partnership with WDFW continued into its 10th year of summer chum broodstocking supplementation on Jimmycomelately Creek, which continues to show positive returns with this year's spawning run numbers reaching over 2,628 returning adults. This program was adopted by NOAA as part of the 2007 Summer Chum Salmon Recovery Plan. The Jimmycomelately broodstock supplementation program is expected to reach completion in 2011, after which supplementation will cease and NOSC volunteers will continue

North Olympic Salmon Coalition

to monitor the population with WDFW assistance to ensure the run is self-sustaining.

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 100%. Project design includes recreating the historic streambed by rebuilding 2,400 feet of water channel and installing 19 engineered log jams. The old creek bed will be plugged up, forcing the water to go down the new main channel and three new side channels. The side channels will allow the creek to flood naturally during big rain events and allow salmon access to existing good habitat. The project is expected to be completed in September of 2010.



NOSC volunteers at the Morse Creek cabin after a day of planting native trees and shrubs along the entrance to the cabin

Riparian Planting and Maintenance

NOSC contracted its first Washington Conservation Corps crew in October of 2009. The crew's focus is on riparian projects through East Jefferson County through partnerships with the Jefferson County Conservation District, Hood Canal Coordinating Council, Jefferson Land Trust, Jefferson County Noxious Weed Board, and our RFEG Partner to the south, the Hood Canal Salmon Enhancement Group. In 2009 and 2010, the crew has planted over 22,000 trees, treated over 4,000,000 square feet of riparian habitat, installed 6 in-stream habitat structures, and removed 98 cubic yards of plant debris.

Volunteers from Jefferson Land Trust, WSU Water / Beach Watchers, Greywolf Ranch, Jefferson County Juvenile Services, Washington Conservation Corps, and local schools are valuable 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 780 native trees and shrubs. Within the Chimacum watershed, NOSC continues to maintain nearly 11,000 plants and trees on

North Olympic Salmon Coalition

18 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 16,500 linear feet of creek frontage.

Chimacum Creek – Bishop Property

Two years ago, NOSC secured a LIP USFW grant to remove an infestation of bittersweet nightshade (*Solanum dulcamara*) along a 500 foot section of the upper East Fork that acted as a barrier to spawning salmon. This year, NOSC planted over 200 native trees and shrubs along this 500-foot section of the creek. This will act as a buffer for grazing cattle as well as provide critical habitat for spawning salmon in this reach.

ESTUARY AND NEARSHORE

Pitship Pocket Estuary Restoration and Fish Barrier Removal

Construction of the Pitship Pocket Estuary Restoration site was completed in January of 2010. Work entailed the removal of a concrete culvert and associated road bed fill and bulkheading from the nearshore and associated upper saltmarsh. A 28-foot bridge was installed to replace the road bed and culvert. The work was completed in partnership with the City of Sequim and the Jamestown S’Klallam Tribe. Since, ESA-listed Hood Canal summer chum juveniles use non-natal pocket estuaries for rearing during out migration and given the close proximity to Jimmycomelately Creek, restoring access to this pocket estuary was identified by Limiting Factors Analysis as a critical part of this species recovery.



Pitship Before: Undersized culvert that was blocking tidal and fish access at Pitship Pocket Estuary in Sequim Bay

Maynard Mill Contaminated Shoreline Clean-up and Marine Riparian Planting

At the site, machinery footings were soaked in oil and sat atop oil contaminated fill held back from the estuary with rotting, oil soaked cedar bulkheading. In 2008, NOSC and partners, removed 245 tons of contaminated soils, 106 tons concrete footings, and an oil soaked wooden bulkhead from the nearshore and replaced them with 186 tons of clean marine sediment. In the winter of 2009, NOSC planted 90 native plant species to create a 30-foot marine riparian buffer along the excavated area.

Salmon/Snow Estuary and Maynard Nearshore

NOSC has begun planning for future activities within the Salmon/Snow Estuary and Maynard Nearshore. This past year, project design engineering was completed to 30%. The goal of this project is to restore a naturally functioning estuary and shoreline including beaches and marine riparian areas, critical habitat for ESA listed summer chum salmon and steelhead, coho salmon, cutthroat trout, as well as numerous other fish and wildlife species such as Olympia oysters, birds and forage fish.

Salmon Creek Estuary Restoration

NOSC continued estuary restoration efforts at this 2008 restoration site with plantings and site maintenance. Approximately 1,400 trees and shrubs were planted with volunteer help and assistance from a Washington Conservation Corps crew.

Chimacum Beach

NOSC continued beach restoration efforts at this site with plantings and site maintenance. Approximately 2,000 trees and shrubs were planted with a Washington Conservation Corps crew. Invasive weed removal continued this year with a focus on eradication of sweet white clover (*Mellilotus alba*).



Pitship After: The restored Pitship Pocket Estuary with a 28-foot bridge that reconnects Sequim Bay with the estuary and restores access for out-migrating ESA-listed Hood Canal Summer Chum

MONITORING

Water Quality

For the 8th 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 20-year data set documenting watershed conditions throughout East Jefferson County.

Fish Monitoring

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 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 and Pitship Pocket Estuary as part of an ongoing monitoring for these estuary restoration projects.

Pitship Pocket Estuary Restoration Monitoring

(See full project description in "Nearshore" section above.) Pre-project baseline monitoring in preparation for the estuary restoration at Pitship Pocket Estuary began in 2009. From 2009-2010, Shreffler Environmental, NOSC staff and volunteers performed baseline vegetation monitoring, fish utilization monitoring (with fyke net sampling and ocular surveys), photo point monitoring, and tidal channel development monitoring at control and post-project monitoring sites. Monitoring at Pitship Pocket Estuary will continue from 2009-2011.

Salmon Creek Estuary Restoration Monitoring

With the help of NOSC volunteers, post-project construction monitoring continues on Salmon Creek Estuary. NOSC followed monitoring 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.



Volunteer and Outreach Coordinator, Kai Wallin, works with NOSC volunteers during our annual summer chum spawner surveys on Chimacum Creek.

