



news from the

mkwc.org

Mid Klamath Watershed Council

2021, Twenty Third Edition

Celebrating 20 years of MKWC

Letter from the MKWC Directors

Ideas, beliefs, like songs or prayers, are invisible, intangible, but have always held the power to change the world. Indeed, they are what move us to action, help us weather the storms when they come, and give us faith when a better tomorrow seems like the far shore of Klamath River in flood. These ideas and beliefs are shaped by the land and the people who live there into a way of life, a code to live by, that ultimately forms into laws and religion. Here in the middle section of the Klamath River, two sets of laws exist: the written laws of county, state, and federal governments, and the unwritten laws of the Karuk and other tribes who have inhabited this land since time immemorial.

In this backwater of California, sandwiched between wilderness areas and connected by tenuous roads, these conventional and tribal belief systems have clashed, and at times mixed together, within us, within our communities, and at times, with the outside world. Out of their struggle for cultural survival, powerful Indigenous leaders have organized, both native and non-native communities, to preserve their way of life, to protect sacred places, to save the Klamath salmon, to take down dams, to bring ceremonies, and fire, back in a good way. As Leaf Hillman states in the documentary “Catching Fire: Prescribed Burning in Northern California”, “our religion is about survival in this place.” Through these ongoing struggles, settlers like me have been introduced to these unwritten laws. Our relationship to people and place has been fundamentally shifted: we see more clearly our responsibility to the land and to our entire river community, from the headwaters to the mouth of the Klamath River.



Riparian By Sarah Hugdahl

This basic idea that these mountains, these rivers, are best managed by the people who live here and depend on them for their cultural and spiritual identity, their way of life, or their livelihoods, is shared by native and non-native residents alike, and is in contrast to state and federal governance systems that places this power in individuals in Sacramento and Washington D.C. Indeed, even now as I write this in early October, with wildfires all but out, the Chief of the Forest Service has a national ban on prescribed fires on public lands. And Region 5 Forest leadership has told us repeatedly that “the optics of allowing prescribed burns in northern California while homes are burning in southern California is bad”. And even as we hold on to the last handful of wild Chinook salmon, the National Marine Fisheries Service has decided they do not warrant protection. We know this: if we are not implementing controlled burns in northern California, even while homes are burning in Southern California, next summer we will be losing homes to wildfire in northern California that could have been saved. If we do not take out the dams and restore spring salmon habitat, we will lose them forever.



Tony Hacking,
USFS Wildlife
Biologist and
First MKWC
Board President
Extraordinaire.



Diminishing Returns Artwork by Bari Talley

The Mid Klamath Watershed Council came into existence 20 years ago. In the past 20 years, the organization has grown from an idea into a high functioning non-profit that employs 50-70 people and contracts to 30-50 local businesses with an annual budget over \$3 million. Volunteer workdays to improve fish passage at creek mouths, pull invasive weeds on river bars, and clear brush around elder's homes have morphed into highly coordinated efforts with interagency crews and contractors to restore fish habitat, restore fire process and our resilience to wildfire, and restore native plant communities from our highest mountain peaks to the bottom of the deepest holes in the Klamath River. The intangible ideas have become tangible in more salmon coming back to spawn in Mid Klamath tributaries, more homes and critical resources being protected

Twenty years ago, in 2001, a group of people decided that a non-profit organization dedicated to restoration in the Mid Klamath was needed to complement the existing efforts of the Karuk Tribe, Forest Service, and organizations like the Klamath Forest Alliance and the Salmon River Restoration Council. This organization is what we now call the Mid Klamath Watershed Council. There was a period of time in the early 2000s where the Orleans/Somes Bar Fire Safe Council was the larger of the two organizations, having secured the first and biggest grants. Now, the Fire Safe Council is one of the many programs of MKWC. MKWC received its non-profit status in 2004. At this time, the Tides Foundation was the fiscal sponsor for the organization and MKWC had just transitioned from a room in a barn to a single-wide trailer at the Oak Bottom USFS workstation. The carpet was green shag, the quarters were tight, and the vibe was optimistic. In 2006, MKWC moved to our current office in the old Panamnik Store in downtown Orleans. Let's be honest, the rest seems like a bit of a blur. We opened an office in Happy Camp. Kids that participated in our youth programs then grew up and became employees (and in the case of Sinead Talley—now serve on the MKWC Board of Directors). We grew—as individuals, in terms of the number of employees and, we grew the impact on the landscape. We participated in a collaborative called the Western Klamath Restoration Partnership that is now a major vehicle for collaborative restoration within the mid Klamath. It would take too many words to tell the hundreds of many stories that inevitably arise from over 20 years of effort towards watershed, community and economic restoration. We hope that the pictures in this newsletter can tell at least a little bit of that story.

We can't tell a MKWC origin story without giving credit to the Salmon River Restoration Council—which we now affectionately refer to as our sister organization, but at one point in time was more like a parent organization. Talking about those early days also brings up fond memories of those that have left us too soon, like Tony Hacking and Jim Villeponteaux. These board members were critical to our early success and are still deeply missed.

—Luna Latimer





Jim Villaponteau, 2009, an SRRC founding member and MKWC Board Member helped MKWC get off the ground.

from wildfires, and more stretches of rivers and trails and roads that haven't been taken over by invasive plants.

MKWC has succeeded by working within these two sets of laws, and collaborating with diverse groups to identify our shared values and opportunities for people to work together for a common good. For too long we have fought over our differences despite agreeing on so much. When local people work together and speak with one voice, our ability to gain support and funding from regional and state and national land managers increases exponentially. And when we see what we can accomplish working together, this leads to bigger and better projects down the road.

