Cedar Creek Southwest, Washington - an eight mile fish habitat restoration example

Cross vanes with spawning beds above, pools below

Steelhead pair spawning on new gravel above cross vane

Improved fish habitats

Improved ecosystems

Fresh water Periwinkles

Fresh water clams

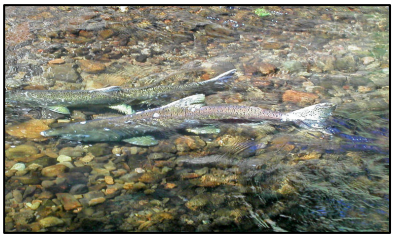
Cedar Creek - seven of thirty fish habitat restoration projects in the Lewis River, Washington watershed

Your grants and donations help the salmon that spawn in our rivers and streams and run to the Pacific Ocean

Fish First
Post Office Box 1505
Woodland, WA 98674
360-713-7460
http://www.fishfirst.org
501 (C) (3) Public, Charitable, Nonprofit Organization

FISH FIRST
RESTORING FISH RUNS

Fish First Programs



Habitat Restoration Program To make rivers and streams fish friendly—to enable salmon and steelhead to spawn, grow, and thrive—Fish First uses proven science, design, and years of experience in restoring habitat. The technology Fish First uses has been sanctioned and used by federal and state agencies and is being adopted in various regions of Canada. It has been approved by National Marine Fisheries through our NOAA 10a1A permit.

Fish Rescue Program Dave Brown, with support from the WA Dept of Fish and Wildlife and Fish First, saves salmon and steelhead. Juvenile fish are collected from local streams and tributaries before they dry up. Reared and fed in ponds on Dave's property, the fish grow until late fall when they are returned to the rivers and streams in which they were born. This project's momentum is building as more adults return each year and correspondingly more juveniles are found in the streams in the summer.

Rearing Ponds.

Nutrient Enhancement Fish carcasses from Lewis River and Speelyai Hatcheries are processed, frozen, thawed "in season," and distributed in South and North Forks of Chelatchie Creeks, East Fork of the Lewis River, Green River, Rock Creek and the Lewis River. This imitates the nutrient distribution that used to take place naturally when wild salmon were abundant. Led by Fish First and volunteers including local landowners, the cub scouts, members of Clark-Skamania Flyfishers and the Battleground High School Kaycee Center, over 45,000 pounds of nutrients have been distributed using over 3,000 volunteer hours.

Net Pens: Adding juvenile salmon into rearing pens.

Net Pen Program Fish First built and maintains two 30 x 30' and six 20 x 20' net pens at Lake Merwin for raising summer steelhead and kokanee.

In the spring, young fish (smolts) are moved from Lake Merwin net pens to Lewis River net pens for imprinting and the final stage of growth prior to release into the North Fork of the Lewis.

Remote Site Incubator (RSIs) Aiming to re-introduce natural spawning Coho salmon into several small tributaries of the North Fork -- including Hayes, Robinson, Ross, Cotton, and Houghton Creeks -- RSIs or "Egg Boxes" have been used to hatch approximately three million Coho eggs from the Lewis River Hatchery. Volunteers install, monitor, and maintain the boxes for about five months. This program will continue until enough Coho salmon are returning to these streams to sustain their runs.

Egg boxes installed on a tributary stream with spring water feed.

Join Fish First! Since 1995, Fish First has been raising funds for these programs and projects through memberships, grants, donations, and an annual fund raiser. Please join us!

Members meet every month – 3rd Thursday, 7 pm, Oak Tree Restaurant in Woodland, WA. Call 360-713-7460 to confirm or see the newsletter.

Name		Date
Address		Company
City, State, Zip		Phone
Email		
Please sign me up as a member!	☐ Steelhead – Sponsor $250 ☐ Chum – Students $15 ☐ Chinook – $1,000 Lifetime	☐ Coho – Adults $35 ☐ Smolts – Kids $20
Amount	Credit Card#	
Signature		CC# Expiration

☐ Please email me the Fish First monthly newsletter.

Mail to: Fish First, Post Office Box 1505, Woodland, WA 98764;
or contact us at 360-713-7460, or via email - info@fishfirst.org.

Fish First Information Book Table of Contents

Fish First focuses on fish habitat restoration, fish rescue, net pens, nutrient enhancement, and remote site incubation, as well as sharing their successes with others.

Designed with assistance from Fish First,
Daina Tekorius-McLean,
and Ben Dennis and Leslea Steffel-Dennis

Fish First Accomplishments

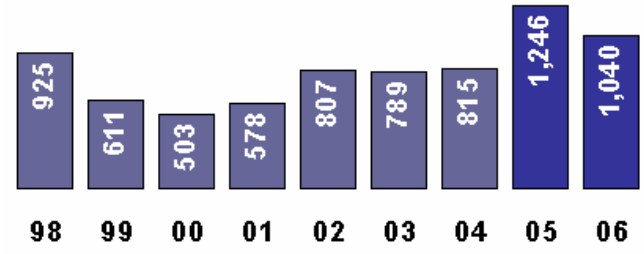
Please visit www.fishfirst.org for details.

47,520 Feet Restored Habitat

Approximate Distance. Includes Lewis River system tributaries, side channels and more!

Young Salmon Produced by Mile - Cedar Creek

Restoration began in 1997. Washington Department of Fish and Wildlife Trap Data and Analysis shows that smolt production far exceeds "EDT" targets.



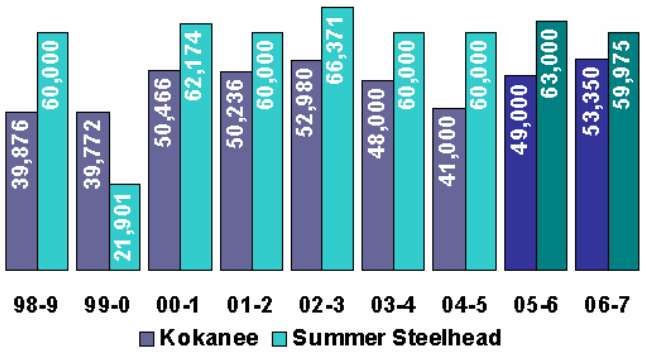
80,000 Salmonids Rescued

Fish Rescue Project

This project is conducted by Dave Brown in conjunction with the Washington Department of Fish and Wildlife and with assistance from Fish First volunteers and donations.

Stronger Fish - Lewis River Net Pen Project

Fish First net pens are used for the final stages of rearing stronger River and Merwin hatchery Spring Chinook and Steelhead young.



21 Restored Spawning Beds

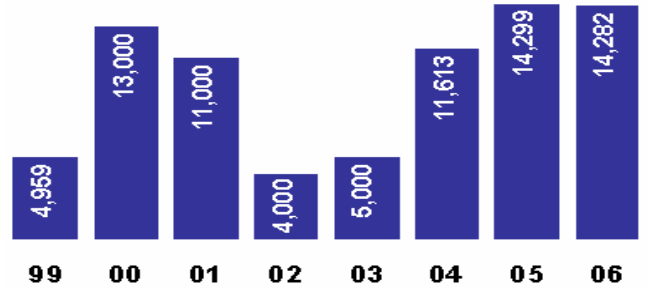
3,630,000 Silver Eggs

In 133 Egg Boxes (RSIs)

Also known as Remote Site Incubators, egg boxes are used to "jump-start" small tributary streams depleted of rearing stock. They have a 90% hatch rate and are installed and monitored by volunteers.

Nutrient Enhancement Program Lewis River System

This program imitates nutrient distribution that used to take place naturally when wild salmonids were abundant. Spawned fish carcasses provided by Lewis River and Speelyai Hatcheries are distributed into the river system from September – May. Dan Balch, director.



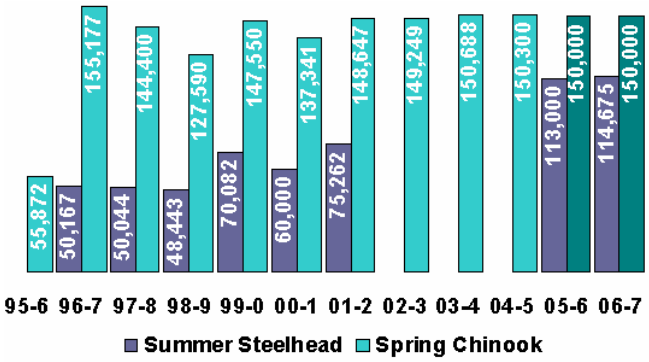
Immeasurable

The number of hours volunteered

Programs and projects, excluding habitat restoration, have logged over 12,000 volunteer hours.

Stronger Fish - Net Pen Project Lake Merwin

Young Summer Steelhead and Kokanee smolts are moved from Merwin hatchery to Lake Merwin Net Pens for the final stage of growth prior to release into the North Fork of the Lewis River.



