



A Year in Review 2023

Scott River Watershed Council's Programs & Partnerships

Beaver, Community, Education, Fisheries, Forests, Fire, Meadows, Monitoring, Outreach, Restoration Designs & Implementation, Soil, Water, Weeds & Wildlife



Photo Credit: Brock Dolman



Photo Credit: Brock Dolman



A Message from Our Board Chair



The Scott River Watershed Council (SRWC) has been committed to Scott Valley's natural resource issues for 31 years. Our grassroots founders recognized the need to be proactive in supporting growth and maintaining our resources for the future. The SRWC continues to meet those challenges through education and science-based collaborations with our multiple partners such as The Nature Conservancy, the California Department of Fish and Wildlife, the US Forest Service, the Coastal Conservancy and so many more.

Our team is rich in education, commitment, passion for and loyalty to our valley, all life, resources, and each other. Our programs and projects support the Council's mission which is to promote and support education, restoration, and scientific planning and monitoring to ensure the sustainability of the natural and human communities of the watershed, now and for future generations.

On behalf of the Board of Directors, I want to thank everyone on the SRWC staff and our partners for their efforts in making the Scott River watershed a better place for us all. We hope you enjoy our *A Year in Review 2023* newsletter!

With appreciation,

Shirley Johnson, Board Chair

You can contact Shirley at Shirley@scottriver.org



"Working for the Watershed Council gives me joy and a sense of purpose. It provides me with a community of people, of all ages, who are willing to roll up their sleeves to put their values into action. I can't think of anything I'd rather do than be in a creek with other Watershed Council employees helping to restore and monitor the natural world."

Betsy Stapleton, Project Development & Permitting Specialist

Scott River Watershed Council's Program Objectives

Community Connectivity	Fostering sustainable community bonds, while supporting local businesses and workforce in natural resources and environmental stewardship. Support for private and public lands while finding opportunities to reconnect Tribes with lands to support traditional practices.	Land & Water Use Support	Providing strategic planning and support to balance environmental conservation, ecosystem resilience, economic development, and social well-being while addressing the complexity of climate change. Finding resources to help support difficult yet needed changes that help move towards sustainability.
Education & Research	Creating a culture of learning, knowledge exploration, and academic inquiry. Promote opportunities for various levels of education and research activities and offer field experiences that promote giving thought and consideration to the complex issues facing our community. Supporting our local youth through the YESS program.	Mountain Meadows	Restoring mountain meadows to be ecologically rich areas to maintain and improve biodiversity, support wildlife habitats, regulate water flow, and contribute to overall ecosystem health. Working with federal/state agencies and landowners to minimize use impacts to these critical areas from over grazing, fire suppression and other land use management activities.
Fire & Forest Health	Promoting a comprehensive approach to managing and maintaining the health of forest ecosystems while addressing the risks and impacts of wildfires. Combining prevention, mitigation, and restoration strategies with an emphasis of getting good fire back on the land to reduce catastrophic wildfire risk to our community.	Planning & Design	Advancing ideas to address issues created by legacy impacts such as mining, logging and grazing while supporting landowners with ways to meet land and water use management objectives with the goal of improving ecosystem services, support natural processes and increase resilience for future generations.
Fisheries & Water Monitoring	Supporting our understanding about the effectiveness of restoration actions, how water management impacts water quality and quantity, and how water and fish are being influenced by our actions in the face of climate change. Committed to establishing monitoring activities to help answer the questions of the future.	Public Engagement	Building relationships, address community needs, and fostering a sense of collaboration and mutual support. This includes forums, workshops, field tours, newsletters, and one-on-one communications. Support for community projects and promoting environmental responsibility, awareness and sustainability.
Instream Implementation	Improving ecological conditions, restoring habitat, and encouraging processes such as groundwater recharge. This work generally is instream or adjacent to stream systems such as riparian areas and floodplains and focuses on creating processes that support beaver and fish.	Regional & Statewide Initiatives Leader	Collaborating with Tribes, government entities, NGOs, and community members to develop and implement strategies that can have a meaningful impact at a larger scale. Providing leadership and participation in regional or statewide initiatives that transcend local boundaries to address broader challenges and opportunities.

Our Commitment to Finding Sustainable Solutions



Throughout the year, the Council’s collective efforts have translated into tangible achievements and positive outcomes for our community. Whether it was implementing innovative programs, spearheading impactful initiatives, or addressing pressing issues, the Council’s work has been guided by a genuine commitment to making a difference. Daily I am gifted inspiration, humor, insight, and wonder about our watershed and our world by the Board and staff. This not only contributes to the overall well-being of our team but also fueled the creativity and innovation necessary for addressing complex challenges. The positive impact made in 2023 is a testament to what can be achieved when a group of dedicated and passionate individuals comes together for a common purpose.

It can’t be understated the immense challenges posed by water scarcity, drought, and the broader impacts of climate change that extend beyond our watershed, affecting communities and countries worldwide. This is a transformative period in the Klamath Basin. As people are trying to navigate changes in water availability, ecosystem dynamics, and community resiliency, the Council fully recognizes the seriousness of these issues. We believe the crucial first step to navigate our future is to foster meaningful dialogue and raise awareness based on facts and empirical data. Our future is full of complex and interconnected challenges, but we must focus equal attention to the tremendous opportunities that lie before us. This is best said by Roman poet Horace “*Adversity has the effect of eliciting talents which in prosperous circumstances would have lain dormant.*” I believe in these words as I have seen them play out numerous times throughout my life.

I am proud to say that our team is ready to take on the new year with empathy, dedication and understanding about the significance of what lies ahead. The Council remains steadfast in our commitment to continuing our crucial role in bringing together diverse perspectives to foster meaningful collaboration and to develop solutions that consider the well-being of both people and the environment.

