

BEFORE

Salmon River Restoration Council

2017 Annual Report

SRRC restored fish habitat by removing a collapsed structure blocking fish passage and replacing it with a bridge on a tributary of the South Fork Salmon River above Cecilville

AFTER





News from the Watershed Center

We've made some great additions to our staff this year. Stefan Dosch accepted our Watershed Education Program Coordinator position last summer. He comes to us from the local river community and brings a background in environmental engineering and youth education to SRRC. Amy Fingerle took over our Fisheries Program Coordinator position in the fall. She completed her MS in Aquatic Biology at Hólar University in Iceland in 2015, and she and her husband have relocated to the Salmon River from the Olympic Peninsula. Dylan Sullivan joined our program staff in July and has been working in our fisheries and fuels programs. They've all been doing a wonderful job and we are very happy to have them working on behalf of the Salmon River.



Since we installed the new solar power system at our off-grid office in 2016, we are excited to have cut our diesel general use significantly. 2017 was our first full year of operating on the solar system and we were able to cut our generator use by 95%! We feel pretty good about our long desired switch to renewable energy.

SRRC added both a web cam and an air quality monitoring station to our infrastructure this year, and the data from both can be found on the Weather and Wildfires page on our website srrc. org/weather. 'So now you can check out conditions on the Salmon River from afar!

We celebrated SRRC's 25th anniversary in 2017! To mark the occasion we hosted a big dinner and fundraising event in September that featured locally sourced food, music, arts and crafts. The party was a big success, and we want to offer a huge thanks to all the folks who donated goods and services, as well as those who turned out on a chilly fall night to eat good food, dance and support your local restoration group.



The Watershed Center serves as a valuable community hub, hosting meetings, providing computer/internet access and other resources to the community, and offering watershed information for travelers. We've been occupying the old school in Sawyers Bar for over 16 years now. Our membership and fund raising drives contribute significantly towards our ability to operate the Watershed Center, and your contributions are much appreciated.

SRRC Board

Toz Soto, President Ben Beaver.Vice President Kathy McBroom, Secretary/Treasurer Petev Brucker Will Harling **Creek Hanauer** Jennifer Silveira Josh Saxon Hawk White

SRRC 2017 Staff and Field Crews Karuna Greenberg, Restoration Director Lyra Cressey, Associate Director Kathy McBroom, Office Manager Sarah Hugdahl, Program Staff Scott Harding, Fire, Fuels & Forestry Program Coordinator Melissa Van Scoyoc, Habitat Restoration Program Coord. Kristen Sellmer, Fisheries Program Coordinator through Oct. Amy Fingerle, Fisheries Program Coordinator since October Bonnie Bennett, Monitoring Program Coord. & Program Staff Emily Ferrell, Noxious Weeds Program Coordinator Stefan Dosch, Watershed Education Coordinator Dylan Sullivan, Program Staff Brenda Hurlimann, Bookkeeper Steve Adams, Watershed Center Maintenance 2017 Field Crews - Bonnie Bennett, Lino Darling, Eric Fieberg, Sarah Hugdahl, Samuel Mucioki, Steph Murad, Halle Pennington, Beau Quinter, Dylan Sullivan and Todd Whitmore

As we finish our 25th year of restoration work in the Salmon watershed, we are working on a larger scale than ever before. Some of our major accomplishments this year included:

- Improving fish habitat in two key Salmon River tributaries by placing over 20 log structures in the streams to deepen pools, provide fish with shelter from high flows, and create better spawning grounds.
- Opening up access to over four miles of high quality fish habitat by removing a collapsed bridge that had blocked fish passage for decades. We removed the debris, restored the stream channel, and built a new bridge outside the floodplain, improving access for both the fish and the landowners!

- Participating in ground-breaking genetic research that determined our spring Chinook are evolutionarily distinct from fall Chinook, a fact that has important management implications for these imperiled fish. Utilizing this new understanding of salmon evolution, SRRC and the Karuk Tribe have filed a petition to list our spring Chinook as an endangered species.