Fish First Board Members

Dan Balch
Net Pen Program Director
Woodland, Washington

Harry Bresnahan
Board Member
Woodland , Washington

Jerome F. Brown
Newsletter Editor
Woodland , Washington

John DiVittorio
Executive Director
Vancouver, Washington

Hewlett Packard, retired
(Research and Development)

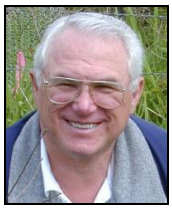
Richard Doi
Treasurer
Vancouver, Washington

Richard Dyrland
Chief Hydrologist and Resource Analyst
Ridgefield, Washington
United States Forest Service
(Hydrologist, 35 years, semi-retired)

Glen Johnston
Fund Raising Manager
Ridgefield, Washington

(Professional Financial Analyst)

Jack Kaeding
Board Member and Harvest Initiative Assistant
Vancouver , Washington
Hallmark Cards, retired
(Sales and Marketing)



Gary Loomis,
President, Founder
Woodland, Washington

G Loomis, Inc.
(Fishing reels, graphite rods)

Jim Malinowksi
Hydro Project Aquatics Coordinating Committee Representatve
Amboy, Washington

Power Utilities Instructor
Clark Community College

Walt McGovern
Board Member
Portland, Oregon

Mike Moss
Remote Site Incubator Director
Woodland, Washington

Jerry Sauer
Membership Director
Camas , Washington

Dean Swanson
Board Member
La Center, Washington

Daina Tekorius-McLean
Board Member and Grant Writer
La Center, Washington

Brig. Gen. Chuck Yeager
Board Member
U.S. Air Force, retired.

Fish First Impressions – Excerpts from a Personal Encounter

By Daina Tekorius-McLean

I have to admit; when I was first introduced to Fish First I was a skeptic. Was this another "environmentalist" group?

Then, I was excited to find out that Fish First was trying to bring back fish to the stream, and make a positive impact to the environment as well. They were not trying to tell landowners what to do, nor enforce laws and regulations; they were **simply trying to bring the fish back**.

What impressed me the most was that they raised over $80,000 to help a local dairy owner put in the fences, equipment, and bridges needed to keep his cows out of the stream while minimizing the impact to the dairy and improving fish habitat (see Funded and Completed Projects booklet: South Fork Chelatchie Creek – Vrieswyk Dairy – 1999). They were not there to tell the owners to do the work, they were willing to get the money there and do the work to help them benefit both their dairy and the fish.

Additionally, I was impressed that it was an organization run by volunteers. Although they do contract work out--especially for the professional skills needed for heavy construction of their projects--the fundraising, habitat restoration plans, grant-writing, nutrient enhancement, and remote site incubation projects and programs are run by volunteers, along with a combination of Federal and State assistance, grants, as well as corporate and private donations.

Habitat restoration project plans are permitted as required by law and are often completed with cooperation, support, and funding of Federal and State agencies. However, the volunteer hours contributed by the Fish First members is immeasurable.

Their work on the net pen, fish rescue, and nutrient enhancement programs is also incredible. One long-term member was quite injured when a frozen box of salmon carcasses fell on his leg and broke it, but he keeps going to help with both net pens and nutrient enhancement programs even though it is more difficult for him now – that's how much he believes in keeping the programs going.

Fish First success on the restoration of eight miles of Cedar Creek is also very impressive. The first tour that my husband, sister-in-law, and her husband received was astounding. My husband and family saw fresh water periwinkles for the first time, as well as evidence of fresh water clams, salmon carcasses eaten by local critters, eagles, snakes, and more. The environment was teaming with life. The monitoring project was kicking off and they were successfully looking for continued evidence of not only fish, but other invertebrates as well.

The sites we were taken to were remote and beautiful. I hope that it will be there for generations to come. I am glad that Fish First is sharing its success with other folks throughout the nation and the world through data sheets and collaborations.

I have to help this wonderful organization with the hope that they will continue to improve not only the fish habitat, but the environment as well.

Please join me in contributing what we can to help the Pacific Northwest native fish and improve environments wherever the fish run!

Threatened and Endangered Salmon Species Need Your Help!

Would you like to improve the environment? Do you enjoy Salmon? Do you want to help restore ecosystems for generations to come?

If you answered yes to any of these questions, Fish First needs your help to improve native wild fish runs for four threatened and endangered species: Chinook, Coho, steelhead, and chum! Improved fish runs improve your options for fish and help restore the natural balance in the ecosystem. Through contributions, grants, partnerships, and volunteers, Fish First has five ways of improving fish survival: remote site incubators (egg boxes), nutrient enhancement, net pens, fish rescue, and habitat (stream) restoration.

Over the next five years, Fish First hopes to raise $6-7 million for projects throughout the Lewis River systems. The Lewis River was chosen because it is the longest river below the Bonneville Dam - **approximately 64 miles of habitat for salmon and steelhead where fish run from the Lewis River, down to the Columbia River, out to the Pacific Ocean, and back.** Fish First activities are done by volunteers. Donations are used specifically for construction, equipment, maintenance, and materials. Hydrologists and other professionals assist in determining stream project designs, along with contributions from the Washington Department of Fish and Wildlife and other experts and partners, as needed.

Since 1996, Fish First has raised over $1.5 million in donations of time, money, and grants to improve the survival of the four local species. This year, it has raised over **$500,000** to complete **6 projects**. It still **needs to raise $192,000** to complete 2007 projects. For 2008, it hopes to raise approximately **$1.6 million** to fund **five** projects to improve over **15,000** feet of river and stream fish habitat.

Additionally, each year, volunteers install more than 800,000 silver salmon eggs in remote site incubators in many tributaries. Incubators are placed in feeder streams, allowing salmon fry to emerge directly into the stream. Over 95 percent of these eggs hatch into fry.

To enhance nutrient levels, volunteers place thousands of spawned salmon carcasses into the river systems at appropriate times of year. As carcasses decompose, food is provided for the newly hatched fry, dramatically increasing their survival rates.

Volunteers work to raise hatchery-born fish in Fish First in-stream net pens to improve their strength and help imprint them on the stream where they will be released.

In the summer, volunteers use a permitted process to recover wild juvenile salmonids from small pools about to dry up, and raise them in special rearing pens during the dry-stream months. After the streams are running again, the fish are released to the stream where they were originally hatched so that they may return to their imprinted spawning grounds to begin the cycle again.

Volunteers work on in-stream projects to enhance fish habitat. They construct rearing channels, supply spawning gravel for nesting, install tree root wads (LWDs) for protection, and restore stream pool to riffle ratio, which provide spawning redds (nest areas) as well as deep holding pools.

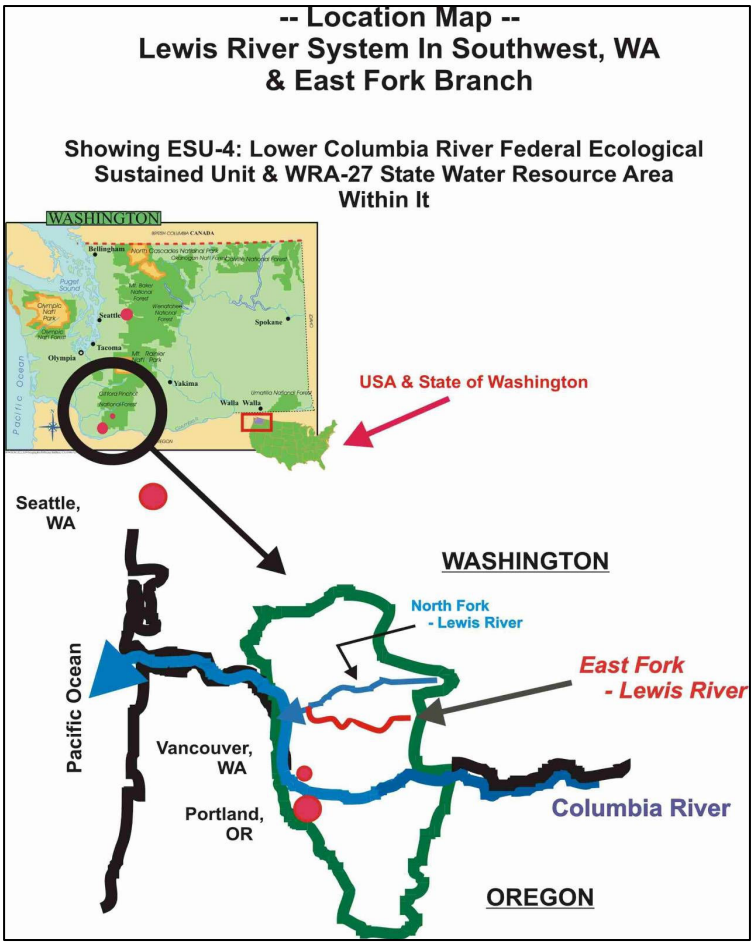
Working with landowners, volunteers conduct fish restoration projects on private property and replace impassable culverts with sections that mimic stream beds and enable fish to reach upper watershed areas. Their process and methods are being documented so that they can be shared and replicated nationwide. As required by some grants, Fish First monitors and reports their results via certified methods.

Fish First needs monetary contributions and volunteers to expand their efforts. To donate locally, please contribute at any Columbia Bank: ask to donate to Fish First in your request. Or, use the form at the end of this booklet to indicate your preferences and send a check payable to Fish First, P.O. Box 1505, Woodland, Washington 98674. You will be sent a receipt with the non-profit number in case your donation is tax-deductible – consult your tax advisor for specific details. To volunteer, email: info@fishfirst.org.