Charinna

Charinna can be reached at:
530-598-2733
charinna@scottriver.org





The Scott River Watershed Council (SRWC) is a place-based, non-profit whose local Board of Directors and committed staff is taking a holistic and comprehensive approach to many of the challenges facing while trying enhance the opportunities of the Scott River watershed.

Scott River Watershed Council Team

Board Members

Shirley Johnson, President
Matt Thomas, Treasurer
Craig Thompson
Jenn Bray
Judd Hanna
Larry Alexander
Kory Hayden
Michael Stapleton
Tamila Medinnus
Vinnie McNeil

Staff Members

Charrna Gilmore, Executive Director
Betsy Stapleton, Project Development/Permit Specialist
Erich Yokel, Monitoring Supervisor
Amanda Schmalenberger, Office Manager/Bookkeeper
Sally Ayres, Administrative Assistant
Susan Rickey, Administrative Assistant
Sheryl Wilkins, Community Outreach Coordinator
Jenn Rogge, Composting Coordinator
Megan Ireson, Mtn. Meadow Coordinator/Data Mgr.
Peter Thamer, Project Manager
Harrison Morrow, Fish Biologist & Field Technician
Joe Croteau, Cal Fire Grant Project Manager
Darrell Mitchell, Technology Coordinator
Linda Bailey, Field Technician
Shannon Wedgley, YESS Crewleader & Field Technician
Aaron Elliott, Field Technician
Olivia Smith, Field Technician
Summer Interns: Frank, Kennedy Kyle, Leena & Nick
YESS Crews (7th Cohort)

“Working at the Scott River Watershed Council has been such a pleasure. It’s wonderful to be surrounded by individuals with a common goal of maintaining the health and longevity of our community.”

Sally Ayers-Smith & Rosie,
Contract Managers



“The combination of a close-knit community and meaningful work makes my experience at the Scott River Watershed Council truly enjoyable.”

Susan Rickey, Administrative Assistant



Exploring Progress: SRWC staff touring diverse projects in Scott Valley

Growing Together: SRWC's Impactful Contributions to our Community



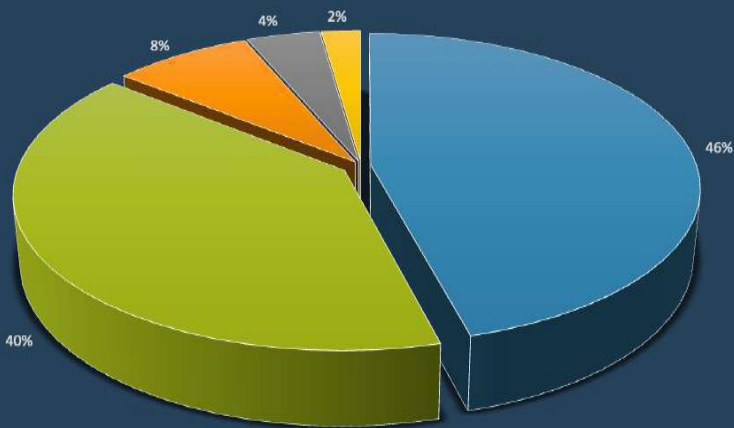
Scott River Watershed Council's office on February 18, 2023.



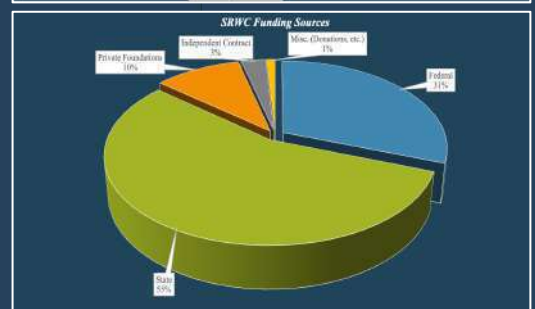
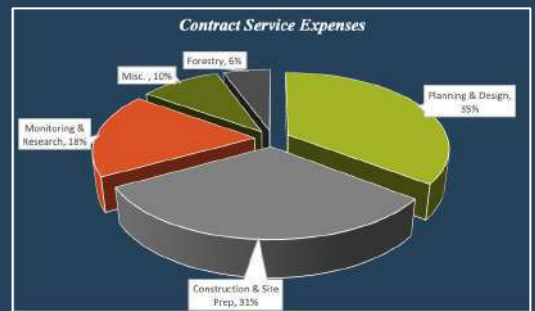
The Scott River Watershed Council (SRWC) is deeply rooted in its commitment to the well-being of our community, emphasizing a place-based approach. Throughout 2023, our unwavering focus on diverse aspects aimed at the overall growth and prosperity of our community remained steadfast. SRWC serves as a crucial advocate on complex issues affecting both our natural environment and human communities. We firmly believe that effective solutions can be achieved through collaborative efforts, partnerships, and engagement with a diverse range of individuals.

SRWC's mission extends across multiple domains, including education, environmental sustainability, social well-being, workforce development, and local economic viability. Through collaborative projects, volunteer initiatives, and strategic partnerships, we strive to bring about a lasting positive impact in the lives of those in our community. We are proud for the economic contributions we made to the Scott Valley community in 2023.