Our work, to be successful, must be set upon a solid foundation of collaborative engagement with our communities, and based on the unwritten laws of this land. Through the Western Klamath Restoration Partnership, tribal, state, local, and federal partners have built a strong foundation based on shared values and strategies for restoration and community revitalization. Now is the time to build on this foundation and



Raising the new sign, painted by Amanita Mollier, at the MKWC office in downtown Orleans, October 2006.



MKWC meeting 2005 on the Salmon River at Oak Bottom

do what we can to protect our forests, rivers, and communities. This work is literally a matter of life and death. For salmon and other threatened species, and ultimately, for us humans. We have lived for a long time as if we didn't need to abide by these unwritten laws, and the cuts to the land and tribal communities are deep. We are all feeling this pain now as wildfires threaten our homes every year, and creeks that are the lifeblood of our homesteads dry to a trickle.

The road ahead is hard, but when I look around at all the amazing, passionate, committed, smart people I get to work with, both at MKWC and our partner organizations, I still hold faith that there is a brighter future ahead that we are going to create together. If my timber falling, dam hugging, red neck brother, and a liberal, poet, fish hugging, science geek like me can still love and respect each other at the end of the day, and still go hunting together when we get a free moment, there is hope for the world.

— Will Harling

MKWC's work with plants began by working with the Salmon River Restoration Council to eradicate spotted knapweed on the Lower Salmon River. MKWC's Invasive Weeds Management Program was closely modeled after SRRC's Cooperative Noxious Weeds Program.



Michael gives a financial report at MKWC meeting August 1, 2005 on the Salmon River



How MKWC Landed in an Old Grocery Store in Downtown Orleans



Oak Bottom Trailer—MKWC's 2nd Office

By Michael Stearns

Around the beginning of the 21st century, Will Harling had a bunch of local folks over to his house (which was part barn) to talk about forming a local non-profit organization. We were all active, or at least interested, in restoration work in this beautiful part of the mid-Klamath. Will was, as always, full of ideas and ways to help take care of this place that is our home. He talked about bringing fire back to the land and developing a restoration economy. That's the way I remember it beginning.

Soon after that meeting, the Orleans/Somes Bar Fire Safe Council was formed. We all volunteered, helping to brush and burn on our neighbors' lands. We got one or two small grants and set up an office in Will's barn. A while after that, the Forest Service let us use an old office trailer at the Oak Bottom compound on the Salmon River. Though grateful, the trailer was pretty dodgy, with a couple holes in the floor and a heater that didn't do much heating. We were still mostly volunteering, but we eventually got more grants and began to earn nominal pay completing small restoration projects. We endured the trailer for a few years, getting better at grant writing and learning how to scale up our endeavors. In that trailer, in 2004, we wrote our non-profit charter and formally created the Mid Klamath Watershed Council.

For a long time the town of Orleans had two stores—the Orleans Market (aka, the "lower store") and the Panamnik General Store (formerly Stuart's Market; aka, the "upper store"). The Panamnik General Store had been closed for a few years when, with the help of the Humboldt Area Foundation, we were able to lease the building. Many community volunteers helped us tear out the display shelves, the huge walk-in cooler, and

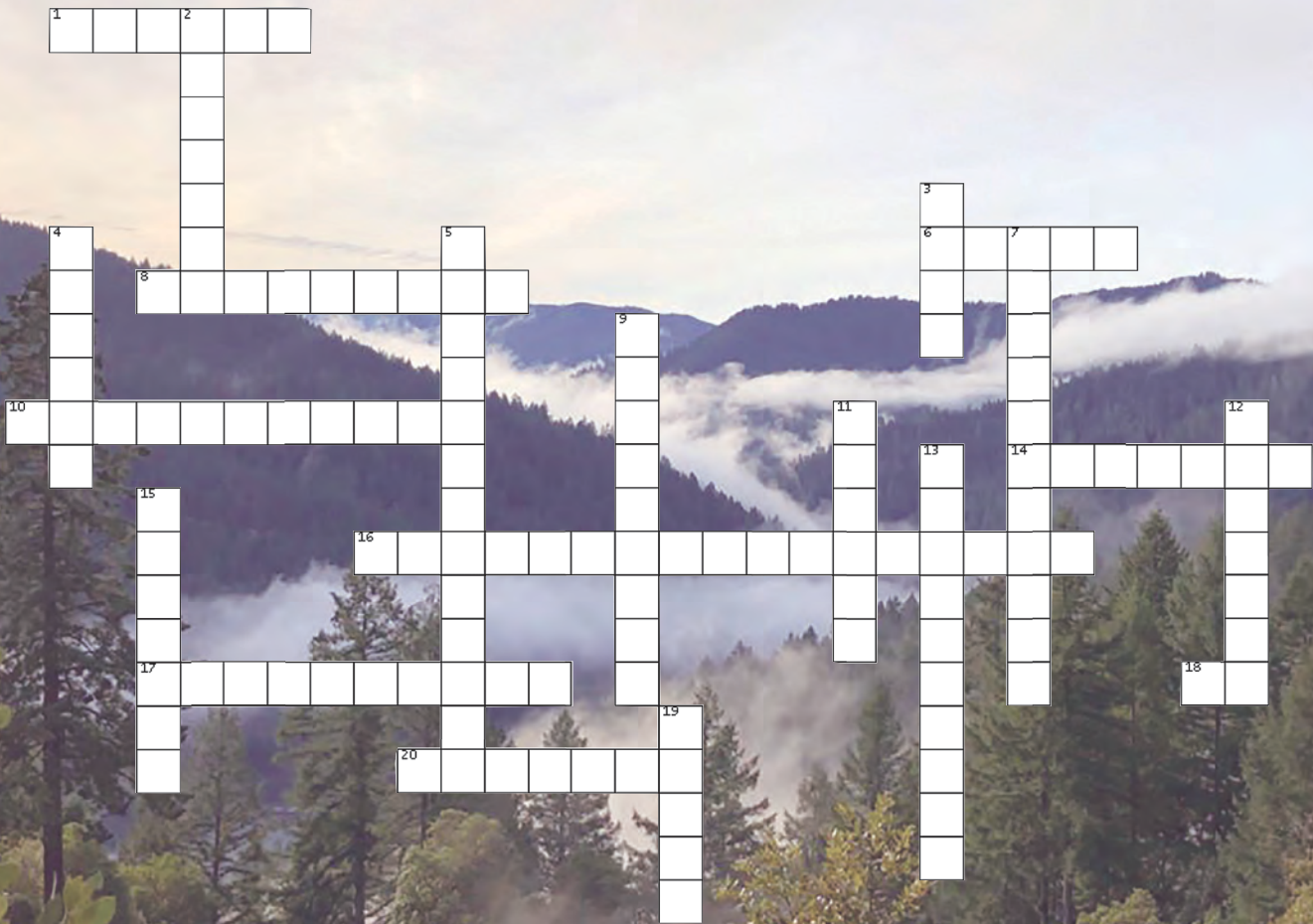
repair, clean, paint, and construct small offices in a portion of the building. With all that extra space available we began to host community events such as meetings, exercise groups, pre-school playgroups, performances, and fundraising dinners.

