# ANNUAL REPORT SKAGIT FISHERIES ENHANCEMENT GROUP

### July 2001 - June 2002

EIT FISHER FOR	Board of Directors: Dick Knight, President Jim Thomas, Vice President Bruce Johnson, Secretary	Staff: Alison Studley, Executive Director Lucy Applegate, Volunteer Coordinator Perry Welch, Project Manager	
	Ken Urstad Arn Thoreen Russ Orrell Dave Beatty	Field Crew:Dave HoltKevik RensinkBob KellerDwayne MasseyGeoffrey Martin, Washington Conservation Corps	

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.

The Skagit Fisheries Enhancement Group (SFEG) is a nonprofit organization dedicated to the enhancement of salmon resources through education, restoration and public involvement. Established in 1991 as one of 14 Regional Fisheries Enhancement Groups in Washington State, SFEG is part of a coordinated effort to educate and involve the public in salmon enhancement activities across the state at the community level. SFEG works cooperatively with local landowners to identify restoration opportunities on their property and find the funding to implement them. SFEG's region is large including the Skagit River and Samish Bay watersheds as well as the watersheds of the San Juan Islands and northern Whidbey Island. SFEG has a challenging role in the statewide recovery of salmon since the Skagit watershed alone is the largest Puget Sound drainage; covering over 3,000 square miles and contributing over one-third of the freshwater to Puget Sound. While development and timber activities have impacted the health of the Skagit watershed, its overall salmon habitat conditions are excellent relative to other Puget Sound watersheds. Therefore, the Skagit watershed continues to provide significant spawning and rearing habitat for all five species of Pacific salmon. Historically, the Skagit watershed produced 60-70% of the Puget Sound chinook. Currently, approximately 50% of the production of Puget Sound chinook salmon depends on the Skagit River watershed.

This was an exciting year for salmon recovery in the Skagit Watershed. Restoration occurred at 12 sites this year throughout the watershed. Four grants were awarded by the Washington Salmon Recovery Funding Board totaling over \$400,000 for new projects. Other grants from the National Fish and Wildlife Foundation and Jobs For the Environment program contributed to our income. Major projects were implemented through partnerships with the City of Mount Vernon, Wetlands Reserve Program, People for Salmon and the Conservation Reserve Enhancement Program (CREP).

Volunteers contributed 4,715 hours to salmon enhancement this year by planting native trees, monitoring restoration sites, designing new restoration projects, counting returning salmon, distributing salmon carcasses, and much more. Educational programs were delivered to over 2,226 students and adults to build awareness for salmon and their habitat.

	Budge	t Summary		
INCOME		EXPENSES	EXPENSES	
Public Funds	\$ 397,852			
Private Funds	\$ 98,625	Projects & Programs	\$ 435,676	
Total Cash Income	\$ 496,477	Administration (10%)	\$ 50,503	
In-Kind Donations	\$ 119,566	Total	\$ 486,179	
Total	\$ 616,043			

Summary of Accomplishments					
Outros da	Committee duration				
Outreach:	Volunteer involvement	2,220 individuals 4,715 hours			
Habitat Enbancement:	Riparian revegetation	16 015 feet			
habitat Ennancement.	Fencing to exclude livestock	3.715 feet			
	Nutrient enhancement	9,543 carcasses			
	Improved stream access	12 miles			
Salmon Production:	Remote Site Incubators	675,000 eggs			

Salmon Recovery Partners 2001-2002
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- A Cab in the Woods
- Albertson's
- ALEA
- Alice Bay B&B
- Alpine Way Landowners Association
- Beth Anderson, artist -
- Bank of America -
- Jody Bergsma Gallery -
- The Boeing Company -
- Boy Scouts of America
- **Burning Foundation** -
- Cascade Clear -
- Cascade Job Corps -
- Cascade Mall -
- Cenex
- City of Concrete -
- City Bakery -
- City of Mount Vernon -
- City of Sedro Woolley -
- Concrete Nor'West -
- CREP
- Ducks Unlimited -
- Easton's Books -
- David Eilert, Artist
- -Fidalgo Fly Fishers
- Fidalgo Bay Roasting Company -
- FishAmerica/NOAA Restoration Center -

3,000 live salmon spawning upstream of the old barrier.

to planting by volunteers and paid crews.