SRWC's Contributions into our Community: \$1,926,939



- Contract Services
- SRWC Personnel
- Field supplies, equipment, mileage
- Office/Business Expenses
- Community Outreach & Mileage



Our Community, Our Comrades, & Our Commitment

Welcome to our year-in-review report. We hope you enjoy taking a journey back through 2023 and the work done by the Scott River Watershed Council, our partners, and the Scott Valley community. First and foremost, we want to thank the landowners who allow restoration and conservation actions to take place on their land. We also would like to express our sincere gratitude to those federal, state, and private funders who see value in our work and the importance to the Scott River watershed. Of course, none of this would be possible without our dedicated staff. Their passion and commitment to the mission of the Council has been unwavering. To our Board of Directors, thank you for your community representation and leadership. Below is a list of our partners (click links to visit their website):

[Ascend Wilderness Experience](#)

[Backcountry Press](#)

[BBW & Associates](#)

[Bella Vista Foundation](#)

[Broad Foundation](#)

[California Climate Investments](#)

[California Department of Fish and Wildlife](#)

[Cal Recycle](#)

[California Trout](#)

[Cal Fire](#)

[Caltrans](#)

[Cascade Stream Solutions](#)

[Center for Watershed Sciences UC Davis](#)

[City of Etna](#)

[Coastal Conservancy](#)

[Community Foundation of the Northern State](#)

[County of Siskiyou](#)

[Etna Community Garden](#)

[Etna Farmers Market](#)

[Etna PAL](#)

[EFM](#)

[Friesen Foundation](#)

[Gary Black Inc.](#)

[Humboldt State University](#)

[Jefferson Resource Company](#)

[Johnson Contracting LLC](#)

[Karuk Tribe](#)

[Klamath Bird Observatory](#)

[Klamath National Forest](#)

[Larry Walker Associates](#)

[Mattress Recycling Council](#)

[Mid Klamath Watershed Council](#)

[Moore's Gravel](#)

[North Coast Resource Partnership](#)

[NFWF \(National Fish and Wildlife Foundation\)](#)

[NOAA](#)

[North Coast Regional Water Quality Control Board](#)

[Northern California Resource Center](#)

[Northern Rivers Construction](#)

[NRCS \(Natural Resources Conservation Service\)](#)

[Occidental Arts and Ecology Center](#)

[Outdoor Equity Grants – State Parks](#)

[Pacificorp](#)

[Premier Clearing Inc.](#)

[Quartz Valley Indian Reservation](#)

[Restoration Design Group](#)

[Resources Legacy Fund](#)

[Salmon River Restoration Council](#)

[Salmonid Restoration Federation](#)

[Shasta Valley Resource Conservation District](#)

[Siskiyou RCD \(Resource Conservation District\)](#)

[Scott Valley Disposal](#)

[Scott River Ranch](#)

[Scott Valley Rotary](#)

[Scott Valley Unified School District](#)

[Seatone Consulting](#)

[Siskiyou County Farm Bureau](#)

[Siskiyou Economic Council](#)

[Siskiyou Land Trust](#)

[Siskiyou Prescribed Burn Association](#)

[Southern Oregon University](#)

[Stillwater Sciences](#)

[Sugar Creek Ranch](#)

[The Nature Conservancy](#)

[The Wildlands Conservancy](#)

[Torchbearr](#)

[Trout Unlimited](#)

[USDA Pacific Southwest Research](#)

[Station](#)

[U.S. Fish and Wildlife Service](#)

[U.S. Department of the Interior \(BOR\)](#)

[United States Geological Survey](#)

[UC Davis](#)

[Watershed Research & Training Center](#)

[Wildlife Conservation Society](#)

[Yurok Tribe](#)

