

Trinity County Resource Conservation District

Summer 2024 Conservation Almanac

Trinity County Resource Conservation District Quarterly Newsletter

Summer 2024 Vol. XXXIII No.2



In this issue:

- Watersheds
- Trinity County Fire Safe Council
- Weaverville Community Forest
- Bar 717 Environmental Camp
- Weaverville Farmers' Market
- Summer Revegetation Projects
- Weaverville Summer Day Camp
- Road Projects this Summer
- TRRP: On Fish, and Fire

RCD Staff Annyssa Interrante and Veronica Klenk take measurements across the stream for a permanently monumented cross section in Price Creek for a Stream Condition Inventory Survey



@trinityrzd
@TrinityRiverCA



@TrinityRCD



@TrinityCountyRCD
@FireSafeTrinity
@TrinityRiverCA



www.TCRCD.net

Watersheds: Monitoring, Surveying, & Restoration Planning

The Trinity County Resource Conservation District's Watershed Program teamed up with The Watershed Research and Training Center this summer to tackle our largest monitoring coverage yet across both the mainstem and South Fork of the Trinity River Watershed. With the leadership and support of the Shasta Trinity National Forest, we collaboratively deployed 53 (Trinity River Management Unit - 21, South Fork Management Unit - 32) water temperature probes, completed 7 (RCD - 5, WRTC - 2) Stream Condition Inventory surveys, and participated in 146 miles of snorkel surveys for spring Chinook within the South Fork of the Trinity, Hayfork Creek, Canyon Creek, North Fork of the Trinity, and the New River. The snorkel surveys included the tireless participation by over 55 people from multiple organizations, agencies, and community volunteers. The TCRCD and WRTC installed and maintained 11 streamflow (RCD - 5, WRTC - 6) monitoring stations to measure the summer base flows in major tributaries of the Trinity and South Fork Trinity Rivers.



Maggie Maine (WRTC), Fran Nesler (USFS), Christine Burchinal (WSP), and Annyssa Interrante (RCD) pose for a photo at the end of a snorkel survey for spring Chinook on Hayfork Creek

Restoration planning and surveying efforts have also expanded as we work collaboratively on in-stream and wet meadow restoration sites. The Watershed Program surveyed 5+ miles of streams to assess potential locations in the Weaverville Community Forest and North Lake region to identify suitability for beaver dam analogue restoration techniques, and contributed to the 75+ acres of meadows surveyed this season by the WRTC for the Meadow Inventory effort across the Klamath Mountain Range. Our Watershed Stewards Program Corps member, Christine Burchinal, took restoration efforts straight to the community with her Watershed Awareness Volunteer Event (WAVE) at Sidney Gulch in Weaverville for an invasive Himalayan blackberry removal volunteer event. She gathered 35 volunteers to help remove blackberry encroaching on the stream banks and dispose of litter found, effectively clearing 5,840 ft² of invasive biomass that is now ready for seeding with native species.



WSP Corpsmember Christine Burchinal takes measurements across the stream for a permanently monumented cross section in Panther Creek for a Stream Condition Inventory Survey

This season could not have been made possible without these crucial collaborations of staff, expertise, training, and equipment. We would like to send out a large thank you to all of our partners at the WRTC and USFS for the countless mornings and evenings of planning, and our collective field staff that put in the hours with wet soggy feet to help us move forward with efforts to restore the health of the Trinity River Watershed.

We said a fond farewell to our Watershed Stewards Program Corps member Christine Burchinal at the completion of her 2023-2024 service term. Christine provided 10.5 months of service to the Trinity County Resource Conservation District to help with building capacity in both the Watershed and Education and Outreach programs at the District. In addition to her program assignments, she was a critical contributor to our survey efforts and assisted with multiple watershed planning documents. With Education and Outreach she assisted with educational programming in four additional schools by providing lessons to 255 students in grades K-8th grade, and engaged with outreach event planning and facilitation that reached over 800 community members over the course of her term. We will miss her contagious smile and energy, but wish her the best of luck with her 2nd WSP Term with the Wiyot Tribe Natural Resources Department, Eel River Watershed Improvement Group, and California Conservation Corps Fortuna Collaborative in Arcata for the 2024-2025 service term.

