## Salmon River Restoration Council

1992 to 2012 Accomplishments Report: 20 Years of Restoration!



### SRRC's Mission Statement

Our mission is to assess, protect, restore and maintain the Salmon River ecosystems with the active participation of the local community; focusing on restoration of the anadromous fisheries resources and the development of a sustainable economy. We provide assistance and education to the general public and cooperating agencies, by facilitating communication and cooperation between the local communities, managing agencies, Native American Tribes and other stakeholders.

The Salmon River Restoration Council is celebrating 20 years of work protecting and restoring the Salmon River watershed. During that time the SRRC and the Salmon River community have accomplished many things, coming together around numerous issues that concern us all. 2012 was a milestone year for us twenty years of working to restore the river's imperiled fisheries; twenty years of bringing together diverse interests to find common ground and workable solutions; nearly twenty years of managing noxious weeds to keep toxic herbicides out of our watershed and protect our native ecosystems; many years of critical fuels reduction to protect the watershed and the community from catastrophic wildfire; and well over twenty years of taking the conversation about our natural environment to the people who matter.

Our effort began in 1992, when a group of Salmon River community members received support from the Klamath River Fisheries Task Force to host a series of cooperative workshops for the communities in the Salmon River subbasin. These workshops about the dwindling populations of spring Chinook salmon 2 and summer steelhead in the Salmon River were intended to increase local awareness. The community response was overwhelmingly positive and illegal harvest of these species was noticeably reduced.

In response to the local community's desire to protect and restore the Salmon River's anadromous fisheries, the Salmon River Community Restoration Program (CRP) was created in 1993. Through the vehicle of the CRP local involvement and volunteer efforts increased, leading to the formation of the Salmon River Restoration Council, which grew into a 501(c)(3) non-profit corporation in 1995.

Since 1996 the Salmon River Watershed Center has been maintained in the off -grid community of Sawyers Bar. This facility is open to the public, and serves as a community center for restoration meetings and outreach events, a library and resource-related information center, and as an office for SRRC staff.

Our programs have grown and expanded over the years in our effort to keep all aspects of our watershed healthy, from the fish to the forests to the community. We sincerely hope that this anniversary is just the beginning, the first installment of a lifetime of assessing, protecting, and maintaining the beautiful Salmon River watershed.

Early Salmon Ed silk screened poster



# Top 10 Accomplishments

**Poach Eggs Not Fish Campaign** – Substantially decreased the illegal harvest of Salmon River Spring Chinook through educational workshops, helping to inspire an engaged community of local fish conservationists.

Nature in the Classroom – Provided watershed education to Salmon River schools for 18 years, bringing up the next generation of natural resource professionals.

Clean Water and Wild Fish – Monitored and assessed baseline river conditions and fisheries populations since 1992

**Pesticide Free Watershed** – Reduced or eliminated spotted knapweed populations on over 270 sites without the use of herbicides, achieving a reduction of over 99% between 1996 and 2012, aiding in the recovery of healthy and diverse native plant communities.

**Fish Friendly Roads** – Completed sediment source assessments for all federal and most private roads in the watershed, totaling nearly 900 miles of road, leading to extensive road restoration efforts by the USFS and the SRRC.

**Leave No Junker Behind** – Over 330 junk vehicles, 625 tons of scrap metal, and 37 tons of tires were removed from the watershed and recycled in 2006. This project involved more than 2000 hours of volunteer work

**Fish Barrier Removal** – Removed 2 dams on White's Gulch - the number 1 priority fish barrier in Siskiyou County. Cooperated in the removal of several other major fish passage barriers including Merrill Creek and Kelly Gulch.

**Fire Safe Community** – Completed over 925 acres of fuels reduction work on 168 private land parcels, reducing fire risk and raising wildfire awareness.

Klamath Dam Removal – Participated in the Klamath Basin Restoration Agreement and Klamath Hydroelectric Settlement Agreement for the removal of Klamath River dams and the restoration of Klamath River fisheries.

Local Restoration Economy and Community Engagement – We've become the largest employer in the Salmon River watershed, creating restoration jobs for Salmon River residents since 1992, sustaining a critical economic base in our remote area. We've actively involved the community in protecting and restoring the Salmon River watershed in all of our projects and programs for 20 years and counting.



Photos of Salmon River Spring Chinook - above by Janjaap Dekker, behind the graph on the next page by Michael Bravo.

In the twenty years since SRRC's inception, much of our work has been focused on the recovery of the Salmon River's springrun Chinook salmon. Spring-run Chinook populations in the Klamath Basin faced severe decline in the 20th century. Today, the Salmon River hosts one of the Klamath's last runs of wild spring Chinook, and it is one of the greatest accomplishments of our community to have preserved this unique fishery.

In the first Salmon Education Workshops hosted on the Salmon River, CDFG biologist Bill Chesney, demonstrated the clear trajectory of extinction for Salmon River fish if harvest was to continue unchecked. There simply weren't enough fish for everyone. Through subsequent workshops and even educational theatre, the message The was powerful enough to pull a River is an unusu community together to ensure there would be fish for fishes in the Klamath watershee generations to come. Not tion. Unlike most rivers, there has r only was poaching curtailed, River, which makes it a repository the local community became used to help restore fish runs interested in the management Despite its excellent habit of all Salmon River fish. Local fish is a remnant of population surveys became a way for peo-

ple to engage and voluntarily share in the responsibilities of management.

Over the years we have hosted many activities engaging the community in fisheries monitoring and restoration, including: annual surveys for adult and juvenile fish, restoration projects to enhance upland and aquatic habitat, educational workshops, and cooperative research opportunities. These activities have included everyone from local youth, to the most experienced fisherman and scientists, as well as many in between.

