



Mid Klamath Watershed Council

2024, Twenty Fifth Edition

*Building to the Future:
Using our 2023 Accomplishments to Guide Future Work*

Letter from MKWC's New Co-Executive Director Kathy McCovey

The Good Old Days: The Only Thing Constant is Change

When I was growing up in Happy Camp, the lumber mills were a dominant feature of the landscape. Even when you could not physically see them, you could hear the lumber being milled, and the smell of the processing of the conifer logs permeated the air, as did the smoke that emitted from the burning of the cull wood material in the numerous TeePee Burners located around Happy Camp. I would listen to the sound of the green chains: the huffing, puffing, grinding, clanking, and clinking of the machinery at the mill. The whistles that began and ended shifts, the big log loaders at the mill were always busy speedily bobbing and weaving around the log piles and the mill pond, endlessly delivering the large logs to the industrial complex that was one of the main mills in Happy Camp. I could hear it all as I only lived about ¼ mile away from the big mill located in the middle of our town. I could hear the familiar sounds and I could see in my mind's eye the mill workers moving about. Every night I knew exactly what was happening at the mill from the comfort of my bed.

My grandfather's Forest Service log scaling shack was right across the street from our house, as it was located where the Happy Camp Ranger Station Office now sits. I remember watching my grandfather scaling loads of very large Douglas-fir trees. Douglas-fir were the main logs that I saw him scaling. It was the old-growth trees, you know the ones; they are old, thick-barked and had withstood many a fire. Those are the logs that I grew up seeing being carried away from the land to the mill and then turned into boards, never again to be recognized for their contribution to the landscape and its ecology. Those old, large diameter trees that had been felled on the mountain slopes were driven to the mill by people like my neighbor, Mr. Archer.

But, before the logs made it to the mill, they had to stop at my Grandpa's scaling shack to have the logs measured by a Forest Service scaler named Ernie Spinks. Ernie, my grandpa, was a Karuk Indian sent to the Sherman Indian Institute in Riverside California to learn a trade, as many of the local native men and women left the river. In some instances they had been taken by the government, or non-natives, who could be sold or given Indian people and children, to learn a trade or be a servant. My grandfather learned how to

survey and he was good at math, and as for the mountains, he was part of them. One of his first jobs was putting up the telephone lines to the lookouts that had fallen down during the winter storms. For this job, his transportation was a horse. Later in life he worked for the Forest Service as a firefighter and then in the 50s he began working as a Check Scaler in Happy Camp. Through his years of experience in scaling logs, helped to write the log scaling charts that the federal government still uses to this day.

I would wake up in the mornings, open my front door and see the haze coming from the burner in the middle of the town of Happy Camp, and as I walked to school logging trucks would be zipping by me whipping up the dust, wood chips, and particles that lay along the highway with their



Kathy McCovey Photo by Molli Myers

speed and their heavy log loads. It seemed that my whole world revolved around logging. I never realized, like many people in my community, that those days would ever end. But the harvesting of the huge old-growth logs and the milling of them did stop in the 80s and life did change for many people.

Change is often difficult for people, as some people can adapt to it and some people can not. Change for me and throughout my life has been the one constant thing that I can depend on. Throughout my career in Forestry, Fire, Cultural Resource Management, and Anthropology/Archaeology, I have seen changes and I have been a part of change, and changes happened whether I wanted them or not. My family is a good example of the changes that they, along with the Klamath River, have endured since the early 1800s.

My family comes from the Karuk villages of Amakiyaram, Ishi Pishi, and a small village along the Salmon River, and no doubt I am related to other villages. When the Gold Rush hit us, time stopped for the Karuk people. The miners and settlers burned villages up and down the rivers. The people were killed and the ones that could make it ran up into the mountains to live as long as they could while the genocide of the Indigenous population was carried out. The settlers took advantage of the free land that the government was giving out. The miners made up their own mining laws to assist them in washing the gold from the canyons, river terraces, old river benches, and anywhere they could pan, dredge, and extract the one thing that they valued among all else—gold. The People of the river slowly filtered back into their old villages, while some of the native people had been rounded up and moved to reservations to live out their lives. Congress even had meetings on whether to annihilate the native people or put the survivors on reservations.

The native people who stayed or returned throughout the years of killing native people came home to find their

villages taken over with European style houses, barns, and all the structures of a “proper” town. In the village of Panamnik, Brizard’s pack train owner had built a store to furnish supplies to the miners and settlers. But the store keepers would not take money for the items the Karuk purchased—they made the native people sell their baskets and regalia to pay for food, as the native people were prohibited from fishing, hunting, and gathering their food. Karuk religious ceremonies were outlawed. The store even had a special little shed built on to the store in which to keep their ill-gotten gain.

My family is one of the families that made it through the killing years. My great grandmother married a miner and had children by him, but many men died mining and her husband was one of them. My grandmother made her living by trapping animals for the fur trade, mining for gold, and cooking and cleaning at the hotel in Orleans in the 20s and 30s. My father even did a short stint in the logging industry. But in the 50s there was not much work for people except in the timber industry, so my father and his brothers and sister, like many other native people, moved out of the Klamath River to the cities to find work. Many never returned to the river. I was lucky I got to stay on the river with my grandparents, and I too began my career in the timber industry, but that is another story to be told on another day.

Change in my life, career, and family has always happened and it has always deeply affected the people of the Klamath River for we are rooted here.

We bend like the gray willows do in the river canyons when the wind blows, we bend and we do not break. We adapt and we accept the change and take advantage of the opportunities that change provides us. My friend Heather Busam wrote her Master’s Thesis on the Karuk use of fire to manage the forest, and it played a part in promoting the acknowledgement by western science of the role of Indigenous management, specifically with fire, and its effects on ecosystem process and function.

The strategy of Indigenous burning can be explained, very generally here, as a process where a three mile radius was burned around a village such as Panamnik (Orleans) to create a fine-grained mosaic of oak woodlands and grasslands that were managed in short rotational burns. Two more miles out from the village those fine-grained grasslands move you up into the thermal belt, which is the warmest part of the slope in the middle of the mountain or hill. This middle slope was managed for the coarse-grained mosaic of Tan oaks and hardwoods to keep the Douglas-fir trees from crowding out the openings. Fire enhanced the meadow plants, grasslands, and numerous brush species for the deer, elk, and other animals to



The Happy Camp mill in the 1950s



The Brizard Basket Collection
from Cal Poly Humboldt, Library Special Collections and Archives

eat and use as habitat. Some plants need the smoke and heat from a fire to trigger their germination. Five miles upslope from the Klamath River was intensively managed for food and fiber, as well as for hunting and fishing. Beyond that five mile radius was a combination of tribal fire management along trails for management of the high country and lighting fires. See Heather Busam's Thesis "Characteristics and Implications of Traditional Native American Fire Management On The Orleans Ranger District, Six Rivers National Forest 2006."

The People of the Klamath River have a strategy for land management that is the product of generations of people in place managing our landscape since time immemorial. The landscape of the Karuk is still visible if you take the time to look for it. These landscapes are constantly changing, from natural events to human influenced events, and we as community members must prepare to respond to those challenges. Now is the opportunity to build our community work force and volunteers to be part of the response to the changes currently taking place on the Mid Klamath River.

One noticeable change is the increase in large fires within and adjacent to our towns, which have resulted in a new way of looking at communities and how the management of lands and landscapes can and will have effects on our people. There is a pattern of thunderstorms that have begun to move from the south in California to the north of the state. These storms produce hundreds, and in recent thunderstorms in our area, thousands of cloud to ground positive lightning strikes as the storms move through. We in northern California, due to our low populations and therefore lower priority for addressing fire strikes, are often left with very little resources to manage and work on fires when they hit

the Mid Klamath Watershed. We must be proactive in preparing our watersheds to receive fire, and when the thunderstorms do come through our area we must be prepared to manage and work on these fires as communities and assist our land management agencies in any way possible to meet the demands of our new fire environment. Proactive approaches in using fire as a tool must be supported and contributed to by our communities in our quest to be fire adapted and fire ready.

One way to prepare our landscape to again accept fire is for us to embrace fire as a tool and as a friend, not to fight it as an enemy and treat it as a beast or a monster to be slain only by the brave. No, fire can not be viewed as something impossible to be tamed or something that is bad. We are smart enough to utilize fire for our benefit and we are humble enough to learn from

the past. We here at MKWC are supporting and assisting the Karuk Tribe in their vision for landscape restoration with Karuk Traditional Knowledge. We are working toward a shared vision for landscapes, and recognizing how to restore fire to our ecosystems at the right times and in the right places is an integral part of the process. Fire use by communities for shared community goals is now part of the changing times. If we do not step up and make fire ours and prepare our landscapes to receive both prescribed fire as well as wildland fire then management of those opportunities will be lost to the ever-evolving industrial management of fire.

The technology-based management of our landscapes for wood products is fading, but what has replaced those extraction services is the industrialization of the fire suppression activities that invade our area every year. For months at a time we are inundated by imported Incident Management Teams and all the assets and people that come to the fire with that team. We, the local people from the local communities, have a fresh opportunity to contribute to the fire suppression efforts, and we now even have the opportunity to develop a community Type 3 Incident Management Team in partnership with the United States Forest Service. We know the land and our neighbors, and we can and are making a difference in Forest and Fire management within the Mid Klamath River Watershed.