The native and wild fish are our future. Your donation of time, products, or money can help ensure that this vital resource is enjoyed by future generations.

Where is the Lewis River? In the Pacific Northwest!

The Lewis River is the longest river system below the Bonneville Dam - approximately 64 miles of habitat for salmon and steelhead.



Where do the fish run? To the Pacific Ocean!

Fish run from the Lewis River in Washington, down to the Columbia River between Oregon and Washington, out to the Pacific Ocean, and back (follow parts of the blue and red lines, below). Lewis River fish habitat restoration impacts fish in the Northwest and in the Pacific Ocean, as well as the environments that depend on them.

LOWER COLUMBIA SALMON RECOVERY PLAN

SALMON POPULATION ROLES IN RECOVERY

		Fall Chinook (tule)	Fall Chinook (bright)	Spring Chinook	Chum	Winter steelhead	Summer steelhead	Coho[1]
COAST	Grays/Chinook	P	--	--	P*	P[1]	--	P
	Elochoman/Skamokawa	P	--	--	P	C	--	P
	Mill/Abernathy/Germany	C	--	--	P	P[1]	--	C
	Youngs Bay (OR)	S	--	--	P	na[1]	--	S
	Big Creek (OR)	S	--	--	C	na[1]	--	P
	Clatskanie (OR)	P	--	--	C	na[1]	--	S
	Scappoose (OR)	S	--	--	C	na[1]	--	P
CASCADE	Lower Cowlitz	C	--	--	C	C	--	P
	Upper Cowlitz	S	--	P*	--	C	--	C
	Cispus	--	--	P*	--	C	--	C
	Tilton	--	--	S	--	C	--	C
	SF Toutle	X	--	C	X	P*	--	P
	NF Toutle	S	--	X	X	P	--	P
	Coweeman	P*	--	--	X	P	--	P
	Kalama	P	--	P	C	P*	P	C
	Lewis (NF)	X	P*	P	X	C	S	C
	EF Lewis	P*	--	--	P	P	P	P
	Salmon	X	--	--	S	S	--	S
	Washougal	P	--	--	P*	C	P*	C
	Sandy (OR)	S	P	P	P	P	--	P*
	Clackamas (OR)	C	--	--	C	P	--	P*
GORGE	Lower Gorge	C	--	--	P*	P	--	P
	Upper Gorge	S	--	--	C	S	P*	P
	White Salmon	C	--	C	--	--	--	C
	Hood (OR)	S	--	P	--	P	P	C

Summary of **primary(P)**, **contributing(C)**, and **stabilizing(S)** designations for each population identified in the preferred recovery scenario. X refers to subset of larger population. Primary populations designated for a very high level of viability are denoted with an '*'. Dashes indicate species is not present.

[1] *Not listed under U.S. Endangered Species Act.*

Lower Columbia Salmon Recovery Plan

This table, from the State of Washington Governor's Salmon Recovery Program, indicates that the Lewis River, North Fork (NF) and East Fork (EF) combined, have primary (P) roles in recovery designations for Fall Chinook (tule), Fall Chinook (bright), Spring Chinook, Chum, Winter Steelhead, Summer Steelhead, and Coho populations. These are the fish that Fish First aims to aid in their habitat restoration, fish rescue, net pens, nutrient enhancement, and remote site incubator box programs.

Governor's Salmon Recovery Program, State of Washington.

History of Fish First

Fish First began as an effort to return declining fish populations to the Lewis River System. It started with the combined efforts of five men, who have lived and fished along the Lewis and were increasingly aware of the dwindling numbers of salmon and steelhead in the streams. They decided to do something to return the fish runs to historic levels. This effort became known as 'Friends of the Lewis.'

During the formative months they met with members of the Washington Department of Fish and Wildlife (WDFW) and explained what they wanted to do. WDFW biologists and employees listened and helped guide them toward their early goals. Someone mentioned that what this group really wanted to do was to put fish first and, by doing so, other things within the ecosystem would fall into place. Gary Loomis jumped up and said, "That's it! We will call ourselves 'Fish First.'"

Fish First began in 1995. By March of that year, a plan to recruit members was underway and we acquired a 501c3 license, as a non-profit organization status. The organization members' first task was to design seven state-of-the-art, aluminum, fish rearing net pens for installation in the fall of the same year.

Working closely with the hatcheries on the North Fork Lewis river, net pens were installed and juvenile salmonids were put in them. As a result 38,000 smolt were released that February. A temporary setback occurred when the flood of 1996 wreaked havoc on the net pens, tearing them loose from their moorings, emptying the fish earlier than planned, and leaving the debris several miles downstream.

Net pens being prepared, early in the morning, to receive a load of juvenile salmon.

This volunteer group, whose membership was growing, rallied together with boats and brought the net pens back. With new nets and a little structural repair, they were ready to go again. Today, the Fish First Net Pen project releases 140,000+ Chinook salmon, and 70,000 spring steelhead each year between December and June.

The fish that are housed here grow quickly. Fish First volunteers feed and monitor the fish while they are our guests. During their stay, these anadromous fish imprint with this river and return to this area as spawning adults.

In 1996 we really began to roll! We added an Egg Box project to "jump start" small tributary streams depleted of rearing stock. Members worked closely with the local hatchery to obtain 'eyed' Lake Coho (silver salmon), and deposited them into five egg boxes in tributaries of the Lewis River watershed. The boxes were closely monitored for silt deposits and water flow by volunteers. During their eight week stay, these fish eggs, transform to fry absorbing their egg sack and release into the stream. We have a 98% success rate with this practice and deposit an estimated 69,000 fry into the river system.

Egg Boxes - Fish First installing egg boxes on key tributary streams.

In 1997, we completed our first restoration project. Pigeon Springs included a bank restoration and 500 feet of fencing along Cedar Creek near Amboy, WA. This project had a market value of over $100,000 and was accomplished by Fish First for $42,000 due to donations and volunteers.

During 1998, we completed several restoration projects briefly described below:

- **Chelatchie Creek**, Price Dairy project. This project enhanced Coho and steelhead spawning and rearing habitat with the construction of a bridge, stream bank repair, added vegetation, pasture reclamation and 4,000 feet of fencing.
- **Chelatchie Creek Tributary**, the Belkoff project included fencing and tree planting.
- **Lockwood Creek**. A culvert prevented fish passage. The culvert was removed and replaced with a bridge.
- **Cedar and Salmon Creeks** Stream Bank Protection Project –installed two miles of fencing to more effectively manage livestock grazing.
- **Cedar Creek**. In partnership with Clark County, Fish First removed a railroad culvert near Yacolt on Cedar Creek. The county later installed a 'fish friendly' culvert. The original culvert had been a significant obstacle for adult salmon since the mid-1950's. By helping in the installation of a new culvert that mimics the stream with rock and pools the fish can rest in, over 7 miles of excellent spawning and rearing habitat was opened up.

During 1999, in addition to our net pen and egg box project which have become yearly events, Fish First completed phase one of the **Cedar Creek** Carter /Malinowski /Shimano projects above Amboy, WA. Phase one involved development of an off-channel rearing area and educational access along Cedar Creek and the installation of two gravel holding cross-vanes in the creek.

In 2000, phase two was completed on Cedar Creek. Gravel holding and grade control rock cross-vanes, compression rock, root wads, and spawning gravel were installed. The success of this project can be seen in the 35 redds counted in the fall of 2000 and spring of 2001. Spawning species include Coho, Chinook and winter steelhead. The total project transformed 1,200 feet of a large cobble and bedrock based channel into a unique, viable spawning site for native and wild fish populations. In addition, a side-channel for juvenile rearing and refuge from high water flow was developed on the Shimano property. It, too, received intensive use after fry emerged from the new spawning beds. **Projects also produce associated benefits; all our in-stream projects benefit waterfowl, upland birds, wildlife and riparian inhabitants.**

National Marine Fisheries Service (NMFS) had pretty much put the brakes on our projects between 2000 and 2001. We submitted permits in July of 2000, for the **Chelatchie Creek** project which was designed to restore deep pools and spawning beds on 500 feet of channel. Finally, after much negotiation, permits were obtained in summer of 2001 and the project was installed.

To reduce the time and cost of biological analysis needed to obtain a NMFS permit, **Fish First spent about two years working with NMFS to obtain the first programmatic 10(a)1(A)** permit in the United States. This permit covered the whole **Lewis River System** of Washington for several years and has been a very valuable tool for getting fish habitat and stream restoration done in a timely and cost effective way. The performance and monitoring conditions that go with using this permit are much more stringent than other permits.

The **Cedar Creek** Charlie Swift project near Yacolt is another Fish First project and was submitted for permitting in October of 2001. The project was to be installed upstream from the Carter-Malinowski-Shimano project and originally involved two phases. Phase one was the development of two large side-channels. Phase two involved the installation of gravel holding cross-vanes, and root wads for bank protection and pool maintenance along 1,300 feet of channel.