COMMUNITY OUTREACH AND EDUCATION

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 Middle School science classes, Swan School, Grant Street Elementary School, and the North Olympic Skills Center. 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 Port Angeles Earth Day, Hadlock Days, 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 numerous community groups, including WSU Beach Watchers, Gray Wolf Anglers, Sierra Club, and Kiwanis Club of Port Angeles. 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.

North Olympic Salmon Coalition

PROJECT EXPENDITURES

RFEG	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$16,839.79				\$16,839.79
NOSC Board		342.0	\$5,130.00		
Outreach	\$18,789.66				\$18,789.66
Morse Cabin		12.0	\$180.00		
Morse cabin work		30.0	\$450.00		
Festivals		39.0	\$585.00		
Grant Street Elementary with FIN		2.0	\$30.00		
Project Development	\$17,402.15				\$17,402.15
Salt Creek Estuary Planning				\$3,279.00	\$3,279.00
Restoration & Monitoring	\$4,677.63				\$4,677.63
Chimacum Creek Coho Surveys	\$1,537.03	133.5	\$2,002.50		
Chimacum Creek Chum Surveys	\$352.50	91.0	\$1,365.00		
Bishop - Nightshade Removal	\$225.00	18.0	\$270.00	\$1,029.98	\$1,524.98
Valley Creek planting and maintenance	\$232.50	12.0	\$180.00		
Nursery	\$959.42				
Bowlby transects		24.0	\$360.00		
Chimacum Creek flow monitoring		5.0	\$75.00		
Chimacum beach seining		54.0	\$810.00		
DR mower repair		5.0	\$75.00		
Salmon Creek summer chum restoration		357.0	\$5,355.00		
Snow Creek coho recovery		345.0	\$5,175.00		
Ludlow Creek fish trapping		131.0	\$1,965.00		
Fish Enhancement					
Summer Chum Supplementation				\$13,020.86	\$13,020.86
JCL summer chum recovery		900.0	\$13,500.00		
In-Stream Habitat Projects					
Morse Re-Meander				\$175,705.85	\$175,705.85
Riparian Planting & Maintenance					
Chimacum Creek - Multiple sites		38.5	\$577.50	\$3,400.00	\$3,977.50
Nursery		114.5	\$1,717.50	\$3,475.64	\$5,193.14
East Jefferson Co watersheds planting & maintenance				\$17,572.24	\$17,572.24
Deep Creek - Road Decommissioning				\$44,480.96	\$44,480.96
Morse cabin planting		64.5	\$967.50		
McDonald Creek ivy pulling		23.0	\$345.00		
McDonald Creek planting		54.0	\$810.00		
Estuary & Nearshore					
Chimacum Estuary				\$924.85	\$924.85
Snow/Salmon Creek Estuary & nearshore design				\$84,781.07	\$84,781.07
Maynard Mill Contaminated shoreline cleanup & planting				\$16,406.64	\$16,406.64
Salmon Estuary Restoration woodwaste removal				\$83,865.85	\$83,865.85
Pitship Pocket Estuary Culvert Removal				\$690,752.55	\$690,752.55
Salmon Creek estuary planting		50.5	\$757.50		
Monitoring					
Salmon Estuary		65.0	\$975.00	\$17,814.60	\$18,789.60
Pitship Pocket Estuary		41.0	\$615.00	\$12,828.82	\$13,443.82
Fish Passage Projects					
Salmon Creek Uncas Road culvert		23.0	\$345.00		
TOTALS	\$61,015.68	2974.5	\$44,617.50	\$1,165,029.93	\$1,270,663.11

BOARD OF DIRECTORS

COALITION OFFICERS 2009-2010

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

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

SECRETARY: Jean Erreca - Sport fisher, shoreline resident, irrigation contractor, WA Beach Watcher

TREASURER: Richard Wojt - Teacher, retired county commissioner

BOARD MEMBERS 2009-2010

Harry Bell - Silviculturist, Green Crow Partnership

Karolyn Burdick - Riparian project site landowner

Ron Deisher - Sport fisher, executive, retired

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

Mike Langley - Shoreline landowner, dedicated volunteer

Andrew McGregor - Volunteer, retired Alaska Dept. of Fish and Game biologist

Hannah Merrill - Natural Resources planner, Clallam County

Doug Morrill - Biologist with Lower Elwha Klallam Tribe

Karl Meyer (non-voting board member) - Dedicated volunteer, Master Gardener, WA Beach Watcher

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

STAFF MEMBERS 2009-2010

Rebecca Benjamin - Executive Director

Kevin Long - Project Manager

Randy Pendergrass - Financial Manager

Kai Wallin - Education and Outreach Coordinator

Nancy Erreca - Administrative Assistant

Sarah Doyle - 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

web: 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 for PCSC 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**Quillayute Nutrient Enhancement**

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 31,402 surplus salmon carcasses dispersed by volunteers using their own vehicles in almost 850 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 there 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. 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.

Borde Pond

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 a private landowner (Phil and Beverly Borde) and WDFW. The project has been done in cooperation with WDF&W on private land for several years now.

Fletcher Creek

The Fletcher Creek project had a 36" diameter culvert owned by a small forest landowner which was replaced by a 40' span steel bridge. About 35 pieces of large woody debris were added to stabilize the structure and banks. Upstream from the barrier correction there is some wetland habitat and a complex stream channel filled with existing large woody debris. In total, about 2.11 miles of habitat was fully opened to searun cutthroat trout, steelhead, and coho salmon.

The Pacific Coast Salmon Coalition managed the project implementation and communicated closely with Smayda Environmental Associates, Inc. who designed the removal of the fish barrier and installation of the bridge and large woody debris correction.

Additional project oversight was provided by staff implementing the Family Forest Fish Passage Program in Washington which is available to small forest landowners. The National Fish and Wildlife Foundation provided match for the grant provided by the Family Forest Fish Passage Program and the Community Salmon Fund grant.

Upon the completion of the Fletcher Creek Salmon and Trout Passage Restoration project, 1) all native fish species including searun cutthroat, steelhead, and coho salmon, are able to fully access 2.11 miles of upstream habitat on Fletcher Creek; 2) a bridge was installed that will be able to pass fish and woody debris that moves down the stream during typical flows as well as storm events; and 3) the landowner has continued access over the stream to his forest land.