This is an exciting time and an opportunity that we must embrace to make our own community plans and implement them ourselves together to build our future. I invite you to join us in this change in land management as workers, volunteers, supporters, or in any way you can, and help to make our communities within the Mid Klamath Watershed fire wise and fire safe.

What has MKWC Fisheries Been Up to In 2023? Creating A LOT of off-channel ponds

MKWC Fisheries, the Karuk Tribe, and Partners have constructed 22 off-channel ponds since 2010, creating over 2.75 acres of new habitat for overwintering juvenile Coho. Each year every acre of constructed off-channel

habitat rears as many as approximately 3,500 juvenile Coho, increasing growth rates and survival through adulthood by 2-6 times compared with juvenile Coho rearing exclusively in instream habitats.

MKWC Fisheries Program Director Charles Wickman oversaw the construction of over 19,000 square feet of off-channel ponds on Beaver Creek in 2023. *Photo by Jimmy Peterson on November 9, 2023*



On the ground photo of the middle pond shown in the aerial photo above. We are excited to monitor the kinds and numbers of fish that will utilize this much needed low velocity habitat. *Photo taken on January 9, 2024*

Removing Berms



The Camp Creek restoration project site on January 14, 2024, during a large storm event (approximately five inches of rain in a 24 hour period). In 2023, MKWC, the Karuk Tribe, and Six Rivers National Forest removed two berms and old hatchery infrastructure at the site, to increase the extent and quality of spawning and rearing habitat. All photos in the Fisheries section by the MCWC Fisheries Program unless noted



Large berm on Camp Creek just starting to be removed. Photo taken on August 16, 2023.



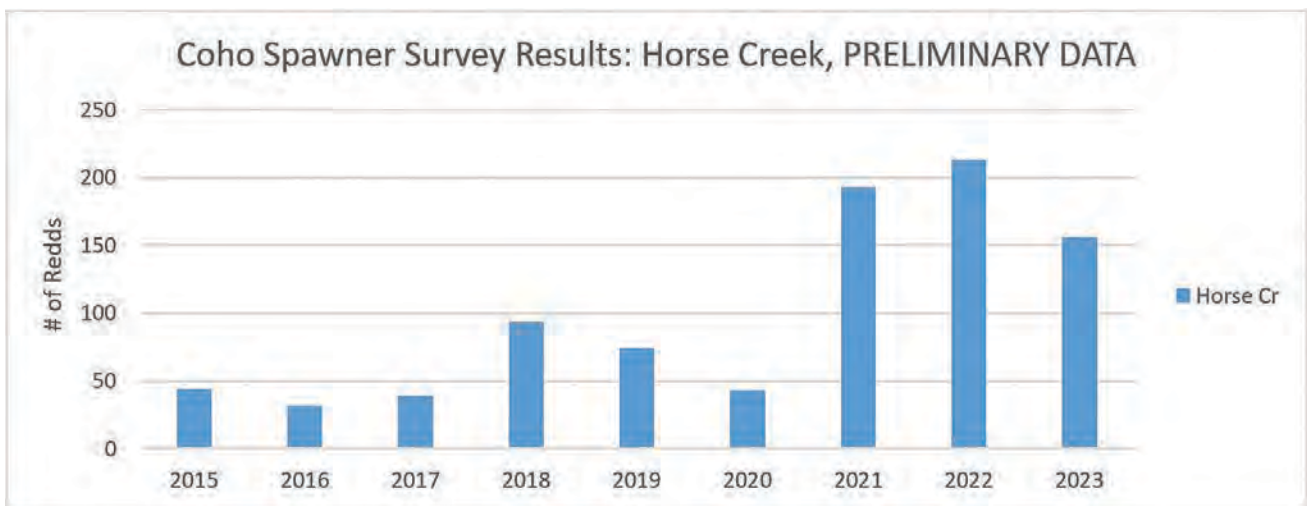
The area where the large berm used to be. The high water mark shows how the creek was allowed to expand out onto its floodplain, because the berm is gone. Photo taken January 14, 2024

Monitoring Fish Populations and Projects

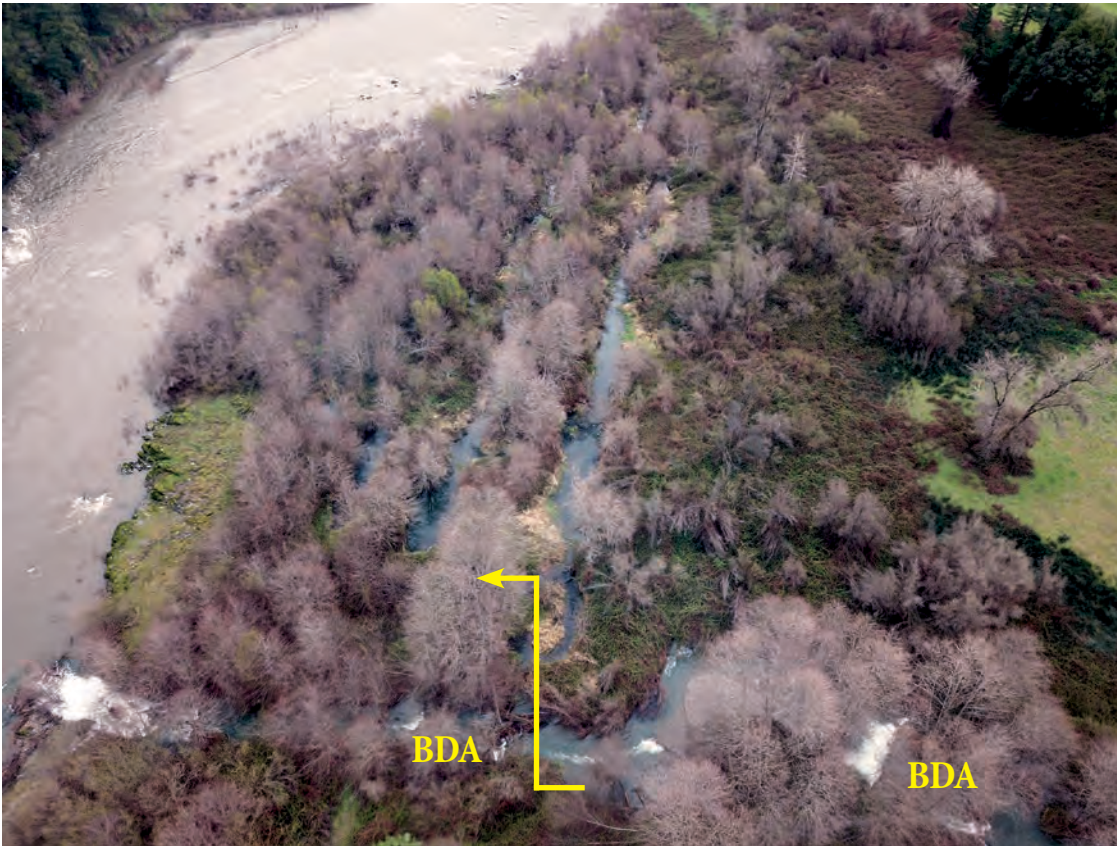


Monitoring of Horse Creek wood structures installed in 2019 by MKWC show that Coho salmon will utilize the spawning gravel around the wood structures. The salmon use the wood structures for cover. Extensive Coho salmon spawning surveys have been conducted in the Horse Creek watershed since 2015. Results indicate an increase in redds where wood structures have been constructed. The yellow flagging (highlighting the yellow flagging) are locations of Coho salmon redds (piles of gravel in the streambed where the salmon have laid their eggs).
Photo taken on January 25, 2024

Since 2017 MKWC Fisheries and Partners have installed approximately 150 large wood structures in 5.6 miles of streams (approximately 50 were installed in 2023). Many more are planned in the next couple of years.



Building and Maintaining BDAs



Beaver Dam Analogues (BDAs) in Boise Creek are maintained yearly. They divert creek water into a complex of ponds over a half acre in size! The pond complex and the pools in the creek created by the BDAs provide cold and deep rearing habitat, that are food rich, for salmonids. *Photo by Jimmy Peterson taken March 11, 2024.*

Since the early 2010's, MKWC Fisheries in partnership with the Karuk Tribe and others have been using a restoration technique called Beaver Dam Analogues (BDAs), which mimic beaver dams, and provide amazing habitat for juvenile salmonids. The BDAs require regular maintenance and this kind of work is ongoing every year with many more sites planned.



A MKWC Fisheries crew constructing BDAs. *Photo by Jimmy Peterson taken August 6, 2019.*

Imagine a Hatchery Fish

by Tai Kim

It was a sunny day in late October when I stood beside the lower fish trap at the Iron Gate Hatchery. The trap boiled with dozens of adult Chinook salmon. Like a recirculating eddy or a witch's cauldron, the fish circled and rolled over each other trying to continue their journey upstream. But there was nowhere to go, only concrete walls and steel bars on all sides.

