

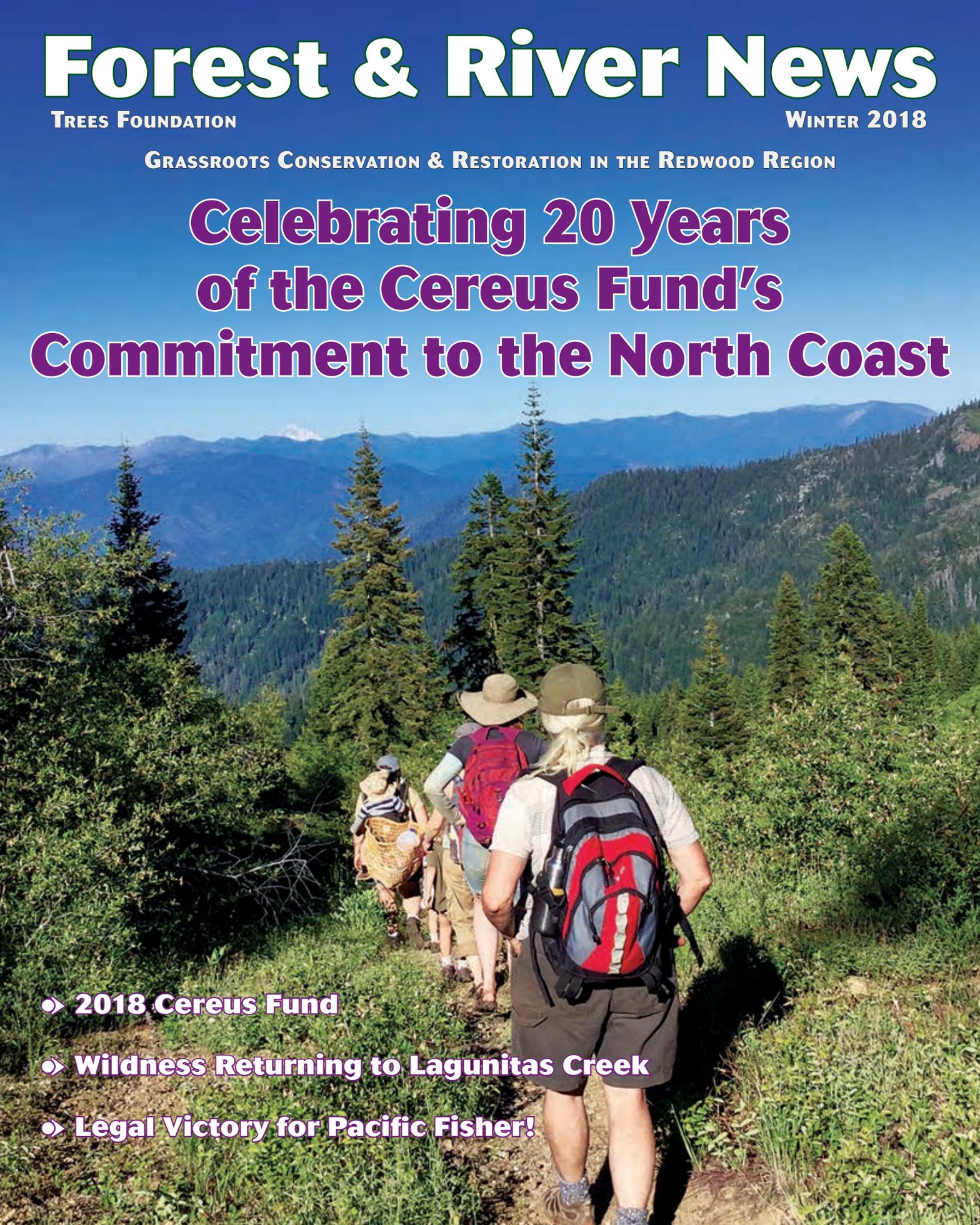
Forest & River News

TREES FOUNDATION

WINTER 2018

GRASSROOTS CONSERVATION & RESTORATION IN THE REDWOOD REGION

Celebrating 20 Years of the Cereus Fund's Commitment to the North Coast

- 
- **2018 Cereus Fund**
 - **Wildness Returning to Lagunitas Creek**
 - **Legal Victory for Pacific Fisher!**



Editor's Note

Thanks.....Giving

As we go to press with this issue of Forest and River News, our hearts and minds are overwhelmed by the destruction and tragedy from yet more California wildfires burning in California. And alarmingly, recent research predicts an even greater increase in the number of wildfires in the near future.*

At Trees Foundation, we are so grateful for the incredible grassroots organizations and individuals who are working so hard to not only reduce our risk of catastrophic wildfires, but also working to restore our rivers and fisheries, mitigate runoff and erosion, and are fighting for the conservation of our forests and rivers. We all benefit from the incredible work that is described in each issue of Forest and River News.

Individual financial contributions are vital to all of the groups working towards healthy North Coast forests, rivers, and wildlife. Trees Foundation relies on individual donors for more than 80% of our annual budget. This is why, just once a year, we ask our readers to please make a donation in support of our continued efforts to protect, conserve, and advocate for our wildlands. Your individual donation will make a difference. Please give generously. Thank you!

*Assessing Extreme Weather-Related Vulnerability and Identifying Resilience Options for California's Interdependent Transportation Fuel Sector". University of California, Berkeley Center for Catastrophic Risk Management. August 2018.

Cover photo: A view of the Salmon River watershed during a wildflower hike in the Trinity Alps Wilderness. PHOTO FROM SRRC

Photo Right: Overcrowded steelhead in a lower riffle run late this summer on the South Fork Eel River—the location came to be known as Steelhead Willows (see story page 9). PHOTO BY ERIC STOCKWELL

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Celebrating the 50th Anniversary of the Wild and Scenic Rivers Act

The U.S. Bureau of Land Management (BLM) provided support for the Eel River Recovery Project (ERRP) to assist with celebrating the 50th Anniversary of the passage of the *Wild and Scenic Rivers Act*. As well, they were joined by the U.S. Forest Service (USFS), California Wilderness Coalition (CWC), and the Bigfoot Trail Alliance (BTA). The celebration included events, hikes, and floats in the Eel River basin and ended with a “Wild and Scenic and Wilderness Conference” on November 4th.

Hikes related to the Wild and Scenic Rivers celebration included one in the Middle Fork Eel River to the mouth of Elk Creek on September 15th. Additional walks took place in October to Montague Bluffs on the upper Middle Fork Eel River and along the South Fork Eel River in the giant trees of Humboldt Redwoods State Park and up to the ridges for spectacular views. These walks were led by ERRP Wilderness Coordinator Phill Hosking and his friend, ERRP Forest Health Coordinator, Imil Ferrara. Phill also helped out with a workday at the BLM Little Darby Recreation Area.

Wild and Scenic floats organized by guide Eric Stockwell were confined to lower Eel River pools because of low flow conditions, in late October and



Hikers in the inner gorge of the Middle Fork Eel River near Hayshed Creek on September 15th outing. PHOTO BY BEARPRINTS

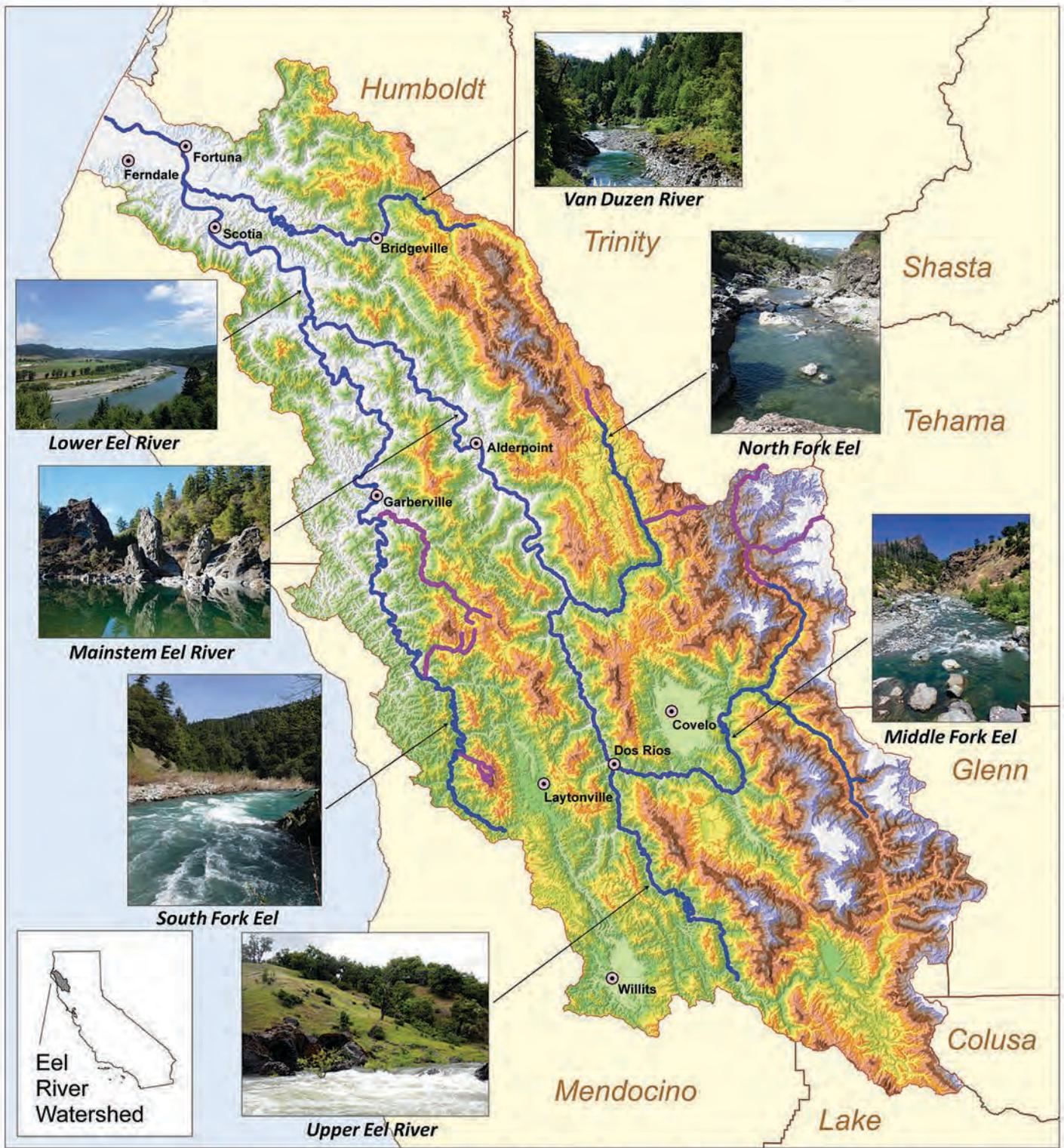
early November. The lower Eel is part of the 394 miles of the Wild and Scenic River network and paddle-boarders and kayakers were treated to the sight of thousands of salmon and steelhead and even an adult sturgeon (see FRN Fall-run Chinook story page 30).

Wild and Scenic celebration events included weekly showings of *A River's Last Chance* at the Peg House on

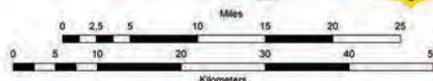
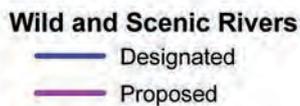
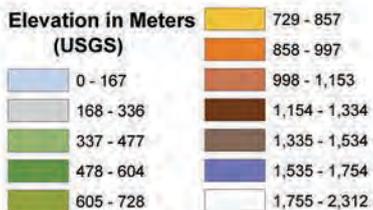
Friday nights from August 4th through September 14th and an Anniversary Party at the Willits Hub on Friday night October 5th that included an albacore BBQ. Recitation of a poem “I am Fire” and a rousing song about saving the Stanislaus River inspired the crowd, and rafting guide Greg Israel showed video and slides of the Wild and Scenic Eel River. ERRP brought Wild and Scenic energy to



View to the east off the Mina Road looking into the Wild and Scenic North Fork Eel River watershed. PHOTO BY PHILLIP HOSKING



**Celebrating 50 Years of the Wild and Scenic Rivers Act
Focus on the Eel River**





A view to the west from Cahto Peak, which is BLM Wilderness. ERRP would like to partner with BLM on trails and forest health. Folks in field trip include Mary Power and Bill Dietrich from UCB. PHOTO BY PAT HIGGINS

the Blocksburg Harvest Festival and to the Humboldt-Trinity Recreation Alliance event at Ruth Lake on Labor Day Weekend.

The culmination of the anniversary celebration was a conference at the Fortuna River Lodge on Sunday, November 4th entitled: *Celebrating 50*

Years of the Wild and Scenic Rivers Act and Eel River Wilderness. The featured speaker was author and river advocate Tim Palmer who is on tour to promote his new book: *Wild and Scenic Rivers: An American Legacy*. CWC Coordinator Ryan Henson gave a talk on the history of Wilderness designation in the Eel River basin. His colleague Steve Evans talked about how the Eel River was designated and also explained plans to add more *Wild and Scenic* segments via Congressman Jared Huffman's Wilderness legislation. The conference was also the North Coast debut of Shane Anderson's new film *Run Wild—Run Free: America's Wild and Scenic Rivers*. Shane has come out as a flaming advocate for further expansion of the Nation's *Wild and Scenic River* system.



