



REGIONAL FISHERIES ENHANCEMENT PROGRAM

Annual Report For July 1, 2007 - June 30, 2008

“DEDICATED TO COMMUNITY-BASED SALMON



ENHANCEMENT IN WASHINGTON STATE”

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“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 2007-2008 fiscal year, the RFEGs collectively completed 200 projects ranging from education and outreach to monitoring and, of course, on the ground salmon enhancement projects. RFEG volunteers donated over 66,500 hours to these salmon enhancement efforts in 2007-08. A third of the RFEGs participated in fish production projects, releasing 2.5 million fish into local watersheds. 37 fish passage improvement projects opened 48 miles of habitat for migrating salmon. 12 miles of habitat was enhanced and restored for salmonids and just shy of 54,000 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 13-year history, these accomplishments add up to:

- » 2,800 total salmon projects;
- » 951,500 volunteer hours;
- » 64 million salmon released into Washington waters;
- » 637 fish passage problems fixed;
- » 698 miles of fish habitat opened;
- » 412 additional miles of habitat restored;
- » 725,000 fish carcasses placed back in streams for nutrient enhancement;
- » \$98.8 million in additional leveraged funding for salmon restoration efforts.

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

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

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

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

Scientific monitoring activities currently performed by RFEGs include:

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

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

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

MISSION

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

OVERVIEW

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

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

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

BOARD MEMBERS

Douglas Fricke - Commercial Fishing Interest - Hoquiam, WA

Vacant - Commercial Fishing Interests -

Brian Johnson - Recreational Fishing Interest - South Prairie, WA

David Ladd - Recreational Fishing Interest - Redmond, WA

Jeanne Robinson - At-Large Position - Shelton, WA

David Mills - At-Large Position - Bremerton, WA

Doug Miller - At-Large Position - Goldendale, WA

Terry Wright - Northwest Indian Fisheries Commission - Olympia, WA

Randy Settler - 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.

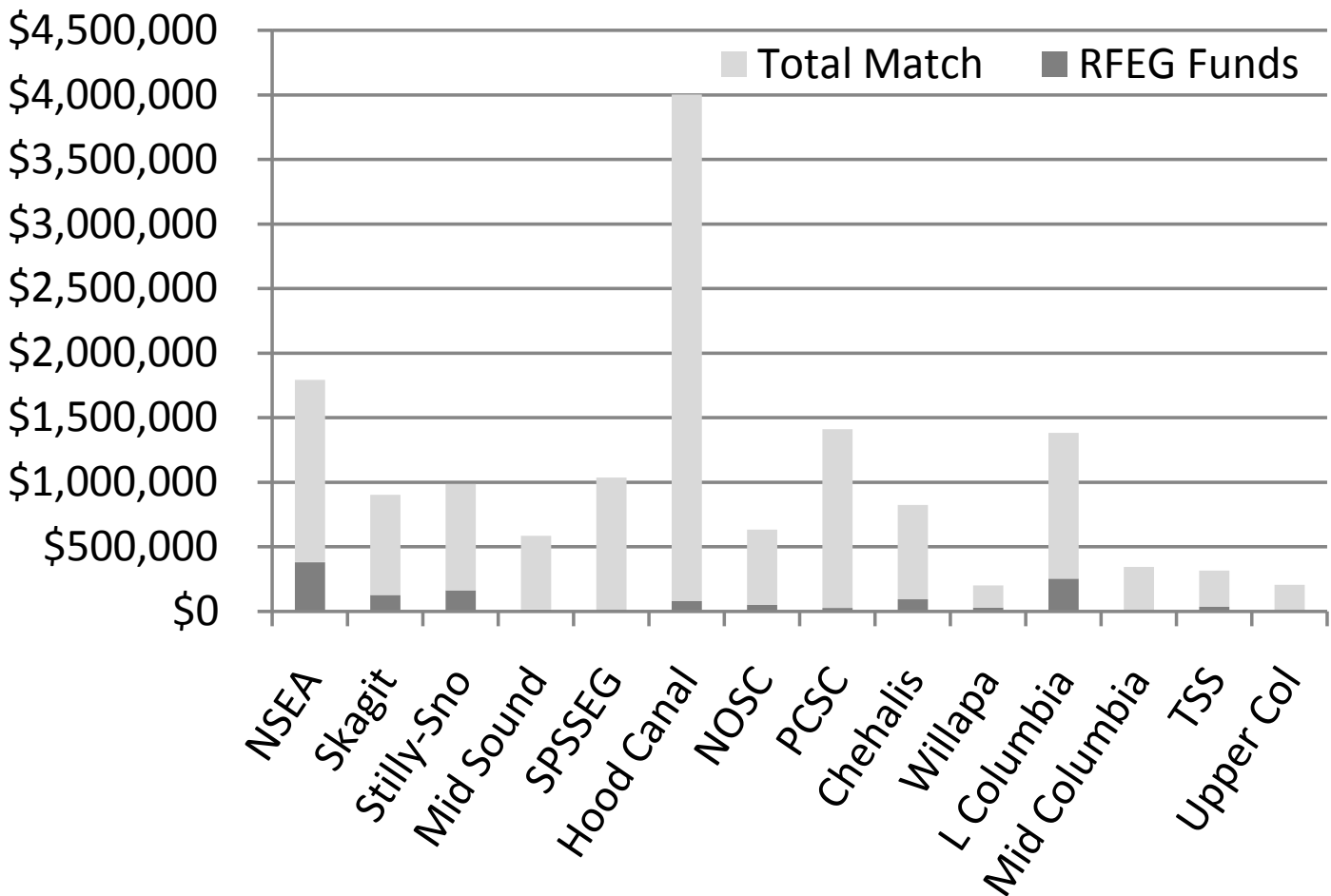
Funding for the RFEG Program comes from several sources, including a percentage of salmon license revenue (both commercial and recreational) and egg and carcass sales from state-funded hatcheries. WDFW also manages annual federal contracts granted to the RFEG Program. RFEG funds administered by WDFW 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, 2007 to June 30, 2008					
Group	RFEF Funds	Volunteer Hours	Volunteer Dollars*	Funds Leveraged	Total Spent
NSEA	\$157,893	25,389	\$380,836	\$1,252,151	\$1,410,044
Skagit	\$124,992	8,465	\$126,975	\$649,152	\$774,144
Stilly-Snohomish	\$143,580	9,156	\$162,220	\$679,229	\$822,809
Mid Sound	\$179,676	898	\$13,470	\$391,097	\$570,773
SPSSEG	\$153,606	646	\$9,690	\$871,568	\$1,025,174
Hood Canal	\$173,410	5,220	\$78,300	\$3,748,873	\$3,922,283
NOSC	\$165,569	3,364	\$50,460	\$415,578	\$581,147
PCSC	\$128,271	2,008	\$27,110	\$1,254,535	\$1,382,806
Chehalis	\$209,523	6,175	\$92,629	\$521,973	\$731,496
Willapa	\$113,618	585	\$29,254	\$56,854	\$170,472
Lower Columbia	\$166,920	16,908	\$253,620	\$961,020	\$1,127,940
Mid Columbia	\$81,033	195	\$2,925	\$260,701	\$341,734
TSS	\$104,583	2,278	\$36,431	\$173,184	\$277,767
Upper Columbia	\$115,796	171	\$2,565	\$87,024	\$202,820
Total	\$2,018,470	81,458	\$1,266,485	\$11,322,939	\$13,341,409

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

Ratio of RFEF Funds to Total Match



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

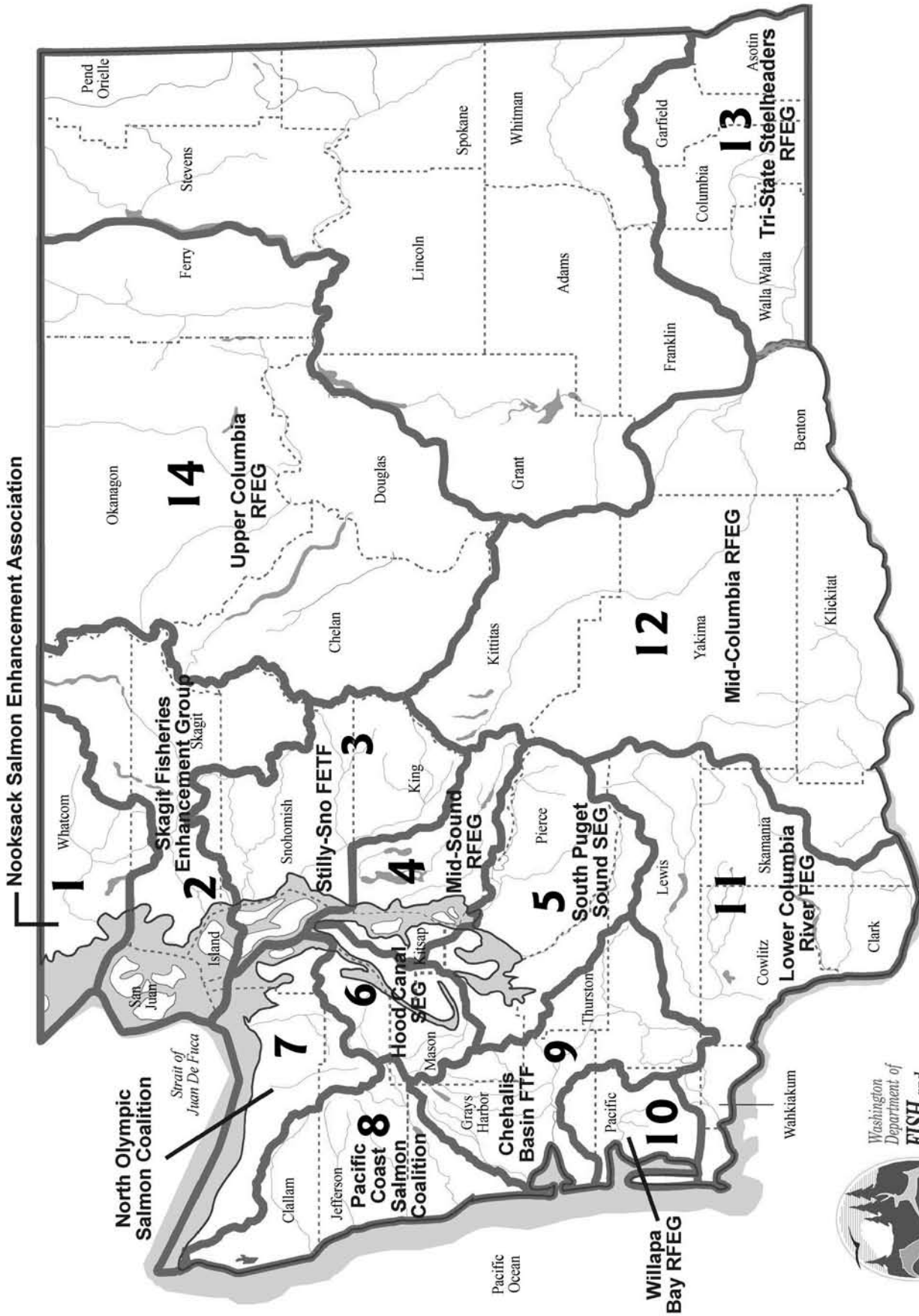
Includes WRIAs 30, 31, 37, 38, 39 and 40 and most of 29: Major watersheds include the Little White Salmon, White Salmon, Wind, Yakima, and Klickitat Rivers. This region also includes Columbia River habitat and other watersheds entering the Columbia River from the north and west above Bonneville Dam,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

Upper Columbia Regional Fisheries Enhancement Group

P.O. Box 932
Oroville, WA 98844
Phone: 509-476-3444
Fax: 509-476-2883
Website: www.ucrfeg.org
Email: info@ucrfeg.org

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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 25 salmon habitat riparian restoration projects on 3400 linear feet of stream.

Fish Passage Projects: NSEA designed, permitted, and implemented 15 fish passage barrier removals in 2007 which opened or improved access to over 16 miles of stream.

Habitat Improvements: NSEA placed 59 LWD structures to improve habitat complexity in seven watersheds in 2007.

Maintenance: NSEA maintained over 30 previously planted sites on about 20,000 linear feet of stream channel.

NSEA PROGRAM HIGHLIGHTS

Students for Salmon: Elementary Education Program

50 classes located in 18 different schools throughout Whatcom County participated in NSEA's Students for Salmon educational program in 2007. Just over 1,200 students participated in classroom and field activities and learned about salmon, salmon habitat and also planted trees for restoration projects.

Middle School Service Learning Program

NSEA worked as a community partner with Shuksan and Whatcom Middle Schools to provide service learning projects through Project Connect. This program is a partnership program involving Western Washington University education students, eighth grade students and several community partners. NSEA worked with students who spent 66 hours improving riparian habitats along Squalicum Creek.

Streamside Science: High School Program

In 2007, NSEA worked with 23 high school students from Sehome, Squalicum, Bellingham, and Blaine High Schools. Students met at NSEA for six Saturdays and spent 405 hours learning about salmon and stream ecology, water quality, macroinvertebrates and the Squalicum Creek Watershed. Additionally, students apply their knowledge by designing and implementing a riparian restoration project.

Windward High School Stormwater Monitoring

In 2007 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 COF. WHS seniors Johnson Qu and Anjelika Derhgawen took the lead on the project late in 2007 by implementing a weekly monitoring schedule. WHS's ninth grade science classes taught by Chuck Schelle and Jeremy Birklid rotate through the monitoring schedule, getting hands-on experience with NSEA monitoring techniques. Results from water quality monitoring of the Schell Creek Watershed will be compiled and reported on by students at the end of the school year. As they collect water quality data to help the City better manage the Ferndale Watershed, Windward students will use what they learn about the state of Schell Creek's health to plan and implement a riparian restoration project in 2008. By combining science with service, the Stormwater Monitoring program has cultivated a powerful sense of stewardship in the students involved..



Nooksack Salmon Enhancement Association

Table 1: NSEA 2007 Projects

Creek	Landowner	Project	Improved access to (Miles)	Riparian (linear ft of streambank)	Channel modification (ft)	LWD Structures Installed (#)
Deer	Bouma	modified 350' of channel, place LWD			350	6
Jordan	Barr	Removed barrier culvert	1			
Arnold Slough	Hulbert	Replaced barrier culvert	0.3			
Black Slough	Hollinsworth	Placed LWD along 1500 feet of channel				14
Bodhi	Koon	Replace barrier culvert with bridge	0.5			
Bonnors	Cronk	Replaced barrier culvert	0.3			
Deer	Bailey	Modified channel, placed LWD			800	8
Deer	Dan Manthey	Bank stabilization				1
Fishtrap	Multiple	Remove RCG from 8000' of channel		1,000		
Fourmile	Sterk	Replaced barrier culvert	3.0			
Landingstrip	Chivers	Riparian planting		500		
Multiple	Multiple	Maintained / monitored over 30 past habitat enhancement project sites		20,000		
Power	Dalgren	Placed LWD along and planted 300 feet of channel				2
Scott Ditch	Hoksbergen	Placed LWD along 200 feet of channel		300		6
Silver Springs	Sundstrom	Placed LWD along and planted 300 feet of channel		300		7
Sneider Ditch	Zande	Removed Barrier Culvert	0.9			
Squalicum	Corey	Replaced barrier culvert with bridge	1.6			
Tenmile	Jansen	Replaced barrier culvert with bridge	4.0			
Tenmile	Sinlan	Riparian planting		900		
Tenmile	Meidal	Riparian planting		400		
Terrell	Butler	Removed concrete dam, modified and placed LWD along 400 feet of channel	3.0		400	8
Tinling	Brown	Constructed 4 rock weirs, Placed LWD along 300 feet of channel	0.4			7
Toss	Beyer	Replaced barrier culvert with bridge	1.0			
NSEA implemented 25 Salmon Habitat Enhancement Projects			16	3400	1550	59

Maintained over 30 previously planted sites

15 fish passage barriers were removed, improving access to over 16 miles of stream

Liam Wood Flyfishing and River Guardian School

For the fifth summer, The Art, Science and Ethics of Flyfishing was offered through Huxley College. The class is a project of the Liam Wood Flyfishing and River Guardian School, implemented by NSEA with partner Western Washington University. Huxley professor Dr. Leo Bodensteiner taught students in two full classes about stream ecology, fish, and macroinvertebrates; about flyfishing arts, materials and methods, and about ethics and stewardship issues during in-class lecture, lab sessions for casting practice and tying flies, and field trips to local watersheds to fish and study stream ecology.

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 make 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

Presentations: 74 presentations were made to different groups

Exhibits: Information about salmon, stream restoration, and NSEA was displayed at local events

Community Work Parties: 55 work parties were held in 2007 with 6356 hours donated by volunteers.

Stream Stewards

NSEA's Stream Stewards program supports five watershed steward groups, including Terrell, Schell, Squalicum, Whatcom, and Padden Creeks. With the help of other partners in our local watersheds, the Stream Stewards concept aims for each sub-basin (watershed) within Whatcom County to have a grassroots, sustainable Stream Stewards group to coordinate its own restoration efforts.

River Stewards

NSEA partnered with the United States Forest Service (USFS) Mount Baker Ranger District to implement the third year of the award-winning Nooksack River Stewards Program in 2007. This program is a collaboration designed to provide salmon-focused environmental educational opportunities to recreational users of the Nooksack River. The 2007 River Stewards team consisted of one NSEA staff member, three college interns, and one retired community member volunteer. The River Stewards were recruited and trained at the start of the summer recreation season and maintained a strong presence in the North Fork Nooksack Basin throughout the summer, with a field base at the USFS Glacier Public Service Center. River Stewards provide environmental education for people visiting the river, including presentations to rafting groups, campground guests, and others. More than 2,500 contacts were made with the public and 49 presentations were given. Volunteers contributed 338 hours to the program. In September, NSEA staff received a "Rise to the Future" award for public awareness from the U.S. Forest Service chief in Washington D.C. in recognition of this outstanding program.

Birch Bay State Park

NSEA provided a total of 10 campfire talks & stream walks at the state park focusing on salmon and Terrell Creek in a weekly summer program scheduled at Birch Bay State Park.

Salmon Summit

NSEA supported the 12th annual Salmon Summit, "Salmon Recovery in a Human Landscape: Working Towards Coexistence," hosted on November 17, 2007 by the Nooksack Recovery Team (NRT). Attended by more than 260 people, the conference was held at the St. Luke's Community Health Education Center in Bellingham. Established in 1994, the NRT energizes locally-driven watershed restoration efforts in Whatcom County through partner coordination, resource mobilization, and public education.

Monitoring

Water Quality: Students from Western Washington University monitored water quality in Terrell Creek.



Nooksack Salmon Enhancement Association

Spawner Surveys

Under the direction of Washington Department of Fish and Wildlife (WDFW), NSEA conducted spawning grounds surveys for late-run Chinook salmon, coho salmon, and chum salmon in 12 streams in the Nooksack Basin. Additional surveys were conducted on Terrell Creek, an independent drainage of the Strait of Georgia, and on Schell Creek, a tributary to the Lummi River. Surveys were conducted between September 12, 2007 and the end of 2007.

Spawner surveys are implemented to provide data to the fisheries co-managers of the Nooksack Basin (Lummi Nation,

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 an uncommonly dry fall and a very wet winter. The high stream-flows late in the season resulted in increased turbidity levels and made some streams unsurveyable. Some survey reaches, including Bertrand, Fishtrap, Smith, and Tenmile creeks, were not surveyed as regularly due to dangerous conditions.

