Salmon River Restoration Council 2022 Annual Report

News from the Watershed Center

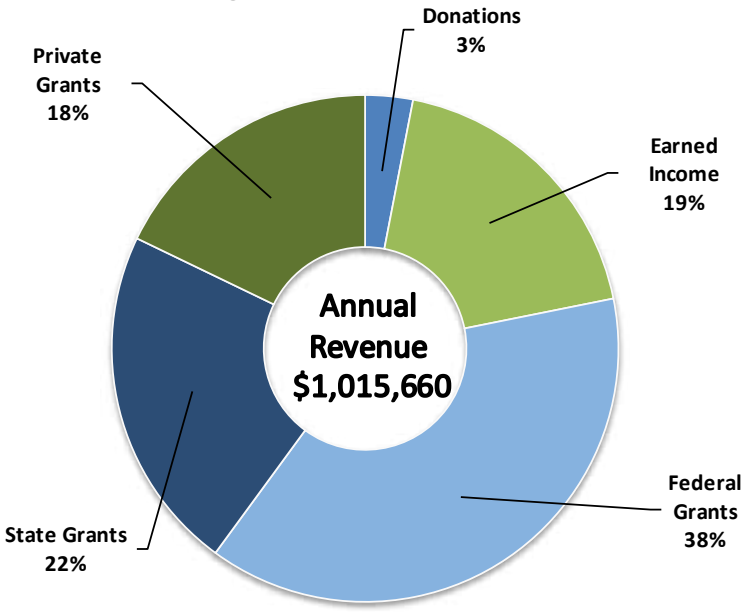
The big news out of the Watershed Center this year is that SRRC celebrated its 30 anniversary! We marked the occasion with our first big in-person event since the pandemic began, bringing together people from our local and restoration communities with food and music, in a joyful celebration of this place and the people who've dedicated their lives to it. We paid special tribute to Petey Brucker, who co-founded SRRC 30 years ago and whose passion and dedication to the work of protecting and restoring this place can never be overstated. We want to again thank the numerous volunteers, artisans, crafters, farmers and businesses who donated their goods and services to make the event an unforgettable evening.

We had a couple of staffing changes this year. In January 2022 we hired Alex Varner (formerly of the Alabama Nature Conservancy) as the Fire, Fuels and Forestry Program Manager. Alex has spent this year learning the ropes on fuels reduction and prescribed fire in a very new environment from what he's used to and is excited to jump into some new fire and fuels projects this year. In spring of 2022 our Plants Program Manager Deja Malone-Persha transitioned to working full time in our Habitat Restoration Program. Our Noxious Weeds Project Coordinator, Bona Fries has been doing a great job keeping the program going while we search for a new Program Manager.

After 21 years of being located in the old Sawyers Bar School, we are facing a period of transition as Forks of Salmon School will close in 2023 and the building will pass into new ownership. Given that over the past 3 years of the Covid pandemic many of our staff have moved to working from home nearly full-time, this building had begun to feel overly large for us anyway. But it has been a wonderful home for our organization for many years, so we are not anxious to leave it. For the time being we're waiting to see what the future will bring.

We're incredibly thankful for the support that you all continue to show us. Our fund raising drives contribute significantly towards our ability to carry out our work, and your contributions are much appreciated.

2022 Organizational Financials



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Andy Ayers, Bonnie Bennett, Linde Laya Cohen, Carol Cook, Sarah Hugdahl, Eric Logan, Beau Quinter, Irie Swift, John Stoa, Ren Treiber, Breanne Vargas, Sharon Victoria, Todd Whitmore and Wind Beaver

Cover photo, SRRC staff visit the Hoteling restoration site to document its success at providing much needed cold water refugia for juvenile salmonids

Salmon River Restoration Council 2022 Program Updates

Fisheries Program

This year conditions in the Salmon River watershed were more hospitable than they have been for both fish and fisheries staff.

Reduced covid concerns, minimal wildfire activity, and higher flows were a welcome relief after a couple of tough years. As a member of the Klamath Fish Health Assessment Team, SRRC monitored fish health throughout much of the high-risk period with little to report. However, August brought thunderstorms which triggered large mudslides in the upper South Fork. An SRRC response team was mobilized as Salmon River fish faced extremely turbid conditions, but thankfully few mortalities were recorded. From August onwards, much of our fieldwork was impacted by high levels of turbidity.