Fletcher Creek Before



Fletcher Creek After

Boe Creek

The Boe Creek project replaced a failed log stringer bridge on Boe Creek, a tributary to Big River, with a railcar bridge that was donated by Clallam County. Boe Creek is a tremendous producer of Coho Salmon. Later in the year, after the bridge had been replaced, I saw over 20 spawning pairs of adult Coho in and around the newly replaced bridge. The project was brought to my attention by the Makah Tribe, who had identified the log stringer bridge as a problem when one of the stringers broke and fell into the creek partially blocking it. Later, the old log stringer bridge had completely failed and made Coho passage through

Pacific Coast Salmon Coalition

or around the obstruction nearly impossible. The Pacific Coast Salmon Coalition and Makah Tribe worked with the landowner, the County, and Green Crow to help make this project happen. The Makah Tribe provided the JARPA and design for the project, Green Crow provided rock for the project and Clallam County provided the bridge. The landowner provided access and some materials and the Pacific Coast Salmon Coalition paid for the contractor and any additional materials to replace the bridge. This project provided a unique opportunity for several organizations to work cooperatively on a valuable salmon habitat project.

Snider Creek Hatchery

The Snider Creek Hatchery project involved the maintenance of a facility in severe disrepair. The Snider Creek Hatchery is located on Snider Creek, in the Upper Sol Duc. The Snider Creek program was designed to become an important part of enhancing and augmenting the early run Native Steelhead stock on the Sol Duc River. The program uses wild Steelhead for the parent stock that are retrieved from the river, spawned, and then reared in the Snider Creek facility. Unfortunately, due to a lack of volunteers and funding, the facility had fallen to a state of severe disrepair. The Pacific Coast Salmon Coalition using staff, volunteers, and individuals from the Summer Youth program spent better than a month restoring the entire facility. We replaced catwalks, cleaned mud and debris that had built up in the bottom of the pond, and removed vegetation in and around the facility. We repaired the bird netting and the intake to the facility. This facility is an important part of the recreation and sports fishing industry in our area and a very worth while endeavor.

H1320 Culvert Replacement

The H1320 Culvert Replacement project involved replacing a perched, impassible 36 inch CMP with a 12.25' fish friendly arch that was counter sunk to provide a natural stream bottom within the new pipe. The new structure is a significant improvement over the previous structure which was a fish passage barrier to all species at all flows on this unnamed tributary to the Snahapish River. The stream is a low gradient salmon stream with over a mile of habitat comprised of pools and an abundance of LWD above the new replaced culvert. The downstream portion of the project was impacted by the undersized culvert, experiencing down-cutting and a lack of LWD. The new design will not only allow for fish passage of all species under all flow conditions but the transport of LWD throughout the system. The H1320 project was a cooperative project between the PCSC and WDNR.

Huffman Pond

The Huffman Pond project was originally completed over ten years ago. Huffman Pond is spring fed off channel, overwintering habitat that is a tributary to the Sol Duc River. During an unusual event the previous winter, a large amount of sediment and other material was transported into the spring fed ponds, partially filling them. The Pacific Coast Salmon Coalition, in cooperation with the USDA Forest Service, returned to this project to excavate the overwintering ponds. The purpose of the project was to maximize the available habitat for juvenile Coho

Pacific Coast Salmon Coalition

salmonids and continue to provide off channel refuge for juvenile Coho and Steelhead.

McAvoy Creek

The McAvoy Creek project involved placing a new 10' pipe on a road. The purpose of the project was to provide the funding for a larger pipe on private land and a new road to insure fish passage. The project is on McAvoy Creek a fish bearing tributary of the Bogachiel River.

Monitoring and Maintenance

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 dwindling involvement in the area we were asked to step in and assist with the upkeep of these constructed sites, Such as Nolan Channel, Hoh Springs and Thomas Springs which we have done and will continue to do. The sites are a variety of different restoration activities including fish ways, log and rock weirs, and roughened channels. Primarily, we 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.

Mill Creek Trail

The Mill Creek Trail project involves creating an interpretive trail along Mill Creek. The project will create an area for the public to interact and be educated about salmon habitat and provide an area for recreation in town. The project would provide education opportunities for the school system as it is located within a mile of

Forks High School. Currently, the Forks Alternative School does water quality testing on Mill Creek and this project will improve access for this program. This summer PCSC partnered with the SKY program, City of Forks, and the youth employment center to begin designing and implementing the trail. This project is still in the development stage and will provide a tremendous outreach and education opportunity in our local community.

FMS Water Quality and Enhancement

The FMS Water Quality and Enhancement project (Forks Schools) is a wonderful on-going project that gets kids interested in salmon and educates them not only in the classroom, but out of it as well. This project provides funds for water quality education, how to do water quality testing, which they do, and why water quality is important to salmon, which they learn. The Forks Middle School has taken the ball and run with this outreach, education and monitoring program. The Alternative school has also provided an enormous amount of data they have collected, and continue to collect, on water quality in the Bogachiel and tributaries. Our Salmon in the Classroom 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 students set up the tank and prepared time schedules so that each student would have the responsibility of care and feeding for their new swimming classmates. All but one egg hatched. 149 Coho fry were released in the early spring to the Sol-Duc River.

Administrative and Executive Director

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 these vital funds that all other things depend on.