PROJECT EXPENDITURES

Project Name	RFEG Funds	#Volunteer Hours	Volunteers @\$15.00/hr	Other Funds	TOTAL
Alcoa Foundation - Environmental Interns				6,044	6,044
ALEA - Water Quality Monitoring				4,583	4,583
ALEA - Support of Students for Salmon		906	13,590	12,001	25,591
ALEA - Habitat Restoration Materials				60,950	60,950
ALEA - Fish Monitoring		384	5,760	11,027	16,787
ALEA - WRIA 1 Fish Passage Project				54,408	54,408
Allmen Foundation - Operating Support				10,000	10,000
Birch Bay State Park - Education/Presentations		153	2,288	650	2,938
BP Cherry Point Refinery - Support for Terrell Creek				24,292	24,292
BP Cherry Point Refinery - Students for Salmon				18,583	18,583
Caitac - Developmental Support				15,000	15,000
City of Ferndale - Water Quality Monitoring		315	4,725	3,544	8,269
Conoco/Phillips - Middle School Service Learning		66	990	418	1,408
DOE CCW - Lower Nooksack Trib Restoration				63,795	63,795
DOE CCW- Squalicum Creek				4,399	4,399
DOE CCW - South Fork Trib Riparian Restoration				78,172	78,172
DOE CCW - Tenmile Creek Riparian Restoration				5,882	5,882
DOT - Terrell Creek Buffer Mitigation				2,104	2,104
DTA - Surveying				1,741	1,741
Durbin Estate - Membership Program				3,283	3,283
Flyfishing Program - Brabec/Robinson				4,066	4,066
Landowner Incentive Projects				24,658	24,658
Mountaineers - Nooksack River Stewards				1,366	1,366
NFWF - Community Salmon Fund				40,306	40,306
Nooksack Recovery Team Support				8,837	8,837
SRFB - Family Forest Fish Passage				196,109	196,109
Students For Salmon Community Fund				431	431
Terrell Creek Community Fund				429	429
USFS - Nooksack River Stewards		338	5,070	10,152	15,222
USFWS- Partners for Fish & Wildlife				80,988	80,988
Waste Action Project - Fishtrap Creek				10,692	10,692
WDFW- RFEG Funds - Administration	81,086	1,188	17,820		98,906
WDFW- RFEG Funds - Ed, Volunteer, Monitoring	28,126	15,278	229,178		257,304
WDFW- RFEG Funds - Habitat Restoration - Generic	48,681	6,356	95,340		144,021
Yamato Engines Fine Recovery - Streamside Science Ed.		405	6,075	4,676	10,751
Cash Donations				86,786	86,786
Donated Services				20,944	20,944
TOTAL	157,893	25,389	380,836	871,315	1,410,044

BOARD OF DIRECTORS

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Erica Bleke, *Student on Board, Post-Baccalaureate, WWU*

NSEA STAFF

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

STREAM RESTORATION TECHNICIANS

Dave Barker, John Hymas
Washington Conservation Corps/AmeriCorps placements
CrewSupervisors: Justin Lamb
Crewmembers: Courtney Altaras, Stephen Bean, Jezra Beaulieu, Ryan Janke
AmeriCorps Placements: Corrin Brecha, Kerry MacManus, Kyle Parker

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 Skagit Fisheries Enhancement Group is dedicated to involving our community in restoring wild salmon populations for future generations. Our region is very large including the Skagit and Samish River watersheds as well as the watersheds of the San Juan Islands and Northern Whidbey Island. The Skagit River is the largest river in Puget Sound and has the largest populations of Chinook salmon, pink salmon and bull trout. Therefore the task we have in front of us is beyond the scope of most salmon recovery efforts. However, preserving the rural character of the Skagit Valley is something most residents feel very strongly about, and is an enormous help when trying to protect and restore salmon for our children and grandchildren.

Our Annual Report is organized by Focal Area. Focal Areas are places where we feel we can have the greatest benefit to salmon with our limited financial resources. Utilizing Focal Areas we have been better able to integrate our education and restoration projects and make both programs more effective. This report covers the accomplishments in these Focal Areas over the 12 month period from January 2007 to December 2007.

Focal Areas where we concentrated work in 2007 include the Upper Skagit Floodplain, Middle Skagit Floodplain, Nookachamps Creek, Day Creek and Finney Creek watersheds. Projects ranged from large scale riparian restoration projects, building fences, installing large woody debris and community planting parties. Outreach and education programs were launched that target the communities living in each of these Focal Areas. By specifically tailoring our education programs to these communities we intend to increase engagement and action with local landowners and volunteers. SFEG also launched a new middle school education program called Junior Stream Stewards. This new program was a great success and has doubled in size for 2007.

In all SFEG had a fantastic year for community restoration thanks to our great staff, effective partnerships, willing landowners, hard working board members, dedicated volunteers and generous donors. We look forward to continuing our work with all of these constituents in the coming year.

PROJECT HIGHLIGHTS

NEARSHORE

Thatcher Bay

Thatcher Bay is located on the southwest side of Blakely Island in the San Juan Islands. Grant funds are being used to assess the potential for removing wood waste deposited by an old saw mill and the restoration possibilities that may exist. Wood waste

deposition creates an inhospitable environment for most near-shore life. Graduate students at the University of Washington are studying the impact of the wood waste on the nearshore environment, the costs and impacts associated with its removal and the potential for eelgrass (valuable rearing habitat for juvenile salmonids) to reestablish itself if the wood waste were removed.



Joel Breems, a UW graduate student, collects samples of wood waste from Thatcher Bay on Blakely Island

Deepwater Slough

SFEG is using new grant money from the US Fish and Wildlife Service Partners for Fish and Wildlife Program to install additional native plants and continue invasive species control at this WDFW owned restoration site. SFEG is partnering with the WDFW and the Skagit River System Cooperative to continue this native vegetation restoration project at Deepwater Slough along Skagit Bay where dikes were removed in 2000 to reestablish valuable estuary habitat.

River Awareness Month

Funding from Skagit County's Clean Water Program allowed SFEG to sponsor River Awareness Month at the Children's Museum of Skagit County in October 2007. Over 4,500 children visited the museum this month learning about the Skagit River, its salmon and water quality through exhibits and activities.

NOOKACHAMPS WATERSHED

Riparian Restoration

SFEG is using a Centennial Clean Water Fund Grant from the Department of Ecology to implement restoration projects to improve water quality in the Nookachamps watershed. SFEG used these funds to leverage additional grant funds from the Pioneers in Conservation to work with local farmers to protect water quality. Riparian restoration projects were focused on four sites (Murray, DeVries, Tewalt and Verdoes). An inventory of lands in private ownership conducted by the Skagit Land Trust

Skagit Fisheries Enhancement Group

helped to prioritize where future restoration and/or protection actions are needed to occur in order to help improve water quality. This prioritized list of properties will aid in the development of future projects and is being used to initiate contact with new landowners for protection and restoration projects by SFEG, the Skagit Land Trust and other partners.

Nookachamps Outreach

SFEG hosted a series of workshops and tours in 2007 to engage Nookachamps residents in learning more about their watershed, the salmon that live there and what they can do to help protect and improve habitat and water quality. One workshop combined natural and cultural history along with site visits, a Septics 101 class was offered in partnership with Skagit County and a watershed tour was given for area residents. Volunteers and school groups all contributed to revegetation efforts along local streams in order to reduce water temperature for salmonids.



You're never too young to help plant trees for fish habitat

DAY CREEK COMMUNITY WATERSHED

Morgan Creek

Several fish passage issues were identified through assessment work in the Morgan Creek area in recent years. Funds were secured this year to fix the fish passage problem nearest the outlet to Ross Island Slough. This culvert is located on Draper Valley property and was replaced with a bridge in the summer of 2007 with funding from the FishAmerica Foundation and the National Fish and Wildlife Foundation. This project improves fish passage to 3 miles of habitat. A second fish passage problem was identified on a tributary to Morgan Creek which has been funded for replacement by state grant funds in 2008.

Outreach and Education

Funding from the National Fish and Wildlife's Community Salmon Fund continued to fund outreach to local landowners to learn more about the creeks in the Day Creek Community Watershed.

Workshops and field trips were held in 2006 to share information and help the community learn more about the valuable resources within their watershed. Signs for stream crossings were created by the community and installed in 2007, as well as a booklet which summarizes the highlights of the Day Creek Community Watershed for local residents.



Kids learn about bugs, salmon and water quality on Finney Creek Family Day

Anderson Creek Habitat Enhancement

A partnership with Seattle City Light is restoring 125 acres of land protected around Anderson Creek and Ross Island Slough. Grant funds are being used to develop a restoration plan for Anderson Creek in partnership with City Light. In 2007 an unused farm crossing was removed to reconnect isolated habitat associated with important slough habitat.

Iron Mountain Ranch Habitat Enhancement

SFEG is working with Seattle City Light to protect and restore 2 miles of riparian habitat along the Skagit River. This property is adjacent to prime Chinook and steelhead spawning habitat. The Skagit Land Trust holds the conservation easement for City Light and a local farmer continues to lease land that is currently not being restored. New fences have been built to exclude livestock from large riparian areas and 35 acres has been revegetated with native plants by volunteers and staff.

FINNEY CREEK WATERSHED

Habitat Restoration

SFEG continued it's partnered with the US Forest Service and National Park Service to restore degraded habitat in Finney Creek. A new partnership was formed with Hampton Timber Farms to install log jams in Lower Finney Creek in 2008. Funding from multiple sources will be used to install 28 new log jams through a 1.6 mile reach of Finney Creek on Hampton Timber lands. As of 2007, our partnerships have restored 6 miles since

Skagit Fisheries Enhancement Group

1999 for this incredibly valuable lower Skagit tributary. Project planning and permitting continued for the next phase of restoration planned for summer 2008.

Outreach and Education

An outreach and education program continued in the Finney Creek watershed utilizing funding from the Department of Ecology. A watershed tour and two fish viewing workshops were held for local residents. Volunteers were engaged in collecting macroinvertebrates to track stream health. And the first ever Finney Family Day was held in cooperation with a local farm in order to better engage local kids and their parents in the conservation of Finney Creek.

MIDDLE SKAGIT WATERSHED

Elysian Meadows Riparian Restoration

The Skagit Land Trust and SFEG have partnered to protect approximately 112 acres along the Skagit River through a perpetual conservation easement. This project presents a rare opportunity to protect a large area of Skagit River floodplain in a dynamic reach of the river. SFEG is working with the landowners restore native vegetation on about 8 acres of floodplain property along the edge of the dedicated agricultural zone. Volunteers and staff have started this restoration effort.

Junior Stream Stewards

This watershed education and stewardship program was launched in 2006 and thanks to fundraising efforts by SFEG Board members and the generosity of many local businesses, this successful program doubled in size for 2007. Roughly 300 middle school students participated in Junior Stream Stewards, a 9 month program that challenges students to apply classroom lessons with a stream restoration project in their backyard. In a combination of classroom programs and field study trips, students learn all about salmon and the stream habitat that supports them by studying water quality, native plants, aquatic insects, the salmon life cycle and much more. The program culminates in a community service-learning project to protect and enhance their local stream, in partnership with local organizations, businesses and governments. Students from Concrete Middle School and Cascade Middle School participated in 2007.

UPPER SKAGIT WATERSHED

Nutrient Enhancement

Volunteers distributed 10,964 Chinook and coho carcasses in 2007 from the Marblemount State Hatchery back to natural streams. Partners contributing to this nutrient enhancement effort include: the USFS, Fidalgo Fly Fishers and ALEA Volunteer Cooperative Funds.

Howard Miller Steelhead Park

Funds from the US Fish and Wildlife Service and National Fish and Wildlife Foundation were used to start revegetation efforts at

Howard Miller Steelhead Park. This eastern Skagit County Park is a very popular spot for camping, boating and eagle viewing. Half the park is undeveloped for passive recreation use and in need of invasive removal and riparian enhancement. SFEG staff and volunteers have begun the battle with invasive species and have replanted the area with native plants. Three new interpretive signs were installed along a popular eagle viewing trail to educate thousands of visitors about salmon, eagles and trees.



Middle School Students participating in the Junior Stream Stewards program

Community Outreach

In 2005, SFEG began working with partners to train volunteers to give Hatchery Tours during the peak of eagle viewing season. These tours are meant to give visitors an opportunity to learn about salmon and how healthy salmon populations are vital to Skagit River eagle populations. Over 550 people attended the tours during the 2007 winter. Several workshops and tours were held in eastern Skagit County focused on educating local residents including a fish viewing tour, Skagit River Family Fest and a Septics 101 class.

Forest and Salmon Stewards

A modified version of the Junior Stream Stewards program was offered to Darrington classrooms. This modified program works with Snohomish County and includes a greater focus on forests as well as a "sister school" component. Darrington students get an opportunity to visit and assist students from a more urban setting with their restoration project and vice versa.

EFFECTIVENESS MONITORING

Volunteer Monitoring

SFEG strives to involve community members in all our salmon enhancement projects. One excellent way to engage volunteers is through monitoring the effectiveness of projects. SFEG holds two workshops each year to train volunteers to conduct different

Skagit Fisheries Enhancement Group

kinds of monitoring. The first workshop teaches volunteers how to collect physical data on streams including gradient, width, substrate, vegetation, pools, riffles, and much more. The second workshop trains volunteers to count returning adult salmon and their redds during spawner surveys. Volunteers also assist in a variety of project specific monitoring for revegetation and juvenile salmon. The data collected provides much needed information to funders and project partners related to the effectiveness of enhancement projects.



Adult coho salmon return to newly created habitat on Ennis Creek. Photo by Kari Nuemeyer

PROJECT EXPENDITURES						
Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	In-Kind Dollars	Other Funds	Total Spent
Administration	\$38,803.67	402	\$6,030	\$574		\$45,407
Anderson Creek		20	\$293	\$7,410	\$13,141	\$20,843
Barnes/Dittrich Creek					\$13,956	\$13,956
Berry Patch					\$77	\$77
Nutrient Enhancement		36	\$536		\$5,382	\$5,919
Cascade River Park		84	\$1,260		\$16,060	\$17,320
Childs Creek					\$398	\$398
Day Creek Watershed		137	\$2,051		\$8,906	\$10,957
Darrington Education		132	\$1,976		\$4,939	\$6,916
Deepwater Slough		21	\$308	\$180	\$3,492	\$3,979
Edgewater					\$833	\$833
Education & Outreach	\$15,743.96	517	\$7,751		\$10,331	\$33,826
Ennis Creek and NP Creeks		251	\$3,758	\$32,769	\$51,930	\$88,457
Elysian Meadows					\$376	\$376
Finney Creek		430	\$6,443	\$29,792	\$96,002	\$132,237
Fundraising		479	\$7,185			\$7,185
General Restoration		103	\$1,538		\$4,448	\$19,168
Upper Skagit Watershed		1,127	\$16,898	\$45	\$31,502	\$48,444
Iron Mountain Ranch		386	\$5,786		\$32,384	\$38,170
Junior Stream Stewards		240	\$3,600		\$7,325	\$10,925
Parson Creek		76	\$1,140		\$134,340	\$135,480
Thatcher Bay		24	\$360	\$210	\$24,648	\$25,218
McElroy Slough		25	\$368	\$698,936	\$454,700	\$1,154,004
Monitoring	\$33,739.60	1,277	\$19,159		\$2,024	\$54,922
Morgan Creek Assessment		25	\$375		\$14,051	\$14,426
Nookachamps Riparian Restoration		771	\$11,561	\$5,016	\$72,473	\$89,050
Native Plant Nursery		471	\$7,069	\$231	\$4,806	\$12,106
Project Development	\$13,182.98	418	\$6,263			\$19,445
Suiattle Slough		22	\$323		\$728	\$1,051
WCC/WSC Americorps	\$10,876.21	526	\$7,890			\$18,766
Wiseman Creek		41	\$608		\$13,127	\$13,735
Totals	\$112,346.42	8,035	\$120,525	\$775,162	\$1,022,379	\$2,043,595

Skagit Fisheries Enhancement Group

BOARD OF DIRECTORS

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Chris Kowitz, Biologist
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Boshie Morris, Self Employed

STAFF MEMBERS

Alison Studley, Executive Director
Lucy Applegate, Outreach Coordinator
Perry Welch, Project Manager
Mary Mae Hardt, Finance Manager

FIELD CREW

Joe George, Restoration Technician
Andrew Beckman, Restoration Technician
Kara Bloch, Restoration Technician
Kyle Koch, Restoration Technician through Washington Conservation Corps
Sacha Johnson, Education Assistant through Washington Service Corps

CONTACT INFORMATION

Skagit Fisheries Enhancement Group
PO Box 2497 – 407 Main Street, Suite 212
Mount Vernon, WA 98273
Phone: 360-336-0172
Fax: 360-336-0701
Website: www.skagitfisheries.org
Email: sfeg@skagitfisheries.org



**SKAGIT FISHERIES
ENHANCEMENT GROUP**

Stilly-Snohomish Fisheries Enhancement Task Force

MISSION STATEMENT

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

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

RFEF OVERVIEW

The Task Force is a 501(c)(3) public non-profit community-based and volunteer-supported organization with a dedicated base of members, volunteers, local business partners, as well as private and public landowners. We cooperate with Federal, State, county and city agencies, tribes, other non-profit organizations, Conservation Districts, local community colleges, school districts, scout troops, businesses and fishing clubs. These alliances provide an invaluable source of donated labor, services, and cash match to support our projects and programs 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 1,500 volunteers for over 9,150 hours of community volunteers and students to create long-lasting results for future generations.

HABITAT RESTORATION

Canyon Creek Fish Passage and Habitat Enhancement, Fall City

The Task Force completed a multi-year restoration project on Canyon Creek at The Members Club at Aldarra (TMCA) golf course. TMCA donated 31 pieces of large wood which were placed along 1,000 feet of the stream to enhance pool quality. In addition to wood placement, a concrete dam was notched to improve fish passage. Volunteers topped off the restoration effort by planting nearly 1,500 native shrubs and trees on 1 acre in the lower floodplain.

Landowner: TMCA

Partners: TMCA, Washington Conservation Corps-AmeriCorps (WCC) crew, Washington State Dept. of Corrections (WSDOC), King Conservation District (KCD), Edmonds Community College LEAF School

Funding: National Fish & Wildlife Foundation (NFWF) King County Waterworks Community Salmon Fund (CSF)

Snoqualmie River Floodplain Restoration, Duvall

Situated in the heart of the City of Duvall, McCormick Park is a 175-acre, highly visible, and well-used park. The Task Force continued its riparian planting efforts with volunteers installing 1,350 native plants along 800 linear feet of river, restoring over 1.5 acres with a buffer width of 100 feet.

Landowner: City of Duvall

Partners: City of Duvall, WCC, WSDOC, Edmonds CC LEAF School

Funding: KCD, USFWS



Pilchuck River Habitat Enhancement, Granite Falls

In cooperation with private landowners, the Task Force, with assistance from Stillaguamish BankSavers, placed 55 pieces of large wood along 365 feet of river. Volunteers planted 500 native plants on 0.4 acres; the WCC field crew installed 750 livestock cuttings. During the planting event, volunteers watched Chinook salmon spawning in the river adjacent to the project site.

Landowner: Dahl Family

Funding: NFWF Snohomish Basin CSF, RFEF Funds, Dahl Family

Partners: Stillaguamish BankSavers, WCC, Snohomish County Surface Water Management

Snoqualmie River Riparian Enhancement, Carnation

The Task Force teamed up with Washington Department of Fish and Wildlife (WDFW) to begin an ambitious 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 first year of work at Stillwater, volunteers planted 3,050 native trees and shrubs on 12 acres.

