

# Forest & River News

GRASSROOTS CONSERVATION & RESTORATION IN THE REDWOOD REGION

TREES FOUNDATION

SPRING 2019

## Together We Can Make A Difference!

**! Good News for the Siskiyou Crest**

**! Northern California Marine Waters Exempted  
from Navy Training and Testing**

**! Volunteers Plant Redwood Groves  
in Marin to Fight Climate Change**

**! Happy 20<sup>th</sup> Birthday  
to the Headwaters Forest Reserve**





Editor’s Note

Here at Trees Foundation, we are grateful for the return of Spring and for the addition of two members to our collective. We welcome our new Bookkeeper, Mona Provisor, and our new Organizational Development Director, Kerry Reynolds. They bring fresh new energy and commitment to our mission “to restore the ecological integrity of California’s North Coast by empowering and assisting regional community-based conservation and restoration projects.” See page 31 for more information.

This issue of *Forest & River News* highlights several victories by our partner organizations.

Today whales, dolphins, seals, and sea lions are much safer on the North Coast, thanks to years of work by the InterTribal Sinkyone Wilderness Council. The clearcutting of old-growth reserves in Klamath National Forest—that the Forest Service had claimed was necessary salvage logging after the 2017 Abney Fire—has been stopped by way of a lawsuit brought by KSWild, EPIC, and the Klamath Forest Alliance. The McKee Creek Restoration Strategy, a collaborative effort of landowners and Sanctuary Forest, is improving salmonid habitat in a high priority tributary in the headwaters of the Mattole River.

Perhaps the most endearing success story in this issue is about a father who came to support his daughter in a redwood planting day in Nicasio, organized by Salmon Protection and Watershed Network. He decided he would plant one tree, remarking that it was his first tree planting ever. But instead, he continued all day, being pulled into the gratifying work of planting redwoods and imagining the years of growth, carbon sequestration and beauty that all begin with that one action. As we move forward in our work, let us continue to sow seeds and plant trees for a greener today and tomorrow.

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Cover photo: Headwaters Forest Reserve  
PHOTO BY GREG KING



Volunteers during a fish count on the South Fork Eel River.  
PHOTO BY ERIC STOCKWELL/LOLETA ERIC’S GUIDE SERVICE



# The Water's Rising, One Tributary Reach at a Time

By Marylou Scavarda, Sanctuary Forest

McKee Creek, a sub-basin of the Mattole River watershed located at the southernmost edge of Humboldt County's temperate rainforest, runs parallel to Briceland-Thorn Road between Ettersburg and Thorn Junctions. Since 2003, it has suffered incredibly low flows. In recent years, this dire situation has been life-threatening for fish. Thousands of young fingerlings over-summering in the creek perish each summer when pools dry up. The scarcity of water for landowners who rely on the creek has also been a significant problem. "When we first moved here in 1999," say Jani and Joseph Cook, McKee Creek landowners, "a neighbor told us that the creek used to be 'thick' with fish. On our map, the creek was designated with a solid blue line indicating year-round flow, but since we've been here, most of the creek running through our property has dried up every summer." Much of this ongoing problem can be attributed to drought, compounded by past land-use practices which, by altering the ecosystem, have caused the watershed to drain more quickly resulting in reduced summertime streamflows. Human use has also been a contributing factor.

Landowners on the McKee Creek mainstem have been working together with Sanctuary Forest (SFI) over the past fifteen years to restore resilience and abundance to their watershed. The McKee Creek Restoration Strategy (including Water Storage and Forbearance, Fish Habitat Restoration & Groundwater Recharge, and Land Conservation) is the result of these



Looking upstream; boulder weirs and newly formed pools created by the work completed in McKee Creek. PHOTO BY ANNA ROGERS

cooperative efforts. The objective of the Water Storage & Forbearance program is to reduce the impact of summertime human water use by creating sufficient water storage capacity for landowners along the creek. Late in the summer

of 2018, thanks to funding from California Department of Fish and Wildlife (CDFW) and the Department of Water Resources (DWR), work to reduce human use impact on summer flows was nearing completion, and





MSG crew anchoring log weir to boulders for ballast. PHOTO BY CAMPBELL THOMPSON

by the end of 2019, all landowners on the McKee Creek mainstem will have sufficient storage capacity to forbear from creek diversions during dry summer months.

The objective of the Salmon Habitat Restoration and Groundwater Recharge program is to increase year-long streamflow and improve fish habitat by raising water levels, reconnecting inset floodplains, and deepening pools through the placement of log and boulder weirs and other large woody structures in the streambed. All weirs were engineered by U.S. Fish and Wildlife Services (USFWS) hydrologist Conor Shea to ensure fish passage and structure stability. With a maximum of nine-inch jump, passage upstream is accessible even to juvenile fish. This work, funded by CDFW and the State of California Wildlife Conservation Board (WCB), began last summer on private land in key portions of McKee Creek. According to Campbell Thompson, the Mattole Salmon Group (MSG)

Headwaters Restoration Coordinator, and large equipment operator on this project—permitting this kind of work on private lands is a first for CDFW. He says that their decision to fund the project was influenced by the success of previous work in Baker Creek where SFI and Bureau of Land Management (BLM) collaborated with NOAA Northwest Fisheries Science Center, USFWS, Stillwater Sciences, and MSG to install log and boulder weirs to imitate natural processes. That project was funded by WCB, BLM, National Fish and Wildlife; Weeden, Bella Vista, Firedoll Foundations, and Patagonia.

The McKee Creek instream project design called for the installation of log weirs in the creek running through the Cook's property, and placement of other wood structures bolted to large boulders acting as ballast to keep the wood in place. The weirs were sealed with clay on the upstream side, each spanning the creek and driven into the bank for up to six feet. The construction team used large

equipment to accomplish the work. "It can be alarming to see large equipment entering a stream area," said team member Matt Knoedelseder. "The real challenge for the machine operator is to find safe access points through the woods, doing the least amount of damage to the area, yet creating enough space to complete the work. Cam [Campbell Thompson] is really good at what he does." The Cooks agree. "It was daunting at first," said Jani. But their trust in Sanctuary Forest kept them from wavering, she said. The Cooks said that when the workers were finished, the disturbed land looked like a park and will only get better from here. Without hesitation, they said they would do it all again.

Each step of the way, before construction began in a new part of the creek, young fingerlings were removed by CDFW and relocated to an undisturbed reach where they would have the best chance of survival. The first weir was built at the upstream end of the Cook's property where the streambed had begun to dry up. A week after its installation, water held back in that location resulted in connected pools all the way upstream to the confluence with Painter Creek. When the second and third weirs were finished, the water there was replenished by the water stored upstream. The team moved further downstream installing additional log and boulder weirs, and putting log habitat structures into the stream. "We were continually racing to stay ahead of the water," says Knoedelseder. "Literally we'd get the last bolt in a structure, and the upstream water would come flowing over it." This is remarkable given that just prior to project implementation, most of the creek on the Cook's property was a series of dry stretches punctuated by small isolated pools. Two more



weirs on the Cook's property are scheduled for construction in the summer of 2019.

Campbell Thompson expects that in the short term, the reconnection to inset floodplains and resulting wider channels created by this project will slow the water down and create low-velocity pools which make great winter fish-rearing habitat. In the long term, the summer flows should be more consistent downstream of the weirs, he says, and at the creek's confluence with the Mattole River. For the fish, he says, "If the work functions as designed, we expect all the pools to stay full this coming summer. Fish rescue should be necessary only in the areas where we will be building additional weirs." It's hard to know for sure yet, but powerful rushing water and high flows this winter may have damaged or displaced some of those structures. If so, there will need to be some adaptive management work this coming summer. Time will tell.

Matt Knoedelseder, who also participates in annual Mattole River salmon surveys, said that he loves working in the river during the summer on a project like this one, not yet knowing what impact their efforts will actually have, and then returning in winter to count the fish. That's when he can see how the structures are holding up and see the fish hiding out in the structures, just as he had hoped they would. Four years from now, he says, the fingerlings that were moved last summer to construct the weirs in this project will be returning to McKee Creek from their journey to and from the ocean. The question is whether the work done here will allow McKee Creek to become a spawning stronghold. "Being there, hands on, to sustain the river," he said, "is one of the proudest achievements of my life."

Reflecting on the Cooks involvement over the past year in the McKee Creek project, Joseph Cook said, "McKee Creek has always been like a part of our garden. Because project subcontractors did all the hard work, we have reaped what we didn't sow. It feels good to have been part of something that has resulted in progress for life in the creek." The Cooks say their overriding feeling is one of gratitude for all that Sanctuary Forest and its funders do

to make this kind of work possible, and they look forward to having the work on their property serve as an educational opportunity for neighbors and other landowners.

The work on the Cook's property was not designed to be a stand-alone intervention, nor was it ever expected to "fix" the low summertime streamflows in McKee Creek all by itself. Several other projects, up- and



Large wood habitat structure bolted to boulder for ballast . PHOTO BY ANNA ROGERS





Landowners Joseph and Jani Cook, viewing completed instream work on their property.  
PHOTO BY ANNA ROGERS

From the beginning, collaboration has been central to the success of Sanctuary Forest's McKee Creek Restoration Strategy—neighbors problem solving with neighbors; agencies and foundations partnering with our community; on-going sharing between communities throughout California and beyond where people who aspire to be good stewards are creatively and cooperatively engaged in the work. We express deep gratitude to our funders, CDFW, WCB, DWR; and to our partners—MSG, who collaborated in project design every step of the way and provided our construction crew, USFWS, who provided engineering consultation and plans for our rock and log weirs, and BLM, for providing the logs for our weirs.