After five years, through a capital campaign to which many locals, funders, and supporters contributed, we were finally able to purchase the building. We decided to keep the name "Panamnik" in recognition of the traditional Karuk place name for Orleans and the first people to live here. There are still vestiges of the old grocery store—the signs with the names of local animals that designated the store aisles are on display—and we hung onto a few shopping carts which we still find useful.

We have also removed lots of decrepit outbuildings and junk. With federal Brownfields funding thru Humboldt County we rehabilitated the land surrounding the building, where the soil was contaminated from years of diesel and oil spills, utilizing mycoremediation by growing mushrooms to clean up the soil. We removed non-native plants, encouraged native plants, and tried to be a good neighbor. We are continuing to improve the Panamnik Building with the intention to serve as a model for responsible development and land stewardship. As the restoration economy continues to grow along the Klamath, we're employing more people and continuing work with our amazing partners. Looking back on the last 20 years, we have come so far and learned so much. Looking forward, we have big dreams for our building and its grounds to serve our watershed and the local community in the years to come.



Klamath Crossword Puzzle



ACROSS

1. common name of the water ouzel
6. genus of the black bear
8. A fire that consumes surface fuels but not the overstory canopy
10. Celestial invasive plant
14. largest tributary to the Klamath River
16. slow-moving, sun-basking reptile found on the banks of the Klamath
17. Karuk name for Dillon Creek (need help? <http://linguistics.berkeley.edu/~karuk/>)
18. humidity data point
20. "leaves of three..."

DOWN

2. highest peak in the Siskiyou Wilderness
3. A colored flare designed as a railway warning device, widely used to ignite backfires and other prescribed fires
4. highest Point in the Klamath Watershed
5. Oldest species of tree in the Klamath Mountains
7. Emotional or existential distress caused by environmental change
9. Karuk place name for downtown Orleans
11. Newly listed endangered mammal in the mid Klamath
12. Small ear bone involved in sensing gravity and movement
13. greenish ultramafic rock
15. A combination chopping and trenching tool widely used in fireline construction, which combines a single bitted axe blade with a narrow adze-like trenching blade fitted to a straight handle
19. town at the mouth the Klamath River

Answers on page 9

Stories and Solutions for Solastalgia

By Laurie Belle Adams

On a golden morning in late July, we gathered along the cobbled shore of the resplendent Sikánthuuf (Dillon Creek) for one of the final Klamath Adventure Outdoor Series (KAOS) events of the summer. Within moments of arrival, the kids were drawn to the enticing aqua edge. They began to direct the cool flows through various sandy channels and into the generous pool that cradles the creek water before it slips into the mighty Klamath River beyond. Uniting to uplift and inspire the kids that day was an epic array of naturalists and educators, including a crew from the Karuk Department of Natural Resources (DNR) Fisheries.

We circled up and got comfy on the burnished stones while the Fisheries Crew gave a heartfelt presentation. We discussed the endangered designation of Spring-run Chinook salmon, the importance of refugia, and how Sikánthuuf has been an ideal habitat for fish over time. Kenneth Brink “Binks”, a Fisheries Biologist from Karuk DNR, told us of the salmon runs of his youth and how he has seen the population dwindle over the past 20 years of his career. He exalted in the glory and challenges of being a fisheries biologist “Lucky in the summer, crazy in the winter!” who has the pleasure and duty to immerse themselves in the rivers year-round.

After our conversation had cycled through a few rounds of inquiry and response, we rock-hopped a little ways upstream to seine for fish in one of the most vibrant and enticing pools in our watershed. Sonny taught the kids how to cast the seine net in a broad arc: slowly guiding the smooth wooden sticks on each side back to the center, in an effort to gently capture juvenile fish for the crew to identify and release. Fisheries crews have been using this technique for decades to monitor the health and size of juvenile salmonid populations.

It was a beautiful sight, the sweep of the net, ripples of sunlight sparkling through the turquoise flows, kids taking turns bobbing with their snorkels and conducting the mesh through the gentle currents. One of the greatest honors of being an environmental educator is being present at moments such as these, when the local experts pass down their wisdom and techniques to the next generation. It is exquisite to witness our river kids at work: so at ease in the water, attuned to their environment, and jubilant in their delight in and desire to protect the natural world.