Landowner: WDFW

Partners: WDFW, WCC, WSDOC, LEAF School

Funding: KCD and Seattle City Light

Stilly-Snohomish Fisheries Enhancement Task Force

Education

Education is an important piece of the salmon conservation puzzle. From brief demonstrations at volunteer events and presentations for community groups, to more in-depth lessons at local schools, the Task Force's Education Program serves to inform and engage community members on several levels.

One highlight of our educational and outreach efforts is the Restoration Education for Young Stewards (REYS) program, an integrated series of eight classroom or field-based lessons, for grades 4-8, about salmon biology, watersheds, and ecology in general. REYS offers students the opportunity to learn about ecosystems, enhance their scientific inquiry and investigation skills, and design solutions for real-world restoration problems. We use inquiry-based learning techniques, allowing students to discover concepts on their own, through personal experience, instead of through reading or lectures. REYS has proven to be an exemplary curriculum, effective in improving students' critical thinking skills, science test scores, and environmental awareness. Funding for REYS in the 2007-08 school year was provided by the Environmental Protection Agency (EPA), and the Anne & Mary Arts and Environmental Education Fund at the Greater Everett Community Foundation.



REYS activities include collecting and analyzing water quality and plant data, performing controlled investigations using models, and creating keys to sort organisms by physical characteristics. Students also design and implement their own experimental stream restoration projects. Finally, students design interpretive signs for their restoration area.

In the 2007-08 school year, seven classrooms of 4th-7th graders (**nearly 180 students**) from Pioneer Elementary in Arlington, and Centennial Middle School, Totem Falls and Machias Elementary Schools in Snohomish participated in REYS. Examples of some of the student-directed questions for their experimental restoration project included: "How do different amounts of water affect reed canary grass growth," or "How do evergreen versus deciduous trees affect the growth of Himalayan blackberry?" Ultimately, students applied what they learned by planting 630 native trees and shrubs along local salmon-bearing streams including Prairie Creek and the Snoqualmie River.

In addition to the REYS students, over **1,300 students** participated in other educational opportunities offered by the Task Force. Students from Highline High School in Burien, Chief Kanim Middle School in Snoqualmie, Tolt Middle School in Carnation, Allen Creek Elementary in Marysville, English Crossing Elementary in Lakewood, and Highland Elementary in Lake Stevens, spent a day in the dirt planting trees and restoring salmon habitat in their community. The Task Force also engaged students from almost every 5th grade classroom in Marysville School District leading students on fieldtrips to District-owned Jones Creek Outdoor Learning Center where students explored the wonders of wetland and stream ecosystems. Finally, youth from Lynnwood High School, local Girl and Boy Scout troops, YMCA summer camps, and home-school groups participated in hands-on learning about watersheds and water quality.

The Task Force also provides educational opportunities for adults. Besides presentations to community groups, we recruit students from local community colleges and four-year universities as volunteer interns. This year college students from Western Washington University, Edmonds Community College, and Cascadia Community College took advantage of this opportunity. They were able to develop on-the-job skills while providing valuable data collection and project support to the Task Force's staff and programs. Overall, the Task Force strives to offer a wide variety of educational opportunities which both suit the needs of community members and help facilitate the cultural shift necessary to complete our salmon-saving mission.

Community Outreach

Because aquatic debris poses a potential threat to the quality of habitat and the survival of salmon in Puget Sound and our watersheds, the Task Force established a **River and Beach Clean-up Program** in the summer of 2005. We have since helped establish the Snohomish-Camano Nearshore Cooperative Committee (NCC), a cooperative group that brings partners together to coordinate efforts and create synergistic relationships between like-minded organizations. Other participants in this committee include: *WSU Beach Watchers/Skagit and Snohomish Counties*

Stilly-Snohomish Fisheries Enhancement Task Force

(Beach Watchers), People For Puget Sound, Snohomish County Marine Resources Committee, Puget Soundkeeper Alliance (PSA), Stillaguamish Tribe of Indians, Puget Sound Partnership, City of Edmonds Parks, City of Everett Parks, Edmonds Community College, Snohomish County Surface Water Management, Tulalip Tribes, Stillaguamish Tribe and Port of Everett. The primary goal of the River and Beach Clean-up Program is to provide citizens with education about, and involvement in, river and beach stewardship.



The Task Force worked with NCC partners to host “Beach Expos” at two of five beach cleanups. The Task Force also held two river cleanups, one in the Stillaguamish, the other in the Snohomish. Nearly 120 volunteers donated 500 hours of time, as they collected beach and river debris, removed invasive plant species, learned about the nearshore environment, experienced touch-tanks, and engaged in low tide “beach walks” with Beach Watcher naturalists.

In addition to Beach Expos, and river and beach clean-ups, the Task Force worked with PSA to coordinate a Citizen Soundkeeper Training. The training educated beach and river aficionados, about how to spot and report illegal pollution harmful to Puget Sound waters.

Volunteers : 116

Volunteer Hours: 501

Volunteer Value: \$9,027

Bags of Garbage Collected: 140

Bags of Ivy Removed: 30

Funder: Tulalip Tribes Charitable Foundation

The Task Force made a decision to perform outreach through **presence at activities** throughout our region. We attended three Salmon Days events for the Everett Steelhead & Salmon Club, Boeing Health and Safety Fairs, the Naval Station Everett Earth Day Fair, Marysville’s Earth Walk Adventure and Fair, the Festival of the River, and United Way’s Volunteer Expo at the Everett Mall. The Task Force also made presentations to homeowner’s organizations. The Task Force is working to meet with local city council and staff in the municipalities that have benefited from

Task Force staff and volunteer efforts.

The **Lead Entity Process** is an effort the Task Force takes seriously, as well. 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 Salmonid 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.

The Task Force continued its partnership with the **Learn-serve Environmental Anthropology Field (LEAF) School at Edmonds Community College**, which consists of a series of courses in Human Ecological Stewardship. LEAF classes run fall, spring and summer quarters, and the Task Force’s programs feature prevalently in their curriculum. These students not only gain salmon habitat restoration knowledge through hands-on experience, but also provide a valuable volunteer service for the Task Force, helping to remove trash along our waterways, monitoring vegetation survival, knocking down knotweed, performing stream cross sections to determine the success of large woody material structures, maintaining existing plantings, and removing invasive plants from the nearshore and riparian environments. This is an example of the types of collaborative efforts that make a difference to the Task Force program.

Nutrient Enhancement

The Task Force began its Nutrient Enhancement program in fall 2003, in cooperation with the Stillaguamish Tribal Hatchery. Salmon carcasses are an important source of marine-derived nutrients for the freshwater and terrestrial ecosystems, and play a key role in maintaining the productivity of these ecosystems. Due to reduced salmon numbers, many streams and rivers have become deficient of nutrients such as carbon, nitrogen, and phosphorous. Dead salmon serve as direct and indirect food and energy sources to many species, including juvenile salmon, birds, mammals, and macroinvertebrates. In fact, the biodiversity and productivity of the whole watershed depends on the return of salmon.

Each year, with the help of the Stillaguamish Tribal Fish Hatchery and enthusiastic volunteers, the Task Force attempts to maintain the level of marine-derived nutrients in local salmon-deprived streams until salmon populations can improve. These streams are located on private forestland, owned and maintained by the Pilchuck Tree Farm. This year, after several setbacks and cancellations, volunteers finally had the opportunity to get slimy for the sake of salmon. The Fish Flings were whittled down to just two after a low initial return of chum salmon and several days of flooding. That didn’t discourage volunteers who were awaiting their day to fling salmon carcasses into the headwaters of Rock, Kuntz, and Harvey Creeks in early December. Volunteers and WCC AmeriCorps members added 250 chum to Harvey and Kunz creek.

Stilly-Snohomish Fisheries Enhancement Task Force

Assessment, Monitoring, Research

Stillaguamish Knotweed Control Project

The Stillaguamish River basin is quickly becoming infested with invasive knotweed, an aggressive noxious weed species. The Task Force and other members of the Stillaguamish Cooperative Weed Management Area (CWMA) have surveyed, and are working to control knotweed throughout the basin in both the mainstems and the tributaries of the Stillaguamish. The Task Force and its partners work with willing landowners to treat knotweed in riparian areas. In 2007, Washington State Department of Agriculture (WSDA) contributed funding to continue work in three tributaries to the South Fork Stillaguamish. In 2008, the Task Force received an additional \$345,000 between a Department of Ecology Centennial Clean Water grant and a Salmon Recovery Funding Board grant, to continue control efforts, and begin restoration work, as well. The Task Force surveyed for the upstream sources of knotweed on tributaries to the South Fork Stillaguamish River. Control efforts of this noxious weed focused on three South Fork Stillaguamish tributaries in 2007: Jim, Canyon, and Turlo Creeks. The Task Force also began outreach and planning for riparian revegetation following knotweed control efforts along several reaches of these tributaries.

Number of Willing Landowners: 110 **Length of Stream Surveyed:** 20.5 Miles **Length of Stream Treated:** 9.8 miles **Acres of Knotweed Treated:** 4.16 **Partners:** US Forest Service – Mt. Baker-Snoqualmie Forest; Stillaguamish Tribe of Indians; WA Dept. of Natural Resources; WDFW; WSDA; Snohomish County; Noxious Weed Control Board, Surface Water Management and

Parks Dept.; Skagit County Noxious Weed Control Board; Snohomish Conservation District; The Nature Conservancy

Monitoring is important to the success of habitat restoration projects. Task Force staff and volunteers, including Edmonds Community College's LEAF School, assisted with vegetation monitoring at several project sites. Vegetation was monitored for plant survival, vigor, and species composition. The growth rate of invasive plants within the restoration sites were also monitored and used to determine the maintenance regime for sites.

Several other types of monitoring were conducted in the Stillaguamish and Snohomish Basins. In the Stillaguamish Basin, macroinvertebrates were collected in Jim Creek, Canyon Creek and Turlo Creek as part of a long-term, biological index study. Stream temperature was recorded continuously over a three-month time period from June through September. Substrate samples, riparian vegetation assessment and canopy cover data were also collected to establish base-line data that will be incorporated into Snohomish County's stream monitoring database.

In the Snohomish Basin, monitoring of in-stream large woody debris (LWD) was conducted. Twelve log structures were placed in Canyon Creek during the summer of 2007. Each structure was examined to see if it was intact, if the cables were secure, and if any additional wood was collected. Stream surveys were conducted at each structure. Pool formation and channel morphology were measured below each structure, adding to baseline data that was recorded prior to structure placement. Over time, this data will allow us to monitor changes in channel habitat due to the addition of LWD.



PROJECT EXPENDITURES

PROJECT	Vol hours	Total Volunteer Hours	Total Value Vol Time	RFEF Funds	Other Funds	Total
Administration	0	0	\$0	\$4,490	\$0	\$4,490
Executive Director	160.25	160.25	\$2,885	\$16,331	\$0	\$19,215
Volunteer & Education Coordinator	94.25	94.25	\$1,697	\$8,403	\$0	\$10,100
Project Equipment	0	0	\$0	\$630	\$474	\$1,104
Program Infrastructure	1	1	\$18	\$36,039	\$2,365	\$38,422
Project Manager	0	0	\$0	\$5,384	\$0	\$5,384
Habitat Restoration Technician (WCC IP's)	426	426	\$7,668	\$5,762	\$0	\$13,430
Grant Writing	31	31	\$558	\$11,131	\$175	\$11,864
Lead Entity Process	24	24	\$432	\$2,176	\$0	\$2,608
RFEF/CAB Meetings, Reports, etc.	0	0	\$0	\$4,534	\$0	\$4,534
Fundraising	0	0	\$0	\$906	\$0	\$906
Outreach & Restoration Coordinator	0	0	\$0	\$2,593	\$0	\$2,593
Annual Meeting	169	169	\$3,042	\$5,748	\$5,949	\$14,739
Habitat Restoration Specialist	0	0	\$0	\$6,259	\$0	\$6,259
Bookkeeper	0	0	\$0	\$568	\$0	\$568
Program Management Totals	905.5	905.5	\$16,299	\$104,126	\$8,963	\$129,388
Education – General	0	0	\$0	\$3,000	\$0	\$3,000
Volunteer Stipend*	0	0	\$0	\$400	\$0	\$400
Krueger Creek	0	0	\$0	\$0	\$48	\$48
Curriculum Development	0	0	\$0	\$0	\$560	\$560
Classrooms/Presentations	143	143	\$2,574	\$6,610	\$6,600	\$15,784
Jones Creek	1384	1384	\$24,912	\$0	\$5,156	\$30,068
Restoration Education for Young Stewards	141	141	\$1,902	\$161	\$45,051	\$47,114
Quilceda/Allen Education	154	154	\$2,772	\$669	\$12,430	\$15,871
Nearshore Cooperative Committee	69	69	\$1,242	\$241	\$0	\$1,483
WSU Salmon & Forest Education	0	0	\$0	\$0	\$1,412	\$1,412
Snoqualmie Education - Snoqualmie Forum	0	0	\$0	\$0	\$2,636	\$2,636
Education Program Totals	1891	1891	\$32,160	\$10,841	\$69,844	\$112,845
Habitat – General	0	0	\$0	\$1,520	\$0	\$1,520
Buck Island	66	66	\$1,188	\$1,040	\$729	\$2,957
Portage Creek Stewardship	0	0	\$0	\$0	\$54	\$54
Prairie Creek Revegetation	344	344	\$6,192	\$0	\$6,618	\$12,810
Nursery	189	189	\$3,402	\$3,190	\$5,732	\$12,324
Sno-Isle Stream Habitat	19	19	\$342	\$2,846	\$0	\$3,188
Stillaguamish Stream Habitat	0	0	\$0	\$1,021	\$0	\$1,021
WCC Crew	18	18	\$324	\$8,735	\$58,893	\$67,952
Canyon Creek/Aldarra Golf Club	705	705	\$12,039	\$1,484	\$44,853	\$58,376
Stilly Knotweed CWMA	60.75	60.75	\$1,043	\$0	\$21,721	\$22,764
City of Snohomish – Habitat	0	0	\$0	\$0	\$339	\$339
Pilchuck River - Dahl	227.5	227.5	\$4,095	\$2,351	\$55,042	\$61,487
Kissee & Barr Creek Restoration	143	143	\$2,574	\$49	\$295	\$2,918
Tychman Slough Restoration	0	0	\$0	\$226	\$0	\$226
Smokes Farm	0	0	\$0	\$29	\$0	\$29
River & Beach Cleanups	501.5	501.5	\$9,027	\$774	\$4,065	\$13,865
Stilly Knotweed Control	0	0	\$0	\$722	\$10,025	\$10,747
Snoqualmie River-Duvall	815.75	815.75	\$14,684	\$0	\$39,905	\$54,588
West Fork Woods Creek-Gerdes	11	11	\$198	\$0	\$10,843	\$11,041
Allen Creek - Jennings Nature Park	0	0	\$0	\$0	\$1,116	\$1,116
Stilly Knotweed Restoration	10	10	\$180	\$0	\$3,007	\$3,187
Stillwater Restoration	1712	1712	\$30,816	\$0	\$57,989	\$88,805
WSDOC Crew - Snoqualmie Forum	0	0	\$0	\$0	\$448	\$448
Pilchuck River - Reach	25	25	\$450	\$276	\$8,144	\$8,870
Pilchuck - McDowell	12	12	\$216	\$0	\$8,207	\$8,423
City of Arlington - Eagle Creek	586.5	586.5	\$10,557	\$0	\$3,634	\$14,191
Snohomish Conservation District	265	265	\$4,770	\$0	\$2,970	\$7,740
Snohomish County SWM	0	0	\$0	\$0	\$1,025	\$1,025
Habitat Program Totals	5711	5711	\$102,097	\$24,263	\$341,658	\$463,248
Monitoring - General	0	0	\$0	\$64	\$0	\$64
Stilly Knotweed Monitoring	100	100	\$1,800	\$1,125	\$14,118	\$17,042

Stilly-Snohomish Fisheries Enhancement Task Force

PROJECT EXPENDITURES (continued)

PROJECT	Vol hours	Total Volunteer Hours	Total Value Vol Time	RFEF Funds	Other Funds	Total
Monitoring Program Totals	100	100	\$1,800	\$1,125	\$14,118	\$17,042
Carcass Distributions	17	17	\$306	\$1,337	\$0	\$1,643
Carcass Distributions Totals	17	17	\$306	\$1,337	\$0	\$1,643
Fish Production – General	0	0	\$0	\$148	\$0	\$148
Possession Bait Coho Rearing Pond	300	300	\$5,400	\$1,589	\$50,885	\$57,874
Everett Net Pen	231	231	\$4,158	\$150	\$31,541	\$35,849
Fish Production Totals	531	531	\$9,558	\$1,888	\$82,426	\$93,872
SSFETF ORGANIZATION TOTAL	9,156	9,156	\$162,220	\$143,580	\$517,009	\$818,038

DIRECTORS

Dave Ward, President
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AFFILIATION

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

STAFF

Address staff mail to Task Force mailing address

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

Jason Anderson
 Habitat Project Manager
 425-425-268-0612 cell phone
jason@stillysnofish.org email

Cara Ianni
 Education Program Manager
 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
brian@stillysnofish.org email

Christi Hardy

Fundraising Specialist
nc_hardy@comcast.net email

Task Force Office Info**Mailing Address:**

P.O. Box 5006
 Everett WA 98206

Physical/Shipping Address:

2723 Hoyt Avenue
 Everett, WA 98201
 425-252-6686 office
 425-252-6686 fax
info@stillysnofish.org 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 benefits 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

Wilson Creek

The purpose of the Wilson Creek Salmon Restoration Project is to improve stream quality and habitat in order to support a viable salmon spawning population. This project will provide the stream restoration and fish enhancement plans needed to further define the project before the construction phase and actual salmon rearing work can begin.

The long term goal is to restore salmon runs to near historical levels and have an educational facility to witness the process. The mid term goal is to restore Wilson Creek's spawning and rearing habitat, to explore the possibility of converting an ancient foundation into a rearing pond, and restore salmon runs using in-stream incubators. The short term goal is to develop the plans

necessary to accomplish these goals, to begin immediately rehabilitating the canyon with conifers, and to broaden volunteer monitoring efforts which have been underway since 2005 and to begin removal of an acre of blackberries at the mouth of the creek.

This project will conduct all the necessary studies and planning necessary to ensure that once the project work begins it will be successful. Community support includes **Friends of Wilson Creek, WSU Master Gardeners, Kitsap County Health Department, SSWM, Department of Community Development Stream Team, Kitsap Conservation District, Kitsap Noxious Weed Supervisor and South Kitsap School District.**



May Creek

This project is a partnership between King County WLRD, Mid Sound and local landowners to cooperatively implement Recommendation #5 of the May Creek Basin Action Plan. Specifically, Mid Sound hopes to meet the following goals while enhancing habitat for fish and wildlife.

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

To date Mid Sound and its consulting team has developed a DRAFT Conceptual Restoration Plan which details 33 specific actions being proposed within May Valley and the transition zone between the valley and the steep canyon section downstream. Additionally, we have worked with 4 landowners in the lower val-

Mid Puget Sound Fisheries Enhancement Group

ley to remove Reed Canary Grass. These projects, completed in December of 2008 will provide temporary reduction of flooding in the immediate project area. The next step will be to conduct SEPA review on the entire plan. This step will allow permitting of future projects to occur more smoothly.