Salmon River Spring Chinook by Peter Bohler





In 2018, the fisheries program will continue with adult and juvenile water temperatures that resulted from last year being one of the salmonid population monitoring as well as our habitat enhancement wettest winters on record. Our fisheries crew participated in a wide efforts. We look forward to strengthening our ongoing collaboration variety of monitoring and restoration activities in the watershed. with the habitat restoration program, particularly as larger-scale We continued our habitat enhancement efforts by installing brush projects in the pipeline move toward implementation. Amy will bundles in juvenile fish rearing habitats and improving fish passage continue to participate in the NEPA (National Environmental Policy at creek mouths. This year was the third and final year of a juvenile Act) planning process to complete the aquatics resources report coho assessment that helped us get a better understanding of for restoration projects within the watershed. coho distribution and the quality and use of habitat on the Salmon River. New this year, the fisheries program collaborated with the The selfless dedication of our passionate volunteers and the habitat restoration program to evaluate the impacts of habitat hard work of our talented fisheries crew are to thank for another restoration activities on fish abundance, particularly surrounding productive year of surveys and restoration efforts on the Salmon the large woody debris installation in Knownothing and Methodist River. Thank you for your participation and support! Creeks. SRRC also continued our cooperation with the Karuk Tribe The Fisheries Program was funded this year by the Karuk Tribe, to operate the Juvenile Outmigration Screw Trap at the mouth of CA Department of Fish & Wildlife, Mid Klamath Watershed Council, the Salmon River.

Thanks to the hard work and enthusiasm of 90 volunteers and cooperators, our annual Spring Chinook and Summer Steelhead Population Dive was completed safely and effectively at the end of July. Unfortunately, the 166 spring Chinook counted this year

SRRC's 2017 Program Updates

represents the second lowest return on record. Although water conditions this summer were great for fish, challenging in-river and ocean conditions during the previous several drought years contributed to this year's poor return. The two days after the dive, scientists, managers, restorationists, and the public came together in Forks of Salmon for the 9th Annual Spring-run Chinook Symposium. The symposium provided a unique opportunity for folks from diverse backgrounds to share their knowledge and learn from one another about spring Chinook recovery efforts.

The SRRC worked alongside the Karuk Tribe, US Forest Service, CA Dept. of Fish & Wildlife, and other groups to conduct the annual spring and fall Chinook spawning surveys. We were reminded of the importance of our efforts this year, by the recent publication of a study led by UC Davis. The study, which utilized tissue samples collected by the SRRC (and others), identified the gene that makes spring Chinook distinct from fall Chinook and provides evidence in support of having spring Chinook differentiated from fall Chinook for management purposes. Following the publication of this important scientific finding, SRRC worked with the Karuk Tribe to petition for the listing of spring Chinook as threatened or endangered.

Strong Foundation for Environmental Values, National Fish & Wildlife Foundation-Coho Enhancement Fund, US Fish & Wildlife Service.



After years of planning and coordination, the Habitat Restoration Program has hit the ground running! We implemented our first two projects this year. We placed multiple large woody debris structures into two tributaries on the South Fork (*photo above is on Knownothing Creek*) to create fish habitat for coho and spring Chinook. And we replaced a collapsed crossing with a bridge and restored fish passage on a tributary of the South Fork (*cover photo*) important for steelhead and potentially spring Chinook. We also held an In-steam Restoration Open House, inviting collaborators and members of the public to learn about the Program and all that we are working to do out here.

We continue to move forward with the subbasin-wide planning effort to restore floodplains and mine tailings. In the near future, we will be sharing a Technical Memo, developed by Stillwater Sciences, which explains the process and analysis to date. Currently, we are working on developing prioritized restoration sites and foundational analysis for the upcoming environmental review process.

We completed the designs for the Red Bank Habitat Restoration Project and continue to work on designs for the Hotelling Gulch Fish Passage and Stream Restoration Project. We have started water monitoring on the lower portion of Nordheimer Creek in preparation for a restoration planning effort that will start there next year. The SRRC began the permitting and environmental compliance needed to implement the Kelly Bar Habitat Enhancement Project next summer. This project will be creating much needed off-channel habitat for spring Chinook and coho on the North Fork.

This past year, SRRC completed the Environmental Assessment (EA) for the large wood loading project on the South Fork and began working on the EA for the Kelly Bar Project. The SRRC was very successful taking the lead in acquiring all appropriate permits and producing necessary environmental compliance for the restoration projects we implemented this year. These efforts were led by Melissa, and we have increased our capacity to include Amy, Emily, and Scott as contributors in specialist disciplines.

Funding sources for this program include: CA Dept. of Fish & Wildlife; National Fish & Wildlife Foundation; Natural Resources Conservation Service; US Fish & Wildlife Service; US Forest Service.