There have been days spent walking the river in February, during the glory of steelhead season, days spent surveying for the first spring salmon in May, annual population census dives for spring-run Chinook and steelhead in the summer, and weeks **4** spent counting redds and carcasses of spawning salmon in the fall. We have tracked down the rare green sturgeon, the endangered coho, and the unusual Pacific lamprey in the Salmon River. We've monitored outmigrating fish at the rotary trap in coordination with the Karuk Tribe. We are proud to have produced a Fish Identification and Survey Training video with the Klamath-Salmon Media Collaborative and to have cohosted SRF's Spring Chinook Symposium twice.

The SRRC has been improving fish passage into tributaries and doing habitat enhancement projects for a number of years. We've assessed and treated 40 tributaries through this project. These small-scale restoration efforts involve a few trained fisheries technicians making well-informed adjustalmon ments to our creeks and streams. Mov-

The Salmon

River is an unusually intact river ecoing a few rocks here and there system, and hosts runs of all the remaining anadromous can improve fish passage into fishes in the Klamath watershed, including several at risk of extincsmaller creeks and streams, tion. Unlike most rivers, there has never been a hatchery on the Salmon side-channels and ponds, River, which makes it a repository of wild fish genetics that could be which is where juvenile fish used to help restore fish runs elsewhere in the Klamath Basin. find their primary rearing Despite its excellent habitat, the fishery of the Salmon habitat. These are places where is a remnant of what it once was. juvenile fish can feed and conserve energy while growing, increasing their

> chances of survival when they migrate to the ocean. Placing additional wood and willows in these slow-water habitats can provide needed cover and protection from predators.

> There are also several large-scale fisheries restoration projects that have occurred in the last twenty years - most notably the remediation of fish passage at Merrill Creek, Kelly's Gulch and Whites Gulch (see page 13). Future large scale projects on the drawing board include fish passage improvement at Hotelling Gulch, and engineered side channels and ponds to provide quality rearing habitat for coho salmon. Currently, we are working to maintain our ongoing fisheries projects, surveying for adult and juvenile fish populations, maintaining longterm data sets, and continuing to engage the community in this work to preserve Salmon River fisheries.



Salmon River Spring Chinook Population Totals 1980 - 2012 \*2006 is an estimate due to a wildfire interfering with completing of the dive that year. Grilse, I year old salmon also called half pounders, have only been separated out since 1999.

SRRC and Partners' Fisheries Projects



# Poach Eggs not fish

Early Salmon Education linoleum print.

Funding for Fisheries Assessment & Protection Programs

In-kind Donation of Labor, Mileage & Equipment Use \$271,794



Grant Funding \$383,226

### Salmon River Fisheries Program by Species



**Spring Chinook** run timing assessments; Salmon River Cooperative Spring Chinook & Summer Steelhead Dive since 1992; spawning & carcass surveys; disease & mortality assessments; refugia, summer & winter rearing assessments; otolith & scale research; downstream out-migration fish trap

Klamath Basin Cooperative **Fall Chinook** Carcass & Redd Surveys; otolith & scale sampling & research; disease monitoring; juvenile refugia & summer & winter rearing assessments; downstream out-migration fish trap



**Coho** juvenile presence/absence surveys; Salmon River coho spawning surveys; off-channel juvenile coho rearing habitat enhancement; downstream out-migration fish trap



Salmon River Cooperative Spring Chinook & Summer **Steelhead** Dive; winter steelhead spawning & redd surveys; Klamath Salmon Anglers & Guides Association monitoring program; downstream out-migration fish trap



**Green Sturgeon** dives on the lower 8 miles of the Salmon River; green sturgeon larval sampling & radio telemetry; downstream out-migration fish trap



**Pacific Lamprey** redd surveys & presence/absence surveys; downstream out-migration fish trap

### Fish Facts

The Salmon River hosts one of the last wild spring Chinook runs left in the Klamath River basin. Our run varies from 90 to 1600 fish annually. Spring Chinook were once the predominant run in the Klamath Basin.

Since 1992 cooperators have counted the redds and carcasses to obtain population estimates, rather than using a weir, which blocked migration. Fall Chinook are now the predominant run in the Klamath Basin.

Until 2005, when the Karuk Tribe & SRRC found several hundred juveniles, some thought coho were extinct in the North Fork Salmon River. Coho salmon were listed in 2002 as an endangered species.

Winter steelhead runs are getting stronger after years of low returns; summer steelhead returns remain low.The Salmon River is a prime catch and release, steelhead fishing river.

The Salmon River is one of only a few known spawning areas for green sturgeon. The northern population (including those in the Salmon River) are listed as a Species of Concern by NMFS.

A Pacific Lamprey may hitch a ride all the way from the ocean to the Salmon River on a salmon. Eel and salmon populations once supplied over half the Karuk diet.

### Salmon River Cooperative Noxious Weed Program

Noxious weed crews start hunting for and eliminating Italian thistle on a site above the town of Forks of Salmon in early spring.

The Salmon River Cooperative Noxious Weeds Program (CNWP) is a community-based effort that is recognized as one of the most unique and effective watershed scale weed control programs in the West. The success of the program relies on a strong community volunteer component and a commitment to chemical-free control.

The Salmon River Restoration Council and its partners (USFS, Siskiyou County, Karuk Tribe, concerned citizens, landowners, and others) started the CNWP in 1994. Volunteer workdays initially focused on managing Scotch broom and Marlahan mustard, then expanded in focus with our increasing understanding of the detrimental effects invasive plants could have on our wild landscape.