Barker Creek

The Barker Creek Estuary Culvert Replacement Project will restore natural estuarine function and sediment transport, and ensure unobstructed fish passage. Barker Creek is located on the Kitsap Peninsula and is a significant source of fresh water input to Dyes Inlet. Barker and its main tributary, Hoot Creek have spawning Chinook, Coho, Chum, Cutthroat and Steelhead. The Barker Creek estuary is bisected by Tracyton Blvd. at the project location. The existing 100-foot long, 5-foot diameter, concrete culvert has confined the conveyance of stream flow and tidal inundation into the upper estuary since 1939.



Tidal influence currently extends 150 feet upstream of the existing culvert inlet. During high tide events, the stream flow backs up at the culvert and floods the upper estuary with fresh water. Upstream migration of saltwater during high tide is inhibited by the size of the culvert, and proper mixing of fresh and salt water does not occur. During low tide and high flow events, the existing culvert creates a partial passage barrier for migrating anadromous fish species due to high velocities.

The project proposes to install a large, more natural opening under the road prism, allowing the salt wedge to migrate into the upper estuary unimpeded, providing proper mixing of fresh and salt water and ensuring unobstructed fish passage during all flow regimes. This project is near complete at the time of this writing.

Indianola/Miller Bay Waterfront Preserve

Kitsap County has acquired several land parcels around Miller Bay to protect the uplands, streams flowing through these parcels and the Miller Bay Estuary. One such parcel is 3.5 acres of nearshore located near Indianola and known as the Indianola Waterfront Preserve. This parcel includes significant estuarine habitat that historically was part of Miller Bay. This parcel is located on the Port Madison Indian Reservation. The estuarine habitat is currently restricted to a 15" culvert under Chief Sealth Drive.

Mid Sound is working with GeoEngineers, The Suquamish Tribe Fisheries Department, Kitsap County and the Indian Bay Homeowners Association to come up with a bridge design to replace the culvert, and restore the natural ecological function of the estuary. This project will deliver preliminary design plans to a level sufficient to begin the permitting process.

The designs for this project have been completed and Mid Sound has entered into a contract with Kitsap County Parks and Recreation to provide Project Management services during project permitting, bid solicitation and construction.

PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total
Administration	\$60,586	216	\$3,240	\$5,102	\$68,928
Habitat Restoration	\$107,031	432	\$6,480	\$370,785	\$484,296
Outreach & Education	\$12,059	250	\$3,750	\$1,740	\$17,549
Total	\$179,676	898	\$13,470	\$377,627	\$570,773

BOARD OF DIRECTORS

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Rob Fritz, King County DOT

Bill Robinson

Willy O'Neil

In Memorium

STAFF

Executive Director

Troy Fields

Project Manager

Brian Reese

Project Manager

Mattia Boscolo

Restoration Technicians

Nick Boyce

CONTACT INFORMATION

7400 Sand Point Way NE, Suite 202 North

Seattle, WA 98115

(206) 529-9467 (phone)

(206) 529-9468 (fax)

www.midsoundfisheries.org

South Puget Sound Salmon Enhancement Group

MISSION STATEMENT

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

RFEG OVERVIEW

SPSSEG covers a large, diverse area with several counties, watersheds and opportunities for salmon restoration. The area includes the Puyallup, Nisqually, and Deschutes River systems, their respective tributaries and hundreds of small streams draining directly to South Puget Sound. From July 1, 2007 to June 30, 2008, we completed eight in-stream restoration projects, conducted and/or participated in numerous education and assessment projects and have fourteen on-the-ground projects in progress.



A nine-member board provides a wealth of technical expertise and institutional knowledge for this 17 year-old RFEG. The Group has well established partnerships with federal, state, and local agencies including US Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), National Fish and Wildlife Foundation, Salmon Recovery Funding Board (SRFB), Department of Ecology, Pierce County, Thurston County, Mason County, Kitsap County, Pierce Conservation District, Thurston Conservation District, Mason Conservation District, Green Diamond Resources, Taylor Shellfish, South Sound Fly Fishers, Squaxin Island Tribe, Nisqually Indian Tribe, Puyallup Indian Tribe, Northwest Indian Fisheries Commission, among others. There are four full time SPSSEG employees, one part time field and office assistant, and a part time accounts manager.

Numerous property owners, businesses, families and other salmon supporters comprise SPSSEG membership. The membership is complimented by non-member donors and volunteers who contribute valuable time and money. A newsletter and annual meetings help the membership, staff, and board keep in touch with our supporters.

RIPARIAN PLANTING

Horn Creek (Completed)

This USFWS funded project planted approximately 3.5 acres of riparian area on Horn Creek, on Wilcox Farm property. This planting partnered with the Nisqually Tribe and created a 100 foot buffer along the lower 1,000 feet of Horn Creek that was degraded due to historical farming practices. Project was completed in fall 2007. WRIA 11

Mashel (Completed)

This NFWF funded project planted approximately 3 acres of riparian area on and around SPSSEG log jams on the Mashel River. Project was completed in fall 2007. WRIA 11

PROJECT HIGHLIGHTS

IN-STREAM HABITAT PROJECTS

Silver Creek Dam Removal (Completed)

This USFWS funded project removed a defunct wooden dam built in the 1930s for a federal fish hatchery from Silver Creek, a tributary to the Upper White River. SPSSEG staff was responsible for all permit and construction activities. The U.S. Fish and Wildlife Service funded the project, and provided turbidity monitoring during the construction period and will monitor streambed conditions through a full cycle of high and low flows. Construction was completed in fall 2007. WRIA 10

Greenwater ELJ and Road Removal (In Progress)

The Greenwater Engineered Log Jam (ELJ) and Road Removal project, funded by SRFB and the USDA Forest Service, will continue the restoration efforts in this clear-water tributary of the



South Puget Sound Salmon Enhancement Group

Upper White River. The project is still in pre-design phase, with a design team hard at work refining locations for ELJ structures and surveying decommissioned road segments to remove from the floodplain. Construction is scheduled for the summer of 2009. WRIA 10

Mashel River Restoration (Completed)

The Mashel River Restoration project, funded by Nisqually Land Trust, SRFB, NFWF, FAF, Nisqually Tribe, and others, was fully completed in mid-October 2007. Log jams placed two years ago have weathered high flow events, and are currently functioning well as geomorphic features and habitat structures. Ongoing monitoring will yield valuable information for upcoming projects. WRIA 11



Nisqually Pines Fish Passage (In Progress)

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

Kronis Creek (In Progress)

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

Powell Creek Culvert and Road Removal (In Progress)

SPSSEG is partnering with the Nisqually Land Trust and Nisqually Tribe to remove three culverts and abandoned a road in the Nisqually flood plain. The project is slated to begin in fall 2008. WRIA 11

Powell Creek Culvert Replacement (In Progress)

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

Ohop Restoration (In Progress)

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



Clover Creek Stream Restoration (In Progress)

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

McLane Creek Restoration (Completed)

This NFWF funded project installed four small LWD jams on McLane Creek near the confluence of Swift Creek. Two acres of riparian area was also be improved by an invasive plant removal and native planting. Construction was completed in summer 2007. WRIA 13

Little Fish Trap (In Progress)

This SRFB-funded nearshore project will repair a modified spit and estuary in Puget Sound. SPSSEG will utilize historical information to repair past human disturbances. The project will restore the tidal channel to its original location and reconfigure the spit to function naturally. Construction is scheduled for 2009. WRIA 13

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Woodland Creek (In-Progress)

SPSSEG will partner with St. Martins University to restore a small reach in Woodland Creek. A partial fish barrier will be fixed using a roughened channel approach. The project will improve fish passage and sediment delivery downstream. A small timber bridge will also be replaced by the university. This project is scheduled for fall 2009.



Skookum Inlet Restoration (Completed)

This DOE and SRFB-funded project replaced a small barrier tidal culvert with a wooden bridge. Post project conditions increased tidal inundation and fish passage to a small estuary. Construction was completed in summer 2007. WRIA 14

Frye Cove Restoration (In Progress)

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

Frye Cove County Park (In Progress)

This SRFB-funded nearshore project will remove 450' of a rock rip rap bulkhead along a local Puget Sound beach. LWD will be incorporated into the final design. The project is located at a Thurston County Park. Construction is scheduled for spring 2009. WRIA 14

Pirates Cove Restoration (In Progress)

This SRFB-funded nearshore project will repair a human-modified spit and remove a tidal road prism from Puget Sound. The project will improve natural tidal conditions and restore a historical barrier spit and estuary. Construction is scheduled for fall 2008. WRIA 14

Walker Boat Ramp (Completed)

This NFWF-funded project removed a derelict concrete boat ramp from the Puget Sound. The project is located at a Mason County Park. Construction was completed in summer 2007. WRIA 14

Hiawata Creek Fish Passage (In Progress)

SPSSEG has been awarded a SRFB grant (partially funded by Mason County) to replace an impassable culvert on Hiawata Creek, a tributary to South Puget Sound. The project will result in a more substantial salmon and cutthroat trout population in the creek and Puget Sound. Construction is scheduled for summer 2008. WRIA 14

Jarrell Cove (In Progress)

SPSSEG has been awarded a SRFB grant (partially funded by Mason County) to replace an impassable culvert at the tidewater mouth of Jarrell Cove Creek, a tributary to South Puget Sound. The project will result in a more substantial salmon and cutthroat trout population in the creek and Puget Sound. Construction is scheduled for summer 2009. WRIA 14

Rocky Creek (Completed)

In partnership with Pierce County, SPSSEG replaced a 7.5-foot round pipe with a 30-foot concrete box culvert on the Key Peninsula. This collaborative funding effort between SRFB, USFWS, and Pierce County addressed the last barrier to fish migration in the Rocky Creek basin. The project was completed in fall 2007. WRIA 15



ASSESSMENTS, MONITORING, RESEARCH

WRIA 11-12 Nearshore Assessment (In Progress)

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

South Puget Sound Salmon Enhancement Group



Mashel River Effectiveness Monitoring (In Progress)

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

WRIA 13 Prioritization and Development Project (completed)

This SRFB-funded project provided fourteen conceptual and/or preliminary fish passage designs creating a diverse suite of projects for the Lead Entity. Several of these projects will be targeted by local project sponsors for future salmon restoration opportunities. This project was completed in 2007.

WRIA 13 Nearshore Restoration Design (In Progress)

Assessments in the WRIA 13 nearshore have been conducted by other entities; SPSSEG will build upon these assessments to identify beneficial salmon projects along the nearshore environment. At least five projects will be selected and designed to a preliminary design level. Several identified projects have already been implemented using this assessment.

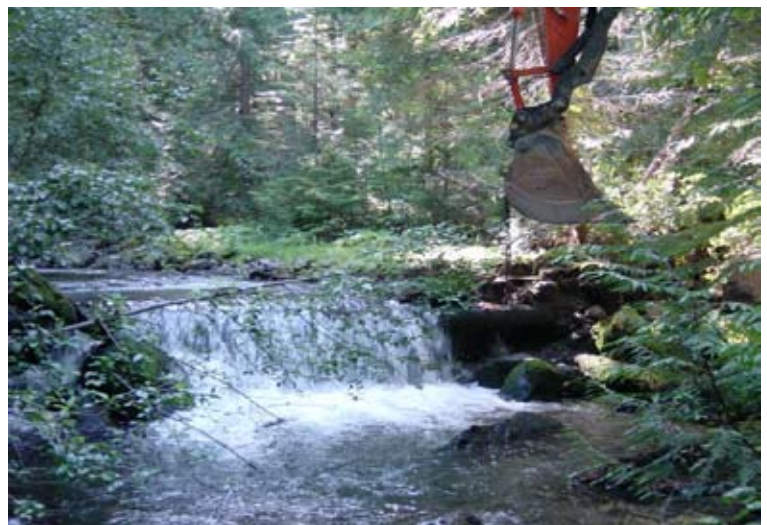


Sherwood Creek Monitoring (In-Progress)

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

WRIA 14 Nearshore Project Development (In Progress)

Assessments in the WRIA 14 Nearshore have been conducted by other entities; SPSSEG will build upon these assessments to identify beneficial salmon projects along the nearshore environment. These projects may include bulkhead removal, wood and gravel recruitment, restoring estuaries function, dam and levee removal, tidal culverts, and others. Several identified projects have already been implemented using this assessment.



WRIA 15 Nearshore Restoration Design (In Progress)

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

EDUCATION

Kennedy Creek Salmon Trail (ongoing)

The trail provides public access to one of the South Sound's healthiest chum salmon runs. Taylor United Shellfish Co. donated a 20-year land lease for a half-mile interpretive trail along Kennedy Creek. Over 40 volunteer trail guides educate school groups and visitors. During the 2007 season the trail saw 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

South Puget Sound Salmon Enhancement Group

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 (ongoing)

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



Sound Gardens Save Salmon (ongoing)

SPSSEG partnered with the City of Tacoma and Jacqui Elliott to create and implement education curriculum for a pilot program in a Tacoma elementary school.

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 Point Defiance Zoo Earth Day, Tacoma-Pierce County Children's Water 4 Life Festival, Nisqually Watershed Festival, Bike Your Watershed, Oysterfest, and numerous other educational and outreach events. SPSSEG engaged several hundred volunteers and students in its Horn Creek and Mashel River plantings.

White River Stewards (ongoing)

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

Generic Projects (ongoing)

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

PROJECT EXPENDITURES

Project Name	RFEF Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent	State	Federal	
7 Mashel Restoration			\$-	\$59,399	\$59,399			
20 Malaney Creek Fish Passage			\$-	\$35	\$35			
21 WRIA 13 Prioritization & Dev			\$-	\$701	\$701			
23 WRIA 11/12 Nearshore			\$-	\$38,738	\$38,738			
24 WRIA 13 Nearshore			\$-	\$8,245	\$8,245			
26 WRIA 14 Nearshore			\$-	\$15,692	\$15,692			
27 Hiawata Creek			\$-	\$5,878	\$5,878			
28 Frye Cove Bulkhead				\$3,940	\$3,940			
29 Skookum Inlet			\$-	\$61,681	\$61,681			
30 Lower Ohop				\$73,122	\$73,122			
31 Rocky Creek			\$-	\$362,692	\$362,692			
32 Jarrell Cove				\$10,481	\$10,481			
34 Greenwater				\$82,519	\$82,519			
35 Mashel River Assessment				\$17,724	\$17,724			
36 WRIA 15 Prioritization				\$3,332	\$3,332			
37 Frye Cove Park				\$7,576	\$7,576			
38 Little Fish Trap				\$762	\$762			
39 Pirates Cove				\$20,941	\$20,941			
R41 Beachcrest			\$-	\$1,185	\$1,185			
F8 Robinson-WF Rocky Creek				\$535	\$535			
F9 McColm-WF Rocky Creek				\$2,055	\$2,055			
F12 Coburg-Kronis				\$1,123	\$1,123			
NF3 Mashel Restoration				\$5,166	\$5,166			
NF6 McLane Creek				\$9,434	\$9,434			
NF8 Walker Boat Ramp				\$3,031	\$3,031			
NF10 Frye Cove Bulkhead				\$1,396	\$1,396			
NF11 Clover Creek/Shera's Falls				\$277	\$277			
NF13 Clover Creek Pilot				\$14,227	\$14,227			
NF14 Nisqually Pines				\$1,675	\$1,675			
N1 EPA Mashel Monitoring			\$-	\$27,174	\$27,174			
U8 Horn Creek				\$2,569	\$2,569			
U9 Silver Creek				\$6,104	\$6,104			
U10 Frye Cove Bulkhead				\$142	\$142			
U12 Powell Creek				\$2,549	\$2,549			
NLT Powell Creek				\$4,425	\$4,425			
Generic Projects						State	Fed	
Riparian Restoration	\$39				\$39		\$39	\$39
Office Operations	\$125,471	106	\$1,590		\$127,061	\$45,843	\$79,629	\$125,471
Project Management	\$5,280		\$-		\$5,280	\$1,107	\$4,173	\$5,280
Project Engineering	\$-		\$-		\$-			\$-
Education & Outreach	\$19,570		\$-		\$19,570	\$11,117	\$8,453	\$19,570
Project Construction	\$-		\$-		\$-		\$-	\$-
Kennedy Creek Salmon Trail	\$3,245	540	\$8,100	\$5,354	\$16,699	\$933	\$2,312	\$3,245
Totals	\$153,606	646	\$9,690	\$861,878	1,025,174	\$58,999	\$94,607	\$153,606

South Puget Sound Salmon Enhancement Group

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Kristin Williamson, Project Manager
Sarah Clarke, Field and Office Assistant

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



South Puget Sound Salmon Enhancement Group
Committed to restoring South Puget Sound salmon habitat

Hood Canal Salmon Enhancement Group

MISSION STATEMENT

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

RFEG 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 of Hood Canal 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"), Dept. of Ecology, Hood Canal Coordinating Council, Hood Canal Tribes, Recreation and Conservation Office, Jefferson, Kitsap & Mason Counties, Long Live the Kings, Mason Conservation District, National Fish and Wildlife Foundation, NOAA Fisheries, Puget Sound Action Team, Salmon Recovery Funding Board, US Forest Service, US Fish and Wildlife Service, UW/Applied Physics Lab, Washington Department of Fish and Wildlife ("WDFW"), Washington Department of Transportation, Washington State Parks, USDA Natural Resource Conservation Service and numerous others. These partners have amassed eighteen 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

Environmental Explorations

Partnered with North Mason School District's Hood Canal Institute in this educational event. Environmental Explorations occurred on 5/7/08 at Belfair State Park. This event was organized for seventh graders (approximately 700 students) living in the Hood Canal Watershed. Students from seven school districts were offered hands-on learning applications. Over thirty stations provided a day of diverse environmental learning. Students were taught about the watershed and the interconnectedness of wild salmon ecosystems. Venues included an environmental fair, WildWise, Nature Mapping and live wildlife presentations. Additionally, numerous stations existed wherein students were mentored by high school students in such topics as: edible plants ("Incredible Edibles"), watershed modeling, cultural activities and near shore investigations including water quality testing for bugs and chemicals, benthic learning, sediment sieving and plant and animal identification.

Environmental Explorations was replicated on a smaller scale at Pt. Julia, Port Gamble on 5/29/08 in cooperation with the S'Klallam Tribe who provided additional funding. This occurred on tribal lands and HCSEG hosted this event with North Kitsap High School and the S'Klallam Tribe. This second event was modeled after Environmental Explorations and Students in the Watershed, providing hands-on learning with over twenty stations to approximately 250 fourth grade students and middle school students from Wolfe Elementary School, Poulsbo Elementary School and Kingston Middle School. Other activities included arts and craft stations and additional near shore activities such as forage fish beach seining and bivalve dissections.



Hood Canal Salmon Enhancement Group

Students in the Watershed

Partnered with North Mason School District's Hood Canal Institute and the DNR in this event at Belfair State Park on 5/13/08. Approximately 400 fourth grade students from Belfair Elementary and Sand Hill Elementary were mentored by North Mason High School students. Attendees were taught about the watershed; environmental learning stations offered the following topics: "Products of the Forest", "Caring for the Forest", "Harvesting the Forest", "Scat & Tracks" and "Critters of the Forest". This program involved over ten hands-on, inquiry-based learning activities at various stations spread throughout Belfair State Park.

