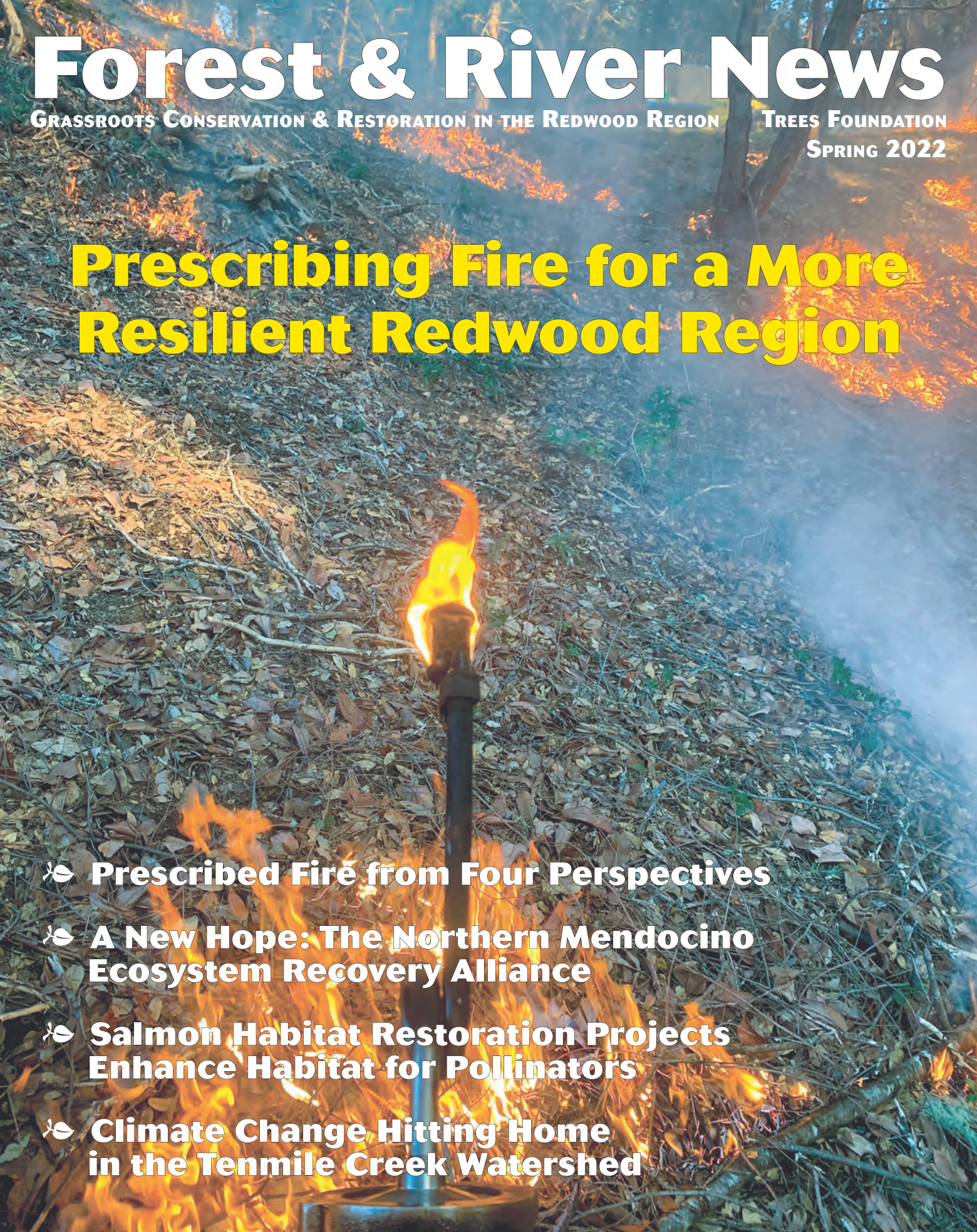
Forest & River News

Grassroots Conservation & Restoration in the Redwood Region
Trees Foundation
Spring 2022



Prescribing Fire for a More Resilient Redwood Region

- Prescribed Fire from Four Perspectives
- A New Hope: The Northern Mendocino Ecosystem Recovery Alliance
- Salmon Habitat Restoration Projects Enhance Habitat for Pollinators
- Climate Change Hitting Home in the Tenmile Creek Watershed

Editor's Note

We are excited to present another issue packed with information and inspiration from our amazing partner groups as they quest towards greater climate resilience and ecological health in the redwood region of northern California and southern Oregon.

After nearly 200 years of fire suppression, prescribed fire (sometimes written as Rx fire) is finally returning as an essential tool to protect our forested landscapes. What are the steps to getting there? What are the hurdles to overcome? Our featured stories from Margo Robbins, Ali Freedlund, Mitchell Danforth, and Kyle Keegan offer wisdom and practical know-how from their perspectives as: a Yurok and cultural fire program director; a nonprofit program director; a landowner; and an ecological field observer.

There is also plenty of news worthy of celebration in these pages. Richard Gienger's Diggin' In column describes the transfer of 523 acres of intact forest in northwestern Mendocino to the Intertribal Sinkyone Wilderness Council! This land that Sinkyone people were forcibly removed from generations ago will once again be known as Tc'ih-Leh-Dun (meaning "Fish Run Place" in the Sinkyone language) and protected under Indigenous stewardship.

In other good news, Matt Simmons from EPIC reports on the progress made towards a complete rewrite of the extremely outdated management plan for Jackson State Demonstration Forest. We also welcome guest columnist Michael Furniss, who summarizes a huge collaborative victory that has secured much better forest management rules for 10 million acres of private forestland in Oregon.

In these challenging times, there are so many actions we can take to positively impact our communities. We hope these pages inspire you as much as they have us. Please engage and support the great work of our partner groups! You can make a donation to any of our over 40 partner groups by visiting *treesfoundation.org/partner-groups*.

For the wild,

Jeri Fergus, Mona Provisor, and Kerry Reynolds

Cover photo: "Ode to the Torch" By Sarah Vroom, MRC Board Member

Index

Living with Fire

Forests & All Creatures

Water, Rivers, & Fish

From My Perspective

A Poem

Announcements

Prescribed Fire: *An Indigenous Perspective*

By Margo Robbins, Cultural Fire Management Council

The following is a transcript of the talk given by Margo Robbins during a webinar hosted by Trees Foundation on Oct. 3rd, 2021 titled "Pathways to Fire Resilience." She refers to some photos from her slideshow that don't appear here, but you may watch her full presentation with slides by visiting tinyurl.com/pathwaystofireresilience. *Other speakers on the webinar included Ali Freedlund, Lenya Quinn-Davidson, Tim Bailey, Will Harling, and Cybelle Immitt.*

Hello my name is Margo Robbins, Co-founder and Executive Director of the Cultural Fire Management Council and Co-founder and Co-lead of the Indigenous People's Burn Network.

Traditionally, native people used fire as a land management tool and in ceremony. Our ancestors burned from the coastline to the high mountain peaks, stewarding the forest to ensure healthy outcomes for the plants, the animals and the people. Wildfire protection was a by-product of these burn practices. The suppression era uprooted these natural land management practices, devastating the delicate balance of the ecosystem. In the face of the current climate crisis we are facing, it's imperative that decision makers keep the knowledge of thousands of years of successful land stewardship when we as native people took care of the land, we now call the United States.

There has been significant progress in this last year towards incorporating native perspectives and traditional ecological knowledge into the decision-making processes. There has been legislation passed addressing liability and insurance needs, and also recognizing cultural practitioners and tribes right to take care of the land with fire.

Additionally, CAL FIRE has begun a program to start putting fire back into the hands of the people, the California Burn Boss program… Lenya [Quinn-Davidson] taught the first class, and I heard it went really good. It is a step towards putting fire back into the hands of the people. For that particular class, you have to have some basic fire classes and experience burning, but at some point, the average landowner would be able to start burning their own land.

The Cultural Fire Management Council is a non-profit organization based in far Northern California. And when I say that we're community-based, we are literally community based. We started out as a handful of people with the driving need to bring fire back to the land. We didn't have any money, we didn't have any political power, but we had determination to do what needed to be done for our community.

Elizabeth Azzuz, Secretary for the CFMC Board of Directors, lifting up prayer prior to ignitions.

Yurok people are people that are basket makers. We use baskets for everything from birth until death, but our baskets require fire to burn the hazel, which is the base of our basket. So that was one of the reasons that we needed to bring fire back to the land.

The other reason is that we were afraid that if there was a wildfire, our elders might not be able to escape. So we started down this path of learning first, who controls fire? Who controls the use of fire? What are the laws and policies governing the use of fire, and what did we need to do to start using fire again on our landscapes? And that's what we did, as a small community group. We did research and we found out what the rules are governing the use of fire. We found out that you need to have basic entry level firefighter qualifications, so we had a community class, and we brought in a Burn Boss that taught the basic 32 entry level fire fighting course. And so we had community members with qualifications to be out on a fire line. We connected with the Nature Conservancy who instituted the TREX model of burning on our homelands, and people from across the United States and sometimes even other countries, come to help us burn our lands. People have all levels of qualifications from the highest level of incident command or Burn Bosses, down to entry level firefighters, some of them have never been on a fire before. They are trained up, not in the classroom, but on the land.

Margo Robbins and others re-introducing fire to the land, starting the test fire with wormwood torches.
All photos this article by Kiliii Yúyan

Fire is put into the hands of the people, and they learn how to do it in a way that's not big and scary. It's not putting fire out, it is putting fire on the land in a good way to restore the land. And people learn that the land is meant to have fire on it. Our ecosystems depend on fire to be healthy, not just the plants, not just the animals, not just the people, but even the water. Fire affects the water—fire on the land increases the water table, and it purifies the water. The biochar that's left on the ground after a burn purifies the water. The ash that's left on the ground works its way into the soil, and it makes the soil healthy again. The plants that come back after a burn, that new growth, it's very, very nutritious…Animals always come back to the places where we have burned. Every place we have burned, we see deer in there, we see woodpeckers, my nephew even saw a flying squirrel one time. I didn't even know we had flying squirrels in our ancestral territory, but with fire, the ecosystem comes back into balance.

There are many ways that would be helpful to increase the pace and scale of prescribed burns and cultural burns. One is that tribal sovereignty needs to be recognized. We have inhabited these lands for thousands of years. Nobody knows better than us what our land needs, and it doesn't make sense that we have to get permission from somebody else to burn our own lands.

Native people should have the right to burn in the right place at the right time. When we are out on the land and we're burning for cultural purposes, this is a natural process. Land was meant to have fire, and we as humans were meant to help put that fire on the land. We can't just wait for the lightning strikes to come. We need to take our place in the ecosystems and do what we were meant to do, which is to care for the land. Cultural burns should be exempt from air quality regulations, because they are a natural process.

You will see in this picture a few different kinds of burns. One is a prairie burn on the right, and my sister in fire, Elizabeth Azuzz is lighting a wormwood torch. Usually we will start our fires with the wormwood, it's medicine. We'll send a prayer with that smoke and we'll start our fires with that. After that, we'll use the drip torches to carry the fire across the land, starting at the top of the slope and working our way down.

You'll see, on the left, a burn that we did around an elder's home, creating a safety barrier around it. We had already burned up behind his house down to the back side, within six feet of his house. He and his wife were in their house, just doing whatever it was they were doing, and then we went down around to the front side and started carrying the fire down that hill.

In the bottom of this picture, you'll see the Yurok tribe wildland fire truck, and the cultural fire truck. We have a little slip-on engine, it holds a couple hundred gallons of water and a pump to pump water at high pressure., and this is what we use to help people burn around their homes and gathering places. Fire needs to be returned to the hands of the people, government agencies, non-government agencies, tribes, individuals, we all need to start working together to return fire to the land in the different capacities that we assume.

Native people no longer own or occupy all of the land, and so non-native people need to take upon themselves the responsibility to care for the land that they own as well. Fire should not just be in the hands of the government, it needs to be returned to the hands of the people. Thank you.

For more information*: www.culturalfire.org*

Margo Robbins is the co-founder and Executive Director of the Cultural Fire Management Council (CFMC), and one of the key organizers of the Cultural Burn Training Exchange (TREX) that takes place on the Yurok Reservation twice a year. Margo comes from the traditional Yurok village of Morek, and is an enrolled member of the Yurok Tribe. She gathers and prepares traditional food and medicine, is a basket weaver and regalia maker. She is also a co-lead and advisor for the Indigenous People's Burn Network.

The Buckeye Ridge Prescribed Fire: *A Nonprofit's Perspective*

By Ali Freedlund,
Mattole Restoration Council

Charged into the marrow of my life is how I felt participating in the Stansberry Ranch's 109-acre prescribed burn that occurred in February just outside Honeydew, California. The Buckeye Ridge burn was supposed to happen in the fall of 2020, but the river was the force that prevented it. The Mattole River runs through the Stansberry Ranch and can only be crossed during low flows. The burn was again supposed to happen in the fall of 2021, but the drought, a shrinking burn season, and the rains that swelled the river in December closed the door again. But drought-ridden February was a magical prescribed burn time in Southern Humboldt, as other articles in this issue testify.

One can never crow enough over the stunning views of the Stansberry Ranch. It is a true wild and working ranch with beautiful forest stands, cows, sheep, great stock dogs, and Bob, whose family has managed the property for the last century. In 2006, Bob Stansberry partnered with Save the Redwoods League (League) to put a conservation easement on the property, protecting the ranch from future subdivision, which is how the League got involved in management. Since then other projects have taken place including an earlier grassland burn in 2019 led by the Humboldt County Prescribed Burn Association.

During the lighting of fine fuels on the Stansberry Ranch. By Louis Roth

The Buckeye Ridge burn unit was already part of a CAL FIRE-funded Climate Change Investment grant awarded to Save the Redwoods League. The Mattole Restoration Council's (MRC) Fire and Fuels crew contracted with the League to both prep the burn unit and create 250 acres of shaded fuel break along ridgelines of the Redwoods to the Sea Wildlife Corridor, which includes the Stansberry Ranch and Bureau of Land Management land on either side. Fortunately, the burn unit's ridgeline perimeter had already been treated as part of the shaded fuel break the crew created in 2020-2021.

MRC crew had twice prepped the burn unit, originally 232 acres in size. "Prepping" involved hacking away a three-foot, bared-to-the-soil scratch line along the untreated perimeters to discourage fire creeping across the lines. Scratch lines were created both in meadow areas and through the forest, over steep terrain. Additionally, an untreated forested perimeter needed a 20-foot shaded fuel break with all large fuels dragged outside the unit for 50 feet with the scratch line down the center. About half of the original burn unit was primarily grassland. The grass was green and short and just not going to burn, which is why the plan in February only included the upper half of the unit or 109 mostly forested acres. One contingency involved getting a temporary water tank filled for the forested flank, where a hose lay assisted the "holding crew."

The goal of the Buckeye Ridge burn was to build resilience to wildfire in the forest. The unit is composed of Douglas-fir trees of several ages from youngsters to the almost elderly, intermixed with oak and madrone. There was definitely an over-population of young Douglas-fir in about half of the unit.