Sadly, after many attempts, our nets were still vacant and the kids came up empty handed. No fish to be found. We reflected with the fisheries crew on how they had yet to experience a time when there were no juvenile fish to be counted in this pristine pool. It was discordant and unsettling to look at the enticing water, the happy, healthy kids, and reconcile the beauty of the day with the absence of our salmon relatives. With heavy hearts and what optimism we could muster,

we told the kids that our greatest hope is that they get to be the generation that watches this trend turn around. That 20 years from now they will be telling the youth of the future how we were able to bring salmon back from the edge of extinction to a state of perpetual abundance.

All too often these days, those glorious learning moments go hand in hand with supporting our youth as they directly experience and grapple with the loss of biodiversity in our watershed. The narrative that we can and will repair the damage and restore vitality to this place is wavering, as mega-fires blaze and creek water disappears. In their brief lifetimes, our kids are witnessing the environment go through a cascade of collapses. I imagine most people are struggling with how to face the trauma of this ecological reckoning, and as teachers, we must also find ways to hold space as our students confront this reality. How can we be honest and open about species loss and climate crises without causing our youth greater suffering and despair? What good is it teaching them to collect data and calculate trends, if we don't give them the tools to process the results in a healthy and emotionally sustainable way?

In addition to our regular programs of gardening, field trips and restoration projects, we are collaborating on lessons and collecting resources for teachers to use in the face of an unraveling world. I am so saddened to admit to myself, my



Youth participants of the Klamath Adventure Outdoor Series look for fish in the Karuk Tribe DNR's seine net.

students, and our community, that despite many valiant efforts, and progress in some areas, the salmon are still struggling, and so is the ecosystem that depends on them. Solastalgia is a term that describes the emotional or existential distress expressed in humans faced with environmental change. Sometimes, solastalgia spirals us to deep sorrows, but if we are able to express and move through the emotions, it often also inspires us to action.

MKWC is rooted in the necessity of action and collaboration, and along with a constellation of other local entities, we offer an array of opportunities for our community to restore and steward habitat. I feel hopeful about our collaborative work with Karuk DNR and other community members on Karuk land. And yet our watershed is tied to the planetary web, whose strands are coming loose due to a deluge of circumstances, and so our children's nets come up empty.

This place has suffered so many traumas and losses since the onset of colonization. As the consequences of resource extraction rain down on this land, I believe it is time to make space for ourselves, our children, and society to express our ecological grief.

Grief has a direct relationship to how much one loves what they have lost or might lose. If grief is stifled, it can translate to a lack of care or connection, which we know is the opposite of why we do this work in the world. It is helpful to have practices and conversations that address solastalgia, giving voice to our love for the Earth and recognising reflections of sorrow in one another. In accepting that there are hard times ahead for ourselves and the planet, I believe that we are a big step closer to creating appropriate solutions and adapting to what comes next. We also get to decide how we would like to navigate these choppy, rising seas, and I hope that a recognition of our dilemma leads to precise and effective action.

As I reflect upon my actions and offerings to the youth of our river community, I feel a strong need to provide an emotional outlet to accompany the climate science curriculum that MKWC has presented in the past. Building on the foundation of these science-based lessons, I want to open space for children to voice their emotions while staying tapped into the immense, restorative power of nature.

There are many other incredible programs in our community that have already embarked upon this journey. The Karuk Tribe's Píkyav Field Institute has spent years leading environmental education lessons, aspiring to teach hard truths and center traditional values for native students. Quoting the Karuk Tribe: "Píkyav means "fix it," and refers to the Tribe's continuing ceremonial and diurnal efforts to restore the earth and its creatures to harmonious balance." MKWC is honored to work in partnership and under the guidance of the Píkyav Field Institute as we refine the climate curriculum, weaving in emergent ideas that align with and support their lasting dedication to this place. The rising generations have always been a reason to put our whole heart into creating a better



Youth participants of the Klamath Adventure Outdoor Series playing in the sandy channels of Sikánthuuf (Dillon Creek).

world, and they need our cooperation and innovation now more than ever.

One thing that I have learned over the past couple years of shifting tides is that when I am indoors, and in my head, the chaos of the transformation is overwhelming and debilitating. But if I go out to work in the garden, tend the forest, or just be by the river, I can rest in a deeper level of trust. Breathing, moving, acting in synchronicity with the greater environment, that is where my heart can sense that our healing will succeed. It is my faith in the power of the Earth, the feeling of vitality in my body that nourishes my spirit and soothes my worries. I experience similar hopes when I am with the kids, admiring their joy, anger, and fresh perspectives on our ways of being. And the combination of being present with the youth while tending to nature is the sweetest medicine of all. Developing and sharing tools of collective resilience to use alongside our children is the best gift we can offer to these uncertain times.

If you feel called to contribute as we weave the threads of these lessons together, please be in touch. This is yet another way that our community can answer the calls of the youth, model collaboration across cultures and disciplines, and mend the world one moment at a time. May we work together towards the day when the salmon return to these sacred waters in resplendent abundance.

Over the Years: Local Youth Involved in Hands-On Learning!