During the spring and summer, SRRC worked collaboratively with the Mid Klamath Watershed Council (MKWC) to visit sixty-two

tributary mouths throughout the Salmon River and Mid-Klamath basins to assess and improve passage and refuge opportunities for juvenile and adult salmonids. Sixty-three impediments to passage were remediated, opening up approximately eighty-one miles of stream to juvenile and adult fish. Crew members installed brush bundles and small woody debris at select juvenile salmonid rearing sites, and improved the flow of cold water into appropriate refugia habitat. Crew members were pleased to observe adult Chinook moving into Knownothing Creek during the August turbidity event, when clean water was difficult to access elsewhere. The SRRC fisheries crew also assisted the Karuk Tribe with juvenile outmigrant monitoring during the spring and summer by operating a rotary screw trap twice per week near the mouth of the Salmon River and in the Klamath River at Big Bar.

Six students participating in the Youth Environmental Summer Studies Program through Etna High School joined us for three days to help perform fish passage improvement work, rearing and refugia habitat enhancement, noxious weeds removal, and to learn about SRRC's restoration projects. We also hosted 14 university students enrolled in the Klamath Basin Field Course at Cal Poly Humboldt. Students learned about the Salmon River and SRRC's work, participated in habitat enhancement activities, and practiced juvenile salmonid identification with our fisheries crew. In late July, SRRC and the Klamath National Forest coordinated the annual Salmon River Spring Chinook & Summer Steelhead Cooperative Dive. Approximately 80 community volunteers and fisheries personnel from across the Klamath Basin and beyond joined in a one-day watershed wide snorkel census of adult spring Chinook and summer steelhead holding in the river. The final count of spring Chinook including jacks was 290, an encouraging result considering the trend of decline seen in recent years. Summer steelhead numbers totaled 387 including half-pounders.

In the fall, SRRC collaborated with the CA Department of Fish and Wildlife, Forest Service, Karuk Tribe, MKWC, and the Northern California Resource Center to conduct spring and fall Chinook spawning ground surveys in the forks and mainstem of the Salmon River. The SRRC Fisheries and Watershed Education Programs worked together with Junction Elementary School to facilitate student involvement in these spawning ground surveys. In early October a team of SRRC and Karuk Tribe fisheries personnel embarked on a multi-day expedition to perform spring Chinook spawning ground surveys in wilderness tributary Wooley Creek after a one-year hiatus caused by unsafe fire and smoke conditions in 2021.

The SRRC Fisheries and Habitat Restoration Programs worked cooperatively to conduct year-round monitoring at SRRC's restoration project sites. These surveys allow us to assess how fish are responding to restoration actions. We were delighted to see juvenile coho salmon using restored habitat at Hotelling Gulch for the first time since the project was implemented in 2020.

As always, we are so grateful to all of our volunteers, cooperators, funders, and donors, for making our work possible. Funding for the fisheries program was provided by US Fish and Wildlife Service, CA Department of Fish and Wildlife, Karuk Tribe, National Fish and Wildlife Foundation, Wild Salmon Center, and Pacific States Marine Fisheries Commission.

Habitat Restoration Program

This year the Habitat Restoration Program team focused on project monitoring and reporting, design planning, and preparation for Red Bank fisheries habitat implementation in 2023. The Red Bank project will be our largest floodplain restoration project to date and is going to be implemented this coming summer. Part of the preparations for Red Bank included finalizing the riparian revegetation plans and collecting cuttings and seeds from 20 species of native plants to be grown out at a local nursery for planting at the site next winter.

The monitoring highlights this year for restoration projects that we've completed in recent years included seeing the revegetation at our Kelly Bar fisheries and riparian habitat restoration site flourishing. The willows really shot up and the other native plants are establishing and adding a lot of diversity to the site. We also saw natural recruitment of a number of natives, with very successful white alder and absolutely beautiful fields of miniature lupine throughout the site. We are very excited to have documented 1+ Chinook juveniles using the Kelly Project habitat features, indicating that young Spring Chinook likely overwintered in our enhanced rearing habitat. We also saw many Chinook fry in the project area last spring.

Last winter in Methodist Creek we saw two possible coho redds near large wood structures we placed in the creek. Then we saw 657 coho juveniles in the creek this summer, and 189 of them were using habitat created by our wood structures! In Knownothing Creek, we saw 20 coho juveniles, 4 of them were using pools from our wood structures. We also saw a lot of fish using the enhanced cold water refugia at mouth of Hotelling Gulch, 150 Chinook and steelhead juveniles at a time. This summer we saw 7 juvenile coho in the mouth and 15 more in the river nearby, and 1 in the creek in October.

Along with the post-implementation monitoring at five project areas, we also worked on floodplain restoration designs and NEPA for the Windler Bar fisheries habitat restoration site, fish barrier removal designs in Knownothing Creek, and Red Bank restoration implementation planning. This coming year we will be setting up groundwater monitoring wells and begin pre-design monitoring at the Matthews restoration site.

Funding sources for this program include CA Dept of Fish & Wildlife, CA State Coastal Conservancy, USFS, and US Fish & Wildlife Service.