Suffice to say, the day of the Burn felt like it had been a long time coming. Phil Dye of Prometheus Fire Consulting was the official Burn Boss, a title that carries the liability for the burn. At the morning briefing we divided into firing squads and a holding team. The lineup was impressive. Volunteers ready to burn included members of Humboldt's Prescribed Burn Association, Save the Redwoods League, MRC crew, the Briceland, Shelter Cove, and Redway Volunteer Fire Departments, the Stansberry Family, and neighbors. We were also joined by Cal Poly Humboldt

After the burn (from a similar angle as photo on page 5) with a Honeydew Volunteer. By Eleonore J. Anderson

Honeydew Fire Engine 'holding' the Buckeye Ridge Rx burn. Teams on a prescribed burn are often categorized as either 'firing' or 'holding'. Firing teams use drip torches to set flame. Holding teams use water and other tools to keep flame off of untargeted areas. By Eleonore J. Anderson

students there to learn how to burn. Fire engines that participated included Honeydew, Whitethorn, Miranda, and CAL FIRE.

First ignition was at 11 am and from there the firing squads kept it going until 4 pm. A black line was created by igniting the forest floor using drip torches in 5- to 10-foot sections backing down from the ridge. Once a secured 'black' was made, larger sections were consumed. The objective was to burn the fine fuels and young trees that tend to choke the forest and elevate the fire threat. At completion there was good consumption of fine fuels and dead material (or 1- to 10-hour fuels), but only a mosaic of 100-hour fuels or live young trees that got hot enough to burn. Stumps, once engaged, held fire, and even some large trees that were not targeted were eventually lost due, I believe, to the years-long drought drying the outside bark. MRC crew spent two extra nights checking on the burn and found that a few older trees had fallen from fire damage and winds.

And here I want to say that every burn will be different. I had previously only participated on prescribed fire in grassland/brush scenarios. This was different, and I was even more excited as it is the landscape within which I live—the forest. And it is scary to light the match, so we all will need to be careful on the where and when parts. But the why is critical. The older trees that scarred or went down post-burn hurt; maybe we could have done more to protect them. But if it had been a wildfire, all of it would likely have been lost. Buckeye Ridge has been enhanced with planned fire, building resiliency into one dry forest of the Mattole watershed. We can and must do more. Burned forested acres give some relief from wildfire threat, a relief that almost sparkles with hope and beauty, one in which we are again the torch bearers lighting our own futures. I imagine all sorts of little bugs and critters coming back in and snorting or rifling around. I can't wait to get back and check it out in a year, to see sun enlighten the forest with a new glow.

All in all, a tremendous feeling of accomplishment seemed shared by everyone at the debriefing that burn day afternoon. Gobs of gratitude not only for those who showed up, but also for all the burners out there. There is no doubt in my mind that we as a people of our western United States simply must plan for and execute more prescribed burns. This year, in particular, seems poised for a long wildfire season. Fire is our tool and if we don't use it, we will lose….

Trees Foundation Board Member Ali Freedlund is the Working Lands and Human Communities program director of the Mattole Restoration Council. Working to develop projects with Fire, Forests, and Fuels has recently been her main focus. She works closely with the Lower Mattole Fire Safe Council and is a member of the Humboldt County Fire Safe Council. Feel free to contact her at: ali@mattole.org

The Oak Knoll Prescribed Fire: *A Landowner's Perspective*

By Mitchell Danforth

Wildfires represent the single greatest threat to most of our inland communities, especially in recent times, as fires have grown in size, intensity, and damage to people and property. It is critical to acknowledge that fires are not good or evil, they simply are—and like floods, landslides, snowstorms, and earthquakes, how we prepare for them makes all the difference. If a levee were to fail in a severe storm, we would blame the people responsible for inadequate preparation and maintenance; but with wildfires somehow that fault goes unassigned, as if there was nothing to do in advance.... Numbness prevails where there ought to be criticism. Over the past century as communities encroached further into wildlands, fire was "fought," meaning that all fires were viewed as a threat and therefore excluded or contained wherever possible. This mentality created a situation where immense amounts of fuels have accumulated without a practical way to reduce them. We have largely forgotten, or rather chosen to ignore, fire's pivotal role in the regular cycle of a healthy ecosystem. These were and still are active choices we are making, influenced by culture, politics, and money; the problem is not fire, it is us. However, where there are problems there are also opportunities. For example, utilizing fire on our own terms, commonly called "prescribed fire," allows us to reduce the chances of catastrophic wildfires while improving our ecosystem.

Fortunately, efforts are underway here in Southern Humboldt County and beyond to reintroduce fire to the landscape. Recently, my homestead as well as the properties of a handful of motivated neighbors became the site of the ongoing Oak Knoll prescribed burn project. The project, which featured its first of several planned burns on January 27th, is the culmination of many people putting in many volunteer hours of work. The project area includes several connecting parcels with lots of structures, making it a unique opportunity to prove that prescribed burns can work even in a complex situation. The project area encompasses more than 200 acres and half a dozen landowners, all of whom participated in site preparation and the burn days.

The Oak Knoll prescribed fire during the burn is set from the top of the hill, working downward to ensure manageable fire behavior.

Currently, the path to getting a prescribed burn approved on private property is near impossible for landowners to navigate on their own. The Southern Humboldt Prescribed Burn Association, especially Kai Ostrow, provided an enormous amount of expertise and support in the process of making the project a reality, which began over two years ago. Kai was instrumental in crafting the plan, including doing on-site assessments to determine where fire lines were needed and how to ensure that only intended zones would burn. Site preparation mainly consisted of creating or expanding firelines, using hand tools and heavy equipment, and removing ladder fuels near structures. Additionally, water, power, and phone lines needed to be flagged (or preferably buried) to prevent them from being damaged.

The unseen half of the work that is vital to the project's success is the permit applications. Gina Paine and Kai Ostrow played major roles in getting this project the green light to proceed. The most difficult requirement is obtaining an

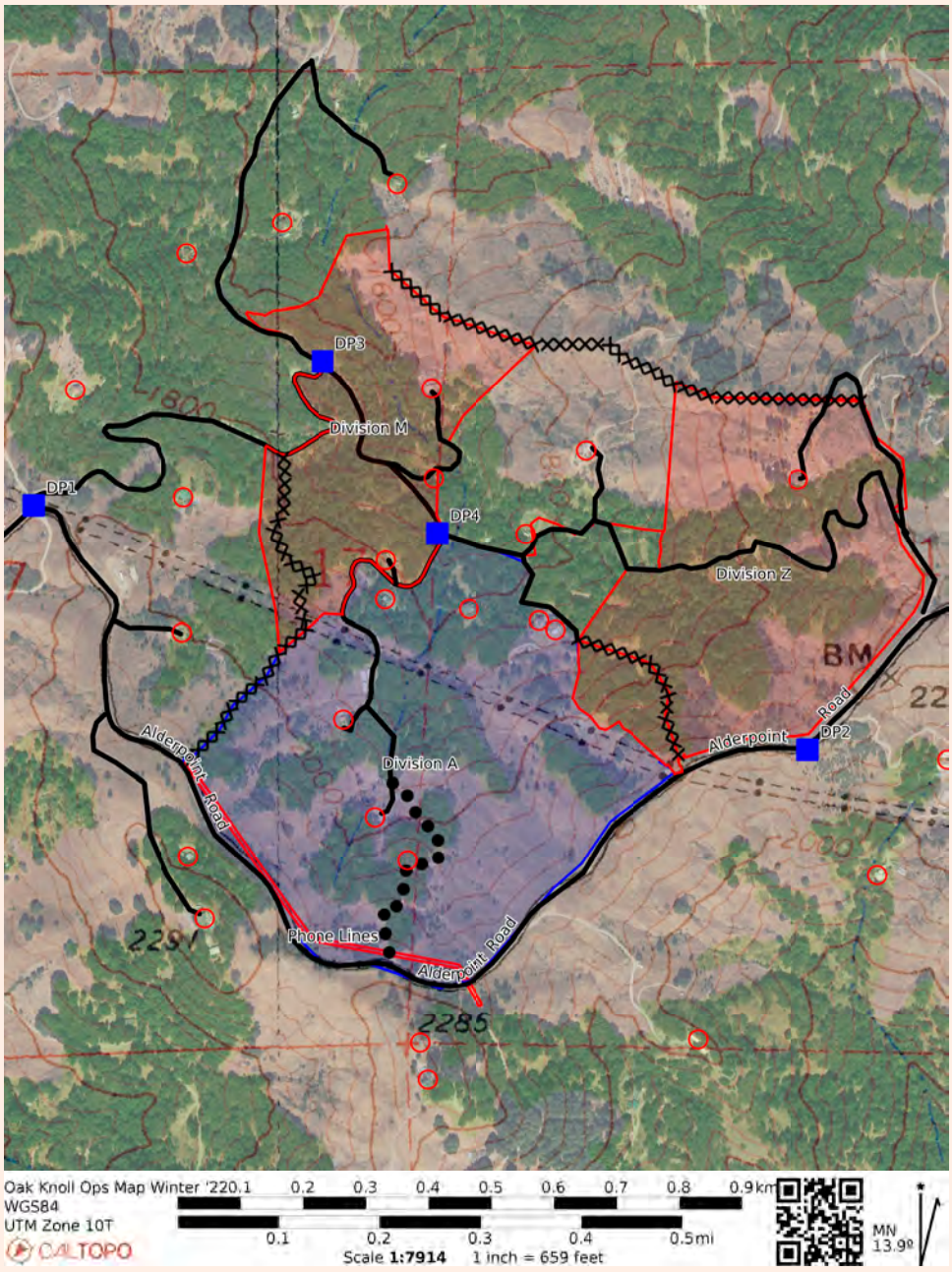
approved Smoke Management Plan (SMP), which is issued by a local district of the Air Resources Board (ARB). The SMP must assess all the contributing factors to smoke behavior such as weather patterns, smoke travel projections, estimated fuel consumption, as well as contingency plans and smoke minimization techniques. Another major hurdle is the Burn Permit, which is issued by CAL FIRE. This must include an assessment of the risks, how they will be mitigated, how many resources are needed, and how they will be organized. Both permits require the expertise of a professional, must be renewed frequently (every one to two years), and carry fees as well, though there are fee waivers that the private landowner must ask for to receive.

The Oak Knoll burn afterwards, showing dead grass burned off, leaving game trails and perennial species that will send out new growth shortly. All photos this article by Mitchell Danforth

Once all the paperwork has been approved, there are even more hurdles to jump through before fires can be lit. Every nearby school and hospital must be notified (in this case within a five-mile radius), PG&E and the phone line company have to be contacted, CAL FIRE needs a heads-up, and a public announcement has to be made in the newspaper or on the radio within a 20-mile radius, all within a week of the burn date. Then, the Air Quality Control Board will issue you a burn number and only within 48 hours of when you intend to burn—a step that is necessary every time you want to burn more than a few small piles. Depending on the season, the requirements become even more rigorous: Any prescribed burn after the burn permits are suspended (usually May–October) requires the presence of a licensed Burn Boss and insurance, which represents a large cost to the landowner.

Volunteer Firefighters use Alderpoint Road to anchor the Oak Knoll prescribed burn. Crews and equipment are staged to ensure containment.

Overall, the process of getting to the actual burn day is burdensome and difficult for the landowner, and it doesn't need to be that way. As recently as a few decades ago, ranchers in this area burned regularly, and the effects can still be seen: the oaks are healthier with less fuel accumulation underneath, the grasslands are composed of more native species, and the amount of encroachment by brush and tree species that increase fire severity such as Coyote Brush and Douglas-Fir is minimal. Nowadays, prescribed fires undertaken by private landowners are a rarity, even though it is often the most effective and efficient way to reduce fuel accumulation—indeed, the only feasible way on a large scale. Prescribed fires also benefit our local volunteer fire departments by providing them with opportunities to stay sharp in the offseason and train in real fire scenarios. Unfortunately, it takes a lot of effort, time, and scarce financial resources for VFDs to participate; and



Oak Knoll Project Area: Southern border, Alderpoint Road. Red circles are structures, xxxxx are bulldozer lines, red and blue zones are targeted burn areas.
Map by Kai Ostrow and the Humboldt Prescribed Burn Association

even when all of that is in place, a simple "no" from an agency above them can shut it all down, even though those agencies don't offer much, if any, support. CAL FIRE took an "observe and only intervene in an emergency" approach; PG&E sent engines and personnel who were helpful, but their main office was not happy about it; the Air Quality Control Board frequently misplaced our paperwork.... This is all to say it is disheartening to have to try so hard to get permission to do a helpful thing.

While the project has been a relative success so far, there is still much more work to be done, both on this project and in our community. In my opinion, the mindset needs to change. There needs to be an emphasis on stewardship, on responsibility, and on the entwined nature of communities of humans within themselves and within the land they exist and subsist on. A property that regularly receives prescribed fire not only protects itself but its neighbors as well, because it can be relied upon to slow or even halt the progress of a wildfire. We need to view ourselves as a part of the land, not above it, not below it. The peoples that lived here before this era used fire regularly and recognized it as well as themselves as agents of positive change. We need to view fire, when done intentionally, as humankind working in harmony with the land and with each other. Currently, our cultural values and our legal system view prescribed fire as disturbance, when in fact fire exclusion is the unnatural state. Correcting this begins with each of us evolving our perspectives. I encourage anyone who is doubtful or fearful about prescribed fire to do their research, or even better, participate. You will find that prescribed fires are not that intense, that the landscape often looks better shortly afterwards, and you will also find a community of fun, friendly people who are working hard with good intentions. Being prepared for wildfires requires action; a good place to start is to make sure your property is defensible, then contact your local prescribed burn association, and always support your local volunteer fire department.

For more information:
frc@treesfoundation.org

My name is Mitchell Danforth. I have been a resident of Humboldt County since 2010 and a member of the greater Garberville community since 2015. My interest in wildfire began in 2007 when I worked as a seasonal wildland firefighter on a hand crew for several years. The experiences I had on the fire lines showed me the need for all of us to reevaluate how our communities interact with the land on which they reside. This is why I recently chose to join the Trees Foundation as their Community Fire Resources Coordinator, to help my community and others become more prepared for and acquainted with wildfire.