For more information:  
[sanctuaryforest.org](http://sanctuaryforest.org)

downstream from last summer's work, will be implemented by Sanctuary Forest and its partners in the near future. In February 2018, Sanctuary Forest received an award from the WCB Proposition 1 Streamflow Enhancement Program for the acquisition of 300 acres in the headwaters of McKee Creek (Phase 1 of the Van Arken Community Forest Project), and the implementation of a groundwater recharge project on the property. Work there will begin in 2020. This summer additional weirs will be installed in the creek running through another private landowner's property, downstream from the Cook's. The combined outcomes from all of these instream and groundwater recharge projects, and SFI's Storage and Forbearance program should result in enhanced groundwater levels and summer streamflows necessary for juvenile salmon rearing habitat

throughout McKee Creek. Greater drought-resistance for people should become a reality as well.



Log weirs with easy fish passage PHOTO BY ANNA ROGERS



# Eel River 2018-2019 Fall Chinook Assessment

By the Eel River Recovery Project

The Eel River Recovery Project (ERRP) completed its seventh year of fall Chinook salmon assessment, and the 2018-2019 run is a slight improvement from the previous year, with an estimated 15,000 to 25,000 fish spawning in the basin. The run faced peril because of very late fall rains, but was able to disburse with storms in the last week of November and December and reach headwaters throughout the basin.

Lower Eel River estimates were enabled by cooperation with guide and river enthusiast Eric Stockwell, who surveyed almost daily and organized stand up paddle-board surveys (SUP). Support for his work came from a Rose Foundation Grassroots grant and from the U.S. Bureau of Land Management as part of their celebration of the 50<sup>th</sup> anniversary of the Wild and Scenic



Fall Chinook milling in shallow water in the remnants of the Drake Pool on 11/10/18.  
PHOTO BY ERIC STOCKWELL

Rivers Act. ERRP has changed tactics to kayaks and paddleboard since dive surveys are not advisable due to swimmer's itch and the fact that most lower Eel River pools are too filled in.

Drones were used to supplement counts and there were an estimated 3,000-5,000 Chinook holding before rains allowed disbursal.

After the first major rise of the river, reports came in from Covelo that fish had reached Williams Creek and had even run up Mill Creek to above town. As rains continued in December, new waves of fish were able to ascend Coal Mine Falls and disburse throughout the Middle Fork, including into Mill Creek again and into 25 miles of prime habitat in the Black Butte River. The Middle Fork and its tributaries are in late recovery from past flood events, but the magnitude and duration of runs in other sub-basins varied.

Another basin with strong returns is the Van Duzen River, and especially tributary Yager Creek. Eric Stockwell participated in surveys with the California Department of Fish and Wildlife and documented continuous spawning throughout December. Late run fish were reported in Grizzly



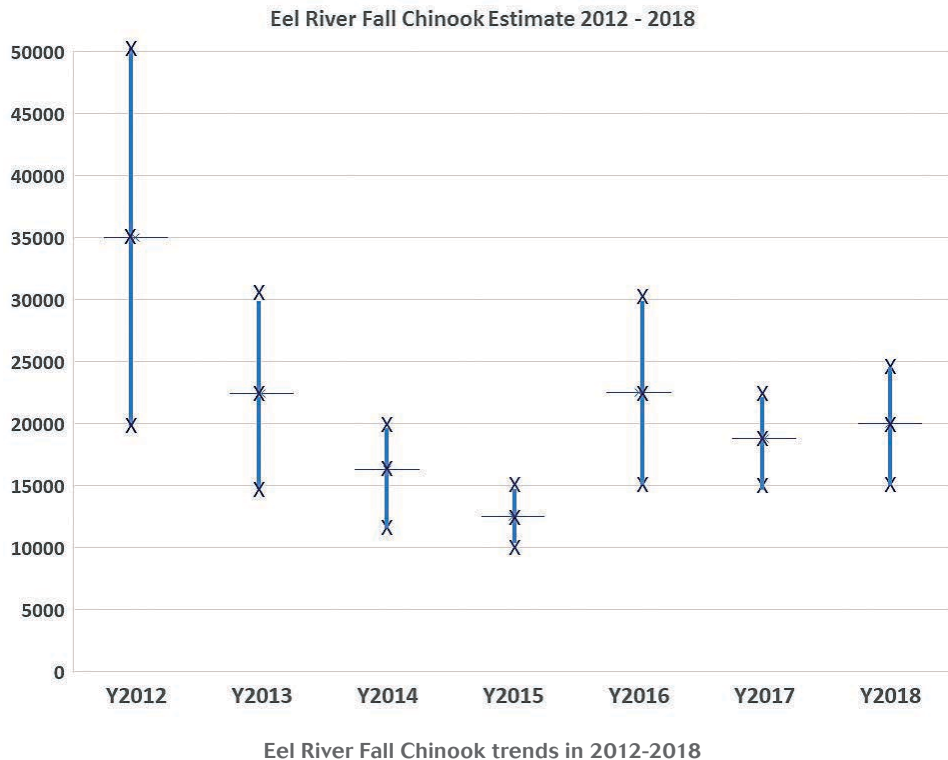
Standup paddle boarders and other surveyors standing on kayaks survey the 12<sup>th</sup> Street Pool for Chinook salmon on 11/11/18.  
PHOTO BY ERIC STOCKWELL



Creek, but flow conditions were too high for observation for much of December.

The upper South Fork had fish reported upstream as far as Branscomb with the first rains, but spawning gravel availability and Chinook salmon spawner densities appeared higher in the Tenmile Creek basin, where two waves of spawning were documented. With an underwater motion sensing camera, ERRP volunteer Dan Kvaka captured video of a Chinook migrating in a tributary, and also captured video of otters on the hunt. Lower South Fork tributaries like Salmon Creek and Redwood Creek have too much bedload movement to support Chinook spawning and they in turn degrade conditions in the main river downstream.

Upper Eel River returns were very low, with light spawning reported near Hearst, only 95 Chinook passing upstream of Van Arsdale Fish Station (29 males, 24 females, 40 jacks). Surveys



of Tomki Creek found only eight live fish and 11 redds, which contrasts starkly with the 3,500-5,000 Chinook that spawned there from 1985-1988.

While only a handful of fish moved into Outlet Creek with the first rains, flow rises in early December allowed dispersal of fish up Long Valley Creek and into tributary headwaters above Willits. ERRP volunteers documented spawning in upper Baechtel Creek and Broadus Creek.

Really good news was the number of jacks that returned in 2018-2019, with 40% of the run made up of these male Chinook that spent less than one year in the ocean. They signify an unusually high survival rate for the brood spawned in 2017-2018 and portend well for both ocean fisheries and future spawning runs. Chinook may return to spawn at ages 2-5, so fisheries and escapement should get a boost through 2022. Interestingly, the high survival was in a year with light rainfall and moderate winter flows that provided enough water to circulate through nests for eggs and alevin, but not so much that it caused redd scour (when the river is high, the river bed may move and kill the eggs). Rain into



Tenmile Creek on the Vassar property where there is a mile reach with optimal spawning gravel. PHOTO BY EERP





Woodman Creek joining the Eel River with migration for salmon and steelhead unimpeded. PHOTO BY EERP

Watershed Associates and Mike Love and Associates not only allows fish passage, but it also created a great reach of new stream habitat. Since November 2018, CalTrout, Trout Unlimited, and the California Department of Fish and Wildlife have been operating a SONAR device that can count adult fish passing Dyerville in the South Fork and main Eel River. The method may help quantify adult fish passing those points, but distinguishing between species is not possible. It is great to have all the effort going into salmon and steelhead assessment in the Eel River watershed.

🌲 For more information:  
[www.eelriverrecovery.org](http://www.eelriverrecovery.org)

April provided cover from pikeminnow during migration.

While the 2018-2019 run started weak, Chinook salmon migration and spawning was widespread thereafter, with runs continuing into late December. The ERRP total run estimate is 15,000-25,000 Chinook. The 2019 - 2020 run could be even better as ocean conditions continue to be favorable and ocean fishing limited. Eel River fall Chinook runs remain in a range similar to 1955-1958 U.S. Fish and Wildlife surveys and are well above population levels that pose risk of extinction. To learn more, go to [www.eelriverrecovery.org](http://www.eelriverrecovery.org), where you can also link to the salmon documentary video *Signs of Resilience*. More needs to be done to improve lower Eel River holding habitat and passage, and ERRP is making progress with partners on that.

Another hopeful note is that the removal of the railroad dike at

Woodman Creek may have allowed Chinook spawning there for the first time in 100 years. Woodman joins the middle main Eel River five miles downstream of Dos Rios. The CalTrout project carried out by Pacific



Woodman Creek, at right, in a new channel joining the main Eel River  
 PHOTO DANNY HAGGINS



# Tribal–Navy Consultation Results in Northern California Marine Waters Exempted from Navy Training and Testing

By InterTribal Sinkyone Wilderness Council

As an outcome of government-to-government consultation with the member Tribes of the InterTribal Sinkyone Wilderness Council, in late December 2018, the United States Navy has discontinued its training and testing activities within ocean waters situated offshore from Northern California's coastline. The operational change applies to a 12-mile-wide area of both state and federal marine waters, from the Mendocino-Humboldt county line to the California-Oregon border. The affected area is the southernmost region of the Navy's Northwest Training Range Complex (NWTRC) that stretches from Northern California to the US-Canada border. It encompasses portions of several Tribal Nations' traditional territories.