The AnReadomous Challenge

This reading program was continued this year at Belfair Elementary School. It is a reading program that replaced a previously existing program entitled "The Reading Olympics". The premise of the AnReadomous Challenge is to encourage reading and gain knowledge of the salmon life cycle. In the AnReadomous Challenge, the entire student body (approximately 550 students) decorates a cardstock cutout of a salmon. This salmon cutout is used to represent each student's reading progress (during a month long period) on a 3-D topographic map of the Pacific Coast (Washington to Alaska) that stretches along the gym wall. Students physically move their salmon along the mural, "migrating" with every minute that they read (once they leave their freshwater environment, each minute read is equal to two miles in the salmon's migration). The distance traveled is correlated to a large, scaled ruler at the bottom of the mural. The mural represents 1500 miles of coastline from the Hood Canal to the Bering Sea, or 3000 miles total for the round-trip journey. Additionally, the AnReadomous Challenge was extended to the North Kitsap School District in partnership with the S'Klallam Tribe who provided funding. Participating schools were Wolfe Elementary School and Kingston Middle School.

Community Outreach

HCSEG staff and interns participated in community outreach at the Oysterfest, Allyn Days, the Shelton Forest Festival, The Kitsap Poggie Club, South Sound Fly Fishers, The Hood Canal Improvement Club, North Mason Kiwanis, North Mason Lions Club, The Kitsap Garden Club and the Donkey Creek Chum Festival.



Adventure Salmon Camp

HCSEG held Adventure Salmon Camp for fourth through ninth graders. Twenty nine campers attended day and overnight camps in the summer of 2007. These unique camps provide an opportunity for young people to explore the Hood Canal watershed first-hand with an emphasis on gaining knowledge in relation to the salmon life cycle.

The Dewatto Nutrifcation Study

This study continued its eighth year. The project has been designed to determine the potential populations of juvenile Coho in eight tributaries of the Dewatto River and whether or not they can be self-sustaining based on available habitat. The project includes adult Coho spawner surveys, 8 smolt traps for data collections in the spring of 2008, macro-invertebrate sampling by HCSEG summer interns, marine derived nutrient sampling, pool riffle surveys, carcass-analog distributions and transport (approximately 4000 pounds) in WRIA 15, and data entry and statistical analysis.

The Union River/Tahuya Summer Chum Project

This project completed its eighth year partnering with the WDFW George Adams Hatchery in the fall of 2007. The following lists final returning numbers of summer Chum to the Union River up to 2007:

2000	743
2001	1,486
2002	872
2003	11,916
2004	5,971
2005	1,987
2006	2,836
2007	1,967
2008	1039 up to 9/30/08

Fifty pairs of Union River summer Chum were collected for spawning during the fall of 2007. During the winter of 2008, Union River fry were raised for spring release into the Tahuya system. Approximately 67,000 summer Chum fry were released into the Tahuya River system in March of 2008.

The Molluscan Study

Phase II & III of this program continued during 2007 and 2008. The program partners include the University Of Washington School Of Aquatic and Fisheries Science, DNR, Taylor Shellfish and the HCSEG. Each are responsible for different tasks within the study. The collective project information is being used to evaluate the ecological role of geoducks in Hood Canal. The HCSEG portion of the study has included several tasks. The group has been conducting side-scan surveys of Hood Canal for categorizing bottom-type habitats. They are also collecting sediment cores and water samples for analyzing nutrient and oxygen fluxes associated with various geoduck densities. The

Hood Canal Salmon Enhancement Group

study areas were previously defined by regional index stations established by the Washington Department of Fish and Wildlife. The other tasks of the program include shell aging, larval advection analysis, estimating geoduck distribution through ROV surveys, and geoduck filtration experiments. Collectively this information will be used to assess the value of geoducks to the Hood Canal region.



Little Mission and Big Mission Creeks – Belfair State Park

This major estuary and fish passage barrier project has been done in phases over five years and has been finalized at Belfair State Park. The primary purpose was to address the restoration of the biological functions and processes for Big Mission and Little Mission Creeks. This was completed in two phases. Phase I involved removal of the saltwater swimming pool and nearly 3,000 feet of dike. This work allowed Big Mission Creek to shift back to the more historic stream channel and near shore delta. About 68,000 cubic yards of fill was removed in all. Phase II included restructuring a stream-crossing bridge inside the park and the replacement of an undersized culvert on Little Mission Creek at Beck Rd. This project has been described as beneficial to all aquatic life and will open habitat for the ESA juvenile and adult salmon, as well as other species of fish and shellfish along this near shore and stream refugia. This project reached completion in the fall of 2007. Additional partners on this project were Washington State Parks, National Fish and Wildlife Foundation, DNR, Salmon Recovery Funding Board and the Skokomish Tribe.

Big Quilcene – Quilcene Estuarine Wetlands Restoration – Schinke property

The goal of this project is to restore thirty eight acres of coastal wetlands habitat to proper functioning conditions by permanently removing existing livestock and eliminating a 3,000 feet of saltwater levee to reestablish a tidal channel network and plant communities on adjacent wetlands. The restored wetlands and an adjacent twelve acres of wetlands will be conserved in perpetuity

using a conservation easement. Design development, gridding analysis, consultation with environmental chemists and geologists, permitting, project management and coordination with entities involved has been accomplished during the summer of 2007. This project was put on hold in the fall of 2007 due to the fish window. It will be continued in the late summer of 2008.

WDFW Rim Dike Removal

This is another project planned for August of 2008 involving the removal of approximately 2,000 feet of saltwater levee surrounding an abandoned WDFW duck pond and ring dike to reestablish properly functioning tidal networks and plant communities.

Little Quilcene and Quilcene Bay – River Mouth Restoration

The Little Quilcene River flows into Quilcene Bay just north of the town of Quilcene. Nearly one hundred years ago this river was channeled directly into Quilcene Bay and a substantial amount of fill was placed behind the dike. The goal of the project is estuary and stream restoration in the Little Quilcene River and Bay. Accomplishments during the summer of 2007 were reconstruction of 1,850 feet of the Little Quilcene River Channel and removal of 700 feet of an existing sea dike. This project involved 15,000 cubic yards of river channel excavation, 6,000 cubic yards of sea dike excavation and the construction of 1,250 feet of tidal channels. Further reconstruction activities will occur in August of 2008.

During August and September of 2008 the acquisitions of the following properties will be finalized:

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

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

The Hood Canal Dissolved Oxygen Program

The HCSEG co-manages the Hood Canal Dissolved Oxygen Program (HCDOP) in partnership with the Applied Physics Lab at the University of Washington. By June 2008, the HCDOP was nearing the completion of the third year of observations and modeling. Nearly forty organizations comprise HCDOP and represent federal, state and county agencies, as well as

Hood Canal Salmon Enhancement Group

local tribes, WRIA groups, and NGOs. The goal of HCDOP has been to determine the factors affecting the low dissolved oxygen levels in Hood Canal and the effect the variable low oxygen has on marine life.

The larger tasks of the program are to investigate the freshwater inputs, marine circulation, food web dynamics, and weather impacts to the mechanisms affecting Hood Canal. This is done through observations, measurements, and modeling. The HCSEG is involved in many of the separate tasks in order to meet the program objectives. The HCSEG coordinates the freshwater sampling of over 40 Hood Canal streams. We conduct weekly marine water sampling at 32 stations from Foul Weather Bluff (northern Hood Canal) to Lynch Cove in the lower Hood Canal region. HCSEG assists in the maintenance of four instrumentation moorings that have been established from Lynch Cove to Admiralty Inlet. The HCSEG leads the emergency response to algal blooms and fish kills that are reported via a hotline established through the Washington Department of Ecology. The recent analysis of the data is revealing patterns in landscape inputs, ocean contributions and impacts of weather to the function of Hood Canal. For more detailed information, visit the HCDOP website at www.hoodcanal.washington.edu.



Mission Creeks Water Quality Sampling

This water quality sampling program continues under a Department of Ecology Centennial Clean Water grant. HCSEG has partnered with the Mason County Department of Environmental Health to investigate the levels and sources of fecal coliform contamination in Big and Little Mission Creeks. Each of these watersheds has growing residential development along the lower portions of the streams. These streams border Belfair State Park, and these residential areas have been implicated in water quality issues. The park is adjacent to the marine shoreline and has recently taken significant steps to restore the shoreline habitat as well as the stream functions before they discharge into lower Hood Canal. Both streams have been identified to have an impact on the commercial and recreational shellfish harvests.

Phase I stream monitoring occurred during August 2006 – July 2007. It involved identifying the various levels and distribution of fecal coliform effluents by sampling sites throughout the watersheds. Phase II monitoring occurred during July 2007 – August 2008. This second phase involved refining sampling locations in order to more narrowly identify sources of contamination. The project is working with watershed residents to reduce and work towards eliminating the sources of contamination.

Anderson Creek

A restoration project funded by WDFW LIP took place during the summer of 2007 at the Landowner's request. This involved the removal of a storage structure and old machinery from the riparian area and planting a riparian buffer consisting of native shrubs and deciduous trees with an under planting of cedar.

Additionally, another project occurred during the summer of 2007 on Little Anderson Creek. Little Anderson Creek has been designated as one of four Intensely Monitored Watersheds ("IMW") in Washington State. HCSEG placed 130 pieces of large woody debris ("LWD") into two stream reaches of the watershed (over one mile of the anadromous zone of Little Anderson Creek). The purpose of the project is to determine the ability of the stream to increase salmonid production through LWD restoration. As an IMW, both physical and biological responses of the stream are being monitored. Additional partners on this project are the Recreation and Conservation Office and the Hood Canal Coordinating Council.

Sweetwater Creek

A portion of Sweetwater Creek, crossing under State route 3 in Belfair, was restored to its historical channel configuration on the west side of the highway. The project included removing two 90 degree bends which were part of previous development changes to the landscape. Log weirs were added to the streambed which created riffles and pools for a more natural meandering flow. Part of the restoration included removing garbage, tires and tanks which were embedded along the sides of the stream. Invasive knotweed was removed as part of the project and will continue to be managed in the future. An additional partner on this project was National Fish and Wildlife Foundation.

Summer Internships

Eight summer internships were provided to Hood Canal region high school students and graduates in 2007. They 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

Hood Canal Salmon Enhancement Group

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 2007 will be compared to data collected by summer interns on the Dewatto system in 1998.

Scholarships

In the fall of 2007 the HCSEG awarded four \$2000.00 scholarships and one \$500.00 scholarship to college and high school students in the Hood Canal Watershed.

Pacific Northwest Salmon Center

HCSEG took part in the development of the Pacific Northwest Salmon center providing Board participation, staff support and logistics for the 5th annual Wild Salmon Hall of Fame which was held on September 22, 2007 at the Kitsap Conference Center. Three individuals were honored for their dedication to saving Wild Salmon at the 5th annual Wild Salmon Hall of Fame awards. They were: Bill Bradbury, Oregon's Secretary of State; Jim Kramer, Executive Director of Shared Strategy for Puget Sound; and Jim Lichatowich, author of the book *Salmon without Rivers: A History of the Pacific Salmon Crisis*. Two other finalists were honored at this event: Dr. Peter Bergman, co-inventor of the coded wire tag for tracking salmon. He worked for Washington's Department of Fisheries and served as the Executive Director of the Salmon and Steelhead Advisory Commission and is currently at Northwest Marine Technology; Anne Mosness, a conservationist, commercial fisherwoman and grass roots activist. Anne developed the "Go Wild Campaign" to educate the public, journalists and elected officials about sustainable fisheries. In a related effort the Salmon Center hosted a Wild Salmon Summit this year, bringing past Wild Salmon Hall of Fame winners together for a two-day meeting to focus on ways to engage the importance of wild salmon and healthy ecosystems for future generations.



Hood Canal Salmon Enhancement Group

PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
WDFW #07-1281	\$173,410.48				\$173,410.48
USFWS #134104J020				\$166,613.00	\$166,613.00
USFWS #134106J009				\$100,934.91	\$100,934.91
RCO # 05-1608 - Belfair State Park				\$256,983.93	\$256,983.93
WSPRC # 1A-507-181 - Belfair State Park				\$277,000.00	\$277,000.00
WSPRC # 1A-507-181, Amd 1 - Belfair State Park				\$804,000.00	\$804,000.00
WDFW LIP #08-1218 Bear Creek Floodplain restor.				\$22,000.00	\$22,000.00
RCO# 05-1611 Brown Creek Rd Decommissioning				\$126,633.82	\$126,633.82
RCO #07-1635 WDFW Big Quilcene Dike Removal				\$3,131.45	\$3,131.45
UW/APL HCDOP #978561- Year 2				\$134,473.00	\$134,473.00
UW/APL HCDOP #978561- Year 3		180	\$2,700.00	\$301,170.00	\$303,870.00
WDFW # 05-2489 LIP Little Anderson				\$24,000.00	\$24,000.00
RCO # 05-1665 - Little Anderson IMW				\$125,423.13	\$125,423.13
RCO # 04-1647 Little Quilcene				\$27,954.06	\$27,954.06
NRCS #66-0546-5-008 Little Quilcene				\$70,828.50	\$70,828.50
RCO FFFPP # 04-1734 - Ludvik Lake				\$6,251.69	\$6,251.69
NFWF # 2005-0197-066 Ludvik				\$25,000.00	\$25,000.00
ECY # G0600304 Mission Cks WQ				\$7,112.96	\$7,112.96
DNR Molluscan II #PSC 06-242				\$72,307.45	\$72,307.45
DNR Molluscan III #PSC 07-101				\$104,905.88	\$104,905.88
NFWF # 2006-0098-052 - Sweetwater Creek				\$19,418.00	\$19,418.00
NOAA #NFFP7230-6-00041 Steelhead tagging project				\$2,542.50	\$2,542.50
NOAA #NFFP7230-7-14013 Steelhead tagging project				\$45,785.00	\$45,785.00
RCO FFFPP # 05-1655 Toodie - Pigott Bridge				\$52,800.00	\$52,800.00
USFWS #13245-7-J001 Wolcott Habitat restoration				\$13,300.00	\$13,300.00
Experience Salmon Camp 2007				\$15,283.41	\$15,283.41
Experience Salmon Camp 2008 thru 8-30-07				\$9,155.50	\$9,155.50
Students in the Watershed - HCI Project 2007		25	\$375.00		\$375.00
Environmental Explorations 2008 May		823	\$12,345.00		\$12,345.00
Volunteer Hours July 31, 2007		472	\$7,080.00		\$7,080.00
Volunteer Hours October 31, 2007		300	\$4,492.50		\$4,492.50
Volunteer Hours January 31, 2008		466	\$6,990.00		\$6,990.00
Volunteer Hours April 30, 2008		447	\$6,705.00		\$6,705.00
Union Summer Chum Trap Aug 2007 thru Oct 07		2,508	\$37,612.50		\$37,612.50
Nutricaton (Carcasses)				\$4,185.00	\$4,185.00
PNWSC - Education, outreach, WSHF, support				\$5,000.00	\$5,000.00
Hama Hama River Estuary Restoration - RCO # 06-2221				\$1,053.10	\$1,053.10
Big Quilcene - WDFW rim dike removal - ESRP 07-1689				\$6,162.86	\$6,162.86
Duckabush Robinson rd. levee removal - ESRP & RCO				\$39,846.36	\$39,846.36
Quilcene - McClanahan acquisition - appraisal/easement				\$23,246.26	\$23,246.26
Klingel Estuary restoration				\$11,413.48	\$11,413.48
Walcott/Dosewallips Estuary Restoration				\$26,808.00	\$26,808.00
Ward acquisition - appraisal/survey				\$37,850.00	\$37,850.00
Totals	\$173,410.48	5,220	\$78,300.00	\$2,970,573.25	\$3,222,283.73

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Mendy Harlow, Nutrifcation Project Director / Quilcene Bay Monitoring Mgr.
Teresa Sjostrom, Steelhead & Marine debris Specialist
Sean Hildebrandt, Field Specialist, stream flows and monitoring
Don Husted, Maintenance and Field Technician
Julie Easton, Administration & Education Assistant
Kim Gower, Administration
Michelle Hori, Grant Administrator, Special Projects

CREW INFORMATION

Intern July 2007

Nicholas Barrantes
Daniel Brody
Nick Holm
Peter Kauhanen
Adrianna Lippy
Maryangel Lytle
Ben Masters
Lauren Swanson

CONTACT INFORMATION

Hood Canal Salmon Enhancement Group

P.O. Box 2169
22881 NE State Route 3
Belfair, WA 98528
360-275-3575
360-275-0648 Fax
hcseg@hcseg.org
Website: www.hcseg.org



North Olympic Salmon Coalition

MISSION STATEMENT

The North Olympic Salmon Coalition mission is to protect and restore the stocks of salmonids in the streams of the North Olympic Peninsula by promoting community understanding, cooperation and volunteer stewardship. We provide funding, guidance, technical assistance and ongoing support for salmon habitat restoration and enhancement on public and private land.

RFEG OVERVIEW

As a non-profit community-based salmon recovery organization, North Olympic Salmon Coalition provides funding, guidance, technical assistance and ongoing support for salmon habitat restoration and enhancement. Our region includes the watersheds along the coast of the Strait of Juan de Fuca, extending from the Hood Canal Bridge west to Neah Bay. We have formal working relationships with the Washington Department of Fish and Wildlife (WDFW), the Jefferson and Clallam County Conservation Districts (JCCD and CCD), and Point No Point Treaty Council. We cooperate with a variety of agencies, schools, community organizations, volunteers and landowners to work on key areas of wildlife habitat areas in Morse, Snow-Salmon and Chimacum Creeks and the Pysht River. NOSC and our partners have been active in establishing these conservation areas and are providing assessment funds, staff time, and community outreach on WDFW owned parcels. NOSC and WDFW continued work with an interpretive center at Morse Creek in Port Angeles, which continues to move steadily forward toward opening the interpretive center doors. Funding from ALEA Cooperative grants, the WA Salmon Recovery Funding Board (SRFB), and the National Fish and Wildlife Foundation (NFWF) augmented the RFEG funds. Technical support from WDFW, NOAA, Fish America Coastal Protection Fund, Lower Elwha Klallam Tribe, Jamestown and Port Gamble S'Klallam Tribes and JCCD are critical components to our project success.

We participate in Salmon Recovery Funding Board processes through two lead entities. In Hood Canal Coordinating Council Lead Entity we participate in technical review, citizen project rank-



Rebecca Benjamin, NOSC Interim Director, stands before a huge pile of debris at Salmon Creek Estuary Restoration site in Discovery Bay. This is all that is left of the old mill buildings which were removed to improve estuarine habitat, and are only the beginning of the estuary restoration process.

ing and strategy development. In 2007 North Olympic Peninsula Lead Entity invited NOSC to join the Technical Review Group. NOSC's priority watersheds are Morse Creek in WRIA 18 and the variety of rural watersheds in WRIA 19. The Salmon-Snow watershed in Discovery Bay is our action priority in the Hood Canal Coordinating Council Lead Entity. From its Eaglemount headwaters to Port Townsend Bay, the Chimacum watershed remains a high community priority for NOSC in the HCCC Lead Entity Area. The Regional Recovery Plan for Hood Canal and Strait of Juan de Fuca Summer Chum is lead by HCCC who looks to NOSC and the rest of the "Chumsortium" as the local outreach partners to develop community support for recovery of ESA listed summer chum in these watersheds.

PROJECT HIGHLIGHTS

FISH ENHANCEMENT

Previous efforts to restore ESA listed summer chum in Salmon and Chimacum Creeks have been successful, and these creeks are no longer dependent on broodstock programs. NOSC continues to monitor these populations with WDFW assistance to ensure broodstocking does not need to occur in the future. NOSC continues its broodstocking efforts on Jimmycomelately Creek, which continues to show positive returns. This program was adopted by NOAA as part of the 2007 Summer Chum Salmon Recovery Plan. The results of our annual spawning surveys continue to show success from the Jimmycomelately broodstock supplementation program, which is expected to reach completion in 2011. NOSC volunteers will continue to monitor the population with WDFW assistance.