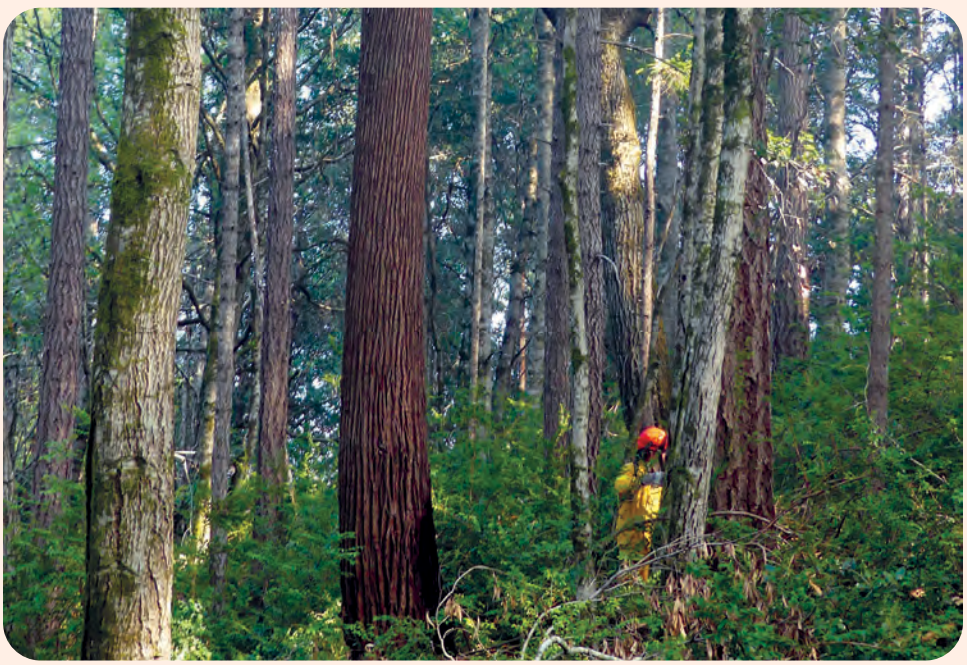
The Old Briceland Ridge Prescribed Fire: *An Ecological Field Observer's Perspective*

By Kyle Keegan

Ecological Restoration Is Not a Race: Lessons from Western Pond Turtle

It was a 70-degree afternoon in February 2022 on Old Briceland Ridge: 1,960 feet of elevation amidst stands of Douglas-fir, scattered Tanoak, and Chinquapin. Winds were light out of the southwest, and relative humidities were in the high 40s. Fire had already been on the ground for a few hours and was burning actively at a low intensity and a slow rate of spread. The land was actively being engaged by a diverse group of volunteer firefighters, CAL FIRE, and a few Southern Humboldt

Female Western Pond Turtle (Actinemys marmorata) forced to wake from winter hibernation in mid February on Old Briceland Ridge, 1960' elevation in conifer/mixed forest. (She was safely relocated a few hours later.) ALL PHOTOS THIS ARTICLE BY KYLE KEEGAN



Harry Vaughn clearing brush from the base of a Chinquapin snag with multiple active cavities. Trees like this are often seen as "hazard trees" and might be felled prior to Rx Fire depending on the focus of the burn boss and the crew. With some organized scouting and planning prior to Rx fires a skilled Ecological Field Observer should be able to help find high valued habitat such as this.

Prescribed Burn Association members. We had all come together to train and provide support for a planned prescribed fire on private land. For some of us this would be the third time in ten days that we had come together to practice and learn more about the art of prescribed (Rx) Fire.

Harry Vaughn and I were on site shadowing each other in a newly formed position as Ecological Field Observers (EFOBS). Our focus was on reading the landscape and applying our skills of place-based knowledge to help guide firing operations to optimize ecological objectives, while minimizing harm from excessive fire severity.

Harry was keeping close watch over a large Chinquapin snag that he had located

Harry Vaughn holding our reptilian teacher.
(Harry Vaughn's riddle: Why did the turtle cross the road? To teach!)

that showed signs of an active owl cavity (most likely Western Screech Owl or Saw-whet Owl). We had cleared a small area around the snag and removed adjacent brush to make sure it did not catch fire. A fire truck was situated nearby to provide a little dousing of water, if needed. Rx Fire was applied to the area and was doing its job of consuming fuels, re-mineralizing soils, and making the forested area more resilient to future wildfires. We watched and waited as the flames slowly crept through the understory.

Moments later Harry gave a solid call out and began walking fast towards me holding something gingerly in his hands while yelling, "What do I do with this?" I was in absolute disbelief to see what Harry had found—a Western Pond Turtle! It was a female covered in soil from being in hibernation. She had walked out of the burning landscape uninjured and was attempting to cross the road seeking refuge. The message she delivered could not be ignored—*Turtle as teacher.*

Harry and I were there to provide ecological knowledge based on decades of direct experience and dedication to studying our home place. But at this moment it became very clear: *We know next to nothing about these complex systems that we are attempting to "restore."* Who would have expected to find a Western Pond Turtle hibernating on a dry ridge nowhere near water in a coniferous forest at nearly 2,000 feet of elevation? We were left feeling humbled, yet inspired to embrace that humility and to learn from our experience.

Fire-exclusion ideologies have left us with a legacy of unintended consequences. Western Pond Turtle came at a crucial moment in our prescribed fire journey to remind us to slow down and continually reassess our restoration objectives to help us avoid leaving another legacy of unintended consequences to future generations. After nearly a century of fire suppression, it can feel like we are rushing to make up for lost time. Our experience on Old Briceland Ridge delivered a powerful, turtle-borne message—*ecological restoration is not a race.*

Kyle Keegan has lived with his family in the Salmon Creek watershed for the past 25 years and is actively involved in ecological restoration, land consultation and permaculture design, as well as co-running a small native plant nursery. Kyle can be reached at: owlsperch@asis.com

Ancient Eel River

Whale song interrupted by tectonic collisions. Crushing pressure of oceanic plates giving birth to a new land; accretion and incision; upthrusted matrix of igneous, submarine and metamorphic rocks: sandstone, siltstone, mudstone, clay. Earth, Air, Water, Fire.

Green serpent, a temperate rainforest organism unfurled, grasping boundaries of Pacific coastlines. Outstretched arms of ancients holding sky-gardens of mosses, liverworts and lichens. Where fog drip meets mycelium and trillium, amanita caps and medicinal elderberry. Where varied thrush serenade coastal giant salamanders and yellow spotted millipedes. Interwoven landscapes: marsh and estuaries, sand dunes and coastal chaparral, bunchgrass prairies and oak woodlands—all acting as one.

Ancient Eel River born from meandering incision amidst crumpled margins of accreted rock masses. Deep dark pools of cold blue, swirling eddies of summer steelhead and Pacific lamprey. Grizzly bears built of salmon, coyotes built of salmon, forests built of salmon, peoples built of salmon. Salmon Nation cradled by Turtle Island, birthplace of the original inhabitants of the North Coast.

A cultivated ecology tended by human hands, maintained with fire. Plant medicine. Bunchgrass seed and hazel baskets, manzanita cider and smoked salmon, thimbleberry, huckleberry, black caps and bay nuts, acorn bread and brodiaea bulbs, shellfish and seal meat; buckskin and chert blade, redwood plank and Doug-fir bark, elk bone tool and buckeye fire drill.

Many languages, one belief: *These are relatives, if we treat them as so, they will feed, shelter and heal us forever.*

Old-growth cultures and keystone ideologies. Animate world views: all alive, all in motion, all relatives. Diverse and localized economies. Rituals of place, rituals of self-restraint, rituals of reciprocity, rituals of renewal. Languages of animacy. Land as pedagogy: rock—teacher, beaver—teacher, yellow jacket, fire, poison oak—teacher, water—teacher. Stories shaped by place, songs sung for place. Cycles and ceremonies in and of place.

Many languages, one belief: *This is home, if we treat it as so, we can live here forever.*

New arrivals, pale faces, lost peoples in a foreign land. A pioneer culture with imported beliefs. Same species, same landscape—different world views. Fear of first peoples, fear of the unknown—fear. War on peoples, war on land, war on grizzly bear, war on fire. An acquisitive hunger, insatiable wants, illusions of ownership, lack of self-restraint; fire arms and real estate. [Fencing-in, fencing-out.] Mono-economies worshipping derivatives, exporting wealth and dishonoring the source. Living communities transformed into commodities: forests—money, salmon—money, land—money. Frantic-and-fast-paced-Gold-Rush-to-Green-Rush—panic stricken.

A lush and fertile land of possibilities objectified and systematically reduced to a drying landscape of short-term profits and failed dreams. Where ghosts of grizzly bears wander dried-up canyons in search of coho salmon once abundant. Where ghosts of condors glide thermals of a warming climate fueled by human disillusions—perceived separation. Dry wells, dry springs, dry rivers, dry creeks, dry tears.

A re-awakening emerges. New visions for the new inhabitants. New members of Salmon Nation enlisted. New dreams of a land replete with all members present—from stickleback to sturgeon—beaver to bald eagle; because in our hearts we know that the whole of the Eel River basin is greater than the sum of its salmon parts.

No longer consenting to economic systems that diminish and dehydrate physical and cultural landscapes. A revival of reverence and reciprocity for place. Economies and ecologies mutually supportive. New peoples and original peoples—now one people, one vision, one future; collectively holding the humility to acknowledge that in our attempts to heal the land we are healing ourselves. New rituals and new beliefs informed by ancient rituals and ancient beliefs; a re-storyation of place. The land once again as pedagogy. The North Coast re-discovered, re-defined and re-imagined.

Many peoples of many origins, one belief: *This is home, if we treat it as so, we can live here forever.*

By Kyle Keegan

(Originally presented as a keynote speech for "Earth, Water and Fire Day" in Redway, California, spring 2015.)

Smoke lingers in a coniferous forest in late February after a successful prescribed fire mission on Old Briceland Ridge, 2022.
Photo by Kyle Keegan

A New Hope: The Northern Mendocino Ecosystem Recovery Alliance

Trees Foundation is thrilled to welcome Northern Mendocino Ecosystem Recovery Alliance (NM-ERA) into our Fiscal Sponsorship umbrella. Fiscal Sponsorship is one of the primary ways that Trees Foundation supports the North Coast grassroots environmental community. It allows groups to move swiftly forward in accomplishing their objectives, while we handle the 501(c)3 bookkeeping and financial reporting required to accept tax-deductible donations and grant funding.

November 2021 in Leggett: the organizing meeting that brought together the NM-ERA team.

By Cheyenne Clarke

We need action on forest health that will alter wide areas of the landscape—the work will involve acts of creation not destruction. Following the guidance of Indigenous elders and the ideal of poet Gary Snyder's Real Work, a new organization has formed to help restore the forests and grasslands of our region: the Northern Mendocino Ecosystem Recovery Alliance (NM-ERA). We use the word "recovery" because we want to bring the terrestrial and aquatic ecosystems back to health. We want to break the cycle of boom-and-bust resource extraction and exploitation that is the path of the last 160 years. We are an "alliance" because we hope to unite people from all paths to work together to heal the land and ourselves. This is the story of our formation and summary of work to date. We are an open movement and hope that you will join us.

The impacts of the climate crisis, both local and global, can feel—and be—disempowering. The climate narrative often places excessive blame on the individual, offers few tangible solutions, and ignores systemic issues that continue to perpetuate problematic behavior. Apathy, unsurprisingly, is a widespread response. But as increasingly severe climate-change-driven catastrophes affect more and more people, the question arises: **How do we overcome our collective anxiety-driven paralysis to engage with the challenges we face and work toward real solutions?**

Author and environmental activist Paul Hawken lights the way:

"We have the capacity to create a remarkably different economy: one that can restore ecosystems and protect the environment while bringing forth innovation, prosperity, meaningful work, and true security."

To create solutions, we must overcome the pervasive disconnection that lies at the heart of our crisis: between individuals, between people and nature, and between nature itself. In short, we need to re-connect. As we watch what we have known to be normal—livelihoods, seasonal cycles, a common sense of security—unravel, we must come together and work collaboratively toward the common goals of ecological regeneration and a life-giving economy with good jobs that help restore our connection to nature. This place of reconnection is where our story begins.

Northern Mendocino County (California) has experienced a lot of upheaval in recent years: climate change impacts in the form of catastrophic wildfires and an increasingly unpredictable seasonal cycle that brings historic storms and historic droughts on top of each other. The local economy has been destabilized by shifts in the traditional pillars of forestry, fishing, ranching, farming, and cannabis, as well as by the global COVID crisis.

In the face of such challenges, in November 2021, residents of Northern Mendocino County convened in Leggett, with representation from Bell Springs, Leggett, and Piercy, as well as the Tenmile Creek watershed, which includes the community of Laytonville. An energizing meeting of roughly fifty locals gave voice to the powerful desire and demand for local jobs, regional representation, and

community collaboration for ecological health. The meeting was inspired by the $4.9 million Red Mountain/Usal Climate Change Initiative Grant awarded to the Mendocino County Resource Conservation District. This grant has the potential to create local jobs that promote forest health and watershed restoration, while reducing the risk of catastrophic fire. Jobs of this caliber are often outsourced to companies from distant communities, cities, and states. The central questions raised in this meeting were: How do we (the skilled local workers) win the work this grant will fund? And how can we drive the change we need to ensure that our local ecosystems and economy benefit from the work we do?

In the field with forest health practitioner Vernon Wilson and team.
All photos this article courtesy NM-ERA

In December, a smaller focus group convened to chew on these questions. What emerged was a clear need for a regional nonprofit to be formed. With a demand for local jobs, the persistent threat of fire, and the urgent need for forest health treatment, the answer is apparent: train and pay local people to work in the woods. So, with a clear vision guiding us, an alliance of regions, communities, and individuals was born: the Northern).

A controlled burn that members of our team (Ben O'Neill, Will Emerson, Colin Gillespie—generally Bell Springs Fire Dept.) performed on Bell Springs.

The mission of NM-ERA is to foster fire resilience and responsible land care in our communities by acquiring and administering grants for projects that employ local workers and contractors to do the on-the-ground work of restoring our forests, grasslands, and economy. We are focused on research and development of methods to use forest products in sustainable ways that cycle nutrients and create closed-loop systems. It is our goal to address the climate crisis and ecological restoration of our region throughout all our work. Our organization is divided into five committees: Grants, Education, Workforce, Outreach, and Adaptive Strategies, each acting upon the goals of NM-ERA.

The Grants committee is the cornerstone of NM-ERA, as we make every effort to fund our mission, visions, and goals. As a recently sponsored group of Trees Foundation, we are actively pursuing grants to develop a local workforce

NM-ERA Board members, from left to right: Jessica Roemer, Will Emerson, Colin Gillespie, Jessica Martineli, Cheyenne Clarke, and Ben O'Neill.

training center, to plan educational programs, fund tool trailers, and help sponsor the extensive forest health work needed in our region.

The Education Committee is committed to providing education programs to the public (students, landowners, community members) regarding forest health, fire prevention, and ecosystem regeneration. This includes two avenues of educational offerings. First, the Education Committee is focused on developing a career technical education program for Laytonville and Leggett High Schools to empower local youth to develop careers in forest health. Second, the Education Committee is working alongside the Workforce Committee to develop comprehensive forest health and fire-prevention training programs to support our community as we steward our vast mountainous region.

The Workforce Committee is exploring the potential of partnering with a local contractor and bidding on the work packages available through the Red Mountain/Usal Grant. With the goal of creating local jobs that employ local workers to perform regenerative landscape-based labor, the Workforce Committee is also working alongside the Education Committee to develop a regional workforce training center and training program.

The Outreach Committee is working on connecting with our neighbors, building our network of support, and creating a local database of landowners who are interested in forest health treatments, along with individuals who are interested in jobs carrying out forest health prescriptions. Through our newly established website (*nm-era.org*), there are two questionnaires available, a forest health questionnaire and a workforce questionnaire.