The Water Monitoring Program's responsibilities have continued to increase in 2017 as SRRC implements and plans new restoration projects on the Salmon River. SRRC monitors around 50 sites each year for air and water temperature in various locations around the Salmon River drainage. This data is added into the long term dataset we have been compiling for over 20 years. We also collect flow measurements for around 15 locations throughout the summer as a compliment to the temperature dataset. With the help of Riverbend Sciences, the long term temperature dataset has been incorporated into a region-wide database called NorWeST

with the purpose of processing long term trends and correlations. This model can interpret changes on the Salmon River due to climate change along with other factors influencing the overall health of the river (see link for more information: www.fs.fed.us/ rm/boise/AWAE/projects/NorWeST.html). Riverbend Sciences has also been working on a long term trend analysis of our flow and temperature data, as well as looking into trends from the localized effects of fire and smoke on the region.

As SRRC's Habitat Restoration Program ramps up, our monitoring program is increasing in scope and scale to monitor these projects from design through implementation and beyond. Each project location has different goals so the data gathered is site specific. This data provides support for hydraulic modeling efforts by ground truthing model results, and by taking field observations and pictures to document changing river conditions. Floodplains and river channels are being analyzed for potential cold water refugia with an emphasis on locating potential year-round rearing habitat. During project design, strategically placed wells monitor groundwater levels, temperature and dissolved oxygen. Surveyed posts in floodplain areas are also used to topographically reference the river levels at varying water stages to be used for the same models.

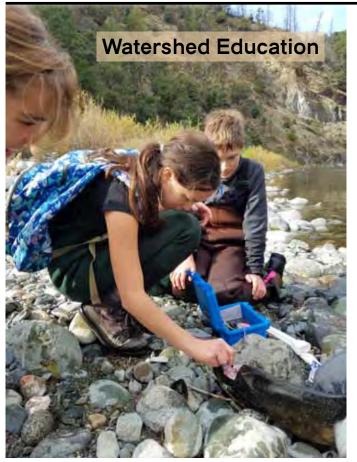
The overall goals of monitoring and research are presently to assist climate change research, understand water temperature trends and measure changes in salmonid spawning and rearing habitat. All of the programs at SRRC are working together to assist in any way needed to help the Salmon River increase its overall health. *The Water Monitoring program was funded through the US Forest Service, and Ca. Department of Fish and Wildlife.*

Fire, Fuels, & Forestry

The summer of 2017 turned out, once again, to be a busy wildfire season, with large fires on both the eastern and western sides of our watershed and a number of smaller fires elsewhere. In all, nearly 70,000 acres burned in the watershed, mostly in the southern Marble Mountain Wilderness area and adjacent public land. Exceptionally dense and prolonged smoke took its toll on everyone, and the largest single evacuation order in recent history went into effect from Etna Summit all the way to Forks of Salmon and beyond to Nordheimer Creek. It was the third time in five years that the town of Sawyers Bar (and SRRC's Watershed Center) was under wildfire evacuation orders. In the end, the fires directly affected no homes or communities here. However, extreme fire behavior occurred on several days with high winds and there are large swaths of the landscape that burned very hot, resulting in high tree mortality. Unfortunately, the historic Tom Taylor Cabin near English Peak burned down. The results of this summer's fires will be visible on the landscape for decades to come and, in addition to the large area where fire effects were ecologically beneficial, there are many areas that will take quite a while to recover.

During the wildfires, SRRC's Community Liaison Program went into action, providing a connection between the agency fire management teams and our local communities. This program helps provide the fire teams with up-to-date maps and local data, and uses designated community liaisons to assist with two-way communication so that local needs, concerns, and knowledge help inform the fire managers. SRRC also created an automatically updated website with Salmon River fire maps and information; see this at **srrc.org/wildfire**. Just as the thick smoke settled in, SRRC installed its own automated air quality sensor in Forks of Salmon to help us track smoke impacts year-round.

Strategic fuels reduction treatments and prescribed fire are two of the most effective tools to prepare homes, communities, and the landscape for wildfire and SRRC continues its work in this regard. Several staff members participated in the fourth annual Klamath River TREX prescribed fire training and advanced their skills. SRRC's vintage fire truck supported the fire operations around Orleans and Pecwan. Due to staffing and permitting challenges and changes, we had a slower than typical year for fuels reduction work but are continuing planned work in the Bear Country area and added a new project to improve wildlife habitat and reduce fuels in the Butler Creek community in the coming year. We're still hoping to complete a large fuels reduction project in the Upper North Fork Salmon area but we have been held up in permitting with our agency partners for two years and we hope to be able to get on with the work before the funding expires.