Updates from the Trinity County Fire Safe Council

The Trinity County Fire Safe Council (Fire Safe Council) is a program dedicated to increasing wildfire resiliency in Trinity County through promoting agency and community collaboration, coordinating multiple volunteer programs, promoting fire safe education and outreach, and maintaining the Trinity County Community Wildfire Protection Plan.

Community Meetings

This summer, the Fire Safe Council traveled across the county! From May 7th to June 25th, eleven meetings were held in Burnt Ranch, Lewiston, Hyampom, Trinity Center, Mad River, Douglas City, Coffee Creek, Hawkins Bar, Weaverville, Post Mountain, and Junction City. The Fire Safe Council is currently engaged in updating the Trinity County Hazard Mitigation Plan, updating the Trinity County Community Wildfire Protection Plan, and developing the first Trinity County Evacuation Plan. These meetings were a great opportunity to receive input on the draft Hazard Mitigation Plan and Evacuation Plan. Residents provided feedback on suggested revisions and engaged in a map drawing exercise for the draft evacuation routes identified. In addition, there was a discussion on ongoing fuels reduction projects and where community priorities for fuels reduction and similar project types are over the next five years. Those who attended had the opportunity to receive a free reflective address sign – over 200 were given out in May and June.



Trinity County Firesafe Council Community Meeting

Firewise Fair

In collaboration with the Watershed Research and Training Center and the Hayfork Volunteer Fire Department, the Trinity County Firewise Fair occurred on May 11 at Hayfork Park. The Hayfork Volunteer Fire Department gave out over 300 tacos, and we counted around 162 participants! The Good Times Band provided wonderful music. Ellen McGhee and Qwalen Bernsten from the Watershed Center's Fire Program presented on prescribed burn associations, and Mellissa Conway from the US Forest Service spoke about fire ecology. Thank you to the Douglas City Fire Belles, Red Cross, US Forest Service, CAL FIRE, Watershed Research and Training Center, Hayfork Volunteer Fire Department, Hyampom Volunteer Fire Department, Trinity County Environmental Health, Northern Valley Catholic Social Services, Natural Resource Conservation Service, and local artist Jim Lacitgnola for having booths at this event.

The Fire Safe Council invites you to join our efforts! Monthly Fire Safe Council meetings happen on the fourth Thursday at 1 PM in the TCRCD conference room and on Zoom. Contact 530-623-6004 ext. 214 or sfisher@tcrd.net to learn about how to get involved.



Attendees of the Weaver Creek Project Tour presented by the Yurok Tribe

Forest Health Projects this Summer

Weaverville Community Forest Stewardship Timber Harvest Comes to Fruition

In June of 2024, timber finally started to fall on the Oregon Mountain Project, a forest health – focused timber harvest in the Weaverville Community Forest.

The Weaverville Community Forest (WCF) is a partnership between the Bureau of Land Management (BLM), United States Forest Service (USFS), and Trinity County Resource Conservation District (TCRCD). Part of the vision of this partnership is that sustainable timber harvest in the forest can provide funding for stewardship activities, including trail maintenance or construction, removal of noxious weeds, hazard fuel reduction, educational activities, and more. This is the latest in a series of small harvests supporting these activities, and the profits will go into Trinity County RCD's ongoing work to make the WCF a safe, ecologically healthy, and beautiful place for the people of Trinity County to recreate.

The Oregon Mountain Project was sold to Trinity River Lumber. The sale removed primarily Douglas-fir, which has been impacted by disease and drought in this part of the Weaver Basin. It was milled right here in Weaverville! Timber sale administration was a cooperative effort between BLM and TCRCD staff, who ensured that the values of the Weaverville Community Forest Steering Committee were implemented throughout the sale.

On June 20th, members of the WCF Steering Committee and other interested members of the public joined BLM, USFS, and TCRCD staff to tour the partially completed harvest. The discussion was rich, including important environmental protection topics and the significance of maintaining the timber economy sustainably. All parties were eager and optimistic that this successful project would pave the way for many more.