In the coming months (April–June) we will be co-hosting a series of six field trips and workshops with the Eel River Recovery Project (ERRP) to offer further education and community engagement. The topics of these events include biomass cycling (biochar and hugelkultur), community organizing at a watershed scale, forest health prescription, fire prevention, and grassland restoration. This series of events is funded by Trees Foundation's Cereus Grant. Dates and details can be found on the NM-ERA and ERRP websites and Facebook pages.

As an alliance, we hope to function as a bridge of unification between different regions and entities within our Northern Mendocino and Southern Humboldt community, to fund local projects that regenerate our ecosystem health and function. It is within our local and regional networks that we hold the agency to take action and cultivate change. We will not solve the climate crisis by waiting for someone else to find the answers, or by focusing on individual solutions. We must come together and work toward a shared vision with many individuals and tool kits at the table. With utmost respect for the traditional caretakers of the lands we live on, we hope to learn from local Indigenous elders about land care, good fire, and traditional ecological knowledge.

We are in unprecedented times with changing economies, threats of fire, and tremendous forest health work to be done. We are in exciting times that are facilitating change and presenting a new way forward. NM-ERA hopes to be a catalyst for the regenerative economy in our region. Our current and coming times are bringing forward the story of collaboration, interconnectedness, and community. We look forward to seeing you in the field and working together to restore the economic and ecological health of our area, and to build community resilience.

We are all a part of the solution: all working synergistically to build a network of individuals, organizations, and communities, united by shared goals. This is no easy task, but it is a necessary one for our rural mountain communities to not only survive but thrive in our changing world.

It is our hope that the energy of NM-ERA pulsates through our local community, cultivating a network of land owners, practitioners, workers, visionaries, and stewards to rise to the occasion of our current times. The time is now.

For more information:
nw-era.org
or facebook.com/groups/nmera

Salmon Habitat Restoration Projects Enhance Habitat for Pollinators

By Audrey Fusco,
Restoration Ecologist at SPAWN

The Salmon Protection and Watershed Network (SPAWN) focuses on protecting and improving habitat for central coast coho salmon and the forests and watersheds they need to survive in the Lagunitas creek watershed of Marin County, CA. We have restored more than 15 acres of riparian habitat over the past five years and continue to implement new habitat restoration projects each year using plants grown in our Native Plant Nursery. This nursery was initially very small, located in the back yard of a volunteer, with the purpose of growing plants to be used for restoration. Whereas SPAWN has expanded to have full-time staff now, the nursery is still powered by volunteers. Our nursery, currently located on National Park Service land, contains about 8,000 plants, representing about 100 different species of native plants with seeds and propagules sourced from the Lagunitas Creek watershed.

Along with plants, insects are at the base of the food web. We are becoming increasingly aware of the decline of insects, which greatly affects the food supply for native salmonids. Young coho and steelhead, as well as other fish and birds, rely on insects as their source of food. Insect populations have dropped dramatically over the past hundred years, with the decline due to a variety of factors including habitat loss, pesticide use, climate change, and disease. This crisis is known as the "insect apocalypse." According to The Xerces Society*, although fewer than 1% of described invertebrate species have been assessed for threats by the International Union for

Monarch butterfly rests on narrow-leaf milkweed at Glenwood Elementary School monarch waystation
Photo by Alice Cason

*The Xerces Society for Invertebrate Conservation is a non-profit environmental organization that focuses on the conservation of invertebrates [and their habitats] considered to be essential to biological diversity and ecosystem health. The name is in honor of the extinct California butterfly, the Xerces blue.

Conservation of Nature, approximately 40% of all those that have been assessed are considered threatened. The decline of insect biomass over the past decades is visible. The observation that over the past hundred years ever decreasing numbers of insects are found on car windshields has been described as "the windshield phenomenon."

Many pollinator species are experiencing a rapid population decline, including the iconic Western monarch butterfly. In the annual Thanksgiving count of 2020, which is organized by The Xerces Society, less than 2,000 monarchs were counted in the overwintering grounds along the coast of California. There were nearly 4.5 million monarchs in California just 30 years ago. Many factors have contributed to the decline of monarchs, including use of pesticides and herbicides, increased wildfires, loss of habitat and habitat fragmentation, and loss of milkweed (*Asclepias* species), which is necessary to monarchs for reproduction.

Milkweed should not be planted in coastal areas. When planted too close to the coast (within about 5 miles), milkweed can be disruptive to the migratory cycle of monarch butterflies and cause adults to breed instead of going to overwintering grounds in the fall, or to lay eggs too early while they are overwintering on the coast.

In an effort to protect the Western monarch and other pollinators, SPAWN has started adding native nectar plants, especially those that bloom in the fall and spring when monarchs are migrating to and from the coast, to our riparian restoration sites. Some of the fall- and spring-blooming nectar-rich plants which support monarchs that we commonly include at our riparian sites are California lilac, pink-flowering currant, canyon gooseberry, California aster, and grass-leaf goldenrod. Additionally, monarchs are known to frequently use riparian channels as flyways along their migratory route to the coast. At our newest project site, called Roy's Riffles, located in San Geronimo, CA, we planted hundreds of plugs of perennial nectar plants. Riparian restoration sites offer ideal conditions to enhance habitat for pollinators and other insect species, especially locales in open, sunny wild areas, since the land is already going through the process of restoration. The Xerces Society offers habitat kits created specifically for riparian zones in California. SPAWN has used the Xerces habitat kits in its restoration projects.

SPAWN volunteers plant Xerces habitat kit plugs at Roy's Riffles restoration project site, San Geronimo Creek. Photo by Ayano Hayes

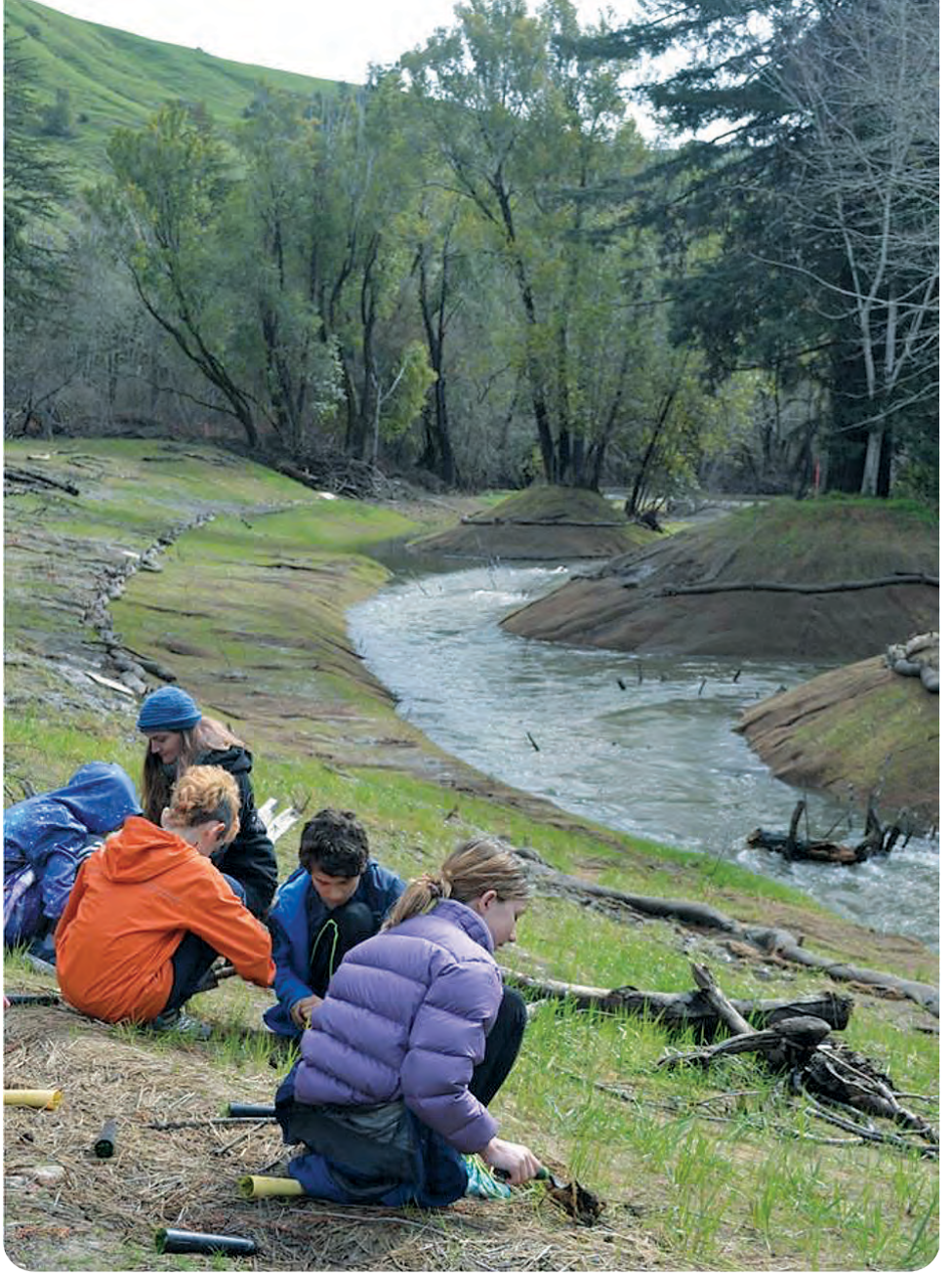
Milkweed is commonly associated with monarchs since they are the exclusive host plant to their caterpillars. A common misconception is that milkweed can be planted anywhere and will benefit monarchs. That is not the case. Milkweed should not be planted in coastal areas. When planted too close to the coast (within about 5 miles), milkweed can be disruptive to the migratory cycle of monarch butterflies and cause adults to breed instead of going to overwintering grounds in the fall, or to lay eggs too early while they are overwintering on the coast. However, it is appropriate to add milkweed to sites further inland where adults migrate in the spring and summer to lay eggs. Milkweed grows best in sunny areas that contain groundwater, such as a seep area or a swale.

SPAWN also is planting to help native bees. Buckeye trees are an important source of spring nectar to native bees, and although they are mildly toxic to European honeybees, those honeybees will avoid buckeye flowers if other options are available. Toyon provides a good source of nectar for bees, butterflies, and other pollinators in late spring. Some of the nectar-rich shrubs and perennials we

include at our project sites that attract and benefit native bees are willows, creek dogwood, coffeeberry, coyote mint, wooly sunflower, marsh gumplant, and yarrow. In addition to planting nectar plants, we improve habitat for insects by providing the ground covers that they need for protection from sun, wind, and predators by sowing native grass seed and planting rushes and sedges.

Along with supporting insects through habitat restoration, we have planted demonstration pollinator gardens around the SPAWN Nursery and at local schools and public buildings. These act as "waystations" to help pollinators migrate to and from the coast, and to educate the public about how to garden for the benefit of pollinators. The nectar-rich gardens, which all contain locally native plants, also attract ladybugs and other beneficial insects. A monarch nectar plant demonstration garden at SPAWN Nursery contains fall- and spring-blooming nectar plants such as California goldenrod, Western vervain, California aster, and Pacific gumplant. The garden also includes groundcovers such as purple needlegrass, miniature lupine, and tomcat clover.

In fall 2019 SPAWN partnered with the organization Home Ground Habitats to create a program called Bringing Nature to School. This program develops habitat gardens in schoolyards; the objectives are to provide students with opportunities for hands-on learning in nature and to improve habitat for wildlife. Over the past two years the program has built six new monarch waystations at local schools. Each garden is adapted to fit the local conditions of each school to maximize benefits to wildlife. The Bolinas-Stinson school, located on the coast, created a 2,300-square-foot mounded pollinator garden that does not contain milkweed and instead focuses on providing late fall, winter, and early spring-blooming nectar plants. Another school garden, located at the Lagunitas school and San Geronimo Community Center, was created in combination with a salmon habitat restoration project. As part of the project scope, an old storage shed and sandbox were removed from a former playground area on the banks of Larsen Creek to stop sand from escaping and pouring into the creek. The site was transformed into a habitat oasis for pollinators, birds, and other wildlife and can also be used as a teaching space and a place where community members and students can relax and enjoy nature. Another program partner, Glenwood Elementary in San Rafael, transformed an unused strip of land in front of the school into a monarch waystation so rich in species diversity that it contains the host plants for more than 20 species of butterflies.



Students plant grass plugs along side-stream channel at Tocaloma restoration project site, Lagunitas Creek. Photo by SPAWN staff

Several schools have partnered with SPAWN to grow narrowleaf milkweed (*Asclepias fascicularis*) on their site. The

Planting a monarch waystation with students at Glenwood Elementary School.
PHOTO BY SPAWN STAFF

students sow the seeds and care for the seedlings, then donate the plants to the SPAWN Nursery at the end of the school year. SPAWN organizes annual narrowleaf milkweed give-away and tropical milkweed trade-out programs to provide native milkweed to gardeners who want to add the appropriate milkweed species to their garden. The milkweed plants propagated by students at partner schools, along with information about how to care for narrowleaf milkweed and how to garden for monarchs in Marin County, are offered for free to any interested gardener. The milkweed is available to individuals, schools, and businesses. More than 200 milkweed plants were given away in fall 2021. Many new waystations were created as a result of this initiative.

The SPAWN Nursery has informational handouts available to help people plant natives that will benefit monarchs, native bees, and other insects. This information can be useful to property owners, land managers, gardeners, landscapers, etc. These handouts are available on the SPAWN Nursery webpage *https://seaturtles.org/native-plant-nursery/.*

The Western monarch population declined to less than 2,000 individuals in 2020 and within one year increased to 247,237 butterflies, as tallied during the 2021 Thanksgiving count. This incredible population rebound shows that it is possible for the Western monarch to recover, and that taking direct action to help the monarch recovery is critical. Moreover, by placing an emphasis on building habitat for insects as part of restoration projects, we are helping to create healthy ecosystems from the base level up, and we are working to avert the "insect apocalypse."

SPAWN's work aims to strengthen the connections between instream and riparian habitat. Placing an emphasis on enhancing habitat for insects is an example of such connection. Our work to save endangered coho salmon and monarch butterflies reflects the need to plan restoration efforts arocund a wholistic, multi-species approach. Working to restore habitat for both coho and Western monarchs has even more overlap than we anticipated, and our aim is to make these connections better known among members of the environmental restoration community through projects that demonstrate success.

For more information*: seaturtles.org*

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Are you able to help in your area? Please email *trees@treesfoundation.org* with "Distribute FRN" in the subject line.

PLANT NOTES

Flowering Currant

Ribes sanguineum

Many of California's native shrubs are resilient to fire, surviving underground with their strong root systems. Shortly after a fire, these shrubs will sprout new growth from their root crown. One such crown sprouter is flowering currant, *Ribes sanguineum*, which, when in bloom is one of the showiest of our native shrubs. Blooming in late winter/early spring, the pink flowers appear about the same time as the plant leafs out after winter dormancy. Flower color can vary from white to palest pink to a deep, dark pink. In summer, waxy dark purple berries form, which are enjoyed by birds and are edible for humans. Leaves are somewhat maple-shaped with three prominent lobes, are slightly fragrant, and slightly fuzzy.