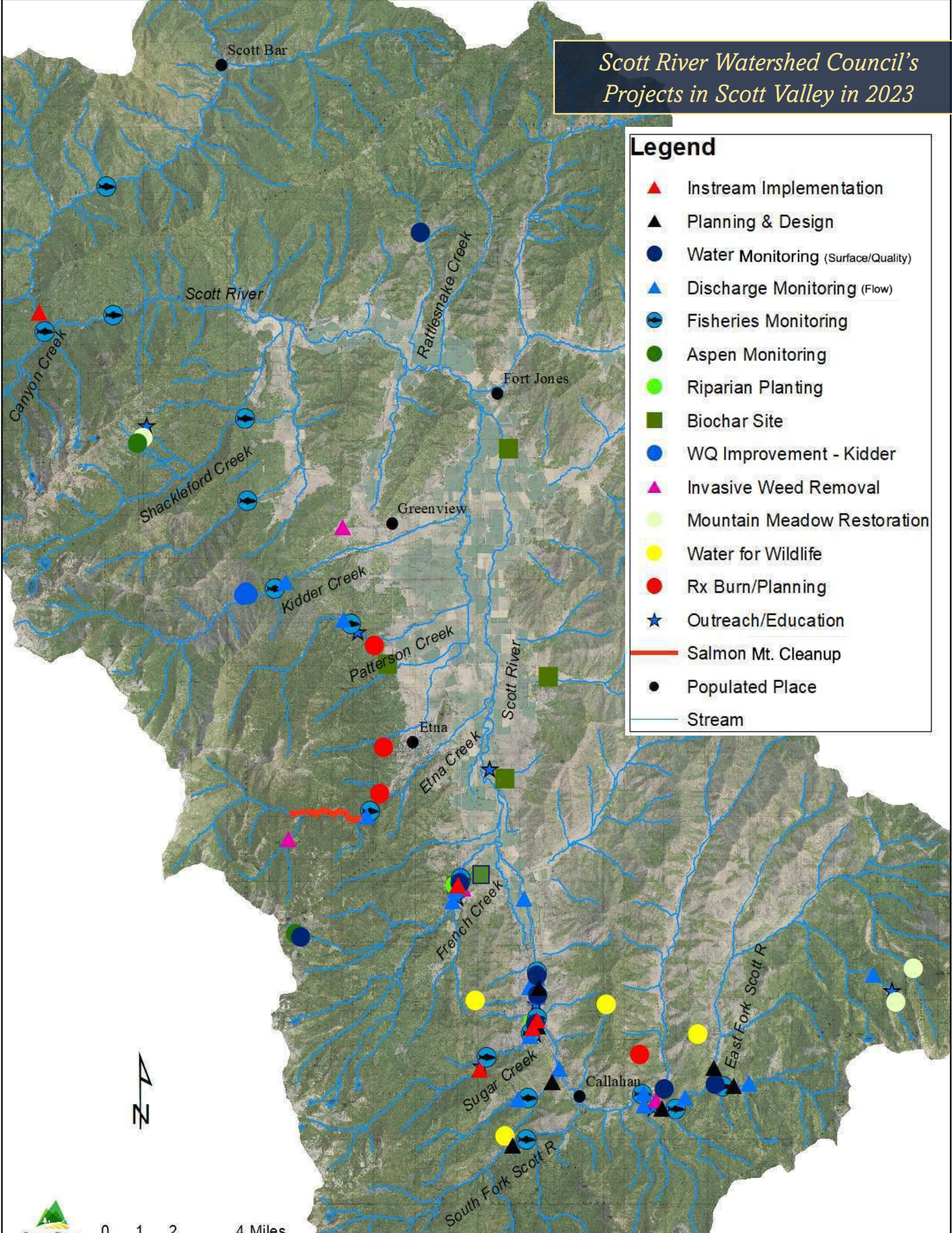
Photo Credit: Jana Padilla



Scott River Watershed Council's Projects in Scott Valley in 2023

Legend

- ▲ Instream Implementation
- ▲ Planning & Design
- Water Monitoring (Surface/Quality)
- ▲ Discharge Monitoring (Flow)
- ⦿ Fisheries Monitoring
- Aspen Monitoring
- Riparian Planting
- Biochar Site
- WQ Improvement - Kidder
- ▲ Invasive Weed Removal
- Mountain Meadow Restoration
- Water for Wildlife
- Rx Burn/Planning
- ★ Outreach/Education
- Salmon Mt. Cleanup
- Populated Place
- Stream



Fostering Unity: Building a Culture of Sharing & Caring

Brad Henderson, Environmental Program Manager for the California Department of Fish & Wildlife and Amy Campbell, TNC's Environmental Water Transaction Project Director at TNC's Miners Creek Ranch.

Given intensifying climate change-driven drought conditions and the increased tension and regulatory pressure around water, SRWC continues to support efforts throughout Scott River and the Klamath Basin to find solutions to meet the water needs of both our human and wild communities. With our ongoing community outreach and educational programs, SRWC reaches a broad audience of people with different views about the world and the place we call home. Providing educational opportunities for students of all ages remains a core mission. In 2023, SRWC hosted or participated in 36 field tours or presentations, engaging over 1,240 people about issues facing the Scott River and forming new partnerships and strengthening others.



Our long-time friends Brock Dolman and Kate Lundquist from OAEC

At the end of September, SRWC hosted Making Meadows Matter, a workshop on using process-based restoration (PBR) for restoring meadows and streams. Process-based restoration partners with nature to harness the energy of water to meet restoration objectives. We focused on how to use PBR approaches to increase the capacity of degraded river and stream ecosystems to retain water, support biodiversity, create fire resiliency, and adapt to climate change. The workshop brought 50 people together, building connections and facilitating the sharing of ideas between people from varied organizations and agencies. A huge shout to many who made this event such a success!

Photos from the four-day workshop of a great group of people looking to find solutions, explore opportunities, and work towards a sustainable future.



SRWC has a long history of working with others to achieve community goals. SRWC's mission statement embodies the philosophy: "Cooperatively seek solutions to enhance local resources and facilitate community collaboration on watershed issues". For years, SRWC has hosted the invaluable Scott Watershed Informational forum (SWIF) which brings people together from near and far to discuss and share issues that relate to the Scott River watershed and the Klamath River Basin.

The Scott Watershed Informational Forum (SWIF) 2023

"Working for the Watershed Council has been a welcomed challenge, the camaraderie much needed and enjoyed, and as I see it, improvements in all the tasks the Council takes on."

Linda Bailey, Field Technician and Operation Manager



Linda & Sheryl on French Creek.

"To be part of the SRWC team is an honor, and to see how the human spirit can reverse and transform the environment is an incredible experience."

Sheryl Wilkens, Community Outreach Coordinator



SWIF 2023 was a 3-day event with multiple field tours and 20 presentations on topics ranging from beaver to wolves, agricultural water conservation efforts, fire, fisheries, Scott River Tailings, Klamath Dam removal, and more. The event was hosted at the historic Avery Theatre downtown Etna. For information on SWIF 2024, please visit <https://www.scottriver.org/swif>



One of three field tours for the 3-day event.



Participants in the Avery Theatre.



Harrison presenting at SWIF.



Efforts to bring fire, an agent of change, back to the lands of Scott Valley



SCOTT RIVER WATERSHED COUNCIL

California Indian Basketweavers Association
Rekindling Culture and Fire

Charma Gilmore, Executive Director
Scott River Watershed Council
January 21, 2022



Forest and Mountain Meadow Resiliency,
Fisheries Restoration, and River Recovery Actions
on Working Lands in the Scott River



SCOTT RIVER WATERSHED COUNCIL

Scott River Watershed Council
Charma Gilmore, Betsy Stapleton, Erich Yokel & SRWC Team
Salmonid Restoration Federation, April 27, 2023



Klamath Basin Fisheries Collaborative: Data Integration for
Monitoring Dam Removal,
Project Effectiveness Monitoring, and Species Management.