WATER QUALITY PROJECTS

Roads Decommissioned

Since the 1940's Deep Creek and East and West Twin River have been subject to mass wasting and sediment from Forest Service road 3040 (currently an inactive logging road.) The Olympic National Forest proposed decommissioning Forest Service road 3040 from milepost (MP) 7.2 to MP 13.2 and all the spur roads off this road totaling eleven miles of road. The Forest service lacked adequate funding to complete the decommissioning of this road system. NOSC secured a SRFB grant in 2006 to pass funding through to the Forest Service to begin decommissioning of this road system. The decommissioning of this road continues and is expected to reach completion during the 2008-2009 fiscal year.

Morse Creek Stormwater Ponds

Morse Creek is located within Clallam County and runs under Highway 101 as it heads toward the Strait of Juan de Fuca. In order to deal with pollutants entering the creek as it flows under the highway, stormwater ponds were constructed to treat the highway runoff prior to it flowing into Morse Creek. There is a primary settling pond where solids will settle out followed by a

second filtration pond which was constructed to filter out any additional pollutants. A special bio-retention soil mix was used in combination with perforated pipe (underneath) and an overflow pipe. Naturally treated stormwater will now exit the pond through the overflow pipe and enter the creek, free from harmful pollutants. Both ponds will be planted with native plants to improve surrounding habitat and further reduce runoff pollutants.



NOSC Americorps intern Elaine Richman helps teach students about salmon and the importance of habitat restoration at local festivals and other outreach events.

IN-STREAM HABITAT PROJECTS

A key to maintaining self-sustaining summer chum and native coho and steelhead runs is to identify and improve habitat problems that lead to poor natural spawning and rearing. Over the past 16 years NOSC and our partners have been successful in identifying and completing habitat improvements to increase natural spawning success as well as watershed and estuary rearing.

Hammerquist Project

NOSC contributed funds to private landowners to return Hammerquist Creek, a tributary of the Pysht River, to its historic channel. In the previous channel, juvenile salmonids had access to a ditch along the highway, and when high waters receded, the mortality was extremely high. The new channel provides salmonids with a safer path into and out of the wetland complex. Additionally, a bridge and log placement contributed to the overall project.

Salt Creek

NOSC has partnered with the Lower Elwha Klallam Tribe (LEKT) to improve fish passage in the Salt Creek watershed by providing \$10,000 in funds to address several perched and undersized culverts on private and publicly owned land. The most recent replacement was on Nordstrom Creek, a tributary of Salt Creek, where a 4-foot wide culvert was replaced with a 14-foot wide bridge.

RIPARIAN PLANTING AND MAINTENANCE

Volunteers from Jefferson Land Trust, 4-H, WSU Water/BeachWatchers, Greywolf Ranch, Sky Trails, Jefferson County Juvenile Services, Americorps, and local schools are valuable partners on these projects. Many volunteer hours were logged to Chimacum Creek and its tributaries including Chimacum's East Fork and Putaansuu Creek. Volunteers logged hours in Snow Creek in Discovery Bay and Valley Creek in Port Angeles working hard at habitat revegetation. NOSC continues to maintain three plant nurseries; two in Jefferson County (one on donated farmland, another at Chimacum School) and a third in Clallam County that was planted in 2006 with NFWF funds. Combined, these nurseries hold over 6,000 native trees and shrubs. NOSC is maintaining over 17 acres of riparian plantings at this time to reduce weed competition and encourage growth of the young trees. During the '07-'08 fiscal year, NOSC and volunteers have planted 1,270 trees/shrubs and manually cleared 2 miles of invasive weeds within stream habitat.

Putaansuu Creek Rearing Pond

At this site, high water temperatures in the summer months are common, limiting the amount of available dissolved oxygen. This year NOSC and volunteers put in additional riparian plants and trees with tree protectors to improve shade at the pond on a tributary to Chimacum Creek. The landowner has taken responsibility to maintain the 550 plants.

Chimacum Creek (mainstem and E. Fork)

Planting and maintenance of project sites continued on Chimacum Creek and tributaries, covering approximately 15 acres of riparian habitat. Problematic weed species such as reed canary grass, nightshade, poison hemlock, and watercress are maintained through mowing and hand clearing. Planting, tree watering, and weed control were completed at these sites with help from Americorps, NCCC, WCC, Greywolf Ranch, Sky Trails, Jefferson County Juvenile Services, and community volunteers. NOSC also secured a LIP USFW grant to target a particularly troublesome infestation of European bittersweet/nightshade on the East Fork that acts as a barrier to spawning salmon.

Clallam Bay

NOSC provided 100 trees for Lower Elwha Tribal and Pysht River riparian plantings.

ESTUARY AND NEARSHORE

Salmon Creek Estuary Restoration

Planning for the Salmon Estuary Restoration Project is underway. The Project will involve the removal of woodwaste and fill along with 5 derelict mill buildings, all that was left over from an old mill production site in lower Discovery Bay. Through the construction process, five derelict buildings and over 48,000 cubic yards of material will be removed, resulting in the immediate creation

North Olympic Salmon Coalition

of approximately 11 acres of accessible estuarine habitat and approximately 1100 meters of newly constructed tidal channels. Additional development of channels over time will likely yield an additional 4200 meters of channel for a total gain of over 5200 meters of tidal channels spread out over the 11 acres. Fill removal and building demolition is scheduled for July through October 2008.

MONITORING

Macroinvertebrate Study

NOSC completed its 6th year of the baseline macroinvertebrate monitoring program which was established in 2002 on Salmon and Chimacum Creeks to gauge changes in biological integrity pre- and post- summer chum recovery and habitat restoration. Analysis of stream insect populations at each restoration site is compared to control sites on each stream. This year, NOSC added 3 new monitoring sites in areas of dense forest canopy to increase control for the B-IBI scores. This remains the only comprehensive study of in-stream benthic macroinvertebrates in East Jefferson County streams. The project has been dependent on volunteers from the community, Americorps, Swan School's 5th/6th grade science class and Chimacum School's 6th grade science classes for its accomplishments. NOSC began data analysis to correlate B-IBI scores with Jefferson County Conservation District's water quality monitoring data.

Water Quality

For the 7th 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 intra-gravel dissolved oxygen. This work adds to the continuous 18-year data set documenting watershed conditions throughout East Jefferson County.



NOSC's FIN, the Migrating Salmon, took a photo opportunity as she reached her Washington DC destination with the "Extinction Stops Here" tour. This educational and outreach tour was done by the non-profit group, Save Our Wild Salmon, to help spread the word about salmon recovery across the country.



Young student volunteers Eliza and Chloe Dawson help staff Alicia Aguirre take measurements on summer chum salmon during fall salmon surveys in Chimacum Creek.

Fish Monitoring

NOSC volunteers assisted Lower Elwha K'lallam Tribal staff in the installation of smolt traps on Deep Creek and Ennis Creek. Spawning surveys for summer chum and coho took place with volunteers in the Chimacum watershed in cooperation with WDFW and the Point No Point Treaty Council. NOSC volunteers also participated in beach seining at Irondale Beach to monitor the effects of a beach fill removal project completed in 2006. 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 tissue samples for DNA and identification analysis. NOSC volunteers also conducted fyke net sampling in tidal channels at the Salmon Estuary as part of an ongoing monitoring effort which will continue as the Salmon Creek Estuary Restoration Project is completed.

Marsh Vegetation Monitoring

Pre-Project baseline monitoring began June 2007 with Shreffler Environmental and NOSC staff and volunteers at the Salmon Estuary. The goal of this survey is to establish current vegetation communities at the site prior to construction of the Salmon/Snow Estuary Woodwaste Fill Removal scheduled for July – October 2008. The restoration objective for the Salmon Estuary project is to create approximately 11 acres of new salt marsh. NOSC volunteers will continue to monitor the site through Implementation and Effectiveness Monitoring post-construction. The baseline data will serve as a future reference for determining how comparable the post-restoration plant communities are to the target plant communities

North Olympic Salmon Coalition

Community Outreach and Education

NOSC again provided education and training for volunteers that conduct our annual B-IBI macroinvertebrate stream surveys, summer chum spawning surveys and winter coho spawning surveys. NOSC continues to provide watershed and salmon ecology educational opportunities to Chimacum and Port Townsend school science classes, Billings Middle School from Seattle, YMCA programs in Clallam and Jefferson Counties as well as continuing to work with private schools and home-school groups in both counties. Additionally, NOSC has continued educational training for WSU Jefferson and Clallam Counties Water/Beach Watcher programs and provided technical assistance to the WSU Shore Stewards. NOSC continued distribution of 'Tracking the Dragon', an education watershed based learning book.

There were a variety of annual festivals and events that NOSC participated in including the North Olympic Land Trust's Streamfest, the Trout Unlimited Fly Fishing Expo, Port Townsend's Earthday Everyday Festival, 'Making It Last!' in Port Angeles, Earth Day at Wildbirds in Gardiner and Joyce Daze.

FIN, the Migrating Salmon, played a special role this year in helping spread the word about habitat restoration. As part of a national tour with Save Our Wild Salmon of Seattle, FIN toured to Washington, DC on an educational/outreach adventure, stop-

ping at many schools, administrative buildings, markets, fairs and other public events before reaching its DC destination, and spreading the word about restoration. FIN also underwent a major renovation in spring prior to the tour (repair and painting) following her 20 years of dedicated public service. FIN continues to promote awareness statewide as she traveled to fairs, festivals and school events during the remainder of the year.

Through our education programs, NOSC has provided 3,890 contact hours through presentations, interactive projects and activities to 785 individual students in 11 schools and youth programs.

NOSC representatives made presentations to the Jefferson County Marine Resource Committee and to various nearshore community organizations such as Discovery Baywatchers, WSU Cooperative Extension Water/Beach Watchers classes in two counties, participated in Watershed planning in WRIA 17, and participated in two Shoreline Landowner Workshops co-sponsored by WSU Jefferson Co. Cooperative Extension/WBW and the Hood Canal Coordinating Council Marine Riparian Initiative program. The program is designed to reach private landowners to encourage and promote retaining and restoring native vegetation along shorelines and bluffs for their ecological value, as well as erosion protection.



Volunteer Mike Marson identifies fish caught in minnow traps at Salmon Creek.

North Olympic Salmon Coalition

PROJECT EXPENDITURES

Project Name	RFEF Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Project Director	\$40,581.53	152	\$2,272.50		\$42,854.03
Project Coordinator	\$56,296.43				\$56,296.43
Office Operations	\$18,349.00				\$18,349.00
Restoration	\$8,770.00	396	\$5,932.50		\$14,702.50
Summer Chum Hatcheries		1,113	\$16,687.50	\$17,132.00	\$33,819.50
Clallam MRI	\$430.00			\$2,049.00	\$2,479.00
Chimacum Creek	\$2,018.00	646	\$9,682.50	\$24,946.00	\$36,646.50
Macroinvertebrates		217	\$3,255.00		\$3,255.00
Deep Creek				\$111,899.00	\$111,899.00
Morse Re-Meander	\$23,236.00	47	\$705.00	\$34,428.00	\$58,369.00
Morse Log Cabin	\$2,200.00	273	\$4,095.00		\$6,295.00
Morse Stormwater Ponds				\$31,678.00	\$31,678.00
Salmon Estuary		201	\$3,015.00	\$118,146.00	\$121,161.00
Chimacum Estuary	\$3,688.00	315	\$4,717.50	\$13,470.00	\$21,875.50
Salt Creek	\$10,000.00				\$10,000.00
Smolt Trap Deep Creek					\$0.00
Pitship				\$436.00	\$436.00
Membership & Fin		7	\$97.50	\$10,934.00	\$11,031.50
TOTALS	\$165,568.96	3,364	\$50,460.00	\$365,118.00	\$581,146.96

OFFICERS

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

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

SECRETARY/ TREASURER: Richard Wojt - Teacher, county commissioner, retired

CONTACT INFORMATION

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

BOARD MEMBERS

Harry Bell - Silviculturist, Green Crow Partnership
 Karolyn Burdick - Riparian project site landowner
 Ron Deisher - Sport fisher, executive, retired
 Jean Erreca - Sport fisher, shoreline resident, landscaper, retired
 Jim Hackman - Dedicated volunteer, former president of Wild Olympic Salmon
 Mike Langley - Shoreline landowner
 Karl Meyer - Dedicated volunteer, Master Gardener
 Doug Morrill - Biologist with Lower Elwha Klallam Tribe

STAFF MEMBERS

Paula Mackrow - Executive Director (through April 2008)
 Rebecca Benjamin - Project Manager / Interim Director
 Owen French - Project Assistant
 Alicia Aguirre - Restoration Steward
 Alisa Meany - Volunteer Coordinator
 Elaine Richman - WCC Americorps Intern



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, WDF&W, DNR, Forks School system, Rayonier, Green Crow, Blodell, the City of Forks and numerous small private landowners.

PROJECT HIGHLIGHTS

Quillayute Nutrient Enhancement Project

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 in the Quillayute Nutrient Enhancement project. The Sol Duc, Bogachiel, Calawah, and Dickey rivers were enhanced with over 11,000 surplus salmon carcasses dispersed by volunteers using their own vehicles in almost 500 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. Carcasses are also flown into remote sites by helicopter and placed in the upper watershed to provide nutrients. 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



The old vault at Paradise Pond and the new overflow channel that replaced it

Pacific Coast Salmon Coalition

insects are an important part of a Coho fry's diet. Salmon have five life stages; eggs, fry, smolt, adult and carcasses. So here we have the fifth stage helping to improve the second stage. As we put these carcasses in streams they deposit marine derived (Pacific Ocean) nitrogen, carbon, and phosphorous. Juvenile Coho, Steelhead, and Cutthroat in small western Washington streams obtain 25% to 40% of these elements from Coho salmon carcasses. Besides feeding on aquatic insects, Coho fry have been seen feeding directly on the carcasses. Salmon are called a "keystone" species. They have a positive impact on 138 species of wildlife in Washington and Oregon. WDFW, Rayonier USDA Forest Service Olympic Region, and DNR are important partners in this project.

Smith Overwintering Pond

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

Borde Pond Project

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 Bev Borde) and WDFW. The project has been done in cooperation with WDF&W for several years now.

FMS Water Quality and Enhancement Project

The FMS Water Quality and Enhancement project (Forks Middle School) is a wonderful on-going project that gets kids interested in salmon and educates them in, and out, of the classroom. This project provides funds for water quality education, water quality testing, and why water quality is important to salmon. The Forks Middle School has taken the ball and run with this outreach, education and monitoring program. The Alternative school has



Paradise Pond, the new channel, a few weeks after construction.

also provided an enormous amount of data they have collected, and continue to collect, on water quality in the Bogachiel and tributaries, such as, Mill Creek and Warner Creek.

Bogachiel Pond Project

The Bogachiel Pond project placed rocks and planted trees along the bank of the Bogachiel Ponds. The rock and plantings were placed to stabilize a failing bank. The rock will reduce erosion and the sediments it produces until the trees can root and provide a more long term solution.

N.F. Calawah LWD Project

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

Administrative and Executive Director Project

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.

Lake Pleasant Project

The Lake Pleasant project is an ongoing project in which we place gravel along one of the most prolific spawning areas of Lake Pleasant. We partner with a small private landowner to provide the gravel for Sockeye to spawn in. There is an upwell-



ing in this area that attracts the Sockeye so the area is extremely sensitive to disturbance. For that reason, all gravel is placed onsite by hand, wheel barrel loads of gravel are transported several hundred feet to the shore where the Sockeye spawn. Volunteers then carefully rake the gravel out along the shoreline. Pilings were also placed to hold boom logs in place, the logs help contain the area the Sockeye spawn in and reduce the amount of gravel that is disturbed and washed away.

Monitoring and Maintenance Project

The Monitoring and Maintenance project involves the on-going responsibility of monitoring and maintaining over forty WDF&W restoration 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, 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.

Hoh Clearwater Bridges Project

The Hoh Clearwater bridges project involved DNR replacing four bridges along the mainline. PCSC partnered with DNR and assisted with planting and permitting. All of the barriers had been undersized impassible barriers that were replaced with completely fish passable, barrier-free bridges.

Paradise Pond Project

The Paradise Pond project is located on a small tributary of the Clearwater River which is in the Queets river drainage. The pond was created during the Summer of 1985 as a means to provide overwintering habitat for juvenile salmonids. A cedar plank dam was built across a spring fed channel to pond the water and a wooden pool and weir fishway were constructed and connected to the downstream end of the dam. Explosives were used to deepen

sections of the 5,000 square meter pond that range in depth from 1-3 meters. This site was studied over a four-year period both before and after construction of the pond. Nearly 15,000 Coho salmon smolts were captured during this period results showed an overwinter survival rate of 16% pre-construction and 58% post-construction (Cedarholm, Scarlett & Peterson 1988).

The dam and fishway were in a severely degraded condition and had become a barrier to juvenile fish. During the past couple of years, the Pacific Coast Salmon Coalition (PCSC) has monitored this site to make repairs when needed. However, these were only temporary "fixes" and the problem needed a permanent solution. PCSC replaced the dam with a hardened overflow and the fishway with 350' of new channel allowing passage to all species of salmon under all flow conditions and during all life stages. PCSC has been involved with other similar stream enhancement and passage projects and had very good results.

Off-channel overwintering habitat has been listed as a limiting factor in WRIA 21 and this project is considered a high priority due to its well documented history.

Haberman Pond Project

The Haberman Pond project will involve the placement of rock and log structures to maintain this spring-fed pond. The project will also involve the placement of a new culvert to allow access to the pond for utilization by juvenile salmonid as overwintering, off-channel habitat. Currently there are two pipes under the road but one, the primary culvert, is a blockage and the other is undersized. USFS and PCSC would like to remove the blocked culvert and put in an appropriately sized fish passable culvert in its place. The funding utilized was primarily for logs and clearing the site for next years construction.

Hammerquist Bridge Removal/Replacement Project

The Hammerquist Bridge Removal/Replacement Project removed an undersized and failing bridge from Hammerquist creek a tributary to the Pysht River. This project was a cooperative project with a small landowner. The bridge had collected



Volunteers, planting and decking a foot bridge.

Pacific Coast Salmon Coalition

up wood debris because it was so low in the stream and was restricting fish access as well as threatening to cause the stream to jump its banks and pull the bridge downstream. The bridge was replaced with an appropriately sized log-stringer bridge. The logs and much of the labor were provided by the landowner.

Mosely/Lear Access Project

The Mosely/Lear access project reconstructed a road that provides access to two of our monitoring and maintenance sites, Mosely and Lear Springs. The gravel, design and engineering and a portion of the replanting were provided by Washington Department of Natural Resources. The road allows us access to the sites which is important to primarily maintain the sites, and bring materials on site to do the minor repairs that these sites require annually.

Brandeberry LWD Project

The Brandeberry LWD project involves the continued placement of large woody debris along a section of the Hoh River. The wood provides stabilization of banks, slow water refuge for adults during high flows, cover and refuge for juvenile salmonids. The landowners and PCSC hired a contractor to place some of the wood that was difficult to place with the skidder the landowners have on site. Most of the work done on site has been with volunteer labor and equipment.



New log stringer bridge on Hammerquist creek.