Native people in California manage the growth of flowering currant as well as other species of shrubs for creating utilitarian items, such as arrow shafts and baskets, and for food. The purposeful burning of flowering currant produces long, straight, uniform shoots, and burning as well as pruning out of old wood enhances berry production. Traditional burning practices also help keep pests and diseases at bay, and keep larger plants and trees from encroaching on currants and other food plants and shading them out.

When in bloom, flowering currant is one of California's most beautiful native shrubs.
All photos tis article by Cheryl Lisin

Native to many habitats, flowering currant thrives along the coast; when growing inland, it prefers semi-shaded, moist places. If growing in dry, sunny locations, flowering currant goes summer dormant in order to survive the dry season. Flowering currant is a beautiful plant for the garden, where it thrives in partial shade with little summer water.

There are two varieties of *Ribes sanguineum; var. glutinosum* grows closer to the coast and in the outer Coast Range, from sea level to 5,000 feet, while *var. sanguineum* grows in the Klamath Range and inner parts of the North Coast Range. The species ranges from British Columbia to Santa Barbara County.

The flower color of flowering currants can range from white to pale pink to deep pink.

Currants and gooseberries share the same genus, *Ribes*. One way the two can be distinguished is by the berries, which are smooth and waxy in currants and spiny in gooseberries. The genus name, *Ribes*, stems from Arabic and means a plant with sour sap. The specific epithet stems from the Latin word *sangui*, which means blood and refers to the color of the flowers. One little-used common name is blood currant. Both currants and gooseberries are in the Gooseberry Family, *Grossulariaceae*.

Cheryl Lisin is a native plant enthusiast, landscape designer, and President of Friends of the Lost Coast, whose mission is to inspire passion for nature in the Lost Coast region. She is currently working on a native plant garden and nursery at the King Range BLM office for the education and enjoyment of all. You can contact her at Cheryl@lostcoast.org.

Climate Change Hitting Home in the Tenmile Creek Watershed

By Patrick Higgins

The Eel River Recovery Project (ERRP) has been awarded California Coastal Commission Prop 1 grants in the 65-square-mile Tenmile Creek watershed since 2018 to help fund tasks that include monitoring and reporting on water temperature and flow, and the fish community. The group has its headquarters in Laytonville, the major developed area within the basin.

Hydrologists track rainfall and flows by Water Years (WY) that begin on October 1 and run through September 30 of the year for which the WY is named. The latest ERRP report to be released (posted on *eelriverrecovery.org*) recaps aquatic conditions in WY 2020 and WY 2021, when rainfall was less than 50% of normal in both years. They turned out to be the fifth and second driest years in California history, respectively, and lack of groundwater recharge in the first year created greater problems for fish and flow in WY 2021.

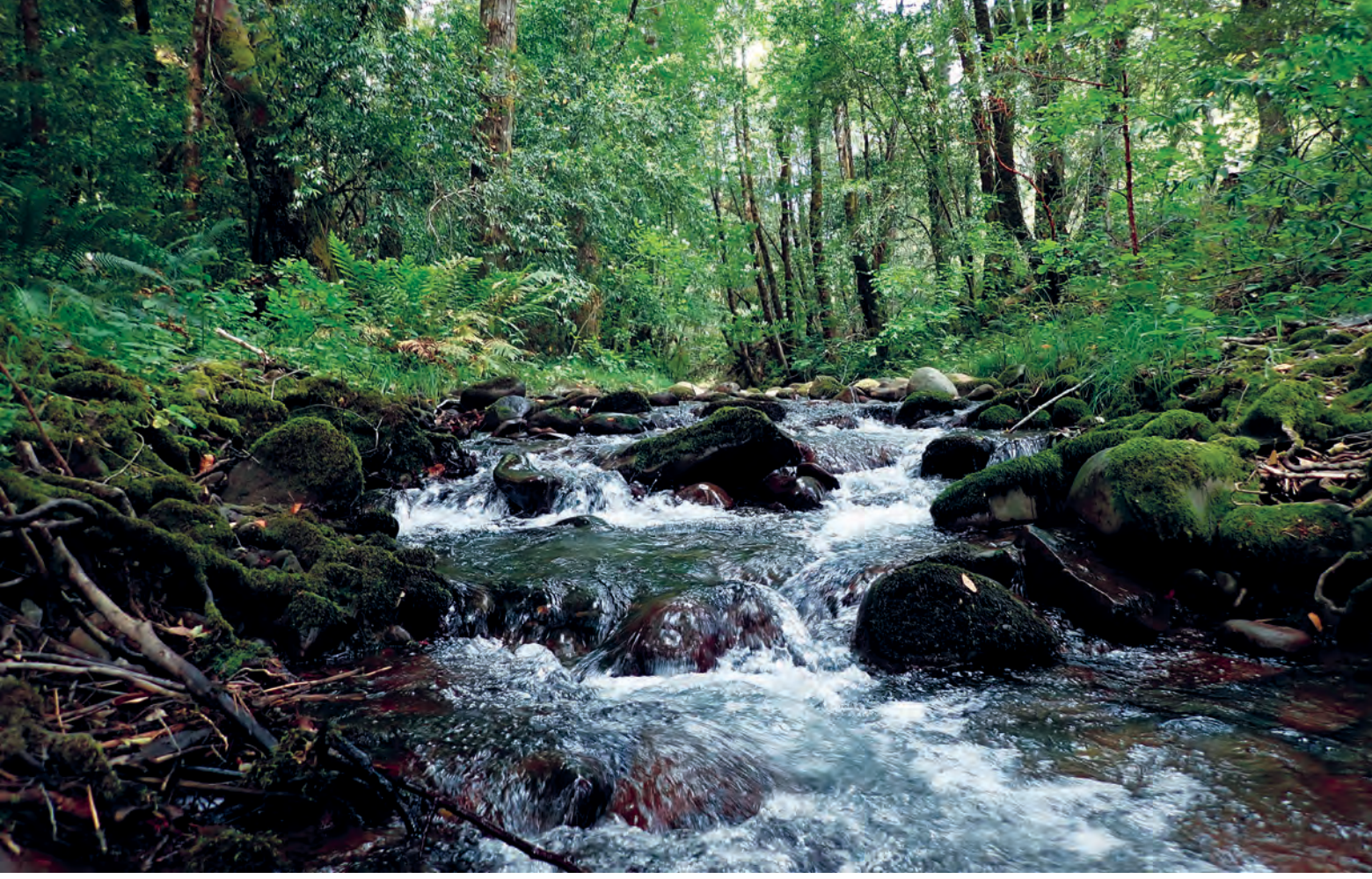
In WY 2020 surface flow was maintained at locations in several tributaries and also in some main Tenmile Creek reaches. For example, Tenmile Creek between Little Case Creek and Wilson Creek flowed continuously and was cold enough for steelhead juveniles, even though reaches upstream and downstream went dry. Lower Tenmile Creek below Grub Creek also stayed on the surface in WY 2020, although water there was warmer and more suited for warm-water fish like the California roach. Some streams, such as Lewis Creek on the east side of the watershed, became disconnected as flows dropped but maintained isolated pools that supported juvenile steelhead and/or native trout.

Upper Mill Creek dry in later summer 2021.

In WY 2021, only Peterson Creek and the reach of lower Tenmile Creek downstream of its mouth retained surface flow, and ERRP verified trout juveniles at only two locations. In addition to Peterson Creek, upper Cahto Creek on the Cahto Creek Ranch had juvenile steelhead; however, they survived in isolated pools. Almost all other stream reaches in Tenmile Creek were completely dry by July 2021, which is unprecedented in recent history.

Surprisingly, Tenmile Creek had very high standing crops of juvenile steelhead in May 2021, when ERRP conducted surveys, and compared very favorably with Outlet Creek at the time, indicating the latter is more impaired. Despite the drought, a late September 2021 ERRP survey of the nearby upper South Fork Eel River found both steelhead and coho salmon juveniles in abundance, and the latter require even colder water than steelhead. This is a cause for hope, as the South Fork Eel is in advanced recovery from past logging, and active restoration of Tenmile Creek watershed hydrology could accelerate recovery so flows are better maintained in future droughts.

The ERRP report stresses that in the short term we can't control how much rain falls, but we can alter how much percolates into the ground versus how much runs off. The Cahto Tribe lived in the Tenmile Creek watershed since time immemorial, and they nurtured wetlands and wet meadows and created impoundments. Their approach to water was "slow it, spread it, sink it" (a



Upper Mill Creek has historically had cold water and maintained flow in summer and fall 2020. All photos this article Patrick Higgins

phrase coined by Brock Dolman of the Occidental Ecology Center). European settlers had the opposite objective and ethic—"ditch it, dike it, drain it"—to maximize agricultural development. There is a major legacy of post-colonial hydrologic disruption, and we need to restore watershed hydrology as a means of coping with drought, as well as conserve water to the fullest extent possible.

On the conservation front, ERRP is assisting Tenmile Creek watershed residents who hope to obtain grants for augmented water storage, with rainfall capture used as the primary source to the extent feasible. This will allow residents to meet their domestic water needs while forbearing from surface water or connected groundwater use during annual low-flow periods.

A number of watershed management activities can be implemented to augment groundwater storage and flow, including those associated with forest and grassland health restoration. Post-WW II clearcutting led to conversion of old-growth forests that use water sparingly in summer to over-crowded young

Coho salmon juveniles with high fitness in main South Fork Eel River upstream of Mud Creek, 9/24/21.

Lower Tenmile Creek below Grubb Creek with warm-adapted roach dominating but steelhead present on 10/16/20.

conifer forests that use approximately three times more water due to increased evapotranspiration (Evapotranspiration is the sum of evaporation from the land surface plus transpiration from plants). In another consequential shift, cessation of Indigenous burning has let Douglas-fir spread into oak forests, which also leads to less water yield as oaks need little water in summer and Douglas-fir trees use a lot. Consequently, thinning Douglas-fir trees from over-stocked conifer forests and from within oak groves can help increase stream base-flows, with the added benefit of increasing biodiversity because thriving oak trees will produce more acorns.

Historic logging and grazing also dropped the water table in places, but these processes are reversable. Tractor logging in the 1950s sometimes used creek beds to skid and haul logs, resulting in down-cutting of the stream bed, adjacent hillslope failures, and removal of large wood jams. Using logs from forest health harvests to rebuild these "stair-steps" in headwater streams can help slow sediment transport, improve fish habitat, and restore the hydrology because each log jam is a little water bank. Meanwhile, historic over-grazing led to meadow compaction, increased runoff, and gully formation that dropped the water table. Deep-rooted, perennial, native grass species that helped meadows retain water were replaced by shallow-rooted, annual, invasive grass species. Using small-diameter woody material and brush from forest health harvests, we can stop gully erosion, raise the water table, increase groundwater storage, and create opportunities to bring back native grass and other wet-meadow-adapted plant species.

WY 2022 started much differently, with a major storm event in late October that allowed disbursement of Chinook salmon into Tenmile Creek and its tributaries in fall for the first time in three years. Unfortunately, the lack of significant rainfall between January and March 2022 could indicate that a third year of sequential drought is lining up.

Regardless, using resources available for forest health and fire prevention for integrated watershed restoration can help buffer us from the effects of climate change, including increasing stream base-flow, if we organize and act now.

For more information*: www.eelriverrecovery.org*

Juvenile steelhead trout in Tenmile Creek below Mud Springs Creek, on 10/21/20.

Diggin' In
The Richard Gienger Report

Rugged winter mid-reach of Standley Creek, looking upstream. Photo by Richard Gienger

In the beginning of my column in the Winter 2021 issue of *Forest and River News,* I ecstatically described the record October rainfall. Turned out that the zero measurable rain from 1st January 2022 until well into March was a record for at least the last 130 years. Hella scary. At least some significant Chinook and coho made it up to spawning grounds early: coho seen high up in Mattole headwater tributaries, and Chinook in the mainstem below those tributaries. Just in the last few days [mid-March] significant numbers of steelhead have been observed in the lower Mattole, and the hopes are that the recent "surprise" inch or so of rain (followed by yearned-for BIG rains) will allow successful spawning.

I, like many others, continue to achingly miss John Rogers. There will be a memorial for John on May 14th in the Southern Humboldt Community Park. It is anticipated that the educational forest path established there by John and the Institute for Sustainable Forestry with significant community involvement will be named in his honor.

The passing of Bob McKee at the end of his 93rd year has prompted sadness and reflective deep memories from all who knew him and were affected by his influential role in their lives. He enabled so many to make their dreams reality. A lot of extended family villages and homesteads established in the last 60 years—and the related community skills, involvement, and contributions—still thrive. Thank you, Bob.

The small- to the big-picture perspectives we're observing and experiencing seem very precarious. Dangerous decisions, tirades, and negative impacts are going on at almost every scale. All a part of human and global history, but we can't continue to shrug and say "whatever," can we? Done that over and over again. Been delving into American history accounts since I could read. A lot of atoning is due now and in the future.

Will give several situational sketches before presenting some details regarding the present and future of Jackson Demonstration State Forest—and by extension, all of California's forests. Some of these sketches are directly related to those issues. (For a lot of the particulars and background of these sketches you will need to refer to earlier columns and/or do some research.)

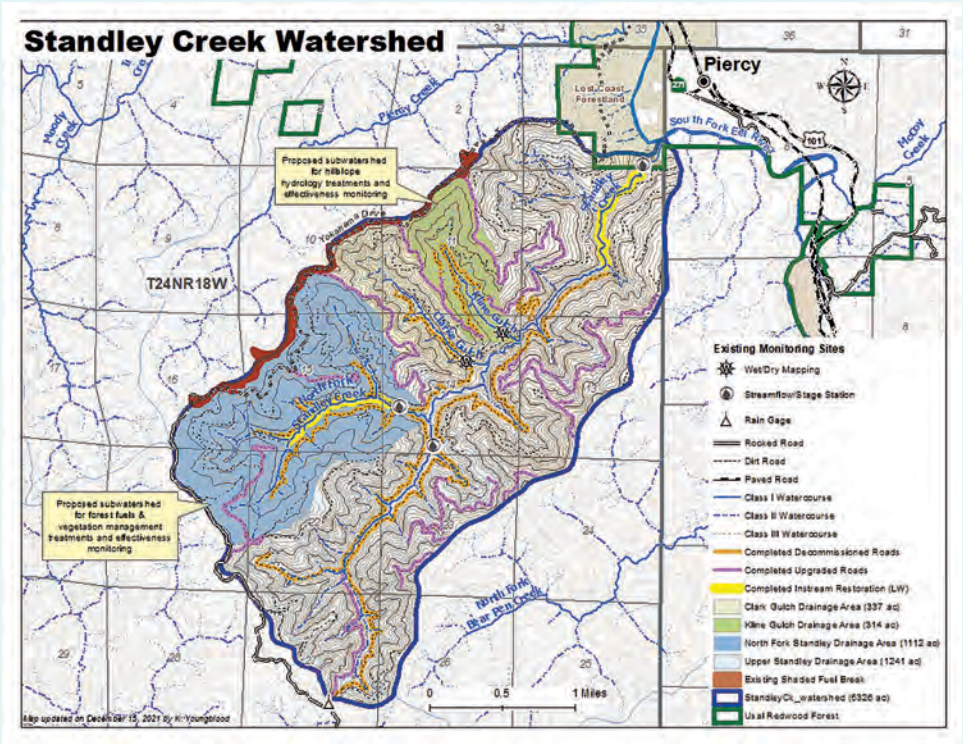
One of my pet peeves since 2012 has been AB 1492 with its so-called "Timber Regulation and Forest Restoration Fund/ Program" (TRFR). The "restoration" is unrealized, and the regulation ignores the high quality standards involving the maintenance, restoration, and enhancement that form the core of the 1973 'modern' Forest Practice Act. The TRFR is funded by taxes/fees you pay

on retail lumber products, replacing all fees and permitting costs of timber production. AB 1492 (recognize the bill number in your memory?) put a cap on liability for forest fires by forest landowners and extended the time to implement Timber Harvest Plans (THPs). That extension of time wasn't necessarily a bad thing. The liability cap was/is another matter. Anyway, the upshot is that the new law was supposed to result in a whole new realm of public transparency and participation, including the determination of ecological performance measures. Needless to say, it has not.