Betsy Stapleton, Alta C. Harris, Nancy Leonard PhD, and Summer M. Burdick
Presenter

Beaver Dam Analogues –
Summary of Five
Years of
Monitoring
in the Scott River
Scott River Watershed Council



Erich Yokel
Harrison Morrow
Betsy Stapleton
Charma Gilmore
Salmonid Restoration Federation - April 28, 2023

Increased traffic to SRWC's website by 18% over 2022

A RIVER & BEAVER
A STORY OF SCOTT VALLEY THROUGH THE EYES OF A RODENT



SCOTT RIVER WATERSHED COUNCIL

Siskiyou Democratic
June 24, 2023
Charma Gilmore, Executive Director



Klamath National Forest &
Scott River Watershed Council
Collaboration



SCOTT RIVER WATERSHED COUNCIL



June 28, 2023

Community Connections, Contributions, and Public Engagement

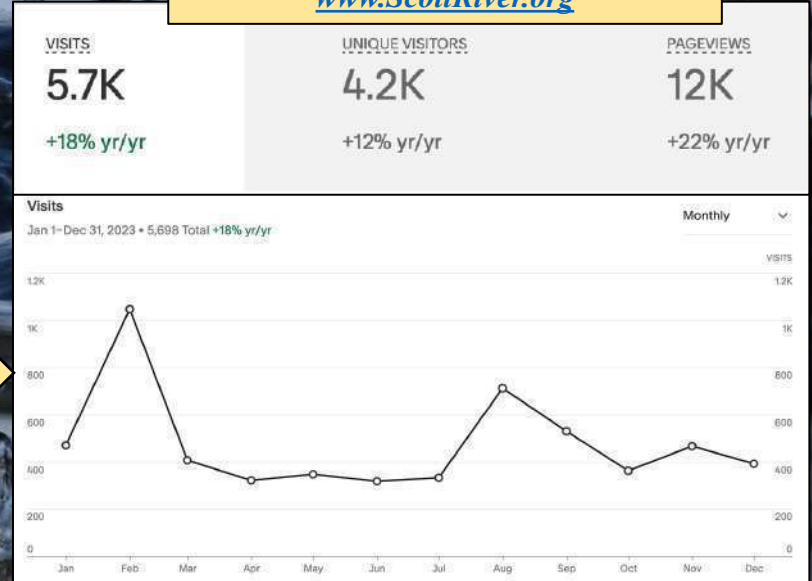


Touring on EFM/SRWC's Patterson Creek Wood Loading project.

Public Engagement Activities 2023 A total of ~1,240 participants

Field days or presentation for universities	4
Field tours w/community members, funders, agencies, Tribes	10
Presentations at forums, workshops & meetings	15
Participation in regional and statewide meetings	7

www.ScottRiver.org



Erich Yokel presenting SRWC's work at SRF.



Etna Farmers Market



The Etna Farmers' Market is a seasonal market operating from the middle of May to the end of September each year. With the generosity of the SRWC we have a permanent home where we can gather in a community around our locally grown produce. The farmers market offers a location for local farmers to share their passion for growing food for our local economy and the well being of our residents.

This year we were awarded a California Nutrition Incentive Program grant through the California Department of Food and Agriculture which was implemented this past season. We were able to support local WIC participants and Seniors additional money to purchase additional produce. This grant will also be available for the 2024 season. *Eating more fruits and vegetables grown without modified seeds or pesticides supports our health.*

The market also supports other vendors providing our valley with spices, vinegars, baked goods, jewelry, soaps, lotions and so much more. We are often entertained by our local musicians providing the vendors and community with their talents.

We *all* thank you for your continued support in shopping at the Etna Farmers' Market. See you in May 2024.

Shirley Johnson
Market Manager



Etna Community Garden & Dick Short



Photo Taken by Susan Rickey



Photo Taken by Tamila Medinnus



Photo Taken by Jana Padilla

 **SMALL TOWN HEART**



Etna's most favorite resident, Dick Short, getting his photo taken in the Etna Community Garden. Megan Peterson, an excellent freelance writer, wrote a wonderful article in the Enjoy Magazine. [Click here to read article.](#)

Scott Valley Community Compost



The Scott Valley Community Compost program is still scrapping it up! Building off the 2023 season, SRWC continues to work with Community Composting for Green Spaces and the California Alliance for Community Composting (CACC) through funding from CalRecycle to serve as a composting hub at the SRWC office. SRWC is working to scale up this effort, along with putting on composting workshops in 2024.

In the summer of 2023, the Scott Valley Community Compost program was featured in the Enjoy Magazine. This article was written by Megan Peterson, a wonderful freelance writer. [Click here to read this sweet article.](#)



Jenn Rogge, 2023 Compost Coordinator



Annual Etna Clean Up Event



On April 20th-22nd, SRWC partnered with the Scott Valley Rotary, the City of Etna, the Mattress Recycling Center, and the Scott Valley Disposal to hold its annual clean-up event.

A big thank you to Mike Kalpin for all his hard work making this event such a success.

This event was free to the community and considered a huge success.

Thank you to everyone involved.

The Etna Clean Up Event will be held on April 19th & 20th 2024 in celebration of Earth Day!