Volunteers and staff work on completing repairs at Snider Creek Hatchery Facility

PROJECT EXPENDITURES

Project Name	RFEF Funds	Vol. Hours	Vol. Dollars	Other Funds	Total Spent
Quillayute R. N.E.	\$40,146.00	850	\$12,750.00	\$32,178.00	\$85,074.00
Borde Pond RSI		132	\$1,980.00		\$1,980.00
Fletcher Creek				\$100,528.00	\$100,528.00
Boe Creek	\$26,019.00			\$196,073.00	\$222,092.00
Snider Creek	\$3,940.00	145	\$2,175.00	\$5,280.00	\$11,395.00
Lake Creek	\$3,221.00	45	\$675.00		\$3,896.00
H1320 Culvert		38	\$570.00	\$37,124	\$37,694.00
Huffman Ponds	\$3,231.00	34	\$510.00	\$1,895.00	\$5,636.00
McAvoy Creek	\$4,541.00	51	\$765.00	\$18,463.00	\$23,769.00
Monitoring and Maint.	\$37,934.00	958	\$14,370.00	\$7,200.00	\$59,504.00
Mill Creek Trail	\$4,888.00	290	\$4,350.00	\$4,725.00	\$13,963.00
FMS Water Quality	\$10,555.00	415	\$6,225.00	\$11,689.00	\$28,469.00
Administration	\$56,348.00	264	\$3,960.00		\$60,308.00
Executive Director	\$36,060.00			\$14,262.00	\$50,322.00

BOARD OF DIRECTORS

Wayne Haag	President	Retired Centurytel
Don Nordstrom	Vice President	Retired 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
Kendra Wilcox, Administrative Assistant
Alex Huelsdonk, Project Assistant
Joe Thompson, Field Staff

CONTACT INFORMATION

P.C.S.C.
PO Box 2527
Forks, WA 98331
Phone: 360.374.8873
Fax: 978.359.0478
Email: pacsac@olympen.com
www.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 Hump Tulips 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.

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 2010 the students raise 105,000 Coho in Carlisle Lake, and



adult returns for coded wire tags, and plant carcasses in area streams for nutrient enhancement. Additionally, 8,000 rainbow trout and 35,000 Steelhead have been incorporated into the curriculum. Student volunteers play a large part in the success of the project.

Education & Outreach Project

This project educates and extends the assistance of the CBFTF 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 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. Stump Lake is in jeopardy of permanent closure due to dumping. Volunteers for CBFTF took action at Stump Lake removing tons of trash. Partnering with GH Community Foundation the CBFTF sponsored a field trip to Mayr Bros Hatchery for Central Park grade school. For 2011 the goal is to provide field trips to Satsop and Mayr for each grade school children throughout Grays Harbor County.



Satsop Springs

With assistance from local volunteers, the 2010 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. Budget constraints statewide forced WDFW to schedule production reductions this year. CBFTF partnered with GH Poggie Club, Elma Game Club, Bingham Creek Hatchery, WDFW and volunteers to save 120,000 Coho. Satsop Springs volunteered to be in a pilot project for excessing salmon with Hood Canal Salmon Enhancement Group, the RFEG Coalition, and WDFW. This pilot increased funding for egg and carcass by 30%.

Chehalis Basin Fisheries Task Force

Mayr Bros

Partnering with the GH Poggie Club the CBFTF financed a pond liner for the Coho pond at Mayr Bros facility. CBFTF, GH Poggie Club are currently in the final stages of contract negotiations to co-manage the Mayr Bros hatchery.



PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$68237	562	\$8430	\$2525	\$79192
Carlisle	\$3723	2956	\$44340	\$12400	\$60463
Satsop Springs	\$50683	2016	\$30240	\$28778	\$69820
Egg and Carcass				\$16302	\$11000
Totals	\$122643	5534	\$83010	\$60005	\$210575

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
- Otto Aldridge, 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
- 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
- Doug Warnken, Grays Harbor Poggie Club, 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

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



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

2010 has been focused on design development of the Bear River Estuary Restoration, and completing the stream restoration of South Stream. Our Board has been alarmed with the steady decline of natural spawning salmon. 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 2009/2010 season was very disappointing as the majority of our eggs were lost to floods. We have not yet received our egg allocation from WDFW for 2010/2011. Only 92,500 Chum eggs were collected. Habitat continues to be improved, but no salmon for the habitat.

PROJECT HIGHLIGHTS

Bear River Estuary Restoration

We completed the design for restoring 760.2 acres of South Willapa Bay to its historic conditions: 5.74 miles of dikes/roads, 38 culverts, two fish ladders, two tide gates, 18 estuary channels in estuary restored, three streams reconnected to their up-lands spawning beds. This is a three phase project that will require three years to construct. Our organization also completed the design for a trail and viewing platform, and raising a County road as part of the overall restoration.

South Stream

We completed phase two of restoring this stream. 3.0 miles of up-lands stream was restored with Large Woody Debris (LWD) to establish enhanced spawning habitat, and the tidal section of about 0.5 miles was completed with LWD. This completes the four streams in the Bear River watershed that we stated in 2004. These streams will provide enhanced spawning area, and is adjacent to the Estuary described above. These projects have been our top priority for our targeted salmon, Chum salmon.



Large woody debris placement into South Stream

Willapa Bay Enhancement Group

Mill Pond Creek

We completed work on this project that was started in 2001. We replaced a blocking culvert, renovated the trail, and improved the Pond outlet to provide passage for salmon to about 3.0 miles of habitat. This Pond is also used for Kids fishing events.



Mill Pond new fish passage

Ellsworth Creek

Completed the design to restore a tributary to Ellsworth Creek, and remove a blocking culvert.

SUMMARY

Six miles opened for spawning and rearing, two blockages removed. Design completed to: Restore 760.2 acres of estuary, remove: 5.74 miles of dikes/roads, **two: fish ladders, two tide gates, two foot bridges, 38 culverts, reconnect 18 channels in estuary, restore** to historic channels three streams, about 2.5 miles of spawning and rearing habitat. Collected and relocated Lamprey to streams Bear River Watershed. Design to restore a tributary to Ellsworth Creek and remove a blocking culvert.

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 33 blockages, restored over 800 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 Enhancement Group

PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hrs	Volunteer Skill (\$85/hr)/unskilled \$15/hr	Other \$	Total \$
Lamprey	0.0	2.0	\$170	\$17,995	\$18,165
Bear River estuary design	\$35,000	0.0	0.0	\$359,154	\$394,154
South Stream	\$578	0.0	0.0	\$167,603	\$168,181
Mill Pond	\$63,471			\$5,000	\$68,471
Ellsworth Creek	\$19,500	0.0	0.0	\$11,800	\$31,300
Project Development	0.0	50	\$4,200	n/a	\$4,200
Fish Enhancement	\$3910	1200	\$18,000	n/a	\$21,910
Board Members	0.0	48	\$720	n/a	\$720
Project Manager	\$1,491	239.5	\$20,350	0.0	\$21,841
Administrative	\$40,592				\$40,592
Total	\$164,542	1539.5	\$43,440	\$561,552	\$769,534

WHO ARE WE?

