



Salmon Ríver Restoration Council

2020 Annual Report









#### News from the Watershed Center

Although 2020 has been incredibly challenging in so many ways, we're proud to have kept our entire staff and crew safely employed, and our important restoration projects moving forward in the midst of both a pandemic and season-long wildfire. We spent the spring developing safety procedures and obtaining PPE for our employees so that they could continue working with as little risk as possible. Then, just as we started to feel like we had a handle all the new complications related to working during a pandemic - from physical distancing, to sanitizing equipment, to organizing safe shuttles for field work - fire season suddenly took center stage. Our Restoration Director spent the late summer and fall deeply immersed in her role as the Salmon River Community Liaison, providing up-to-date fire information to the community, organizing community protection activities, and working with Incident Management Teams to ensure that they were incorporating local knowledge into fire management decisions.

We had one major change in staffing this year. Our Fisheries Program Coordinator Amy Fingerle, started a PhD program at UC Berkeley. Although we were sad to see her go, we are excited that she'll be studying spring Chinook and we look forward to continuing to work with her in the future. And we are very happy to have had Sophie Price fill her position. Sophie worked for the Karuk Fisheries for a number of years and brings a great skill-set and a lot of experience with her to SRRC. She has been a welcome addition to our staff. In addition, Stefan Dosch began transitioning from the Watershed Education Program into a new role as Habitat Restoration Program Assistant.

We are sad to have had the Watershed Center closed to the public for so long, but overall we feel good about the year and all that we've been able to accomplish despite the challenges. We're incredibly thankful for the support that you all have shown us during these trying times. Our fund raising drives contribute significantly towards our ability to carry out our work, and your contributions are much appreciated.

#### SRRC Board

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#### SRRC 2020 Staff

Karuna Greenberg, Restoration Director
Lyra Cressey, Associate Director
Kathy McBroom, Office Manager
Melissa Van Scoyoc, Habitat Restoration Program
Coordinator

Brendan Twieg, Fire, Fuels, & Forestry Program
Coordinator

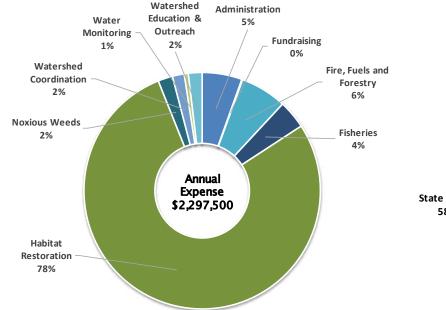
Bonnie Bennett, Water Monitoring Program Coordinator Sophie Price, Fisheries Program Coordinator Deja Malone-Persha, Plants Program Coordinator Stefan Dosch, Watershed Education Program Coordinator Sarah Hugdahl, Program Staff & Outreach Scott Harding, Technical Assistant Brenda Hurlimann, Bookkeeper

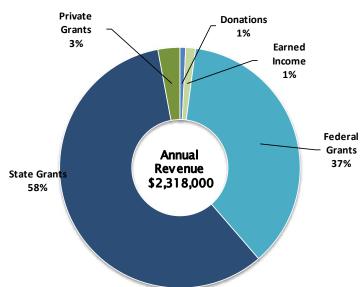
#### 2020 Field Crews

Andy Ayers, Linde Laya Cohen, Carol Cook, Paulos Ghebre-Ab, Nathan McCanne, Kai McCrummen, Luke Parkhurst, John Stoa, Irie Swift, Todd Whitmore, Maya Williams



## 2020 Organizational Financials





# SRRC's 2020 Program Updates



2020 was a challenging year for fish and humans alike. The pandemic and historic wildfires made it difficult for the fisheries program to operate as usual. However, dangerously low flows and high water temperatures during the summer made it imperative that we continue our vital habitat enhancement and monitoring work.

During the summer months, SRRC worked in cooperation with the Mid Klamath Watershed Council to visit 46 tributary mouths in the Salmon River and Mid-Klamath to asses and improve fish passage and refuge opportunities. Fifty-nine impediments to passage were remediated, opening up approximately 80 miles of stream to anadromous fish. At many sites, cold creek water was consolidated and redirected to optimize thermal refugia for fish, and brush bundles were added for cover from predation. Our monitoring data revealed higher numbers of juvenile and resident fish present in tributaries after passage treatments were completed, and crew members were delighted to observe adult summer steelhead and spring Chinook also taking refuge in our brush bundles and in the lower reaches of treated tributaries. SRRC welcomed students from Etna High School who were participating in the Youth Environmental Summer Studies Program to help conduct fish passage work. The students also learned about SRRC's restoration activities and had the opportunity to develop their fish identification and data collection skills. SRRC fisheries crews also conducted preand post-implementation monitoring at restoration project sites, and worked with the Karuk Tribe to help operate two rotary screw traps.