Annual Etna Creek Clean Up Event

For the past seven years, the Youth Environmental Summer Studies (YESS) Crew, Klamath National Forest, SRWC staff, and community members have removed thousands of pounds of garbage from the slopes above Etna Creek on Salmon Mountain. Etna Creek is the sole drinking water for the City of Etna. With the increased public acknowledgment of the negative impacts on water quality, the amount of dumping over the past six years seems to have decreased. Unfortunately, there is still a fair amount of household garbage, tires, furniture, appliances, and more. We are confident that with continued public education efforts and events such as the annual Etna Clean Up event, this activity will diminish substantially. Thank you so much to those who have come out and donated your time and energy to keep our water clean and safe for residents and our guests. Please join us on July 8, 2024, for the next clean-up event! Contact Charnna Gilmore at 530-598-2733 if you would like to get involved, all volunteers welcome!



Youth Environmental Summer Studies (YESS) Program



2020



2021



2019



2022



2023



Youth Environmental Summer Studies (YESS) Program

In the summer of 2023, we had the opportunity to host eight vibrant, intelligent, and hardworking youth for our Youth Environmental Summer Studies (YESS) program. Our youth crew was able to learn about environmental science, natural resource fieldwork, and watershed health while working with professionals from SRWC, the Salmon River Restoration Council (SRRC), the Mid Klamath Watershed Council and a great crew from the Watershed Research and Training Center. To start off our 6-week program, the crew got their hands dirty with noxious weed identification and eradication. They spent time in Big Meadows where they cut and piled fallen woody debris. Additionally, they collected critical data at some of SRWC's project sites, spent time in other areas of the Klamath Basin working on trails, conducting salmon surveys and learning about our wonderful region. Thank you to our funders!

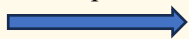


"In 2023, working with the SRWC transformed me. Not just with watershed knowledge, but with profound self-discovery and a deep sense of community."
 Shannon Wedgley,
 YESS Crewleader



The goal of the program is to provide local youth with work skills through a variety of different experiences.

Here is how Crew 2023 rated their experience.



Youth Environmental Summer Studies - Season Review 2023	Student A	Student B	Student C	Student D	Student E	Student F	Student G	Student H	Average Overall Score
I learned new information about environmental science and conservation	5	4	4	5	4	4	4	4	4.25
I worked in a variety of outdoor work environments and learned new technical skills.	5	5	5	5	5	4	5	3	4.63
I will value my experience working on the YESS crew this summer.	5	5	5	5	5	5	5	5	5
I am considering working someday in an environmental science field.	3	5	3	5	3		4	3	3.71
dedicated, approachable, and concerned for our safety and well being.	5	4	5	5	5	5	5	5	4.88
My crew was hard-working.	4	4	4	5	4	4	4	4	4.13
My crew was supportive and respectful of one another and other staff.	4	4	4	5	4	5	4	4	4.25
The partnering agencies and organizations we worked with had supportive staff to work with.	5	5	4	5	5	5	5	5	4.88

SRWC College Internship – A Summer of Learning, Experiences & Making Memories

During the summer, SRWC hosted five summer college interns. Frank Brownell has worked for SRWC during the past three summers, now a sophomore at Oregon State University (Go Beavers!).

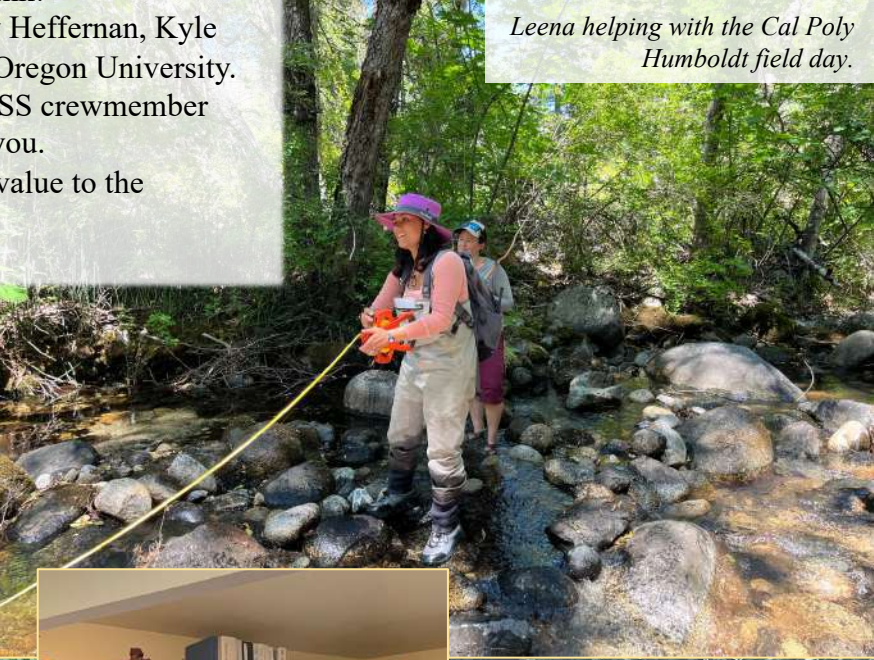
Our favorite saying was “Just be Frank!”

We also enjoyed having three students, Kennedy Heffernan, Kyle Christmas and Nicholas Pflug, all from Southern Oregon University.


Finally, Leena Racataian, one of our former YESS crewmember and student at College of the Siskiyou.

Thank you to each of you for adding such value to the SRWC 2023 summer!


We love you all!




Leena helping with the Cal Poly Humboldt field day.




Frank doing what he does best, working hard and serious.




Nick being a good sport and playing a game with SRWC staff.




Kennedy doing some monitoring in Patterson Creek.



Kyle taking a flow measurement on the East Fork of the Scott River.



Erich sharing the methodology about taking stream flow..



One of the only photos that exist of Frank smiling!