PROJECT EXPENDITURES

Project Name	RFEF Funds	Vol. Hours	Vol. Dollars	Other Funds	Total Spent
Quillayute R. N.E.	\$900	481	\$6,494	\$12,650	\$20,044
Smith- Overwintering	\$2,405	85	\$1,148	\$4,585	\$8,138
Borde Pond RSI		25	\$338		\$338
FMS Water Quality	\$774			\$2,545	\$3,319
Bogachiel Pond	\$3,102			\$2,480	\$5,582
N.F. Calawah LWD	\$9,655	28	\$378	\$14,025	\$24,058
Admin. Cost	\$29,191	252	\$3,402		\$32,593
Executive Dir. 08	\$28,822			\$10,024	\$38,846
Lake Pleasant	\$11,710			\$4,890	\$16,600
Monitoring and Maint.	\$6,737	832	\$11,232	\$1,800	\$19,769
Grant Writing	\$1,500				\$1,500
Hoh Clearwater Bridges	\$1,285	15	\$203	\$1,050,000	\$1,051,488
Paradise Pond	\$6,112	144	\$1,944	\$83,764	\$91,820
Haberman Pond	\$3,132	22	\$297	\$1,268	\$4,697
Hammerquist Bridge Removal	\$9,555	124	\$1,674	\$6,558	\$17,787
Mosely-Lear Road	\$11,441			\$13,851	\$25,292
Brandeberry LWD	\$1,950			\$18,985	\$20,935
Total	\$128,271	2,008	\$27,110	\$1,227,425	\$1,382,806

BOARD OF DIRECTORS

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

STAFF

Carl Chastain, Executive Director
Jenny Wells-Hogan, Executive Assistant

CONTACT INFORMATION

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



Chehalis Basin Fisheries Task Force

MISSION STATEMENT

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

RFEG OVERVIEW

The Chehalis Basin Fisheries Task Force is a non-profit organization dedicated to increasing populations of salmon, Steelhead, and searun Cutthroat trout by and for the citizens and the communities in the Chehalis River Basin. Operations are governed by a twenty member (maximum) Board of Directors. Core staff consists of one Administrative Director, and one Bookkeeper. The volume of work accomplished by the CBFTF could never be accomplished by the small paid staff. This provides the volunteers opportunity to be active in the numerous fish enhancement projects. The main focus of the Task Force involves functioning as a funding organization, coordinating technical resources, providing public education and assisting with permitting processes. The Task Force grants funding to projects that assist in the accomplishment of Task Force enhancement goals and promote its mission. Another function provided by the Task Force is that of technical assistance. Project participants can receive support in coordinating with government agencies, project design, permit acquisition, stock selection, coordinated facility operation equipment, and volunteer management, among private citizens, other volunteer organizations and local governments. 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. This 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 and 1,391 rivers and streams containing 3,353 linear stream miles. The Hoquiam and Humptulips 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 Project partners with local schools and educational programs each year. 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, genet-

ics, temperature unit measurements, picking of eggs and daily upkeep of incubation techniques, water quality monitoring, water sampling techniques in temp, ph, and fecal coliform, and boating safety. The students raise 100,000 Coho in Carlisle Lake, wad adult returns for coded wire tags, and plant carcasses in area streams for nutrient enhancement. 8,000 rainbow trout are also 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 (our goal is a minimum of 10 years) this project will provide information to a variety of user groups in a setting, occasion, or medium for exhibiting collaborative on the ground, community based, grass roots efforts for salmonid enhancement in an attractive and favorable aspect. The concept is geared towards connecting people of all ages and backgrounds to take personal ownership and responsibility for the Chehalis Basin and its resources. In 2008 at the Grays Harbor County Fair the CBFTF raised \$1004 in new memberships and raffle ticket sales. The CBFTF also participated in the Chehalis Watershed Festival in September of '08. The taskforce provided a trout pond and allowed children to catch trout.

Satsop Springs

With assistance from local volunteers, the 2008 releases of 198,300 Chum smolt, and 450,000 Coho smolt went as planned. The program reared 2,500 rainbow "trophy" trout at Satsop Springs and 1,500 at Mitchell Creek. These Rainbows averaged 6 lbs. each, with the biggest at 20 lbs. 8 oz. and were planted local area lakes.

Satsop Nutrient Enhancement Project

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

HABITAT ENHANCEMENT PROJECTS**Budd Creek Project**

This project removed 2 fish barrier culverts on Budd Creek in Grays Harbor County on Middle Satsop Road. One culvert, 3 feet wide, was under an existing county road; the second culvert, 4 feet wide, is just downstream from the first under an abandoned county road. Both were undersized, creating velocity barriers in this 12 feet wide stream. These are the only fish barrier road crossings on Budd Creek, which flows into Lower Satsop River at RM 5.5. The barrier correction at the upper site was a 20 ft. wide,

Chehalis Basin Fisheries Task Force

7 ft. high low-profile bottomless arch culvert to accommodate stream flow, fish passage and low road profile road. The lower barrier was corrected by moving the stream channel back to its original alignment, bypassing the lower culvert and alluvial fan. This project opened over 2.5 miles of excellent upstream habitat, which is potential rearing habitat for four species of salmonids: Coho, Chinook, Cutthroat and Steelhead.



Swinhart Project

The Swinhart Fish Passage Barrier Culvert Correction project removed two undersized barrier culverts. The primary 4 ft. diameter culvert is installed at streambed level with the 2nd 3 ft. diameter culvert elevated as an overflow pipe. The stream is a tributary of Black Creek in the Wynoochee Watershed. The species benefited are juvenile coho, chinook, steelhead, cutthroat trout and chum in the lower reach. The stream has a 9 ft. bank width and the correction will be a 12 ft. round corrugated steel

culvert 40 ft. long installed with the no-slope design based on WDFW protocols. This correction opened 1.5 miles of rearing habitat for salmonids. Downstream from the site the stream is incised because of the undersized culverts and high velocities flowing through the culverts during high flows. The stream intersects Black Creek roughly 180 feet downstream from the project site. Immediately upstream the streambed is heavily impacted with sediment due to the undersize and improper culvert installation causing bedload accumulation. The upstream area has good riparian overstory with native shrubs, 25 year old conifers and ample LWD in the stream. Beaver ponds are prevalent throughout the 1.5 miles of stream above the project site. In the areas between the beaver ponds the stream has exposed streambed gravels suitable for spawning.

Tornquist Project

This project corrects two barrier culverts on the Tornquist property in the upper watershed of East Fork Wildcat Creek. One barrier culvert is on the East Fork and the second is on an unnamed tributary that enters the East Fork just upstream from the first barrier culvert. The mainstem barrier correction opened several miles of fish spawning and rearing habitat for five species of salmonids. The second site is a total barrier with an undersized culvert under a forest access road impounding extensive wetlands and blocking potential juvenile salmonid rearing habitat. The correction for the East Fork barrier is a steel bridge 30 feet long and 14 feet wide. The correction for the second barrier is removal of the culvert, lowering of the road surface and developing a hard crossing to allow vehicle access during dry summer months only. This will maintain the wetlands above the road while providing access for the landowner during the summer months and juvenile salmonids access to the rearing area upstream of the road during winter months. The two corrections combined opened nearly five miles of fish habitat, all which would provide of rearing habitat, and 2 of which would be spawning habitat.

PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	\$89,986	1,576.25	\$23,643.75	\$16,511	\$130,140.75
Carlisle Environmental Ed.	\$2,001	1,877	\$28,155		\$30,156
Education & Outreach	\$2,722			\$144	\$2,866
Mayr Bros	\$14,659	178	\$2,670	\$12,508	\$29,747
Satsop Nutrient Enhancement	\$4,459			\$5,000	\$9,459
Satsop Springs	\$42,383	2,544	\$38,160	\$48,569	\$129,112
Egg & Carcass/ss housing				\$11,107	\$11,107
SS Housing	\$53,313			\$7,983	\$61,296
Huber Project				\$105,409	\$105,409
Forrest Cr				\$35,939	\$35,939
Tosland Fish Barrier				\$98,422	\$98,422
Budd Creek				\$76,869	\$76,869
Tornquist-EF Wildcreek				\$3,868	\$3,868
Vance Creek				\$7,015	\$7,015
Totals	\$209,523	6175.25	\$92,628.75	\$429,344	\$731,405.75

Chehalis Basin Fisheries Task Force

BOARD OF DIRECTORS

Upper Basin Representatives

Chanele Holbrook, Heernett Environmental Foundation, Seat #1
Michael Munsell, Friends of the Chehalis, Seat #2
Jim Tyner, Carlisle Environmental Education, Seat #3
Lori Sanderson, Carlisle Environmental Education, Alternate Seat #3
Dennis Morr, TransAlta Centralia Mining, LLC, Seat #5

Middle Basin Representatives

Bob Balcombe, Seat #7
Lloyd Case, Alternate Seat #7
Greg Jones, Elma Game Club, Seat #8
Commissioner Bob Beerbower, 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,

Lower Basin Representatives

Allan Hollingsworth, Grays Harbor Gillnetters, #14
Steve Berggren, Seat #15
Joel Green, Grays Harbor College, Seat #16
Doug Fricke, Alternate Seat #16
Joe Durham, Grays Harbor Trout Unlimited, Seat #17
Mike Larsen, Grays Harbor Trout Unlimited, Alternate Seat #17
Commissioner Stan Pinnick, Port of Grays Harbor, Seat #18
Ken Rausch, Port of Grays Harbor, Alternate Seat #18
Keith Burns, Grays Harbor Poggie Club, Seat #20
Bob Muhlhauser, Grays Harbor Poggie Club, Alternate Seat #20

STAFF MEMBERS

Ellie McMillan, Administrative Director
Steven Franks, Satsop Springs Facility Worker

CONTACT INFORMATION

Chehalis Basin Fisheries Task Force
115 S Wooding Street
Aberdeen, WA 98520
Phone/FAX: 360-533-1766
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

2008 has been focused on design development, and collecting/evaluating data on the continued decline of all natural spawning population of salmonids, especially Chum salmon, in the Willapa Bay. A great deal of our time has been spent on proposals for funding of designs completed for construction in 2009. We have been completing monitoring of two stream/salmon blockages we completed in 2003, 2005, and 2006. Our Board has been alarmed with the steady decline of returning natural spawning salmon to the restored streams we have completed in the past 9 years which had good runs re-established, and have either had no returns or the returns have been very small. Because of this in 2007/2008 season we were only able to obtain about 600,000 Coho eggs for our RSI's, and no Chinook or Chum, this is about 10% of our historical collections. We have joined WDFW and other stake holders in the Willapa in developing goals for the Willapa Bay 2009 Plan which establishes planning for the next 50 years for salmon in the Willapa Bay. Our projected construction cost for next year is over \$666,322 for three projects.

PROJECT HIGHLIGHTS

Skidmore Slough Tide In-flow Project

This project was started in 2006, with a Habitat assessment and a salmon blockage PI. The results of that assessment showed about 7.5 miles of good spawning and rearing habitat is being blocked by a tide gate and a failed culvert. The tide gate has presented some unique landowner issues. Which needed several meetings with landowners to resolve, recently willing landowner have signed an agreement that will allow us to proceed to design for the removal of existing blocking tide gates installing a self-regulating fish friendly gate. We have applied for funds to the Salmon Recovery Funding Board for design development.

Skidmore Slough, Blocked City Culvert

The design, biological evaluation, soils testing, and permits have been completed. We have applied for funding from the Salmon Recovery Funding Board, FishAmerica, National Fish and Wildlife Foundation, and City of South Bend for funding to accomplish the construction starting in July 2009.

South Stream

We have completed the design for restoration of 3.25 miles of stream; this project will install 120 pieces of LWD in the estuary and up-lands to restore spawning and rearing habitat. This is the last stream of four streams in this region to be restored. We

are seeking funds from FishAmerica, Willapa National Wildlife Refuge, US Fish and Wildlife for construction in 2009.

Summary: The single most important message that one should take away from our report: Willapa Bay natural salmonids populations are continuing their sharp decline for the past 8 years, although this is a decline that started in 1953 time period, it has now reached the point where populations of Chum salmon are below their sustainable level. During the past 10 years our organization has completed projects that restored 41 miles of streams, removed 29 blockages, restored over 700 acres of wetlands, completed 38 habitat Assessments. However, the salmon have declined; NOAA, Governors Salmon Board, WDFW, and Salmon Recovery Funding Board strategy of focusing on habitat, and developing "plans" and setting up review committees is not working in Willapa Bay. We are not getting enough returning salmon. 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.

Willapa Bay Fisheries Enhancement Group

PROJECT EXPENDITURES

Project	RFEF Funds	Volunteer Hrs	Volunteer Skill (\$84/hr)	Other \$	Total \$
Lost Creeks				\$3,100	\$3,100
Tide In-Flow	\$9,923	50	\$4,200		\$14,123
Lamprey	\$10,500			\$24,500	\$35,000
Chum Investigation	\$3,500				\$3,500
Skidmore Slough	\$15,575				\$15,575
Skidmore Slough BE	\$4,727				\$4,727
South Stream Design	\$19,798				\$19,798
8 Grant Applications	\$0	100	\$8,400	\$0	\$8,400
Monitoring	\$3,679				\$3,679
Fish Enhancement	\$4,110	300	\$3,600(@\$12/hr)		\$7,710.
Board Members		50	\$600(@\$12/hr)		\$600
Project Manager	\$36,464	135	\$12,454		\$48,918
Administrative	\$5,342				\$5,342
Total	\$113,618	585	\$29,254	\$27,600	\$170,472

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/Consulting Electrical Engineer
 Jewel Hardy, Banking Manager

STAFF MEMBERS

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

CREW INFORMATION

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

CONTACT INFORMATION**Willapa Bay Fisheries Enhancement Group**

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



Lower Columbia Fish Enhancement Group

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

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 (WRIAs) 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.

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 2007/8, LCFEG continued implementation of both its Strategic Plan and the Lower Columbia Salmon Recovery Plan and Watershed Sub-Basin Assessments for SW WA blessed 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 follow the 6-Year Habitat Work Plan reflecting projects completed or underway. When practical and feasible, these documents are also utilized to help prioritize projects for the upcoming year.



2007/8's Education and Outreach Program involved numerous year-round activities including volunteer (student and/or citizen) planting parties at our various project sites, regular educational presentations on local salmon species and their habitat 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.

PROJECT HIGHLIGHTS



Project Development / Assessments

LCFEG is currently engaged in multiple assessments designed to identify habitat restoration projects. Locations where the assessments are underway include the Cispus River, Lower Kalama and Duncan Creek. Project types we are developing include spawning channels, in-stream structure and off-channel rearing habitat. Project partners include Washington State Parks & Recreation Committee, SRFB, USFWS, WDFW, Port of Kalama, USFS and multiple private landowners.

Duncan Creek Rehabilitation

We began the early phases of work in this project wherein we will construct improvements to the existing Duncan Creek spawning channels, assess the habitat conditions and develop conceptual designs for habitat restoration in the watershed. Habitat within this reach has degraded and needs to be reconnected to the floodplain to provide spawning and rearing opportunities.

Grays River LWD Complexity

In early 2007 we initiated work on a 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. The majority of the effort in the first half of 2007 included the acquisi-

Lower Columbia Fish Enhancement Group

tion of wood from Tacoma Power. Project funding is provided by SRFB with contributions from Naselle youth camp and Tacoma Power. The participating landowner is CJ Schmand.



Little Washougal Riparian

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

Lower Washougal Restoration Phases I & II

In the summer of '06 we placed in-stream complexity on the lower Washougal River along with the construction of an engineered log jam. We also supplemented a large rock riffle containing approximately 10,000 tons of boulders which helped to re-meander the river. We also began extensive re-grading on a series of three off-channel gravel quarry ponds that will eventually be utilized as off-channel rearing habitat for juvenile salmonids. Project funding is provided by SRFB, Burlington Northern Railroad and Georgia Pacific Corporation. Project partners include City of Camas, Georgia Pacific and WDFW.

Nutrient Enhancement (Multi-WRIA)

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

Reach 8 Washougal Restoration

In the spring of '07 we initiated work on this project which will include the installation of one large logjam, five boulder clusters, restoring access to > 4,000' of tributary habitat, creation of 3 acres of off-channel rearing habitat, groundwater investigation and riparian plantings. This property has been the site of previous restoration by LCFEG in partnership with Washington Trout and Columbia Land Trust who completed a SRFB project on Schoolhouse creek upstream of the proposed work site. Funding is being provided by SRFB with partnerships from Gary and Dana Ostenson, WADNR and WDFW.

Upper Washougal Restoration Phases I & II

This project was concluded in the summer of '07 with the creation of a large engineered log jam in the upper reaches of the Washougal River. In combination with the last two years of work this brings the total number of LWD jams to seventeen (17), the total number of rock structures to three (3) along with the placement of approximately fifteen (20) single logs.



PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hours ⁽¹⁾	Volunteer Dollars ⁽²⁾	Other Funds	Total Spent
Carcass Analog II Study	-	-	-	\$34,530	\$34,530
Cispus River Assessment	-	-	-	\$33,010	\$33,010
Cowlitz-Filla Side Channel	-	8	\$120	\$53,390	\$53,510
Dean Creek Restoration	\$1,390	241	\$3,615	\$5,230	\$10,235
Duncan Creek Restoration	-	-	-	\$34,330	\$34,330
Elochoman Restoration	-	-	-	\$2,050	\$2,050
Grays River Restoration	\$49,950	28	\$420	\$24,350	\$74,720
Hamilton Design	-	146	\$2,190	\$43,500	\$45,690
Little Washougal Riparian	-	872	\$13,080	\$7,800	\$20,880
Lockwood Crk Restoration	-	-	-	\$1,750	\$1,750
Lower Cowlitz Assessment	-	-	-	\$61,270	\$61,270
Lower Kalama Assessment	-	265	\$3,975	\$54,990	\$58,965
Lower Washougal Phases 1&2	\$1,930	7,954	\$119,310	\$179,750	\$300,990
Muddy River Road Decommissioning	-	-	-	\$540	\$540
NF Toutle Elk Refuge	-	-	-	\$4,460	\$4,460
Nutrient Enhancement	-	1,692	\$25,380	\$21,290	\$46,670
Steelhead Landing	\$880	72	\$1,080	-	\$1,960
Upper Washougal Phases 1&2	-	3,531	\$52,965	\$66,900	\$119,865
Washougal Reach 8 Restoration	-	1,617	\$24,255	\$58,190	\$82,445
Woodard Assessment	-	17	\$255	\$13,500	\$13,755
WRIA 27/28 Enhancements	-	18	\$270	\$6,570	\$6,840
Equipment	\$3,220	-	-	-	\$3,220
Habitat Projects (Other)	\$930	-	-	-	\$930
Monitoring	\$1,240	7	\$105	-	\$1,345
Operations	\$63,630	381	\$5,715	-	\$69,345
Outreach/Education	\$2,950	19	\$285	-	\$3,235
Project Development	\$36,220	40	\$600	-	\$36,820
Training/Education	\$4,580	-	-	-	\$4,580
Totals	\$166,920	16,908	\$253,620	\$707,400	\$1,127,940

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 Donna Hale, WDFW Watershed Steward

STAFF MEMBERS

Tony Meyer, Executive Director
 Nello Picinich, Operations Director
 Peter Barber, Field Biologist
 Darric Lowery, DOC Crew Supervisor
 Amy Lobdell, Office Assistant

CREW INFORMATION

LCFEG utilizes a ten person crew from the Department of Corrections - Larch Mountain facility.

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.