In July, SRRC collaborated with the Salmonid Restoration Federation to host the 10th Spring Run Chinook Symposium - held virtually for the first time. The event included presentations on the historical distribution of spring Chinook, impacts of climate change, and updates on ongoing spring Chinook genetics work. We also discussed habitat restoration projects in the South Fork Trinity and Salmon Rivers and indigenous place-based management practices. Although we missed gathering in person, it turned out to be an informative and inspiring event, with excellent attendance and very positive feedback from participants.

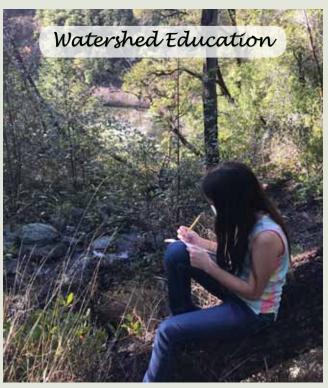
Regretfully, we were not able to invite volunteers to help with the annual spring Chinook dive this year due to restrictions associated with the pandemic. We were grateful that instead, experienced surveyors from partner organizations were able to help us survey in a socially distanced manner. Sadly, we only counted 106 spring Chinook - the second lowest count on record, and the 6th year in a row that the count has been below the long-term average. Summer steelhead numbers totaled 398.

SRRC was able to conduct both spring and fall Chinook spawner surveys this fall, however Spring Chinook surveys were challenging due to the forest closures and smoke conditions associated with the Red Salmon Complex fire. For the third year running we also surveyed Wooley Creek in order to get a more complete picture of fish use in the watershed.

As always, we are so grateful to all of our volunteers, cooperators, funders, and donors, for making our work possible. We are especially thankful for the support we have received this year as we navigated the challenges of operating under unusual circumstances.



Our fisheries program is funded with support from CDFW, USFWS, Karuk Tribe, and the Wild Salmon Center.



This was an especially challenging year for the Watershed Education Program. With the local schools closed for the majority of the year, it is the program at SRRC that was most impacted by the pandemic. Nevertheless, by staying flexible we were able to continue to deliver quality, place-based science education to our local students.

In the spring, our Program Coordinator developed applied math and biology lessons to include in students homework packets. This helped keep students from falling too far behind in their math and science learning. Although we were unable to hold our annual Watershed Ed Fair, students still completed their science project posters and hung them in the school windows so that their families could visit and see them on their own.

This fall, some students started attending school part-time and we were able to do some in-person watershed ed lessons with Junction School students. They did nature journals, gardening and fisheries biology lessons. We also distributed nature journals, science kits and rain gauges to the Forks of Salmon school students who were still remote learning so that they could continue their science learning at home by tracking what's going on with the weather and nature in their home environment. Local Salmon River children and families were able to get out for one in-person field trip this fall. They joined SRRC staff to do native plant re-seeding at our recently completed Hotelling Gulch Stream Restoration Project.

SRRC also began collaborating with other non-profit watershed groups in the region to develop new watershed education curriculum through the Bigfoot Trail Alliance. The intent of this project is to utilize our amazingly diverse Klamath Mountains as a learning laboratory to engage students in place-based learning about topics including watersheds, ecosystems, biodiversity, fire ecology, and climate change. The Bigfoot Trail Youth Stewardship Project will support and enhance the educational opportunities that are already taking place in our Klamath Mountain communities.

Funding for this program provided by USFWS, Ford Family Foundation, Patagonia, Bigfoot Trail Alliance and MKWC.