The first phase was funded and installed. In addition to phase two, Fish First has identified 20 more potential fish habitat improvement and restoration projects seeking planning and funding.

Fish First is evolving. We have good relationships with landowners because many of us live and work in the communities of the Lewis River System and are landowners ourselves. We cooperate with government rules and regulations, working closely with the both state and federal fish and wildlife service agencies and hatchery

managers. We continue to partner with fish hatcheries and others for projects such as our Stream Nutrient Enhancement and Net Pen projects.

In 2002, Fish First began doing projects in the East Fork of the Lewis River as well as the North Fork. As of 2007, we have completed an additional four projects in the East Fork. The East Fork is an exceptional steelhead stream of regional significance in the Pacific Northwest. It has produced record size steelhead for the U.S.

Nutrient Enhancement - Fish First preparing spawned-out hatchery salmon for stream nutrient distribution and enhancement.

It is our hope that all agencies will streamline their fisheries restoration permitting process and allow our work to continue in a timely manner. In the meantime, we continue to develop projects, wade through the paperwork, apply for funding through grants, corporate and private donations, and a fund raising banquet. **All Fish First programs and projects have the objectives of getting the money on the ground and "directly benefiting fish."**

Fish First is like an extended family. It includes members that have reached a point in their lives where they want to give something back. We bring our wide range of skills and talents and give back to the community, and beyond, through Fish First. We believe that together we can substantially increase and sustain the salmon and steelhead fish populations in the Lewis River System. **To do so, we work with private owners and land managers to practice "Good Land Stewardship" that is economically sound, socially acceptable, and results in long-term improvement of the ecosystem and environment for both people and fish.**

How Fish First Plans Its Habitat Restoration Projects

Fish First uses a mix of scientifically documented and proven technology adapted to the watershed and specific stream reach to address the policy objective. Our technology has been sanctioned by several federal agencies including the Natural Resources Conservation Service (NRCS), US Forest Service, Environmental Protection Agency, and NOAA-Fisheries. This technology is also being adopted by a number of state agencies in various regions of the United States and Canada.

Project Design and Support Team

Fish First has a long record (starting in 1995) of consulting and working closely with a wide range of state and federal agencies, and their specialists, to identify specific complexity and structural needs and options for fish recovery treatments in streams.

Monitoring

Fish First conducts its own extensive monitoring, and collaborates with other monitoring agencies to inspect its various programs and projects. This includes both pre- and post project channel measurements, net pen returns, nutrition enhancement levels, Washington Department Fish and Wildlife fish trap counts, egg box releases, Root Wad performance, pool and spawning bed condition and performance, stream bank and riparian vegetative root density recovery, macro-invertebrate recovery, and snorkel surveys for juvenile and adult fish use of treatment installations.

Fish First is constantly gathering in-stream, riparian, flood plain, water quality, and aerial data and information on the condition and relationships within the watershed and streams of the Lewis River system.

Project Design Team and Technical Support Group

Fish First works with a number of local and national consulting hydrologists, hydraulic engineers, salmon biologists, fluvial geomorphologists, and geologists. Their combined experience, diverse knowledge, and continuing education enables Fish First to design effective habitat restoration projects. The professional group includes:

Carl V. Burger, Ph.D., Professional Salmonid Fisheries Biologist. East and West Coast salmonid research and management experience.

Robert Delk, M.S. Professional Hydrologist, Billings, Montana.
Master of Science, Watershed Management. 38 years of Hydrological experience. Supervisory Hydrologist, Dover Habitat Restoration. Designs stream restoration: including data collection and analysis; natural channel design; and providing construction supervision. Experience includes pipeline stream crossing, surface coal mine stream reclamation and erosion monitoring.

Richard Dyrland, M.S. Professional Hydrologist, Ridgefield, Washington.
Master of Science, Forest Watershed Management & Hydrology. 42 years of experience, primarily as a Hydrologist with the United States Forest Service. Currently provides consulting hydrologic analysis, treatment design and installation for Fisheries Habitat, Stream, and Watershed Restoration; and works on the Fish First In-stream Project Design and Installation Team.

Russ Lawrence, M.S. Professional Engineer and Geomorphologist. Extensive stream work experience in the Pacific Northwest.

Dan Miller, Ph.D., Professional Geologist. U.S. Geological Service (Retired).

Chris Roach, M.S. Hydraulic Engineer and Hydrologist, River and Floodplain Engineering, Anchorage, AK
Master of Science, Civil Engineering, emphasis in river engineering. For the past five years, employed as a consulting principal engineer providing specialized services in river and floodplain engineering, as well as stream restoration. Mr. Roach is an engineering consultant providing specialized services in river and

floodplain engineering and stream restoration. He has 15 years engineering experience including rivers and floodplains, stream restoration, pipeline and vehicular bridges, seismic structural design and review, seismic qualification of equipment, and earthquake monitoring and response. Mr. Roach has developed innovative solutions to a wide variety of technical and logistical challenges related to river and floodplain engineering and stream restoration. He received the 2000 and 2001 Alyeska President's Environment Award for contributions to stream restoration projects along the Trans Alaska Pipeline System (TAPS). He has recently been engaged in several stream monitoring, assessment, and restoration design and construction projects in Alaska, Washington, and Canada, including a recently completed project to remove an in-stream dam and restore the site to a stable step-pool channel designed to allow unimpeded fish passage. He has been involved in over 45 river and stream projects in Alaska over the past five years and has received several awards for contributions to stream restoration projects in Alaska.

Technical Advisors Familiar with the East Fork of the Lewis River

Fish First maintains a design and support network of highly trained and field experienced professional hydrologists, a fluvial-geomorphologist, a hydraulic engineer, a geologist, and a fisheries biologist. These people are either members of Fish First or interact with our programs and projects on a regular basis. All of these people are familiar with on-site conditions in the East Fork as well as parts of the North Fork of the Lewis River system. In addition, we call upon very experienced people, such as ground water hydrologists and wetland specialist, to help us evaluate special concerns and issues. The advisors include:

Adam Haspiel, Professional Fisheries Biologist
Managed numerous boulder, large woody debris projects involving the use of tracked excavators, all terrain excavators, bull dozers, backhoes, front end loaders, helicopters, and hand labor.

Barry Southerland, Ph. D., Professional Fluvial-Geomorphologist, National Stream Team Restoration Specialist.

David Rosgen, Ph. D. Professional Hydrologist.

John Weinheimer, Professional Fisheries Biologist, Washington Department of Fish and Wildlife.

Fish Habitat Treatment - Technical Characteristics

Most Fish First habitat restoration projects utilize several types of treatments which may include: cross-vanes, J-hook vanes, side-channel reactivation, root wads or large wood debris (LWD), and riparian area, and stream bank treatment. Most notably, Fish First has conducted monitoring reports on Cedar Creek to verify its treatments are working as planned. Please see Project Monitor for additional information.

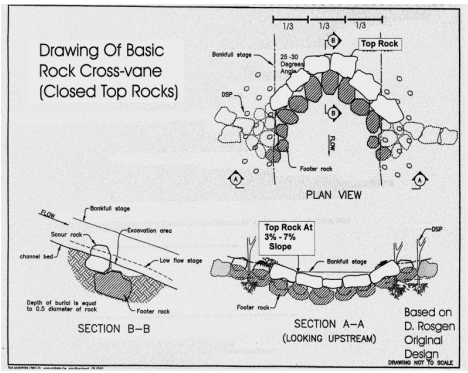
These treatments are also based on a variety of research; one of the most recent documents indicating their success is one by Dr. Brian P. Bledsoe and John E. Meyer (2006): *Monitoring Of The Little Snake River And Tributaries --Year 5 – Final Report*, Engineering Research Center, Department of Civil Engineering, Colorado State University.

The treatments may require special permits, which can be costly, and many are installed with heavy construction equipment requiring experienced operators, especially Cross-vanes and J-hook Vanes which require heavy stone blocks, Root Wads, and some of the re-vegetation which utilizes larger trees from our five acre nursery. Replacing culverts can require different construction needs.

Cross-Vanes

Cross-vanes are primarily rock arch structures that arch upstream at a specific curvature rate and depth. They create and maintain a large deep pool along with secondary pools that maintain cooler stream temperatures, create turbulence that helps oxygenate the water, and provide holding areas for larger fish. By reducing stream bank shear stress, they allow the stream banks to re-vegetate quickly. They can be used to back-up (grade control) water into side-channels for fry and juvenile fish habitat. Another key function is to produce

gravel holding areas for re-establishing high quality spawning beds and for maintaining them. They are also used to reduce the width to depth ratio (W/D) of the stream reach by helping to create a narrower deeper channel and to bring it back into a "balanced" state suitable for the watershed environment and conditions of a given stream and reach. A narrower, deeper stream with a good pool-to-riffle ratio provides much better habitat for both fish and macro-invertebrate life. Vanes embedded back into the stream bank do not raise the level of flood flow and are very stable at all flood stages when properly installed (NRCS Tech. Note 23, 2005).