The Navy made the decision to discontinue its training and testing activities offshore from Northern California following 3½ years of discussions with delegates from the ten Northern California Tribes that comprise the InterTribal Sinkyone Wilderness Council. The

Tribes and the Navy entered into a formal government-to-government consultation process in 2015 to address the Tribes' resistance to Navy training and testing activities within the NWTRC.

The Navy uses a vast area of the West Coast, stretching from Northern California to the Canadian border, for training. Activities include anti-submarine warfare exercises involving tracking aircraft and sonar; surface-to-air gunnery and missile exercises; air-to-surface bombing exercises; and extensive testing for several new weapons systems. The Navy's Northwest Training Range is the size of the state of California, yet not one square inch was off-limits to the most harmful aspects of naval testing and training activities.

In 2010 and 2012, the National Marine Fisheries Service (NMFS) authorized the Navy to harm or "take" marine mammals and other sea life. The permits allowed the Navy to conduct increased training exercises that can harm marine mammals and disrupt their migration, nursing, breeding, or feeding, primarily as a result of

harassment through exposure to the use of sonar. The Navy's mid-frequency sonar has been implicated in mass strandings of marine mammals in, among other places, the Bahamas, Greece, the Canary Islands, and Spain. During war games near Hawai'i, the Navy's sonar was implicated in a mass stranding of up to 200 melon-headed whales in Hanalei Bay. Even when sonar use does not result in these or other kinds of physical injury, it can drive whales from areas vital to their survival.

In 2012, the Sinkyone Council and environmental organizations filed a federal lawsuit against National Marine Fisheries Service for issuing a permit for the Navy's NWTRC training and testing program, which the suit's plaintiffs asserted did not include adequate mitigations for addressing impacts to marine species and the Tribes' cultural ways of life.

To view the lawsuit's complaint, go to: <http://earthjustice.org/sites/default/files/NW-Training-Range-Complaint.pdf> To view press releases regarding the lawsuit, and the federal court's September 2013 ruling, go to: <http://www.foe.org/news/news-releases/2012-01-lawsuit-filed-over-navy-training-that-blows-marine-mammals-harmful-sonar>

In a subsequent case, after the federal district court in Hawai'i determined the Navy's training activities in Hawai'i and Southern California illegally harm more than 60 separate populations of whales, dolphins, seals, and sea lions, the Navy agreed in 2016 to make vital habitat in these waters off-limits to mid-frequency sonar



The Melon-headed whales have been one of the species detrimentally affected by the Navy's testing.  
PHOTO FROM  
WIKIMEDIA COMMONS





Part of the northern California coast that is now protected from Navy training and testing!  
PHOTO BY HAWK ROSALES

training and testing. Several months later in a different case, a federal appeals court found the Fisheries Service's "systematic under-protection of" whales and other marine life in its permitting of the Navy's use of low-frequency sonar across the globe violated the law, and ordered the government to consider additional mitigation measures for this activity.

The ten sovereign Tribal Nations and the Navy are in ongoing formal consultation to seek ways of ensuring military training and testing within the Tribes' traditional territories causes the least possible harm to culturally significant marine life, and the Tribes' cultural places and ways of life.

This is the first time a collective consultation process has occurred between multiple California Indian Tribal governments and a federal agency to address concerns about protecting the ocean ecosystem and Tribal ways of life. The Tribes participating in the consultation are: Cahto Tribe of Laytonville Rancheria; Coyote Valley Band of Pomo Indians;

Hopland Band of Pomo Indians; Little River Band of Pomo Indians; Pinoleville Pomo Nation; Potter Valley Tribe; Robinson Rancheria of Pomo Indians; Round Valley Indian Tribes; Scotts Valley Band of Pomo Indians; and Sherwood Valley Rancheria of Pomo Indians.

In 1986, the Tribes established a Tribal consortium, the InterTribal Sinkyone Wilderness Council, to help protect and revitalize traditional territorial lands and cultural ways of life. The Sinkyone Council is facilitating and coordinating the consultation process between the Tribes and the Navy. The Tribes, the Sinkyone Council, and the Navy have affirmed commitment to continued open and meaningful engagement during the government-to-government consultation process. The Council since 2005 has opposed and commented on the Navy's training and testing activities.

The Navy plans to release a Draft Supplemental EIS (SEIS) in March 2019, which is intended to cover the next five-year period of its training and testing program (2020-2025) for the NWTRC.

The Navy's change in operations—to exempt Northern California's offshore area from future training and testing activities—has been a crucial priority for the Tribes. The operational change is to be explained and delineated in the Draft SEIS document the Navy is now preparing.

The Navy plans to hold public meetings in May 2019, following release of the Draft SEIS. People are urged to attend the meetings in Fort Bragg and Eureka, and to support the Tribes' concerns. The Tribes and the Sinkyone Council have requested the Navy to structure the meetings to include a public open-mic forum, as provided at the Navy's previous public meetings.

For details about the Navy's current plans for its Northwest Training Range Complex, including the Draft Supplemental EIS and the public meetings scheduled for May 2019, go to: <https://nwtteis.com>

For more information:  
[intertribalsinkyone@sbcglobal.net](mailto:intertribalsinkyone@sbcglobal.net)



# Volunteers Plant Redwood Groves in Marin to Fight Climate Change

By Salmon Protection  
and Watershed Network

Staff and volunteers of Salmon Protection and Watershed Network (SPAWN) planted more than 500 redwood trees in Nicasio in January, expanding an effort to fight climate change and bring back endangered California redwood forests to Marin County, an ecosystem that has been reduced by 95 percent due to logging and development.

About 40 volunteers helped plant redwood trees and companion plants on properties in Mill Valley, Nicasio Valley, and San Geronimo Valley to restore diverse, resilient ecosystems where redwood trees formally grew. The effort is part of 10,000 Redwoods, a project that aims to create a local carbon sink in the San Francisco Bay Area to combat climate change.

“We’re excited to expand our 10,000 Redwoods program into the nearby



With the help of volunteers, interns, and elementary school students in Marin County, redwood seeds have been collected and germinated, and seedlings have been nurtured in SPAWN’s Native Plant Nursery for three to four years.

ALL PHOTOS THIS ARTICLE BY SPAWN

Nicasio Creek watershed, which was once dominated by redwoods that were more than 1,000 years old,” said Audrey Fusco, Nursery Manager of

SPAWN. “The seeds are collected and cut locally, and grown in our native plant nursery until they are ready for out-planting. These redwoods we are planting are the local ecotype for the San Geronimo Valley and nearby areas such as Nicasio Valley.”

Due to overharvesting, only five percent of the original old-growth coast redwood trees remain, and they are listed as endangered by the International Union for Conservation of Nature’s Red List of Threatened Species. The loss of coastal redwoods in California also impacts critically endangered coho salmon and other species. In 2015, SPAWN launched the 10,000 Redwoods program to coincide with the Paris Agreement.

“Redwoods are a symbol of California and the conservation movement,” said Todd Steiner, SPAWN’s Executive



A group of volunteers learn how to plant redwoods in Nicasio, California. The efforts will help create a local carbon sink in the San Francisco Bay Area to help fight climate change.



Director. “I think John Steinbeck said it best in his famous quote, ‘The redwoods, once seen, leave a mark or create a vision that stays with you always...The feeling they produce is not transferable. From them comes silence and awe. It’s not only their unbelievable stature, nor the color which seems to shift and vary under your eyes, no, they are not like any trees we know, they are ambassadors from another time.’”

Because they are fast growing, massive, long-lived, rot resistant, and easy to cultivate, planting redwoods is an important tool and critical in the fight against climate change. In their massive trunks and in their root system, redwood trees store more carbon per hectare than any other tree on Earth. Coastal redwood trees sequester triple the above ground carbon of any other type of tree, making them a key player in mitigating climate change. In addition to helping to sequester carbon and reclaiming land for redwood



About 25 volunteers helped plant 325 redwood trees and companion plants on two properties in Nicasio to restore diverse, resilient ecosystems. The effort is part of 10,000 Redwoods, a project that aims to create a local carbon sink in the San Francisco Bay Area to combat climate change.

forests, the trees planted in Nicasio will help to stabilize an eroding creek bank and diversify habitat for wildlife.

With the help of volunteers, interns, and elementary school students in Marin County, redwood seeds have

been collected and germinated, and seedlings have been nurtured in SPAWN’s native plant nursery for three to four years. The volunteers who helped plant out these young trees ranged from Mel Wright, a 75-year-old Woodacre resident and regular SPAWN volunteer, to a Fremont Elementary School student who came to help her mom plant trees. One middle school student came accompanied by her father, who originally planned to come along to support his daughter’s interest and decided to plant one tree himself. Rather than stopping at one, he continued to plant all day. He later said this was the first time he’d ever planted a tree and he will come back to help again.

“Someday, centuries into the future, these trees will be towering giants that will make future generations stare up in awe,” said Preston Brown, SPAWN’s Watershed Conservation Director.

For more information:  
[seaturtles.org/salmon](https://seaturtles.org/salmon).  
SPAWN is a project of Turtle Island Restoration Network



Preston Brown, SPAWN's Director of Watershed Conservation, demonstrates how to plant redwood trees in Nicasio.