Willapa Bay RFEG: accomplishing salmon recovery in Willapa Bay since 1982.

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

David Lewis, Businessman

Jewel Hardy, Bank Manager



Willapa Bay RFEG

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 2009/10, 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 Priorities, 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.

COMPLETED AND ON-GOING 2009/10 PROJECTS HIGHLIGHTS

- 09 Fork Lewis River RM 13.5 Enhancement
- Cowlitz-Filla Side Channel
- Dean Creek Restoration
- Duncan Creek Restoration
- Grays River Restoration
- Little Washougal Riparian
- WRIA 27/28 , & Germany Creek Nutrient Enhancement
- Lower Washougal Phases 1&2
- Upper Washougal Phase II
- NF Toutle Elk Refuge
- Nutrient Enhancement
- Woodard Creek Restoration
- Lockwood Creek Restoration

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

Lower Columbia Fish Enhancement Group

OUTREACH AND EDUCATION

2009/10's Education and Outreach Program involved numerous year-round activities including Interns, volunteer (student and/or citizen) planting parties at our various project sites, regular educational presentations on local salmon species and their habitat requirements 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) & Germany Creek Nutrient Enhancement

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.

RIPARIAN PLANTING AND RESTORATION

LCFEG Nursery

In 2009 we initiated a cooperative agreement that would build a 16x50 Green house. The Riparian Nursery will assist in educating hundreds of students about the interrelationships between habitat and fish/wildlife species while also providing an opportunity for volunteers to propagate/plant native plant and tree species in a sustainable manner. The Cooperative Riparian utilized interns and volunteers from WSU Watershed Stewards, Hudson's Bay ACE nursery, WSU Master Gardner's and further educates youth and adults about water conservation, the protection of water quality, reducing the impact of invasive species, and how to protect the environment. The Cooperative Riparian Enhancement project will purchase materials needed to empower volunteers to take charge of propagation duties, irrigation, and plant care.



Lower Columbia Fish Enhancement Group

The process of restoring a degraded riparian corridor can have an immediate improvement on fish habitat through the reduction of bank erosion, reduction of water temperature from increased shade, increased habitat diversity, reduced sedimentation, future wood recruitment and increased bank stability. Early each spring, project volunteers will begin growing bare rooted stock in Hudson's Bay ACE nursery facilities, in addition to harvesting willow-live cuttings to propagate in their greenhouse. This project is projected to restore over 3,500 linear feet of degraded riparian habitat for the future benefit of the general public and fish/wildlife inhabitants by 2011 and will be the foundation for a sustainable nursery for years to come.

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.

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



Lower Columbia Fish Enhancement Group

Resources, ("DNR"), Longview Fibre, Washington Department of Fish and Wildlife, and Skamania County were valuable partners in this habitat restoration project.

Georgia Pacific Corporation. Project partners include City of Camas, Georgia Pacific and WDFW. Over 125 volunteers have been part of the Lower Washougal restoration.

Lower Washougal Restoration Phases 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 remainder 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 asset in maintaining and eradicating invasive species. The main Project funding is provided by SRFB, Burlington Northern Railroad and

Assessment, Monitoring, and Development

LCFEG is currently engaged in multiple assessments designed to identify habitat restoration projects. Locations where the assessments are underway include Germany creek, and, Lewis Design. 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.

PROJECT EXPENDITURES

Project Name	RFEF FUNDS	Volunteer Hours	Volunteer Dollars	Other Funds	In Kind Contributions	Total Spent
Administration	\$ 40,291.76	103	\$1,442.00	\$ -	\$10,000.00	\$51,733.76
Brim Bar	\$ -	0	\$ -	\$9,721.88	\$ -	\$9,721.88
Cowlitz-Filla	\$ -	0	\$ -	\$8,263.52	\$1,153.77	\$9,417.29
Dean Creek Restoration	\$ -	24.5	\$343.00	\$22,160.55	\$8,046.40	\$30,549.95
Education and Outreach	\$24,000.00	597.5	\$8,365.00	\$17,277.23	\$25,200.00	\$74,842.23
ELJ Support	\$ -	0	\$ -	\$46,235.32	\$60,000.00	\$106,235.32
Grays-Schmand	\$18,960.63	0	\$ -	\$4,515.19	\$ -	\$23,475.82
Hamilton Ck Restoration	\$ -	2825.5	\$39,557.00	\$387,745.78	\$75,698.56	\$503,001.34
Kalama Side Channel	\$ -	1497	\$20,958.00	\$74,604.57	\$13,250.00	\$108,812.57
Lewis River Habitat Enhancement	\$ -	0	\$ -	\$170,597.75	\$70,000.00	\$240,597.75
Little Washougal IV Enhancement	\$ -	0	\$ -	\$7,356.18	\$16,350.00	\$23,706.18
Lockwood Creek Enhancement	\$ -	15	\$210.00	\$8,464.78	\$ -	\$8,674.78
Lower Washougal II	\$2,000.00	1364	\$19,096.00	\$21,866.08	\$ -	\$42,962.08
Monitoring, Assessment, & Development	\$15,000.00	0	\$ -	\$ -	\$ -	\$15,000.00
North Fork Toutle	\$3,000.00	18	\$252.00	\$ -	\$ -	\$3,252.00
Nutrients Enhancement	\$ -	2351	\$32,914.00	\$36,526.91	\$36,638.00	\$106,078.91
Cooperative projects	\$13,000.00	0	\$ -	\$500,000.00	\$38,000.00	\$551,000.00
Project Development	\$30,416.45	60	\$840.00	\$ -	\$ -	\$31,256.45
South Fork Toutle	\$ -	670	\$9,380.00	\$152,316.13	\$27,800.00	\$189,496.13
Upper Washougal II	\$4,358.00	0	\$ -	\$182,251.30	\$111,437.74	\$298,047.04
Woodard Creek Enhancement	\$ -	0	\$ -	\$18,000.00	\$ -	\$18,000.00
Totals:	\$151,026.84	9,526	\$133,357.00	\$1,649,903.17	\$493,574.47	\$2,427,861.48

2009/10 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
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 Gas 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 Yahrmart, 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



CONTACT INFORMATION

12404 SE Evergreen Highway
Vancouver WA 98683
(360) 882-6671
www.lcfeg.org
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.