Unfortunately, with these 'recent' catastrophic fires, the California Department of Forestry and Fire Protection (which includes the Board), now known as CAL FIRE (with its Fire Protection work of national and world renown), has relegated the focus on real forest stewardship almost to an afterthought. Some CAL FIRE higher-ups have claimed that, because of their crucial role in saving lives and homes, they have the social license to no longer waste time arguing with the public over forest management. They can just do what they want. The negative impacts of this attitude extend from inadequate road standards, to exemptions that have serious adverse impacts, and even to the incredible leeway given to PG&E for "risk reduction" of power lines. It appears that the contractors with the PG&E jobs programs are mostly from out-of-state in many parts of California.

Breaking news on March 18th, from Forests Forever's Paul Hughes:

Here's a CAL FIRE press release announcing Joe Tyler's ascension to director of the department, 'California's statewide fire agency.' No mention whatsoever of Tyler's role or the agency's responsibility in overseeing resources management and regulating logging on some 9 million acres of non-federal forestland in the state: *www.fire.ca.gov/media/y4tnjwzs/appointment-of-new-cal-fire-director.pdf?utm_medium=email&utm_source=govdelivery*



A map of the project I describe on this page. Map by Karen Youngblood, RFFI

More Related News

Former CAL FIRE Director, Richard Wilson, co-author of "Why It is Time for A CAL FIRE Divorce" with Attorney Sharon Duggan ("Golden Gate University Law Journal" 2020, *https://digitalcommons.law.ggu.edu/gguelj/vol12/iss1/2/*) has written a book entitled *Stand for the Land* which is about to come out. It will include close looks and broad perspectives and experiences of his that cover more than a half century of deep and committed conservation values.

Let's Look at Some Positive Developments

The $4 million-plus Northern Mendocino County Forest Health Collaborative, a 4-year start on a multiple-phase program, has gotten underway with regional contractors creating fuel breaks along Highway 1. Work of the same type will be accomplished along the road to Bureau of Land Management's Red Mountain Area.

photo link: *https://www.flickr.com/photos/blmcalifornia/51345892428/*

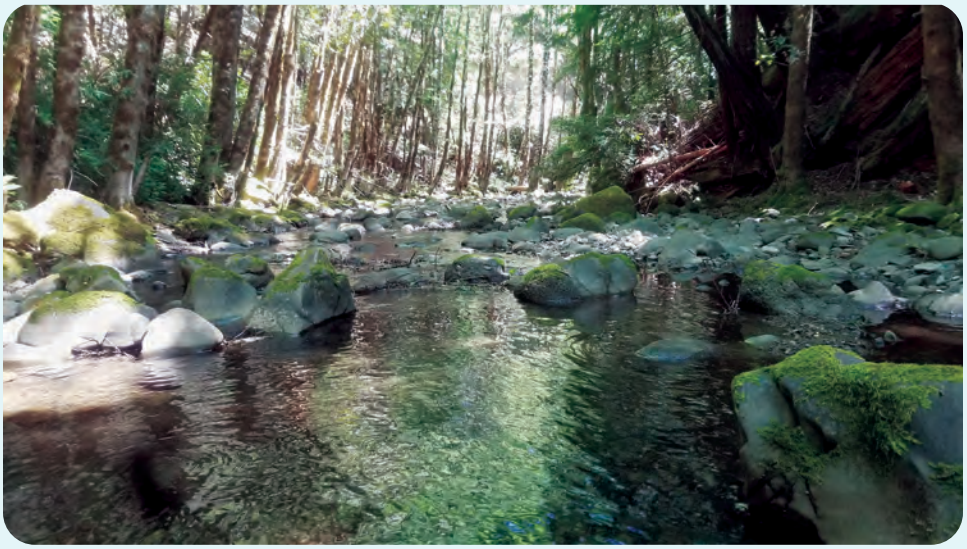
Work will also be done in the Usal Redwood Forest, including management of shaded fuel breaks with fire, consistent with traditional practices and knowledge. RFFI and Usal Redwood Forest recently obtained funding to do comprehensive planning in the Standley Creek watershed for implementation of both forest and watershed recovery.

Land Back and Related

In large part as a result of proclamations by former governor Jerry Brown and current Governor Newsom, the opportunities for returning land to California Tribes and facilitating co-management of state lands are happening. A couple earlier examples happened when over half of the 7,500 acres acquired from Georgia Pacific to protect the Sinkyone Wilderness Coast went to the Intertribal Sinkyone Wilderness Council (Council)

in 1997. Shortly after that, Save the Redwoods League (StRL) passed on 160 acres to the Council at Four Corners at the Usal and Briceland Roads junction. Most recently, 523 acres of perhaps the most intact real forest in northwestern Mendocino County was passed on to the Council by the StRL, ironically from money that PG&E was fined for a catastrophic gas explosion in San Bruno. That land, named Tc'ih-Leh-Dun, crosses a major coho salmon refugia and includes coastal prairies above Bear Harbor. See: *https://www.savetheredwoods.org/project/tcih-leh-dun-fish-run-place/*

In September, a press release from State Senator Mike McGuire announced that the spectacular "Blue's Beach" where Chadburn Creek flows to the Pacific will be transferred from CalTrans to a combination of the Sherwood, Coyote Valley, and Round Valley Tribes. Additionally, the StRL this past fall (2021) purchased 3,100 acres from Soper-Wheeler Company (which includes the old DeVillbiss Ranch) from the Usal area almost to Rockport. It includes a very crucial part of the Cottoneva Creek watershed coho refugia. StRL stated that they would pass it on to the State or the Tribes for management.



Lower reach of Standley Creek near the confluence of South Fork Eel River in Peircy.
Photo by Karen Youngblood

Jackson Demonstration State Forest: Reform and Native Land

This brings us to the crucial issues regarding Jackson Demonstration State Forest (JDSF). There is a lot of background for this, some of which I have described in back columns for a number of years. The simplified upshot is that, all of a sudden, parts of the Forest dear to trail users, including redwoods close to or greater than 7 feet in diameter, were marked for cutting. You might know or guess what happened next: multiple layers of committed resistance. A key element here is the State's commitment to co-management of state lands with Tribes. You'll have to go to the following organizations and links to get a fuller picture. A pronouncement by Senator Mike McGuire at a town hall meeting for Northern Mendocino County on March 8th gave well-based credibility to those advocating for change in the forest stewardship of JDSF. This is included. The devil is in the details as always, but it is overdue movement if we are to come to grips with our local, regional, and global plight. See links for those involved:

- Save Jackson Coalition: *savejackson.org*
- Mendocino Trails Stewards: w*ww.mendocinotrailstewards.org*
- Pomo Land Back *www.pomolandback.com*

Zoom Presentation to the Oakmont Progressives on Jackson Forest: *https://vimeo.com/683517488* Vince Taylor talks about the long battle to change the mission of Jackson Demonstration State Forest from industrial logging to a preserve. He is joined on the Zoom presentation by several members of the Save Jackson Coalition that picked up the battle a year ago: Ravel Gauthier, a 12-year-old climate activist, Michelle McMillan and Alder, a couple who have put their bodies in the woods to stop the chainsaws, and Chad Swimmer, the person who started the renewed effort.

Contention with CAL FIRE & BoF

At the March Board of Forestry meetings, committees on the 1st, and full board on the 2nd, I brought up the ridiculous refusal to address the Jackson management issues in the BoF Management Committee, as requested by former CAL FIRE Director in September 2021. The meetings were virtual webinars. I was able to testify under the Director's Report on the 2nd, but on the 1st the Committee Chair lost it, demanding the plug be pulled on the microphone. For 6 months the Board had stonewalled—and needed to be reminded.

My Basic Message to BoF/CAL FIRE

"I bring to your attention, under #1 priorities for Management Committee in 2022, as follows:

> Jackson Demonstration State Forest Management Plan Review
>
> Objective: The Department and other stakeholders, have requested that the Board participate in discussions surrounding the Management of JDSF to ensure that the forest remains a functional and valuable public resource into the future.
>
> Status: Board staff and Board members have participated in Jackson Advisory

Gross tractor logging impacts in the Standley Creek watershed, late 1970s.
Photo by Robert Ballard

Group meetings in September 2021 and intend to continue to work with the JAG on the development of future management issues.'

It is prejudicially excluded from today's Management Committee agenda, consistent with continued failure by BoF/CAL FIRE to address what the "functional and valuable public resource" JDSF actually is into the future. Management Plans have been approved which do not begin to adequately take into consideration, fire, climate change - carbon sequestration, hydrological & watershed/forest recovery, and Native American heritage and cultural response/ implementation. A moratorium is essential until these issues are resolved and positive alternative are determined by a double-blue ribboned panel that truly reflects conditions, public, scientific, and California Indian representation—that is not dominated by CAL FIRE and Industry's dominant historical paradigm.

Continued inaction is among other things, a violation of public trust and a variety of laws, regulations, and court decisions.

Richard Gienger
And on behalf of Forests Forever"

A week later, nobody pulled the plug on Senator Mike McGuire, as he brought some common sense forward. It's not going to be simple or easy to do what needs to be done, but industry/CAL FIRE stonewall denial is firmly shaken.

Senator McGuire Weighs In

From the Northern Mendocino County Virtual Town Hall Meeting, as transcribed by Matt Simmons of EPIC:

8 March 2022

Senator McGuire:
Alright, let's go to our next [question]. Joseph writes in about the Jackson Demonstration State Forest and wanting to get my thoughts and am I going to attend [a tour]… this past Monday (when I was in Sacramento), a walk in the forest, but Joseph, my opinion as you had asked…

Look, here is my bottom line on the Jackson Demonstration State Forest, and I look forward to hearing from all of you.

#1, I believe the model for Jackson Demonstration State Forest is antiquated.

#2, In these modern times, I'm not exactly sure what the forest is demonstrating to the State of California.

#3, I firmly believe that JDSF must have a focus on climate and fire resiliency, which currently it does not have a significant focus on those two critical issues that are impacting our community and our planet.

And I am a firm believer that this State needs to advance a[nd] revamp the management plan early. So, we already know that the CNRA [California Natural Resources Agency] will move up their review and revamp of the management plan 5 years early. It's actually gonna kick off this year.

And I am also a firm believer that we need to have an interim plan. Because to complete that management plan starting this year it's probably going to take 24 to 36 months to complete.

So, I believe we need to have everything on the table for this interim plan. And we need to have a serious conversation about what we want the future of the JDSF truly to be.

And candidly it's beyond time. I'm grateful to so many in this community who have stepped up—Chairman Hunter [Tribal Chairman of the Coyote Valley Pomo], by the way, being the leader on this issue, and I look forward to robust dialogue as we move forward. I'll be honest that I'm a firm believer that we shouldn't be cutting these large trees in the Jackson Demonstration State Forest any longer.

And I will tell you that the Natural Resources Agency is working hard on this issue. I want to say how grateful I am to Secretary Crowfoot, who is the Secretary for Natural Resources for the State of California. He has involved himself through thick and thin on this issue. He is meeting with us collaboratively working with CAL FIRE on this issue.

And I don't mean to be coy, but I believe I can say with authority there is more to come in the coming weeks. And I believe everything should be on the table, especially with this interim plan that would be the bridge to what a larger revamp of the management plan would look like. That's my personal opinion. More to come, I promise you on that, but I wanted to turn it over to the supervisors if they had anything to say on the Jackson Demonstration State Forest.

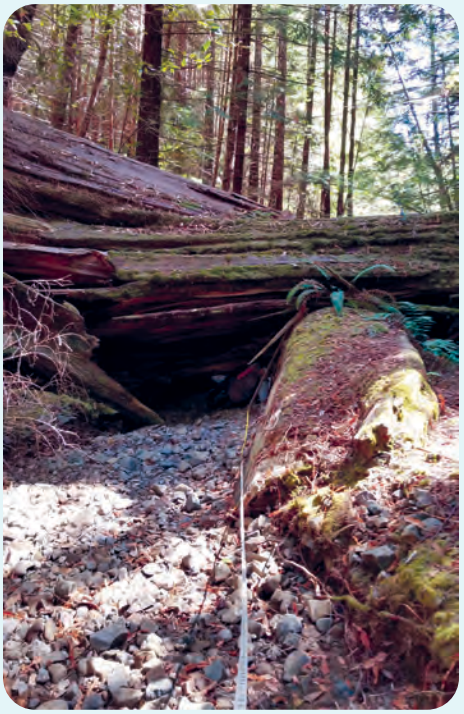
Supervisor Gjerde :
Well, I just want to thank Senator McGuire for his leadership on this and many other issues and that's along the lines of what the BOS [Mendocino Board of Supervisors] requested [unanimous Resolution]. At least specifically we were requesting that the State take a look at the management plan as it relates to climate change and carbon sequestration and also fire resiliency. So, it was a unanimous vote to ask them to relook at the plan with those two issues in particular in mind and consultative process with the Tribes, and it sounds like that's what is underway, and I appreciate that update, Senator McGuire.

[Big rallies were held in Ukiah on March 14th and in Sacramento on March 25th by Pomo Land Back supported by Tribes, the Save Jackson Coalition, Mendocino Trails Stewards, and many others.]

Supervisor Haschak:
And I'll just add that part of our resolution was that we, the County Board of Supervisors, were going to be more involved in the Jackson Advisory Group [JAG]. That's a group that looks at the THPs and the big-picture plan for the Jackson Demonstration State Forest, so hopefully that will happen soon because I guess they're in transition in Jackson State and the Board will be involved.

Senator McGuire:
Thank you so much, Supervisor Haschack, Supervisor Gjerde, on that issue.

[For more on JDSF, see pages 32 and 39.]