Imil Ferrara (l) and Phill Hosking (r) of ERRP at Ruth Lake Festival with Six Rivers National Forest staff Angelique Russell (center left) and biologist Crista Smith

The designation of most of the Eel River and its main branches as *Wild and Scenic* occurred in 1981 after the hard-fought battle to stop the Dos Rios Dam. Governor Jerry Brown sought permanent protection from dams for most of the Eel River basin and also designated portions of the Smith, Klamath, and Trinity rivers. His request was met with approval from Secretary of the Interior Cecil Andrus at the end of the Carter Administration. Additional segments of the Eel River may be added as part of Congress Jared Huffman's Wilderness legislation.

For more information:
www.eelriverrecovery.org
 or on ERRP's Facebook page at
www.facebook.com/EelRiverRecovery.



Stand-up paddle boarders and kayakers who helped with Chinook salmon survey during a float of the Wild and Scenic on lower Eel River on 10/27/18. PHOTO BY ERIC STOCKWELL

Could This Obscure Showdown Shape Eureka's Future?

By Coalition for Responsible Transportation Priorities

For the past few years, there's been an obscure, complicated, slow-moving showdown happening in the world of transportation planning. It's a story that's gotten little public attention, but could have huge impacts on the future of our communities. Now, that showdown is playing out in Eureka—although you almost certainly haven't heard about it. Here's what you need to know.

The Backstory

For decades, American transportation planning has been dominated by a singular obsession with the concept of vehicular level of service, or simply "LOS." Under the LOS system, each intersection and street or road segment gets a letter grade, A through F. An "A" indicates the free flow of traffic, where each car is completely unaffected by any other cars on the road. An "F"

indicates gridlock. The LOS system has been the driving force behind many if not most transportation planning decisions in the US for a long time. Transportation engineers and planners took the unencumbered movement of cars and trucks as their prime mandate, and when a street or intersection slipped below what they considered an acceptable grade, it would be targeted for increased capacity—usually adding lanes, but sometimes things like traffic signals or roundabouts to improve the flow of traffic.

Over time, planners have come to realize that LOS "A" is not usually desirable from a public policy perspective, because it indicates that a lot of taxpayer dollars have been spent on infrastructure that's not used by very many people. So most cities, counties, and states have adopted a lower target—often LOS C. But although these lower targets recognize

in theory that LOS A or B might not be the best idea, in practice engineers and planners never object to higher grades, only lower ones. Intersections and roads with grades below the target are often said to be "failing," while those with higher grades are simply considered "acceptable."

There have long been alternative ways to measure traffic. One of the most important and well-established is the number of vehicle miles traveled, or "VMT." Unlike LOS, VMT measures the total amount of driving in a given area, rather than the speed of traffic. Because American engineers and planners have long been focused on congestion relief, and haven't really cared about the actual amount of driving people do, VMT has been largely ignored. But that's starting to change.

Why LOS Inevitably Results in More Driving (But VMT Doesn't)

There's a problem with using LOS as the basis for making decisions about the transportation system, and it's a big one. That problem is called "induced demand." In short, when you add more vehicular capacity to a road, more people will drive. This phenomenon has been recognized for nearly a century, but didn't receive much attention from researchers or planners until toward the end of the twentieth century. Now, after a few decades of study, it's widely accepted by experts that adding road capacity results in more driving—enough so that congestion relief projects of this sort are rarely successful.

This demand-inducing effect is no coincidence. In a seminal 2003 paper, Robert Cervero, a leading researcher on induced demand, showed that one



Big, straight, empty roads like this encourage more driving, cause speeding and raise the risk of serious collisions—but they're rated higher on the Level of Service (LOS) scale. PHOTOS THIS ARTICLE BY CRTP

of the main reasons more capacity results in more driving is that initially, increased capacity causes faster travel times. In other words, it's not the capacity itself but the travel time that drivers are responding to. Because decreased congestion means faster travel, any method of increasing the LOS of a "failing" road or intersection back to an "acceptable" grade will inevitably induce more driving (and likely won't relieve congestion in the long run). These problems, along with the completely car-centric nature of LOS, have resulted in long-running criticism of the system.

VMT has a major advantage over LOS as a management tool: VMT can be reduced by making alternative modes like walking, biking and transit more appealing, or by reducing the need for trips, but can't be reduced by increasing the vehicular capacity of roads. For modern communities trying to reduce greenhouse gas emissions, improve public health by increasing physical activity and reducing toxic pollutants, and revitalize local businesses and public spaces, VMT is clearly superior to LOS.

In the battle of LOS vs. VMT, however, the first big victory for critics of LOS didn't come until 2013, when the California state legislature passed (and the governor signed) SB 743. The new law required the state to stop using LOS as a measure of the transportation impacts of a project under the California Environmental Quality Act (CEQA). Five years later, the regulations implementing SB 743 still aren't completely finalized. But it's clear that the state is about to officially abandon LOS and replace it with VMT.



Managing a congested street according to LOS dictates adding lanes, which encourages more driving while decreasing bicycle and pedestrian safety. Managing according to VMT dictates improvement of bike and pedestrian amenities so more people walk and bike instead of driving.

LOS vs. VMT: The Debate Comes to Eureka

Here's the thing: SB 743 only applies to measuring environmental impacts under state law. It doesn't prevent cities and counties from continuing to use LOS to make decisions about their local transportation systems. And many are continuing to do so.

The City of Eureka just finished overhauling its General Plan, a process that takes place only once every couple of decades. Despite a lot of improvements over the old plan, the new General Plan still relies on LOS for traffic management and largely ignores VMT. Specifically, the plan re-adopts the LOS system and establishes a target of LOS C, but contains only a tepid call to "consider the applicability" of VMT as a management tool.

Coalition for Responsible Transportation Priorities (CRTP) submitted comments on the new General Plan which, among other things, pointed out the problems with

LOS and asked that it be replaced with VMT in the new plan. Unfortunately, the changes we asked for were not made. Although seemingly minor, technical, even arcane, these changes could have meant the difference between a future Eureka with speeding traffic and empty sidewalks and one with less traffic, more active transportation, a better bus system, and thriving public streets.

Caveat: Bicycle, Pedestrian, and Transit Level of Service

To its credit, Eureka's proposed General Plan also calls for "considering" adoption of an LOS system for bikes, pedestrians and transit—not just cars. That's actually a good idea, for one simple reason: while the city shouldn't want more driving, it should want more people walking, biking, and riding the bus. Using LOS to manage these systems will likely have the same demand-inducing effects as when it's used for cars, but in this case that's a good thing!

🌲 For more information:
transportationpriorities.org

2018 Cereus Fund

Twenty years ago, a generous individual contacted Trees Foundation with the desire to support the North Coast's grassroots environmental movement. Shortly after, the Cereus Fund was born, and over the years has contributed more than a million dollars to forest and conservation efforts throughout the Redwood Region. Most of the groups you read about in *Forest and River News* have benefited from the support of this private donor.

On the following pages we highlight some of the work supported by the Cereus Fund during 2018.

On behalf of Trees Foundation and our many Partner organizations, we once again extend our heartfelt gratitude for the generous support of the Cereus Fund.



Bay Area Coalition for Headwaters

Based in the Bay With Our Heart in the Forest. Collaborate. Cooperate. Cultivate relationships. All in the Name of Advocacy.

That's what we do—on forest and species issues we all care about, from our vantage point to the south of many of the groups we work with—the vantage point of sitting in the midst of the masses in the Bay Area. It's our niche to gather support for the issues, for the campaigns, and by association, for the north coast grassroots. We are hugely grateful to Trees Foundation's Cereus Fund for helping to enable the Bay Area Coalition for Headwaters (BACH) to carry out this advocacy and support work as effectively as we can. We can get a lot done with few resources, and the support of Cereus Fund has been an essential part of our constant outreach and advocacy work.

BACH's recent info tables and booths at large events like an annual book fair in Oakland, Berkeley's Indigenous Peoples' Day, and roadshow presentations that BACH hosts have been effective at engaging a lot of Bay Areas around forest and species issues. There is a thirst for information and for an understanding of threats to native forests on California's

north coast. We developed fact sheets, displays, and petitions to support campaigns like Rainbow Ridge, both the efforts on the legal front and the forest defenders in the woods; the work to halt herbicide use in the forest, efforts for dwindling native wildlife, and other active campaigns. Our actual presence at events to talk to people one-on-one about hot biodiversity issues goes a long way to feeding that understanding, and is supplemented by our electronic presence broadcasting the same topics.

BACH's media outreach has recently included a number of releases that helped generate coverage around threats to the legacy forests of Rainbow Ridge in the Mattole, including the week of action for the Mattole forest in late August.

The Climate March and week-long convergence dubbed Rise for Climate arrived in the Bay Area in early September amid great excitement to a high level of participation—in the thousands, in fact. We jumped in with



Enthusiasm at an elementary school presentation on wildlife PHOTO BY BACH

advocacy for the forests, pulling together those focused on the health of Mother Earth from a biocentric point of view, and helping to reignite energy for the forest protection movement. That was the imperative, and the response was positive. Whatever we can do, wherever we can do it, and with as much gusto and passion as we can muster—that is the design behind our work.

Eel River Recovery Project

by Eric Stockwell

Working through the Eel River Recovery Project, Loleta Eric's Guide Service utilized the 2018 grant from Trees Foundation's Cereus Fund to get Eel River stakeholders on the water. With a limited window of opportunity due to river flows, the grant allowed me to have maximum flexibility at critical times and to really focus on taking guests to see what turned out to be quite a phenomenon on the lower river!

In Early August, I used the Cereus grant to take some MVP's of the local environmental community on tours of the lower Eel. First came Sal Steinberg—retired educator and administrator, plus he's the guru behind the Friends of the Van Duzen. Sal had never been on a kayak, so a trip from the mouth of the Van Duzen down to Fernbridge was an excellent maiden voyage where we saw steelhead in the river's summer flow, a bald eagle along the route, and Sal was able to get acquainted with a new-to-him study area. Next came Barbara Domanchuk, her husband Paul (both also very active in Friends of the Van Duzen) and four members of their immediate family who were visiting from the midwest. Barbara is a well known and highly regarded media producer and also directs a youth program called "Art & Science for Kids interested in Media & Education" (ASK ME). After a paddle tour of the largest hole on the Eel River at Rio Dell where we saw striped bass in



Eel River Recovery Project's public kayak tour of the Eel River Estuary Preserve.
PHOTO BY ERIC STOCKWELL

the middle of summer, the Domanchuks and I made our way up the lowest mile or so of Nanning Creek where we studied fossils and spotted some elusive lower river steelhead fry rearing in the small but strong tributary that has maintained year-round cold flows. I finished off August scouting out a new-to-me area of the estuary at The Wildlands Conservancy's Eel River Estuary Preserve, and in early September I used the Cereus grant to work with Caltrout on a public tour at the Preserve. To be able to use the grant in support of a collaboration with Caltrout was really an honor and a pleasure, and we got a couple dozen members of the public out on the water and learning about important projects to support river life and ecosystem function.

Now for the phenomenon that I mentioned earlier. In my time as an outdoorsman and a naturalist, I have dedicated myself to certain annual pursuits which all fit somewhere in my repertoire of 'seasonal rounds'. One of my main projects each year in the late summer and early fall has been to track and follow adult salmon and steelhead from the salt of the estuary into the first few miles of fresh water where they stage prior to their spawning run. These fish leave the ocean and show up prior to significant rainfall where they settle in to holes in order to acclimate to the fresh

water. This year, shortly after my August trip on the lower river with Sal Steinberg where we documented dramatic changes in the depth of some key lower river pools, I discovered that two to three hundred steelhead had found their way to a very limited riffle run near Fortuna. With thirty to forty adult fish about 15 pounds and hundreds of half pounders present, this riffle that is less than the size of my living room became the one piece of refugia where the fish wanted to stay in the otherwise mostly stagnant low flows. When I first approached this unique location and saw that scores and scores of fish fresh from the ocean were basically staying right at my feet I knew that I had to get as many people as I could out to



see it and to learn about what it meant. There are very few instances on streams of the Pacific Northwest where one is able to walk up to fresh-from-the-ocean steelhead and have them stay within view—these fish were absolutely an indicator of a problem in the ecosystem. A drought-like low flow and dysfunction due to a lack of large wood on the lower river have led to a flat sea of gravel down here, and the fish were a clear sign that river form and lack of water are limiting the carrying capacity of our great river.