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 and fall 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-constructed, and wood was installed in the channel and floodplain. Riparian planting was completed in the fall of 2009. Monitoring and rehabilitation of the site continued through 2010.

Salmon in our Backyards

With the support of a Community Salmon Fund grant, Mid-Columbia Fisheries developed backyard riparian buffer templates for three eco-types in the Yakima Basin: Northern Kittitas County, Ellensburg, and the Yakima/Tri-Cities areas. These templates will be incorporated into a Backyard Buffer brochure to be mailed to streamside landowners and posted on our website. Demonstration projects in each ecotype are planned for 2010 and 2011.

Cowiche Creek

This project removed approximately 500 feet of dikes to improve the floodplain access of Cowiche Creek. A house and orchard were removed, and native trees and shrubs were planted along 700 feet of streambank. More than 40,000 cubic yards of garbage and debris were removed from the channel, banks, and floodplain. 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 second dike removal project approximately one mile downstream. Key partners include the Cowiche Canyon Conservancy, the City of Yakima, US Fish & Wildlife Service, WDFW, North Yakima Conservation District, and National Fish & Wildlife Foundation.



Hemlock Dam



Trout Creek, after dam removal

Mid-Columbia Fisheries Enhancement Group

Naches River Off-channel Habitat Restoration

In the fall of 2009, irrigation return flow water was re-routed from a steep, narrow ditch, to restore a wetlands area and improve off-channel rearing immediately adjacent to the Naches River. The project created a new 900 ft. long channel. The floodplain was planted in the fall of 2009 and initial survival at the site is high. Funding for the project was provided by the US Fish & Wildlife Service, National Fish & Wildlife Foundation, and the Washington Department of Fish and Wildlife's Landowner Incentive Program.

Riparian Planting Projects

In the last year, Mid-Columbia Fisheries planted streambanks and floodplains on the Yakima River, Wilson Creek, Swauk Creek, Coleman Creek, Cowiche Creek, and Simmons Creek. The Wilson Creek planting project, done in cooperation with the Cascade Land Conservancy and other local partners, will evaluate the use of flash grazing to manage weeds in riparian areas. We also continue to maintain and irrigate sites in their first few growing seasons to ensure establishment of woody riparian vegetation.



Riparian planting on Wilson Creek, a tributary to the Yakima River in Kittitas County

Reecer Creek Floodplain Restoration Project

This project will relocate 2,300 feet of Ellensburg's Reecer Creek to its historic floodplain, and increase the length of available fish habitat in the reach to 3,300 feet. Suver levee, which currently constrains the creek, will be set back to allow for 58 acres of floodplain and upland habitat. The project began in the fall of 2010 with funding from the City of Ellensburg, Salmon Recovery Funding Board, Department of Ecology, Yakama Nation, and the US Fish & Wildlife Service. Key partners include the South Central Washington RC&D, the Kittitas County Water Purveyors, Kittitas Reclamation District, WDFW, the Yakima Tributary Access and Habitat Program, and the Kittitas County Conservation District.

Large Wood Replenishment

In the last two years, we have worked on a demonstration project with the Yakama Nation along Taneum Creek. The project goal is to replenish large wood to streams by thinning overly dense forest stands adjacent to target creeks. Crews have manually moved thinned trees into the creek with the use of a grip hoist. The project has resulted in more than 350 trees being placed into Taneum Creek for less than \$18,000. High flows have sorted the wood into natural jams, providing increased in-channel habitat diversity.

We are now working with the USDA Forest Service to expand the project onto a number of streams identified as suitable for this work. Suitable streams are those that will benefit from wood placement, have overly dense riparian forests (generally due to fire suppression), lack infrastructure, have low gradient and a suitable channel and valley morphology so that wood can be readily moved into a position where high flows can safely sort and distribute the woody material.

PROJECT PLANNING & DEVELOPMENT

Jack Creek

Planning is underway for a project to restore 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. In 2011, the first phase of the project will re-locate portions of a Forest Service road away from the creek and restore the upper part of the project area. Funding for this project has been provided by the USDA Forest Service, Salmon Recovery Funding Board, Department of Ecology, and US Fish & Wildlife Service.

Swauk and Iron Creeks

Mid-Columbia Fisheries 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 evaluates potential ways of increasing groundwater storage and hyporheic connectivity in this reach of Swauk Creek, and of enhancing groundwater storage potential along Iron Creek. The analysis suggests a range of options to improve fish habitat and groundwater connectivity. MCF plans to implement the suggestion of large wood supplementation in Iron Creek in the near future. Our hope is to coordinate future restoration of Swauk Creek with Washington Department of Transportation's potential mitigation needs related to future work on Highway 97.

Mid-Columbia Fisheries Enhancement Group

EDUCATION & OUTREACH

This year, Mid-Columbia Fisheries organized two major educational events in our region and helped plan and staff three 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.



Students sample macroinvertebrates during Salmon Education Days, Holmes Side Channel, near Ellensburg

- Water Jam – 350 students from Klickitat & Skamania Counties
- Salmon Education Days at the Holmes property – 200 students from Ellensburg
- Salmon Summit at Horn Rapids State Park, attended by 1,000 local students from Benton and surrounding counties.
- Public salmon viewing field trip with biologist Bob Tuck of the Yakima Basin Environmental Education Program – 40 people in Ronald
- E3 Winter Fair – 240 people in Ellensburg