Vanes are low risk treatments to boaters and recreationists when properly installed and improve the recreational use (boating, kayaking, etc.) of the stream reach during periods of low flow (NRCS Stream Restoration Hand book, 2005). Monitoring has shown that vanes of this type have very low need of maintenance (Fish First Monitoring Reports, 2006).

Both cross-vanes and J-hook vanes produce and maintain deep pools and typically establish a narrower, deeper thalweg in the stream for 100 to 200 feet (NRCS Tech. Note 24, 2000). This is a very important factor in rebuilding sustained effective fish habitat with streams having high width/depth (W/D) ratios and elevated summer flow temperatures.

J-Hook Vanes (Rock and Wood or Wood)

J-hook vanes are a variation of cross-vanes in that they are approximately one-half of a cross-vane but are located primarily on outside bends and opposite point bars in a stream reach.

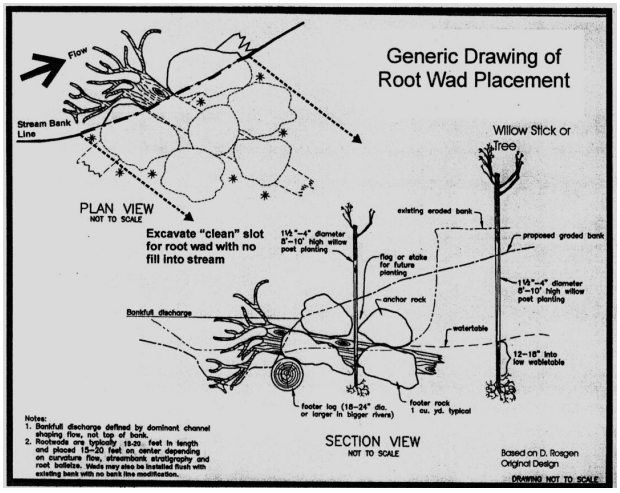
There are two types, one that is all rock and the other that is a wood and rock combination. Both work the same. In degraded streams, there is a point bar on the opposite bank that is growing at an excessive rate and is "pushing" the stream into the other bank and destroying the stream bank and fish habitat at an excessive rate. Vanes have the specific function of moving the stream energy (shear stress) off the bank so that the bank can effectively re-vegetate and provide cover for fish. They produce and maintain a large pool that is used by both juvenile and adult fish. The pool also functions to reduce stream temperatures and oxygenate the stream.

J-hooks also have the effect of helping to reduce the W/D ratio back to a range appropriate for the specific reach in balance with the characteristics of a specific stream. A narrower, deeper stream with a good pool to riffle ratio provides much better habitat for both fish and macro-invertebrate life. Vanes embedded back into the stream bank do not raise the level of flood flow and are very stable at all flood stages when properly installed (NRCS Tech. Note 23, 2005). Vanes are low risk treatments when properly installed and improve the recreational use (boating, kayaking, etc.) of the stream reach during periods of low flow (NRCS Stream Restoration Handbook, 2005). Monitoring has shown that vanes of this type have a very low need of maintenance (Fish First Monitoring Reports, 2006).

Side-Channel Re-Activation

Side-channels are re-activated by deepening through the removal of accumulated sediment and providing treatments that insure there will be adequate water in the channel during low flow periods in the summer. Protective cover for fry and parr is added in the form of anchored log rafts and other wood-cover combinations. Side channels are often fed by sub-surface ground water and are critical to providing low temperature refuge during late summer when stream temperatures can reach lethal levels (Fish First Monitoring Reports, 2006).

Root Wads – also know as LWD or Large Wood Debris



Root wads, both single and multiple, are embedded deep into the stream bank and enter the water at a specific depth and angle upstream. They provide instant cover for small and large fish and reduce the predation risk on fry and parr. They create a pool at the root wad that helps reduce water temperatures during critical summer low flow as well as providing holding habitat for feeding. They also help promote the re-establishment of vegetation on the stream bank (NRCS Stream Restoration Handbook, 2005). Root wads are most effective when used on straight runs of a river reach or in combination with other treatments (Cross-Vanes and J-hooks) on river bends or pool areas. They also assist in the production of food for fish. Root wad embedded in the stream bank do not raise the level of flood flow because they are installed below hydrologic "bank full" level and are very stable at all flood stages when properly installed (NRCS Tech. Note 23, 2005). Because the root wads point up-stream at a specific angle and project out a short distance relative to the bank full width of the stream, flow is diverted away from the stream bank and root wad, which minimizes the risk to boaters and other forms of in-stream recreation (Kurtz and Rosgen 2001, Rosgen 1996, 1999, 2005).

Cedar Creek, WA – Doty project - fish using Fish First Installed Root Wad for cover.

Riparian Area and Stream Bank Treatments

Fish First maintains a 14,000 tree, five acre nursery of native trees and shrubs which it uses on its projects. It plants trees of four feet high or higher to insure better survival. Some projects involve planting only, while others combine planting with various in-stream treatments.

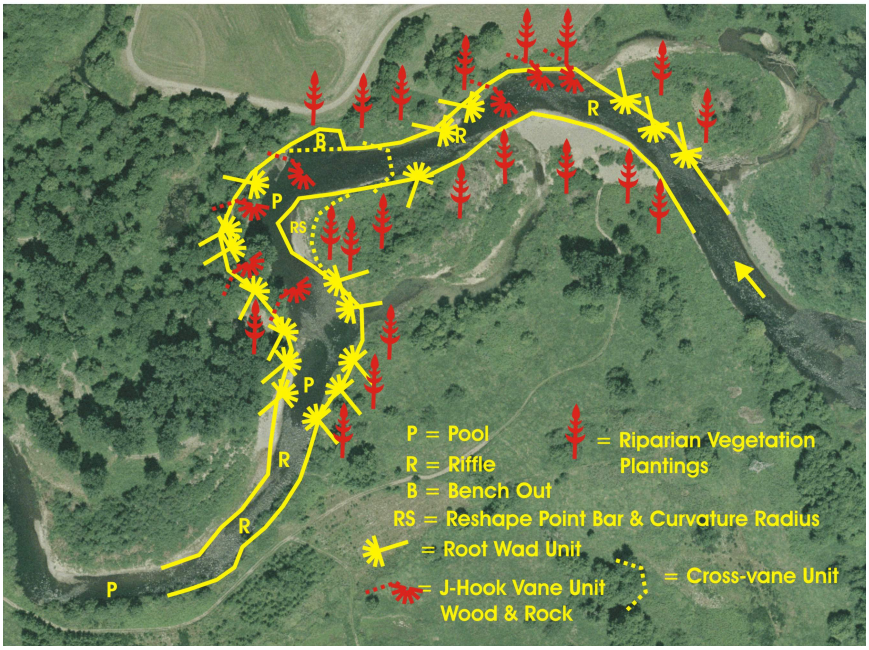
Sample Treatment East Fork of the Lewis River – Power Line Bend

The following is a sample diagram of a stream bank and project treatment.

Each project is designed by professional hydrologists with input from Fish First partners.

Detailed project plans are submitted with all grant requests. They include a comprehensive study of the project site.

Schematic of Power Line Project Stream Bank & Project Treatments
Lower East Fork L. R. - Photo 2005



Project Monitoring and Results

Ongoing Fish First and Washington Department of Fish and Wildlife Monitoring Programs and Results

Fish First has an extensive ongoing monitoring effort on both the programs and the projects it supports or has implemented. Monitoring is done as a follow up for at least three years after a project is installed. A few key projects and programs are monitored on a continuing basis.

Monitoring is done on the following items of interest.

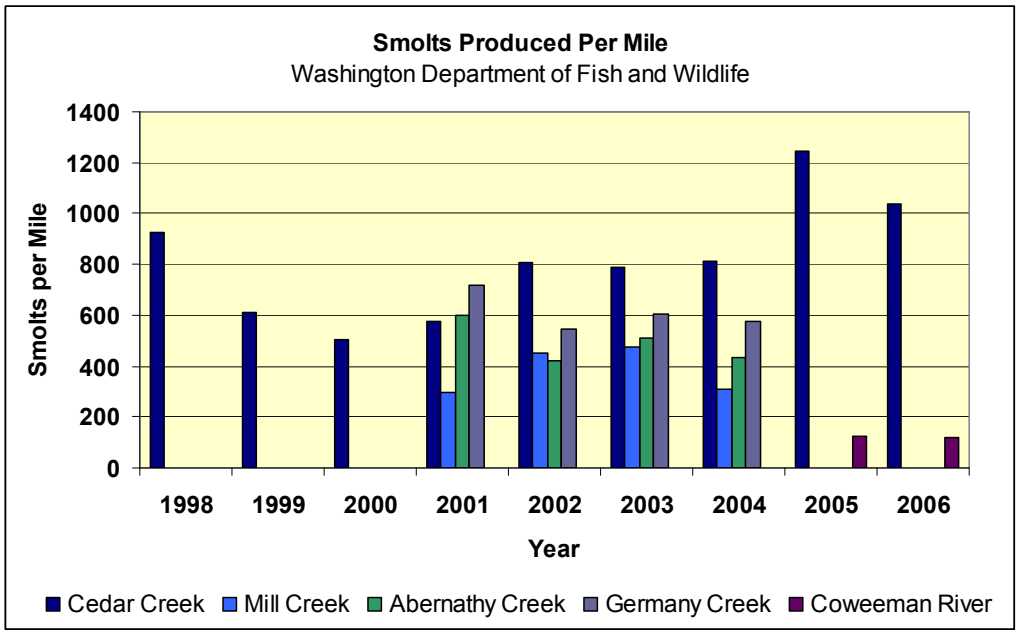
- Summer stream temperatures (pool & riffle)
- Summer metering of low stream flows
- Channel profiles, plan form & cross-sections to track fluvial-geomorphic change before and after projects or flood events
- Pool depth & riffle changes
- Spawning bed use, conditions & maintenance
- Structure performance (cross-vanes, j-hooks, and root-wads) and condition
- Use of treatments & structures by juvenile fish (extensive root-wad LWD analysis)
- Macro-invertebrate populations
- Basic water quality & nutrient levels