Over a period of more than six weeks I was able to use the Cereus grant to take an impressive list of stakeholders to see these fish and to engage in dialogue about lower river habitat and function as well as potential restoration options. My guest list included local guide, naturalist, drone pilot and videographer (*A River's Last Chance*), Jason Hartwick; local environmental advocate and graduate student in fisheries (specifically steelhead), Samantha Kannry; local environmental advocate, media location scout, and drone pilot, Rowdy Kelly; Caltrout's north coast programs manager and very active environmental advocate, Mary Burke; president of Fortuna Kiwanis and active senior community member, Kent Wrede, and another very active local senior, Ray Lovell; local CDFW wardens, Matt Wells and Danny Rehse; Harbor District Commissioner and head of Eel River Recovery Project, Pat Higgins; head of the River Life Foundation, Sean Swanson; National Marine Fisheries Services's Julie Weeder; Humboldt Redwood Company fisheries and wildlife biologists, Keith Lackey and Sal Chinicci; Fortuna City Engineer/Manager, Merritt Perry; Fortuna City Council candidate and active local senior, Mike Johnson; and, finally, Sal Steinberg with Friends of the Van Duzen.

The Cereus Fund of Trees Foundation has multiplied my effectiveness as an environmental advocate by enabling me

to share information and experiences with a diverse group of stakeholders—these are people who make a difference for our river and our local environs. I am very proud to have developed trips around key river issues with support from the Cereus Fund. Thank you so much!

Friends of the Van Duzen

For the past six years, Friends of the Van Duzen (FOVDR) has placed temperature probes in 20 locations along the Van Duzen Watershed. These probes are installed in June and retrieved in October taking hourly readings for months at a time. While many of the tributaries with good riparian zones provide a cool environment for fish, macroinvertebrates, and other organisms, parts of the Main Stem of the Van Duzen suffer from high temperatures and intensive algae blooms.

Using the Trees Foundation's Cereus Fund grant has allowed FOVDR to extend its watershed education program to younger students, thereby expanding its influence from K-12. This has been especially beneficial in our probe studies. The probes are attached to a metal plate and hidden under rocks. There are two magic moments! The first is when we place the probe, connect hands, and promise not to reveal the probes location so that no one comes and takes it, and the second is when the student retrieves the probe. Let me tell you a story.

Brodie is a 4th grader currently attending Bridgeville Elementary. In June, we placed a probe under the big rock in the middle of the stream at Swimmer's Delight, the local county park. When we returned in October, there was no rock in the middle of the stream. Where the depth was once to Brodie's waist, it was now below his knees.

Each time we place a probe, we take a picture and put location notes in our yellow field books. We assumed that some campers had moved the big rock, so we

spent the next 30 minutes picking up smaller rocks in the middle of the stream trying to find it. Brodie was determined! We looked at our pictures noting that we were under some power lines. Following the power lines, there was one rock above the water line near the bank. Brodie suggested we try that one, he went over, felt around under the rock, and presto, there it was. The joy on his face was tremendous! His tenacity, patience, and courage to locate the probe bodes well for him becoming a future steward of the Van Duzen river.

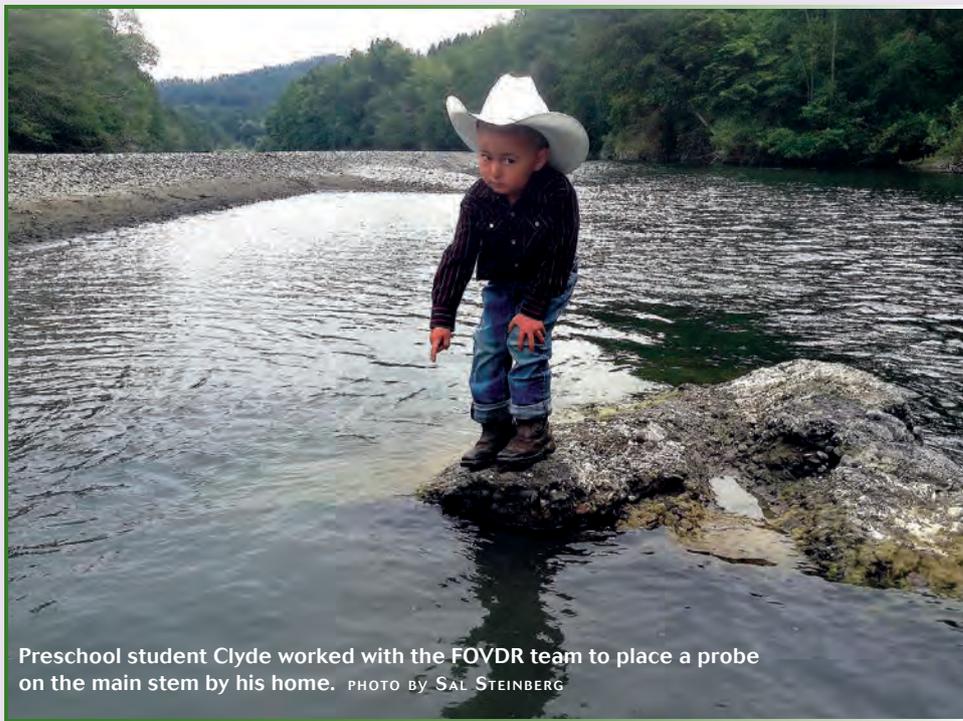
A preschool student, Clyde from Cuddeback Elementary School worked with our team to place a probe on the main stem by his home. Our kindergarten student, Kegan from Hydesville Elementary School said that his river experience at Wolverton Creek was the highlight of his school year.

Thank you, Cereus Fund of Trees Foundation!



The joy on his face: His tenacity, patience, and courage to locate a missing probe bodes well for Brodie to becoming a future steward of the Van Duzen.

PHOTO BY SAL STEINBERG



Preschool student Clyde worked with the FOVDR team to place a probe on the main stem by his home. PHOTO BY SAL STEINBERG

Humboldt Baykeeper

Explore the Bay / Explore la Bahía is Humboldt Baykeeper’s bilingual outreach program that provides fun, educational access to Humboldt Bay while promoting awareness of the Bay’s flora and fauna, history, and the importance of protecting the bay and coastal waters. In 2018, this program provided free motorboat tours aboard the Madaket for youth ages 8 to 17 in partnership with Camp Cooper, the County Public Library’s Summer Reading program, and English Express, the non-profit English as a Second Language (ESL) school with campuses in Eureka, Redway, and Fortuna.

These tours include many participants who have lived near the Bay for years, but have never been on the water. With 24.5% of the City of Eureka’s population living below the poverty level and a per capita income of \$21,291, many residents simply cannot afford the equipment and maintenance costs associated with boating and other water sports.

We at Humboldt Baykeeper believe that Humboldt Bay is a public resource

that should be accessible to everyone in Humboldt County, not just those that have the monetary resources to do so. To this end, we are grateful for funding from the Cereus Fund of Trees Foundation, Humboldt Area Foundation, and Humboldt Sponsors for their support of the 2018 youth tours.

Next year, we are planning a variety of walking tours with English Express to highlight new coastal and waterfront trails, the Humboldt Botanical Gardens, Sequoia Park, and the Arcata Marsh. These tours for ESL students are a great way to explore our region’s beautiful natural areas and the local flora and fauna.

English Express offers community services, field trips, and English lessons for ESL students from around the world, including Cambodia, China, Chile, Columbia, Dominican Republic, El Salvador, Guatemala, Japan, Laos, Mexico, Pakistan, Senegal, Thailand, and the Ukraine. To learn about the incredible work of founder Mary Ann Hytken and her colleagues, see Linda Stansberry’s article, “Maria Garcia, Citizen: After

work, ESL students go back to school,” published in the Dec. 14, 2017 issue of the North Coast Journal.

In addition to our youth tours, Baykeeper partners with the Wiyot Tribe and Humboldt Bay Aquatic Center twice a year for volunteer kayak-based trash cleanup events on Indian Island—one on Earth Day in April, and one on Coastal Cleanup Day in September. To get involved, sign up for news and events by contacting us at alerts@humboldtbykeeper.org. You can also follow Baykeeper’s Facebook page, or watch our website in the spring, www.humboldtbykeeper.org.

Lost Coast Interpretive Association

In the past year, with contributions from the Cereus Fund of Trees Foundation, the Lost Coast Interpretive Association (LCIA) and its community partners have made large strides to control the population of non-native Pampas grass in Shelter Cove through community education and promoting landowner involvement.

In collaboration with the Bureau of Land Management (BLM), California Coastal National Monument, the Shelter Cove Resort Improvement District (RID), Mattole Restoration Council,





Humboldt Baykeeper chartered the Madaket for a bay tour for English Express students and their families. PHOTO BY JASMIN SEGURA.

and the Southern Humboldt Business and Visitors Bureau, LCIA has formed a partnership to focus on non-native plants, now known as the Shelter Cove Invasive Plant Program (SCIPP). A project coordinator was hired, and with assistance from a BLM botanist, a map of high concentration areas and a treatment plan to address the Pampas spread was created. This plan is to be rolled out in four phases over multiple years:

- 1) community awareness/volunteer projects
- 2) plant excavation/removal
- 3) assistance for property owners and
- 4) on-going maintenance.

In spring, SCIPP provided service-learning opportunities with two classrooms from the local Whale Gulch School including in-class lessons and a Pampas removal project. To celebrate Earth Day, SCIPP hosted a volunteer Pampas removal project at which over 40 community volunteers removed 35 cubic yards (three dump truck loads) from wetland areas and local youth participated in a poster contest.

Over the summer, SCIPP concentrated on community education and

collaboration, creating an informational brochure for property owners that outlined the problem with the Pampas grass spread and how to remove the plant. SCIPP has also educated

the community by presenting at the meetings of local organizations including the Shelter Cove Property Owners Association, Shelter Cove Pioneers, and the Shelter Cove Arts and Recreation Foundation. Building on the excitement gained from these meetings, SCIPP organized a “Pampas Seed Head Bounty” and with participation from approximately 26 property owners, collected 12,375 pink seed heads. The Shelter Cove RID provided financial support to the effort and has agreed to clear and maintain Pampas on their properties. The BLM assisted the project with staff, heavy equipment, storage space, tools, and materials for the volunteer service projects.

While continuing efforts to educate the community by working with schools and leading volunteer projects, SCIPP is excited to focus on Pampas excavation projects including the creation of a rebate program for property owners to offset costs of removing large plants.



Whale Gulch students remove Pampas grass as part of a service-learning project. PHOTO BY CHERYL LISIN

Mattole Restoration Council

With Trees Foundation's Cereus Fund grant, the Mattole Restoration Council's (MRC) Forest Practices Program has been tracking forest practices in the Mattole watershed. Forest practices include timber harvest and other forest management by both industrial and private land managers. In forests previously harvested this can include the need for fuel load reduction or thinning of dense stands. Allowed under the Forest Practice Rules for managing either dense fuels or unwanted species are herbicide treatments. MRC takes particular issue when herbicides are used in primary forests (stands NOT previously managed), as has occurred on Humboldt Redwood Company (HRC) land.

Private Timber Harvest Plans

There has been a slight increase in proposed timber harvest plans on privately owned smaller forested parcels in the Mattole watershed, particularly through the Non-Industrial Timber Management Plan (NTMP) process. Permits for NTMPs involve a higher level of planning but offer a longer permit horizon and can only propose uneven-aged management (and no clearings greater than 2.5 acres). Since 2016, several NTMPs have been proposed in the Mattole. Some of them appear to aid commercial cannabis farms as they fulfill some of the regulatory permits for cannabis and allow timber harvest. Other NTMP submitters might have seen the higher prices that Douglas-fir logs have recently received. Still others filed a straight THP, one of which never made it off the paper process. Definitely, the watershed's trees are coming of age for commercial harvest as our second-growth forests mature.

MRC prepared for this time when landowners would consider timber harvest on their property by developing the Mattole PTEIR, a timber harvest



An example of the herbicided understory in a hardwood Primary Forest on HRC property that MRC investigated.
PHOTO BY MRC

permit (PTHP) that contains extra ecological sideboards, including prohibiting the use of herbicides. If a landowner agrees to the more stringent ecological considerations, the process is a far smoother-to-approval process.

HRC's Hardwood Management

When we discovered that HRC had been using herbicides in previously unmanaged stands we took to the field to see for ourselves and document the herbicide use. We then wrote a formal letter expressing our concern that they had not followed their own policy on herbicide applications. According to their policy, HRC will only use herbicides to "...address ecological imbalances..." Yet, they applied herbicides on almost 170 acres in primary forest stands that already existed in balance, which is one reason the Lower North Fork area of the Mattole River has been the target of forest defender protests. Treatments were also applied to unmanaged pure hardwood stands. On the front page of

their website, HRC proclaims: "Utilizing High Standards of Environmental Stewardship." Not only is this not a sentence, it is not accurate with regards to the herbicide treatments in the field on their Mattole management units. The Forest Practices Program worked on and signed a complaint letter created by the Lost Coast League (LCL) that was sent to the Forest Stewardship Council (FSC)



regarding HRC's use of herbicides and proposed harvest of primary forests. The letter initiated an investigation of these issues in the Lower North Fork that included a few members of LCL. They reported that the sites visited on that day were not entirely representative of the complaints raised.

In late October, the lead auditor of HRC's FSC certification found the need from some corrective action against HRC. After visiting the herbicide treatments in the field, albeit NOT the ones that were in primary forest stands, he was lead "to conclude that the companies are not utilizing every reasonably available opportunity to reduce herbicide use." Unfortunately, the actions against HRC might have been stronger had the audit team investigated the forest stands. As it is, HRC will need to demonstrate a reduction in herbicide use in the coming years to meet the FSC standards.