Watershed Education Program

This year's Watershed Education Program activities included watershed science field days, and STEM based classroom/nature trail lessons for approximately 15 local students. The science field days were the real focus of the Watershed Education Program this year. Once a month during the spring of 2022 Junction school students, Salmon River home school students, teachers and parents met with our Watershed Education Coordinator at Nordheimer Campground for science field days. Topics of study included fisheries, water quality, native and invasive plants, and fire ecology. We also took students on several additional field trips to other locations in the watershed to study fisheries, habitat restoration, noxious weed removal and native plant restoration. These field trips gave students the opportunity to become familiar with the insects, fish, plants, and cultural and ecological resources that are so important to their individual, collective and spiritual health.

Students and their families also participated in a fun and adventure filled 5 day outdoor camp for their first week of the 2022-23 school year. The first three days again took place at Nordheimer campground the final two days they did an overnight campout at Fish Lake.

SRRC staff hosted a group of high school aged students from Scott Valley for a week this summer as part of the Youth Environmental Summer Studies (YESS) program. Students got to participate in the Spring Chinook Dive, enhance fish passage at tributary mouths and do noxious weed removal. A Cal Poly Humboldt summer field studies class also joined our staff for a day in the field to learn about fisheries and restoration here on the Salmon.

The Watershed Education Program was funded by the Ford Family Foundation, Patagonia Environmental Grants and US Fish & Wildlife Service.

Plants Program

This has been a year of transition for the Plants Program. Our Plants Program Manager transitioned to working in the Habitat Restoration Program. We are currently searching for the right candidate to lead this evolving program, however, we were still able to accomplish all of our goals for the year under the direction of our Noxious Weeds Project Coordinator. Thanks to the efforts of the hardworking, dedicated plants crew another successful year of weeds treatments was accomplished. In March the plants crew began the season treating Italian thistle in Forks of Salmon. The large site was thoroughly treated and a decrease in numbers by 70% was recorded from 2021 to 2022. The high density area that was seeded with native plant seeds in 2021 with support from the National Forests Foundation (NFF), was observed to have an abundance of native plants growing in the planted area.

Due to late season rains the river was too dangerous to cross until late May, which meant a few of our harder to reach oblong spurge

didn't get as much treatment time as we would have liked. In the meantime the crew visited private properties and retreatment sites in accessible locations without crossing the river. Oblong spurge *(above)*, dyer's woad, yellow starthistle, and broom sites were visited and treated in the early summer season. As things warmed up in the latter part of the summer, the crew used our three pass treatment method to survey and treat spotted knapweed along the North Fork and Mainstem Salmon River. Additional species that were treated include Tree of Heaven, sulfur cinquefoil, Canada thistle, puncturevine, and houndstongue.

Thorough treatments were conducted at pre- and post-implementation habitat restoration sites throughout the river including Kelly Gulch, Red Bank, Gallia, Hotelling Creek, Matthews Creek, and Nordheimer River Access. These sites are treated for multiple years prior to project implementation in order to reduce the amount of seed and plant material spread throughout the site when soil is being moved around. Sites are also treated for multiple years post-implementation to maintain the integrity of the site and allow the newly planted and seeded areas within the sites to get established. Surveys and treatments of fish passage/refugia enhancement sites were also conducted in 2022 with funding provided by the NFF.

Klamath National Forest contracted with SRRC to conduct Burned Area Emergency Response (BAER) surveys within the 2021 River Complex Fire footprint. Crewmembers hiked and drove along 93 miles of handlines, dozer lines, and roads that were utilized during fire suppression activities. In all of these areas crewmembers searched for new infestations of invasive plants as well as treating existing sites and surveying for movement of existing populations. Only two new infestations were located during BAER surveys.

The SRRC Plants Program has continued its involvement in the Klamath Alliance for Regional Invasive Species (KARISM) collaborative group. This Alliance has been a great opportunity for regional partners to share treatment techniques, species of concern, revegetation resources, forest pathogen education and surveys, and much more. The Alliance is in the process of developing a unified data collection process that will allow for all partners to share data more efficiently. Working with our partners has been wonderful on so many levels and has opened up more funding opportunities for all groups involved.

Riparian revegetation planning was stepped up a notch in the Habitat Restoration Program in preparation for implementation of a project at Red Bank. This included local plant material collections

to be grown by local nurseries. We are working with our regional KARISM and WKRP partners to jumpstart local, native grass seed collections and grow-out to start to develop a useable surplus of appropriate seeds for upland and in-stream restoration efforts. Additionally, we have been involved in helping to develop the Klamath Meadows Partnership to help bring much needed focus, funds, restoration, and monitoring of Klamath Mountain meadows. We hope that our Plants Program will help to lead SRRC's efforts in meadow restoration moving forward.