Klien Gulce, tributary of Standley Creek
Photo by Karen Youngblood

Several More Links of Great Interest:

www.bloomberg.com/news/articles/2022-03-17/timber-ceo-wants-to-reform-flawed-carbon-offset-market

Go to the Salmonid Restoration Federation (SRF) at *calsalmon.org* and register for the 24th Coho Confab—will be wonderfully local in Northern Mendocino and Southern Humboldt County—September 9-11. Home base for the Confab in South Leggett! [See page 34]

To Get Involved

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707/223-6474

EPIC
wildcalifornia.org

Forests Forever
www.forestsforever.org

Mendocino Trails Stewards
mendocinotrailstewards.org

Pomo Land Back
www.pomolandback.com

Redwood Forest Foundation, Inc.
www.rffi.org

Sanctuary Forest
sanctuaryforest.org

Save Jackson Coalition
savejackson.org

Brand new Oregon forestry laws and Private Forest Accord [see page 30]:

www.schwabe.com/newsroom-publications-the-private-forest-accord-oregon-legislature-paves-the-way-for-changes-to-the-forest-practices-act

and *https://oregonwild.org/about/blog/breaking-news-private-forest-accord-passes*

Klamath dams removal news:
https://www.opb.org/article/2022/02/26/major-hurdle-cleared-in-plan-to-demolish-4-klamath-river-dams/

Please help out where and when you can. Check out the work and other information for Sanctuary Forest, the Institute for Sustainable Forestry (ISF), EPIC, Forests Forever, and Redwood Forest Foundation, Inc. Thank you, Trees Foundation!—rg

Since arriving in the Mattole Valley of Humboldt County in 1971, Richard Gienger has immersed himself in homesteading, forest activism, and watershed restoration. Richard's column covers a range of issues including fisheries and watershed restoration and forestry, plus describes opportunities for the public to make positive contributions in the administrative and legislative arenas as well as in their own backyards.

Activist Corner

Landmark "Private Forest Accord" Enacted for 10 Million Acres of Private Timberlands in Oregon

By Michael J. Furniss

After many years of pitched battles between the timber industry and environmental groups in Oregon, an accord has been reached that thoroughly rewrites the forest practice rules for the private timberlands in the state.

Forest practice regulation in Oregon had long been recognized as especially weak, and the Oregon Department of Forestry was understaffed and ineffective. Forest practice rules in California and Washington were far stronger and better monitored and enforced.

Two competing ballot initiatives, one from 13 allied Oregon conservation groups and another from 11 large timber companies and a representative group, promised to confuse voters and led Oregon Governor Kate Brown to call the parties together. Each agreed that the forest practice rules needed to be modernized, and voter initiatives were hardly a good way to do it. Governor Brown appointed a mediator and asked that the parties negotiate in good faith. The need for a statewide Habitat Conservation Plan (HCP) to protect fish, wildlife, and water quality, based on the federal Endangered Species Act, was also a major driver for changes. A Memorandum of Understanding was signed to initiate the talks.

After a year of intensive talks, with many proposals and counter-proposals, an agreement was reached on October 30, 2021, that brings forest practice regulation in Oregon into the 21st century, focused on protecting aquatic and riparian species and water quality. A report was written and bills were prepared for the Oregon legislature to codify the new rules. The bills were quickly passed (SB 1501 passed the Senate with a bipartisan 22-5 vote and bipartisan 43-15 in the House) and signed by Governor Brown.

The extensive changes mean that across 10 million acres of private forests in Oregon there will be much larger riparian buffers, detailed science-based protections against logging on steep slopes, an upgraded road system that won't bleed sediment into streams, stream crossing culverts that effectively pass migrating fish, programs to help small forest landowners comply, beaver conservation, monitoring systems, and many more advances.

What Conservation Groups in Oregon are Saying about the Accord

"This is great news for Oregon," said Bob Van Dyk, Oregon Policy Director for the Wild Salmon Center, which led the environmental coalition: "Our fisheries,

Conservation Coalition Authors	Working Forest Coalition Authors
Audubon Society Portland	Campbell Global
Beyond Toxics	Greenwood Resources
Cascadia Wildlands	Hampton Lumber
Klamath Siskiyou WIldlands Center	Loan Rock Resources
Northwest Guides and Anglers	Manulife Timberland and Agriculture (Hancock Natural Resources Group)
Oregon League of Conservation Voters	Oregon Small Woodlands Association
Oregon Stream Protection Coalition	Port Blakely
Oregon Wild	Rayonier
Pacific Coast Federation of Fisherman's Associations	Roseburg Forest Products
Rogue RIverkeeper	Seneca Sawmill/Sierra Pacific Industries
Trout Unlimited	Starker Forests
Umpqua Watersheds	Weyerhouser Company
Wild Salmon Center	

The Authors of the Accord consist of 1) a coalition of prominent conservation and fishing groups (Conservation Coalition) and 2) a coalition of prominent Oregon forest sector companies and the Oregon Small Woodlands Association (Working Forest Coalition).

Looking down on a managed forest landscape in Oregon.
Photo by Ed Arnett, Cooperative Forest Ecosystem Research Program, Sources/Usage, Public Domain

our forests, and our communities will all benefit, not only from the measures adopted today, but also from the spirit of compromise that made this possible."

Sean Stevens, Executive Director of Oregon Wild, said: "The passage of the Private Forest Accord legislation today marks a significant moment in Oregon's history. I'd like to again thank the many parties that came together to make the Accord a reality. And I would also like to recognize the countless community members, companies, and advocates that pushed for this moment. Collectively, we have created a new foundation for the practice of forestry in Oregon—one where science, cooperation, and a willingness to engage in sometimes difficult conversations will drive future decision making. The most apt comparison is the monumental shift that came to public lands when the Northwest Forest Plan was adopted in 1994. That too changed management on millions of acres of forestland and signified a paradigm shift in how we protected species from the impacts of logging."

Kelly Burnett, a fisheries biologist and lead negotiator for the environmental groups, observed "The magnitude and significance of the changes can hardly be overstated. This is akin to the comprehensive changes to federal wildlands management achieved in the 1990s in the Northwest Forest Plan."

For example, new road rules require that detailed inventories be conducted across all private ownerships and that "hydrologic connectivity" between roads and streams be brought to an absolute minimum; that stream crossings pass migrating aquatic organisms; that unstable terrain is avoided, and much more. In all, more than 20 pages of new road standards are now codified.

While the Accord does not resolve all issues, it is a significant increment of improvement and opens a new chapter in Oregon forestry based on a cooperative model that enables continued monitoring and improvements and the work of crafting an effective HCP. The Accord highlights what is possible when environmental groups join forces and cooperate, focusing on collaboration and mutual success.

You can find the ~200-page Private Forest Accord report here: *www.oregon.gov/odf/aboutodf/documents/2022-odf-private-forest-accord-report.pdf*, and the associated legislation here: *https://olis.oregonlegislature.gov/liz/2022R1/Downloads/MeasureDocument/SB1501/B-Engrossed*

For more information:
MF37@humboldt.edu

Michael J. Furniss is a soil scientist, hydrologist, climate vulnerability expert, and adjunct professor in the Forestry and Wildland Resources Dept. of Cal Poly Humboldt. Michael provided the technical basis for the road and fish passage elements of the Private Forest Accord, under contract to the Wild Salmon Center.

Coalition to Save Jackson Strives to Secure Protections

Environmental Protection Information Center

By Matthew Simmons, staff attorney for EPIC

Jackson Demonstration State Forest (JDSF) is a nearly 50,000-acre mixed-use forest located in Pomo and Yuki ancestral territory and managed by CAL FIRE. After a century of clearcutting in Northern California, Jackson was created in 1949 to demonstrate sustainable logging. CAL FIRE has managed the forest as an industrial timberland, regularly harvesting large second-growth redwoods.

EPIC is working with a broad coalition in the Campaign to Save Jackson, which includes local and national organizations, community members, and the Coyote Valley Band of Pomo Indians, the original stewards of the forest. The Pomo have gathered acorns, fished for salmon, and collected food, basket-weaving materials, and medicinal plants from the coastal forest since time immemorial. The coalition is striving to change the way CAL FIRE manages JDSF using a multi-pronged approach.

An Indigenous-led rally at the State Capitol on March 25, 2022 calling for a moratorium on all logging in Jackson Demonstration State Forest until a better management plan is developed. Senator Mike McGuire announced on March 2nd that the current management plan will be rewritten. Photo by Melodie Meyer

In 2021, we launched new efforts to conserve the forest under Governor Newsom's 30x30 plan, which calls for conservation of 30% of California's land by 2030. JDSF is a great candidate because it houses biological resources and culturally significant sites for the Northern Pomo and Coast Yuki peoples. JDSF is already state-owned land, which means no acquisition is required to move almost 50,000 acres into the "conserved" column. JDSF is already beloved by local residents and tourists alike as a place for outdoor recreation. Furthermore, the dominant species in Jackson is coastal redwood trees, which sequester carbon quicker and for a longer period of time than almost any other species on Earth, while simultaneously providing habitat to the endangered northern spotted owl and marbled murrelet.

For the past several weeks, Michael Hunter, Chairman of the Coyote Valley Band of Pomo Indians, has been leading community tours through JDSF. These tours were an opportunity for community members to witness CAL FIRE's poor management of the forest and to share their thoughts about what a better-managed forest would look like. During

the tours, Indigenous people returned to a forest that they had been violently driven out of over 150 years ago and were able to pray, dance, and give offerings.

Vice Chairman Frankie Myers of the Yurok Tribe made a trip down to offer his thoughts about what the future of the forest should look like. He told a crowd of gathered supporters that in order to restore the forest, we must restore its original caretakers, the Pomo and Coast Yuki peoples, to the land.

On March 2nd, Senator McGuire announced that the JDSF management plan would be rewritten. Rewriting the old management plan, which permits logging of large redwoods, damage to Native American sacred sites, and other bad management practices, has been one of the coalition's main demands. The new management plan must include full co-management with tribes, protection for large trees, and more engagement with the local community, and must account for the climate and biodiversity emergency that is upon us. In the meantime, a moratorium on timber operations must be secured so that CAL FIRE cannot damage the forest any further while a new management plan is developed.

Destructive logging occurring in JDSF is completely controlled by the State. If Newsom wanted, he could place a moratorium on logging operations to protect the forest. Chairman Hunter presented thousands of signatures he has collected calling for a moratorium at a rally in Ukiah earlier this month. The rally was attended by Native American dancers, environmental groups, and members of the public who support change in JDSF. Another rally at the Capitol in Sacramento on March 25th was attended by hundreds of people.

Together, we are all committed to changing the way CAL FIRE manages JDSF to focus on wildlife conservation, carbon sequestration, protecting cultural sites, and recreation, not industrial logging.

For more information:
wildcalifornia.org

Antelope Post-Fire Timber Sale Gets Marginally Better

Klamath Siskiyou Wildlands Center

By George Sexton,
Director for KSWild

Following the August 2021 Antelope Fire on the McCloud Ranger District of the Shasta-Trinity National Forest, the Forest Service did what it often does after a wildfire—namely, the agency proposed an expansive "salvage" logging timber sale.

Targeting Old-Growth Reserves

The initial Forest Service timber proposal targeted 2,200 acres of post-fire forests for logging, including supposedly protected old-growth forest stands located in the "Late Successional Reserve (LSR)" land use allocation. The salvage logging would have converted moderately burned late successional forests into second-growth timber plantations.

Trout Creek Watershed Gets Trashed

The Antelope timber sale is primarily located along Trout Creek, one of the only streams in the world containing the endemic McCloud Red Band Trout. The lower-elevation portions of the Antelope salvage logging planning area consist of a checkerboard land ownership pattern in which large swaths of interspersed industrial timberlands are being clearcut like there's no tomorrow.

The extensive network of logging roads connecting the industrial timberlands

A community field tour in the Antelope Fire area with the Forest Service, in which the public expressed concerns about proposed post-fire salvage logging.
PHOTO BY GEORGE SEXTON

and the public Forest Service lands are an aquatic nightmare. Much of the timber haul route parallels Trout Creek with numerous road-stream crossings, low-water fords, and road ditch-line connections to streams and tributaries. Logging road-related sediment and turbidity pollution to Trout Creek have been a significant problem both before and after the Antelope Fire.

During the Forest Service timber sale planning process for the Antelope salvage timber sale, logging trucks from the post-fire private lands clearcutting were using the logging road haul routes without any apparent rocking or sediment catchment devices, and the sediment production to Trout Creek was significant. It was literally a post-fire logging free-for-all.

Conservation Advocacy Works

During several public field trips and a public "scoping" commenting process, conservation advocates requested that instead of clearcutting post-fire Late Successional Reserve forest stands in the backcountry, the Forest Service utilize a more limited approach focused on roadside hazard tree removal in the wildland–urban interface zone and rehabilitation of the logging road system.

While it's not glamorous, the public NEPA planning process for Federal lands management actually works sometimes to improve Forest Service projects. This is one of those instances. To their credit, project planners on the McCloud Ranger District heard the public concerns regarding their post-fire logging plans and dropped the controversial backcountry Late Successional Reserves salvage logging units.

For more information:
www.kswild.org

24th Annual Coho Confab on the Navarro River

Evolving Strategies to Enhance Coho Salmon Habitat
September 9-11, 2022

Salmonid Restoration Federation

Salmonid Restoration Federation (SRF) is coordinating the 24th Annual Coho Confab that will take place September 9-11 in the South Fork Eel River watershed. This year's Coho Confab will be held at Rangjung Yeshe Gomde Buddhist Retreat Center which is a forested sanctuary at the confluence of Cedar Creek and the South Fork Eel watershed. This is the perfect tranquil location to safely convene in person while we ease out of COVID restrictions. This will largely be an outdoor event.

The Coho Confab is a field symposium to learn about watershed restoration and techniques to restore and recover coho salmon populations. The Confab provides an ideal opportunity to network with other fish-centric people and to participate in field tours that highlight innovative salmon restoration practices. This year, SRF is collaborating with several groups to produce this educational event including California Department of Fish and Wildlife, Cal Trout, NOAA Fisheries, Stillwater Sciences, Eel River Watershed Improvement Group, Trout Unlimited, Pacific Watershed Associates, and other restoration partners.

The Coho Confab will open Friday evening, September 9th with a community dinner and inspiring orientation presentations. Darren Mierau of Cal Trout will present on the status of Eel River Dam Removal and the exciting Cedar Creek Barrier Removal project. Gabriel Rossi will give a talk titled "Understanding and Recovering the Drivers of Salmon Productivity and Resilience in the South Fork Eel River."

The Coho Confab will be held at the confluence of Cedar Creek and the South Fork Eel. Cal Trout is leading a fish passage barrier removal project on Cedar Creek that will open up nine miles of habitat. Photo by Darren Mierau

Field tours will include a tour of the Cal Trout Cedar Creek Barrier Removal project that will be under construction and will open up nine miles of Chinook, coho, and steelhead habitat in this significant cool water refugia creek. There will be a full-day tour of the Angelo Reserve Eel River Critical Observatory that is a multi-disciplinary research collaborative that studies hydrologic processes from the tree tops to bedrock. This tour will, "focus on watershed hydrology—following a raindrop through the critical zone, and showing folks with tree and vadose zone monitoring equipment at the Reserve and end with a discussion of the "consequences" of that hydrology on salmon," Gabe Rossi, UC Berkeley post-doctoral student.