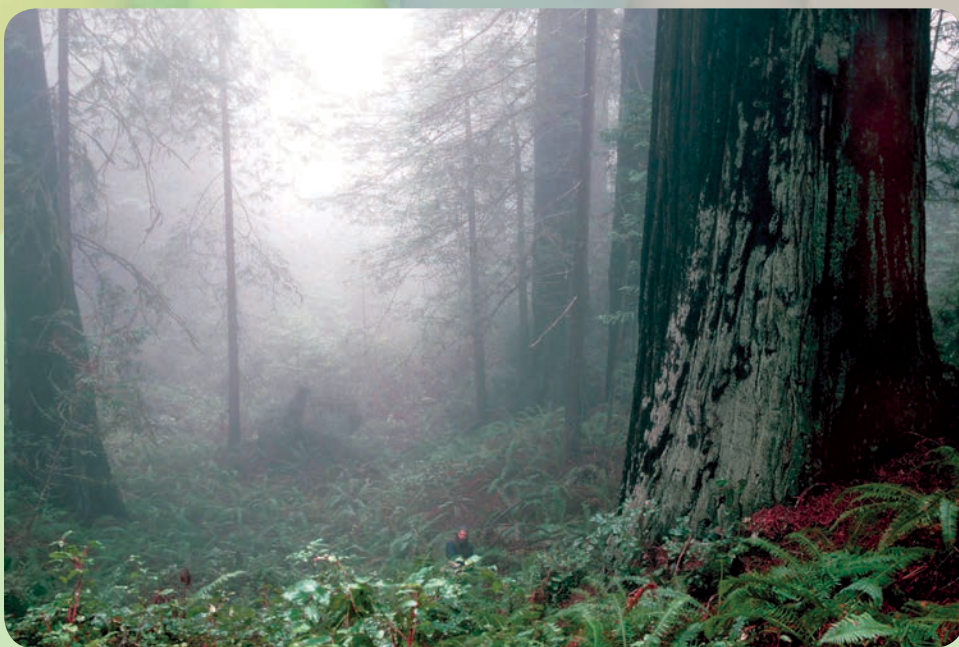
# Happy 20<sup>th</sup> Birthday to the Headwaters Forest Reserve

By Rob DiPerna, Environmental Protection Information Center

Happy 20<sup>th</sup> Birthday to the Headwaters Forest Reserve! The 7,472-acre Headwaters Forest Reserve is located just south east of the City of Eureka, California, and was established on March 1, 1999, as part of the landmark Headwaters Forest Agreement between the U.S. Government, the State of California, the MAXXAM Corporation and its subsidiaries, the Pacific Lumber Company, the Salmon Creek Corporation, and Scotia-Pacific LLC.

The Headwaters Forest Reserve was created to protect the last large, intact, old-growth coast redwood forest on the planet that remained in private ownership, punctuating a 13-year campaign that involved mass demonstrations and acts of non-violent civil disobedience, lawsuits filed by the Environmental Protection Information Center and others, and a huge network of groups and volunteers working to get the word out and influence lawmakers.

Only about 40 percent of the 7,472-acre reserve contained old growth or residual



Headwaters Grove in 1989. Note person bottom center. Tree is 20 feet in diameter. Largest redwood found in Headwaters Grove. PHOTO BY GREG KING, ©2016

old growth at the time of the land transfer in 1999. There were clearcuts, landslides, thousands of miles of roads and skid roads, hundreds of old, failing stream crossings, and millions of tons of earthen material to stabilize. Most of the previously-logged areas now contain even-aged stands that are thirty years old or less.

In addition to the congressional mandate to maintain existing old-growth forests in the Reserve in an Ecological Reserve status, a mandate also exists to restore landscapes, watersheds, and forests previously damaged by logging. The Bureau of Land Management (BLM) has removed roads, restored stream channels, fixed stream crossings, thinned over-dense previously-logged stands, while concurrently monitoring the endangered fish and wildlife that utilize the reserve as a last refugium, all as part of its Resource Management Plan for the Reserve.

Marbled murrelets, northern spotted owls, coho salmon, Pacific fisher, black bear, mountain lions, black-tailed deer, great horned-owls, tree-voles, and woodrats, just to name a few, call the Headwaters Forest Reserve home. The Reserve boasts flowers of spring Western trillium, and the serpent-like feted adder's tongue. Douglas Iris, rhododendrons, and a barrage of berry blossoms and fruits also call the Headwaters Reserve home.



Death Road into Headwaters Grove, 1990. PHOTO BY GREG KING, ©2016





Tractor cutting a skid road into All Species Grove to access a tree-sit by Greg King and Mary Beth Nearing, 1987. PHOTO BY GREG KING, ©2016

Twenty years later, the Headwaters Forest Reserve receives thousands of visitors each year. The South Fork Elk River Trailhead, located at the end of Elk River Road, south of Eureka, hosts hikers, runners, bicyclists, as well as baby-strolling and roller-blading visitors as it follows the South Fork Elk River through the old logging ghost town of Falk to the Headwaters Education Center.

The Headwaters Forest Reserve currently only contains two public hiking trails, in keeping with its designation as an Ecological Reserve and part of the Bureau of Land Management's National Conservation Lands Network.

The South Fork Elk River Trail is open for public day-use access, with a trail that runs nearly 11 miles round-trip.



Judi Bari speaks at a Headwaters Rally on March 28, 1996. PHOTO BY NICHOLAS WILSON

The Salmon Pass Trail is restricted access and is only open seasonally with reservations made for tours through the BLM. The Salmon Pass Trail is an approximately 3-mile loop that accesses the Salmon Creek side of the Reserve.

The existence of relatively few trails doesn't translate into a lack of visitation in the Headwaters Forest Reserve. The Reserve's proximity to Eureka and the open-access on the South Fork Elk River Trail and the flat riverine nature of the trail for the first three miles makes it a perfectly-suited location for all levels of visitors.

It is a real workout, no matter which trail one chooses to take, to be able to experience the majesty of the old-growth redwood forest at the Headwaters Forest Reserve. This is all too fitting, and very much in the spirit of the place and of all those that dedicated parts of their lives to its creation. This is a spirit very much like that the old-growth forest itself—stout, strong, tenacious, precious, and rare.



Carlotta rally 1996 PHOTO BY GREG KING, ©2016

For more information: [wildcalifornia.org](http://wildcalifornia.org)





## Diggin' In

# The Richard Gienger Report

Since my last column written in October 2018—on top of all the catastrophic fires in 2017 and 2018—came the Camp Fire which started on November 8<sup>th</sup>—and quickly, horrifyingly, destroyed over three times the structures and human lives of any previously recorded wildfire in California. There were over 85 lives and 14,000 structures gone. California was already ramping up to respond as described in my October 2018 column, and now the press for action reached panic levels. The new Governor, Gavin Newsom, continued action coordinated and led by the Forest Management Task Force (FMTF) with California Department of Forestry and Fire Protection (CalFire) playing a major role. Go to their website and look around. See the goals of the task force, seven committees, and four regional working groups, as well as the minutes, agendas, meeting times. There is a wide range of organizations and people involved, and there is a

need for local folks to be involved on every level. There are a lot of funds, especially to pick up the scope and scale of thinning and prescribed fire. It should be noted that long-time forester and local fire safe council pioneer, Tracy Katelman, has been recently appointed as Executive Director of the California Fire Safe Council. Go to their website to get a fuller picture.

As I went over last fall: Yes, thinning and increased prescribed burns are good—and they are being done in order to get to a more fire resistant “healthy forest.” The new CalFire Director, Thom Porter (a very qualified person) in a recent hearing said they are approaching the situation on a 50-50 basis: half the effort centers on thinning forests and half on proactive efforts to protect communities at risk. He cited Sierra Pacific Industries as his main consultant on forests, and the actions for communities at risk focus on fuel breaks around communities and along roads providing essential

safe passage and fire fighting capability. On the FMTF website, you can find the 45-Day Report by CalFire about protecting vulnerable communities. There is a prioritized list of 35 projects. I think number 8 is for Bridgeville and both Ukiah and Willits projects are included.

So it is gung-ho and action, action. Unfortunately it hasn't yet been addressed what these healthy forests are to become, and when. The emphasis is on ministerial approvals, accompanied by hugely-reduced reasonable oversight. Helge Eng, the CalFire Deputy Director of Resource Management, speaking for Director Porter at the March 4<sup>th</sup> FMTF meeting, claimed that environmental groups were all for that approach. I sure haven't seen the Sierra Club and the Center for Biological Diversity on the Task Force, the committees, or the regional groups. Unless standards are set and incentives are found to attain truly healthy forests, it won't happen. We're



Needle Rock Road (Mendocino Road CR435) in the Sinkyone Wilderness State Park which provides vehicular access to Needle Rock visitor Center. This photo shows an example of water being diverted from one watershed to another, with detrimental effects. The water originates next to a landslide from 2015, continues around the ridge to an adjacent watershed and to a 2018 landslide.

ALL PHOTOS THIS ARTICLE BY RICHARD GIENGER



talking generations here, not five years of thinning and burning. Following is a draft from early February. A recent version with graph illustrations and some edits and additions can be found at Why Forests Matter’s website. Click at the top at “blog” to check out the Forest Health eblast and previous eblasts and information:

### Putting Forests Health into Context

“The term “forest health” has been bandied about more and more frequently the last several years, especially since the recent catastrophic fires in California in 2017 and 2018. The California Legislative Analyst’s Office (LAO), on 4 April 2018, came out with a report, “Improving California’s Forest and Watershed Management”, written by Legislative Analyst, Mac Taylor. On page 19 there are graphic comparative representations of a healthy forest and an unhealthy forest.

The descriptive caption under the healthy forest image: *“Sporadic small trees and brush, comparatively more large and older trees, 40-60 trees/acre*

- Smaller and less intense wildfires.
- Increased forest resilience to pests, drought, and disease.
- Greater mitigation against climate change.
- Protected and potentially increased water supply.”