- Marguerite Goff Pottery
- Gretchen's -
- Haggen -
- Janet Hamilton, artist -
- -Cheryl Harrison, artist
- Holiday Market -

- Il Granario -
- Island Adventures Jobs for the Environment
- LGL, Limited
- The Lincoln Theater
- The Lunch Box -
- Lee Mann, photographer
- Merritt Apples
- Microsoft -
- Minglewood Cafe
- Mount Baker Ski Area -
- Mystic Sea Charters -
- National Fish and Wildlife Foundation
- National Park Service
- North Cascades Institute
- North Cascade Networks
- Northwest Women Fly Fishers -
- Pacific Northwest Trails Association -
- Pacioni's Pizza
- Pasek Winery -
- People for Puget Sound al pre-
- People for Salmon/AWISH -
- Per Dona Salon -
- Puget Sound Anglers-Fidalgo Chapter - **- - - -**
- Rite Aid
- Safeway
- Samish Indian Nation
- San Juan Conservation District
- Sauk Mountain View Golf Course
- Scott's Bookstore
- Sigi's
- Steve Seymour, sculptor

feet. Native plants were planted by community members in 3.5 acres to improve the riparian and water quality conditions.

marine derived nutrients to the ecosystem. To date volunteers in the Skagit watershed have distributed over 30,000 carcasses.

**Skagit Anglers** 

- Skagit Conservation District
- Skagit County
- Skagit River Brewing Company
- Skagit System Cooperative
- Skagit Valley College
- Skagit Valley Food Co-op -
- Skagit Watershed Council -
- **Small Planet Foods** -
- Sports and More
- Summersun Greenhouses
- Symantec
- Taylor Shellfish
- The Nature Conservancy
- Thrifty Food Pavilion
- **Trillium Corporation**
- Tulip Festival Association
- US Fish and Wildlife Service -
- **US** Forest Service -
- Valley Bark and Topsoil -
- Verizon Corporation -
- Wal\*Mart
- Washington Conservation Corps -
- WA Salmon Recovery Funding Board -
- WA State Department of Ecology
- WA State Department of Fish and Wildlife
- WA State Department of Natural Resources
- WA State General Administrative Services
- Wetlands Reserve Program -
- Wildcat Steelhead Club -
- Wilson's Framing -
- -Woods Logging Supply
- Work Outfitters
- Habitat Enhancement Projects Alder Creek: A perched, undersized culvert was replaced with a bridge to improve fish passage in partnership with the Trillium

Corporation. The Alder Creek fish passage problem was identified as the number one fish passage improvement priority in Skagit County. Alder Creek is a tributary of the Skagit River near the Town of Hamilton. Approximately 10 miles of high quality spawning and rearing habitat exists upstream of the new bridge. Fish access was improved for chinook, coho, pink and chum salmon as well as steelhead and cutthroat trout by fixing this barrier. During the 2001-02 spawning season SFEG staff and volunteers documented over

Aldon Creek: This restoration project builds upon a culvert replacement project done by Skagit County in 2000 to restore fish passage to Aldon Creek. People for Salmon funded this project to benefit coho salmon and steelhead trout by restoring spawning and rearing habitat for both species. Riparian habitat and water quality conditions had been degraded for salmonids by eroding stream banks caused by livestock access and lack of riparian cover. A fence was built to exclude livestock along both sides of the creek for a total of 3,000 linear

Carcass Distribution: For the past five years SFEG has worked in partnership with the Wildcat Steelhead Club to add nutrients to the Skagit watershed by distributing carcasses from the Marblemount Hatchery. Last year volunteers placed 9,543 carcasses into tributaries of the upper Skagit River. Carcasses are essential to returning marine derived nutrients to the food web for wild salmonid fry and many other flora and fauna species. As fewer salmon return naturally to spawn, it has become essential to find other ways of introducing these essential

Hansen Creek: This riparian restoration project was implemented using JFE funds. The project revegetated 3,300 feet of Hansen Creek and a tributary, in the Hansen WAU with an average buffer width of 100 feet. Work crews prepped the site using mechanical means prior

Lake Creek: An undersized culvert was replaced with a larger culvert in order to meet WDFW fish passage design standards. Lake Creek connects two lakes in Skagit County, Big Lake to the north and Lake McMurray to the south. The creek has a fantastic coho run. The project corrects a fish passage problem at an old railroad grade. An 8 inch pipe under a railroad grade did not provide sufficient flow to allow for passage of juvenile salmonids. The project removed this pipe and replaced it with a 3 foot culvert sunk 12 inches. 7500 square meters of wetland habitat for coho rearing was opened as a result of this project.