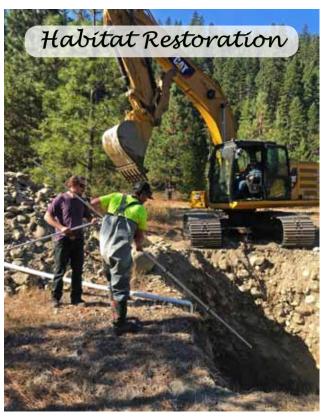
Our work encountered a whole new set of challenges this year, including quarantine precautions, and active fire zones closures. We still managed to deploy data loggers at all of our usual 38 temperature monitoring sites, although some of the mid-season checks were not completed and some loggers were retrieved later than usual due to wildfire safety concerns. Flow measurements were also taken at 14 of our regular sites but some gaps exist due to the unhealthy smoke conditions and the necessity to stay out of active fire perimeters.

The Kelly Bar Restoration Project has been an exciting new monitoring challenge. The Willow Pond feature which is fed by groundwater, maintained reasonably good water level and quality through the season, even in such a serious drought year. The outlet disconnected from the river in early June but water conditions remained quite favorable for the fish that persisted in the pond itself. The groundwater fed lower West Bar Alcove, which continued to be directly connected to the North Fork all summer, consistently had cooler water with healthy juveniles using the enhanced space. It was a hard water year for the first summer of this restoration site but it appears to be a success. Overflow channels activated during winter flood events when expected and groundwater fed areas remained through extreme water shortages.

The upcoming Red Bank Restoration Project site also had existing features that did well through this drought year. The areas where we plan to do future off-channel habitat enhancement retained pools that stayed cool and wet through the summer. We now have several years of pre-restoration monitoring for this project and the results bode well for the successful implementation of the project.

Each year we see increasing effects of climate change in our watershed, and monitoring needs will continue to change as nature prompts new concerns. For now, the world is still turning and the sun still rising each day, and so long as it does, we will continue to help restore natural processes and functional habitat as much as we can! SRRC's water temperature data set was used by Riverbend Sciences to model long term trends and the impacts of climate change on our streams and rivers. The paper has been published and you can find it on our website at *srrc.org/climatewater*.

SRRC's water monitoring work is funded by the USFS, CDFW and USFWS.



After many years of planning, the Hotelling Gulch Aquatic Restoration Project was implemented in 2020. It opened up 1.4 miles of habitat for coho salmon and steelhead, replacing undersized culverts with a bridge. We enhanced the lower portion of the gulch with riparian and floodplain habitat including native revegetation, large woody debris, pools, alcoves, and importantly improving access at the mouth of the gulch. We are really happy with how things turned out. If you are driving by the project on the South Fork, we encourage you to take a moment to stop and check this project out.

This project, as all projects do, had challenges. The primary one was the Red Salmon Complex, which burned right up to the edges of the project. With concerted efforts from SRRC staff and fire crews, the equipment, materials, and implemented restoration remained unscathed. Although the project suffered some delays, the restoration work was all completed. The paving and railing of the bridge had to be postponed, but will be done in spring 2021.

We completed our first year of post-restoration monitoring at the Kelly Bar Habitat Enhancement Project. We are in the thick of analysis right now and will be reporting on the outcomes of the first year later this spring. We did observe a lot of juvenile fish using the newly created habitat features in 2020 so we are very pleased thus far. We will continue to conduct long-term monitoring at the Kelly Bar site and utilize adaptive management practices. We are already developing some minor improvements to this project, for features that are not performing as well as they could.

We plan to finish designs for the Nordheimer Creek Habitat Enhancement Project this spring. A bunch of juvenile coho were seen at the mouth of Nordheimer Creek this summer, which makes us extra excited to complete restoration work on the lower portion of the creek in the coming years.

We continue to move forward with our watershed-wide planning effort to restore floodplains and mine tailings. We will be selecting our next site for restoration from the list of high priority sites we developed through the in-depth analysis of this planning process. We are also continuing our planning and revegetation design efforts for the Red Bank Habitat Enhancement Project. And in the fall we initiated our pre-design monitoring at our newest restoration site, the Windler Off-Channel Habitat Enhancement Project.

Funding sources for this program include, CDFW, CA State Coastal Conservancy, USFWS, and USFS.



Even without the seemingly endless months of wildfires and smoke, 2020 was a busy year for us. We implemented several onthe-ground fuels reduction projects and worked toward planning and funding for additional future projects. We also worked on our new watershed-wide Community Wildfire Protection Plan (CWPP), which we hope will focus and prioritize where further fire hazard reduction is needed on the landscape, as well as improve our communities' abilities to respond efficiently and safely to future fires.