The program really came into its own after spotted knapweed, a class A invasive species, was discovered on the Salmon River in 1997, bringing with it herbicide use and prompting a surge of community support for manual eradication methods. The CNWP has been manually removing knapweed ever since, with amazing results. We've achieved a 99% reduction of spotted knapweed plants throughout the watershed. The SRRC and its partners are now effectively managing 20 key species on over 550 sites, spread across the 751 square mile watershed, without the use of herbicides. Prompted largely by our intensive management of knapweed, SRRC and its cooperators developed the Salmon River CNWP Comprehensive Management Strategy in 2003. The goal of the Strategy is to aid in the recovery of healthy native plant communities in the Salmon River.

Over the last 18 years of managing noxious weeds we have learned many valuable lessons. At the top of this list is the need for education, prevention, and community involvement. The considerable success of CNWP over the years is in large part due to the consistent and enthusiastic involvement of the Salmon River community. We've come to believe that ongoing success controlling invasive plants requires the active participation of a well-informed public. The SRRC's effort to eliminate knapweed on the Salmon River is a potent example of the real success that can be achieved by putting community solutions at the forefront of the invasive species eradication movement.

CNWP Treatment Summary 1994-2012				
Noxious Weed Species	No. of Sites	No. of Plants Removed	% of plants Left	
Spotted Knapweed	268	>400,000	<	
Diffuse Knapweed	5	>200	<	
Meadow Knapweed	3	>50	0	
Oblong Spurge	9	>40,000	Too early	
Leafy Spurge	5	>500	<	
Italian Thistle	4	>250,000	<5	
White Top	9	>1,000	<5	
Marlahan Mustard	168	>100,000	<15*	
Canada Thistle	I	>50	<	
Puncture Vine	3	>27,500	<	
Tree of Heaven	8	>1,000	<25	
Scotch Broom	13	>1,000	<5	
French Broom	20	>5,000	<5	
Water Hemlock	I	27	0	
Butterfly Bush	2	>100	<25	
Teasel	3	>500	<10	
Yellow Star Thistle	28	>10,000	<5*	
Malta Star Thistle	3	>2,500	<10*	
Jubata Grass	3	5	<25	
* % remaining of sites treated. Other populations may exist				

of this species, but targeted sites are prioritized for treatment

### **Goals of the Noxious Weed Program:**

- Maintain a healthy native plant community that is biologically functional and maintains biodiversity;
- Involve the local community and other cooperators in the control of prioritized noxious weed populations;
- Effectively manage prioritized noxious weed species without using chemical herbicides;
- Develop and apply adaptive techniques and effective tools to achieve control.



Photos from the archives of SRRC - noxious weed volunteers and crew searching the river bar, mulching dense areas of juvenile weed growth and removing weeds from the roadside, all to slow the spread of noxious weeds in our watershed.





Wildfire has played a critical role in shaping and maintaining the Klamath region for hundreds of thousands of years. Many of the unique ecosystems of the Salmon River are dependent on periodic wildfire to remain healthy and in balance. Sadly, today, catastrophic wildfire is likely the greatest single threat to fisheries, ecosystem health, and biodiversity in the Salmon River watershed.

The SRRC understands that over 100 years of fire suppression has actually in-

creased the size and intensity of wildfires in many areas of the Klamath Mountains. Preventing nearly all natural fires had the unintended result of greatly increasing fuel loads throughout the watershed. Now many fires

are unable to be suppressed, and can grow to many times their historic potential size as they consume the additional fuel load. The Salmon River watershed began experiencing a series of large, catastrophic wildfires in the second half of the 20th century. Today our watershed is one of the highest risk fire areas on the entire Klamath National Forest and has had the greatest concentration of wildfires in Siskiyou County (see chart).

In 1994 the SRRC began seeking funding

for fuel reduction on private and public property to help reduce the likelihood of catastrophic fires and the risks that they pose to the watershed and community. We received our first grant in 1995, beginning years of work reducing fire prone fuel loads on private property. In order to get more involvement and collaboration from agencies and the community on fire related issues we started the Salmon River Fire Safe Council (SR FSC) in 2000. One significant action of the SR FSC was to create a Commu-

The Salmon River FSC's mission is, "...to help plan, implement and monitor the reinstatement of natural fire regimes in the Salmon River ecosystem in a manner that protects life, property, improves forest health, and enhances the resources valued by its stakeholders."

> nity Liaison Program which facilitates communication between USFS Incident Command Teams, local Forest Service, the SR FSC, and local community members during large wildfire events.

> Since 1995 we've treated over 925 acres of land on the Salmon River; working on 56% of the private properties at least once. Through the SR FSC we completed a Salmon River Community Wildfire Protection Plan (CWPP) for the entire watershed and several Neighborhood CWPP's, addressing more detailed fire

related issues for towns, neighborhoods, and surrounding Wildland Urban Interface zones (WUI).

We believe our program has stimulated the community, as well as agency personnel, to have a better understanding of fire's role in the watershed and what we can all do to reduce the risk of fire damage to our properties and the public lands surrounding them. Since we've started our fuels program there has been a visible transformation on private lands

> on the Salmon River. Awareness of fire risk and fuel loading has seeped into the consciousness of the community. Even those who haven't participated directly in our Fire, Fuels and Forestry program have begun to reduce

fuels on their property as a part of basic maintenance.

Over time we've come to understand that fire isn't only about safety, but also forest health. People are beginning to see fire as a natural and necessary part of our ecosystem. If we adequately protect our homes and most valued resources we can let fire burn in the landscape without as high a risk of catastrophic wildfire, and fire can once again become an important solution to watershed health.