Mattole Salmon Group

Every spring, as stream flow decline and before the mouth of the Mattole River closes for the summer, adult steelhead enter the river to wait out the dry season until winter storms allow them first crack at upstream spawning habitat. Their decision to enter the river when flows are the lowest and temperatures the highest makes for a perilous summer vacation, but these fish endure the harsh realities of the dry season by seeking out cold water pockets in deep pools or wood-tangled runs. Summer-run steelhead once populated many of California's large streams and rivers, including most large tributaries of the San Joaquin and Sacramento Rivers. Today, they are only found in a handful of north coast streams.

For the past 23 years, the Mattole Salmon Group (MSG) has coordinated a volunteer effort to snorkel nearly the entire mainstem Mattole River over one summer weekend to count these elusive



A Western Pond Turtle swims for cover in the Mattole River. More turtles were observed this year—66—than ever before during the Mattole Summer Steelhead Dive. PHOTO BY NICK TEDESCO.

fish. This year sixty-three volunteers (a record number for the event) swam and snorkeled over 60 stream miles in two days. We observed 29 adult summer steelhead (>16 inches in length) and 45 "half-pounders" (12-16" long) this year. The number of summer steelhead observed this year was above the long-term average of 23 fish. In comparison, winter-run steelhead in the Mattole are much more numerous, numbering in the low thousands annually.

In addition to providing the only source of information on summer-run steelhead, the summer steelhead dive is a great opportunity to experience the beauty of the river and learn more about local ecology. The survey provides some of the only information on the distribution of other native aquatic creatures in the Mattole watershed, including western pond turtles, freshwater mussels, and Pacific lamprey.

Organizing the logistics of this event is a significant challenge, and financial support from the Cereus Fund of Trees Foundation is instrumental in providing staff time to ensure everything runs smoothly. We also want to thank Wildberries for their financial support

of this year's dive. We are grateful to the many Mattole landowners who generously grant us access to dive reaches—nearly the entirety of the river flows through private land. And finally, all the volunteers who donned wetsuits and snorkel masks and spent a day or two surrounded by the underwater wonders of the Mattole River! If you are interested in participating in next year's Mattole summer steelhead dive please contact us: steelheaddives@mattolesalmon.org.

Mid Klamath Watershed Council

The Klamath-Siskiyou Outdoor School (KSOS) is a cost-free, overnight summer experience for youth, hosted by the Mid Klamath Watershed Council. Youth participants live in the rural communities along the Klamath River, located in the ancestral territories of the Karuk and Yurok peoples.

This summer's KSOS involved 20 youth, ages 11-14, in hands-on natural resource restoration and monitoring projects. Participants learned about the natural history and ecology of the Klamath area from camp counselors and special presenters. In addition, campers

participated in outdoor recreational activities such as kayaking and stand-up paddle boarding. Junior counselors, who were campers in previous years, were given the opportunity to improve and practice their leadership skills. KSOS aims to inspire the next generation of environmental stewards, while providing opportunities for increased self-confidence and relationship building.

KSOS commenced with a raft trip down the Klamath River. During the trip, youth participated in a juvenile fish passage project. Participants learned about fish passage problems during times of low flow, and moved rocks to increase flow and deepen pools that will ease the passage of juvenile fish to cold water holding areas during the hot months to come.

As the week continued, they learned how to seine net with the Karuk Tribe's fisheries technicians, how to identify plants and juvenile fish, practiced building shelters, and collected mugwort to make salves with Karuk Tribe cultural practitioners, among many other hands-on activities. Additionally, participants learned how to pack for a 3-day backpacking trip into the



KSOS participants build step pools to make it easier for juvenile salmon to reach cold-water tributaries. PHOTO BY MKWC

wilderness. Throughout KSOS, campers and counselors also participated in teambuilding activities, music, and art.

By providing challenging and memorable outdoor education opportunities, especially during the summer, the youth

build friendships, interact with adult mentors, develop regionally-appropriate career and leadership skills, and give back to the land by engaging in natural resource restoration and monitoring projects. These youth have increased self-esteem and a clearer understanding of how they can attain sustainable livelihoods in their communities.



Group photo at Long Gulch Lake in the Trinity Alps Wilderness. PHOTO BY MKWC



Evaluations from campers, parents, and counselors were overwhelmingly positive, with 95% of student participants reporting that they would participate in KSOS again, and would like to return to camp as a junior counselor. Many participants said their favorite part of KSOS was making new friends. As for ways to improve KSOS, participants said they want it to be a day longer and to receive t-shirts.

Trees Foundation's Cereus funds supported stipends for two KSOS counselors, and provided funds for the Program Director to plan KSOS activities.

Restoration Leadership Project

A highlight for 2018 was the largest Chinook salmon spawning run in the Mattole River for at least 30 years. It's been a real joy taking photos of some of this run and sharing the information with many persons and organizations. Another highlight has been recording and sharing information about the restoration work happening in the Usal Redwood Forest—especially in the Anderson Creek tributary of Indian Creek that joins the South Fork Eel across from old Piercy. Both decommissioning of damaging streamside roads and instream habitat improvements have been a part of this.

The documentation of road and stream crossing upgrades has continued—

particularly the Briceland Road crossing replacements in the coho and steelhead habitat of Diner Creek, tributary of Redwood Creek that joins the South Fork Eel across from lower Redway. There continues to be a focus on the Usal and Needle Rock Roads—trying to get essential upgrade work accomplished. A mountain bike event in the Usal Redwood Forest in October that covered part of the Usal Road really brought some attention to the deterioration of road conditions.

A lot of work has gone into trying to make the Planning Watershed Pilot Project of the Timber Regulation and Forest Restoration Fund/Program a success. Among other things, the first Pilot Project is supposed to make headway on having credible cumulative impact evaluations and responses in logging plans as well as facilitating actual restoration work from information that is presented in those plans. Some progress has been made, but poor process and key agency personnel called away to emergency fire responsibilities has been a hardship. It's most likely that the Findings and Recommendations of a Report to be done by the end of the year will be more guidance for what needs to be done in the future, rather than immediate implementable changes for forest and watershed restoration. The Leadership Project is committed to these changes over the long-haul.

A big commitment is also to seeing that the "Why Forest Matter" (WFM) non-profit organization headed by former CDF Director and environmental stalwart, Richard Wilson, makes real steps toward true forest sustainability with the high quality forests intended in the 1973 Forest Practice Act. An example of such a forest that WFM sees as a model is Jackson Demonstration State Forest in Mendocino County. A one day workshop and tour took place this Fall in preparation for a two day event with a range of public and other representatives in April or May of 2019. Jackson averages 55,000 board feet per acre, while most of the region's industrial lands range between 10,000 to 20,000 board feet per acre. Jackson additionally has high fishery and wildlife values, public recreation and use of forest resources, and a research program that has been going on for over 50 years.

The Leadership Project continues to be supportive of the Institute for Sustainable Forestry (ISF), especially its new workshop/field tours program. Some of the tours this year included the waters and geology of the South Fork Eel River, the incredible terrain around the Red and Black Lassic Peaks just East of Humboldt County, and the Usal Redwood Forest in northwest Mendocino County.

Monthly *Monday Morning Magazine* shows on KMUD have really helped outreach. Guests such as Richard Wilson, Congressman Jared Huffman, David Simpson & Jane Lapiner, and others involved with natural resources and human connectedness are a focus.

The Cereus Fund of Trees Foundation makes so much of this work possible. Thank you.

Salmon River Restoration Council

The Salmon River Restoration Council has long believed that empowering our river communities to become effective stewards of the ecosystem should be



An incredible view from one of the Institute for Sustainable Forestry's tours this year.
PHOTO BY RICHARD GEINGER

a centerpiece in the recovery of our watersheds. For the past 26 years, our Community Restoration Program has strived to cultivate a watershed stewardship ethic within the citizenry by engaging the public in the hands-on restoration of the Salmon River watershed. In addition to encouraging our community members to get their hands dirty and their feet wet by doing things like digging noxious weeds and counting fish, we also try to provide high quality education and outreach products and experiences.

This year we published a newsletter entitled *Botanical Bounty: An Exploration of the Diverse Flora of the Salmon River Watershed*. It's full of beautiful pictures and great articles about native plants and noxious weeds in our watershed, as well as the history of our Community Noxious Weeds Program. You can read it online at srrc.org/publications/newsletters/spring-2018. We also publish a monthly e-newsletter, *Salmon River Currents*, which has included topics such as freshwater mussel biology, spring-run Chinook salmon populations, and the Wild and Scenic Rivers Act.

We've continued to update our Salmon River History Timeline (srrc.org/timeline). The timeline is an interactive multimedia outreach product that features hundreds of historical photos, videos, and audio clips that illustrate the history of the watershed since 1849. It's an excellent resource for those interested in both human and environmental history in our area.

We also used Cereus funds to help implement our Community Restoration Program workdays and educational events. This year we've held over 35 workdays and workshops that the community was invited to participate in. These events included river clean-up, noxious weed management (without the use of toxic chemicals), fisheries monitoring and restoration, water



SRRC's Watershed Ed Program Coordinator and a group of intrepid Forks of Salmon School students ready for a day digging Italian thistle on Thistle Hill. PHOTO FROM SRRC

monitoring, and watershed education, amongst other things. Some highlights include a mustard pull and a wildflower walk in the Trinity Alps Wilderness, a fruit tree grafting workshop, and a spring bird identification walk led by the Klamath Bird Observatory. Events such as these help to increase knowledge and cooperation between diverse stakeholders, as well as getting us all out enjoying the wonders of our amazing watershed and actively participating in its conservation.

Support, such as the Cereus Fund of Trees Foundation granted us, is what makes this work possible. It provides the foundation to do the on-the-ground community restoration work that will always be our goal.

Sanctuary Forest

Trees Foundation's Cereus Fund grant allows Sanctuary Forest to work closely with our Mattole partners—Mattole Restoration Council and Mattole Salmon Group—and also to collaborate with other organizations regionally to address water scarcity issues. Sanctuary Forest's work is focused in the Mattole River headwaters, but our innovative work is attracting attention outside our watershed.

This year, Sanctuary Forest led a tour as part of the Salmonid Restoration Federation's (SRF) annual conference. The tour highlighted instream restoration and groundwater recharge projects in Baker Creek. Instream structures were installed in 2014, and immediately salmon returned to pools. However, with the impending drought, increased groundwater storage is needed for these pools to persist. That is where the Baker Creek String of Pearls Project comes in. Participants on the SRF tour visited two ponds that were full from winter rains, and the sites where two more ponds have been installed in the summer





Participants from the Salmonid Restoration Federation's annual conference visit the Baker Creek String of Pearls Project. PHOTO BY ANNA ROGERS

of 2018. The project aims to increase groundwater storage by approximately 10 million gallons and result in streamflow benefits sufficient to maintain pool habitat in Baker Creek even in the most severe drought years. This work has been inspired by work in Rajasthan, India where community collaboration has resulted in the construction of over 10,000 johads, a water structure to trap monsoon rains, which have restored ground and surface water to once dry rivers, revived fish populations, made drinking water available year around, and brought communities back to life.

Tasha McKee, Sanctuary Forest Water Program Director, also attended a Collaborative Water Management Workshop in Santa Rosa with The Nature Conservancy from the Navarro River watershed, and others from Trout Unlimited, NOAA Fisheries, CA Dept of Fish and Wildlife, SRF, Mendocino County Resource Conservation District, State Water Resources Control Board, and the Northern Regional Water Quality Control Board. The purpose of the Collaborative Water Management (CWM) Project is to develop a model framework to advance voluntary, watershed-based, and stakeholder-driven collaborative water management that leverages existing water management policies and tools to increase water security and improve streamflows for salmonids. Sanctuary Forest was asked to

share knowledge gained from the Mattole to the Navarro watershed and other parts of California. This type of collaboration is vital if we are to find solutions to drought on a statewide level. There is limited funding for this type of collaboration and we greatly appreciate the support received from Trees Foundation's Cereus Fund.

Save California Salmon

Over the last year Save California Salmon (SCS) has joined the Cereus Fund to push for dam removal and flow restoration on the Klamath, Trinity, and Eel Rivers, and to fight off the attacks on our rivers from the Trump administration. We have

generated over 10,000 public comments, hosted two rallies, and supported attendance for five public hearings to support dam removal, agricultural pollution regulation, and flows for fish.

SCS believes in working with our water and fish dependent communities to protect our rivers. North Coast rivers have the best opportunities for restoration and climate adaptation in California. If salmon are to survive we need to protect and restore our rivers.

This is why we work closely with tribal people and fishermen on the policy issues that impact North Coast rivers. SCS supports clean water and restored, harvestable, fisheries. This is why we are hiring a North Coast Tribal Water Organizer. If you're interested in applying go to www.californiasalmon.org/employment.

There are many opportunities to restore our rivers and bring our salmon home. Currently, seven dams on the Klamath and Eel Rivers are up for relicensing. These dams provide very little power, but block hundreds of miles of habitat. Oregon and California and the Federal Energy Regulatory Commission (FERC)



Save California Salmon staff advisors and partners at State Board hearing on flows for salmon. PHOTO BY REGINA CHICHIZOLA

are processing applications to remove, rather than relicensing the Klamath Dams thanks to a successful 14 year campaign for removal. The Eel River dams are also up for relicensing and may come out. Public scoping on the Eel River occurred last year and there are upcoming comment periods on both FERC processes.