I was there with my 11-year-old daughter and her classmates during a field trip to experience the historic dam removal project underway on the Klamath River. After learning about the project and waving goodbye to Iron Gate Dam, the students had been offered a quick tour of the hatchery. I trailed reluctantly behind the students, pondering some of the complex issues and conflicting opinions related to fish hatcheries in the Klamath Basin. I admit that I walked into the situation that day with nothing but scorn and contempt for hatchery fish.

The history of anadromous fish hatcheries in the Klamath Basin dates back over 100 years. Since the onset of the 20th

century, egg collection fish traps were installed and operated in several locations near Iron Gate. Sites at Cottonwood Creek, Camp Creek, Bogus Creek, and Klamathon collected wild stock eggs between 1900 and 1941. Eggs from these locations were brought to the Fall Creek Hatchery which was built in 1919 to try to compensate for the loss of spawning grounds caused by the construction of Copco1 Dam. By 1965, hatchery operations had moved downstream to the Iron Gate Hatchery, built at the base of Iron Gate Dam, once again in an attempt to compensate for the loss of wild spawning grounds. The Fall Creek Hatchery ceased operation in 1948, but rearing ponds at the facility were used from 1979 to 2003 to raise Chinook yearlings that were released into the Klamath River at Iron Gate. In 2023, the Fall Creek hatchery was renovated as part of the dam removal project. The Iron Gate hatchery will be deconstructed in 2024 along with the dam. Hatchery operations will be reduced and moved to the renovated Fall Creek facility, which will release supplemental Chinook and Coho salmon for up to eight years. After the eight year stop gap period, hatchery operations will be



Happy Camp Elementary School students tour Iron Gate hatchery during a dam removal field trip in the spring of 2023.
Photo by Tai Kim



A student observes spawning Chinook salmon while standing on top of a wood structure at Beaver Creek *Photo by Tai Kim*

terminated with the goal of re-establishing wild populations that do not require hatchery supplementation.

While fish hatcheries within the Klamath River watershed were built with the intention of supporting stable fisheries, the actual impact of the introduction of hatchery fish into the river system has had the opposite effect. Decades of scientific research overwhelmingly indicates that hatcheries usually have an adverse effect on wild salmon populations. This has proven to be true in the Klamath River fishery. When millions of juvenile salmon are released from hatcheries they can quickly reduce the resources available to wild fish. Although a wild salmon can generally outcompete a hatchery-raised fish, the overwhelming numbers of hatchery fish, combined with the ever-decreasing abundance of resources due to climate change and other factors, causes a significant stress to native salmon populations. The influx of hatchery fish also leads to an increase in the populations of predators, and since wild fish spend more of their life in the natural environment they have a greater likelihood to face the effects of increased predator populations.

Another negative impact of hatchery fish on wild fish populations occurs when hatchery fish spawn with wild fish. This interbreeding results in reduced genetic diversity of wild fish, as well as reduced size, abundance, and reproductive rates. Because wild populations possess a more wide-

-ranging genetic portfolio, they are able to utilize a broader diversity of ecological niches and display more varied timing of out-migration and return runs. This makes them more resilient than hatchery fish and thus better able to adapt to changes in the climate and other ecological conditions. Conversely, introduced hatchery fish tend to be genetic clones, so their interbreeding with wild populations leads to

Can something that was part of the problem become part of the solution? Possibly in this particular context, a hatchery fish could have a positive role to play in the ecological restoration of the Klamath River watershed. And if a hatchery fish, even with its dubious past and inherited weaknesses, can find a way to help, maybe I can too. Maybe everyone can.

genetic homogenization. Even though the stock for hatchery operations originally came from native wild stock eggs, hatchery fish rapidly evolve within one generation to display epigenetic changes due to the hatchery rearing process. This is to say that the way that a fish behaves, the way their genes work, and their ability to survive is significantly determined by their environment during development. Juvenile hatchery fish are abundantly fed a rich diet, artificially protected from predators and are reared in crowded raceways where

they consistently bite each other. Therefore, they tend to have a higher susceptibility to predators and to spend more energy in wound recovery and less energy growing. In short, hatchery fish are ill-adapted to wild habitats where healthy growth rates and the ability to avoid predators are essential for survival, and when they are introduced into a natural fishery they have a negative effect on the wild population.

Similar thoughts weighed on me as I followed my daughter's class through the Iron Gate Hatchery last October. As we passed the raceways of young Chinook and Coho salmon, I saw livestock. These were animals domesticated by featureless concrete enclosures and regular feeding schedules. For the past 15 years, as I participated in wild population salmon surveys on tributaries of the Mid Klamath, hoping that we were not documenting the extinction of these species, my disdain for hatchery fish increased. But when I witnessed the fish trap that day something in me shifted.



Spring Chinook Photo by Will Harling



Students line up for a chance to practice healthy risk taking during a field trip at the newly constructed Beaver Creek pond. Photo by Tai Kim

I stood back from the action, at a distance from the fish trap. Near the top of the trap a handful of students strained against the fence cheering and throwing hands in the air as massive Chinook salmon erupted from the agitated water, mercilessly slamming their bodies against concrete walls again and again. Some of the student's faces glowed with excitement, but the faces of other students in the group showed a different range of expressions. Confusion, upset, panic, and outrage were reflected in their eyes. It was the look of outrage that caught my attention. One or two turned around and asked no one in particular, "Why are you leaving them in there?" "Why don't you take them out?" I looked down into the trap at a row of adult Chinook salmon, packed like sardines, swimming steadily together into the current. Going nowhere. I saw that same outrage in the eyes of those salmon. These fish had tasted freedom. For years they had lived wild in the Pacific Ocean. They had followed an instinctual urge to return to the Klamath River and follow its path to this place. But when they got here it turned out to be a trap.

Along with outrage, I imagined that I saw sad remembrance in the salmon's eye. As if when they ran up against the concrete walls they suddenly remembered their hatchery origins. As if they just realized now that they had never actually been free. That moment caused me to realize that, in a certain way, I am like a hatchery fish. There are definitely times in my life when I realize that I am not as wild and free as I like to think I am and I can perceive the invisible walls of my own limited perspective, bad habits, and the inherited trauma of the world I live in. Though I hope I can expand my sense of what it means to be connected and alive,

some parts of me may always feel constrained by imbalance and disconnection.

The group left the hatchery quickly and walked quietly back to their bus. Their next stop would be 40 miles downriver at Beaver Creek to tour the new fisheries restoration site recently coordinated there by the Mid Klamath Watershed Council. I rode in a separate vehicle with another parent and we talked about the fish we had just seen. We had observed the last round of fish rearing before the hatchery would be decommissioned prior to dam removal. The juvenile fish we had seen in the raceways would be released into the Klamath River. Many would die, but some of them would complete the journey to the mouth of the Klamath and out into the Pacific. In upcoming years, some of those will return from the ocean and find an Iron Gate very different from the one they left. Many returning hatchery fish will leave the river at what will by then be the historic site of the deconstructed hatchery, and swim into Bogus Creek to spawn. But some will swim past the old hatchery and when they reach the site where Iron Gate Dam once stood, there will only be more river. Those that pass beyond will be among the first salmon to explore into the 600 kilometers of spawning habitat made accessible by the dam removal project. Some of them will likely make their way into the creeks above Iron Gate. I imagine one of these fish digging a redd within the old reservoir footprint on Camp Creek. With their tail they will shape the newly exposed gravel, possibly starting the process of creating pools and helping to restore complexity to a stream that has been buried under the reservoir for decades. I imagine another swimming up out of the reservoir footprint on Jenny Creek and finding historic spawning gravel and intact habitat waiting for them. Maybe they will successfully spawn there with another hatchery fish, or with a wild fish. Most of their offspring may express less resilient hatchery stock characteristics, but maybe a few of their offspring, born into a natural habitat, will be able to re-evolve to express lost genetic characteristics beneficial in the wild as quickly as their recent ancestors evolved and adapted to hatchery conditions. Can something that was part of the problem become part of the solution? Possibly in this



As the waters recede, Jenny Creek is one of the premier emerging tributaries opening up to spawning salmon. *Photo by Shane Anderson*

particular context, a hatchery fish could have a positive role to play in the ecological restoration of the Klamath River watershed. And if a hatchery fish, even with its dubious past and inherited weaknesses, can find a way to help, maybe I can too. Maybe everyone can.

When the field trip reached the restoration site at Beaver Creek, students spread out in small groups to eat lunch. Some of them sat near an off-channel pond marveling at the clearness of the water. Others sat under trees or on logs and root wads that reached out from the bank into the creek. A couple of students even noticed a salmon as it swam away to hide behind some woody debris. As a group we toured the restoration site and discussed the ways that the ponds and wood structures help restore a balanced habitat for native salmon populations. Then we spread out and walked a path along the creek, pausing to observe in small groups at spots where wild Chinook salmon were actively spawning. The students learned to identify the pit and mound shape of a salmon redd in spawning gravel. They saw a female Chinook digging her redd. They saw two males competing for position. They saw a spawning couple holding together, presumably watching over their finished redd. I looked around at the faces of these young people and saw expressions of wonder, pleasure, and respect. As they experienced the abundance of spawning native fish, I saw balance and connection reflected in their eyes. Perhaps as we work to restore salmon habitat, the salmon will help to restore us as well.