Over the years our Fire, Fuels and Forestry program has grown to include:

- Prioritized fuel reduction projects;
- Annual Fire Awareness Week;
- Coordinating the Salmon River Fire Safe Council;
- Volunteer fuel reduction workdays;
- Coordinating Multi-Party Monitoring of forestry projects;
- Distributing Fire Safe information;
- Fuel loading workshops and fire safety training;
- Collaborative fire planning for the Salmon River watershed;
  - Detailed fire planning for the community and outlying neighborhoods.

Major Wildfires on the Salmon River 1970-2012			
Year	Fire Name	Acres Burned	
1973	Offield	8,200	
1977	Hog	50,000	
1987	1987 Complex	90,900	
1994	Specimen	7,500	
2002	Forks	1,387	
2006	Uncles Complex	48,085	
2008	Ukonom Complex	80,000	
2009	Backbone & Red Spot	6,324	

Salmon Mountain Forestry Fuels crew circa 1997

Below, Fuels reduction work on private land - Before, After, I year after

> Bottom, 2008 fire by Scott Harding and afterwards in Crapo Creek drainage by Lyra Cressey









### SRRC & Salmon River Fire Safe Council Significant Accomplishments have included:

1992-2012 In-kind

value of donated

labor, mileage,

equipment

\$734,836.

- Treated over 925 acres of land on the Salmon River
- Worked on 56% of the private properties in the watershed
- Completed the Salmon River Community Wildfire Protection Plan
- Developed Neighborhood Wildfire Protection Plans for Forks of Salmon, Sawyers Bar, Cecilville, Butler, Black Bear, and Knownothing Creek
- ✓ Identified, mapped and signed all Salmon River Engine Fill Sites
- ✓ Identified and mapped all Helispots for emergency response
- ✓ Identified Emergency Access Routes for treatment
- Developed Wildland Urban Interface Areas for the Salmon River
- Developed a Fuels Reduction Prescription Policy
- ✓ Developed and implemented the Forks of Salmon Hydrant System with SR Volunteer Fire & Rescue
- Developed Fire Prevention Posters with the help of the Forks School students
- Distributed information on fuels reduction technique, fire safe landscaping, and appropriate building materials
- Provided uniform address signs for residential emergency response along roads



1992-2012 Grant funding for protecting at-risk private and public lands by reducing fuels als \$1,136,025.

### Feast of the River Celebrating 20 Years of Restoration!

In September of 2012 the SRRC celebrated 20 years of restoration work on the Salmon River by hosting a party complete with music, benefit auction and a locally sourced and prepared feast. A ceremony was held to honor our organization's founder, Petey Brucker, for his many years of dedication to the SRRC and the Salmon River.

### We would like to thank the many people and businesses who donated their time, products and sp

Business Sponsors: McBroom & Co. Packers & Guides, Scurfield Solar, Lukes Joint & the Other P<u>lace,.</u> Donations of Goods & Services: Ashland's Own Shop 'n Kart, Berryvale Grocery, Brio Breadworks, Costco Eureka, Dania Colegrove, Eco Teas, Eureka Natural Foods, Josh Saxon, Lloyd Ingle, Medford Food Co-op, Moonstone Crossing Winery, Myanna Nielsen, Northcoast Coop, Pierce Family Farms, Raley's of Yreka, Ron Reed, Shannon Monroe, Six Rivers Brewing, Wildberries, and Winette Winery Donations of Auction Items: Aida Kastel Baskets, Amanita Molier Silk Painting, Amara Hollowbones, Arcata School of Massage, Arcata Scoop Ice Cream, Beau Pre Golf Course, Benbow Hotel & Resort, Ben Saxon, Betty Ann Hanauer, Brian Pierce Knives, Briceland Vineyards, By Nieves Body Care Products, Cabot Vineyards, Cara Saunders Bear Wallow Herbs, Cathy Leavens Beautimous, Cold Creek Inn, Elsa Marley, Etna Brewing Company, Eureka Spa and Aveda Salon, Frank Lake & Luna Latimer, Geba Greenberg, Holly Yashi Jewelry, Jack & Karen West Egg Tooth Originals, Janjaap Dekker Photography, Jeremy Dahl Tree

SRRC is very grateful for all the love and energy that the many volunteers added to this event. It cou



Care & Climbing, Jessy Boone Ford, Judy Beaver Therapeutic Massage, Karuna Greenberg, Klamath River Lodge, Leif & Erik Silvertsen Pottery, Lenny Zeigler Massage, Lyra Cressey, Mad River Brewery, Michael Kauffmann, Mount Shasta Resort, Nature's Kitchen & Market, Pam Lauer, Pepper Forrest Spices, Ralph Starritt Studio, Rex Richardson Salmon River Jade, Robert Goodman Wines, Robert Will, Rolling River Nursery, Salmon River Outpost, Sandy Bar Ranch, Sarah Hugdahl, Sara Krueger, Scott Harding Photography, Four Winds Growers, Sidney Replogle Animals Are Wise, Soul to Sole Spa & Foot Bar, Otter Bar Lodge, Sue Terence, Susanne Cardiff, Tommy & Karen Cesaro, Viola's Garden, Klamath River Outfitters, Will Harling, and Thalia Truesdale Wood 'n I

Idn't have happened without you. You know who you are! Malcolm Terrance, second on the right by Ben Beaver, all others on this page by Scott Harding



On the ground restoration is a key part of our mission. We accomplish this in diverse ways in our programs, by removing invasive species to restore riparian and upland habitats, reducing excessive fuels accumulated from years of fire suppression to restore the historic fire regime, or moving a few rocks to allow juvenile fish access to refugia (*photo above*), to name a few. There are numerous other ways that we work toward restoring this watershed to health and balance; some of these are detailed below.