The state of California is also considering restoring flows on some North Coast Rivers through the California Water Action Plan. The South Fork Eel River and Shasta River on the Klamath have been identified as flow impaired rivers that will undergo this process. SCS is pushing for the South Fork Trinity and Scott Rivers to also be included. The state is also working to establish tribal beneficial uses under the Clean Water Act and flow standards on the North Coast.



Morning Star Gali, Save California Tribal Water Organizer and Pit River Tribal Member speaks at the capital during a press conference on attacks to California water from the Trump administration. PHOTO DAN BACHER

It is not all good news. The Trump administration is dismantling federal environmental laws and has prioritized delivering water to corporate agriculture over fish. The Trinity River, the Klamath's largest tributary, and Sacramento Rivers are threatened by the "Trump Water Plan" and "Trump Memo". Last winter SCS joined Tribes from the Klamath, Trinity, and Sacramento Rivers to fight this water plan and oppose building new dams and diversions in California.

There are public processes happening around all these issues. Go to Save



Engineer Tony Llanos (Mike Love and Associates consulting firm) leading a fish passage field tour as part of the 21st Annual Coho Confab. PHOTO BY LAURA BRIDY

California Salmon on Facebook and change.org or to Californiasalmon.org for more information.

Salmonid Restoration Federation

In 2018, support from the Cereus Fund of Trees Foundation enabled Salmonid Restoration Federation (SRF) to advocate for restoration funding, research incentives for water storage and forbearance programs, and participate in a coordinated effort to improve grant administration in the California Department of Fish and Wildlife's grant administration programs.

SRF advocated for continued flow enhancement planning funds for the Eel River watershed. SRF is a statewide organization but we are located in Humboldt County and have an ongoing program in Redwood Creek, a critical coho salmon tributary to the South Fork Eel. SRF was fortunate to receive two planning grants in this watershed that will allow for us to develop a suite of water storage projects to enhance streamflow and improve salmon habitat.

SRF's work to build capacity for community-based water conservation programs has led to other statewide cooperative efforts including the development of a Collaborative

Water Management guidebook that SRF produced with The Nature Conservancy and the Mendocino Resource Conservation District. This was informed by case studies and efforts in other California coastal areas that have successfully utilized community-based water management approaches including the Mattole River headwaters, Dutch Bill watershed in the Russian River watershed, and Bodega Bay. The report provides a framework and the key elements for building a successful collaborative effort including a communication outreach strategy, transparently sharing ecological data, engaging stakeholders, and establishing criteria for project selection. The report also explores regulatory



obstacles to restoration planning and offers solutions that could streamline permitting and incentivize landowners to work collaboratively. SRF contributed chapters on existing resources, policy issues, collaborative agreements, water rights, and legal mechanisms to conserve flows as well as helpful templates for forbearance agreements, water management plans, tributary charters, and water planning resources.

SRF hopes that our efforts to prioritize planning and education funding and create a Collaborative Water Management guidebook will help other conservation groups striving to recover salmon and improve watershed health.

To see the report, *Collaborative Water Management—A Stakeholder-driven Approach to Enhance Streamflow Streamflow and Water Supply Reliability in Northern California Coastal Watersheds*, please visit www.calsalmon.org.

Women's Forest Sanctuary

In 2018, The Women's Forest Sanctuary realized the complete debt retirement for the purchase of The Sacred Grove; a 14-acre redwood grove on the Mattole River. In March, current board members held an event to honor and appreciate the founders, as well as the long-time supporters of the grove's protection. We celebrated their contributions and commitment over the past 25 years that enabled the preservation of the grove—including our recent Indiegogo fundraising campaign. We expressed gratitude for our incomparably alive and evolving relationship with The Sacred Grove and our interconnection and strength as community.

In July we collaborated with Youth Spirit Artworks in Berkeley for our Annual Youth Nature Program. This year youth leaders participated in planning and facilitating the program. The



Stewards of The Sacred Grove PHOTO BY WFS

youth named and drew a meaningful experience in nature. Elias Gutierrez, youth poet, wrote about his drawing, "Life is but a wave, exhausted are your efforts if you go against the flow. Stars, galaxies, trees, animals, Earth. All components of nature. Life...in which it all fits."

Youth also engaged in a day-long experience at Redwood Regional Park in Oakland and commented that: "I relaxed in the peaceful setting of the Life redwoods. When I sat alone with a tree, I had a heart-to-heart with myself. I had fun connecting with other youth, we became closer and stronger." The youth valued relaxing and reflecting within the quiet of the forest, and expressed the desire to return.

During our Annual Pilgrimage to The Sacred Grove in July, we gathered with long time local supporters and expressed our appreciation for their care for the land; including the creation of a barrier at the entrance to the grove to deter access for ATV's. Our pilgrimage included asking the forest for guidance on how to live life. Messages we received included:

"If we live our lives for the good of all, life becomes more fulfilling because we see the interconnectedness of all. Learning to tend to myself, with Stewards of The Sacred Grove, tenderness and not judgment will help me tend to the world. Sharing my suffering liberates."

In 2018, our activism included support for the Sanctuary Forest Van Arken Community Forest Project and for saving trees in the East Bay. The Women's Forest Sanctuary remains passionate about continuing to steward The Sacred Grove and to engage in forest preservation. We are grateful to Trees Foundation's Cereus Fund for financially supporting our own as well as other organizations' efforts to preserve the ecological integrity of the California North Coast.





Diggin' In

The Richard Geinger Report

I would suggest you read the column from the Summer 2018 issue in *Forest and River News* for a lot more detailed information, background, and links that complement this Winter 2018's, Diggin' In #59. Of course we've had a continuation of extreme fires, in our 'neighborhood' the River and Ranch fires that combined into the Mendocino Complex which became the largest recorded wildfire complex (almost half a million acres) in California's history, with the Ranch Fire,

the largest individual fire at around 410,000 acres. These were preceded a couple of days earlier on July 23rd by the Carr Fire, with its "fire tornado", in and around Redding. I think the River Fire was a confirmed arson start, and I wouldn't be surprised if the Ranch Fire was as well. The Carr Fire started from a vehicle 'malfunction' near the Carr Power House on Highway 299. One of the latest catastrophes, the Camp Fire destroyed the town of Paradise!

All of this, coupled with last years horrific fires, resulted in 28 bills being written in the California Legislature. Two notable ones being AB 2551 and SB 901. AB 2551 by Assembly Member Jim Wood became law and facilitates prescribed burns, and for the development of watershed restoration to benefit the watersheds affecting the Shasta, Oroville, and Trinity reservoirs—with a pilot project to align necessary permits. It also authorizes CalFire to allow



Jeff Hedin and Linwood Gill observing a large haul-road crossing that was removed in 2017. The excavated stream channel, with wood cover placed to prevent erosion, is in a major tributary of Anderson Creek that directly impacts high-quality spawning habitat.



Adding large-wood in 2018 to Anderson Creek, one of the best salmon and steelhead-producing streams in the South Fork Eel River basin. ALL PHOTOS THIS ARTICLE BY RICHARD GEINGER

the California Forest Improvement Program to include loans and not just reimbursement for work completed.

The ‘big’ one was SB 901, taking provisions from several bills, and ramrodded by the Brown administration through a conference committee and the legislature. Most of the broad public notice about the bill were incredibly complex provisions setting a cap (with related matters) on fire liability for utility companies—allowing costs to be passed on to ratepayers. This was not unlike the cap on liability for fires given to large forest landowners by AB 1492 in 2012. Of less interest to the general public were the increase of funds for thinning through two new exemption processes for logging to reduce fire risk—one for small landowners and one of general application. The concern for many is that these new exemptions are ministerial—fill out the forms and operations are a go with no or very limited multidisciplinary review. Now I understand the need for a simpler commonsense process (having seen good restoration projects held up for years), but if there is no effective interaction and standards that will lead to a long-term healthy, high quality forest you’ll have the same problems we have today. Following are some writings that relate to all this and include reference to the unsatisfactory progress being made by the initial Planning Watershed Pilot Project. This project is due to be finished by the end of the year with Findings and Recommendations, that among other things were meant to start credible cumulative impacts evaluation and response, and facilitate forest and watershed restoration.

From my comments to the Board of Forestry in September during the Public Forum: “Treating symptoms



of ‘unhealthy forests’ with thinning and prescribed fire is all well-and-good—but, the standards for ‘healthy forests’ need to be established with implementation and incentives moving forward. These standards must incorporate credible cumulative impacts evaluation and response, and high quality forests that include significant portions of older, larger, mature trees that meet the needs of wildlife and carbon sequestration. This

would also start to meet part of the intent of the 1973 Forest Practice Act for high quality timber products.”

A preface to the Concept Proposal submitted to the Board of Forestry’s Effectiveness Monitoring Committee (EMC): “The attachment is a serious conceptual proposal for implementation ASAP. It has been over 5 years since AB 1492 became law, and virtually no progress has been made in making the intended



Usal Road issues, from the same stretch of road, traveling downslope in a critical section: *Top left, page 22*, approaching bend with culvert having high plugging potential on right—note perched spoils from slide stacked on outer edge of road (top right center of photo). *Bottom left, page 22*, excavated slide on right, with spoils—shown in top left photo—stacked on left just before the slide from the road to Waterfall Gulch Creek. *Top right, page 23*, Approaching the slide area that has no berm preventing road drainage flowing onto the slide. *Bottom right, page 23*, the active slide itself, which could enlarge and sever the road if not treated. **UPDATE:** Starting Nov. 2, Mendocino County Department of Transportation moved heavy equipment to deal with this slide area and many other problems before the serious rainfalls begins.

reforms of forest and watershed restoration, carbon sequestration, road and riparian management plans, and ecological performance—key parts of the Timber Regulation and

Forest Restoration Fund/Program. I understand that arguments will be made that some progress has been made—but it is nothing compared to what is actually needed with equity

and transparency in the process for all affected parties.”

Here is a link that I gave in my last column: <https://digitalcommons.humboldt.edu/hjsr/>

It takes you to the Humboldt [State University] Journal of Social Relations Special Issue #40: “The American West After the Timber Wars”. There you can find numerous articles and perspectives, including those of Greg King, Andrea Tuttle, and yours truly. In my article I summarize three representative unresolved “sores” from the so-called ‘Timber Wars’: failure to restore & prevent damage in watersheds like Elk River, and Freshwater, Bear, Stitz, & Jordan Creeks; failure to have forests that meet sustainability and high quality timber and wildlife habitat like Jackson Demonstration State Forest; and, failure to protect special forestland like Rainbow Ridge in the Mattole Valley.

On-going Issues

 The Lost Coast League and others are waiting with bated breath for the results of the grievances filed against Humboldt Redwood Company over use of herbicides and failure to protect areas of High Conservation Value in the Rainbow Ridge Area—inconsistent with Forest Stewardship Certification. If the grievance is not properly resolved, the decision will be appealed. Go to Lost Coast League and Forests Forever for information and how you can help. *Update:* initial findings confirm validity of these grievances!

 I’m continuing my focus on restoration that ranges from monitoring projects (like the crossing replacements on the Briceland Road and restoration work in the Usal Redwood Forest), and seeing that pressure comes to fix problems on places like the Usal and Needle Rock Roads. The Usal Road, for instance, despite winter closure between



Forest discussions during Institute for Sustainable Forestry's workshop & tour in the Usal Redwood Forest. Looks like Carla Thomas (in foreground), an incredible supporter of the Sinkyone Wilderness Coast, is commenting to a receptive group, which includes Linwood Gill, Head Forester (on right side of photo).

Usal and Four Corners and some limited improvements is a danger for both the public and emergency access.

 The straight skinny on the future of the Potter Valley Project is hard to get. Friends of the Eel River are trying to keep on top of it. Seems like so-called reasonable folks are advocating for the

raising of the dam at Lake Mendocino—which may be enough of a hazard to need tsunami hazard signs in Ukiah.

 Anxious about questionable tactics to muscle small landowners and many of the rural residents in Northern California. Equitable and feasible steps should be taken

To Get Involved

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 California Legislative Information
www.leginfo.ca.gov

 Forests Forever
www.forestsforever.org/

 Lost Coast League
lostcoastleague.org

RFFI
www.rffi.org

to empower people in their social, livelihood, and land relationships in the future. Need the means and the way.

 Looking forward to rain and big spawning runs. Help out where and when you can. Check out the workshop tour programs of both Sanctuary Forest and Institute for Sustainable Forestry (ISF).

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.



Grievance tour of Rainbow Ridge.



LIVING WITH FIRE

Poison Oak, Poison Smoke?

This story originally appeared on the Fire Adapted Communities Learning Network blog. Type bit.ly/FireEvolve into your browser to access the original post. To have stories like this delivered to your inbox weekly, visit bit.ly/FACNetSubscribe.