In addition, Cedar Creek has a fish trap at the mouth where adult and smolt coming up or going out of the system are counted. A second trap that captures close to 100 percent of adults was installed in late 2006. **This provides key information on returns and out-migration in regard to the effectiveness of our fish population enhancement and stream restoration program.**

We receive professional assistance in both design and actual monitoring, and the techniques used are updated or modified as feedback indicates a need. In addition to using professional assistance from various state and federal agencies, Fish First has two hydrologists, a hydraulic engineer, and a fisheries biologist on the volunteer staff. Many of the members of Fish First come from diversified backgrounds, have special skills and are very experienced in rural and mountain land management, as well as stream and watershed relationships and environments.

Washington Department of Fish and Wildlife Monitoring

The Washington Department of Fish and Wildlife conducts population counts as well. Fish First began restoration of Cedar Creek in 1997.



Sample Monitoring Report
North Fork of the Lewis River, Cedar Creek Tributary - Bill Doty Project

FISH FIRST Report # 3 for NOOA Fisheries, July 26, 2005

OVERVEW

This is the third monitoring report done on the Bill Doty Project by Fish First under a 10(a)1(A) permit. Previous reports were dated Dec. 15, 2003 and Feb. 7, 2004. The project treated about 4,700 feet of stream channel and included three side-channel reactivations.

Monitoring results on cross-vane #2 and basic channel and side-channel conditions and results were requested by NOAA-Fisheries . Gathering data for the third monitoring report was delayed until July of 2005 due to high water issues. Data gathered included detailed measurements on the stream channel affected by Cross-vane #2, detailed measurements on all 60 root wads installed, and a fish snorkel survey of the channel in the project reach and in the three side-channels. Temperature and flow data was also taken.

GENERAL FINDINGS

1. The Cross-vanes and J-hooks have worked well and are stable. Pools created by them are being maintained and taking the shear-stress off the stream banks has allowed the severely eroded banks to heal. Both adult and parr salmonids are using the vanes and associated pools (refer to Figure. 1).
2. The root wads are providing important fish cover and maintaining small pools under and below the root wad. They are also protecting the stream banks from shear-stress, thus allowing the banks to heal very well as compared to conditions before the project. The depth of the top of the root wad to “bankfull” and stream bottom appears to influence the depth and size of the pool at the root wad (refer to Figures 2A through 2D).
3. The spawning gravel added above vanes and at other strategic points in the channel as guided by Washington Fish and Wildlife fish biologists, has moved throughout the reach and is providing much improved spawning and stream substrate conditions. Spawning of salmonids was observed above all the rock vanes and in some riffles that were covered with the new gravel (refer to Figures 2B and 2D).
4. Professional divers familiar with salmonid fry and parr identification found parr under the root wads, in pools, and in the three side-channels. More parr per unit area were found in the side-channels which are known to have cooler temperatures and provide food (refer to Figure 2E).
5. Detailed information on the root wad and snorkel survey will be added to the addendum of this report later after the data is processed and analyzed.
6. Lamprey eel nests appear to be on the increase since spawning gravel was added to this reach of Cedar Creek.

SPECIFIC FINDINGS

Cross-vane # 2 located about 570 ft. below the upper boundary of the project was selected by NOOA Fisheries as a treatment structure to monitor.

Data has been taken on the site before construction and repeatedly after the cross-vane was constructed. Control pins were set up to allow comparable repetitive measurements over time.

The stream is maintaining the pool profile below the cross-vane. It shows the vane generated a major pool and there are two other small pools associated with root wads that are just downstream from the vane.

Adult salmon have been observed in the vane pool and also spawning in the gravel just above the root wads below the vane.

The pre-construction streambed cross-section is shown in Figure 4A. It had a relatively high width to depth ratio. The after or post-construction cross-section taken below the vane shows the change in the stream bed at the vane.

In July of 2005, a series of cross-sections were taken to identify what changes have occurred in the stream bed since the vane was installed and two flood seasons have passed through the vane (refer to Table 1). Cross-section One. Figure 4C. was taken at the head or "apex" of the vane at "0" ft. Cross-section Two, Figure 5 was taken below the vane, at "19" ft. A third cross-section, Figure 6, was taken at "26" ft. below the vane. A forth cross-section, Figure 7, was taken at "40" ft. below the head of the vane, and it shows the maximum pool depth in relation to both the control pin and water depth.

These cross-sections all tie back to Figure 3. the current (July 2005) profile below cross-vane #2. The thalweg, at about 80 feet downstream, has shifted closer to the left bank and near three root wads. The new cross-vane data indicates that the vane is correctly functioning as intended, designed, and installed.

Hydrologic balance and stream structure has been improved and complexity for fish and other life forms that occupy stream is improving also.

The stream banks are vegetating well, work roads have grassed in, and no root wads or rock vanes have come undone or failed.

DATA SUMMARY

Temperature: Air - 74.1 F° Water - 64.5 F° Date: July 24, 2005 @ 11:15 am.

Metered Stream Flow Above Cross-Vane #2: = 10.7 cfs.
Date: July 24, 2005 @ 11:15 am. To 11:55 am.

Data Table 1. Cross-Vane # 2 Summary

2003 Location To Vane (CV) Head	**Distance From Vane Head-Ft**	**Ctrl Pin to Stream Bottom-Ft**	**Max. Water Depth-Ft. on Date**
Before Const. Head of CV	0.0	5.6	1.3
After Const. Below CV	26	7.0	2.4
2005	**Distance From Vane Head-Ft**	**Ctrl Pin to Stream Bottom-Ft**	**Max. Water Depth-Ft. on Date**
Xs-1 Head of CV	0.0	5.4-5.9	0.6-1.1
XS-2	19	7.5	2.3
XS-3	26	7.8	2.2
XS-4 (Max. Pool)	40	8.7	3.3
Root Wad #1	68	--	1.4
Root Wad #2	87	--	2.0
Root Wad #3	115	--	3.0

SUMMARY

The Bill Doty Project has now been exposed to two cycles of salmonid spawning and two years of flood season, which included flows over bankfull. All treatments have held and retained their intended function. The original pre-project reach was very low in salmonid productivity with a pronounced lack of stream

structure and complexity. LWD was practically non-existent with less than 6 pieces observed over a distance of about 5000 ft of streambed ---we now have 60 pieces of LWD (root wads).

Additional monitoring (temperature, macro-invertebrates, water quality) and analysis will be done and added to the knowledge base to show the results of this project and the treatments used over time. Both US Fish & WL and the WA Dept. of F&W are also doing monitoring on additional reaches of Cedar Creek.

There is also a **Washington Fish and Wildlife fish trap at the mouth of Cedar Creek** which is used to record both fish coming up from the Columbia River and fish or smolts going out of Cedar Creek. This data reflects a whole range of stream and fisheries restoration practices and to-date the data **shows a substantial increase in outgoing fish** since treatments started in 1997.

Respectfully,

Richard Dyrland, Supervisory Hydrologist, Fish First, 27511 NE 29th Ave., Ridgefield, WA 98642
360-887-0866, toppacif@teleport.com

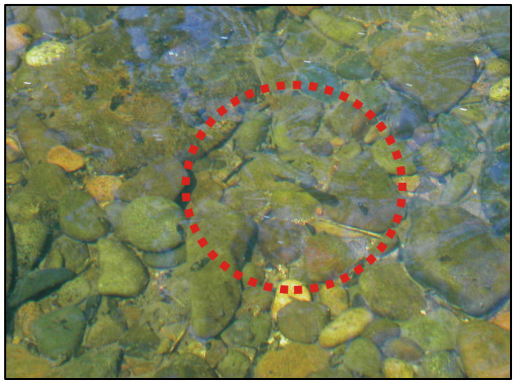
ADDENDUM (not included in this Fish First Book)

Monitoring Work Photos, Snorkel Survey Results, Root Wad Survey Results, Washington Fish and Wildlife Smolt Monitoring Graphs

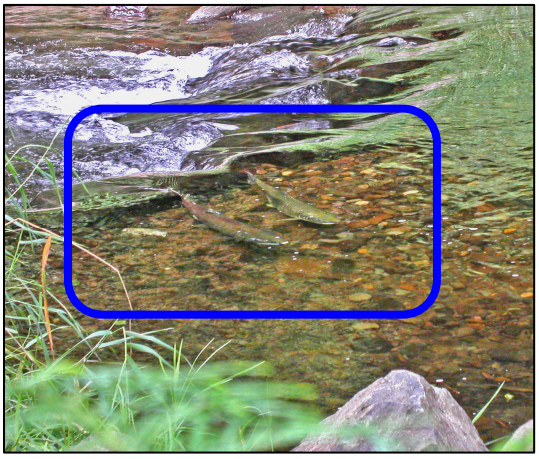
Observed Results

In 2007 and 2008, additional emphasis will be placed on documenting results using assistance from landowners and volunteers.