**River cleanup** - Community members have been picking up trash for as long as any of us can remember. Continuing the tradition, SRRC and the Forks of Salmon Community Club organize yearly River and Road Cleanup Days to walk, float, bike, and/or drive to pick up trash along the Salmon River. River clean-up days have often been coordinated with regional Coastal Cleanup Days, sponsored by the CA Coastal Commission. These fun volunteer workdays garner strong support; it's always gratifying to see such immediate results. Since 1997, over 570 volunteer hours, 70 pickup loads of trash and 22 tons of debris (including a 20 ton bridge by Les Harling and crew) have been removed during River and Road Cleanup days.

**Leave No Junker Behind** - In 2004 we took "river cleanup" to the next level when SRRC received a grant through the Siskiyou Co. Resource Advisory Committee to inventory abandoned and/or unwanted vehicles, large appliances and scrap metal on public and private property. We found plenty; vehicles and appliances that make it to the river don't tend to leave as easily once they die. In 2006, with the tireless help of community volunteers, we coordinated the collection of 332 junker vehicles, an astounding 630 tons of scrap metal, and tons of tires and batteries at three crusher sites. North State Recycling crushed and hauled off 32 semi loads of scrap metal. It was epic. The Salmon River sighed in relief with that weight removed, and many meadows and flats were opened up for other life to grow.

**Roads** - Many of the once thriving streams in the west have been choked out due to huge additions of sediment. Much of this sediment comes from roads. The SRRC, in cooperation with our partners and specialists, developed a multifaceted approach to help manage our roads. We mapped and did a sediment source assessment of all of the federal and many of the private roads in the Salmon River - a total of 884 miles of road. An overall ranking of roads needing to be storm proofed, or decommissioned to reduce sediment reaching the river was made. This assessment led to millions of dollars of road improvements and decommissioning by the US Forest Service on public lands. Additionally, SRRC improved roads on private lands that posed a threat to fisheries.

On a more grass roots level, the Driver's That Care Program is a hands-on maintenance program performed by citizens, where community members have provided low level maintenance on the roads they travel on a regular basis. This includes moving rocks, cleaning culverts, or pulling noxious weeds. SRRC holds periodic volunteer and training workdays, helping landowners learn how to maintain their roads.

**Riparian Restoration** - The Salmon River seems pristine, with free flowing, clean waters and no upstream polluters; however, past disturbances have caused damage to the river system that will not be fixed for hundreds of years without active restoration. With all of the successes of our fisheries program, the spring Chinook population seems to have stabilized but we haven't seen the swell in numbers that we had hoped. One of the biggest limiting factors to fisheries recovery on the Salmon River is the lack of quality rearing habitat for juveniles. This includes riparian cover, off-channel and side channel habitat, and access to floodplains during high water events. Much of the riparian forest and its soils were washed away by hydraulic gold mining from the late 1800's to early 1900's leaving a legacy of extensive boulder fields. In response to the Salmon River TMDL's recommendation to increase riparian shading (see pg. 14), and our growing understanding of the impaired floodplains of the Salmon River, SRRC developed a project to assess the river's riparian zone. Areas deficient in vegetation (including tailing piles) were assessed using numerous criteria to determine whether there was potential for planting vegetation and/or other ways of restoring the sites. Three priority reaches were selected for restoration as a result of this process: the North Fork from Redbank to Sawyers, South Fork from Indian Crossing to Negro Creek, and South Fork from East Fork Campground to South Fork Trailhead. Two pilot sites were selected from the North Fork reach - Red Bank and Kelly Gulch (being planted, photo right). With the help of Pacific Watershed Associates we have drafted conceptual designs for these sites with the goals of increasing quality side-channel rearing habitat, riparian shading, and channel complexity.

Barriers - Man-made fish barriers such as culverts and dams commonly block access to important spawning and rearing habitat. These cold tributaries serve as critical refugia and rearing areas for juvenile fish year-round. Fish barrier assessments have been completed on the Salmon River for both county and federal roads. The Siskiyou Co. Public Works Dept. (with CDFG funds) replaced barrier culverts with bridges at Merrill Creek in 2002, and Kelly Gulch (new bridge area being planted photo right) in 2006. SRRC cooperated on both projects. These cooperative efforts made over 1.5 miles of habitat available for anadromous fish. The SRRC, the Karuk Tribe, and the Mid Klamath Watershed Council completed pre and post fish surveys on both creeks, and planted riparian vegetation to stabilize the new creek banks. Fish have been documented spawning above the bridge in Merrill Creek and are hopefully using Kelly Gulch as well. In 2008, after years of work (supported by CDFG and NOAA) SRRC removed two dams on Whites Gulch, which were blocking 1.5 miles of anadromous fish habitat. A new water diversion was made for the private landowners, the upper dam was blown up, and the lower dam was breached. An additional barrier culvert was replaced with a bridge by Siskiyou County the following year. SRRC and our collaborators are getting close to agreeing upon a solution for the Hotelling Creek barrier. If we can work together to fix Hotelling we will have addressed all of the major barriers on county roads on the Salmon River.

Through many diverse efforts SRRC continues to work towards it's mission of protecting, maintaining and restoring the Salmon River watershed.



Before & After Whites Gulch upper dam removal created 1.5 miles of restored fish habitat



The Salmon River Monitoring Program is a cooperative effort involving SRRC, the US Forest Service, the Karuk Tribe, the North Coast Regional Water Quality Control Board, and community volunteers. The monitoring program focuses on stream temperatures and stream flow especially during the summer months when low flows and warm temperatures pose a threat to the health of the fishery. Stream temperature is one of the most important environmental factors affecting aquatic ecosystems, and this data helps us better understand the health of the river.