The SRRC Watershed Education program is working with teachers at our two Salmon River schools to ensure our students are a part of the restoration story. This past year we have continued to emphasize fisheries sciences while studying the ecosystems that support healthy rivers. We partnered with local teachers and organizations to provide stream restoration and fire ecology field trips to monitor our adopted streams and better understand how fire interacts with the landscape. These field trips formed a framework of important topics that were explored in weekly classes, weaving watershed restoration with traditional ecological science. We learned prescribed fire techniques with the Karuk Tribe Department of Natural Resources and students worked with a local film maker to practice interview skills and knowledge preservation.

In the spring, our annual Watershed Fair brought students and scientists together again for a day to celebrate and share river knowledge. Local specialists continue to mentor youth and our fall program included lessons from the same team of professionals. Following the fall fish biology curriculum, we included the schools in a fish count training workshop where biologists taught the kids monitoring skills and demonstrated data collection techniques. It didn't rain much this fall and we were able to include students in 6 salmon spawner surveys, doubling our goal of 3 counting days and including local home schooled students.

2017 was a great year for hands on watershed sciences and it was wonderful to have interest from such a wide variety of watershed professionals. The momentum gained from past relationships and the promise of newly forged partnerships has 2018 looking like another vibrant year for our youth to gain skills and knowledge about their connection to their rivers and forests.

Funding for the watershed education program this year was provided by the Jiji Foundation and US Fish and Wildlife Service.

Photo left, Local school kids learning to collect otoliths from a fall Chinook carcass

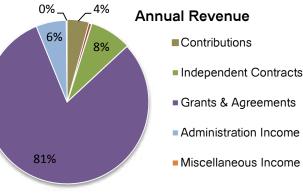


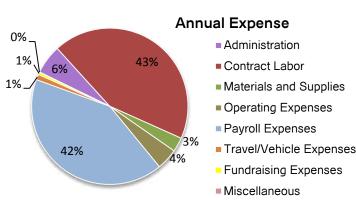
Weed Crew getting the better of Marlahan mustard on the Main Stem road.

After last winter's epic rains, this spring saw a strong flush of noxious weeds, and the extra hot summer had these robust invaders blooming and seeding in record time. SRRC's intrepid weeds crew had it under control, treating several target species simultaneously to keep ahead of early seeding. The crew made excellent progress on several target weed species, including oblong spurge, Italian thistle, spotted knapweed, and the various brooms.

The spring weeding season started with Italian thistle and oblong spurge. We are making good progress with oblong spurge, which is proving to respond favorably to continued treatment. Over the past three years we have seen a decrease in population by 86% at sites that were treated all three years! While treating known sights we continue to survey for new populations. Each year we've found a few new sites. We hope to have all Salmon River sites under treatment and moving towards eradication soon.

2017 marked 20 years of successfully controlling knapweed on the Salmon River. Over the years we've reduced the population at known sites by well over 99%! But this doesn't mean we can relax in the shade. Knapweed seeds can be viable in the soil for over 12 years and this dormant seedbed can





reappear with disturbance. Additionally, as we found out after the 2014 wildfires, there are quite possibly large sites out there that have yet to be discovered. The good news is that we're as vigilant and committed as ever to keep up the amazing work that hundreds of volunteers and crew members have put in over the years. While continuing to survey all of the known sites, for that stray plant hiding in the bushes, crews also focused on frequent treatment of a few more recently discovered large sites that are out of the river corridor, and keeping a keen eye out for new populations in out of the way locations.

This year we began surveying for and treating a new weed on the Salmon River, sulphur cinquefoil; classified by the state as an A rated species, meaning that it is highly invasive and limited enough in distribution that the state believes it is possible to contain or eradicate it. We don't know the full extent of this weed on the Salmon River yet, so we are focusing on finding and mapping infestations and treating isolated and satellite populations until we can come up with a management strategy with the USFS.

With widely established weed species like Marlahan Mustard, we focus our efforts on limiting their spread. Crews regularly clear high-use areas such as river accesses, campgrounds, and trailheads. We are very thankful for the hard work of many landowners in treating mustard, star thistle and other weeds on and around their properties. This year wouldn't have been such a success without the help of our partners at MKWC, local river school children, and groups of dedicated resident volunteers.