The timber sale concluded in late August and will bring around \$168,000 to fund stewardship activities on the WCF. Firewood sales took place in late August and early September.

Fuels Crews Complete Projects in Northern and Western Trinity

The District had four crews of four working nonstop on fuels reduction this summer season, thanks to funding primarily from CAL FIRE and the United States Forest Service. In addition to Forest Service plantation thinning, crews have enjoyed working in several communities this season. In the downriver community of Hawkins Bar, we kicked off work funded by the Greater Willow Creek Community Wildfire Defense Grant, through the United States Forest Service. This first year of implementation included a roadside fuel break along Suzie Q road and hazard fuel reduction on overgrown vacant parcels in Trinity Village. We were grateful to have the opportunity to support this community that is so frequently threatened by fire. In Coffee Creek and Trinity Center, we completed the final year of work on the CAL FIRE Trinity County Hazardous Fuels Reduction Phase II project. This included roadside fuel reduction along critical access routes in both communities.

Looking forward, this winter marks a major milestone as we wrap up two of the largest grants the department has ever completed. We are excited to have large upcoming projects funded by CAL FIRE, the United States Forest Service, and more going into 2025 and beyond.

Forestry Crew Continue to Work on Trinity County Wildfire Mitigation Project and more

The District increased forestry capacity this season to two crews thanks to funding from the United States Forest Service (USFS). The crews have completed 900 acres of painting projects this season for the USFS' Trinity Camps Project, which is aimed at removing hazardous trees in our local Trinity campgrounds. In addition, the crew has completed a few hundred miles of unit layout and treatment designation for various agencies including CAL FIRE, USFS, WCF, and the District's internal projects.

This year, the Forestry department focused on preparing for the upcoming implementation of the Trinity County Wildfire Mitigation Project (TCWMP), which focused on mitigating wildfire impacts for communities in Weaverville, Covington Mill, and Trinity Center. The Project aims to reduce the risk of wildfire along certain critical corridors within high-priority wildland-urban interface (WUI) areas by reducing hazardous fuels. FEMA and the California Office of Emergency Services, in partnership with The McConnell Foundation, fund the TCWMP. Crews have been preparing this year for the upcoming implementation of TCWMP by continuing to receive signatures, lay out boundaries for the project, and prepare documentation. The District is excited to participate in such a widespread project that will add to fire safety efforts by prioritizing continuous work throughout the county.

Forest Health, cont.



The Weaverville Community Forest Oregon Mountain Project Timber Harvest Comes to Fruition



Fuel Break Along Suzie Q Road Before (left) and After (right)



Chippers on the Move



Some of our Forest Health Fuels Crew Workers Pause for a Photo

Bar 717 Environmental Camp

This September, 6th graders from Weaverville, Burnt Ranch, Trinity Center, Zenia, Van Duzen, Junction City, Lewiston, and Hayfork spent two days at the Bar 717 Ranch for Environmental Camp. Partners from the Bureau of Land Management, The Watershed Research and Training Center, U.S. Forest Service, and Ascend Wilderness Experience joined the Trinity County Resource Conservation District and the Trinity River Restoration Program in providing a variety of environmental activities. These activities were aimed at fostering a deeper awareness of our ecosystem, teaching the scientific method, and introducing students to careers in the natural resource field within our county.

Students had the opportunity to make new friends, explore the ranch, and return home with unforgettable memories.



Weaverville Certified Farmers' Market

This year was the second season that the Trinity County Resource Conservation District managed the Weaverville Certified Farmers' Market. The mission of the market is to provide a safe community gathering space for access to local producers, food vendors, artisans, musicians, and other services to engage in the sale and exchange of goods and services with a priority to youth and family engagement. Vendors from Trinity County and surrounding counties fill the market each week with fresh produce, art, crafts, baked goods and more. In order to increase accessibility to the market, market information for vendors has been translated into both Hmong and Spanish. SNAP and WIC benefits are accepted at the market and the market offers a dollar for dollar match for SNAP users up to \$5. Each week the market features a new musician or band as well as some sort of children's activity. Not only has the market grown in its ability to connect people with local produce and food, but it is a staple community event that brings people together.