2003 2010



2007



2011



2008



2012





2013



2016



2021

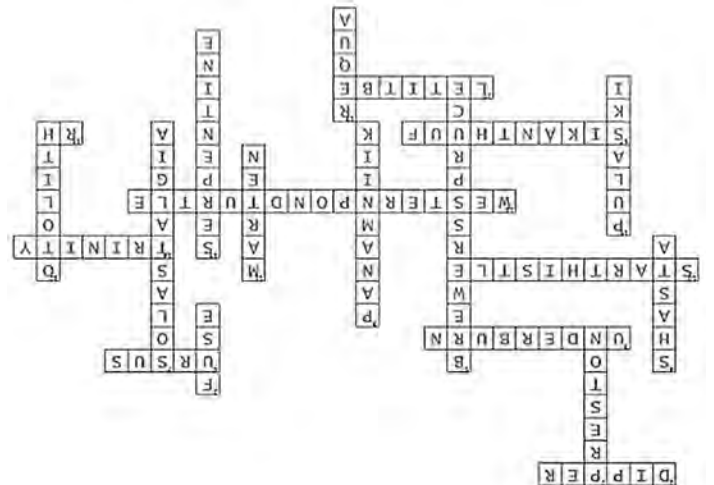
2018



2021



Crossword Puzzle Answers



Helping to Restore a Thriving Native Plant Community at Aikens Creek

By Amanaka Yancey and Elben Andrews

The beautiful Aikens Creek flows down into the Klamath year round from the mountains of the Six Rivers National Forest, providing clean cold water vital to the well being of the fauna and flora along the river corridor. The recent Fisheries Wood Loading Project was designed specifically to enhance the coho habitat. After the hefty logs were placed into the stream, the MKWC plants program, with the help of community volunteers, planted dozens of trees and shrubs to aid in the healing of the resultant upturned soil and disturbance.

Using seeds gathered from nearby water-loving plants we reseeded the bare soil during the rainy season. Plugs of cedars, pines, maples, and alders were carefully placed where best they could flourish to one day shade the breezy edges of the creek. This spring we saw the sprouts of so many of our little seeds, alongside the existing native populations, filling the banks of the creek with new life. Piggy-back plant unfurled new pointy green leaves, beneath the luxuriant foliage of the spikenard and maidenhair fern. The soft white flesh of the oyster mushroom crept out from the stump of a fallen alder, spreading its spores far and wide among all the new woody debris.

To encourage our beloved native plant community, we are continuously removing those few aggressively invasive species that pervade the area. Digging out the robust Himalayan blackberry, the tender native trailing blackberry may freely vine out among the alders. By pushing back the solid green



A respiratory angel, right in time for fire season: California spikenard, along with its eastern relative *Aralia racemosa*, is an excellent remedy for people with moist lung conditions. It's both a tonic and also soothing expectorant. The syrup in particular is helpful when first getting throat irritation and sharp, dry, and percussive cough.

Photo: Amanaka Yancey



Riparian planting at Aikens Creek Photo by Breanne Vargas

curtain of Scotch broom we leave room for the diverse mix of willows, coyote brush, redbuds, and rabbit brush to thrive.

Every creature benefits from a diverse plant community; from the littlest alligator lizard, creeping among the many flowers to find his next meal, to the dappled coho salmon, sheltered beneath the protecting branches of alder. It has been such an honor for the MKWC Plants Crew to be a part of this lush ecosystem and to contribute to the well being of the plant family that calls Aikens Creek home.



Seeds

by Dean Davis

It's fall now, and thoughts of seeds whisper in my head. This seems like a pretty good year for our conifers, with crops on the Douglas-fir, white fir, and ponderosa pine coming on without too many bugs...no doubt a stress reaction to extended severe drought and reduced late summer sunlight when the cone flower primordia differentiate. Nature always seems to know what needs to be done. The sugar pine have been dramatically prominent, much to an artist's, and squirrel's delight.

Losing our family home last year has shattered our sense of living in the present and 'being here now', and much of the warmth and comfort that being surrounded by family, community, and nature provided has experienced profound change. We are compelled to think, out of the blue, of the things that are forever gone. We are also forced to think, more than we like, of our future and try to marshal the strength and vision to proceed.

But seeds give me hope. Last fall, as we escaped from our burning home, I remember seeing ponderosa pine seed wings shining in the light all across the road surface. Other species were pretty poor last year. I have seen a few seedlings this year, but the numbers are small because of the lack of our normal rains. It is interesting how a wildfire, late in the summer or early fall, will dry, open, and shake the ripe conifer cones, releasing the winged seeds into the pyroclastic cloud. They rise to great heights, and as they cool they twirl silently and gently back to the earth, often falling on the perfect, freshly burned and fertilized mineral soil...or migrating great distances to populate new places. What a remarkable dance takes place between the earth and sky, the tree and the fire.

Even today, 34 years after the widespread dry lightning storm of 1987, 33-year-old white fir can be found distributed through the lower elevation pine, hardwood, and Douglas-fir forests throughout the Klamath watershed. They are poorly adapted to that environment, but who knows? If we were in a period of global cooling, maybe they would be the favored ones.

Brush and hardwoods have generally different strategies to survive and adapt to frequent fires. Many 'hide' underground, and burst forth as sprouts from the roots following severe fire. Yew trees are our only local conifer that sometimes sprouts... but they are ancient and different and like to hang out in wetter places. Their 'cones' look like a fruit with one seed (weird), and are produced only on the 'girl' trees (weird), and their naked roots look like spaghetti (weird). Some of the madrone, tanoak,

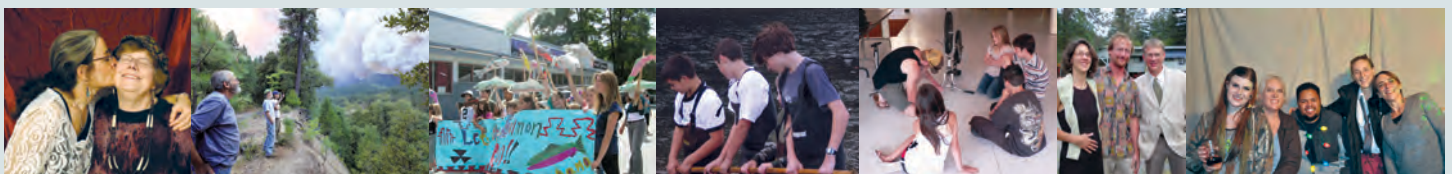


Mystery of Fire By Dean Davis

chinquapin, and oak sprouts on our place are pushing 10' tall this first year...amazing. Poison oak is robust, and flexing its muscular presence. Seeds from these species are also super important, providing genetic insurance for future adaptation. Many enlist animal shepherds, who protect, transport, and plant these acorns, nuts, and seeds far and wide. They even use us for this purpose.