By Lenya Quinn-Davidson

I came out of last week looking like someone who'd just been released from a hard labor camp. My hands were covered in blisters from digging soil pits for a research project, and my arms were covered in bruises from hauling t-posts and hog panels to those same research sites. (So many bruises, in fact, that I've been too embarrassed to wear short sleeves for the last five days.) To add insult to injury, I had "White bites" from my fire boots on the fronts of both ankles, and I was dehydrated and sore from two full days of burning and hiking across hundreds of acres in Humboldt County's steep coastal rangelands. In short, I felt amazing. There's no better feeling than being truly tired and sated—body and soul—after a week of inspiring work.

Saturday morning brought an added (and less welcome) complication. I brushed a hand across my arm and felt a familiar pattern before I saw it: an invisible line of small bumps that eagerly jumped at my touch, excited to be itched. Poison oak.

I had been musing over poison oak only a few weeks prior, as my coworker and I were putting the final touches on our burn units. Both units are in coastal rangelands encroached by coyote brush, poison oak, and Himalayan



The author, happy in the field!
PHOTO BY THOMAS STRATTON, UCCE

blackberry, and after many decades without fire, those three shrubs had formed an impenetrable thicket, dense and unpleasant enough that ranchers use it like a cattle fence. The poison oak was roughly 15 feet tall—thick, ropy vines whose oily leaves were just showing the first tints of fall. Poison oak, with its electric pinks and oranges, happens to be one of my favorite fall plants, but I appreciate it like I would a mountain lion or a rattlesnake: with great respect for its power and beauty, but no desire to be more intimate.

Recall that poison oak, *Toxicodendron diversilobum*, is in the same genus as poison ivy (*T. radicans*) and poison sumac (*T. vernix*), and all of them are in the larger plant family *Anacardiaceae*, along with mangoes, cashews, ginkgo and many other species. Plants in this family contain varying amounts of

urushiol, a highly allergenic compound to which only humans and a few other primates are sensitive (Gladman 2006). Contact with urushiol can cause contact dermatitis, which at its best looks something like what I have (small itchy bumps) and at its worst can result in painful, weeping sores and even infection (Lee and Ariola, 1999). A majority of people in the United States are clinically sensitive to urushiol, but many people, especially in urban areas, never have the opportunity to realize their sensitivity.

In the fire field, the effects of Toxicodendron dermatitis are very real. Research shows that urushiol-caused dermatitis is responsible for 10 percent of USDA Forest Service lost-time injuries, and treatment has, in some years, absorbed one percent of California's workers' compensation budget (Gladman 2006).

When I was younger, I thought that I was in the 10–15 percent of people who are genetically tolerant of urushiol. I grew up in an area where it abounded, and the longer I went without getting the rash, the more brazen I became. I'd walk through it, move it out of the way for people, and do other things that, in hindsight, seem a bit unwise. At 22, I clumsily moved a cut vine, and it swung around and broke the skin on my back. Turns out, I'm not in the top 10 percent when it comes to poison oak! And now I forewarn other emboldened people: literature shows that for some people (like me), sensitivity only shows itself after many repeated exposures—sometimes after years or decades. Also,

children are more tolerant than adults, so not getting it as a kid doesn't mean you're in the clear for adulthood.

Like many parts of rural life, poison oak has an almost mythical quality. People have strong beliefs about how it spreads, how to prevent it, and how it affects them personally. Some people swear that by scratching their rash, it can spread it to other body parts, or to other people. Others brag that they are not susceptible at all, presumably because they are genetically superior, or perhaps because they have built up resistance by eating poison oak buds in the early spring or otherwise inoculating themselves. And other people avoid it at all costs, insisting that even looking at poison oak will cause them to break out. (Note: these claims have mostly been proven wrong,

with the exception of poison oak inoculation, which remains unproven and contentious.)

Last week before we burned, I received a call from a woman who'd read my prescribed fire press release. She was inquiring about the likelihood of our burns producing urushiol-laden smoke that would affect her where she lives, nearly 15 miles away. I have to admit that made me chuckle, because my coworker and I had just been saying that stories about poison oak smoke are like urban (or rural) myths: everyone has heard of someone else who's been affected by poison oak smoke, but it's hard to find firsthand accounts of smoke-induced dermatitis, especially ones that aren't confounded by physical contact with the plant.

So when Sunday morning came and my thighs, back, and arms were covered in a light but irritating poison oak rash, I had to wonder. I had been wearing boots, gloves, long pants, and a long-sleeve shirt under my Nomex, so how did this rash come to be?

Sometimes in science, you find a point that is well referenced in the literature, but its citation trail seems to lead nowhere. That's how my review on the effects of poison oak smoke has been. I can find any number of papers claiming that inhalation of poison oak (or ivy or sumac) smoke can cause systemic dermatitis, but the citations are sketchy. For example, a paper in the *International Journal of Vaccines and Vaccination* claims "a severe reaction may happen if a sensitive person inhales this smoke, or even death."



Recent prescribed burn in the Bear River area, where the landowner is trying to control brush that's encroaching into coastal rangelands.

PHOTO BY LENYA N QUINN-DAVIDSON

Wow! That's certainly cause for alarm, until you check their reference and see that they've simply referenced the scientific name of the plant—no scientific literature whatsoever.

One of the most detailed descriptions of the effects of poison oak smoke is in a Pacific Northwest (PNW) Extension paper, which states: “smoke from burning poison ivy and poison oak has poisoned people who were otherwise immune. Inhalation of such smoke causes lung poisoning that can require hospitalization and intensive care. The oil is not volatile at bonfire temperatures. Any transmission in smoke is by droplets on particles of dust and ash in the smoke, rather than from vapors” (Burrill et al., 1994).

This publication provides no references. Another dead-end street.

Oddly enough, some of the only original research I found came out of India, where researchers looked at urushiol-caused dermatitis resulting from ceremonial traditions that involve burning the seeds of *Semecarpus anacardium*, another plant in the poison oak family (Bhatia et al., 2014). In some parts of India, these seeds are used to purge the curse of the “evil eye,” a malevolent expression that can cause injury or misfortune to others. Those who were treated with smoke from the burning seeds consistently developed dermatitis on their hands, arms, and



The many colors of poison oak. PHOTO FROM WWW.FLICKR.COM/PHOTOS/GOINGSLO/2754721297

faces—areas in close proximity to the smoke and to the burning seeds.

In writing this blog, I'm not claiming that smoke can't cause a poison oak rash; in fact, I'm sure many of you have stories to share. However, I am noting that even the peer-reviewed literature on the topic is in some ways furthering the mythical status of the plant and its family. And for good reason! Urushiol—this ever-powerful and internationally feared oil—is mostly invisible. You never quite know if you were exposed, partly because you can't see the oil, but also because the plant tissue has to be injured for the oils to be released, so lightly brushing vines or leaves can

be okay (Gladman 2006). Likewise, if you are exposed, you can't really tell if you were able to wash it off in time, or if it's still on your boots and clothes (urushiol can persist indefinitely in a dry state!). And its smoke is even more elusive. In my case, did I breathe poison oak smoke and have a systemic reaction, or was it on my clothes when I undressed that evening? Or maybe it was all over Millie, the cute cattle dog that I cuddled on the fireline? There's no sure way to know, and in some ways, I like that. Poison oak keeps us in check, humbled. Even the most cocky person may be just one exposure away from cleansing their curse.

References:

- Burrill, L. C., Callihan, R. H. and Parker, R. (1994). Poison Oak and Poison Ivy.
- Bhatia, K., Kataria, R., Singh, A., Safderi, Z. H. and Kumar, R. (2014). Allergic contact dermatitis by *Semecarpus anacardium* for evil eye: a prospective study from central India. *Indian J Basic Appl Med Res*, 3, 122-127.
- Derraik, J. G. (2007). *Heracleum mantegazzianum* and *Toxicodendron succedaneum*: plants of human health significance in New Zealand and the National Pest Plant Accord. *The New Zealand Medical Journal* (Online), 120(1259).
- Gladman, A. C. (2006). Toxicodendron dermatitis: poison ivy, oak, and sumac. *Wilderness & Environmental Medicine*, 17(2), 120-128.
- Lee, N. P., & Arriola, E. R. (1999). Poison ivy, oak, and sumac dermatitis. *Western Journal of Medicine*, 171(5-6), 354.
- Pekovic, D. D. (2016). Vaccine against Poison Ivy Induced Contact Dermatitis, A Lingering Scientific Challenge. *Int J Vaccines Vaccin*, 2(1), 00023.



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Conservation Partner Organizations at Work

Media for the Masses

Bay Area Coalition for Headwaters

Many organizations and individuals affiliated with Trees Foundation and readers of *Forest and River News* over the years have become familiar with the work of the Bay Area Coalition for Headwaters (BACH) in the realm of media outreach, including engagement of mainstream and alternative media. Our methods are straightforward—taking factual information to the distributors of news and messages, directly from the change-makers. We are decidedly grassroots.

BACH's media work on issues of import, reaching out to both mainstream and alternative media generally includes variously writing, editing, formatting, and distributing news releases. We have recently sent out a few releases on forest defense on behalf of the legacy forests in the Rainbow Ridge area of the Mattole River watershed. Some of the releases have been in advance of activity like the Week of Action, and some reporting has



A log truck driver at the HRC mill reads our hand-out about the Mattole. PHOTO FROM BACH

been on the fly and on site—trickier but when that is what the situation calls for, we try to be ready for that methodology.

In addition, significant time has been dedicated at our office to updating and revamping our media databases, our outreach tutorials, workshops, and resources to be able to function as a

resource to campaigns, actions, and events. The news media inhabits a fast changing landscape, to say the least, but many basic principles remain the same. We've rolled out a new version of our 'Media Skill-Sharing for Grassroots Activists' workshop, and with some sessions already under our belt, we're scheduling more for North Coast activists. We invite anyone interested in a workshop or consultation to get in touch with BACH.

Workshops can take many forms, from an informal discussion to a presentation—the goal is to demystify the process and empower all activists to create headlines. We would love to hear from you with your ideas!

BACH also engages in other avenues of outreach and advocacy, local projects, and other direct campaign involvement. Some of that is covered elsewhere in this issue of FRN.

For more information:
headwaterspreserve.org



BACH marches with a forest banner in the Rise for Climate March in 2018. PHOTO FROM BACH

Who Will Help the Humboldt Marten?

Environmental Protection Information Center

If we can accept the premise that “all the world’s a stage” and that each of us plays a small part, then we can understand the importance of a seemingly inconspicuous and little-seen creature like the Humboldt marten. Once thought to have been lost to pioneer-age history and extinction, the marten has returned to the stage of the rugged coastal forests, mountains, and rivers along California’s North Coast. Sadly, government games at both the State and Federal level threaten to make what should be a glorious and celebrated return only a brief and sad cameo and commentary.

The Humboldt marten is a small, cat-sized critter in the weasel family that has roamed the coastal redwood forests and the high country serpentine barrens of the Klamath and Siskiyou Mountains. The marten was presumed extinct for nearly 100 years due to extensive trapping, old-growth logging, and mining, before its rediscovery in 1996.

Today, the priority of both the State and Federal governments, much like early settlement days, is to protect the interests of big-businesses, most notably the billionaire timber bosses, instead of standing up for the best interests of the Humboldt marten.

EPIC has seen all of this before; advocating for small, largely-unseen, and assumed to be unimportant forest friends and their futures is a big part of our past. From the marbled murrelet, to the northern spotted owl and coho salmon fry, EPIC has a long history of standing



Humboldt Marten taken from a game camera PHOTO BY MARK LINNELL U.S. FOREST SERVICE

up for the small and being the voice of the voiceless. EPIC uses engagement, advocacy, education, listing petitions and lawsuits in an effort to use the laws and regulations to further the future of our forest-dependent furry, fuzzy, flying and fishy friends, in what can at times best be characterized as a game of bureaucratic-Twister, hoping to change the outcomes.

EPIC filed a petition to list the Humboldt marten under the Federal Endangered Species Act in 2010, and filed a petition to list the marten under the California Endangered Species Act (CESA) in 2015. The contemporary threats to the survival of the Humboldt marten are multiple and fairly well-understood. Past and ongoing habitat loss, including logging, roads, and urban and suburban development have severely reduced and fragmented the landscapes in the original range of the Humboldt marten.

The extreme loss and fragmentation of habitat has led to an even more critical concern: small, geographically-isolated and extremely vulnerable populations total at most between 200 and 400 individuals in both Oregon and California. These small, isolated populations create an extreme risk of loss of sufficient genetic exchange and interspersing to keep the small populations viable. Climate change also poses a threat, as a warmer, drier, world means less dense shrub layers for the marten to feed upon and slink between. Toxic exposure from rodenticides and other environmental contaminants, and increased risk of predation from bobcats are also well-understood threats to the species.

Yet, unbelievably, the U.S. Fish and Wildlife Service determined in April of 2016 that the Humboldt marten did not warrant listing under the Federal ESA,

Conservation Partner Organizations at Work

in direct contradiction of the agency's own species assessment for the marten, published concurrent with the "not warranted" finding. EPIC challenged this decision, and in 2017, federal courts overturned the Service's decision and sent the agency back to the drawing board with a mandate to furnish a new proposed rule by October 2018.