*Lorenzan Creek:* This project opened nearly 2 miles of habitat to migrating salmon, steelhead and cutthroat by removing an undersized culvert and replacing it with a bridge near the Town of Concrete. The project was funded by the Salmon Recovery Funding Board and the National Fish and Wildlife Foundation. The landowner and the Skagit Conservation District were also instrumental partners. Spawning surveys in 2001-02 documented coho and steelhead use. A year ago no salmon, salmon carcasses or redds were observed.

*Lyle Creek:* Riparian improvements were made to Lyle Creek, tributary to the Sauk River, to protect and improve coho habitat. Riparian plantings and fencing to exclude livestock were paid for by the Conservation Reserve Enhancement Program. JFE funds built a crossing area for livestock. This crossing enables livestock to cross the creek without causing damage to coho spawning habitat in the creek, or causing degradation to the banks and riparian area. Approximately 8.4 acres were planted with native riparian plants and 1750 feet of fence were built to exclude livestock.

*Native Plant Nursery:* SFEG volunteers watered, weeded, maintained, transplanted and potted native plants at SFEG's nursery to produce a higher quality plant in greater quantities than what is available at local nurseries. The native plant growing operation enables SFEG to use plants at any time during the growing season rather than the limited time plants are available at nurseries. SFEG also hopes to plant a larger heartier plant that will better compete with invasive species such as reed canary grass.

*Conservation Reserve Enhancement Program (CREP):* SFEG partnered with local landowners and the Skagit Conservation District to implement riparian enhancement projects on local farmland. CREP assists local farmers in improving riparian habitat by providing technical assistance to create restoration plans and funds to implement them. SFEG crew planted native vegetation and built a fence to exclude livestock for two CREP projects. The two projects restored 4,415 feet of riparian habitat on Silver Creek and Kennedy Creek (tributary to Nookachamps Creek).

*Wetlands Reserve Program:* SFEG partnered with USDA NRCS Wetlands Reserve Program to implement riparian restoration projects at four sites. The Wetlands Reserve Program is a federal program that works with landowners to create permanent conservation easements to preserve and restore the values of wetlands. SFEG revegetated more than one mile of riparian easements through this program.

*Riparian Maintenance:* Over 1 mile of riparian habitat from previous implemented revegetation projects was maintained this year. Maintenance of riparian projects is necessary to ensure survival of native plants. Maintenance consists of treating invasive species, installing protectors on native species to prevent predation, and mulching native plants. Approximately 20 acres of new riparian areas were treated in partnership with The Nature Conservancy and Jobs for the Environment.

*Skagit Estuary:* A Skagit Dig Day was organized with partners to remove the noxious weed spartina from Skagit County's estuaries. This event recruited and educated volunteers about the invasive weed spartina. Volunteers learned how spartina damages the native estuary ecosystem and helped remove spartina manually in Padilla Bay. The Skagit County Noxious Weed Control Board also used mechanical and chemical means to control the growth of spartina at sites throughout Skagit County totaling 45 acres.

### Salmon Production

*Remote Site Incubators:* In cooperation with the Wildcat Steelhead Club, 675,000 chum eggs were raised in three remote site incubators (RSIs) on tributaries to the Samish River. The chum eggs are provided by the Maritime Heritage Hatchery in Bellingham. Volunteers maintained the spring fed reservoirs, the RSIs, walkways and trails throughout the winter months to see that salmon eggs hatch.

#### Education and Outreach

*Stormwater Education:* A new contract with the City of Mount Vernon funded SFEG to develop a program to teach students about the connection between stormwater and salmon habitat. The program consists of classroom visits as well as service learning projects. Students installed Grate Mate filters in stormdrains to help stop pollutants from entering our salmon streams. Students also stenciled stormdrains with "Dump no waste, Drains to streams" to help teach their community about pollution. 22,000 "Home tips for healthy streams" brochures were developed and mailed to local residents in partnership with Dept of Ecology and Skagit Conservation District.

*Skagit Watershed Education Project (SWEP):* SFEG assisted the North Cascades Institute in implementing the Skagit Watershed Education Project (SWEP). This project educated over 1,000 local students about salmon ecology and restoration through classroom and field visits.

*Watershed Masters:* Participation in the Skagit Conservation District's Watershed Masters program helped educate 20 adult volunteers about salmon restoration and watersheds. Volunteers in this program each gave 40 hours of volunteer service related to watersheds in return for this training.