During winter, we explored potential fuels reduction projects in the upper South Fork, developing a new project with the US Fish and Wildlife Service's Partners Program and landowners. This project focuses on oak woodland and meadow restoration while also reducing hazardous fuels near homes and along access roads.

Come spring, we finalized plans and oversaw work by forestry contractors on two projects. One was located at Butler Creek, where we had 25 acres of fuels reduction completed—manual cut & pile work—adjacent to residences and in the footprint of the 2013 Butler Fire. Here, large amounts of downed woody fuel, exacerbated by toppling from heavy snow events, commingled with brush regenerating since the fire. On the northern boundary of the Godfrey Ranch we had about 29 acres of similar work completed. This area had an extremely high density of small trees



Fire, Fuels & Forestry continued... and brush that has been regenerating since the 1987 Glasgow Fire; these treatments tie in with previous work to make a more complete fuel break along the private-public land boundary.

Efforts to include stakeholder participation in the CWPP process have been complicated by the pandemic and this summer's fires. However, with some additional funding secured this year, we have trained several community members in virtual meeting and collaboration technology to facilitate stakeholder input. We have, with community and agency stakeholder help, made significant progress in updating maps and spatial information throughout the watershed.

Late fall finally presented some windows to get 115 acres of piles burned (that we'd created last year) near Taylor Lake, surrounding several private cabins and adjoining the Russian Wilderness. We enlisted help from the Klamath Prescribed Fire Training Exchange (TREX) to ensure the burning went safely.

To finish off this Upper North Fork focused project, we had about 10 more acres of cut & pile work done on private properties in the Finley Camp area. SRRC staff participated in several successful prescribed underburns with Klamath TREX this year in the Orleans area, and continued to play a key role in the Western Klamath Restoration Partnership.

Our Fire, Fuels, and Forestry Program work has been funded this year by the USFS, USFW Partners Program, Cal FIRE, CA Fire Safe Council, Karuk Tribe, MKWC, Bower Foundation, and Coalitions & Collaborations' AIM Program.



In spring of 2020 our crews headed into the hills to target early season Italian thistle. This year we saw a dramatic 83% reduction in plants treated compared to those removed last year, which can be attributed to the effective treatment of a dense patch located in 2019. With support from the National Forests Foundation (NFF), this site is one of ten prioritized noxious weed sites with relatively high abundance and density that we will direct seed with native plants by 2021.

In late spring preliminary site identification and mapping occurred in an effort to establish a database of native seed collection sites. As plants matured throughout the season, we collected at total of 4.35 pounds of native seeds from 23 different grass, forb, sedge, rush, and shrub species. In the fall, we direct seeded 4 noxious weed sites, a portion of Kelly Bar, and a portion of the recently completed Hotelling Gulch restoration site. In addition, we're having some of the seeds that we collected grown out by a local nursery to be planted at noxious weed sites.

Ongoing in-stream restoration throughout the watershed has provided an opportunity for staff and crew to work across programs. Recently completed, current, and upcoming fisheries restoration sites were surveyed and treated for noxious weeds. Particular care was taken with surveys at Kelly Bar as pioneer species thrive in sites of disturbance and the recent restoration project there may have activated the seedbed left by the historical spotted knapweed infestation. In the first full year post-implementation, only 6 individual spotted knapweed plants were found. A stark difference from the 120,558 plants treated in one year at the site during the height of the infestation in 1999. We continue to see a reduction in spotted knapweed at known sites throughout the watershed thanks to vigilant community members and persistent and thorough treatments.

Taking an all-lands approach to invasive plant management, we focus a significant portion of our fieldwork treating weeds on private property. In 2020, the USFWS funded treatments for a variety of species at a total of seven private properties. We are grateful to landowners in the basin for volunteering their time to address dyer's woad, yellow starthistle, and other noxious weeds on their properties. Despite challenging circumstances, the Plants Program was able to achieve all planned objectives while maintaining a safe environment for all who participated in 2020. In all areas of noxious weed treatments and seed collection, our successes in 2020 were largely accomplished thanks to our committed crew members and staff. The progress that we made this year would not have been possible without the additional help of our partners, local river schools, and dedicated volunteers.

Plants Program is funded by the National Forest Foundation Matching Awards Program, USFWS Partners Program, USFS, Clif Bar Foundation and MKWC.