The descriptive caption under the unhealthy forest image: *“Prevalent small trees and brush, comparatively fewer large and older trees, 100-200 trees/acre*

- Increased risk of severe forest fires.
- Less resilient forests, large numbers of dead trees.
- Loss of carbon sequestration benefits, potential increase in emissions.
- Threats to water supply and quality, and to hydropower generation.”

While this is helpful to get a general picture of the differences between healthy and unhealthy forests, the reality and causes are much more complex. Forest



The 2018 slide area on Needle Rock Road (photo page 16) shows the ditch that was created to divert water off of the slide. However, a fissure developed where the water disappears and creates an unstable large section of the road that could slide to the creek at any time.

succession—the changes from seedlings to young and older trees, the changing balances between tree species and vegetation types—is rather complex and dependent on many variable factors. These factors include natural conditions and stressors like elevation, geology, soil types, climate, weather. Other significant factors include human related management impacts. These range from indigenous impacts from the use of fire and encouragement of favored flora and fauna to extensive more widespread and industrial impacts such as repeated removal of whole age classes and types

of trees, or even the whole forest. To get a long-term and broader description of human impacts on forests, it is highly recommended that you read John Perlin’s, *A Forest Journey: The Story of Wood and Civilization*.

It is especially important to stress that a healthy forest supports healthy populations of animal and plant species, and can be essential to prevent extinction of endangered and threatened species. Emphasis must also be placed on healthy forests’ ability to sequester carbon and remove CO2 from the atmosphere.



For several decades there has been increasing concern about the Wildland Urban Interface (WUI). As more and denser human development encroaches on wildlands, there is an increased risk of catastrophic wildfires, especially in dryer and in historically/prehistorically fire prone areas. Fires in 2003 were an example of this risk becoming reality. A report titled, *“Lessons from the October 2003 Wildfires in Southern California”*, by Jon E. Keeley, C.J. Fotheringham, and Max A. Moritz, is instructive. Their abstract: “The Southern California fires of late Oct. 2003 burned 742,000 ac and destroyed 3,361 homes and 26 lives. Factors leading up to this event were very different between forests, which comprised about 5% of the area burned, and shrublands. Three lessons are (1) although these fires were massive, they were not unprecedented and future fires of this magnitude are to be expected; (2) the current fire management policy is not effective at preventing these massive fires; and (3) future developments need to plan for these natural fire events much the same way we currently incorporate engineering solutions to earthquakes and other natural catastrophes.” The whole report is worth reading and can be found by searching on the internet.

From 2015 to the present, with statewide drought and tree mortality primarily in the southern Sierra Nevada, there has been unprecedented destruction of property and lives by fire that has prompted unprecedented action by the State of California including, but not limited to a Little Hoover Commission Report on drought, tree die-off and fire, the LAO’s “Improving California’s Forest and Watershed Management”, three Executive Orders by California’s Governors (one by Jerry Brown and two by Gavin Newsom), over 25 bills regarding fire and fire impacts becoming law, and formation of the Forestland Management Task Force with seven committees and four regional groups focused on picking up the pace



Dinner Creek stream crossing after construction of a plate arch to improve fish passage, completed in October of 2018 (top, above). Photo bottom of the same area (note circled stump) on February 29, 2019, after massive erosion. Photo top right, was taken on March 17, 2019, and shows continuing erosion. There was nothing in the plans created by the involved agencies to provide for channel stabilization that would improved habitat upstream and prevent the massive siltation of coho rearing pools downstream of the new crossing.

and scale of both forest thinning and prescribed fire.

So far, most of these emergency/panic motivated measures don’t seem to be

taking the three lessons from the report on the 2003 fires adequately into account, and instead seem focused on thinning unhealthy forests with no standards set for attaining the characteristics of a





healthy, fire resistant, carbon sequestering, green house gas reducing, vibrant wildlife supporting forest. In regards to reducing risk for catastrophic fire, emphasis on areas with a history of repeated fire and/or high wind and dry conditions where people have or will try to live should be paramount. There does seem to be some movement relating to doing the things that need to be done for those areas like special zoning, fire-safe building standards, and real emergency preparedness with multiple road accesses. This does include comprehensively changing the long-standing policy of suppression of forest fires that has prevented the natural and sometimes human aided fires to burn underbrush and so-called ladder fuels that contribute to large out-of-control burning.

The way things have evolved since the 1973 Forest Practice Act, which focused on attaining high quality forests and related values with high quality forest products, there has been continued extreme forest depletion which does not meet the characteristics of healthy forests described in the LAO Report. Almost all industry sawmills will not even take the larger higher quality logs. The usual log

in the modernized mill will be from six to sixteen inches in diameter. Instead of CalFire's foresters having the capacity and support for attaining the healthy and high quality forests envisioned in the Act, they have become a small portion of the thousands of personnel engaged in emergency response, fire fighting, and saving lives. CalFire, as that type of organization, is in the top rank in the world. Unfortunately, the actual forest stewardship role has become almost an afterthought. A graph on page 17 of the LAO report shows that in 2017-2018, CalFire spent almost \$2.4 billion on Fire Response. \$0.4 billion was spent on Resource Management and Fire Prevention, with actual Resource Management likely a small portion of that category

It is time for forest and resource management to independently focus on the intent of the Act and the attainment of healthy forests. It is also time for all types of forest landowners to have real incentives and standards to ensure healthy forests in the future of California. If Jackson Demonstration State Forest (JDSF) in Mendocino can average 55,000

board feet/acre of high quality timber (versus 12,000 to 20,000 bf-ft/ac average for other commercial forests on the North Coast)—with abundant fish and wildlife and other public benefits—the rest of the private and state forestlands can and should come up to similar comparable standards. When acquired in 1946 the 50,000 acre property was almost entirely depleted—cut and burned. And today it is a model of what an attainable healthy forest can be.”

### **Other Important Perspectives and Issues**

Pretty good runs of Chinook Salmon in the Mattole—not like last year's abundance, but OK. Live spawning coho salmon were spotted in the Mattole for the first time in some years. Also, over twenty spawning coho were videoed in the headwaters of Anderson Creek—part of the vital Indian Creek watershed of the South Fork Eel River. Much restoration work, both road decommissioning/upgrades and instream/riparian have been done and are planned for in both Indian and Standley Creeks. See the Redwood Forest Foundation, Inc. website for photos, descriptions, and videos. NOAA Fisheries and the California Department of Fish and Wildlife are catalyzing a meeting with RFFI, Lost Coast Forestland and others in late March—to really delve into restoration for Indian and Standley Creeks. Those are the 3<sup>rd</sup> and 7<sup>th</sup> priorities for restoration, respectively, of the 23 watershed areas evaluated for the South Fork Eel River.

Rains and snow really picked up in February and early March. The impacts varied from place to place. Some said that the Eel River reached the third highest level since the 1964 flood. Lots of damage, natural and related to human impacts—landslides, plugged and washed out culverts/



watercourse crossings. The wetness and snowfall stresses caused extensive snapped and uprooted trees.

### Sinkyone Wilderness Coast.

Many problems persist on the ‘unimproved’ roads along the Sinkyone Wilderness Coast. Mendocino Road crews never got much past Kenny towards Four Corners doing upgrades before the rains started. That work was sparked by a potential road wash out at a slide in the Waterfall Gulch watershed between Usal Redwood Forest and the InterTribal Sinkyone Wilderness, near the Sally Bell Grove. Unfortunately, much of the work left more of the ‘symbolic’ berm breaks—breaks disconnected to the road topography, preventing proper road drainage. On a positive note: The Mendocino Resource Conservation District began working to submit a proposal by the end of April to evaluate the roads of the Sinkyone Coast and come up with plans for action. Input by surrounding communities and emergency service organizations will be important. On a special note: A new slide recently happened in ‘Deep Dark Gulch’, just east and north of Jones Beach access, on the Needle Rock Road—initiating road closure. Additionally a new 70+’ fissure just opened next to last year’s slide, which periodically has caused road closures. Short-term walk-in may last for some time. Long-term, it could mean that all Sinkyone Wilderness State Park Needle Rock/Bear Harbor vehicular access could end with the enlargement of Sinkyone State Wilderness. A complication is that the County owns the access between Needle Rock and Bear Harbor.

### Briceland Road Stream Crossing Update

For the last two years I have been carefully documenting the

replacement of three road/stream crossings on Briceland Road, over Dinner Creek near Huckleberry Hill. I actually could get into this deeply enough for a whole column. The upshot is that Wilcox Enterprises handled the actual construction very well. The problem is poor design by NOAA Fisheries, CalFire, and Humboldt County that failed to provide for stable channels above and below the new crossings, especially at the 115’ long plate arch that filled in significant endangered coho rearing pools with excessive upstream erosion/trenching. The projects cost over \$700,000, plus emergency funds for the ‘sinkhole’ failure of the first crossing in 2018. It’s good that fish passage is greatly improved, but for a proportionately reasonable amount, comprehensive grade-controls could have been added that would add to the number of quality coho rearing pools, and prevented massive sedimentation/filling of the previously high quality pools. If a private culvert replacement caused, maybe 600 cubic yards of stream channel to be eroded in endangered fish habitat, I’d hate to imagine the consequences for the poor landowner—much poorer and maybe somewhat wiser after mandatory corrective measures are taken. Submit your restoration proposals soon!