In 1987, some citizens began monitoring temperature in the Salmon River, using hand held min/max thermometers. This community driven concern about potential water temperature issues gave rise to the Salmon River Cooperative Monitoring Program, which the SRRC began coordinating in 1997. The program began as a part of the watershed education curriculum, and involved a close association between SRRC and the 3 river elementary schools. Students adopted responsibility for several temperature monitoring sites and the SRRC provided technical oversight and data compilation for the program. Over the years, the program has expanded in number of cooperators, number of sites, and in its focus.

As a result of excessive summertime stream temperatures, the Salmon River is considered to be temperature impaired and subject to regulation under the Clean Water Act. **In 2005**, the North Coast Regional Water Quality Control Board adopted the Salmon River TMDL (total maximum daily load) and Implementation Plan. The SRRC contributed much of the temperature data on which the TMDL was based, and coordinates with the Regional Water Board and the USFS to help bring about its implementation through habitat restoration.

In 2009, the SRRC, with funding from the Bureau of Reclamation, had a Thermal Infrared Flyover conducted for the Salmon River. This produced a detailed image of surface water temperatures for the entire river corridor. Thermal Infrared data, illustrates the location and thermal influence of point sources,

### Goals of the monitoring program:

- Establishing baseline water quality data
- Supporting the implementation of the Salmon River TMDL
- Correlating river temperatures with fish behavior
- Characterizing fisheries refugia conditions

tributaries, and surface springs. The data can be used to establish baseline conditions and help to direct future on-the-ground monitoring and restoration efforts.

SRRC and cooperators have maintained between 35-50 temperature monitoring devices (hobo temps) throughout the Salmon River watershed during the summer months since 1997. This program has always had a strong component of community participation in the form of residents adopting monitoring sites near their homes. We also conduct flow monitoring at several sites during the low water season. Our flow monitoring focuses on tributaries since they contribute crucial cold water to the Salmon River during the hotter months.

SRRC's water quality monitoring program plays an important role in the scientific assessment of overall river health. This data is also used to guide restoration activities.



- Assessing restoration effectiveness
- Encouraging community participation in the monitoring process



The Salmon River Restoration Council believes that informed, caring people are some of the most effective stewards of our watershed. Our community is essential to the restoration of our ecosystem. Toward this end we've coordinated a Watershed Education Program in local elementary schools since 1994.

Watershed Ed operates in both local schools, teaching natural resource sciences, ecosystem management, and watershed stewardship. Students at Forks of Salmon Elementary School and Junction Elementary School are given the opportunity to learn scientific methods and gain valuable watershed knowledge through field work and experiential teaching.

The core program gives kids hands-on experience with fish surveys, water monitoring, salmonid aquarium incubation, and native and invasive plant management. We also incorporate science education about fire, geology, roads, wildlife, and climate. The project is enriched by volunteers from the community, local tribes, and resource agencies. We continually seek to build upon the already strong



alliances with the education programs of the Karuk Tribe of California, Mid Klamath Watershed Council and the River School's staff.

The Watershed Ed program facilitates many activities. Students serve as fisheries technicians during the annual fall spawning surveys, and have received awards from CA Dept. of Fish & Wildlife for their excellent contributions. Our students practice native plant propagation as well as invasive weed removal, and many graduates continue to participate in keeping the Salmon River watershed noxious weed-free. The river schools have often participated in natural history raft floats, where wildlife and fish species are seen up close and personal. In winter, climate, snow melt, mountains geography, and avalanche physics are hot topics. During the annual Watershed Fair, interesting guests are invited to present and all the students' projects are on display and shared with the community.

In addition to our program in the schools, we also hold watershed outreach and education activities for the community and visitors. We distribute outreach material at events and on bulletin boards throughout the area and conduct a variety of workshops in the community.

### Watershed Education Funding 1998-2012 Grants and In-Kind Donation of labor, mileage and equipment use

SRRC's Watershed Education in action: Below left, 1998 GPS tracking being demonstrated at the school's adopted water monitoring site and Below right and above, students participating in the 2012 and 1994 Fall Carcass count by taking data from chinook carcasses.





Since 1992, when the Salmon River Restoration Council was created with support from the Klamath Fisheries Task Force and its Technical Work Group, we have been striving to build strong collaborative relationships with Salmon River stakeholders. All of our programs are collaborative efforts that involve working with partners and community members to come up with improved methods and outcomes. The results of these efforts have increased salmon numbers, decreased noxious weed populations, increased our community knowledge of local habitat and species, decreased the amount of garbage and waste in our watershed, decreased the amount of fuels in our forest, and increased the number of local kids who now have jobs in natural resources. Finding common ground can be difficult at times, but the rewards can be seen when those efforts are successful.

There are many examples of how the SRRC has developed and participated in collaborative efforts to foster common solutions for our watershed. Here are a few of note:

In 2002 SRRC and the Klamath National Forest co-authored the Salmon River Subbasin Restoration Strategy: Steps to Recovery and Conservation of Aquatic Resources. This collaborative document has guided restoration efforts for the past 10 years. SRRC also produces an annual Community Restoration Plan. We enlist the cooperation and support of the US Forest Service and other federal agencies, the State of California, the Karuk Tribe, all Klamath Basin tribes, resource user groups, the environmental community, recreation users and others to accomplish our goals.

• The SRRC formed the **Salmon Learning and Understanding Group** (SLUG) in 1998 to coordinate activities taking place on the Salmon River with our closest partners, the local USFS District Rangers, the Karuk Tribe and Klamath Forest Alliance. In the years since, the group has expanded to include other participants, but remains a forum for coordination, collaboration and keeping informed on each other's projects and plans.