PROJECT EXPENDITURES

<u>Project Name</u>	<u>RFEG Funds</u>	<u>Vol. Hours</u>	<u>Volunteer Value @ \$15/hr.</u>	<u>Other in-kind Donations</u>	<u>Grant Funds</u>	<u>Total Value</u>
Hemlock Dam Removal /Trout Cr. Restoration		6	\$90		\$195,865	\$195,955
Cowiche Creek Restoration – Lamas		142	\$2,130		\$49,074	\$51,204
Yakima Riparian - Multiple sites	\$316	170	\$2,550		\$35,180	\$38,046
Wilson Cr. Restoration	\$195	4	\$60	\$11,700	\$11,972	\$23,927
Naches Off-Channel Restoration	\$2,767			\$21,000	\$36,259	\$60,026
Reecer Cr. Restoration	\$670	61	\$915	\$60,000	\$91,438	\$153,023
Jack Creek Restoration					\$34,926	\$34,926
Swauk & Iron Creeks Restoration Feasibility					\$36,911	\$36,911
Urban Salmon		300	\$4,500	\$1,871	\$4,596	\$10,967
Klickitat R. Acquisition					\$5,600	\$5,600
LWD Replenishment Yakima Basin				\$1,200	\$2,177	\$3,377
Cle Elum River Restoration					\$1,586	\$1,586
Taneum Creek Restoration	\$6,640					\$6,640
Simmons Cr. Rest. Rest.	\$4,075					\$4,075
Education & Outreach	\$1,379	42	\$630	\$1,500	\$1,000	\$4,509
Mileage, grant writing, bookkeeping, administration, and management	\$92,955	181	\$2,715		\$150	\$95,820
Total	\$108,997	906	\$13,590	\$97,271	\$506,734	\$726,592

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
Marc Harvey	Board Member	Environmental compliance & management	Klickitat Basin
Tom Crawford	Board Member	Commercial Fisherman	Yakima Basin
Glen Rose	Board Member	Kittitas Field and Stream	Yakima Basin

STAFF

Margaret Neuman, Executive Director

Rebecca Wassell, Yakima Basin Program Manager

Tim Jeffris, Restoration Intern

CONTACT INFORMATION

Mid-Columbia Fisheries Enhancement Group

P.O. Box 1271

White Salmon, WA 98672

Phone: 509-281-1322

Email: fish@midcolumbiarfeg.com

Website: 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, Tri-State Steelheaders receives valuable support from its diverse membership which includes property owners, local businesses, anglers and concerned citizens.

The Tri-State Steelheaders' RFEG service district covers southeastern Washington, which includes Walla Walla, Columbia, Garfield and Asotin counties comprising WRIs 32 and 35 with major watersheds that 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 Tri-State Steelheaders.

During the 2009-10 fiscal year Tri-State Steelheaders participated in 12 habitat restoration projects, 10 of which were completed during this period, and participated in an additional 14 passage barrier projects. In total, our volunteers donated 3,112 hours working on habitat enhancement projects and educational programs.

PROJECT HIGHLIGHTS

Creating Urban Riparian Buffers (CURB)

Through collaboration between the Walla Walla County Conservation District, Kooskooskie Commons and Tri-State Steelheaders, a total of eight new urban riparian buffers were completed along Yellowhawk and Garrison Creeks, bringing the program total to 22 completed buffer projects. One of this year's projects was designed and installed by a group of environmental studies students from a local high school, with another project undertaken as part of an Eagle Scout program through a local troop. The completed buffers represent the commitment of hundreds of middle, high school, and college students from the local community, along with AmeriCorps members, Boy Scouts, and participating landowners who together donated more than 1,500 hours this year to enhance water quality and stream habitat on Walla Walla's urban streams.



Smiling group of kids participating in the WHEP school program

Kids Fishing Day

In June, Tri-State Steelheaders held its annual Kids Fishing Day for local children up to age 14 at Bennington Lake. There was no charge for the event, which provided an opportunity to bring families together to enjoy the outdoors and offered a great way to introduce local youth to a life-long sport that supports conservation of natural resources. Kids Fishing Day was held on Washington Department of Fish and Wildlife's free fishing weekend that allows free fishing for all ages without the need to purchase a license. Tri-State Steelheaders provided tackle, bait, rods, and reels. In addition, a casting contest was conducted at the lake that included prizes along with hot dogs and soda for the young anglers to enjoy.



A girl fishing our Kids Fishing Day Event

Kids Fishing Day is a special annual event, and there are many groups who volunteered their time to make it a fun time for the kids. Volunteers included Tri-State Steelheaders board members and club members, WA Dept. of Fish & Wildlife and US Army Corps of Engineers staff, as well as other community members. The local Pepsi Cola distributor provided soda while Dairy Queen donated casting contest prizes.

Tri-State Steelheaders Fisheries Enhancement Group

Project Success Monitoring Through the Use of WHEP (Watershed Health Evaluation Procedure)

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

Bridge to Bridge Restoration Design

This project, funded by the Salmon Recovery Funding Board, was the design phase of a reach restoration project on a 1.5 mile section of the Walla Walla River, near Lowden, WA. Design and restoration alternatives were developed with landowner input and review. The design alternatives addressed actions to improve in-stream habitat, riparian buffers, channel forming processes, sediment transport, and floodplain connectivity. Such actions are expected to include removal or setback of dikes, placement of large woody debris, planting riparian vegetation, livestock fencing, grazing plans, and protection of land with conservation easements. The preferred alternative was developed to the 30% design level, with construction cost estimates included.

Mill Creek Fish Passage Assessment

The Mill Creek Fish Passage Assessment examined the location and type of passage barriers within six miles of the Mill Creek flood control channel. The assessment looked at a range of flows typically experienced by steelhead, spring Chinook, and bull trout during their seasonal movements. Because of the size and complexity of the Mill Creek channel, the assessment utilized an energetics model of fish swimming ability. The energetics model also allowed for the analysis of a range of fish sizes. At low flows, water depth and jump height were identified as barriers for a 3.5 mile section, and high flows presented velocity barriers in the remaining section. Conceptual designs for passage improvements were developed for some sections, with cost estimates included for the designs. The assessment involved collaboration between organizations participating as members of the Mill Creek Work Group and was funded by a grant provided by the Salmon Recovery Funding Board, with additional funding provided by the Tri-State Steelheaders' Regional Fisheries Enhancement Group. The assessment report is available at www.tristatesteelheaders.com/MillCreekFishPassageAssessment.pdf.