Our deerbrush, which was born following the last stand-replacing fire in 1955, had largely become spindly and scarcer over the 40 years we lived there. But oh my gosh, they and the sticky manzanita had over the years loaded up the soil with sleeping seeds, and they have risen to the flaming challenge and are rapidly colonizing the entire landscape. Ahh...we all resist their rampant growth, but you have to love their blue, purple, white, and sometimes pink flowers; and much like the clovers, *ceanothus* has mycorrhizal bacterial buddies that 'fix' nitrogen in our soils...storing plant food from the air benefitting the entire forest ecosystem over the years.

So if you're feeling blue and coughing, think of seeds and their magic connection between now and forever and know that we are all here for just a precious moment. Enjoy nature, and take comfort knowing that she knows what to do.



Back in Time with MKWC Plants

2005-2010—MKWC works hard with the Yurok Tribe to control and eradicate meadow knapweed in Weitchpec.



2009—Working to control weeds in cooperation with other organizations is the backbone of how we take on invasive species in the Middle Klamath. This Scotch broom pull with Hoopa Forestry was a fun one that happened in 2009.



Native Plant Garden Workday
Jan. 2007



In late summer and fall of 2018 MKWC worked with Pacific Coast Seed Co. to collect seeds for restoration following removal of the Klamath Dams. We gained valuable skills and collected many hundreds of pounds of seed. Since then, we collect seed at a smaller scale to enhance the ecological restoration of our fisheries and prescribed fire projects.



Wilderness Weeds Surveys—MKWC staff and youth crew surveyed many miles of trail in the Siskiyou, Red Buttes, Trinity Alps, Marble Mt., and Castle Crags wilderness from 2010 to 2014.



In 2012 we mapped every river bar between Somes Bar and Weitchpec for invasive plants. And then we pulled... We continue to have staff and volunteer workdays to remove weeds found during that survey.



Here in 2021, we do our best to build off of our past efforts while keeping an eye to the future. The super-crew of 2021 waters and weeds to keep planted trees thriving at Aikens Creek.



Beaver Dam Analogues

MKWC Fisheries try to mimic beavers with the goal of creating summer and winter rearing habitat for salmonids, as well as connecting creeks to their floodplains.

Natural Beaver Dams



Natural beaver dam on Boise Creek on December 13, 2010. Unfortunately, this beaver dam was blown out in the winter of 2010/2011.



Natural beaver dam on Horse Creek on October 21, 2014. This beaver dam not only created a very deep pool for salmonids to rear in, but also spread the creek water out, decreasing velocities and creating a diverse environment for all aquatic life.



Natural beaver dam on Seiad Creek on October 5, 2012. The beaver dams on lower Seiad Creek in the fall of 2012 were inspirational. They deepened the water level of the creek, making extraordinary fish habitat.



MKWC Fisheries personnel creating a beaver dam analogue on Camp Creek on January 6, 2011. We want to mimic beavers and the great work they do for our aquatic environment.



MKWC and Partners Beaver Dam Analogues



Installing a BDA at Boise Creek



MKWC Fisheries led by Jimmy Peterson, installed a human made beaver dam to replace the one that was blown out in the winter of 2010/2011. This “beaver dam analogue” (human made beaver dam) connects Boise Creek to over a 1/2 acre of off-channel ponds that provide valuable summer and winter rearing habitat for salmonids.

Photo taken on January 25, 2020.



MKWC Fisheries installed 12 large wood structures into Horse Creek Valley in the fall of 2019. By the next summer beaver were adding to one of the wood structures, as shown in this photo taken on August 25, 2020. The combination of wood structure and beaver dam created a deep, cold, and low-velocity habitat for salmonids.



MKWC Fisheries and partners installed beaver dam analogues into Sandy Bar Creek in the summer of 2021. This photo taken on June 9, 2021, shows the human made beaver dam being built.



Brush Bundles

MKWC Fisheries installs brush bundles to thermal refuge areas to provide cover for salmonids seeking cold water.



Tom Martin Creek on May 9, 2014 before adding brush bundles to the alcove connected to the creek.



Tom Martin Creek on May 9, 2014 after adding brush bundles to the alcove connected to the creek. These bundles of brush provide cover for salmonids, increasing their chance of survival.

Channel Reconfiguration

MKWC Fisheries has had one large scale channel reconfiguration project, goal of project is multifaceted:
1) create flow diversity with side channels and alcoves,
2) engage the floodplain for a healthy riparian.



Apex jam installed for the Seiad Reconfiguration Project. This jam will help the constructed side channel functioning. Split channels, side channels, and alcoves all help diversify the stream habitat for aquatic organisms. Seiad Creek on April 7, 2018.



Seiad Creek Channel Reconfiguration



Wood Loading —Using a Helicopter

New to MKWC Fisheries is the use of helicopters to add large wood to streams in order to create summer and winter rearing habitat and create spawning material. In 2020, MKWC and partners added 117 large logs (44 of those with root wads) to 1.4 miles of Horse Creek.