Reaching More Plants

by Tanya Chapple

This is a capacity building year for MKWC's Plants Program. We have been a mostly seasonal and part time program since the beginning, steadily growing every year, but falling short of jobs that truly sustain people. New funding this year has allowed us to hire two project coordinators, both full-time and year-round, and has edged us closer towards the ability to keep our technicians on year-round. Our staffing has expanded to Happy Camp with one of the coordinators and two technicians based there.



Invasive Weeds Data Training with MKWC Plants and Karuk DNR Pirish staff. Pictured right to left: Simone Grove, Heather Rickard, Dylan Fitzwater, Kiley Hudson, Kathy McCovey and Tanya Chapple. Photo by Elben Andrews

By increasing our personnel we are able to expand the scope and capability of our plants crew. Many of our staff work with other programs and are able to integrate plants knowledge into the Fire, Forestry, and Fisheries crews. We work with fisheries to restore riparian habitat along with off-channel habitat enhancement projects. We work following wildfire to remove weeds before they can seed into the burned area, and to ensure that fire suppression efforts don't bring in new weeds. We work with fire and forestry to monitor for rare plants, as well as invasive plants, and integrate their protection or management into fuels reduction and prescribed fire. With more staff we are able to meaningfully cooperate with the expanding Karuk Tribe's Pirish

MKWC crew removing Italian thistle on highway 96 near Cade Creek. Photo by Elben Andrews



Fritillaria recurva,
common names
Scarlet fritillary, or
red bells
Photo by
Kiley Hudson

(Plants) Division. These cross-program collaborations give all of our teams a more comprehensive understanding of the landscape.

The Klamath-Siskiyou Mountains region is widely recognized as an important biodiversity hotspot containing more than 3,500 plant species, over 200 of which are endemic. It is heartening to see the increased capacity of not only MKWC, but of our partner groups as well. As more people engage and take part in land stewardship, we enhance the opportunity to truly protect our region from the threats of invasive species and improve community understanding of the importance of the plants we all depend upon. Check out the MKWC website to learn more about the plants living here.



FLASH Success Story

Small Adjacent Treatments Bring Big Benefits Overall

Ishi Pishi Road Fire Safe Work

by Nancy Bailey

Ishi Pishi Road follows the Klamath River on the west side from Orleans to Somes Bar. It is about eight miles long and is the main access/egress route for over 70 homes, in four separate “neighborhoods”. It is a one lane road in places and often experiences slides and downed trees. In 2022 and 2023, MKWC coordinated and implemented multiple projects on private properties along Ishi Pishi Road. These included defensible space projects, roadside brushing, and FLASH projects.

FLASH – Fire-adapted Landscapes and Safe Homes

FLASH is a program that enlists and motivates landowners to do fuels reduction work on their own properties by offering a partial reimbursement when the work is complete. For some years, It has been funded by Humboldt County but is currently on hiatus. While the geographical focus on Ishi Pishi Road wasn’t necessarily planned, it pointed us exactly in the direction we want to go. It just so happened that eight of our 22 successful FLASH projects were along (or just off) this important road. FLASH projects are often visible to passers-by. This is what happened along Ishi Pishi and intersecting roads, as neighbors noticed brush being cleared and then signed up to work on their own property. In the end, these eight participants treated 18.8 acres, in the neighborhoods along Ishi Pishi. FLASH treatments ranged from defensible space, to roads and driveways, and other strategic pieces of land. In one case three adjacent units on two separate parcels treated a total of 7.75 acres and was especially impactful. On those acres the fire-safe treatment

clearly doubled as true restoration. One of the landowners there said, “Not only did the removal of fuels along my steep driveway provide opportunity for better evacuation if needed and access for fire resources, it also exposed beautiful Black and White Oaks that were choked by Tan Oak and Bay trees. The conditions in this area are much improved and I am very grateful that my time spent in this area is recognized and rewarded.”

Defensible Space and Roadside Brushing

Complementing this FLASH work, the MKWC fuels crew completed a total of eight Defensible Space (DS) projects for elderly residents along Ishi Pishi. These were funded by a combination of Humboldt County’s CWPP Implementation funding and the National Fish and Wildlife Foundation. In addition, roadside brushing, much of it adjacent to these DS and FLASH projects, treated 10.2 acres along this same road. All in all, over 35 acres were treated.

Prioritizing and then implementing batch fire safe projects in strategic locations within the WUI is often made complicated by multiple ownerships including public, private, tribal, and road easements (CALTRANS or County). Additionally, different funding sources with a range of environmental kind of activity. Nevertheless, MKWC was able to accomplish this kind of project along Ishi Pishi Road in Orleans and as we work through these challenges, we hope to continue with this kind of strategic geographical focus.



Before and After Defensible Space project: Lower Ishi Pishi 2022 Photos by Nancy Bailey

The OSB Community Liaison Program Comes Home

Successes and Challenges During the 2023 Lightning Complex

by Nancy Bailey

As many readers know, the Orleans/Somes Bar Community Liaison Program (CLP) was fashioned after the Salmon River version of the program, which was built in direct response to the 2008 wildfire season on the Salmon that was fraught with difficulties mostly due to lack of communication between the Incident Management Teams responding to the fire and the community.

Over the last few years, here in Orleans and Somes Bar, we have made use of the CLP in other ways. It has been used as a communication tool to notify the community of prescribed fire and events like TREX (Prescribed Fire Training Exchange). And in 2020, we used this same framework in response to the new Covid health emergency. New liaisons were identified and the program was morphed to discover individuals' needs in relation to the health crisis. It became a kind of mutual aid group which facilitated the sharing of resources and information regarding Covid-19.

Until last year, the CLP had been understaffed for local wildfire emergencies, and relying on the primary, or Tier 1, community liaison to facilitate information flow between the community and Incident Management Teams



Jesse Goodwin volunteering at Stormy and Stefan's property in the Pearch Creek neighborhood. All photos this article by Stormy Staats

That changed last summer, when the 2023 Lightning Complex brought the CLP home to what it was originally intended to be. With the Pearch Fire directly adjacent to several neighborhoods, and impacts being felt by all, suddenly activating the CLP in a wildfire emergency was a reality.

Early on, MKWC started receiving calls from people wondering what to do and how to help. We immediately reached out to the liaisons (neighborhood representatives) in each of the neighborhoods that were directly and indirectly threatened by the Lightning Complex fires. In those first days MKWC staff and liaisons did door to door outreach and started organizing volunteer days to do direct onsite fuels reduction for those closest to the fire. Concurrently, our CLP's main liaison, Will Harling, started uploading content about the fires through the Salmon River & Orleans Complexities Facebook page. Will and others shared maps, photos, and descriptions of fire behavior and fire spread on a daily basis.

When, about three days in to the fires, the first Incident Management Team (Team) showed up, we already had some momentum going with communications and actions related to the emergency situation. At that point the need for communication between residents and the Teams became a reality. This is where we had some success and some challenges.

The response and engagement we received from the fire responders varied by Team (there were five Teams in all by the time it was over). Some of them recognized that the framework we have established and the local fire knowledge and information we collectively have would be helpful to them. Others were more reticent, not having experienced or perhaps not trusting a community organization such as the CLP. Some invited us to Fire Camp to meet with the current Team members or invited us to the morning briefings, others didn't bother. Sometimes the Public Information people were receptive to our suggestions of how to get information out, sometimes they weren't. Luckily, Vikki Preston, a liaison herself, was embedded with the Teams as a Karuk cultural resource specialist, and the Tribe's K-1 fire crew and a few MKWC staff members, including Will Harling and Eric Darragh, got hired on to the fire. This enabled each of them to gain firsthand information which they shared with liaisons and the community. If the community had not had

these eyes on the ground, I believe we would have been way less informed about what was going on.

As we continued our volunteer on-the-ground activities closest to the fire, working under a heavy cloud of smoke; clearing brush, hauling material to MKWC's chipper, weed wacking, cleaning gutters, etc., we were able to interface with the various Structure Divisions who were doing their own work, setting up foldatanks and sprinkler systems at vulnerable homes. Sometimes they needed directions or clarifications about how to get to the private properties closest to the fire or how to get through a locked gate. We helped them engage with residents and shared knowledge about who lived where and where their chipper and other resources might be most needed.

But the communication with responders was not comprehensive and it was not necessarily two-way. The Complex of fires were on all sides of town and the Peach Fire was not only right behind Orleans, it was just across the river from Somes Bar as well as heading toward the Salmon River communities. Responders were spread thin and resources were split between the multiple fires. The repeated transitions of Teams meant that new responders were not always brought up to speed effectively.