Botany Technicians Keep Revegetation Projects Thriving!



TCRCD Conservation Technician Brandie Lee planting riparian trees in sonotube along Swift Creek

Botany Technicians Keep Revegetation Projects Thriving in Summer Heat

As Trinity County sweltered through the heat waves that settled across Northern California this summer, Conservation Technicians with the Trinity County RCD Botany Program were diligently caring for the hundreds of trees and shrubs they had planted this past year across the county. Before the first hole is dug on a revegetation project, TCRCD staff works with partners to develop a revegetation plan that incorporates native plants that are likely to thrive on project sites. After planting, the Botany Program will closely monitor and care for plantings for one to two years to ensure that young plants are protected and watered so they can become established. As readers drive through Trinity County, they may notice plants with cages, burlap, and irrigation lines near the Ditch Gulch Bridge, Swift Creek Bridge, Big French Creek, and other planting sites near roadways. They may also see TCRCD Conservation Technicians with water tanks delivering much-needed water to help these new plantings survive, especially during hot summer months.

Ditch Gulch Revegetation Project

Revegetation efforts continued into their second year at the Ditch Gulch revegetation site, near the new bridge on State Route 36 just west of the junction

with State Route 3. In addition to 900 native trees that were planted in riparian and uplands areas in 2023, 190 trees and shrubs were planted this spring. The District will continue partnering with Caltrans to plant remaining trees this fall and are excited to continue work on this largescale revegetation project.

Swift Creek Bridge Revegetation Project

The TCRCD Botany Program partnered with Caltrans to revegetate areas impacted by the Swift Creek Bridge Replacement project in Trinity Center, near MM 60 on State Route 3. Planting began in April and was completed in May. Dedicated volunteers from The Rotary Club and Trinity Center Elementary joined Botany staff to plant and cage 30 trees at the Swift Creek project, bringing the total planting to 181 trees. These volunteers contributed to the high success of the revegetation project at Swift Creek, and District staff are grateful for the hard work and generosity of the Rotary Club and Trinity Center Elementary volunteers. Botany staff are looking forward to planting native flowers together to further beautify the old bridge site in the future.

Big French Creek Revegetation Project

The TCRCD Botany Program continues to partner with Caltrans to revegetate sites associated with the Big French Creek Slide. As part of this effort, a total of 20 trees were planted in May near State Route 299 and Big French Creek Road, approximately 5 miles west of Big Bar. This planting will continue to be monitored with other revegetation sites, with additional seed sowing slated for this upcoming Fall.



Botany Conservation Technician Tim Robertson checks drip irrigation emitters at the Ditch Gulch revegetation site



The Swift Creek revegetation site along State Route 3 at the height of summer

Weaverville Summer Day Camp

For three weeks in July, the Young Family Ranch buzzed with youthful excitement as it hosted the annual Weaverville Summer Day Camp. This year, we welcomed 46 children aged six to twelve, who engaged in a diverse range of activities—from native plant surveys and ecstatic dance to balloon twisting, potato planting, and river rafting. The campers enjoyed 16 field trips to local farms, swimming holes, forests, and even a yoga studio. We partnered with 21 organizations, agencies, and community members who led 55 activities focused on education and inspiration.

The camp truly reflected the rich and varied nature of our mountain region. The camp's success was made possible by the incredible support we received—from leading activities and providing financial support to donating supplies, offering transportation, and sharing artistic talents. We extend our heartfelt thanks to the Trinity River Restoration Program, One Thing Ranch, Mountain Chapel, Trinity Together, the Trinity County RCD Botany Crew, UC CalFresh, Weaverville Parks and Rec, Wintu Educational and Cultural Council, US Fish and Wildlife Service, US Forest Service, Amrita Yoga, Trinity Upbeat, 6 Rivers Rafting, Weaving Spider Tattoo, Ike the Clown, Top of the Grade Fire and Flow Dance Group, Kyle Hailey, Danyel Aglipay, Susan Cousins, Liz Houghton, Lilian Peterson, and all who sponsored campers.