Participants in the Confab will have the opportunity to visit large wood restoration projects in the South Fork Eel River. Photo by Darren Mierau

Other field tours include a 4-mile hike along Anderson Creek on the Redwood Forest Foundation property in northern Mendocino County to observe five phases of large wood loading that includes both equipment installed and direct falling techniques and three phases of inner gorge and streamside road decommissioning. During the hike participants and tour leaders will discuss past watershed disturbances, their impacts on watershed processes, and the bio-fluvial-geomorphic conditions that have resulted from these disturbances as well as strategies to identify, characterize, analyze, and mitigate watershed scale disturbances with a focus on surface water hydrology, riparian ecosystem functions, stream corridor sedimentary architecture, and of course fish habitat. This tour will be in a very remote part of Mendocino County and last all day.

Things we can guarantee on the Anderson Creek tour: (1) you will be tired at the end of the day and perhaps a little scratched up, (2) you will see abundant juvenile coho throughout the tour, (3) You will leave with a more nuanced view of watershed scale disturbances and their collective impacts on aquatic habitat, (4) you will develop new wood loading strategies that you can bring back and employ within your watershed, (5) You will be able to review several phases of wood loading and observe how our strategies changed with increases in knowledge and changes to existing reach scale conditions, (6) Lastly you will be subjected to a deep discussion on geologic phenomena (regional tectonics, vertical land motions, sea-level-rise, sediment budgets) and how these drive the distribution and quality of salmonid habitat in Northern California. This tour is not for the faint-at-heart and will require participants to be physically and mentally durable. We may even see bigfoot!

Workshops will include instream flow initiatives. The South Fork Eel River is considered one of five priority tributaries for flow enhancement in California and several planning projects are underway to improve flows in critical tributaries of the South Fork Eel. Additionally, the Confab will feature on Open Forum on the Salmon Habitat and Restoration Prioritization (SHaRP) process that was launched in the Eel River to help create a roadmap for coho recovery.

Registration and the full agenda for the Confab will be available later this spring.

For more information:
www.calsalmon.org

Restoring Fire Resilience in the Mattole River Headwaters

Sanctuary Forest

By Ash Brookens, Tasha McKee, and April Newlander

Sanctuary Forest (SFI) holds title to more than 800 acres of forestland in the Mattole River headwaters. The group is committed to stewardship practices that will reduce wildfire risk and promote forest health, as well as improve streamflows and riparian habitat. In February 2022, SFI began forest improvement work on an approximately 200-acre property in Anderson Creek, as part of the Anderson Creek Instream and Riparian Habitat Restoration Project, which aims to reduce fuel loads and increase species diversity. Industrial logging practices, combined with decades of fire suppression, have resulted in overly dense, even-aged forests that pose a significant fire risk to the surrounding community. In addition, younger trees have higher evapotranspiration rates which contributes to significantly lower dry-season flows. [Editors Note: Evapotranspiration is the sum of evaporation from the land surface plus transpiration from plants.] Widespread removal of large wood from streams has resulted in reduced groundwater storage, increased channel incision, and loss of floodplain connectivity. In turn, this has impacted the diversity of riparian vegetation, with tanoak and Douglas-fir encroachment along the streambanks.

The project will entail forest thinning on approximately 23 acres (13 acres in the riparian zone, and 10 acres upslope) of the Anderson Creek property. The project objectives will be achieved by retaining

Conditions before thinning: High-density vegetation with abundant ladder fuels are typical of forest conditions throughout the Anderson Creek watershed and other areas where fire suppression has altered historical fire regimes.
Photo courtesy Sanctuary Forest archives

Crew member using a masticator to thin small trees and brush in a machine-accessible area of Anderson Creek.
Photo courtesy Sanctuary Forest archives

larger mature trees, cutting most of the small trees (under 10" diameter), and then planting native riparian trees and sedges along the creek. By retaining and thinning around the larger mature trees, a supply of large wood debris will be established along the stream corridor, adding complexity to the channel crucial to improving instream fish habitat. Reducing tree density will correspondingly reduce both fuel loads and evapotranspiration, creating a more drought- and fire-resilient landscape.

In order to minimize impacts, careful consideration is always given to the appropriateness of equipment utilized. For this reason, hand felling is the primary method employed when working within riparian zones, with judicious use of heavy equipment restricted to easily accessible areas. Practices such as lop-and-scatter and/or chipping of slash will help build up the mulch layer and promote rainwater infiltration. This points to a useful synergy in this stewardship approach, in that it has the potential to enhance streamflows and restore natural ecological processes in the long term, while carrying the immediate benefit of mitigating fire risk to the community. The next phase of the project, slated for summer 2022, will include the direct placement of cut trees along 3,000 feet of stream for improved salmonid habitat and increased streamflow benefits.

Fire-conscious forest stewardship is needed at a watershed scale, and SFI is currently planning fire-resilience projects in McKee and Vanauken Creeks—the gateway to the Mattole headwaters and future sites for public access. In addition to these efforts, SFI is working with Humboldt County and the Mattole Restoration Council on a regional roadside fuels-reduction project that includes treatments along Briceland-Thorn Road, providing a safe exit route in the case of wildfire. Mattole Restoration Council will be completing the fuels-reduction work later this year, with SFI assisting with local landowner outreach. Whitethorn residents who own property along the county road can expect to hear from SFI as the project start date nears.

The planning and implementation team for the Anderson Creek Instream and Riparian Habitat Restoration Project includes SFI, Consulting Forester Timothy Metz, Campbell Thompson from the Mattole Salmon Group, Logan Edwards of Edwards Excavation & Restoration, and the Natural Resources Conservation Service (NRCS). Funding for this project comes from the NRCS EQIP Program ($44,118) and CA Department of Fish & Wildlife's Environmental Enhancement Fund ($238,542). Sanctuary Forest thanks everyone working together to coinhabit a more fire-resilient landscape in the Mattole River headwaters.

For more information:
www.sanctuaryforest.org

Organizing for Fire Preparedness in Southern Humboldt

Southern Humboldt Fire Safe Council

By Gail Eastwood

Are you ready for another fire season? The Southern Humboldt Fire Safe Council has been active all winter with fuel-break planning, neighborhood organizing, and community education. Here are some highlights of what we've been up to:

We're in the planning stages of an ambitious regional fuel break along Mail Ridge (Dyerville Loop Road and Bell Springs Road). When complete, it will tie in to Highway 101 on both ends. Wind-driven fires from the northeast are our biggest fire danger. This fuel break would protect many of our Southern Humboldt communities and forests with a line of defense from these fires.

We collaborated with Briceland Volunteer Fire Department on submitting

Fire Safety Friday was an event at the Garberville Town Square on March 25th that included a model home built to demonstrate home hardening techniques. Pictured (from left to right): Mitchell Danforth (Trees Foundation), David Grefrath (Southern Humboldt Community Park), and Marchelo Bresciani (Vocality Community Credit Union). Photo by Bill Eastwood

Pat Neighbors (Vocality Community Credit Union) and Mitchell Danforth (Trees Foundation) display a map of the proposed Garberville Firewise area at the Fire Safety Friday event. Photo by Kerry Reynolds

a proposal to PG&E for funding to construct a fuel break on China Creek Road. The fuel break would provide a safer ingress and egress route for residents and emergency responders. The project would provide employment for fire fighters in their off-season.

We've worked with a number of Southern Humboldt communities to support local fire safety organizing and community preparedness on a neighborhood level. We're especially pleased to see the Garberville Fire Safe group take off, with its premiere event at the Garberville Town Square on March 25 (see photos). Once the Garberville Farmers Market starts, they plan to table there at least once a month. They are developing an application for Firewise USA certification, starting with the risk assessment and action plan. The Benbow group and a Salmon Creek group are also applying for Firewise!

Our monthly meetings attract people from a wide range of neighborhoods, who talk about what's happening and what needs to happen in their area. We share resources, inspiration, encouragement; we learn from each other. Our neighborhood organizing committee has ambitions to draw in fire safety activists from other small towns, road groups, and communities. People get together and name the highest priorities for their own area, then get to work on solutions!

We're active in collaborative regional forest health and fire preparedness efforts. We participate in the new Southern Humboldt Forest Health Collaborative. The collaborative includes organizations dedicated to promoting cooperative planning and implementation of fuels reduction and other forest health efforts in Southern Humboldt. We're also working with the North Coast Regional Partnership, which looks at the big picture—planning for a larger region.

We've welcomed Mitchell Danforth, Trees Foundation's Community Fire Resources Coordinator, to our team. Mitchell has been able to support us and the neighborhood groups in various significant ways.

We continue to work with the countywide FLASH cost-share program, which helps landowners to accomplish fuels reduction work around homes and access routes. You can find out more about this program at *www.humboldtgov.org/690/Fire-Adapted-Landscapes-Safe-Homes.*

And, last but not least—we became a Trees Foundation Partner, with all the various forms of useful support that come with that status, including the ability to accept tax-deductible donations and use Trees as fiscal sponsor. Yay Trees!

We meet monthly on the first Thursday of the month, 5:00–6:30pm on Zoom. All are welcome. Find the link at the top of our website homepage (*www.sohumfiresafe.org*) or on our Facebook page. You can contact us at *sohumfiresafe@asis.com*. Let us know if you'd like to be on our email list for meeting and event reminders, links, and notes.

For more information: *www.sohumfiresafe.org*

At the March 25th Fire Safety Friday event in the Garberville Town Square from left to right: Bill and Gail Eastwood, Christina Huff, Kathy Weber, Mitchell Danforth, and Arnold Piceno Sanchez (CAL FIRE Humboldt-Del Norte Forestry Aide and Defensible Space Inspector). Photo by Kerry Reynolds

Coltsfoot and Cardamine

The Foreword to

What Would You Call This Gem of a Forest

By Chad Swimmer

In December 2021, the Mendocino Trail Stewards published a coffee table book about Jackson Demonstration State Forest entitled What Would You Call This Gem of a Forest. *This volume gives perspectives, thoughts, images, and essays of the place that the Coalition to Save Jackson, The People's Forest, are fighting for. What follows is the foreword to the book, edited for length.*

...This place has obsessed so many of us and continues to cast its spell on unwitting bystanders, this place that we tragically now know as Jackson—after Jacob Green Jackson, the man responsible for the forest's first destruction. This place where, 170 years ago, European settlers arrived and saw what to them was a Garden of Eden, the redwoods apples, ripe for the picking.

They didn't know—didn't care to know—that the people who already lived here, the Pomo and the Yuki, with their partner, fire, had gardened the forests for 10,000 years without felling a single large redwood. Instead, in their myopic focus on wealth, the settlers put prices on innocent human heads, hunted them down, the survivors forced by greed onto small reservations which were used by

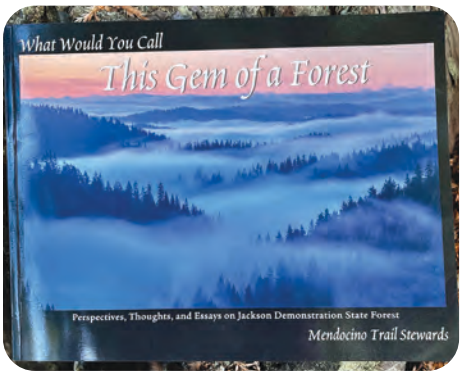
their overseers more as cash cows than anything else.

These people knew the plants by name, by smell, by taste, and by place. They ate acorns with coltsfoot ash, made waterproof baskets from sedges and rushes, chewed on cardamine roots for toothaches, put mugwort branches in their pillows for dreams, drank special secret teas to speed their children out of the womb.

All photos this article by Garth Hagerman

They used to live here. Some still do. It seems so long ago, like slavery—most people, who don't understand it, think we should just forget it. We should just stop talking about it, because it was so long ago. Deep, however, it lurks in our species memory, and a horror is still right on the surface for some.

This slaughter of people, yet another genocide, ended as the slaughter of the



redwoods began. Jacob Green Jackson named his mill after Seigfried Caspar, another shining example of what it means to come to a place that is owned by others, souls who didn't even consider ownership a thing, and take that place. Take that place, and raze it. Take all the walls, all the ceilings, all the carpets, all the furs.

That place—this place, yes, needs a name change. Fort Bragg needs a name change. Jackson Demonstration State Forest needs a name change. But our first job is to change its management so it can be honored as the gem of a forest that it truly is. Then, what name will we give it? What name could tell the story of such a complex, interwoven, and mystical place? That remains to be seen.

We must stop and sit and hear the squirrels, the rustle of the branches, the frogs in the moist spots, the silence. The ghosts and the ravens and the children playing in the streams. We can begin to learn what so many others for thousands of years knew.

To order a copy of *This Gem of a Forest*, visit *www.mendocinotrailstewards.org/gem-of-a-forest*. All proceeds benefit the movement to save Jackson, *medocinotrailstewards.org*

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Trees Foundation is located at 439 Melville Road, Garberville, CA, 707/923-4377, *www.treesfoundation.org*

SRF Erosion and Sediment Control Field School

June 13-14, 2022

Salmonid Restoration Federation is hosting an Erosion and Sediment Control Field School. This technical field course is part of our Northern California Best Management Practices Education Series funded by the California Department of Fish and Wildlife's Fisheries Restoration Grant Program. SRF is partnering with Pacific Watershed Associates, Five Counties Salmonid Conservation Program, and the Watershed Center to offer a technical workshop and field tour curriculum in Trinity County.

The event will be hosted at the beautiful Indian Creek Lodge (*www.iclodge.net*) on the Trinity River west of Weaverville.

The agenda is designed to assist planners, regulators, environmental scientists, engineers, and landowners to improve environmental protections by identifying, assessing, and ultimately designing erosion control projects. The workshop will include broad topics including:

The Erosion and Sediment control field school will visit sites in the Trinity mountains that are recovering from wildfire and where erosion control efforts are underway.
PHOTO COURTESY PACIFIC WATERSHED ASSOCIATES ARCHIVES

- Identifying sediment sources and quantifying erosion volumes
- Evaluating sediment sources for their potential to deliver sediment to streams
- Assessing environmental impacts from accelerated erosion and sediment delivery
- Creating erosion control and prevention plans
- Identifying high priority erosion and sediment control activities on post wildfire landscapes
- Assessing, prioritizing, and estimating costs of post wildfire road treatments
- Designing, procuring, and evaluating grading plans and permits
- Environmental permitting application process and requirements

This course is limited to 35 people so please register and secure your lodge rooms early. The course is $200 for advanced registration for SRF members, or $250 for non-members or registration after May 30. Late registration for members is $225.

For more information:
www.calsalmon.org or email
info@calsalmon.org

To support the printing and distribution of this news magazine, please send your tax-deductible contributions to Trees Foundation, 439 Melville Road, Garberville, CA 95542