One might expect such shenanigans from the U.S. Fish and Wildlife Service, especially under the current regime; however, we were sorely disappointed to find the State of California and our Department of Fish and Wildlife playing political games in an effort to blunt the effect of any potential listing of the marten under CESA on the timber industry.

First, CDFW took over a year longer than mandated by California State law to produce a status review and report for the Humboldt marten in order to inform the final listing decision, to be made by the California Fish and Game Commission. Then, CDFW worked behind-closed-doors with Green Diamond Resource Company to negotiate a "Safe Harbor Agreement" that virtually nullifies the effect a CESA listing would have on the company, giving Green Diamond a pass to do what it does best: clearcut redwoods on a 45-year rotation, producing little more than industrial sapwood furnished from its fiber-farm plantations, passed off as high-quality wood products sustainably grown and harvested.

The Safe Harbor Agreement requires no meaningful change in Green Diamond's clearcut forestry model, and instead offers to assist the company in relocating martens from the Six Rivers National Forest from the east of the company's property to Redwood National and State Parks to the west, bypassing

critically-needed habitat enhancement and connectivity between habitats for isolated marten populations.

Meanwhile, in October of 2018, the U.S. Fish and Wildlife Service rendered a proposed rule finding that the Humboldt marten warranted listing under the Federal ESA as a threatened species on the one hand, while on the other issuing a special "4(d)" rule designated to further give away a free-pass to Green Diamond Resource Company by exempting the company from the teeth of the ESA.

EPIC knows too well we cannot rely on our governments and government agencies to do the right thing in the absence of our watchful eye; 41-years and counting, EPIC is the public's police, and the voice of all things great, small, and wild.

🌲 For more information: wildcalifornia.org

Eel River Recovery Project Debuts Salmon Movie and Provides Info on 2018 Chinook Run

Eel River Recovery Project

The Eel River Recovery Project is a grassroots group that has been assessing Eel River fall Chinook salmon runs with assistance from volunteers since 2012. The group is releasing a new hour-long documentary entitled Signs of Resilience: 2012-2017 Eel River Fall Chinook Salmon Trends. The group is also helping conduct the 2018-2019 assessment and information on the progress of this year's run is included below.

The movie was artfully produced by Alan Olmstead of Sirius Studios in Eureka and provides a window on the beauty of the Eel River watershed in all seasons. Dramatic video footage of salmon staging,



Black Butte River joined by Cold Creek has ideal habitat for Chinook salmon 40 miles upstream of the Middle Fork Eel River and the Eel River Guard Station. PHOTO FROM ERRP.



Paddle board survey team next to the 12th Street Pool after recent survey.
PHOTO BY ERIC STOCKWELL

running and spawning provides evidence of robust recent runs. The film also captures the enthusiasm of volunteers who helped document salmon runs by joining dives, surveying from kayaks or doing spawner counts in tributaries.

Instead of being on the brink of extinction, *Signs of Resilience* documents the fact that there have been between 10,000 and 50,000 fall Chinook salmon annually in the Eel River since surveys began. In 2012, ERRP estimated that there were 20,000 to 50,000 Chinook discharging to spawn throughout the basin, which was the highest count. The lowest return was in 2015, when only an estimated 10,000 to 15,000 Chinook spawned and many fish became diseased. The run rebounded to the 20,000-30,000 level in 2016, but declined to 14,500 to 22,500 in 2018.

The decline in last year's run was likely as a result of several factors, the 2013-2015 drought, the 2015 El Niño event that limited ocean productivity, and bed mobility associated with high water in late 2016 and early 2017 that may have

caused egg mortality. The movie reports that runs are healthy and rebounding in the Middle Fork, Black Butte, Van Duzen, upper South Fork and some sections of the main Eel River. However, Chinook salmon runs are low and/or declining in the lower South Fork and its tributaries, and the upper Eel River above Dos Rios.

Update on 2018-2019 Run: The prognosis for the 2018 run is very positive due to apparent high survival rate from last year's spawn. Ample rain in November allowed Chinook salmon passage all over the watershed, then rain slacked off in December. January flows allowed coho passage and March high flows made steelhead access to headwaters possible. Alternating wet and dry months provided enough flow to keep good circulation in redds, but not enough to cause gravel movement. The result was excellent survival of Chinook salmon juveniles and coho and steelhead too.

Ocean fisheries encountered thousands of Chinook salmon less than 24 inches in the 2018 salmon season, and this should

translate into thousands of jack salmon returning to the Eel River soon. Since Chinook can spawn at ages 2-5, this portends several good years of salmon abundance to come. A recent paddle board survey of the 12th Street Pool estimated 800 Chinook salmon with about 1/3 jacks, more than 1000 steelhead, and an adult sturgeon that likely resided there all summer. As the rains come, call us if you see fish at 707 223-7200.

DVDs of *Signs of Resilience* can be obtained for \$20 at events or on the ERRP website. Alternatively, access to the film in HD on YouTube is available to those who join ERRP on-line by the end of November.

🌲 For more information:
www.eelriverrecovery.org

Legal Victory for Pacific Fisher!

Klamath-Siskiyou Wildlands Center

Pacific Fishers Have Had a Rough Go of it.

Due to the ongoing destruction of old-growth forests, climate change, and historic fur-trapping, this imperiled species has been pushed to the brink. Only two isolated native populations remain: one in the Klamath-Siskiyou and another in the southern Sierra Nevada. These two small populations are separated by hundreds of miles which increases the risks to their long-term survival.

Today, a new threat has made a bad situation even worse. Rodent poisons available at hardware stores and too-often associated with cannabis cultivation are taking a heavy toll on the species. These deadly, blood-thinning rodenticides are now found in approximately 85% of the remaining fisher population.

Conservation Partner Organizations at Work



Pacific Fisher PHOTO BY U.S. FISH AND WILDLIFE SERVICE

U.S. Fish and Wildlife Service Puts Politics Ahead of Survival

In response to a petition to list Pacific Fishers for protection under the Endangered Species Act, local Fish and Wildlife Service biologists determined that the species was indeed in dire need of protection if extinction was to be prevented. Then politics entered the equation as higher-level political appointees in the Wildlife Service pulled strings to ensure that Fishers did not receive the protections needed for the species to survive. To no one's surprise, the fingerprints of big timber were all over the push to place profits ahead of needed wildlife protection on public lands.

Represented by attorneys with the Earthjustice law firm, a coalition of conservation organizations filed a legal challenge to the decision of the Fish and Wildlife Service to put politics ahead of science. Big timber and their well-heeled corporate lawyers immediately jumped into the fray by intervening in the lawsuit and attempting to prevent protections for Pacific fishers and the habitat that they rely upon.

Judge Orders Government to Consider Science

In late September, a federal district court judge agreed with conservation advocates that the political decision to deny Fishers protection under the Endangered Species

Act was illegal and must be reconsidered. While this victory does not guarantee that the Fish and Wildlife Service will do the right thing and issue a science-based finding that aids this extremely rare species, it nevertheless is another strong indicator that the species and its habitat need all the protection we can muster. Further, the Fish and Wildlife Service has now been ordered by a federal court to consider the very thing that most threatens fisher survival: the combination of widespread rodenticide poisoning and habitat loss from fire and logging.

Challenges to Fisher Survival

While the legal victory is heartening, the persistence of Pacific fishers hangs by a thread. The two small remaining native populations of this forest mammal face increasing pressures from a variety of factors. In addition to logging and poisoning, climate change is likely significantly influencing the range, distribution, and elevation of fisher habitat, as well as fisher movement across the landscape.

Fishers once occupied older forests from Southern California through the West Coast of Canada. The small remnant populations that remain are less and less able to find refuge from the multitude of threats to their continued survival. It is up to us to step in and help pull this species



PHOTO BY U.S. FISH AND WILDLIFE SERVICE

back from brink of extinction. For decades conservation advocates have worked to shine a light on the needs of this elusive predator. Now we need to ensure that we are not the last generation to share the planet with these forest-dependent critters.

🌲 For more information: www.kswild.org

Have Bare Ground? The Mattole Restoration Council Can Fill it with Native Plants!

Mattole Restoration Council

The Mattole Restoration Council (MRC) has been planting Douglas Fir and Redwood trees in local forests for decades. In recent years, we have expanded our revegetation efforts to encompass a

greater number of habitats and species, planting grasses and forbs in coastal prairies and a suite of native trees and shrubs in riparian areas and wetlands. In the last ten years MRC crews have designed and implemented restoration projects putting over a million native plants in the ground. We also have been expanding the capacity of our native plant nursery, currently growing over 50,000 native plants annually, many of them from locally-sourced and adapted seed.

Whether you are trying to restore a forested landscape, or grassland or wetland areas, the MRC can provide you with professional native plant design and installation services, at competitive rates. If you need revegetation or erosion control services for RRR (retiring, remediating, and relocation of cultivation sites), CMMLUO (Commercial Medical Marijuana Land Use Ordinance), NOV

(notice of violation) or anything else, please contact us with questions about how we may help you restore native vegetation on your land, by calling 707-629-3526 or hugh@mattole.org.

The MRC's native plant nursery has a wide variety of plants available for sale, including pearly everlasting, columbine, iris, oceanspray, madrones, native bunchgrasses, and much more. Go to www.mattole.org/resources/native-plants and click on the current plant inventory link to find a list of available species and prices. Don't see what you are looking for? We take special orders. For more information contact Veronica at the MRC at 707-629-3514 or veronica@mattole.org.

🌲 For more information: mattole.org

Wildness Returning to Lagunitas Creek

Salmon Protection And Watershed Network

A mile-long stretch of Lagunitas Creek is being returned to *wild-ness*, allowing the creek to provide the same ecological functions it once afforded the Tomales Bay Watershed hundreds of years ago—when thousands of native salmon still graced our waterways.

The construction of the North Pacific Coast Railroad in the late 1800s and the subsequent construction of Sir Francis Drake Highway in the 1920s resulted in millions of pounds of fill dirt being pushed into the floodplains. All of which are environmental impact relics of the West Marin County ghost towns of Tocaloma and Jewel, and contributed to the near vanishing of the watershed's Central California Coast Coho salmon.



Planted into a prairie dominated by non-native annual grasses in 2009, these rows of native perennial bunchgrasses (Idaho Fescue) are competing successfully and growing vigorously. The re-establishment of deep-rooted perennial bunchgrasses in local grasslands has multiple benefits for wildlife, soil quality, and carbon sequestration. PHOTO FROM MRC

Conservation Partner Organizations at Work



Perennial side-channel being excavated where former cement pads and structures were built along Lagunitas Creek. PHOTO BY BOLT SEYMOUR

Before the recent removal of tens of thousands of pounds of concrete, dozens of buildings, and millions of pounds of fill dirt, this section of creek functioned more like simplified urban channel, a straightened bowling alley with high velocities of water that no longer afforded a place for baby salmon to survive and thrive.

With the loss of salmon whose flesh once conveyed millions of pounds of energy in the form of protein and minerals from the sea to the forests, a cascade of harmful ecological events occurred—from reduced tree growth to diminished food for bobcats, otters, hawks and wading birds to the aquatic and terrestrial insects that the baby salmon need to grow and fuel the circle of life.

Now with the near completion of this amazing project, we have reset the clock, reviving a creek that, ironically, was on a fast track to becoming a salmon ghost town itself. The project is breathing life into the creek, allowing it to meander out of its banks during storm events, creating a complex of habitats that provides refuge for baby salmon and abundant food for a myriad of wildlife species. These newly created side channels and floodplains and enlarged riparian habitats will now support migratory birds that have also seen a drastic reduction in their numbers with urbanization and loss of native riparian forests. This project has removed acres of invasive plants and replaced them with thousands of native species we have been growing in our native

plant nursery, nurtured over the past few years by hundreds of local volunteers.

Restoring the natural function of creeks is not a “feel-good” endeavor to re-create an illusion of an earlier time, but it is an economical way to prevent future crashes of wildlife populations whose recovery, mandated under the Endangered Species Act, come with enormous costs and effort.

But This Project Accomplished Much More

Allowing the creek to spread out during storm events will reduce flooding and expensive repairs downstream for creekside residents of Point Reyes Station. Healthier forests and the replanting of native redwoods and other species sequesters carbon, helping to mitigate the impacts of global warming that is already costing millions of dollars in planning and actual loss of property in our coastal neighborhoods.



Passive wood loading being placed on new floodplain slope, the wood is planned to be mobilized by water and wracked up on larger wood in the system. PHOTO BY PRESTON BROWN



Perennial side channel habitat showing unique California Freshwater Shrimp Habitat Structures- showing live willow posts holding in place a large coir log. This is designed to mimic an overhanging bank. PHOTO BY PRESTON BROWN

We have completed a project that we can all be proud of—one that supports life on Earth, one that not only benefits ourselves, but our children, grandchildren, and next generations. This is a wise investment for today and one that will pay immeasurable dividends for the future.

This project has been the result of many individuals and organizations that have worked collaboratively for years to bring it to fruition.

First and foremost, it could not have occurred without the foresight of the National Park Service, which purchased these lands on behalf of future generations.