Our Commitment to Education



“My experience working with the Watershed Council in 2023 was truly exceptional! Engaging in diverse projects was not only enjoyable but also immensely gratifying. I'm truly thankful for the valuable experience and opportunities provided by the SRWC team.” Leena Racataian, College Summer Intern & Former YESS crewmember & current Field Technician

SRWC hosted California State Polytechnic University, Humboldt and John Hopkins University during the summer of 2023. Both classes were focused on giving the students a deep immersion into the Klamath River Basin, its diversity and immense natural beauty. The Klamath River Basin is an ideal location to study restoration, ecology, and natural history because of the expansive diversity in habitat types, hydrology, geology, ecology, vegetative communities, land ownership, and land use. These students and teachers brought enthusiasm, curiosity, and they pulled a few Marlahan Mustard plants. Fun was had by all!





Weed Warriors Unite!

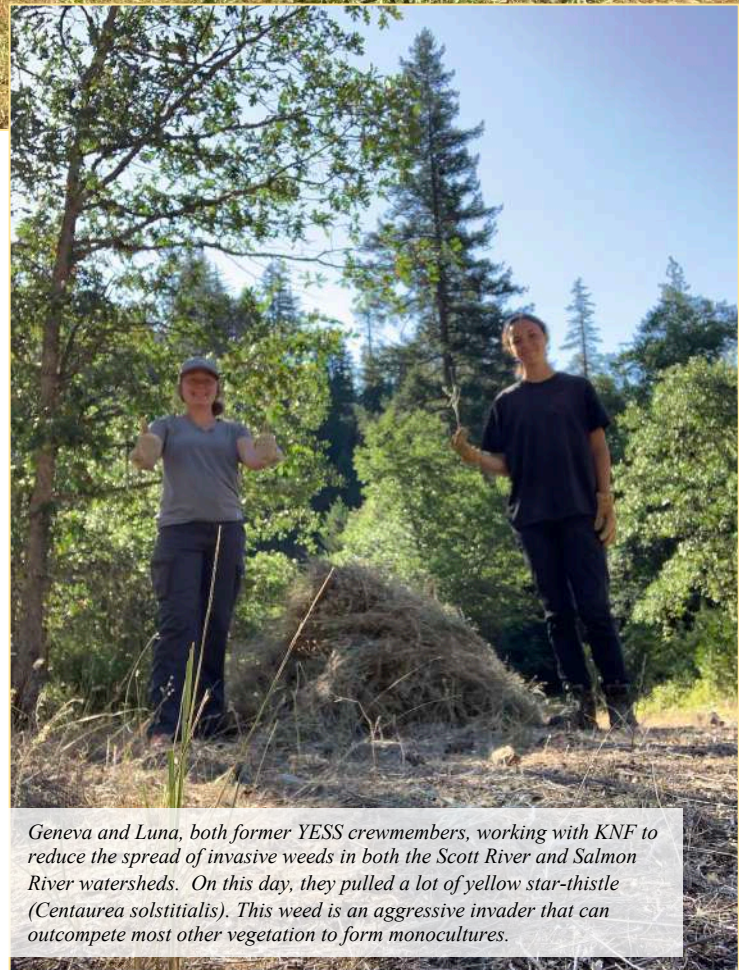


YESS Crew 2023 in Salmon River, working with the awesome folks at the Salmon River Restoration Council, pulling invasive weeds in their beautiful watershed.

Over the years, the Klamath National Forest have been major supporter to youth development through work programs like the Youth Environmental Summer Studies (YESS) program. This year, they increased their commitment and funded a Salmon Scott River Ranger District (SSRD) Crew Resource Support aimed to provide young adults in rural Siskiyou County vital training and experience in natural resources. This program also allowed for the District to expand its capacity to help meet goals of monitoring and restoring the health of areas across the Scott Salmon River Ranger District that were affected by the River Complex Fire and associated suppression activities.

Job training and development, includes cross-training opportunities with natural resource specialists in the fields of botany and fisheries, and at times will work in wildlife, forestry, range, recreation, hydrology, and/or archaeology. A primary focus is to improve the health of native plant communities through invasive species management and fish habitat restoration and monitoring.

We are grateful for the partnerships with KNF and the resources they bring to support our local young people.



*Geneva and Luna, both former YESS crewmembers, working with KNF to reduce the spread of invasive weeds in both the Scott River and Salmon River watersheds. On this day, they pulled a lot of yellow star-thistle (*Centaurea solstitialis*). This weed is an aggressive invader that can outcompete most other vegetation to form monocultures.*

Weed Warriors Against Marlahan Mustard (Dyer's woad)



Two weed warriors from John Hopkins out on the East Fork on the Beaver Valley Headwater Preserve owned by The Wildlands Conservancy.



Linda showing off her longest root for the day!



Local goats LOVE Marlahan Mustard!

Dyer's woad (*Isatis tinctoria*) is a problematic, invasive weed in the intermountain west, including far northern California. It grows in both disturbed and undisturbed sites and can be commonly found along roadsides, fencerows, and ditch banks, as well as in pastures, rangeland, and natural areas. It is sometimes also found growing in field crops.

Dyer's woad is thought to have been introduced into California in the Scott Valley of Siskiyou County, where it is locally referred to as "Marlahan mustard."

Until a couple of decades ago, it was primarily confined to Scott Valley, but it has subsequently spilled over into Shasta Valley. It continues to spread throughout Siskiyou County and into Modoc, Shasta, and other northern California counties.

During medieval times, dyer's woad was one of the most valuable plant commodities in Europe, cultivated in southeastern Russia as a source of blue dye as early as the 13th century.