Our Plants Program is funded by the National Forest Foundation Matching Awards Program, USFWS Partners Program, National Fish & Wildlife Foundation, USFS, Siskiyou County RAC, Patagonia Grants, Clif Bar Family Foundation and MKWC. Our work would not be possible without the experience, acumen, and dedication of our staff, crew, and community volunteers.

Fire, Fuels, & Forestry Program

Community Workshops

Early in the year we welcomed a new Fire, Fuels and Forestry Program Manager, Alex Varner. With many years of fire and forestry experience under his belt in the south east, we are excited to welcome him to the team. As we eased into a less pandemic restrictive atmosphere, we thought it best to get him acquainted with the surrounding communities. This spring Alex led two community

workshops at Forks of Salmon Community Club. The first workshop was a hand tool replacement and maintenance workshop *(photo above)* for community members, featuring Lee Bundy, a local tool and equipment. There was a good showing of folks and we were able to send everyone home with one or more reworked tools, and lots of good information regarding maintenance and upkeep. The following weekend we were able to get back down to Forks and hold a community chainsaw workshop. This featured another community member and chainsaw expert with the USFS, Jason Murieen. Community members learned a great deal about saw maintenance, techniques, and safe operation of saws. These workshops were well attended and beneficial to community members. Additionally, SRRC FFF staff helped to facilitate a Wildland Chainsaw class (S-212) in Orleans with partners for two days in between these two workshops. A very busy and hectic start to the year but beneficial for all involved.

Prescribed Fire and All Hands All Lands

This year marked the beginnings of a new era in our prescribed fire program. As much as it pains us to say, we have to move on from our Type 6 engine, endearingly referred to as the Canary. This old school 1979 engine has been with us since 2016, but as times change we had to make a slight change. Through the generous funding of a Cal Fire, we were able to update our equipment, purchasing a new crew cab truck and equipping it with a fully functional slip-in fire engine unit. This creates a much nimbler but very capable engine that is more suited to operation on the terrain and road systems we encounter in our watershed. The slip in unit holds 250 gallons of water, has cargo holds above, and a new water axe

pump unit. This Type 7 should be with the program for many years to come and we are very eager to put it to use.

We were able to get out and join partners in a number of prescribed fire operations throughout the greater Klamath watershed this past year. Beginning in the first week of work for our new program coordinator we got in a few great burns through the winter and early spring, and again when a brief window opened in June.

After a wild fire season, which increasingly seems to be the norm these days, we were able to help with the final planning and preparations for our two TREX events on the Klamath this year. We had staff participation in both TREX events and helped in the training and execution of good fire across the landscape.

Fuels Treatments

We were finally able to catch up on a couple fuels treatments that had to be put on hold previously in the upper South Fork. Completing nearly 40 acres of cut and pile treatments in the middle of November. It was a busy few weeks but all work was completed and the treatment sites look great!





Thank You Volunteers, Donors & Funders!

Spring Chinook Donors - Bedrock Sandals' Nick Pence & Dan Opalacz, Toni & Alan Burroughs, Frank Colver, Ethan Guerra, Cassandra Hensher & Friends, Ken Liberman, Ed & Marcia Nute, Brian Price, Mahaj & Cedar Seeger, and Galena Seeger & Linc Else

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Other Donors include - Jerry & Charlotte Edgar, Juniper & Steven Blanchard, Juniper & Steven Blanchard, Mindfulness Meditation Programs, Kenoli Oleari & Sahron Goods, and Hope Woodward

2022 Funders - Bigfoot Trail Alliance, Bower Charitable Foundation, CA Coastal Conservancy, CA Dept. of Fish & Wildlife, CA FSC Grants Clearinghouse, Clif Bar Family Foundation, Coalitions & Collaboratives Inc., Firedoll Foundation, Ford Family Foundation, Karuk Tribe, Mid Klamath Watershed Council, National Fish & Wildlife Foundation, National Forest Foundation, Patagonia Environmental Grants, Sidney Stern Memorial Trust, US Fish & Wildlife Service, US Forest Service, and the Wild Salmon Center

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Major Accomplishments of 2022

- Improved fish passage and refuge at 62 tributary mouths in the Salmon and Mid-Klamath opening up approximately 81 miles of cool water habitat during the hot summer and fall months.

- Controlling 17 species of invasive weeds without using any herbicides. We work on more than 550 weed-infested sites spread across the entire watershed. In 2022, we focused on surveying burned areas to prevent the spread of weeds in sensitive areas.

- Reducing wildfire risk on over 50 acres of private properties on the South Fork Salmon River by thinning small-diameter trees and brush and burning piles to protect communities, restore wildlife habitat, and create more fire resilient forests.

- Finalized revegetation plans for our largest fisheries restoration project to date at Red Bank, which included collecting seeds and cuttings from 20 species of native plants to be grown out at a local nursery for planting out at the site next winter.