Wood structure on Horse Creek on January 13, 2021.



Ground and flight crews for the Horse Creek Helicopter Wood Loading Project on October 20, 2020.



Wood structure on Horse Creek on January 20, 2021.



MKWC's Michael Hentz on June 2, 2021, photo monitoring the 35 wood structures added to 1.4 miles of Horse Creek. One of the 35 wood structures is in the photo's background.



Wood Loading —Using Excavator

MKWC Fisheries adds large wood to streams to create pools, activate floodplains, create pockets of slow water for winter rearing, sort gravel for spawning, and provide cover for fish. ≈ 2 miles of stream have been treated in 5 Klamath River tributaries, with over 200 large key wood pieces added using an excavator.

Aikens Creek



Yurok Tribe implementation crew members Yadao and Seagull at the Aikens Creek restoration site on August 14, 2020.



Aikens Creek wood structure on February 13, 2021.

Horse Creek Valley

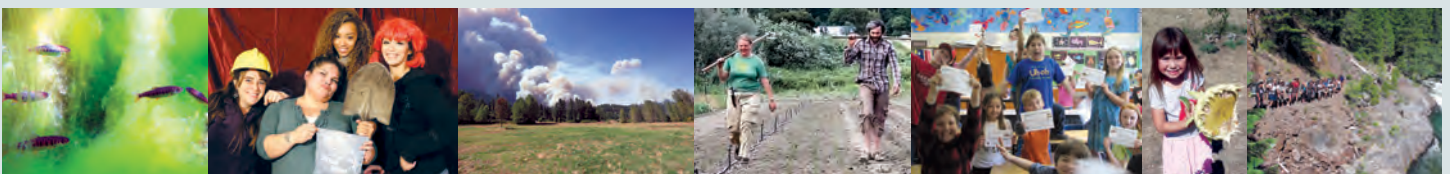


50 large logs with root wads were added to a 1/2 mile section of Horse Creek Valley in the fall of 2019. This photo taken on October 14, 2019 is looking downstream from the most upstream wood structure.

12 wood structures were added to the creek, with the intent of creating spawning habitat as well as increasing the quality of summer and winter rearing habitat for salmonids.



Aikens Creek on February 13, 2021, looking downstream from the most upstream wood structure.





Aikens Creek wood structure on February 13, 2021. The wood structures installed in the summer of 2020 backed up high winter water for over a hundred feet pushing water up on the creek's floodplain and creating nice low velocity winter rearing habitat for salmonids.



MKWC Fisheries partnered with the Karuk Tribe, the Yurok Tribe, the U.S. Forest Service, and the California Department of Fish and Wildlife to install 24 wood structures into Aikens Creek in the summer of 2020. Pictured here is the implementation crew on one of those installed wood structures on August 13, 2020.



Aikens Creek wood structure on November 27, 2020.



Aikens Creek wood structure on November 27, 2020.

Fish Passage—Manual

MKWC Fisheries does manual fish passage work every year on tributaries to the Klamath River between the Trinity and Iron Gate. This work addresses fish passage problems by using hand tools to modify the creeks so that fish can access cold water.



Interns and MKWC Fisheries personnel doing manual fish passage work on Little Horse Creek on July 28, 2011.



Volunteers and MKWC Fisheries personnel creating fish passage on Rogers Creek on July 1, 2011.

MKWC News Over the Years

When Jim Henderson asked me to organize the MKWC newsletter in 2001, I had no idea I would still be doing it 20 years later. I volunteered for the first ten years, collaborating with Bari Talley as our layout editor, who was both creative and fun to work with. Working on the newsletter helped keep me in touch with all the many MKWC projects getting off the ground. For the past 10 years I have been working (paid!) with Jeri Fergus of Trees Foundation who keeps me organized, gets me laughing, and contributes so much to make it happen. Bari and Jeri, thank you! I couldn't have done it without either of you. For all you readers, I hope that MKWC's newsletters get your creative juices flowing and give you inspiration in your own lives.

— Blythe Reis



Acorn Maidens New Caps Artwork by Bari Talley

uncil
nity
toration

Mid Klamath Watershed Council

Spring 2013, 15th Anniversary Edition

Treatments A Bigger Picture

been excluded, the build up of materials has created a fire deficit in the form of untreated building, fire, timber fuels, and more. This deficit, combined with every aspect of the fire when they ignite, will affect those who live with such a high intensity and at such a scale that their past burns are not even a memory.

Projects in Seiad Valley Show Promising Results!

herance in the Middle for the other side in with their the history in which. However, the maximum extent of

uncil nity n Dry

to be led by some high mountain areas and will be used in California in several ways at report published in several places. Some available and others will be changing. The change with

Mid Klamath Watershed Council

Watershed Resilience Community Resilience

ies Learning Together, Burning Together
Corporated Fire Training Exchange Provides
Local and State of Professional Training

Mid Klamath Watershed Council

Incident Commander
to be in these incidents
on a possible stream
of risk over the
to come. The
the incident AR
mountain communities

Mid Klamath Watershed Council

oids that allow the Unit Chief to exempt prescribed burns from the health and safety purposes from the burn ban. Humboldt County Unit Chief Tom Hess, only needs away from settlement, forest permits for 12 hours units on 17 properties that were directly adjacent to 12th houses.

Mid Klamath Watershed Council

But the story goes deeper. Twice in the last decade on winter years, CALFIRE had issued state-wide burn bans that had burning bans for the northeastern part of the state in conditions in Southern California. Representatives from the Northern California Prescribed Fire Council, trail of working practices good burn windows pass them by due to the statewide ban, met with CALFIRE Director Ken Truitt in 2012 to request burn bans be implemented and removed at the next fire. He agreed to the change. Due to his work, even though 2013 was the driest year on record. Prescribed outdoor wood burn bans, and in the TRS23 approved by approved Chief Hess in issuing permits under exemption for the TRS23 burns.