### 2020 Members, Donors and Funders:

Spring Chinook Donor Level and up - Bedrock Sandals' Nick Pence & Dan Opalacz, Jessica Detlefsen & Marvin Manor, Yew & Meghan Ferrara, Ethan Guerra, Creek & Betty Ann Hanauer, Daniel & Eva Krall, Nick & Marilyn Letsos, Mike Love & Associates, Ed & Marcia Nute, Pacific Watershed Associates' Danny Hagans, Jessica Savage, Sobol Family, Joseph & Faye Sofaer, Michael Tierra

Green Sturgeon Donor Level and up - Backcountry Press, Richard Bruce, Donna Brucker & David Jacques, Mary Ciavonne & John Ziegler, Earl & Trace Landberg, Tony Lunt, Brian Price, Mahaj & Cedar Seeger, Stillwater Sciences, Victoria Vox

Coho Donor Level and up - Bill Ayers & Bernadine Dohrn, Denise & Bob Bearding, Sharon Bednar, Matt & Myrna Berry, Anne Beir, Waylen Brucker, Tom Carlson & Jennifer Sowerwine, Kate Chatfield & Peter Steihler, Frank Colver, Don Comstock, Alan & Clara Crockett, Karen & Dean Davis, Janjaap Dekker, Laura & Brett Denight, Elaine & Don Dvorak, Don Elder, Jud Ellinwood & Andrea Webb, Elissa Englert, Don Flickinger & Jennifer Silveira, Alan Fraser, Amber & Andy Getz, Dan Grunbaum, Lynn Halpern, Hanauer & Stanford Family, Cassandra Hensher, Mary Huffman, Andy Kaul & Pamela Berman, Bill Keir, Kieth & Gene Millburn, Korejko & Rohr family, Efrem Korngold & Harriet Beinfield, Steve Koskella, Nick Liozeaux, Nancy Gerdt & Glen Lyons, Bill & Patsy Marcy, Carol McCullough, Catherine Meinert, Ken Miller, Myanna Nielsen & Richard Cormier, Bob Pagliuco, Andy Pollack, Perryn Reis, Steve Robinson, Salmon River Outpost, Sandy Bar Ranch, Lee & Sandy Smith, Strote family, Kristy & Peter Sturges, Dee Tolson, Brendan Tweig, Milagra Tyler Family, David & Valerie Van Scoyoc, Diane Wickstrom

Fall Chinook Donor Level and up - Eli Asarian, Dan Buckley, Susanne Cardiff, Max & Nena Creasy, Pamela Cressey, Fran Forim, Whelan Gilkerson, Karuna Greenberg, Sharon Hoppas & George Martin, Bob-o & Kathleen Jarschke-Schultze, Jim & Suzanne Jennings, Marla Knight, Amber Maywald, Jack Moore, Rachel Neumann, Felice Pace, Doug Parkinson, Jo Podvin, Rathbun Family, Kate Rowe, Steve & Lee Stefanki, Dave Sunoo & Beth Truso, Erica Terence, James Titelman, Jackson Vanfleet-Brown, Rajesh Westerberg

Winter Steelhead Donor Level - John & Susan Brennan, Anne Berry, Bill Condon & Julie McDowell, Ralph Del Pino, Jon Edwards, Gail Feldman, Ebba Fournier, Charna Gilmore, Bill House & Allison Blackwell, Kristen Kittleson, Cathryn Mathews, Bill Meadows, Yeshi Neumann, Margit Price, Andrea & Kit Robinson, Hope Woodward

Other Donors include - Jeff Buchin, Jerry & Charlotte Edgar, Eileen Kurtzman, Fred Mindlin, Myeba Mindlin, Dennis Specht

2020 Funders - Bigfoot Trail Alliance, Bower Foundation, CA Coastal Conservancy, CA Dept. of Fish & Wildlife, CA Fire Safe Council Grants Clearinghouse, CAL FIRE, Cereus Fund of the Trees Foundation, Clif Bar Family Foundation, Coalitions and 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, Wild Salmon Center



Address Service Requested



Reducing wildfire risk and impacts on over 100 acres of private properties in the watershed by thinning small-diameter trees and brush to protect communities, help to restore wildlife habitat, and create more fire resilient forests.

with a new bridge that will accommodate 100-year floods.

Hosting a virtual Spring Chinook Symposium to help bring attention to our imperiled fish. This year only 106 spring Chinook returned to the Salmon River, making it the second-lowest count on record and the sixth consecutive year with critically low numbers.