• We participate in (and serve as fiscal agent for) the Klamath Basin Moni-16 toring Program, a multi-agency organization which strives to implement, coordinate and collaborate on water quality monitoring and research throughout the Klamath Basin. Members of the group include federal and state agencies, tribes, counties, NGO's, private consultants and others.

From 2001-2008, the SRRC coordinated the Salmon River Spring Chinook Voluntary Recovery Work Group in an effort to bring together fisheries biologists and managers to work towards developing a recovery plan for spring Chinook salmon. The work group coordinated Salmon River spring Chinook research and developed a draft limiting factors analysis for the population. The group was a cooperative effort involving the US Forest Service, California Department of Fish and Game, North Coast Regional Water Quality Control Board, the Karuk and Yurok Tribes, US Fish and Wildlife Service, NOAA Fisheries, and many others.

● The SRRC has taken on the role of coordinating **Multi-Party Monitoring** of USFS forestry related projects on the Salmon River. Multi-Party Monitoring is a requirement for projects funded through the Healthy Forest Restoration Act. This effort brings together people of varied backgrounds and interests to work towards finding common ground and better understanding of projects and their impacts. The group provides a forum for stakeholders to communicate with one another about forest wide planning and implementation of fuels, timber, and fire projects.

● SRRC, through the tireless efforts of Petey Brucker as representative, has participated in the **Klamath River Settlement** process since 2007, and is the only Klamath River based non-governmental organization Party to the Klamath Basin Restoration Agreement and the Klamath Hydroelectric Settlement Act. The purpose of the Agreement is to remove four dams on the Klamath River to open the upper Klamath Basin to fish passage and increase coordination and funding for Klamath basin restoration efforts.

Additional Collaborative Efforts the SRRC has coordinated and/or participated in:

 Salmon River Fire Safe Council (see pg. 8)
Klamath Salmon Anglers & Guides Association

Klamath Fisheries Task Force



### An Interview with Petey Brucker, SRRC's Founder, by Josh Saxon

Josh: What did you think about the Salmon River when you first moved here in 1972? Petey: When I first came here I couldn't figure out what was going on. Where I came from the measure of wealth was how much stuff you had. Here it was almost like your measure of wealth was how well you took care of people and places. Coming into an environment where people were happy if everyone was willing to participate and give of themselves was a good change for me.

### Josh: How did SRRC come about? What was the beginning like, and how did that shape what we are trying to accomplish today?

Petey: The Restoration Council has always been about bringing people together. When the Klamath Fisheries Task Force first funded us in the early 90's, it wasn't about restoring the watershed, it was about doing everything together. There was a feeling that we needed to come together to talk about what restoration was going to look like – not just the habitat, but the people too. I remember our first Salmon Education workshop – it wasn't about preaching, it was more about sharing, so we sang some songs and did a skit and people really rallied around the idea of protecting spring Chinook. Jack West,

the Forest Service fish biologist who started the Spring Chinook Dives, was coerced into being a part of the skit because I told him, "Jack, there's a lot of people who don't want to do a lot of things for salmon, so get out there." Since we are a public watershed everyone in the community is a part of the process. It's good for us to see each other as family.

### Josh: What were some successes over the last 20 years that have had a lasting positive impact on the Salmon River?

Petey: Probably our work with spring Chinook has been our biggest success. If people had just kept harvesting there would have been battles and a lot of animosity. If the SRRC wasn't actively involved in pushing to find common ground, I think our community would be a lot different now. Anyone who was close to the water had an understanding of what we were trying to do. It was okay to share information, and we could all make sense of it together, and get an understanding of what we weeds without the use of herbicides as a tool for treatment. The use of herbicides is not acceptable to many people in the community. Through the SRRC we have eliminated some species of weeds and significantly reduced others. Our community should be recognized and commended for doing such a good job in putting their hands-on approach to work.

### Josh: What's the most challenging collaboration effort you've been involved with?

Petey: The Klamath Dam Removal and Klamath Basin Restoration Agreement process. It's hard to know where it's going to go from here. A lot of issues needed to be worked out, and it was difficult to negotiate each one. All the different Tribes not being on the same page in the KBRA was hard. We were used to having all the Tribes involved whenever we mentioned spring Chinook restoration.

### Josh: What kept you up at night over the last 20 years?

Petey: Usually it was a party! Hanging out and playing music was great

Josh: Any words of advice for SRRC's leadership team as we try to navigate the next 20 years of restoration?

Petey: It's important for everyone to participate so the things we have in common come to the surface. Allowing a local voice for how things should be, from the inside out, this is how we do things---not from the outside coming in, having other people figure things out for us.

Above photo taken by Geba Greenberg. Right, Petey from 2004, holding up an Italian thistle, one of the priority noxious weeds SRRC is manually treating with great success.



### The Financial Overview

Since 1992, SRRC has received approximately \$4,500,000.00 in grant funding from 190 grant agreements. We've also recorded over \$3 million dollars in volunteer and in-kind services during that time. We are proud to report we have employed 185 people over the years. We employ an average staff size of 10 people working out of the Watershed Center and many seasonal field crew.

SRRC has sponsored more than 1,650 restoration related workshops & workdays. Community members, staff, technical specialists, and others have contributed over 95,500 volunteer hours to watershed restoration activities.