As the weeks went on and the fire behavior lessened in intensity, the Six Rivers National Forest chose to manage the SRF Lightning Complex fires on the Orleans and Ukonom Ranger Districts for resource benefits, igniting strategic ridgelines to connect four separate wildfires just north and west of the communities of Orleans and Somes Bar. As the Karuk Tribe's cultural resource specialists were scouting to assess how to put fire on the ground without damaging cultural resources, other embedded locals and liaisons were sharing their fire behavior knowledge with responders. **By the time the fire went out, it had the effect of being a successful 20,000 acre prescribed burn!**

A well-attended community-based After Action Review was held some weeks after the fires were out, aimed at



During the Peach Fire, every morning for at least the first week, liaisons met with volunteers to plan the day.

sharing more details of the fire response and impacts and discovering how the CLP worked or didn't work. Generally, the difficulties around both the fire response and the CLP had to do with 1) non-local responders who are not familiar with this terrain or this community and 2) the inadequate communication between Teams during transitions and between the community and the Teams.

While there is no way to change the fact that people from distant places will be sent to respond, there may be some opportunities to improve communications. As we increase our local capacity, we can push for having local fire fighters engaged during future fires and we know there is a commitment for the Tribe's cultural resource specialists' continued engagement as well. Having our own boots on the ground will enhance the community's access to timely information and increase the likelihood that local fire knowledge gets shared with decision makers. We will also advocate for local District policy to require that every new Incident Management Team be made aware of the CLP from the moment they arrive and be instructed to take seriously both local fire expertise and the OSB Community Liaison Program.

Restoring Beneficial Fire in the Klamath Mountains

A Long Time Coming

By Will Harling

In the Klamath Mountains in California, and across the nation, 2023 was a turning point for fire. After decades of grassroots organizing underscored by ever more catastrophic wildfires that have shown the folly of attempts to take fire out of fire-dependent ecosystems, we are seeing promising gains in workforce capacity and fire policy and management. Prescribed Burn Associations (PBAs), Prescribed Fire Training Exchange (TREX) events, Prescribed Fire Apprentice programs, the state-certified burn boss program (CARX), Cultural Fire workshops, and cultural burns across the state are increasing the number of trained fire lighters every day, and the number of burns. Unprecedented private, state, and federal funding is greatly expanding workforce capacity and acres treated. The Wildland Fire Mitigation and Management Commission brought 50 leaders in fire together from around the nation who unanimously agreed to 148 recommendations to Congress on how to improve our human relationship with fire. And for the first time in recent history, federal fire managers in the Six Rivers National Forest partnered with tribes and local organizations to manage the 2023 Lightning Complex for resource objectives, even under the heading of “full suppression”.



El Cariso Hotshots conduct strategic firing along containment lines near Orleans, CA, to safely keep the 2023 Peach Fire out of the community. On the other side of the Peach Fire, aerial and ground ignitions along ridge lines increased the acres treated by fire. All photos this article courtesy MKWC, unless noted

Prescribed Burn Associations (PBAs), Prescribed Fire Training Exchange (TREX) events, Prescribed Fire Apprentice programs, the state-certified burn boss program (CARX), Cultural Fire workshops, and cultural burns across the state are increasing the number of trained fire lighters every day, and the number of burns.

Supporting all these advances are long-term partnerships and established trust between tribes, the local, regional, and national NGOs, and aligned staff within state and federal fire agencies. Changing fire culture has been akin to slowly turning an aircraft carrier, but after several decades we are seeing more support for greatly expanding the use of beneficial fire. For example, every year the Chief of the U.S. Forest Service writes a Letter of Intent that underscores the focus of the agency in regard to wildfire for that season. In his 2023 letter, Chief Randy Moore stated:

We will also continue to use every tool available to reduce current and future wildfire impacts and create and maintain landscape resilience, including using natural ignitions at the right time and place in collaboration with tribes, communities, and partners.

Chief Moore went on to say:

It is my expectation that all line officers and fire leadership will use pre-season engagement planning with their state, county, and local governments, community leaders, and partners, leveraging the best science available, including the Potential Operational Delineation (PODs) program led by Research and Development. When PODs are in place, agency administrators should ensure that incident management teams use them to inform suppression strategies; when they are not, every effort should be made to develop them in real-time as part of strategic operations.

Using this direction as a guide, the Six Rivers National Forest chose to manage the SRF Lightning Complex fires on the Orleans and Ukonom Ranger Districts for resource benefits, aeri ally igniting strategic ridgelines



In coordination with the Six Rivers National Forest and Karuk Tribe, Brad Pietruszka and others from the Rocky Mountain Incident Management Team created a strategic firing plan that utilized aerial and ground ignitions to bring a 20,000-acre wildfire safely to containment lines at over 50,000 acres, while minimizing high-severity fire to 8% of the final acreage. Many of these acres were able to be counted as prescribed fire accomplishments, creating a powerful incentive for other Forests to consider using beneficial wildfire in wetter fire seasons.”

Photo from 2023 SRF Lightning Complex Facebook page

along PODs boundaries to connect four separate wildfires just north and west of the communities of Orleans and Somes Bar. Whereas wildfires in other districts in the Six Rivers NF were suppressed through direct attack, decades of community and tribal advocacy created the social license for federal fire managers to take a different approach on the Orleans/Ukonom Ranger Districts. Given recent high-severity wildfires, including the 2020 Slater Fire that burned 125,000 acres in one 24-hour period with over 70% burned at high severity, the 2023 SRF Lightning Complex created a powerful model for how wildfires could be managed in wet seasons to return fire to areas where it has been long absent.

The Suppression Debate Rages On

The supporters of continued fire-suppression policies also realize the danger to the suppression industry, which gives our military and healthcare systems competition for the title of Disaster Capitalism’s poster child. Siskiyou County Supervisor Ray Haupt, speaking up for industrial timber interests that have long profited from publicly subsidized fire suppression, recently tried to pass a County Resolution that mandated full fire-suppression response for all wildfires in the county. Previously, the County lobbied successfully to have wildfires on mixed private and industrial timber

ownership managed under Unified Command, forcing the Klamath National Forest to co-manage fires with the Siskiyou Unit of CAL FIRE, who are avid supporters of full fire suppression. As fate would have it, enough people spoke up at the County Board meeting against the recent resolution, which flies in the face of common sense, science, and traditional fire knowledge, that the Board tabled the issue until its December 2023 meeting, and then indefinitely.

Despite local and industry attempts to delay the inevitable, change is afoot in the national fire policy arena. The final report of the Wildland Fire Mitigation and Management Commission, convened in 2021 by Congress to provide recommendations on solving the nation’s wildfire crisis, was released in September 2023 with 148 recommendations that, if enacted, will fundamentally change how we manage fire in the U.S..

In addition to calling for much higher levels of engagement with all parties that are affected by how fires are managed, the Commission, through the advocacy of Tribal commission members including Bill Tripp, Executive Director for the Karuk Department of Natural Resources, was able to forward significant recommendations for elevating tribes and cultural burning at all levels of government.

Grassroots movements are successful when they don't forget that everyday people matter and that the change we are pushing for benefits people across all social, cultural, and economic divides. For me, this has meant focusing on engaging everyday folks in the practice of prescribed fire—in knowing fire on a deeper level in the places they live and telling these stories of hope and change.

These include:

- Remove BIA as the overseer of tribal burn programs. Fund and allow Tribes to manage their own burn programs.
- Acknowledge cultural burning in federal law and provide mechanisms for cultural burning on public lands.
- Congress should ensure that federal agencies have the capacity and authority to enter into meaningful co-stewardship and co-management authorities with Tribes on multi-jurisdictional landscapes. Note: Not so long ago, co-management was a four-letter word within federal agencies.
- Revise the 1911 Weeks Act to include Tribes in the management and restoration of fire on equal footing with states.



The author's first community burn as a CARX Burn Boss with local students and neighbors.



- Ensure that fire mitigation and management personnel are trained in and respectful of Tribal sovereignty and cultural practices. Note: This is huge in light of the disrespectful and outright racist behavior of leadership within some Incident Management Teams on the 2023 SRF Lightning Complex.

** Note: Some of these recommendations have been paraphrased.*

Together these and other recommendations provide a blueprint for a paradigm shift in how fire is managed in the United States. Commission members have been in Washington, DC, meeting with legislators to advocate for these recommendations to be turned into law and policy. With bipartisan support for the Commission, there is hope this will come to pass.

The Next Generation of Fire

After 25 years of working on fire policy, many of us see clearly that change happens when there is a shared vision from the local to the national level. When I began this work, gatekeepers at multiple levels were silencing our voices, but as wildfires began to get worse and worse and our alliances grew stronger with national NGOs like The Nature Conservancy's North American Fire Initiative and progressive state and federal fire managers, the stories of failed attempts at fire exclusion and forced cessation of Indigenous and non-agency burning reached national and international media, and policymakers began to listen in earnest. Grassroots movements are successful when they don't forget that everyday people matter and that the change



Junction Elementary School students and other local youth comprised the firing team on the 2023 Butler RX Burn.

we are pushing for benefits people across all social, cultural, and economic divides. For me, this has meant focusing on engaging everyday folks in the practice of prescribed fire—in knowing fire on a deeper level in the places they live and telling these stories of hope and change.