TCRCD Roads Crew Projects this Summer

The District began work in early April, clearing roads of fallen trees and identifying sites that required more intensive attention. The majority of our funding is allocated to fire-affected areas, and with some fires, we are now in the third full year post-fire. Trees blocking access continue to present an ongoing challenge.

Our initial focus was on opening the main roads, which enabled STNF trail crews to access the backcountry early. We then extended our efforts to the South Fork Trinity and the mainstem Trinity, repairing roads in both forests. So far this season, we have worked on approximately 180 miles of roads. Most of this work has been maintenance-focused, including significant dead and burnt tree removal, cleaning inlet basins, addressing fill failures, and slide removals. A smaller portion of the work involved culvert upgrades and road decommissioning.

Currently, we are working on the Six Rivers side of the county, addressing the slide near the dam at Ruth Lake, as well as projects at Cobb Ridge near Three Fork and the Mad River Ridge area.



Hobo Gulch Road Culvert Upgrade (Old Culverts visible in the Upper Left Image) August 2024



27N38A MM 0.63 Cobb Ridge Before and After Slide Removal August 2024



Slide by Ruth Lake



Road Decomm 34N85

On Fish, and Fire.

Current conversations, media and our own experiences point to fire seasons that are far from ordinary. However, from dendrochronology (the study of tree rings) and other data sources, analysis finds that prior to Euro-colonization, multiple millions of acres burned on average in California. California's 'worst' year in recent history saw about 4.5 million acres burned... which, when compared to historic averages, would be within the 'normal' range (prior to Euro-colonization). In fact, tree ring scars show that many areas burned as frequently as every 5-10 years! Within the past century, our society and forest managers have promoted and practiced a prohibition on abundant low-intensity fire, allowing unburned materials to build up in forests and woodlands that, along with population increase, have set the stage for the complicated relationship now experienced with wildfire.

Most of us who have lived any length of time in the rural west are stressed about wildfire through the summer and well into the fall. We endure smoke, dramatic headlines, helicopters flying over, and evacuations. Too many of us witness damage to places we hold dear, including our own properties. Forests that have not yet been touched by fire are heavily loaded with dead wood, leaves, and duff ready to become an inferno at any moment. Where fires have burned there is often a heavy load of grasses, frequently mixed with the woody remnants of trees from the last fire. Everywhere we go, organizations involved with fire share dramatic photos of conflagrations consuming tall trees. Then we see flash floods over fresh burns, like with the McKinney Fire dumping sediments into rivers so thickly that it kills fish. It seems we are smothered in news of devastation from wildfire.

But let's step back for a little perspective. Wildfire is nothing new to the West. Even before the first people set foot on these lands, our forests burned frequently from lightning strikes. These forests evolved with wildfires. As tribes developed, their people lived with wildfires, found prosperity from them, and learned to manage the land by intentionally setting fires.

20th-century fire suppression has led to a build-up of dense forests, dead wood, leaves, and duff that fuel wildfires to be more destructive. Yet even with that build-up, wildfires are often not all bad. Did you know that 66% of the 224,688-acre 2021 Monument Fire burned at low-intensity or lighter? Yes, the 34% of moderate- to high-intensity burn is visually striking as we drive highway 299, but that 66% of low-intensity improved the health and the resiliency of the forest. This mix of severities is typical for fires in our region. Even before fire suppression led to fuel loading, some amount of high-intensity burn was natural.

This maintained relatively open forests and woodlands and kept mountain meadows functioning as wetlands to feed headwater streams. Natural wildfires tend to become more intense as they go upslope. Look to the Trinity Alps where most mountain tops remain open and rocky. Many peaks have sufficient soil among the rocks to support trees, and some scattered trees growing near the top of Thompson Peak demonstrate that the Trinities have no true elevational tree line. However, trees do grow slowly on those peaks, and high-intensity fires have historically happened often enough to keep those peaks mostly bare.