### Rainbow Ridge

Yes, another whole column could be written about the Rainbow Ridge saga. The two necessary corrective actions under the Forest Stewardship Council (FSC) standards, regarding reexamination of High Conservation Value Forest designation and of herbicide use—which resulted from the Lost Coast League’s formal grievance—are in a state of confusion about how they are to be resolved. Will it be an appeal to a higher level to an organization (that is controlled

### To Get Involved

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 CalFire  
fjmtf.fire.ca.gov

 California Fire Safe Council  
cafiresafecouncil.org

 California Legislative Information  
www.leginfo.ca.gov

 Forests Forever  
www.forestsforever.org/


 Lost Coast League  
lostcoastleague.org

 RFFI  
www.rffi.org

 Why Forests Matter  
whyforestsmatter.org

by FSC) and/or by a transparent/partnered new determination of the actual High Conservation Value Forests and herbicide use on the 18,000 acres Humboldt/Mendocino Redwoods Company holdings in the Mattole? Get in touch with the Lost Coast League to examine the history and realities—and to find out current crucial developments.

Looks like I’ll have to wait until next column to describe how the initial Planning Watershed Pilot Project turned out—disappointing at best—a lot of wasted time and talent without the simple reform focus on progress for cumulative impacts evaluation and response, and facilitation of restoration. There was some good work done—which basically points out what is really needed. Please go to Forest Forever’s website and look for the pilot project alert (“Reset”), as well as the Green Diamond and Rainbow Ridge alerts.

 Please help out where and when you can. Check out the workshop tour programs and other information for Sanctuary Forest, the Institute for Sustainable Forestry (ISF), and EPIC. — rg





**LIVING WITH FIRE**

# Envisioning Community Resilience by Embracing the Future of Fire in our Forests

By Institute for Sustainable Forestry

Please join the Institute for Sustainable Forestry (ISF) at the Mateel Community Center in Redway, California on May 11<sup>th</sup>, as we observe the beginning of the dry season. We are hoping to provide a venue for a broad community conversation about fire resilience. We are going to be bringing together a wide spectrum of nongovernmental, local, state, and federal actors engaged in formulating a community response to our growing wildfire hazards.

California is at a critical junction in its forest policy. Over the last decade the state has assembled an unprecedented array of programs to incentivize carbon sequestration in our forests. This policy evolution has occurred



Figure 1 Fire Mosaic in Ultramafic Landscape three years after the 2015 Mad River Complex, Looking Southeast from Signal Peak



Figure 2 Salvage logging in the Mad River Complex ALL PHOTOS THIS ARTICLE BY TIM BAILEY

during a period of dramatically escalating, extreme wildfire behavior. The sheer scale of human tragedy over the last four fire seasons has been sobering. It is clear that the existing body of cultural practices is simply not adequate to protect our communities. Extreme weather events have repeatedly driven wildfires through relatively well resourced suburban landscapes. Virtually everyone actively involved in fire and natural resource management finds this situation to be unsustainable. As of March 22<sup>nd</sup> Governor Newsom has declared a statewide fire preparedness emergency.

A century of effective fire suppression, coupled with extremely rapid forest harvest, has left our landscape uniquely vulnerable. Emergency fire





Figure 3 Large numbers of snags in a high severity patch of the 2003 Canoe Fire, Humboldt Redwoods State Park.

management is now the dominant activity of natural resource agencies such as the U.S. Forest Service and CalFire. Every summer the State and Federal government mobilize an army of wildland firefighters. For the most part these people are brave, capable, professional, and conscientious, and regularly take personal risks to protect rural communities across the Western United States. This situation is somewhat analogous to receiving primary medical care from an emergency room.

We need to rebuild our natural resources infrastructure in a manner that proactively engages with the trends on our landscape. Foremost of these trends is the widespread decline of fire resilient characteristics in forest stands. The solutions to this problem will be driven by people who have a persistent and sustained engagement with the landscape.

There is a surprisingly broad consensus on how to make communities fire resilient. We need to practice persistent fire hardening of infrastructure. We need to appropriately escalate fire preparedness through the season

as the threat builds. We need to identify and implement strategic fuels management. We need to build effective communication networks. We need to identify vulnerable populations that need assistance responding to hazards. We need to establish cooperative emergency response plans. Finally, we need to reintroduce fire to our forests and grasslands in a manner that we can live with.

For the last 28 years, ISF has been at the forefront of the sustainable forestry movement. During this time we have struggled to articulate and implement a vision of a forest-centered economy. Over the past year, ISF has developed a public education program in which we explore natural resource decision-making processes throughout the landscapes that they affect. We have operated on the assumption that the landscape can tell us stories that can be read in river terraces, soil profiles, tree growth rings. To this end we have explored some of the North Coast's most extraordinary forests. In each case the fire history has been a critical element in the unfolding narratives.

Two of our trips were explicit fire retrospectives. In June we visited the Lassics Wilderness and the Mad River Complex which burned in 2015 (figures 1 and 2). We had the opportunity to explore the Burned Area Emergency Response efforts, and the salvage logging (figure 2). In October we explored the 2003 Canoe Fire. This fire burned out from within a State Wilderness area dominated by old-growth redwood onto the



Figure 4 Highly variable tree mortality within the Canoe Fire perimeter.



property of a private landowner with a nonindustrial timber management plan. After discussing the impacts of the fire on private lands we walked fourteen miles around the perimeter of the fire observing the effects (figures 3, and 4). In each case, the fires exhibited moderate and high fire severity. Both fires provided significant environmental benefits while simultaneously damaging late successional habitat and timber values.

Our community has some difficult choices ahead and we are going to have to learn fast, articulate our values, and rationally respond to the conditions on our landscape. We strongly believe that our community can proactively engage with the growing hazard. The complex matrix of small, high value forest landholdings within the Eel River Watershed may actually be an ideal environment to develop progressive forestry practices. Small landowners can initiate action in a way that is difficult in public lands settings. Achieving the reintroduction of fire into the landscape is perhaps the hardest



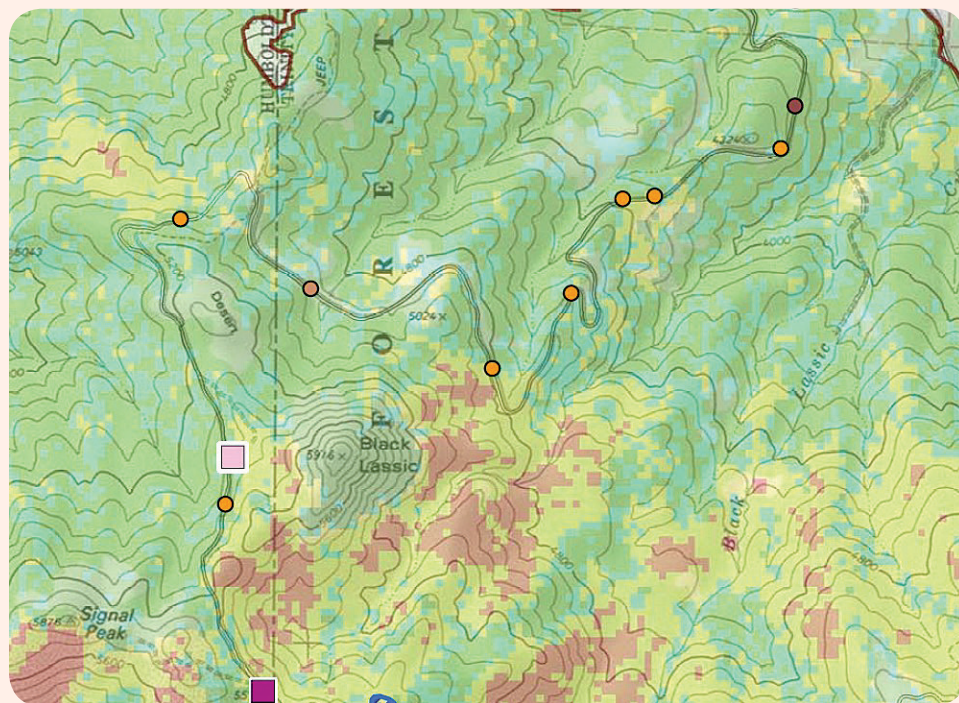
Figure 5 Demonstration of two small portable biochar production kilns, Southern Humboldt Community Park, December 8, 2018

of these strategies to implement. Fire resistant characteristics that forest stands have evolved, are in decline across large swaths of our landscape. ISF believes that through sustained engagement our communities will be able to respond with more nuance to

the hazard and realize the opportunity for revitalizing our forests that fire can provide. We will only achieve this by securing our households and community infrastructure. ISF has been developing approaches for small scale biochar production as a byproduct of household fuels reduction efforts (figure 5). On a larger scale we see the opportunities to use landscape burning for a number of issues such as conifer encroachment in Oak Woodlands.

Before the winter rains return we will have to face another fire season, and then another one after that. As a community we need to chart a course forward. Individual forest managers cannot implement a fire policy, and the State cannot clean our gutters. We need to disseminate and implement best practices now. It is time to get to work. I hope to see you at the Mateel Community Center on May 11<sup>th</sup>.

For more information: *contact.*  
*newforestry@gmail.com*



Burn Severity Mosaic on the Lassics. FROM LANDFIRE DATA



# Conservation Partner Organizations at Work

## Whose Streets?

### Coalition for Responsible Transportation Priorities

Since its founding in 2015, the Coalition for Responsible Transportation Priorities (CRTP) has clashed with Caltrans numerous times. In fact, CRTP's initial reason for existence was specifically to fight the agency's attempts to widen and straighten highways through Richardson Grove State Park and the Smith River Canyon. Through those campaigns and all of our work since then, we've come to recognize the structural problems that contribute to our state transportation department's continual prioritization of cars and trucks—often at the expense of all other road users and the natural environment.