Between 1992 and 2012, SRRC has been generously funded by the following:

#### **Private Donors**

Ayers Family Fund Frank Colver SRRC Members

### **Government Agencies**

US Fish & Wildlife Service US Forest Service US Bureau of Reclamation NOAA Restoration Center Klamath Fisheries Task Force CA Fire Safe Council Grants Clearinghouse California Department of Fish & Game California Department of Fish & Game California State Water Quality Control Board California Department of Food and Agriculture Siskiyou County RAC Siskiyou County Department of Agriculture Karuk Tribe

#### **Private Foundation Funders**

Bella Vista Foundation McConnell Foundation Shasta Regional Community Foundation Norcross Wildlife Foundation Firedoll Foundation The Strong Foundation for Environmental Values Dancing Tides Foundation Cereus Fund of the Trees Foundation Clif Bar Family Foundation National Fish and Wildlife Foundation Sidney Stern Memorial Trust Humboldt Area Foundation Mountaineers Foundation Fish America Foundation Sacramento Regional Foundation

#### **Corporate Donors**

Trimble Hewlett Packard Bank of America Outback Power ESRI 18

### Total Grant Funding and In-kind Contributions By Program

\$2,000,000



Thank you to our current funders: CA Department of Conservation, CA Department of Food & Agriculture, CA State Water Quality Control Board, CA Fire Safe Council/Grants Clearinghouse, US Fish & Wildlife Service, US Bureau of Reclamation, US Forest Service, Karuk Tribe, Firedoll Foundation, Clif Bar Family Foundation, Norcross Wildlife Foundation, Sidney Stern Memorial Trust, National Fish and Wildlife Foundation, and SRRC Members!





The SRRC has its office and Watershed Center in Sawyers Bar. In 2012, a dedication to Jim Villeponteaux was inlaid into a boulder out front.

The SRRC has operated the Salmon River Watershed Center in Sawyers Bar since 1996. The facility is open to the public and serves as a community center and an office for SRRC staff. The large, multi-purpose room is perfect for the many educational outreach events the SRRC puts on as well as meeting space for local stakeholders. Services include: wireless internet and computer access, photocopies, maps, phone and fax, a library, and information about the watershed and river.

A brass plaque in honor of Jim Villeponteaux was mounted onto a local boulder and installed in front of the Watershed Center this past fall. It acknowledges Jim's significant work coordinating stakeholders to plan and implement restoration projects. Jim, a founding member of SRRC, was largely responsible for setting up the Salmon River Fire Safe Council and did a lot of ground breaking work for other Siskiyou County FSCs.

Our river communities are a wealth of history. SRRC has spent many years collecting and archiving historic photos, documents stories, movies, interviews and maps. Much of this history was compiled in a Salmon River History CD in 2001. We hope to do a 2nd History CD in the future. We have digitalized and archived many family photo collections, print media and other historic records. If you have anything to add to this community collection, please bring it in to the Watershed Center.



Current SRRC staff gathered for a photo this winter



Watershed Center open house in 1997

### **SRRC Board Members**

Petey Brucker, President Toz Soto, Vice President Kathy McBroom, Secretary/Treasurer Ben Beaver Creek Hanauer Will Harling Scott Harding Ron Reed

#### SRRC Staff and Project Leaders

Josh Saxon, Executive Director Karuna Greenberg, Restoration Director, Fire Fuels & Forestry Coordinator Lyra Cressey, Associate Director, Monitoring Coordinator Petey Brucker, Noxious Weed Coordinator Kathy McBroom, Office Manager Brenda Hurlimann, Bookkeeper Tom Hotaling, Fisheries Coordinator Robert Will, Fuels & GPS Technician Sarah Hugdahl, Program Assistant Shannon Monroe, Program Staff Mitzi Rants, Watershed Ed Coordinator

### SRRC 2012 + 2013 Crew Leaders and Crews

Steve Adams Steven Addison **Bonnie Bennett** Sheri Campbell Tanya Chapple Garry Collins Eric Cousineau Kyle Cousineau Robert Cousineau Jr. Robert W. Cousineau Jesse Cullen **Timothy Darling** Kevin Dunbar Samuel Elledge **Jon Feutz** Dawn George Steve Gunther Jessica Hanscom Sara Hayden George Heck Daniel Hendrickson Chris Inskeep

Eric Johnson Kelly Jones Mike Kerrick Scott Kingery Rebecca Lawrence Tamara Lightle Wyatt McBroom Kenny McDonald Kasey O'Brien James Peterson **Brian Pierce** Nicolas Ramirez Katie Reinhart **Beulah Simas** loe Stoltz Jake Sutter Irie Swift **Emily Tornroos Bill Varga** Ron Ward **Bob Webster** 

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The Salmon River watershed is located in the Klamath Mountains of far Northwestern California. It flows out of wilderness mountains -- Trinity Alps, Russians, Marble Mountains, and Salmon Mountains – and their rugged topography is deeply incised by the river and its tributaries. Ranging in elevation from 8,560 feet at Caribou mountain down to 456 feet at the mouth, 45% of the 751 square mile watershed is designated wilderness area. Nearly 99% of the watershed is federally owned, leaving just over 1% to be inhabited by a local population of around 250 people spread throughout three towns and outlying neighborhoods.

It is a land of biodiversity superlatives and is one of the key areas of biodiversity in the Pacific Northwest. It boasts one of the greatest concentrations of coniferous tree diversity in the world. There are 30 species of conifers in the watershed, including 7 endemics, a convergence of trees found in both Alaska and Mexico, a wide variety of Ceanothus species, and astoundingly diverse butterfly and forest-type mollusk populations.

By water volume, the Salmon River is the second largest tributary of the much larger Klamath River system. The river is designated Wild & Scenic, is completely lacking in dams or diversions, and has water of exceptionally high quality. There are no dams between the Salmon River and the ocean, providing unimpeded access to anadromous fish.

The Salmon River hosts all native anadromous fish runs present in the Klamath watershed: spring Chinook, fall Chinook, coho, steelhead, green sturgeon, and Pacific lamprey. It has the largest remaining wild spring Chinook run in the Klamath River. photo of the Main stem Salmon River by Scott Harding