From dendrochronology (the study of tree rings) and other data sources, most analysis suggest that prior to Euro-colonization, multiple millions of acres burned in on average in California. Our 'worst' year in recent history saw about 4.5 million acres burned . . . which would be within the 'normal' range prior to Euro-colonization. Tree ring scars show that many areas burned as frequently as every 5-10 years. But we stopped that abundant low-intensity fire, allowing unburned materials to build up in forests and woodlands, setting the stage for the conflagrations we now see.

Frequent low-intensity fires keep those fuels cleared out forests and woodlands. It also helped keep them from getting too dense, promoting the growth of large, older, deep-rooted trees while minimizing the number of young upstarts that dry out the



Debris flow piled against a bridge on Little Humbug Creek, a tributary to the Klamath River, during the 2022 McKinney Fire. Photo by E. Peterson

Trinity River Restoration Program, cont.



surface soils. By keeping pines and firs out of oak woodlands, these fires promoted habitat for deer and other wildlife. For these reasons, tribes managed the lands in California with fire.

Smoke has a surprising value, too. Although unpleasant to our lungs, smoke cuts the intensity of sunlight hitting the ground. Not only does it cool air temperatures during summer afternoons, it also cools the water in our streams and rivers. Local research in the Klamath/Trinity River system found that smoke can cool our rivers by 2.4°C (4.3°F). That difference can be critical for Spring-Run Chinook hanging out in deep pools in the middle of summer. There is a lot of data to suggest that these rivers once had more Spring-Run Chinook than Fall-Run. It would be interesting to know how much the millions of acres burning each year contributed to the abundance of Springers back then.



Smoke on the Trinity River near Junction City, August 2021. Photo by E. Peterson

So, one of the big questions of our time is . . .how do we get back to healthy systems that function well (and safely) with fire?

References and Further Reading

Asarian, E. 2024. Water temperatures in the Klamath-Trinity Basin: flow, other key drivers, and climate change implications. Presentation on 2024-05-01, Science Symposium of the Trinity River Restoration Program. Riverbend Sciences, Arcata, California. Available: <https://www.trrp.net/library/document?id=2647>.

Salmonid Federation Restoration. Fire and Fish Workshop and Information: <https://www.calsalmon.org/resources/fire-fish>

Scott L. Stephens, Robert E. Martin, Nicholas E. Clinton, Prehistoric fire area and emissions from California's forests, woodlands, shrublands, and grasslands. *Forest Ecology and Management*. Volume 251, Issue 3. 2007. Science Direct.com <https://www.sciencedirect.com/science/article/abs/pii/S0378112707004379>

Trinity River Restoration Program Featured Article: Sediment and Summer Thunderstorms. *The River Riffle*, July 2023. <https://www.trrp.net/featured-article/>

Gruell, George E. *Fire in Sierra Nevada Forests: A Photographic Interpretation of Ecological Change Since 1849*. Mountain Press Publishing Company, 2001

Fire in California's Ecosystems. (2018). United States: University of California Press. https://www.google.com/books/edition/Fire_in_California_s_Ecosystems/m4xaDwAAQBAJ?hl=en&gbpv=0

Trinity County RCD
P.O. Box 1450
Weaverville, CA 96093

Trinity County RCD Board Meetings

Third Wednesday
5:30 PM
Open to the Public

Trinity County RCD Office

30 Horseshoe Lane
PO Box 1450
Weaverville, CA 96093

Telephone

(530) 623-6004
FAX 623-6006

E-mail: info@tcrd.net

Internet: www.tcrd.net



The Trinity County Resource Conservation District (TCRCD) is a special district set up under state law to carry out conservation work and education. It is a not-for-profit, self-governing district led by a volunteer board of directors.

The Trinity County RCD Vision

The Trinity County RCD envisions a balance between utilization and conservation of our natural resources. Through economic diversity and ecosystem management our communities will achieve and sustain a quality environment and healthy economy.



This institution is an equal opportunity provider in accordance with Federal Law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, gender, age, or disability.