In December 2022, I received my state certification as a California state burn boss (CARX). For this to even be possible, a diverse group of fire practitioners across the state organized for several years to pass legislation mandating that CAL FIRE create this program. Subsequent legislation created a prescribed fire claims fund that provides 2 million dollars in liability coverage for CARX burners and landowners involved in these burns. On July 11, 2023, I was able to lead a small six-acre grass burn where I live at Butler Flat on the Salmon River. The local Junction Elementary School students, my and my neighbors' kids, and other local youth (28 in total, ranging from 6 to 19 years old) were the firing team, broken into four groups. These groups were led by leaders of the Siskiyou and Humboldt PBA (a local NGO) and the Karuk Department of Natural Resources.

After 20 years of inviting youth to watch burns, having the ability to engage them in burn practices was transformative

for all of us. Eric Darragh, MKWC Fire Program Director and federal Type 2 burn boss (RXB2), afterward described a moment when a seven-year-old girl was dragging a drip torch with her back to the fire, and she was about to connect her strip with another lighter and be trapped. Before he could say anything, she looked up, saw what was about to happen and did a graceful pirouette into the green and finished off the strip. In that moment, he realized the truth: that we teach fire out of our youth, that humans have an innate knowledge of fire, and that if fed, that knowledge can be restored.

We have reached a watershed moment where the dedicated work of diverse proponents of beneficial fire, led by Tribes who have held on to their relationship with fire despite nearly 200 years of persecution, has turned the political tide in California and nationally.

There is still an incredible amount of hard work to be done, and there will no doubt be setbacks along the way, but we must remember to take these moments where the change is visible to celebrate what we have accomplished together, to gather around the fire and tell stories, then get back to work!

WKRP

Defining Moments in the Western Klamath Restoration Partnership

by Jodie Pixley

Since I began with WKRP, I've noted how each year, consistently, significant events take place that are each defining moments and serve as critical catalysts for the collective work of restoring community and forest resiliency. The past year was no exception (see also page 16, "Restoring Beneficial Fire in the Klamath Mountains: A Long Time Coming".)

In 2023, the Klamath River Basin was declared a "Priority Landscape" (one of 21 nationally) under the Wildfire Crisis Strategy (WCS), elevating the crucial role of fire in this ecosystem. The robust 10-year strategy, launched by the U.S. Forest Service (USFS) in 2022, is funded by the Bipartisan Infrastructure Law and Inflation Reduction Act. The WCS is working "to address the wildfire crisis in places where it poses the most immediate threats to communities." Our partner, the Six Rivers National Forest, promoted WKRP's collaborative efforts, our jointly developed multi-year landscape scale projects, and our readiness to receive these funds and ability to put them to work. It was clear that having strategic priorities outlined and agreed to by all partners, was a key factor in WKRP making the list. Since 2014, when the collaborative formalized, it has been employing creative methods for determining a landscape prioritization scheme for projects and fire preparedness. Looking out from the community level to the 1.2 million acre plan area has always guided decision making and actions that aim toward creating resilient landscapes. In 2023, we continued to build upon these efforts.

WKRP's novel methodologies for collaboratively characterizing both risks and opportunities with fire helped identify where WCS funds could be best spent, and how they aligned with the intention of the funds. Early efforts by the group engaging in creative and comprehensive problem-solving was acknowledged back in 2012 when WKRP was recognized as a National Cohesive Wildland Fire Management Strategy Success Story. It's clear that natural resource managers and professionals are grappling with how to develop systematic prioritization methods for building resilient landscapes, particularly at this time given the wildfire crisis. The system of PODs, or Potential Wildfire Operational Delineations, is being deployed by the USFS to inform strategic wildfire decisions during wildfires, but this is just one tool in the toolbox. The more complex task is to create effective ways to guide project work, support Incident Management Teams managing wildfires, and maximize beneficial outcomes in a



WKRP 2023 Annual Workshop. Primary focus on the 10-year Restoration Plan update. Photo by Jodie Pixley

mutually supportive way for both these scenarios. These are no simple tasks. But WKRP partners are active participants in this conversation demonstrating and offering solutions.

In 2023, some of the prioritization tools that WKRP partners worked on included, 1) the Orleans - Somes Bar Community Wildfire Protection Plan (OSB CWPP), and 2) WKRP's Restoration Plan that refreshed its Overlay Assessment (OA) spatial planning map. The CWPP (accessible on MKWC's website) establishes the wildland urban interface (WUI), determining this prioritization boundary, and covers homes in the OSB area out to the nearest reasonable fire control feature as well as fuel reduction along primary and secondary evacuation routes. WKRP's OA spatial planning map was originally informed from community input and based on a value-based, point rating system for multiple social, ecological, and economic factors. The 2023 OA update reflects current landscape conditions and fire environment, and has resulted in a higher priority rating in the WUI. Thus, the CWPP and the OA are mutually informing one another's priorities. In addition, the OA will be incorporating post-fire restoration priorities, as well as considering a new spatial layer to prioritize actions around beneficial fire. Both wildfire and prescribed fire management in the West, and in particular California, are changing rapidly, and WKRP partners are playing a key role in driving this change. While there is still so far to go to restore human-fire relationships, it is important to also reflect on how far we have come!

Forest Fuels Reduction Projects & Collaboration on Public Lands

by Mike Hentz and Will Harling

A core part of our mission at MKWC is to “collaboratively plan & implement watershed restoration”, and facilitating forest and vegetation stewardship is central to this work. Though we live and work within the unceded aboriginal territory of the Karuk Tribe, most of the landscape is currently managed by the Forest Service with varying levels of collaboration with local and Tribal partners. The Western Klamath Mountains and Middle Klamath Subbasin straddle both the Six Rivers and Klamath National Forests, including two counties (Siskiyou and Humboldt), two CAL FIRE Units, and two Congressional districts (1 and 2). Promoting active collaboration across such a politically and administratively divided landscape has been both a challenge and an opportunity to create a shared vision for forest restoration that spans traditional political divides.

The Western Klamath Restoration Partnership (WGRP) has had much more demonstrable success working with the Six Rivers National Forest, due in large part to 20 years working together defining what true collaboration looks like. From unsuccessful first attempts at collaboration that treated collaboration as a listening session on the way to federal partners deciding what they thought was best, to recent WGRP projects including the Somes Bar Integrated Fire Management Project that carried collaboration through all stages of planning and through implementation, we have created a national example for Forests, Tribes, and communities working together within the framework of the National Cohesive Wildfire Strategy.

Recently there has been an increase in engagement between the Klamath National Forest (KNF) and WGRP. The Karuk Tribe recently secured an \$11 million grant through the Tribal Forest Protection Act to implement instream and

upslope restoration treatments in the Slater Fire footprint and other key watersheds in coordination with the KNF. This work will include programmatic environmental compliance to allow for larger, more opportunistic restoration actions Forest-wide in years to come. Additionally, MKWC assisted with a chipping and fuels reduction project at the Curly Jack Campground, helping to open a key recreation resource in Happy Camp last spring. WGRP partners also assisted with burning large areas of fuels reduction piles within the Slater Fire footprint as part of our Klamath River Prescribed Fire Training Exchange (KTREX) during the fall. MKWC’s Fire Safe Council fuels crews also succeeded in implementing many fuels reduction projects on private lands through a multi-year KNF Stevens Authority grant. These are all good accomplishments and stepping stones to building trust.

To enhance this foundation, more collaboration with KNF is in the works. In partnership with the Karuk Tribe’s Integrated Wildland Fire Management Program (IWFMP), we are proposing a strategic prescribed fire in the Elk Creek watershed. This will be a cross-boundary understory burn including a private parcel and Klamath NF land on the Happy Camp Ranger District. The public land portion of this burn was proposed for treatment with prescribed fire under the Westside Fire Recovery Project. The Karuk IWFMP is facilitating collaboration with the Happy Camp Ranger District and MKWC to expedite implementation of treatments this year and help keep the focus on cultural and ecological values. This will be the first of our cross-boundary burns on the Klamath NF, where we implement a single prescribed fire that starts on one ownership and crosses mid-way into another ownership. In this case, we will start on public land and finish the burn on private land. These cross-boundary burns are absolutely critical for effective community wildfire protection.

With new focus and expanded funding from the USDA “Wildfire Crisis Strategy”, forest and vegetation projects will continue to be planned in our area. There is hope that future planning and implementation work will embrace a true collaborative spirit with traditional, ecological, and community values at heart. The Karuk Tribe’s recognition of a truly integrated wildland fire approach should be a guide for all of our efforts.

The mission of the Mid Klamath Watershed Council is to collaboratively plan & implement watershed restoration, coordinate education on land management issues & promote community vitality.



MKWC Chipper Training Day Photo by Mike Hentz

MKWC Fire and Forestry Staff Integration with Karuk Department of Natural Resources

by Eric Darragh

During the 2023 wildfire season, the Mid Klamath Watershed Council (MKWC) successfully integrated with the Karuk Department of Natural Resources (KDNR) to address multiple lightning-caused local fires. Over the years, a system of co-employment between MKWC and KDNR has provided valuable training opportunities for MKWC staff and staffing numbers for KDNR. As the wildfire season continues to grow in length and the need for skilled fire professionals is present in more areas of fire management, it is difficult to fill all needed roles. These roles require people to serve in them and training to fill them. This co-employment program is accomplishing both of these needs.