Colonists first introduced it to the eastern United States late in the 17th century for the same purpose. Its dye is now only of very minor importance in the U.S., but the plant has successfully invaded and colonized extensive areas of California, Oregon, Idaho, Utah, Wyoming, and Montana. Dyer's woad is a 'B' listed noxious weed in California. – University of California Agriculture and Natural Resources, Statewide Integrated Pest Management Program

Here are two great links:

To learn more about Dyer's woad:

<https://www.youtube.com/watch?v=e7i419wkHJ4>

How to remove Dyer's woad:

<https://www.youtube.com/watch?v=e7i419wkHJ4>



John Hopkins students doing their part on Beaver Valley Headwater Preserve.

Soil Health Workshop



- | | | |
|--|---|---|
| 1. Kabir Zahangir, Ph.D, West-Regional Soil Health Specialist; | 9. Tiffany Perez, NRCS Soil Conservationist, Weaverville, CA; | 18. Charnna Gilmore, Executive Director, Scott River Watershed Council, CA; |
| 2. Jacob Johnson North Coast RCD, CA; | 10. Anne Stephens, NRCS District Conservationist, Susanville, CA; | 19. Jacqueline Vega-Pérez- Area 1 Resource Soil Scientist, Red Bluff, CA; |
| 3. Venancio Hernandez, NRCS Soil Conservationist Tech, Tullake, CA; | 11. Kayla Meyer, North Coast RCD, CA; | |
| 4. Gareth Plank, Landowner, CA; | 12. Hud Minshew, California State Conservation Agronomist; | Elize Blacker Modoc RCD, CA, is missing from the photo. |
| 5. Mindy Nicoletti, Area Resource Conservationist, Red Bluff, CA; | 13. Brooke Hogan, MLRA Soil Scientist, Klamath Falls, OR; | |
| 6. Chris Gebauer, MLRA Soil Survey Leader, Klamath Falls, OR; | 14. Margaret Smither-Kopperl, Ph.D., Manager, USDA-NRCS Lockeferd Plant Materials Center; | |
| 7. Katharine Bruce, NRCS Soil Conservationist, Tullake, CA; | 15. Rachael Nagelkirk , NRCS Easement Engineer, Yreka, CA; | |
| 8. Shannon Wedgley, Project Manager, Scott River Watershed Council , CA; | 16. Arianna Skikos , NRCS Soil Conservationist, Eureka, CA; | |
| | 17. Jim Patterson, NRCS District Conservationist, Yreka, CA; | |

In 2021, the SRWC secured funding from the Natural Resources Conservation Service (NRCS) to support a scientifically-based study on soil health. The study's objective is to assess the impact of applying biochar, compost, and composted biochar on hay, pasture, and rangeland production systems in Scott Valley, involving five agricultural producers, including Scott River Ranch. The project aims to enhance understanding of the potential benefits of using biochar in the agricultural setting, including improvements in carbon storage, increased organic matter, enhanced plant productivity, and greater availability of plant water. Additionally, the study intends to calculate the overall carbon footprint associated with the production and application of biochar, contributing valuable insights to sustainable agricultural practices in the region.

To support this important work, NRCS has adopted a conservation approach to support resilient agriculture, addressing priority natural resource concerns. Jacqueline Vega, a former Area 1 Resource Soil Scientist, collaborated with Scott River Ranch and SRWC to highlight some of the work being done for soil health within the Scott Valley. These workshops were intended for NRCS field office staff involved in conservation planning and aimed to enhance knowledge of soil health principles, cover crop management, soil indicators, and Web Soil Survey information. The Scott Valley workshop was a huge success, and much was learned by all.





Shannon working on the monitoring equipment at the French Creek Ranch.



Biochar - What is it?

Biochar is a fine-grained charcoal made by pyrolysis: The process of heating biomass (wood, manure, crop residues, solid waste, etc.) with limited to no oxygen in a specially designed furnace capturing all emissions, gases, and oils for reuse as energy.

An Ancient Soil Conditioner: Biochar has been used in agriculture for more than 2,500 years and is becoming increasingly popular in modern agriculture and horticulture as a safe, sustainable soil amendment.

Biochar retains approximately 50% of the carbon from the raw biomass: When applied to soil, it sequesters that carbon for centuries, reducing the overall amount of atmospheric CO₂ by removing it from the active cycle.

Forest managers throughout the northern region of California are looking to find ways to quickly and efficiently reduce forest fuel from overstocked forests. Climate change driven increased drought frequency and high temperatures, along with reduction in rainfall and dwindling snowpack, is setting the stage for catastrophic wildfires that threaten the forest ecosystem, timber revenues, and communities. One tool to reduce large amounts of excess forest fuel is the creation of biochar. Biochar can potentially be useful in agricultural applications. Biochar has been shown to store carbon and increase organic matter, increase plant productivity, and increase water retention and irrigation efficiency in agricultural settings. These benefits may allow agricultural producers to be more resilient to the effects of climate change as well as sequester carbon from local overstocked forests.

SRWC is working with five agricultural producers in Scott Valley by conducting a scientifically-based study to determine the effects of the application of biochar, compost and composted biochar on hay, pasture, and rangeland production systems. The project is building on NRCS Conservation Practice Soil Carbon Amendment 808 which will evaluate the effectiveness of locally produced biochar and compost as soil amendments and testing composted biochar as practice enhancement. In December 2020, SRWC managed the production of 432 yards of biochar from 373 bone dry tons of forest fuel thinning with funding from the North Coast Regional Partnership and the CA Natural Resources Agency, and California Climate Investments. This biochar was transported to five agricultural producers in the Scott Valley that were interested in testing the effectiveness of a biochar application in their production systems. Finding for this study scheduled to be finalized by the end of 2024.