*Skagit River Stewards:* Participation in the US Forest Service's Skagit River Stewards program trained 20 adult volunteers to collect macroinvertebrates in streams. This was the fifth year for the program with approximately 100 volunteers going through the program. Assisted by US Forest Service technicians, volunteers were able to collect excellent macroinvertebrate samples and data analysis. Macroinvertebrates are key indicators of the health of streams and can provide valuable information. SFEG will use the data to track the

health of streams after restoration projects are implemented. Eventually the index of biological integrity being created by USFS specific to the Skagit watershed will enable SFEG to compare the health of project sites to other streams throughout the watershed.

*Wild Salmon Education Trunk:* SFEG continued to make excellent use of the resources included in the "Wild Salmon Education Trunk" created by WDFW last year. The trunk is being used by educators in Skagit, San Juan and Island Counties. SFEG received grant funds from ALEA to duplicate popular materials and activities for better distribution.

*Skagit Watershed Council:* As the Lead Entity for salmon recovery in the Skagit watershed the Council developed a list of prioritized projects to submit to the Salmon Recovery Funding (SRF) Board. SFEG played a significant role in the development of this project list as a project sponsor, project reviewer and project prioritizer. A list of 15 projects was submitted to the SRF Board in November 2001 all of which were funded in April 2002. SFEG also is playing a major role on the newly developed monitoring committee as the Council strives to develop implementation and effectiveness monitoring protocols for salmon enhancement projects in our region.

*Skagit County Outreach:* \$30,000 was received from Skagit County in 2001-02 to reach out to local landowners and work with them to develop salmon enhancement projects. Technical assistance was provided to interested landowners and restoration alternatives were investigated. SFEG prepared 4 grant applications for the SRF Board and received funding for all 4 projects totaling over \$400,000 in 2002.

San Juan Islands and Whidbey Island Outreach: This year outreach and networking began in the San Juan Islands and Northern Whidbey Island. These area were recently added to our region therefore much work needs to be done to introduce the community to who we are and what we do. SFEG attended watershed oriented community fairs on the islands as well as introduced organizations and teachers to the Salmon Education Trunk. SFEG began assisting the San Juan Conservation District with their Watershed Masters program and assisted several property owners to develop salmon enhancement projects.

## Monitoring, Assessment and Research

*Monitoring:* Volunteers assisted SFEG's monitoring coordinator at over 25 project sites to perform spawner surveys, monitor vegetation, conduct instream habitat monitoring, collect macroinvertebrates and take photos at reference points. Data was entered into databases and shared with other agencies and organizations. A report was compiled containing an analysis of the 3 years of data collected at restoration sites. SFEG is actively participating with the Monitoring Committee for the Skagit Watershed Council to share monitoring protocols as we try to establish a standardized method for collecting salmon restoration project data within our region.

*Samish Watershed Anadromous Fish Barrier Assessment:* 40 tributaries were surveyed by SFEG crews to identify natural salmon barriers. Natural salmon barriers consist of falls, steep cascades, or diminished stream flows. All 187 tributaries in the Samish Watershed have now been surveyed and were added as a layer to the Skagit Watershed Council's GIS database.

*Fishwheel:* SFEG worked with WDFW and LGL, Ltd. to implement an experimental research project on the Skagit River to assist fishery managers with establishing salmon escapement goals. The fishwheel catches adult salmon as they migrate back to their spawning grounds. This fish counting method allows fishery managers to accurately count and tag returning salmon and then return them safely unharmed to the river for spawning. Unfortunately after two field seasons with the fishwheel, no adequate location to catch significant numbers of adult salmon could be identified for the Skagit River and the research project ended in 2001.

*Project Design:* A conceptual design report was completed for an East Fork of Nookachamps Creek project to maximize coho rearing habitat. A conceptual design report was completed for Ennis Creek in the upper Samish Basin. Designs were completed for Boyd Pond, off the Sauk River. to restore access to 12,000 sq. meters of rearing habitat. A fourth design report was completed for Shoeshell Road fish passage project near Sedro Woolley.

*McElroy Slough Estuary Restoration:* A final design was completed and all permits were secured to restore saltwater functions to this Samish Bay slough. Monitoring wells were installed to track salinity content and elevation of the groundwater. Construction plans for 2002 were put on hold by Skagit County while they undergo additional studies.

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