Additionally, this program is a valuable tool for implementing prescribed fire. While utilizing the Prescribed Fire Training Exchange (TRES) program, we are able to host participants qualified as NWCG firefighters; these individuals are not required to be “red carded” which allows community members and other staff to be involved in burning. The activation of the TRES program is not always applicable or possible and the co-employment partnership between MKWC and KDNR allows co-employed staff from MKWC to join operations with Forest Service partners in the absence of a formalized TRES event, increasing the number of training opportunities and strengthening our partnership.

The 2023 SRF Lightning Complex presented an opportunity to exercise these partnerships in a real way close to home. Multiple MKWC employees were assigned to the fires, ranging from Firefighter Type 2 (FFT2) to Division Section Chief (DIVS) to Heritage Consultants (CULS), and all working for KDNR during their assignments. This provided local resources with local knowledge during a time of need in our community. Working day to day in this community and then being able to embed with the Incident Management Teams provided great advantages to the fire suppression efforts. As teams come from all over the state and country into our small town it is often difficult to relay all values

and information. Having these additional local resources working on the fire provided direct communication with team members about these situations.

Although these fires stuck around for months and the smoke at times was difficult to deal with, the opportunity these fires presented and the result they delivered provides Orleans and Somes Bar with a much needed recent wildfire footprint bordering the town. Not all fires are bad fires and the wildfires this year provided a great example of benefits provided by wildfires. The weather conditions were favorable and the fires were never given an opportunity to make large destructive runs. The fuels reduction these fires accomplished will be useful for years to come and limit the potential for more intense fire in the future.

As we move into 2024 and beyond we will continue to leverage this partnership to fulfill training needs and important staff positions during wildfire and prescribed fire. These opportunities are valued by our program and organization and we will continue to provide a dedicated, responsible, and respectful workforce. We appreciate this opportunity provided by KDNR to engage MKWC employees in supporting local personnel to play key roles in managing our local wildfires.



MKWC Fire and Forestry crew supervisor and RXB3T Burn Boss Trainee Danny Davis (left) is co-employed with the Karuk Tribe and serves on wildfire assignments as a CULS, or cultural resource specialist (2023 Parch Fire).

Photo by Danny Davis

Visiting Sue-Meg

Building Connections by Exploring the Region

By Maya Williams

In Spring 2023, MKWC collaboratively organized two coastal learning field trips for K-8th grade students with Karuk Tribe Pikyav Field Institute and Save California Salmon. Students traveled from the Mid Klamath Region to Sue-Meg State Park, broadening their watershed knowledge and exploring the interconnectedness between river and ocean ecosystems. K-4th grade students spent a day on the coast, learning about Sue-Meg Village and exploring the tidepools teeming with life. 5th-8th grade students participated in a 3-day camping trip at Sue-Meg that was packed full of activities and learning excursions. Students went tidepooling with Cal Poly Humboldt Marine Lab, learned about redwood ecosystems in Redwood National and State Parks, visited the mouth of the Klamath River, and explored Sue-Meg Village. Both trips were impactful, especially in that they allowed students to draw cultural and ecological connections between the Mid Klamath Region and the coast. More are being planned for next year. Here are some highlights of the trip.



An evening stroll through the spruce forests in Sue-Meg State Park.



Naturalists from Cal Poly Humboldt Marine Lab identify the skull of a shark for students.



Playing in the waves at Agate Beach!

Can You Spot What's Different? There are five in each set.



Each fall, MKWC leads salmon surveys with 6th-8th grade students, giving local youth an opportunity to participate in the collaborative Klamath Basin-wide Fall Chinook survey effort and explore what a career in fisheries might look like. In 2023, a total of 55 students surveyed 13 miles of stream for spawning salmon, marking redds, live fish, and taking samples from salmon carcasses. In these photos, you can see a student expertly removing an otolith, the salmon's inner ear bone, from the brain cavity—not an easy task! These surveys would not be possible without support from Klamath-Trinity Joint Unified School District, KTJUSD Office of Indian Education, and Happy Camp Elementary School. Many thanks also to our partners at the U.S. Forest Service in Orleans and Happy Camp for working with us to offer this opportunity to local youth.



In Spring 2023, MKWC led an overnight camping field trip for 6th-8th grade students from the Mid Klamath region with partners from Save California Salmon and the Karuk Tribe's Pikyav Field Institute. Students camped in Sue-Meg State Park for three days, broadening their watershed knowledge and exploring the interconnectedness between river and ocean ecosystems and peoples. In this photo, students take a moment to appreciate where the Klamath River meets the Pacific Ocean, just 50 miles downriver from where they live.

2023 Youth Summer Stewardship Intern Project

by Beecher Robbi and Allen Mace

What Creek Restoration Looks Like

Problems

- Fish can't enter stream at creek mouth to access upstream habitat
- Water is un concentrated and entering main stem spread out

Steep entry into stream

Stream displays shallowness



The creek has been concentrated into a singular outflow filling the eddy with cold water thus creating a cold water refugia.

Brush bundles provide cover and habitat for all fish but specifically coho. The bundles give them a comforting resting spot protected from predators in the cold water refugia.

Concentrated outlet into eddying current

Deep pool of water for fish to rest in

Brush bundles provide cover located in cold water refugia



Inspired by a Transcendent Experience

Snorkeling in the Klamath River

Artwork and Writing by Eva Pearlingi, Summer Stewardship Intern 2022 and Fisheries Intern 2023

The constant shifting and readjusting of their bodies in the stone-cold creek let sunlight brush new colors into the mass—green, gold, silver. Mesmerizing movements from lives that feel so new and yet so solid—I couldn't look away. My ears were filled up with their water world. I could hear the pattern of my own breathing in the quiet of the drone from the rushing river. Solo songs from each willow-leaf-shaped body enunciating their existence. Every now and then an adult would appear out of the crowd and scatter them a bit more. But watching the juveniles, I thought “here they really are—this is what it's all about”.

Working in these creeks, rivers, meadows, and hillsides brought me into a connection with this place I've never had before. The only way I could describe it was that it felt Right. It felt ultimately fulfilling to see the course of a creek change before my eyes and after a day of pulling starthistle, to pull over on the side of the road and peer into the petals of orange lilies that dot a burned-over hillside. I knew that this was where I was supposed to be, doing these things and connecting more fully with these people and this world.



MKWC Office Renovation and Community Space Remodel

In June of 2023, after years spent crowded into a makeshift office originally built to last a couple years—and lasting us over 15!—MKWC moved into our new offices on the other side of the building. It’s an amazing upgrade that has made us feel like we’ve all gotten a raise.

With the completion of the office space we are currently fundraising for the next phase of the remodel—the community space. Though we’ve opened the space up to the public for events, exercise classes, and playgroup, there is still much to be done to reach our vision—such as new floors, kitchen, bathrooms, and storage. We’ve had to modify our design many times due to funding and county codes, but each time we revise, it seems to get a little bit better. We hope to start work on it this spring.



Moving in June 2023!

If you’d like to hold an event or a class please contact blythe@mkwc.org or call 530-627-3202 for more info or to inquire about availability.

MKWC’s New Happy Camp Office

With a burgeoning amount of restoration projects around Happy Camp and further upriver, a growing set of employees based in Happy Camp, and a small rental office we’ve outgrown, MKWC purchased a building at 64012 Hillside Road, Happy Camp, CA in October 2023. The previous owners ran a pharmacy in the space for over 20 years and upon retirement, they were thinking about selling. When a tree came crashing through the roof in December 2022 (no one was injured!), MKWC negotiated an agreement with the owners to purchase the building after we repaired the roof. Though we weren’t the pharmacy operators they were hoping for, they expressed that they wanted the building to go to a new owner that provides local jobs in the Happy Camp community.

Over the last 10 months, MKWC has repaired the roof, painted the interior, and replaced the flooring, toilets, and light fixtures. We are transforming the building into a functional, revitalized space to home our growing staff.



This building remodel has already made a difference. Our new office space in Happy Camp is almost 10 times bigger than the previous office space we rented. We expanded from one desk to 10, with room for more. Within the first three months of moving into the space, MKWC hired six new staff based out of Happy Camp. We currently have 20 staff based in Happy Camp working across our four programs.

It is so exciting to finally feel we have an office space that can support our Happy Camp based staff, both current and future, and take a tangible step towards increased economic development in the community. We hope that by fixing up this building we can support the rebuilding of the Happy Camp community after the Slater Fire, as well as continue to provide good jobs for the growing restoration workforce in the Mid Klamath.



New Happy Camp Office In Action! Photos by Natasha Faszler

New MKWC Logo: From Then to Now

by Michael Stearns

MKWC's first logo was created by Kimberly Baker and was used for many years, but as our organization grew from a group of volunteers to a grant funded non-profit with employees, we decided our logo needed to change with us. In 2005, we had a contest and chose the design that is our current logo. Though I make no claims to being a graphic designer, I was fortunate to have my drawing chosen. It reflected what I see every day along the Klamath.

For a few years now, we have been trying to change our logo. We've tried out many different designs, thinking to incorporate a variety of elements: including human elements, plants, the river, fire, and hardwoods. We

wanted our logo to tell so much about this place, but struggled with how to do that in a simple design? In the end we decided to keep the design simple, and asked Jamie Darragh, our office manager and experienced artist to give it a try. She created our new logo and we are excited to share it with everyone.