Many of those structural problems are rooted in the programs that fund our transportation infrastructure. For example, much of the funding for the Richardson Grove and Smith River Canyon projects comes from the State Highway Operation and Protection Program, called the SHOPP. The law which created the SHOPP makes it clear that this program's funds are meant to "preserve and protect the state highway system," not to expand it. In an attempt to ensure funds are used that way, the law prohibits use of SHOPP funding for any project that adds a traffic lane.

The Richardson Grove and Smith River Canyon projects clearly add capacity to the state highway system; their explicit purpose is to allow a bigger class of truck to use the roadway. But when we've pointed out that this seems contrary to the intent of the SHOPP, Caltrans has maintained that the funding is allowed because the projects do not add new lanes.



If SB 127 passes, Caltrans would have to update streets like this with bicycle and pedestrian amenities the next time it plans a maintenance or repair project.  
PHOTO BY CRTP

On the other hand, Caltrans often does use SHOPP funds to pay for projects that add a new lane, in explicit contradiction of the law. For example, the agency is currently planning a SHOPP project billed as a bicycle and pedestrian safety development on southbound Highway 101 in Eureka. But mixed in with some sorely needed bike lane, crosswalk, and sidewalk improvements is a new lane for vehicles. When we pointed out that adding a new lane not only will make the street more dangerous for people walking and biking, but is also explicitly prohibited by the SHOPP law, Caltrans used a creative interpretation to deny the conflict: they said they don't intend for the new lane to add traffic capacity.

These examples highlight some of the conflicts that often arise between different types of users of the state highway system. They show that these conflicts arise in rural areas as well as in urban downtowns.

And they demonstrate the lengths to which Caltrans will go to justify designing the system for the convenience of the biggest, fastest, and most dangerous users.

Now, a bill has been introduced in the state legislature to address some of these conflicts and direct Caltrans to prioritize the safety of the most vulnerable users—who also happen to be utilizing the most environmentally friendly modes of transportation. Senate Bill 127, introduced by State Senator Scott Wiener, would require Caltrans to provide bicycle, pedestrian, and transit amenities for SHOPP projects in many areas, and to prioritize them throughout the system. It would create a new Division of Active Transportation and require Caltrans to include local community members in the project development phase. It would also clarify (if clarification were needed) that the prohibition on funding new lanes through



the SHOPP really refers to all kinds of lanes, and is not open to interpretation.

SB 127 wouldn't address all of our problems with Caltrans by a long shot. But it would prohibit some of the worst funding abuses, and it would go a long way toward ensuring that the state-owned roads and streets that run through our communities (and between them) are really designed for all of us.

For more information:  
[transportationpriorities.org](https://transportationpriorities.org)

## Good News For the Siskiyou Crest!

### Court Halts Klamath National Forest Clearcutting

**Klamath-Siskiyou Wildlands Center**

*By George Sexton, Conservation Director*

Regular *Forest & River News* readers may recall that following the 2017 Abney Fire, timber planners on the Klamath National Forest unveiled plans to clearcut old-growth "Late Successional Reserve" forests on steep slopes near the botanically renowned Cook and Green Pass in the Siskiyou Mountains. The Forest Service repeatedly rejected the input and suggestions of local residents, conservation organizations, and the Karuk Department of Natural Resources, all of whom were asking for the agency to focus on restoration rather than exploitation. Instead, Klamath timber planners once again put fire-safe projects near homes and communities on hold in order to focus on post-fire old growth logging in the backcountry. While planners in the adjacent Rogue River-Siskiyou National Forest recognized the ecological value of the mixed-severity Abney Fire and limited their logging



Logging and yarding impacts from the illegal post-fire salvage. PHOTO BY KSWILD

proposals to removing roadside hazard trees, the Klamath National Forest saw the fire as the perfect excuse to open up protected old-growth reserves to logging.

### Defending Wildlands

Represented by the Western Environmental Law Center, a coalition of conservation organizations comprised of the Klamath-Siskiyou Wildlands Center (KS Wild), the Environmental Protection Information Center (EPIC), and the Klamath Forest Alliance (KFA) filed a lawsuit challenging the Forest Service decision to clearcut post-fire old-growth reserves and establish timber plantations in their place.

The legal challenge centered on three issues: (1) the logging of old-growth snags located in the Late Successional Reserve land-use allocation of the Northwest Forest Plan; (2) increased sedimentation from logging activities to headwater

salmon streams; and (3) significant environmental impacts associated with logging a Botanical Area, an Inventoried Roadless Area, and Riparian Reserves.

### Logging During the Government Shutdown

While Forest Service restoration projects came to a screeching halt, old-growth salvage logging on the Klamath National Forest continued unabated during the government shutdown. Despite authorizing backcountry wet-weather logging operations during the shutdown, attorneys for the Forest Service argued that conservation plaintiffs should be denied their day in court to challenge the illegal logging due to the stress of the shutdown on Department of Justice lawyers who would have to defend the ongoing clearcutting. Additionally, attorneys for the Forest Service attempted to keep photos of the old-growth logging from being seen or considered by the court.



# Conservation Partner Organizations at Work

Fortunately, Federal Judge Troy Nunley was not buying what the Klamath National Forest was selling. In his early 2019 legal ruling, Judge Nunley refused to allow the Forest Service to hide behind the government shutdown to avoid judicial review and rejected their attempts to keep images of the logging hidden from view. Judge Nunley also indicated that timber planners were likely to lose on all three legal issues in front of the court. An injunction was issued, which halted much of the illegal logging.

## Searching For a Way Forward

KS Wild, EPIC, and KFA continue to attempt to work with the Forest Service to encourage the removal of roadside hazard trees and the reduction of fuels near homes and communities while protecting backcountry old-growth reserves and botanical hotspots from illegal post-fire clearcutting. While many Forest Service managers in northern California and



KS Wild, WELC, EPIC, and KFA preparing for their day in Federal Court to stop the illegal logging. PHOTO BY KSWILD

southern Oregon are sitting down with communities and stakeholders to develop fire management strategies that protect homes and towns, the Klamath National Forest has repeatedly used wildfire as an

excuse to throw out the rulebook and log otherwise protected forest stands deep in the backcountry. We hope that the recent legal ruling protecting the wildlands of the Siskiyou Crest from post-fire logging will encourage the leadership of the Klamath National Forest to work with the public to develop a more effective and sustainable fire management program.

For more information: [www.kswild.org](http://www.kswild.org)



Old-growth logging that occurred as part of the now halted Klamath National Forest salvage timber sale. PHOTO BY KSWILD

## Record-Breaking Salmon Run Gives Urgency to Needed Protections

### Salmon Protection and Watershed Network

Sixty years ago, the annual wild Central California Coast coho salmon population in Marin County's Lagunitas Creek Watershed was nearly 6,000. This year, surveyors recorded around 750 adults returning to the watershed to spawn—the best it's been in twelve years.



The numbers, however, are a tiny fraction of the 2,600 spawning fish needed annually to reach the recovery required by National Marine Fisheries Service to delist the species under the Endangered Species Act. With varying conditions—annual peak runoff, redd scour, food availability, predation, ocean food, ocean predation—that likely contributed to a record-breaking coho count, the increase in spawning fish reinforces the need to protect the habitat endangered salmon depend on.

Since the listing of Central California Coast coho salmon under the Endangered Species Act in 1996, their population has continued to dramatically decline, and the fish are now considered close to extinction. Running through Marin County, Lagunitas Creek supports the largest single population of wild Central Coast coho, representing about 20 percent of the population. However, excessive residential and commercial development along streams continues to be a major threat to freshwater spawning and rearing habitats. Even the large, late storms the North Bay already experienced in March threatens the survivability of nests laid this year.

“While we are excited to see encouraging signs of recovery, we can’t say the exact reason for this increase in spawning since there are many variable conditions that have contributed to this increase,” said Preston Brown, Watershed Conservation Director for Turtle Island Restoration Network’s Salmon Protection And Watershed Network (SPAWN). “Is this year’s increase the result of restoration efforts, good ocean conditions, fewer predators, or more likely multifactorial in the complicated and intricate ecological web of salmon? What we do know is that small populations are much more susceptible to extinction, and that is the

position we still find ourselves in today in the Lagunitas Creek Watershed.”

For the past 20 years, SPAWN has worked to protect critically endangered coho salmon through advocacy, habitat protection and restoration, biological monitoring, and legal action to ensure science-based, common-sense regulations are in place to protect endangered salmon and safeguard the quality of life for all Marin County residents. Our efforts have rescued thousands of juvenile fish from drying pools, restored over 600,000 square feet of riparian habitats, and safeguarded headwater streams from harmful development. But the efforts are being backtracked.

“Despite all the good work, salmon habitat is being degraded faster than it is being repaired,” said Todd Steiner, SPAWN’s Executive Director. “We must address the recurring root problems that have resulted in our coho salmon

population being pushed to the precipice of local extinction, which are inadequate regulations to protect the creekside habitat the species depends on.”

In 2012, SPAWN filed a lawsuit against Marin County for failing to follow California Environmental Quality Act laws to protect critical salmon habitat from harmful development. The State Appeals Court ruled in favor of SPAWN’s argument and ordered the County to complete a CEQA environmental impact report that considers impacts to salmon habitat and biology before approving more development. Nearly a decade later, the County has still yet to complete the CEQA Environmental Impact Report and enact regulations that project habitats from development.