These photos from various projects completed by Fish First show just a very small pictorial view of the results they have achieved.



Salmon parr feeding above Fish First installed cross-vane.



Ongoing Project Maintenance

Maintenance of Fish First projects has proven to be very low. In-stream project because of the advance technology are stable and continue their proper functioning. Egg boxes and net pens require their annual upkeep and cleaning.

How-To Guides and Fact Sheets: Sharing Fish First Knowledge and Success

Since Fish First began its work, it has received requests to share its knowledge and its work with other regions of the country. Requests have come from as far north as Alaska, and as far south as California, including inquiries by government agencies and scientists.

Fish First received grants from Beneficial® and HFC® Members HSBC Group to document its work, and thus developed How-To Guides and Fact Sheets.

Guides or Fact Sheets are available for the following:

- Culvert Replacement and Removal
- Egg Boxes (also known as Remote Site Incubators)
- Habitat Restoration
- Live Plants
- Nutrient Enhancement
- Rearing Pens
- Permitting
- Project Funding

Please see our Web site to obtain copies at: www.fishfirst.org. Please notify us of any results if you implement any of the ideas addressed within these documents so that we can share in your success.

Additional Research Documentation

A list of articles and research that contributed to Fish First project design and resources is available upon request. One of the most recent is:

Dr. Brian P. Bledsoe and John E. Meyer (2006), *Monitoring Of The Little Snake River And Tributaries -- Year 5 – Final Report*, Engineering Research Center, Department of Civil Engineering, Colorado State University.

Ongoing Programs Seeking Funding, Volunteers, Equipment, and Services

Email: info@fishfirst.org unless otherwise noted. Please note that Volunteers must be Fish First members and over 18 years of age.

Please see **Error! Reference source not found.** as well.

Endowment Program Seeking Start-Up Pledge

Contact: John DiVittorio 360-713-7460

Please let us know if you would like to start a Fish First Endowment Fund!

Grant Writers and Fund Raising Volunteers

Contact: John DiVittorio 360-713-7460

If you are experienced in grant writing or fund raising and would like to volunteer, please contact us!

Volunteer to Write Scientific Papers

Contact: John DiVittorio 360-713-7460

Seeking qualified individuals to document our work, before and after, as well as our results, please call us!

Start-Up Program Volunteer: Processing Spawned Fish Hatchery Salmon for Local Food Banks in Combination with the Nutrient Enhancement Program

Contact: John DiVittorio 360-713-7460

Fish First is looking for a volunteer to develop and manage this program.

Ideally, this person would work to raise funds and obtain land near the rivers where a net pen project could be done in the river (although the net pens are not a requirement of this project), and a building with refrigerators and freezers would be used by volunteers to process spawned fish donated by the hatcheries to provide food banks with salmon in the winter. The remaining parts of the fish would be utilized for the nutrient enhancement program in the fish habitats.

Nutrient Enhancement Program – Volunteers

Contact: Al Fulcer 360-225-5690

Volunteers work to process fish carcasses, freeze them in industrial freezers owned by Fish First, maintain freezers, and help coordinate efforts to thaw carcasses and distribute them in streams via one specialized truck, volunteer pick-up trucks, and a lot of work.

This program imitates the nutrient distribution that used to take place naturally when wild salmonids were abundant. Fish carcasses from the Lewis River Hatchery and the Speelyai Hatchery are processed by Volunteers, 90% of the carcasses are distributed in the South and North Forks of Chelatchie Creeks, the East Fork of the Lewis River, Green River, Rock Creek and the Lewis River. Ten percent are kept frozen in donated freezers until Spring when most salmonids are reaching the age that they need to feed. Then, with assistance of the hatcheries the carcasses are thawed and distributed in the South and North Forks of Chelatchie Creeks, the East Fork of the Lewis River, Green River, Rock Creek and the Lewis River.

Volunteers are needed to process fish in the fall and distribute carcasses in the spring.

Fish Rescue Pond Program -- Lower East Fork Mill Creek North Volunteers

Contact: Dave Brown – 360-687-7049

Dave Brown, landowner and fisherman, under a special permit, saves wild juvenile salmonids in tributaries to the East Fork Lewis River before the tributaries dry up for the summer. Mr. Brown collects the juvenile salmonids and rears them in specially designed ponds on his property, which has excellent cold water springs to support large numbers of juveniles over the summer. When the fall rains come, he releases them back into their original streams. Please see ongoing projects for additional information.

Volunteers are needed to help with all aspects of this project, including capturing juveniles in the spring, feeding the fish three times a week, and releasing them in the fall.

Fish Rescue Pond Program – Additional Rescue Pond Funding ($25K - $50K, depending on holding capacity) and Land

Contact: Dave Brown – 360-687-7049

This project has grown over the years, so much so that Dave Brown is looking for another site – either donated property or with a long-term commitment by the landowners--to develop a second area for Fish Rescue Ponds. The ideal site location would be near a stream, in a canyon or wooded area, with plenty of cold water springs and approximately 150 feet by approximately 35 feet wide area for the pools, which could be stepped or level. Additionally, he is raising money required for the construction costs – approximately $25,000 for a new start or up to $50,000 for more holding capacity.

North Fork Lewis River Lake Merwin Net Pen Program – Occasional Volunteers

Contact Dan Balch – (360) 225-7388

This ongoing program works in conjunction with the Merwin Hatchery in the raising of summer steelhead for the Lewis River and Kokanee for Lake Merwin. Please see Ongoing Project information.

Volunteers are needed occasionally to maintain the pens and manage the nets when not in use. The Merwin Hatchery Staff tend the fish while they are in the pens.

Lewis River, Echo Park Cove, Net Pen Program – Volunteers and $8,300 per year

Contact Dan Balch – (360) 225-7388

The net pen program is looking for a new co-director. This volunteer must be dedicated to working in wet, slippery, and cold conditions as the fish are raised and fed in net pens from approximately November through January.

This project is a co-operative effort with the Lewis River and Merwin hatcheries.

The purpose of the pen rearing is to raise smolt to a larger size prior to release and to acclimate these fish to an area other than the hatchery. Pens yield a healthier smolt due to the decreased rearing density relative to the hatchery.

Volunteers are needed to help feed the fish during the winter months and funds are need to cover operating and labor expenses.

Funds are required to help maintain the pens and equipment needed to work with the fish. Feed is donated by the Washington Department of Fish and Wildlife.

Project	Lewis River, Echo Park Cove, Net Pen Construction – Est. 1996		
Status	Ongoing	**Date**	Ongoing
Partners	Washington Department of Fish and Wildlife		
Cost	Yearly Operating Expense (feed excluded)		$7,762
	Yearly Labor		$525
	Total Cost		**$8,287**
Grants and Donations	Washington Department of Fish and Wildlife		Smolt and Feed
	Fish First Volunteers		
	Funding Required		**($8,287)**
See also	Ongoing Programs		

North Fork Tributaries Remote Site Incubator Project Initiation – Volunteers

Contact: John DiVittorio 360-713-7460

The objective of this project is to re-introduce natural spawning Coho salmon into several small tributaries of the North Fork. The project is accomplished by using remote site incubators (RSIs or "egg boxes") to hatch Coho eggs from the Lewis River Hatchery.

This program will continue until enough Coho salmon are returning to these streams to sustain their runs.

Volunteers are needed to help install, monitor, and maintain the boxes in remote locations. In some cases, you may need 4 wheel drive vehicles or ATVs to access the remote locations.

Equipment – ATV and 4-Wheel Drive High-Clearance Truck

Contact: Gary Loomis 360-713-7460

Fish First has relied on the vehicles of its volunteers since 1995. Volunteers have paid for their own transportation costs and repairs due to damage from driving to and from project sites, which can be quite remote and on unpaved or unimproved roads and trails. Fish First has a truck with a chute used for the nutrient enhancement program. It is heavy duty and has a chute for depositing salmon into creek beds. They also have a tree-planting rig. They are seeking funding for an ATV and a high-clearance truck with 4-wheel drive.

4-Wheel Drive High-Clearance Truck – All Projects

Contact: John DiVittorio 360-713-7460

Fish First is seeking funds or a donation of a 4-wheel drive, high-clearance truck that could be used to drive to remote sites. It will be used to carry volunteers and equipment for hydrology studies, monitoring programs, construction projects, net pen projects, remote site incubator projects (ATV used in the most remote locations, when necessary), nutrient enhancement projects, and to educate the community about Fish First goals and progress.