RFEG OVERVIEW

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

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

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

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



Population growth in the Yakima Basin is likely the biggest threat to salmonid resources in the region. The Yakima Basin also includes some of the best opportunities to protect and restore salmonid habitat in our region. This year, Mid-Columbia Fisheries was able to hire a Program Manager to focus on project development and implementation in the Yakima Basin. Increased staffing for the Yakima Basin is already resulting in additional restoration and protection projects in Yakima and Kittitas Counties.

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

PROJECT HIGHLIGHTS

Taneum Creek - Large Wood Replenishment

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

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

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

This project has a number of tangible benefits.

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

Mid-Columbia Fisheries Enhancement Group

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

Lower Taneum Creek

A number of small restoration actions have been undertaken in the last five years on private ownership in Lower Taneum Creek. In the fall of 2007, we re-opened access to two (previously blocked) side channels and installed several large logs with rootwads to move water away from an eroding bank. We also installed three rock-drop structures to address on-going head-cutting in this reach. New riparian vegetation was planted in disturbed areas. An additional side-channel was re-opened in the summer of 2008. The goal of these actions is to improve the ability of the creek to access the floodplain during high flow events, which will reduce scour and down cutting, provide refugia habitat, and protect existing habitat complexity in the main channel.



Cle Elum River Floodplain Restoration: Cooper Bridge Phase 2

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

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

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

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

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

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

Holmes Side Channel

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

Simmons Creek

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



Mid-Columbia Fisheries Enhancement Group

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

Klickitat River Riparian Planting

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



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

Little Klickitat River Riparian Planting

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

Little Wind River Sediment Reduction

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

Education & Outreach

This year, Mid-Columbia Fisheries helped staff the Benton Conservation District's Salmon Summit, an event attended by 1,000 local students who learn about watershed and fisheries issues and release classroom-reared salmon into the Lower Yakima. Based on the success of this event, Mid-Columbia Fisheries helped organize a similar experience for students from eastern Skamania and western Klickitat counties. This event, dubbed the "Water Jam," was held in May and attended by more than 380 fourth and fifth graders. The event included hands-on educational activities on watershed health, restoration, salmon life cycle, conservation and related themes.

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

PROJECT EXPENDITURES

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

BOARD OF DIRECTORS

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

STAFF

Margaret Neuman, Director
Rebecca Wassell, Yakima Basin Program Manager

CONTACT INFORMATION

Mid-Columbia Fisheries Enhancement Group
P.O. Box 1271
White Salmon, WA 98672
Phone: 509-281-1322
Email: fish@midcolumbiafeg.com
Website: www.midcolumbiageg.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 will perpetuate salmonid populations and create measurable increases in their habitat in southeastern Washington, northeastern Oregon and north central Idaho.



OVERVIEW

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

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



During the 2007-08 fiscal year the Tri-State Steelheaders participated in 11 habitat restoration projects. Our volunteers donated a total of 2,278 hours working on habitat enhancement projects and educational programs.

PROJECT HIGHLIGHTS

Creating Urban Riparian Buffers (CURB)

Tri-State Steelheaders has partnered with the Walla Walla County Conservation District and the Backyard Stream Team to create a program to improve water quality and wildlife habitat on streams that flow through the urban areas of Walla Walla and College Place. CURB is open to landowners who live on four local urban creeks, Yellowhawk, Garrison, Russell, and Stone Creeks. The program provides native, aesthetically pleasing, riparian buffers on these properties.

The buffers help to improve water quality by filtering sediment, pesticides, fertilizers, and other chemicals that would otherwise end up in the streams. Shading provided by the vegetation helps to keep water temperatures cool, which benefits fish and aquatic species. Once established, the roots of riparian plants help stabilize streambanks. Woody debris contributed by riparian plants provides in-stream habitat for fish by creating pools and eddies, and also attracts insects that fish feed upon.

This year's program was launched with two projects. In addition, numerous sites were evaluated and ranked by project benefit for later installation. Funding sources include Department of Ecology, and the Community Salmon Fund. The landowners also contribute to the projects by in-kind match and cash match.

Mill Creek Assessment

Work began this spring on the Mill Creek Fish Passage Assessment. The project is a collaboration with the Mill Creek Work Group, and is funded by a grant from the Salmon Recovery Funding Board for \$96,000 with a match from our Regional Fisheries Enhancement Group funds of \$17,000.

The need for the assessment arose because fish managers were uncertain how well adult fish could navigate the channel-spanning weirs and concrete flume in 5.5 miles of flood control channel that runs through Walla Walla.

It is assumed that this section of Mill Creek presents passage challenges to adult and juvenile steelhead, spring Chinook, and bull trout but little work has been done to document passage barriers. The completed assessment will provide information on the location and nature of any passage barriers that exist, and provide fish managers with the most current information on which to base their management decisions. The assessment will also provide recommendations for improving fish passage, based on condition in the channel.

Kids Fishing Day

In June, TSS held our annual Kids Fishing Day for kids 14 years of age and under at Bennington Lake. The event provides an opportunity to bring families together to enjoy the outdoors and is a great way to introduce kids to a life long sport that supports conservation of our natural resources. There is no charge for the event, which is held on the Washington Department of Fish and Wildlife's free fishing weekend. This allows fishing for all ages without an official license. There are free hot dogs and soda for the young fisherman to enjoy as well as a casting contest complete with prizes.

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



Project Success Monitoring Using WHEP (Watershed Health Evaluation Procedure)

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

Doan Creek

This year TSS again joined efforts in restoring Doan Creek, a small creek that provides important habitat for rearing Steelhead

smolt. In addition, the project helps to reduce water temperatures by dumping three to four degree cooler water into Mill Creek, thereby working toward meeting the TMDL standards identified for our region. Historically, Doan Creek had been almost completely diverted to an irrigation ditch and left dry, providing little to no habitat for fish throughout the Whitman Mission National Historical Monument. The park's managers approached Walla Walla County Conservation District to help them reestablish the creek. TSS and the adjoining landowners also have become partners for the project. The landowners, which include Walla Walla University and other private citizens, are allowing restoration of the creek throughout their properties. Plus, Walla Walla University Engineering and Environmental Science students have helped with some of the design work. The project has grown into a wide scale restoration project that will provide 36,600 feet of restored creek meanders all planted with native riparian buffers when completed.

Touchet River Screen Consolidation Project

TSS provided \$100,000 of RFEF state funds as a project partner in the Touchet Consolidation Project. These funds leveraged \$1.8 million for the screening and irrigation ditch consolidation project.

The location of the project is in Dayton, WA at the intake of the steelhead acclimation pond operated by WDFW for the Lower Snake River Compensation Plan. The project included combining and relocating two irrigation diversions to a common intake with the acclimation pond. Combining the intakes made it possible to eliminate the need to work in the streambed each year to build push-up dams at the individual sites. The new intake has ESA compliant fish screens, a pool and chute fish ladder, and an improved trapping facility. Separate controls to divert the water to the acclimation pond and to the two irrigators were installed, and the open irrigation ditches were put into a pipeline to increase the efficiency of delivery to the irrigators.



Tri-State Steelheaders Fisheries Enhancement Group

Project Partners include: Fisheries Restoration and Irrigation Mitigation Program – USFWS, Lower Snake River Compensation Program – USFWS, Columbia County, City of Dayton, Snake River Salmon Recovery Office, Salmon Recovery Funding Board, Bonneville Power Administration, Washington State Dept. of Ecology, Hearn Ditch Irrigation District, Confederated Tribes of the Umatilla Indian Reservation, Tri-State Steelheaders, Washington Department of Fish and Wildlife, Columbia Conservation District

Wetland Mitigation

This year Tri-State Steelheaders achieved a great feat by forming a partnership with Washington Department of Transportation to complete mitigation requirements as set forth by Washington Department of Fish and Wildlife, US Army Corps of Engineers, and Washington State Department of Ecology for recent highway modifications through existing local wetlands. Tri-State Steelheaders, along with a local team of experts, helped to identify sites where this work could be done to achieve the maximum habitat benefit. The sites were ranked and WSDOT presented them in their Conceptual Mitigation Plan for final ranking. The first project has been selected and will fulfill the mitigation requirements. The land at the site is currently used as farm land. The project will entail restoring three acres of historical wetland and 14 acres of upland habitat that serves as a buffer to the wetland. The entire project will then be placed in a conservation easement. Other sites have been identified and all remaining funding will go towards the restoration of wetlands.

Flow Monitoring

Continuing with efforts started in 2002, Tri-State Steelheaders provides assistance and on-the-ground support for the Washington Department of Ecology's stream gauging network in WRIA 32.

Tri-State Steelheaders technicians visit 16 stations weekly to take measurements and provide maintenance. These monitoring efforts provide data used for Watershed Planning and HCP planning efforts. Stream gauge data are available for public viewing at Ecology's website, <https://fortress.wa.gov/ecy/wrx/wrx/flows/regions/state.asp>.



PROJECT EXPENDITURES

Project	RFEG Funds	Volunteer Hours	Volunteer Dollars	Other Funds	Total Spent
Administration	11,815.01	82.50	3,495.00	0.00	15,310.01
ALEA Kids Education Program	0.00	252.50	3,787.50	4,774.40	8,561.90
Community Outreach & Education	10,745.06	1,811.50	27,172.50	1,987.29	39,904.85
Creating Urban Riparian Buffers	68.77	71.00	1,065.00	33,028.34	34,162.11
Pataha Creek Bridge	729.07	0.00	0.00	972.77	1,701.84
Doan Creek Restoration	2,024.44	0.00	0.00	68,549.00	70,573.44
Enhanced Flow Monitoring	0.00	0.00	0.00	22,434.73	22,434.73
Mill Creek Fish Passage Barrier Assessment	4,559.99	0.00	0.00	23,412.58	27,972.57
NF Coppei Conservation Easement	0.00	0.00	0.00	1,756.39	1,756.39
Project Development & Management	63,497.43	0.00	0.00	492.32	63,989.75
Russell Creek	88.00	60.75	911.25	0.00	999.25
Touchet Consolidation	10,000.00	0.00	0.00	1,535,000.00	1,545,000.00
Training	1,056.00	0.00	0.00	0.00	1,056.00
WA State Dept. of Transportation	0.00	0.00	0.00	3,001.32	3,001.32
					0
Totals	\$104,583.77	2278.25	\$36,431.25	\$1,695,409.14	\$1,836,424.16



Tri-State Steelheaders Fisheries Enhancement Group

OFFICERS

President: Larry Zalaznik, Vice-President, Banner Bank
Vice President: John Cole, Ph. D., Professor, Walla Walla University
Treasurer: Mike Loney, Retired
Secretary: Mike Denny, CREP Coordinator, Walla Walla County Conservation District

MEMBERS

Steve Brown, Owner, Steve's Hallmark
Bob Carson, Ph.D, Professor, Whitman College
Kevin Crum, R.A., Architect, US Army Corps of Engineers
Rick Jones, Director, Walla Walla County Conservation District
Matt Mahan, Herring Groseclose Funeral Home

STAFF

Nichole Curet, Executive Director
Brian Burns, Project Manager
Steve Gwinn, Outreach Coordinator
Cheryl Cockerline, Secretary
Thomas Ewing, Flow Monitoring Technician
Tara Patten, Habitat Restoration Technician

Tri-State Steelheaders project partners July 1, 2007 – June 30, 2008: Asotin High School, Berney Elementary School, Burbank High School, Clarkston High School, Confederated Tribes of the Umatilla Indian Reservation, Cooperative Trout Enhancement Program, DeSales Catholic High School, Farm Service Agency, Garrison Middle School, Hook N' More Sports, National Marine Fisheries Service, National Park Service, National Resource Conservation Service, Opportunity Program, Palouse Community School, Pepsi-Cola of Walla Walla, Royse Hydroseeding, Sportsman's Warehouse of Kennewick, Touchet Elementary School, Touchet High School, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Forest Service, Waitsburg Elementary School, Walla Walla Basin Watershed Council, Walla Walla Community College, Walla Walla County Watershed Planning, Walla Walla University, Walla Walla Watershed Alliance, Walla Walla County Conservation District, Walla Walla High School, Walla Walla YMCA, Wal-Mart, Washington Department of Ecology, Washington Department of Fish and Wildlife, Washington Salmon Recovery Funding Board, Whitman College, and many additional local and regional businesses that supported the Tri-State Steelheaders' projects.

CONTACT INFORMATION

Tri-State Steelheaders, RFEG
216 N. Roosevelt
P.O. Box 1375
Walla Walla, WA 99362
Phone (509) 529-3543
Fax (509) 529-3543
E-mail: tssfsh@charterinternet.com



MISSION STATEMENT

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

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.



Antoine Creek, undersized culvert

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. One of the many mechanisms for working with landowners is that UCRFEG has developed its "Landowner Watershed Committee" Program,

which provides support and facilitation for smaller, semi-formal groups of landowners interested in their respective tributaries, and involves multi-purpose watershed planning and a variety of processes as selected by the landowners. UCRFEG has also developed an Interdisciplinary Science Team made of various government agency representatives to support both UCRFEG projects and advise landowner committees and their processes.

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, county fairs, plus other opportunities arising from our Landowner Watershed Committee program.

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, but we are currently developing standard volunteer monitoring and assessment program 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 who have their own nutrification programs.

UCRFEG has engaged in partnership development with a large number of both government and non-government organizations (too many to list by name) 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. UCRFEG makes many presentations to other groups, examples of which are Okanogan Conservation District, Kiwanis, Cattleman's Associations, County Commissioners, Chambers of Commerce, Economic Alliance, and Tourism Councils.

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 171 hours of volunteer time.

Upper-Columbia River Regional Fisheries Enhancement Group

PROJECT HIGHLIGHTS

Respect the River – Chiwawa River

Respect the River is a multi-faceted restoration program designed to balance the need for preserving riparian function (and endangered species) with the recreational needs of people. It works on the premise that restoration, combined with education, leads to success. Ten years of program development and the restoration of more than 500 acres of riparian habitat have earned Respect the River regional and national recognition. Through Respect the River, we are learning how to enhance outdoor opportunities for people and maintain excellent fish and wildlife habitat. UCRFEG and the US Forest Service have worked together on the Chiwawa River project.



New bottomless aluminum box culvert on Antoine Creek.

The Chiwawa River site is a popular recreation area on land managed by the Okanogan and Wenatchee National Forests. As such, it contributes economically to the tourist industry of the local community. Identified as a Key Watershed in the Northwest Forest Plan, the Chiwawa River is critical to the conservation of several fish listed under the Endangered Species Act (ESA). The River also provides cool, clean water to the Wenatchee River and the Columbia River system downstream from the Grand Coulee Dam. There are 14 developed campgrounds and several dispersed sites along the Chiwawa. The River suffers from common problems of overuse including:

- Increased bank erosion and sediment delivery due to user built roads and trails
- Decreased floodplain function due to loss of vegetation and soil compaction
- Loss of large woody debris in the floodplain
- Disturbance to redds and spawning fish through recreational dams and, in some cases, illegal harvest of ESA protected fish
- Presence of garbage and uncovered human waste

Using Respect the River, we have addressed these problems through stewardship, surveys, restoration, and partnerships. Knowing that restoration will neither be successful nor sustainable without understanding and acceptance by the recreating public, we incorporate contact rangers and interpretive signing into each of our project areas.

Our goals are to:

- Restore fish and riparian habitats that have been degraded by heavy recreational use
- Educate the public about habitat, and about ongoing restoration projects
- Create a program that is easily adaptable to all open lands
- Create community partnerships

During the 2006 field season, we completed Phase I of the project, restoring campgrounds at three sites to enhance fish and riparian habitat while retaining recreational activities. During 2007, we moved to Phase II, working at the Phelps Creek Campgrounds. Specifically, we relocated two campsites away from the river; constructed buck and pole fences along the river to facilitate vegetative recovery; built one common access trail to the river and rehabilitated excessive trails; de-compacted soils in riparian areas to facilitate floodplain revegetation; replanted riparian areas with native shrubs, trees, and forbs; confined parking to graveled parking spurs; closed and rehabilitated additional parking spurs by de-compacting soils and planting native vegetation; surfaced access roads and parking spurs with gravel; used boulders to delineate parking; and used *Respect the River* Contact Rangers to help campers and visitors understand the importance of riparian areas, recognize redds, and realize that their camping practices can move a site toward recovery. The project has, and will maintain public access to an outstanding example of habitat used by listed spring Chinook salmon, bull trout, and steelhead in the inland Pacific Northwest

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.

Colville Confederated Tribes – Wanacut Creek

This year the UCRFEG partnered with the Colville Confederated Tribes (CCT) to hire a watershed coordinator. This project supported a part-time watershed coordinator who was advocating and educating the tribal public about the importance of maintaining a healthy watershed for steelhead production, juvenile rearing and smolt out-migration. The Wanacut Creek watershed coordinator was able to contact local businesses such as the

Colville Tribes Precision Pine Mill, local communities such as the HUD development that straddles Wanacut Creek, and local agencies such as the Colville Tribes TANF (Temporary Assistance for Needy Families) program to get volunteers to commit resources to improving the fishery habitats of Wanacut Creek. Anadromous fish have always been limited to the lower 1.2 miles due to the presence of a natural falls. Steelhead habitat below the falls exists when sufficient discharge provides adequate access to the creek from the Okanogan River. Resident rainbow trout occupy habitats upstream of the falls. Perennial flows below the falls provide conducive habitats for salmonid production. Volunteer projects are being lined up for 2008.

Colville Confederated Tribes – Antoine Creek

The UCRFEG was able to partner with the Colville Confederated Tribes (CCT) to work on a culvert replacement project on Antoine Creek, near Tonasket, WA. The existing culvert on this project was made of 36 inch diameter corrugated metal pipe. There was evidence of nearly annual spring flood washouts of the farm road grade and culvert at the site. The flood debris was clearly deposited well above the lowered road crossing where flood flows have overwhelmed the culvert capacity and overflowed the roadway. After a review of various project alternatives, it was decided to install a bottomless aluminum box culvert to replace the existing undersized culvert. Field work was initiated on December 19, 2007 and the project was completed on January 2, 2008.



Wanacut Creek prior to any volunteer projects.

Upper-Columbia River Regional Fisheries Enhancement Group

PROJECT EXPENDITURES

Project Name	RFEG Funds	Volunteer Hours	Volunteer Dollars**	Other Funds	Total
Admin & office expenses	\$63,429	105	\$1575	-	\$65,004
Partnerships & Project Development	\$39,755	-	-	-	\$39,755
Habitat Projects Assessment, Restoration & Monitoring *	\$1,594	66	\$990	\$84,459*	\$87,043*
Education & Outreach	\$8,926	-	-	-	\$8,926
Training, Travel & Conferences	\$2,092	-	-	-	\$2,092
TOTAL	\$115,796	171	\$2,565	\$84,459	\$202,820

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

** (unskilled @ \$15.00 / hr, professional @ ESD rates)

BOARD OF DIRECTORS

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

STAFF MEMBERS

Daphne Booker, Program Manger
 Andrea Field, Administrative Assistant

CONTACT INFORMATION**Upper Columbia Regional Fisheries Enhancement Group**

Phone: 509 476 3444

Fax: 509 476 2883

Email: info@ucrfeg.org

Mail: PO Box 932, Oroville, WA 98844

Physical Address: 814 Central Ave #4, Oroville, WA 98844

Website: www.ucrfeg.org



Washington Department of Fish and Wildlife

600 Capitol Way N
Olympia, WA 98501-1091
Phone: (360) 902-2200
<http://wdfw.wa.gov/volunter/index.htm>