The Noxious Weeds program was funded this year through the CA Dept. of Food & Agriculture's State and Private Forestry Funds, Siskiyou County Resource Advisory Council, US Forest Service, US Fish & Wildlife Service, and the Clif Bar Family Foundation.

Financial Report	
Ordinary Income/Expense	
Annual Revenue	
Administration Income	\$48,064.00
Contributions	\$34,433.00
Independent Contracts	\$66,188.00
Earned Income	\$4,245.00
Grants and Agreements	\$647,080.00
Miscellaneous Income	\$1,332.00
Total Revenue	\$801,332.00
Annual Expenses	
Administration	\$48,064.00
Contract Labor	\$345,873.00
Materials and Supplies	\$9,036.00
Operating Expenses	\$35,075.00
Payroll Expenses	\$330,204.00
Fund-raising Expenses	3,885.00
Miscellaneous	\$23,591.00
Travel Expenses	\$472.00
Total Expense	796,199.00
Net Income \$5,133.00	
Volunteer & In-Kind Contribution	\$113,211.00

Thank You Volunteers! We couldn't do it without you.



New and Renewed Members and Donors for 2017:

Spring Chinook Donor Level - Autumn Beinhauer, Yewie & Meghan Ferrara, Frank Colver, Christopher Songne & John Graykoski, Danny Hagans, Nick Pence, Steve Robinson & the The Superfines

Green Sturgeon Donor Level - Harriet Beinfield, Jon Grunbaum, Creek & Betty Ann Hanauer, Sharon Hoppas & George Martin, Jan Keith & Gene Millburn, Daniel & Eva Krall, Michael Love, Ken Miller, John Ziegler & Mary Ciavonne

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Fall Chinook Donor Level - Josh Asarian, Jonathan Berman, John Brennan, Waylon Brucker, Leslie Burkhart, Clayton Creager, Janjaap Dekker, Pat & Joe Dougherty, Donna England, Don Flickinger & Jennifer Silveira, Fran Forim, Dennis Grady, Petey Brucker & Geba Greenberg, Karuna Greenberg, Tesilya Hanauer, Will Harling, Dave Hillemeier, Mary Huffman, Jim & Suzanne Jennings, Efram Korngold, Luna Latimer, William Lew, Carol MuCullough, Brian Meek, Judy Meyer, Cathi Nelson, Ed & Marcia Nute, Ahni & Kit Robinson, Ethan & Trea Robinson, Francesca Rosa, Willow Schrager, Sobol Family, Kit Stolz, Jared Strote, Erica Terrence, Brianna Truelove, Timothy Wilhite

Winter Steelhead Donor Level - Jeff Buchin, Craig Bunas, Linda Ciavonne, Alan Sr. & Clara Crockett, Cynthia Cross, Aaron & Cori Gilroy, KC & Scott Gilroy, Staci Griffin, Ronn & Janet Harding, Cassandra Hensher, Mike Hentz, Rob Kehrig, Glen Kubaki, Erika Mcconnell, Yeshi Neumann, Sidney Replogle, Andrea Robinson, Steven Roberts, Kate Rowe, Lauren Stahl, Jeff Stone, Roxanne Strangfeld, David & Valerie Van Scoyoc, Milagra Tyler, Rajesh Westerberg

Other Donors include: Bill Chesney, Janice Enos, Parker Flickinger, Charles Gillingham, Greg King & Joanne Rand, Eileen Kurtzman, Rachel Neumann, Dan Rathbun, Emily Troisi-Rauschenberger, Christopher Ursich, Hope Woodward

Thank you to our Funders - CA Dept. of Fish & Wildlife, CA Dept. of Food & Agriculture, Clif Bar Family Foundation, US Fish & Wildlife Service, US Forest Service, Karuk Tribe, Firedoll Foundation, Mid Klamath Watershed Council, National Fish & Wildlife Foundation, Sidney Stern Memorial Trust, Siskiyou County RAC, Yellow Chair Foundation, Patagonia Environmental Grants, Cereus Fund of the Trees Foundation, and our valued members.





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Animals Are Wise, Sidney Manzanita to all the volunteers who helped make the 25th Anniversary Celebration at Nordheimer Campground such a Delicious and Fun Night!

A Big Thank You

to the donors and

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