SPAWN is also undertaking our most ambitious habitat restoration project yet—restoring a one-mile-long stretch of creek habitat within the Golden Gate National



A large adult male coho and small adult male coho, or jack male, compete to mate with an adult female coho (left) in the shallow waters of Marin County’s Lagunitas Creek. This year, surveyors recorded around 750 adults returning to the watershed to spawn—the best it’s been in twelve years. PHOTO BY HARRY McGRATH, SPAWN



# Conservation Partner Organizations at Work

Recreation Area. This project aims to address the known limiting factors for salmonid survival in the watershed, which is winter rearing habitat—floodplains, side channels, or other off-channel habitats where fish can find slow water, insect prey, and cover from predators.

The recently completed first phase of the project has recreated a large, dynamic floodplain that had been buried under

20 feet of dirt and cement for decades, obstructing critical habitat for coho salmon and other wildlife, including the endangered California freshwater shrimp and the threatened California red-legged frog. The project has already seen many juvenile coho and steelhead assembling in feeding lanes and clustering behind large woody debris, which means fish are recognizing it as habitat.



The Salmon Protection and Watershed Network's habitat restoration project along a one-mile-long stretch of creek habitat within the Golden Gate National Recreation Area aims to address the known limiting factors for salmonid survival in the Lagunitas Creek Watershed. PHOTO BY PRESTON BROWN, SPAWN

But with the second phase scheduled for August to address similar issues one mile upstream, the project is a small remedy on the human impacts of the past, and are still happening in the watershed today.

"We keep undoing problems and mistakes of the past, while local government allows them to be repeated in the present," Steiner said. "Unless common-sense, science-based regulations are put in place to prevent ongoing degradation from development, all of our restoration efforts will ultimately not be enough."

🌲 To join SPAWN's species-saving habitat restoration efforts, visit [www.seaturtles.org/salmon](http://www.seaturtles.org/salmon).

## News from the Mad

### Mad River Alliance

#### Public Access Made Permanent

Public access points to the Mad River are a limited resource. With encouragement from local river users and the Mad River Alliance, the Humboldt Bay Municipal Water District has formally opened public access to the Mad River off Glendale Drive, just



Mad River Alliance's new Executive Director, Dan Berman



west of the intersection with Fieldbrook Road, behind a yellow gate. If you use this new public access to Mad River, please don't block the neighbor's driveway, and beware of high water.

### Volunteer Opportunities:

The Mad River Alliance is looking for volunteers for bimonthly river cleanups, water quality monitoring, and habitat restoration in the lower Mad River. Our next Mad River Clean-up will be Sunday April 14<sup>th</sup>. Meet at 8:30am at the Logger Bar in Blue Lake. Visit our facebook and website for more information.

### New MRA Executive Director

The Mad River Alliance has hired Dan Berman as their new Executive Director.



Monitoring water quality in the lower Mad River. PHOTO BY DAVE FERAL

7TH ANNUAL

MAD RIVER

EARTH DAY CLEAN-UP

2019

WHEN: SUNDAY, APRIL 14<sup>th</sup>; 8:30 am – 12 pm

WHERE: MEET US AT THE LOGGER BAR •

510 RAILROAD AVE, BLUE LAKE, CA 95525

Gloves, bags, and buckets provided. Snacks and coffee will be available prior to the clean-up and a small lunch following the clean-up.

For more information, contact [caroline@madriveralliance.org](mailto:caroline@madriveralliance.org)

WITH SUPPORT FROM:

Dan has worked in coastal watershed management for many years, including stints as the Conservation Director for the Humboldt Bay Harbor District, City Manager for Trinidad, and as the Director of the Morro Bay National Estuary Program.

He can be reached at [dan@madriveralliance.org](mailto:dan@madriveralliance.org) and is looking forward to working with river and forest allies across the bioregion to protect and restore water quality and ecological integrity in the Mad River Basin. In addition, Pete Nichols, of the Waterkeeper Alliance, has joined the MRA Board.

### Old Pollution Threats Return

Penta and dioxin soil contamination from a defunct lumber operation in Glendale was capped and deemed 'safe' for many years, but monitoring has revealed the contamination has spread with rising groundwater and a new effort to contain it is needed. The State

Join Mad River Alliance for an Earth Day river clean-up!



# Conservation Partner Organizations at Work

Department of Toxic Substance Control will be proposing a new remediation plan for public comment in the coming months. See [www.humboldtbykeeper.org](http://www.humboldtbykeeper.org) for more information on this.

For more information:  
[www.madriveralliance.org](http://www.madriveralliance.org)

## 37<sup>th</sup> Annual Salmonid Restoration Conference

April 23-26, 2019 in Santa Rosa

**Drought, Fire, and Floods—  
Can Salmon and the  
Restoration Field Adapt?**

Salmonid Restoration Federation (SRF) will host the 37<sup>th</sup> Annual Salmonid Restoration Conference in Santa Rosa in Sonoma County—a place where post-fire recovery and drought resilience efforts affect each resident and species in tangible ways. The last two years have seen unprecedented climatic conditions and fire catastrophes that have fundamentally altered the way



The idyllic Occidental Arts and Ecology Center is a research demonstration center in the Dutch Bill watershed in Western Sonoma County that teaches permaculture and watershed restoration practices. PHOTO BY KATHERINE HARRIS

we think about restoration planning and water management. It is our hope that the Annual Salmonid Restoration Conference can shed some light on these pressing issues so we can continue the upstream work of restoring habitat and recovering wild salmon populations.

This year participants will have the opportunity to visit floodplain and fish passage projects in Lagunitas Creek, tour flow enhancement projects in Dutch Bill watershed, wade in a Stage 0 watershed in Willow Creek, and visit fire-scarred watersheds that are both being actively restored and are in the process of naturally regenerating. Additionally, participants can learn about an array of Passive Integrated Transponder (PIT) tag technology applications in the Russian River watershed or tour integrated floodplain management projects in the Napa River.

Conference workshops will include a Stage 0 Design, Applications and Permitting workshop that will explore how to store more water and sediment by restoring the ecological processes that create alluvial valleys. This comprehensive workshop will cover the theory of Stage 0 restoration, the life cycle of a Stage 0 project, and permitting pathways. Additionally, there will be a workshop focused on assessing ecological risks from



Newly constructed side channel in the upper reaches of Dry Creek which was fully completed in late 2018. PHOTO BY SCWA



streamflow diversions through hydraulic calculations. This year will also feature a workshop on the growing impacts of cannabis cultivation to instream flows that will include planners, regulators, cannabis consultants, and flow specialists. There will also be an Urban Creek workshop, which will feature innovative, “outside the channel” techniques with an afternoon trolley tour of on-the-ground restoration projects in Santa Rosa.

The conference agenda will explore a range of issues including foodscapes, floodplains, and freshwater-estuarine habitats; monitoring, modeling, and strategies to address summertime flows; salmon-habitat relationships, Spring-run Chinook

genetic and recovery issues; as well as Klamath River dam removal planning. Concurrent sessions will also focus on planning and strategies for fire resilience.

The Plenary session will focus on the landscape of salmon recovery in a time of climatic extremes and include Langdon Cook, author of *Upstream*, who will share *Fish Tales: A Writer's Journey into the Salmon Connection*. Renowned scientist Gordon Reeves will discuss salmonid recovery efforts in an era of climate change. Congressman Jared Huffman will discuss legislative efforts to protect watersheds including the California legislation that he recently introduced, the “Northwest California

Wilderness, Recreation, and Working Forest Act.” Additionally, Ellen Hanak, the Director of the Water Policy Center of the Public Policy Institute of California, will present on managing California’s water in a time of drought, fire, and floods.

Other conference events will include the SRF Annual Meeting and membership dinner on Wednesday evening with a special screening of the film *The Breach*, a mentor-mentee lunch, the annual poster session and reception on Thursday night, and a cabaret, banquet and award ceremony with a wild salmon dinner and live band on Friday evening.

🌲 For more information: [www.calsalmon.org](http://www.calsalmon.org)

## Please Welcome to Trees Foundation

### Kerry Reynolds, Organizational Director

Kerry arrived in Northern California from the East Coast in 2006. She holds a Master of Science degree in Environmental Education from the Audubon Expedition Institute and a Bachelor of Arts degree in Writing Seminars from Johns Hopkins University. Since 2011, Kerry has written and produced stories for KMUD News, *Emerald Magazine*, and *The San Francisco Chronicle's* Green State section.

Through her new role at Trees Foundation, Kerry is excited to help revitalize and promote the strong environmental ethos of the redwood region. She can be reached at [organize@treesfoundation.org](mailto:organize@treesfoundation.org)



### Mona Provisor, Bookkeeper

As a lifetime Humboldt resident, Mona is delighted to have Trees Foundation as her first environmental non-profit job. Growing up in the hills of Southern Humboldt, her mom instilled in her the importance of community and our natural environment. Today, the natural beauty of the local forests, rolling hills, creeks, and rivers are a large part of why she will continue to call this community her home.

In her free time she enjoys gardening, knitting, hiking, and rescuing recycling from garbage cans and the sides of roadways. She can be reached at [books@treesfoundation.org](mailto:books@treesfoundation.org)





## Trees Foundation


PO Box 2202  
Redway, CA 95560

RETURN  
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Our mission is to restore  
the ecological integrity  
of California's North Coast  
by empowering and assisting  
community-based conservation  
and restoration projects.

*If you would like to distribute Forest & River News in your area, please contact us!  
If you no longer wish to receive this newsletter, please let us know.*

 Printed on 100% recycled paper with 40% PCW, using plant-based inks

Trees Foundation is located at 439 Melville Road, Garberville, CA, (707) 923-4377, [www.treesfoundation.org](http://www.treesfoundation.org)

# Getting Involved

When you do nothing you feel overwhelmed and powerless. But when you get involved you feel the sense of hope and accomplishment that comes from knowing you are working to make things better. ~ MAYA ANGELOU



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