Mill Creek Passage Design

Following completion of the Mill Creek Fish Passage Assessment, additional design work is continuing under a Community Salmon Fund grant from the National Fish & Wildlife Foundation, with matching funds contributed by the Confederated Tribes of the Umatilla Indian Reservation. By mid 2010, conceptual designs will be completed for the six-mile section of the Mill Creek Flood Control Channel.

PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$40,247	154.5	\$2,317.5	\$959	\$43,523.50
Fish Passage Barrier Evaluations	0	0	0	\$1,980	\$1,980
Bridge to Bridge	0	0	0	\$88,979	\$88,979
Community Outreach & Education	\$11,889	1057.25	\$15,858.75	\$1,627	\$29,374.75
Creating Urban Riparian Buffers	0	1478.5	\$22,177.50	\$32,770	\$54,947.5
Enhanced Flow Monitoring	0	0	0	\$6,502	\$7,175
Kromm	\$673	0	0	\$6,520	\$6,520
Leland FFFPP	0	0	0	\$14,593	\$14,593
Little Tucannon Passage Project	0	0	0	\$1,869	\$1,869
Mill Creek Fish Passage Barrier Assessment	0	70.5	\$1,057.50	\$7,229	\$8,286.5
Mill Creek Fish Passage Design	0	236.5	\$3,547.50	\$50,475	\$54,022.5
NF Coppei Land Easement	\$799	0	0	\$6,726	\$7,525
Project Development & Management	\$32,320	0	0	0	\$32,320
Touchet Consolidation	\$50,254				\$50,254
Training	\$30	0	0	0	\$30
Brewer Farm Wetland	0	0	0	\$22,045	\$22,045
Urban Habitat Projects	\$1,154	115	\$1,725	\$1,419.21	\$4,298.21
Totals	\$137,366	3,112.25	\$46,683.75	\$243,693.21	\$427,742.96

Tri-State Steelheaders Fisheries Enhancement Group

BOARD OFFICERS

President: Larry Zalaznik, Vice-President, Banner Bank

Vice President: Jon Cole, Ph. D., Professor, Walla Walla University (*retired*)

Treasurer: Mike Loney, Coachman Body and Frame Service

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

BOARD MEMBERS

Mark Brotherton, Walla Walla Valley Transit

David Cowles, Ph. D., Professor of Biology, Walla Walla University

Mike Denny, CREP Coordinator, Walla Walla County Conservation District

Steve Hamilton, Owner, Steve's Archery and Fish Shop

Rick Jones, Director, Walla Walla County Conservation District

Scott Landwehr, General Manager, Martin Archery

Mike Mahan, Professor of Biology/Division Chair, Walla Walla Community College

Bill Neve, Owner, Water Right Solutions

Dan Vernon, Ph. D., Professor of Biology, Whitman College

Jed Volkman, Biologist, Confederated Tribes of Umatilla Indian Reservation

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



Willow Wall - One of our CURB projects

Tri-State Steelheaders project partners for the period of July 1, 2009 – June 30, 2010 include : Asotin High School, Berney Elementary School, Blue Mountain Land Trust, 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, Knowles General Contracting, National Fish and Wildlife Foundation, National Marine Fisheries Service, National Park Service, National Resource Conservation Service, Palouse Community School, Pepsi-Cola of Walla Walla, Royse Hydroseeding, Sporthaus 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 in its role as a Regional Fisheries Enhancement Group.

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

Web site: www.tristatesteelheaders.com



Upper Columbia river regional Fisheries Enhancement Group

MISSION STATEMENT

The Upper Columbia Regional Fisheries Enhancement Group is a non-profit organization working within Chelan, Douglas, Okanogan and Ferry counties to cooperatively facilitate sustainable fisheries enhancement projects for future generations. Our work is based on public trust, outreach, voluntary participation of willing landowners, best available science and best value management practices.

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 nitrification programs.

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 172 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 5th 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 third year the UCRFEG has partnered with OES.

Bonaparte Creek - Whitestone Cattle Project

UCRFEG helped support the Okanogan Conservation Districts effort to relocate cattle away from Bonaparte Creek by installing alternative watering sources and a coral away from the stream



Bonaparte Creek Whitestone Cattle exclusion project

Upper Columbia river regional Fisheries Enhancement Group

channel. Native plants and brush mats were also installed to improve bank stability and riparian conditions for steelhead and other native fish.

Monitoring Efforts - Methow

UCRFEG provided support to the Methow Salmon Recovery Foundations (MSRF) effort to implement effectiveness monitoring on two of their restoration sites along the main-stem Methow River.

Antilon Lake

With the support of UCRFEG, and other funders, the Wenatchee Valley and Methow Valley fly fishing clubs developed fishing access to two small lakes located just north of Lake Chelan.

Table of Project Expenditures

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.



PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars (unskilled @ \$15.00 / hr, professional @ ESD rates)	Other Funds	Total
Admin & office expenses	\$112,666	172	\$2,580		\$115,246
Partnerships & Project Development	\$3,589	-	-		\$3,589
Habitat Projects Assessment, Restoration & Monitoring	\$21,792	-	-	\$22,475	\$44,267
Education & Outreach	\$3,761	-	-		\$3,761
Training, Travel & Conferences	\$17,847	-	-		\$17,847
TOTAL	\$159,655				\$184,710

BOARD OF DIRECTORS:

Board Members

- Charles Brushwood, President
- John Arterburn, Treasurer
- Aaron Penvose, Secretary
- Greg Knott
- Gilbert Biles
- Don Bolstad
- Bill Boosman
- Bill Colyar
- Marcus Bertrand

Affiliation

- Fish and Wildlife Policy Analyst, Colville Tribe
- Fisheries Biologist, Colville Tribe
- Project Manager, Trout Unlimited
- Project Manager, MSRF
- Wenatchee Valley Fly Fishers
- Wenatchee Valley Fly Fishers
- Avid Angler
- Operations Director, SES Americom
- Retired Mayor

STAFF MEMBERS:

Jason Lundgren, Executive Director

CONTACT INFORMATION:

Phone: 509 476 3444
 Fax: 509 476 2883
 Email: Jason@ucrfeg.org
 Mail: PO Box 3162, Wenatchee, WA 98807
 Website: 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