Project – Volunteers, Equipment, Materials

Contact: John DiVittorio 360-713-7460

Donations of appropriate rock and gravel; construction expertise, time, and equipment; tree root wads; and other materials, equipment, and services are appreciated.

Annual Fund Raiser (February – May)

Contact: John DiVittorio 360-713-7460

Donations of auction items, volunteer work, and a new leader are needed for 2008.

How Can I Help Fish First?

Fish First is a 501 (c)3 public, charitable, non-profit organization. Fish First appreciates donations of time, money, products, or services year-round. Donations may be a charitable contribution deduction, please consult your tax advisor for details. There are many ways to contribute to Fish First. To contact Fish First regarding your contribution:

- Email info@fishfirst.org or visit http://www.fishfirst.org
- Call John DiVittorio, Executive Director: 360-713-7460
- Write Fish First at:
  Fish First
  P.O. Box 1505
  Woodland, Washington 98674

Here are just some of the ways to help Fish First!

Join Fish First!

Please consider joining Fish First. Members receive a decal to place on vehicles or boats, newsletters, action alerts and invitations to special events and auctions. Membership levels are:

Coho Salmon: Standard 1 Year Membership - $35

Chum Salmon: Students $15

Cutthroat Trout: Smolts Club (Kids) $20

Steelhead: Sponsor Membership $250

Chinook Salmon: Life Membership $1000

Join electronically on the Fish First website: http://www.fishfirst.org. Or send a letter and check to Fish First at the above address.

Donate Project or Program Funds

Choose a specific project or program, or donate to the general fund used for all programs and projects. There are three ways to donate:

- Checks made out to Fish First. If donating for a specific project or program, please note it in the check memo field and in your letter, then mail to the address above.
- Locally, at any branch of Columbia Bank
- Electronically on the Fish First website: http://www.fishfirst.org

Pledge Funds for an Endowment

Fish First welcomes pledges that would help create a perpetual fund to benefit Fish First habitat restoration, fish rescue, net pen, and remote site incubation projects and programs.

Plan Your Estate to Aid Fish First

Planning your estate may offer tax savings from deductions, help avoid capital gains tax due, and may provide other benefits to you and your heirs. Speak to an estate attorney or financial adviser and discuss options for contributing to Fish First, such as through a Charitable Remainder Trust, Charitable Lead Trust, Charitable Gift Annuity, or Retained Life Estate.

Volunteer Your Time

As a largely volunteer organization, we welcome your skills and enthusiasm. Due to the nature of the work, you must be 18 years of age and a Fish First member to work on any of the projects and programs. Send us an email, give us a call, or send us a letter to discuss joining our team.

Donate Services, Equipment, or Materials

Fish First has a number of items, such as rock, gravel, tree root wads (long tree trunks with roots still attached) that are used in many projects. Hydrologists design the projects, and heavy construction equipment and crews are needed to complete many of the projects. Review our Fish Habitat Treatment - Technical Characteristics and our Programs to find out more about the items that may be donated, or contact us to learn more.

Donate Fundraising Items or Services

The Fish First annual auction occurs in May of each year. Donations for the fundraiser are accepted throughout the year. Please contact us to discuss your donation of goods or services.

Summary of Projects Requiring Funding

Here is a list of projects that require funding. If you would like details on any project, please contact Fish First!

If you would like to donate, please fill out the form, FISH FIRST DONATION, VOLUNTEER, AND MEMBERSHIP FORM, found at the end of this document.

Habitat Restoration Project Name	Habitat Restoration	Project Cost	Funding Required	Project ETA
Upper Mason Creek	975 Feet	$63,500	($31,300)	2008
East Fork - Cliff House Reach	1,900 Feet	$420,000	($192,000)	2007-2008
East Fork - Powerline Bend	2,360 Feet	$271,000	($241,000)	2008
East Fork - Clark County Maintenance Yards	1,610 Feet	$40,000	($40,000)	2008
East Fork - West Daybreak Reach	2,870 Feet	$520,600	($442,500)	2008
Cedar Creek - Harteloo Chinook Pool	663 Feet	$50,500	($31,800)	2008
Ridgefield Pits Reach	6,300 Feet	$715,000	($715,000)	2008
	15,703 Feet	$1,945,100	($1,590,300)	2007-2008

Fish First Ongoing Programs	Request	Cost	Funding Required	Season or ETA
Fish Rescue	Annual Operating Costs	$8,000	($8,000)	2007-2008
Fish Rescue	New Holding Area	$25,000	($25,000)	2008
Habitat Restoration	New Truck	Unknown	Unknown	2007-2008
Net Pen Program	Upkeep	$8,300	($8,300)	2007-2008
		$41,300	($41,300)	2007-2008

Recognition

Fish First may obtain permission from land owners to post signs recognizing Fish First projects, partners, and donors. They may also provide news articles to newspapers and television stations and post information on their web site.

If you would like to be recognized for your donation, please indicate so on the donation form.

FISH FIRST DONATION, VOLUNTEER, AND MEMBERSHIP FORM

Please mail to: Fish First, Post Office Box 1505, Woodland, Washington, 98764,
or contact us at 360-713-7460 or info@fishfirst.org.

Name _____ Date _____

Address _____ Company _____

City, State, Zip Code _____ Telephone

Email (Optional) _____

☐ Please email me the Fish First monthly newsletter.

Donation Information: Fish First is a 501 (c) 3 public, charitable, non-profit organization.
If no project name is indicated, your donation will be applied where it is needed most.

☐ Project Donation Amount $ _____

Project or Program Name (Optional) _____

Comments:

Please attach details for any of the following:

☐ Endowment Funds ☐ Planned Estate ☐ Stocks, Bonds or Other Gifts

☐ **Please recognize my donation** (Check options, below) ☐ **Anonymous Donation**

☐ Billboard On-Site (if installed) ☐ Fish First Newsletter

☐ News Articles ☐ Project Book (including Web Site)

Non-Monetary Donation Please attach details, such as quantities or items donated.

☐ Equipment ☐ Root Wads ☐ Plants (Trees 4' or larger)

☐ Gravel ☐ Rock ☐ Fundraising Items or Services

☐ Other

Volunteer: Must be 18 years or older and a Fish First member due to insurance coverage.

☐ Nutrient Enhancement (Sept. – Mar.) ☐ Net Pens (Nov. – May)

☐ Egg Boxes (RSIs) (Dec - Apr) ☐ Annual Fundraising Auction (Feb – May)

☐ Other (Please describe below)

Join Fish First! Receive a decal to place on vehicles or boats, newsletters, action alerts, and invitations to special events and auctions. Annual Memberships:

☐ Steelhead - Sponsor $250 ☐ Coho Salmon – Adults $35

☐ Chum Salmon - Students $15 ☐ Cutthroat Trout - Kids $20

☐ Chinook Salmon ($1,000 Lifetime Membership)

Payment Type Please do not send cash in the mail.

☐ Enclosed is a check payable to Fish First.

☐ Please charge to my Visa/Mastercard: $

Number _____ Expiration _____

Signature

☐ My company will make a matching contribution. Company name:

Thank you for your consideration and donation of time, money, goods, or services to help Pacific Northwest native fish and improve environments wherever the fish run!

Thank you to our Donors and Partners

Building a new future together…

On behalf of Fish First and everyone who benefits from the work of Fish First – Thank you!

We would especially like to thank our partners from the local, state, and federal governments; as well as local organizations and businesses. Through their support, cooperation, donations, and grants we continue to help the fish.

Thank you all!

- Clark County
- Clark County Conservation District
- Clark County Conservation Service
- Clark County Public Utility District
- Clark-Skamania Fly Fishers
- Clark-Vancouver Parks and Recreation
- Fish America Foundation
- Lower Columbia Fish Enhancement Group
- Lower Columbia Fish Recovery Board
- NOAA Fisheries
- National Fish and Wildlife Foundation
- National Resource Conservation Service
- Salmon Recovery Funding Board (SRFB)
- Trout Unlimited
- US Conservation Service
- US Fish and Wildlife Service
- USDA National Resource Conservation Service
- Washington Department of Ecology
- Washington Department of Fish and Wildlife

Fish First would like to recognize all of its partners and donors, but due to concerns about privacy, we do not list them all here.

If you have donated to Fish First and would like to be recognized, please email info@fishfirst.org.

We will be working to obtain approval from our partners to list their names on our donors list.

We have received grants and donations from:

- Over 150 companies
- 100s of individuals
- Many local clubs, churches, and organizations.

Lewis River

Let it begin with us!

Watershed Restoration, Fish Habitat,
Off Channel Spawning — More and Better Fish!

McCormick Creek
Lockwood Creek
Brush Creek
North Fork
Riley Creek
Ocean Runs
Breeze Creek
Big Tree Creek
Mill Creek
Basket Creek
Lake Merwin
64 miles of river system
Jenny Creek
Bitter Creek
Manly Road Creek
Yacolt Creek
East Fork
Pup Creek
Chelatchie Creek
Mason Creek
Jackson Creek
Cedar Creek
Salmon Creek
Rock Creek
Hayes Creek

Fish First

Post Office Box 1505
Woodland, WA 98674

360-713-7460
http://www.fishfirst.org
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