**Mid Klamath
Watershed Council**



MKWC's Current Logo
by Michael Stearns



MKWC's first logo
by Kimberly Baker



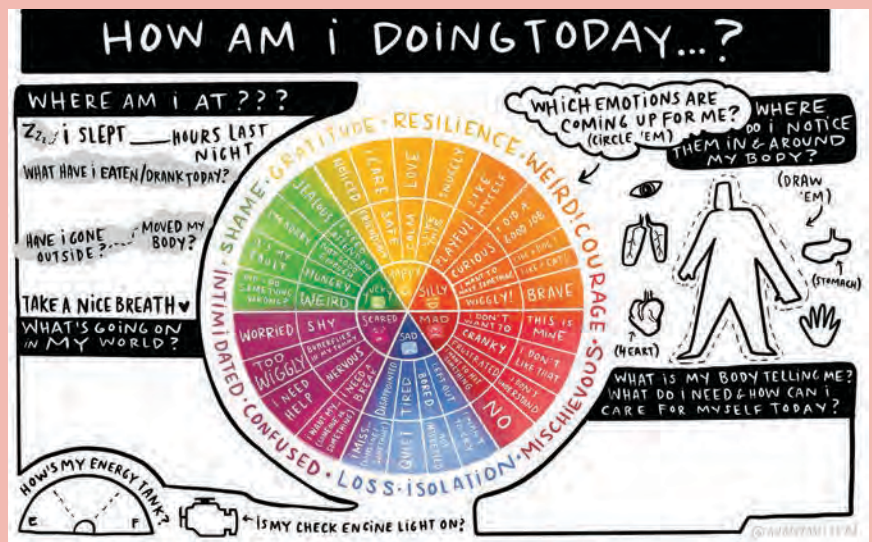
On the road
to our first logo



Justice, Equity, Diversity, and Inclusion at MKWC

MKWC Staff and Board continue to examine MKWC practices with a Justice, Equity, Diversity, and Inclusion (JEDI) lens to identify barriers to historically marginalized groups, and then implement changes to overcome these barriers. Over the last six months, MKWC has offered a mental health awareness and stress management training to all staff, provided deescalation resources for at-risk workers, created Inclusive Communication Guidelines, revised the onboarding procedure and schedule to ensure all new staff have a similar experience, and further developed measurement tools to track progress towards our JEDI goals.

We continue to refine and update the JEDI Strategic Plan with emerging needs. Contact the JEDI committee at JEDI@mkwc.org.



MKWC Administration: Scaling Up

by Myanna Nielsen

MKWC's administration is part of every grant, sub-award, and contract MKWC receives and we provide services both on the front end when submitting a proposal, throughout the grant period, submitting reports and invoices, and after the projects end. Over the years we have developed budget, match, and reporting templates along with a complete set of resources. However, with the increasing presence of the internet, more and more funders are developing on-line portals for submitting proposals and reports, and they are all different and require learning a new set of skills for each one



Natasha Faszer, Happy Camp Office Assistant

Each Proposal we submit has many different and varied factors depending on the funder. The narrative may have a limit of 500 words; match is required per line item or per employee or in acres not dollars; personnel is based on annual salary and not hourly rate and hours to, name just a few. Come time for invoicing and reporting, we

are required to provide everything from a simple 5-line invoice with a final report, to monthly invoices as detailed as our bookkeeping ledger accompanied by a progress report.

Currently, we are experienced users of Zoomgrants, Easygrants, Webgrants, ASAP, Grantsolutions, eCivis, and GEMS. Accounting for the taxpayer dollars we spend—whether state or federal—is necessary and understandable,



Michael Stearns, Admin staff member

but I find myself wishing that more funders would use the same software and level of requirements in order to streamline the process of grant reporting, shortening the amount of time in the office in order for more work being done on the ground.



Mark Dondero, Administrator and Chris Byers, IT



MKWC Administrative Staff



MKWC Strategic Planning Meeting April 2024
Photo by Mike Hentz

Orleans Office

Directors

Luna Latimer, *Co-Executive Director*
Kathy McCovey, *Co-Executive Director*
Will Harling, *Restoration Director*
Carol Earnest, *Associate Director,*
Community & Stewardship Program Director

Fisheries

Charles Wickman, *Fisheries Program Director*
Mitzi Wickman, *Fisheries Senior Project Coordinator,*
Technical Specialist
Jimmy Peterson, *Fisheries Project Coordinator*
Erin Cadwell, *Fisheries Technical Specialist*
Lauren Zygmunt, *Fisheries Field Technician*
Devin Finegan, *Fisheries Field Technician*

Fire & Forestry

Eric Darragh, *Fire & Forestry Program Director*
Eric Nelson, *Fire & Forestry Project Coordinator*
Ron Risling, *Contractor Supervisor,*
Fire and Forestry Senior Field Technician
Chris Root, *Fire & Forestry Project Coordinator,*
Computer & GIS Specialist
Nancy Bailey, *Fire & Forestry Project Coordinator*
Jodie Pixley, *Western Klamath Restoration*
Partnership Coordinator
McKenna Orozco, *Fire & Forestry Program Assistant*
Danny Davis, *Fire and Forestry Crew Leader*
Rudy Galindo, *Fire and Forestry Senior Field Technician*
Lewis Olson, *Fire and Forestry Field Technician*
Basil Conrad-Cename, *Fire and Forestry Field Technician*
Benjamin Woodman, *Fire and Forestry Field Technician*
Ginty Erickson, *Fire and Forestry Field Technician*
Bogie Taylor, *Fire and Forestry Field Technician*
Daniel Farris, *Fire and Forestry Equipment Operator*

Plants

Tanya Chapple, *Plants Program Director*
Elben Andrews, *Plants Project Coordinator,*
Fisheries Field Technician
Simone Groves, *Plants Project Coordinator*
Max Creasy, *Restoration Ecologist, Technical Specialist*
April Jordan, *Plants Field Technician*
Amber McVicar, *Plants Field Technician*
Peter Gensaw, *Plants Field Technician*

Community & Stewardship

Maya Williams, *Community & Stewardship*
Project Coordinator

Administrative

Myanna Nielsen, *Finance & Administrative Director*
Michael Stearns, *Human Resources Director,*
Building Coordinator
Heather Campbell, *Senior Grants Administrator*
Blythe Reis, *Match & Contracts Administrator,*
Building Event Coordinator

Beverly Yip, *Accounts Payable Specialist*
Mark Dondero, *Grants Administrator*
Joe Stoltz, *Grants Administrator, Payroll Specialist*
Jamie Darragh, *Office Manager*
Lesli Dahl, *Grants Administrator*
Jairicka Darragh, *Panamnik Building Custodian*
Kris Peaslee, *On-Call Administrative Assistant*
Chris Byers, *IT Contractor*

Happy Camp Office

Fisheries

Rachel Krasner, *Fisheries Project Coordinator*
Florance Condos, *Fisheries Project Coordinator*
Bryan Souza, *Fisheries Senior Field Technician*
Kai Crockett, *Fisheries Senior Field Technician*
Hollis Baldwin, *Fisheries Field Technician*
Sarah Prukop, *Fisheries Field Technician*
Kiley Hudson, *Fisheries Field Technician*

Fire & Forestry

Michael Max Hentz, *Fire & Forestry Project Coordinator*
Clifton Whitehouse, *Fire and Forestry Crew Leader*
Silas Yamamoto, *Fire and Forestry Field Technician*
Lee Anderson, *Fire and Forestry Field Technician*
William Manzo, *Fire and Forestry Field Technician*
Dennis Whitehouse, *Fire and Forestry Field Technician*
Tyler Cook, *Fire and Forestry Field Technician*
Kent Kuster, *Fire and Forestry Field Technician*
Joseph Perez, *Fire and Forestry Field Technician*

Plants

Dylan Fitzwater, *Plants Project Coordinator*
Dave Payne, *Field Technician*
Sam Stroich, *Field Technician*
Ernest Beals, *Field Technician*

Community & Stewardship

Tai Kim, *Community & Stewardship Project Coordinator,*
Fisheries Senior Field Technician

Administrative

Natasha Faszer, *Office Assistant*

Board of Directors

Heather Foust, *President*
Dean Davis, *Vice President*
John Grunbaum, *Secretary*
Molli Myers, *Treasurer*
Blythe Reis, *Member*
Carol Sharp, *Member*
Jeanerette Jacups-Johnny, *Member*
Mark DuPont, *Member*
Michael Stearns, *Member*

Mid Klamath Watershed Council



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PO Box 409
Orleans, CA 95556

Happy Camp
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PO Box 50
Happy Camp, CA 96039-8053

Thank you to all the wonderful folks who have supported us over the years. We cannot express how grateful we are for your belief in our work and your commitment to our watershed.

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**I want to
support MKWC**



Thanks to the Karuk Tribe, who provided monetary, program, and employee assistance to projects this year.

Newsletter edited by Blythe Reis and Jeri Fergus, with design & layout by Jeri Fergus of Trees Foundation