California Department of Fish and Wildlife, State Water Resources Control

Board, US Fish & Wildlife, National Oceanic and Atmospheric Administration, and Environmental Protection Agency joined Turtle Island Restoration Network by contributing resources, staff and constructive advice over the past eight years, as did members and organizations that serve on the Lagunitas Technical Advisory Committee hosted over the years by the Marin Municipal Water District. Engineers, landscape designers and construction crews from ESA and Hanford ARC all helped make this a reality. Preston Brown served as the project manager, and Audrey Fusco directed and managed the native plant nursery. Most of all, this project could not have occurred without the thousands

of supporters and volunteers of Turtle Island Restoration Network and its local project known as the Salmon Protection And Watershed Network (SPAWN).

Earlier I said this was not a nostalgic “feel good” project. In fact, this endeavor is actually a “feels great” success! Thousands of individuals have contributed and it has nourished all of our souls and bodies—made us all healthier and happier, a fact documented by neurobiologists and the medical community that study the impacts of nature on human well-being.

We invite you to join us as we still have much work, not only at this one site, but also throughout the Bay Area to heal the Earth and ourselves.

You can visit the Turtle Island Restoration Network Youtube page where several time-lapse videos of the restoration construction activities can be viewed and shared.

<https://www.youtube.com/playlist?list=PLgYys7mLEnq5X0mOwZMKi-4BERUgvlPP7>

🌲 For more information:
<https://seaturtles.org/programs/salmon>

Redwood Creek Update

Salmonid Restoration Federation

In 2018, Salmonid Restoration Federation has continued conducting low flow monitoring and flow enhancement planning efforts in Redwood Creek, a critical tributary for juvenile salmonids in the South Fork Eel River watershed.

Under the California Water Action Plan, the South Fork Eel River is considered one of five priority watersheds in the state for flow enhancement projects. This coordinated planning effort stems from years of low flow monitoring and community outreach in this key

Conservation Partner Organizations at Work



Elizabeth Maybee Marshall, of the historic Marshall Ranch, has spearheaded the preservation of the Ranch for future generations and multiple beneficial uses.

PHOTO BY DANA STOLZMAN

tributary that suffers from legacy impacts of logging, rural sub-divisions, cannabis cultivation, and hundreds of unregulated water diversions.

Redwood Creek is a densely populated tributary in Southern Humboldt that has a high concentration of cannabis cultivation and also provides habitat for juvenile salmonids. This watershed once supported coho, steelhead, and Chinook salmon and still retains high intrinsic potential for salmonid recovery. Since 2013, Salmonid Restoration Federation (SRF) has been

conducting low flow monitoring in order to understand the low flow patterns and prioritize water conservation efforts in this impaired watershed that is home to hundreds of residents as well as threatened species like coho salmon.

The 2018 dry season flow monitoring began in Redwood Creek on June 29th at ten monitoring sites. Flows measured during the first day of monitoring ranged from approximately 100 to 1000 gallons per minute (gpm). The crew witnessed a thriving salmonid population near the

monitoring sites, especially upstream of Briceland where coho and steelhead ranging from one-inch to six inches in length were active and plentiful within the observed stream reaches.

By the end of July, flows had decreased precipitously. Lower Miller Creek became the first monitoring site with zero measurable flow, although some fish were surviving in disconnected pools. The highest measured flow in late July was at the lower Redwood Creek monitoring site located in the CA State Park where flows were measured just above 40 gpm—less than 4% of the measured flows from a month earlier.

By August 10th, flow ceased at one of the Redwood Creek mainstem monitoring sites near Briceland, and by August 24th, zero flow was recorded at three additional sites. By August 24th, only four of the ten monitoring sites had any flow—three Redwood Creek mainstem sites toward the lower end of the watershed and lower Seely Creek. However, by September 7th two more sites had dried up leaving only two mainstem sites with measurable flows in the range of only two to four gpm. Flows at these two sites has persisted through early October. Needless to say, beginning in early August conditions for aquatic habitat in Redwood Creek became dire with a few fish surviving in deeper pools throughout the watershed, but widespread mortality caused by drying stream reaches and shrinking pools.

Observations made, and flows measured during 2018 are similar to results from the past several years, although in 2018 there appears to be a more precipitous drop in flow during the period spanning early July and through early August. We hypothesize that this may have resulted from the extended heat wave gripping

the region during that time period. The persistence of dry-season low flows in Redwood Creek over the past four years is well documented, highlighting the need for a long-term and concerted effort to increase flows and improve fish habitat. Efforts to reduce human consumptive use during the dry season are part of the solution, but additional flow enhancement projects are likely needed to measurably improve the chronic low flows.

SRF recently was awarded two Wildlife Conservation Board grants in the Redwood Creek watershed to advance planning efforts to 100% design phase. These planning grants would enable the planning team of SRF, Stillwater Sciences to identify high-priority projects create flow enhancement designs that could measurably improve flow conditions in the watershed. Scattered projects could increase flows downstream but coordinated planning and a cultural paradigm shift towards water storage and forbearance would be needed to sustain improved flows.

One of the most promising projects in the Redwood Creek watershed is on the historic Marshall Ranch which is a 2,942-acre ranch all under one family ownership, which has been managed sustainably for timber production and livestock since the 1880s while also providing extensive habitat for fish and wildlife as evidenced by the presence of coho, Chinook, and steelhead.

Currently, the Marshall family is spearheading an effort to place a conservation easement on the family ranch. The easement will prohibit subdivision and cannabis cultivation, greatly restrict development, and permanently protect land and water resources, including salmon-bearing headwater

streams. Traditional uses such as grazing and timber production will continue and the land will remain in private ownership.

This large-scale planning project could greatly enhance flows in the watershed and improve habitat values for salmon and other aquatic species.

 For more information: calsalmon.org

Working Together in McKee Creek: Water for Fish and People, Open Lands for You and Me

Sanctuary Forest

Driving west from Redway towards Shelter Cove on the Briceland-Thorn Rd. the Mattole Watershed is entered coming over Huckleberry Hill at the Ettersburg Junction. Dropping down into the Whitethorn Valley, the road parallels McKee Creek to its confluence with the Mattole River at Thorn Junction.

As with many other sub-basins in the watershed, McKee Creek was historically home to abundant runs of chinook, coho, and steelhead. The last observations of coho salmon in McKee Creek were taken nearly 10 years ago, and since that time the plight of Mattole salmonids, throughout the watershed, has only worsened. Critical low-to-no streamflows in McKee and throughout the Mattole headwaters have been a roadblock to recovery efforts. And is further compounded by a history of past land use impacts that have fundamentally altered the ecosystem. The McKee Creek watershed has been racked with intensive clear-cut logging, road building, and stand replacing wildfires; with much of the large woody debris

that provided essential salmon habitat long since removed under the misguided “stream-cleaning restoration efforts” of the late 80’s and early 90’s. Since 2003, McKee Creek has suffered incredibly low flows, with pools consistently drying up during the summer months; resulting in the deaths of thousands of juvenile salmonids and landowners running out of water year after year.

In response to this crisis, landowners on the mainstem of McKee Creek are working with Sanctuary Forest to understand the root causes of these issues and identify solutions to restore resiliency and abundance to the McKee Creek watershed. These grassroots efforts have been part of a loosely organized McKee Creek Tributary Collective which came about because a few landowners couldn’t bear to see the fish perishing year after year as pools dried up. The solutions that we have cooperatively developed were based on the understanding that we must work together if we are to achieve drought resilience for both the fish and the people who live in the McKee Creek watershed. Out of these efforts came the McKee Creek Restoration and Conservation Strategy: a three part plan to work with landowners to address the limiting factors to salmonid recovery, increase streamflows for fish and people, and prevent future impacts of subdivision and development in the headwaters.

Storage and Forbearance

Over the past seven years, Sanctuary Forest has worked with interested landowners, the California Dept. of Fish and Wildlife Fisheries Restoration Grant Program (FRGP), and Dept. of Water Resources to provide domestic water storage for landowners in exchange for their forbearance from diverting from McKee Creek during the dry season

Conservation Partner Organizations at Work

(actual forbearance period determined by Sanctuary Forest streamflow monitoring program). Last year the first of these water systems was completed, and this year two more will be installed. As a result of these efforts there will be no diversions from the mainstem of McKee Creek during the dry season; leaving water in the creek when the fish need it the most! With the passage of Prop 1 (Water Bond) and Prop 68 (Water and Parks Bond), Sanctuary Forest is expanding our focus to work with landowners on Painter Creek, a large side tributary to McKee Creek, to further improve water security and instream flows.

Salmon Habitat Restoration & Groundwater Recharge

To address some of the legacy impacts, restore salmon habitat, and increase summertime streamflows, Sanctuary Forest is working with two private landowners to implement projects on key portions of McKee Creek. The first of these projects began implementation this year, and is building on the successes

and lessons learned from the Baker Creek Pilot Project—by utilizing a mix of large wood debris (LWD) structures and log/boulder weirs to raise the stream channel, increase pool depth, and store more water in the inset floodplain. The second of these projects will take place further up in the watershed on property recently conserved by Sanctuary Forest (See Conservation Below) and will utilize a mix of boulder weirs, LWD habitat structures, and Beaver Dam Analogues (BDAs) consisting of pounded posts interwoven with willow and other riparian vegetation and sealed with locally sourced clay (picture). These structures mimic the natural function of beaver dams and are designed to slow down winter runoff and inundate the toe of the adjoining hillslope; increasing groundwater storage and resulting in streamflows that stay higher for longer into the dry season. Thanks to the Mattole Salmon Group, USFW Service, CDFW Fisheries Restoration Grants Program and the Wildlife Conservation Board's Streamflow

Enhancement Program this project is proving to be incredibly successful!

Land Conservation

By ending all summer time diversions from the mainstem of McKee Creek and restoring salmon habitat and other hydrologic functions to increase summertime streamflows, Sanctuary Forest and our partners are increasing the chances of recovery in this high priority tributary (SONCC, 2014). But these accomplishments could easily be negated or reversed if further subdivision and development were to occur. To address that threat Sanctuary Forest has strategically purchased ~307 acres of land consisting of three parcels. Parcel 1, the Thorn Junction Property, is 7 acres and is located at the confluence of McKee Creek and the Mattole River. Our goal for this property is to work with the Whitethorn Volunteer Fire Dept. to install an emergency water storage system for firefighting and to replace water storage for landowners in the event of a catastrophic loss. Parcel 2 and 3, the McKee Headwaters Property and Phase 1 of the Van Arken Community Forest Project, holds 300 acres of forestland and two miles of riparian corridor previously under threat of industrial timber harvest, subdivision, and development that would entail extensive road-building, forest clearing, and additional water diversions. Thanks to funding from the Wildlife Conservation Board, Sanctuary Forest is will take ownership of the property for perpetuity; creating open public space, and enabling forest thinning, additional restoration projects, and increased streamflows.

🌲 For more information:
sanctuaryforest.org



USFW Engineered log weirs, installed by Mattole Salmon Group on private property in McKee Creek. Structures are designed to mimic beaver dams, creating pool habitat for fish and holding more water for later into the dry season. All structures allow for fish passage at base flows (1cfs). PHOTO BY GALEN DOHERTY



November 16th, 2018

Dear Trees Foundation Supporter and Environmental Advocate,

We live in a complicated time, with social, environmental, and political issues that sometimes feel overwhelming and even hopeless. In California, the seemingly endless fire season and unprecedented destruction from wildfire has touched many of us, and it's not too far a stretch to envision something similar happening here on the North Coast.

However, we in northwestern California are lucky to have a vibrant grassroots community leading cutting-edge conservation, restoration, and resilience-focused work. And the Trees Foundation is fortunate to collaborate with and provide critical support to the many organizations and alliances who are making this work happen!

Trees Foundation currently supports thirty-three visionary grassroots groups that are doing work such as reducing the risk of catastrophic wildfire, mitigating runoff and erosion, fighting for the conservation of your forests as great carbon sinks, restoring your rivers and fisheries, and working with farmers to integrate best management practices so that you can live in a community that is both biologically and economically rich. This work is being done all the way from the Bay Area of California into southern Oregon.

Once a year Trees Foundation asks you for your support and that time is now!

- With your donation we are able to provide support through:
- Fiscal Sponsorship Program: provides 501(c3)non-profit status and operational support to numerous budding organizations;
- Professional Support: GIS, graphic design, fundraising, social media;
- Donor-Advised Grants: has awarded over \$1 million in regional grants;
- Forest & River News: a quarterly publication providing conservation news to the public, grassroots organizations, and activists to educate and share advocacy, restoration models, and lessons learned.

Your donation is vital to sustaining and supporting the innovative conservation and restoration efforts that continue to sustain the North Coast's forests, rivers, and wildlife. By making a donation to Trees Foundation, you will support efforts that give us hope and make our landscape more resilient!

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Thank you,

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Getting Involved



**I have found that among its other benefits,
giving liberates the soul of the giver. ~ MAYA ANGELOU**

There are many ways to “get involved.” One can work at a nonprofit, donate time or money, or create planned giving. However one gives, the important thing is to give back to your community and the planet, so that future generations have a more healthy and beautiful place to live. See page 39 for more inspiration...



Overlooking the Wild and Scenic North Fork
Eel River watershed. PHOTO BY PAT HIGGINS

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