Mid Klamath Watershed Council

the main systems that are looking for a quick and easy way to find the best way to burn. Klamath Fire has been working on this for a long time and especially with the help of the National Fire Plan. The main systems that are looking for a quick and easy way to find the best way to burn. Klamath Fire has been working on this for a long time and especially with the help of the National Fire Plan.



Mother's Day Plant Sale & Brunch

Mothers Day Sunday in May
11:00 am - 3:00 pm
Panamnik Building, Orleans Ca

featuring
Local Artists, Crafts
& Klamath River Cuisine

All Vendors Welcome



Mid Klamath Watershed Council

Taking Care of the Place We Live

Summer Stewardship Interns 2016

to our volunteers
and the
to be a part of
the
to be a part of
the

The Orleans/Somes Bar FSC and the Mid Klamath Watershed Council are having an:

Open House

Thursday, February 12th, 2014 2-5 PM
Oak Bottom Administrative Site

The Orleans Ranger District has graciously donated the use of a trailer at the Oak Bottom Administrative Site to the Orleans/Somes Bar FSC and the Mid Klamath Watershed Council for office space. We currently have a display of information available to the public, and will soon be housing the Klamath Salmon Natural History Library. Food and refreshments will be served (free to bring more!).

Directions: Approx 3 mi. up Salmon River Rd., take main entrance to compound. Take 2nd left. The light blue trailer is our office.

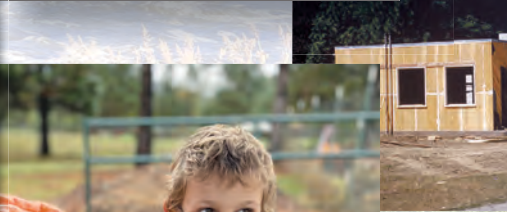
For more information call the office at 469-3216. Hope to see you there!



Mid Klamath Watershed Council

Klamath Fire Ecology Symposium Points Toward the Future of Fire Management

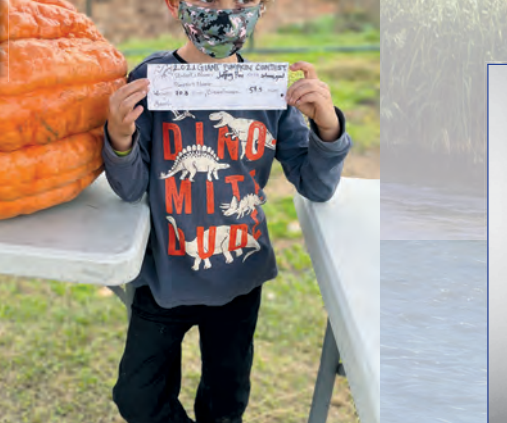
to be a part of
the
to be a part of
the



Mid Klamath Watershed Council

Restoration on Fire

Where there's Wood, there's Fish
Gougar Creek Wood Loading



Panamnik General Store

MARK

CENTER CUT!

PORK CHOPS

\$2.99/lb

Mid Klamath Watershed Council

Restoration on Fire

Where there's Wood, there's Fish
Gougar Creek Wood Loading

Off-channel Ponds

MKWC Fisheries has been creating off-channel ponds since 2008. Fifteen ponds have been built, creating over 1.5 acres of off-channel habitat on seven mid-Klamath River streams. These are features that are connected to creeks and provide very much needed low velocity refuge for rearing salmonids, particularly important during high flow events.



An off-channel pond being constructed on October 4, 2017. This ≈ 7,500 square foot pond was connected to Horse Creek in the fall of 2017. It provides low velocity winter rearing habitat for salmonids.



The gold standard for all of MKWC's off-channel ponds. The "Alexander Pond" was the result of MKWC's Fisheries Co-Directors Charles Wickman and Will Harling's hard work and vision, and was excavated in the fall of 2010. The MKWC used the Karuk Tribe's fisheries studies that showed the importance of off-channel habitat for coho salmon, to build a program that created these much needed rearing sites. Photo taken on April 29, 2011.



U.S. Fish and Wildlife Service, landowner, and MKWC Fisheries personnel doing fence maintenance around an off-channel pond on April 3, 2019.



MKWC's Fisheries and Plants personnel happy to have completed mulching the banks of the newly excavated pond connected to Horse Creek. This pond has been utilized every winter since it was created by at least 500 salmonids. The salmon are seeking refuge from the adjacent creek, which has high velocities during winter and spring.



An off-channel alcove with contractor crew on September 26, 2019. This off-channel alcove is connected to China Creek.



An off-channel pond being constructed on October 10, 2017.



An off-channel pond recently excavated on October 31, 2018.

Spawner Surveys

MKWC Fisheries helps with a multi-organizational effort to monitor how many adult Chinook and coho salmon return to the Klamath Basin to spawn. These numbers are especially important since we are dealing with threatened species.



Fisheries Program Co-Director Charles Wickman scanning a coho salmon carcass for pit tags on December 2, 2016.



MKWC personnel Michael Hentz and Danny Davis conducting a coho salmon spawner survey on Seiad Creek on January 30, 2019.



Brent Boykin and Rony Reed surveying for coho salmon redds on Seiad Creek on December 13, 2016.



Coho salmon spawning in Canyon Creek, a tributary to Seiad Creek, on December 16, 2015.

MKWC Fisheries Crew and Partners



Achvuun (Coho “Cougar” Salmon)



Michelle Krall amazed at evidence of industrious beaver on Camp Creek on December 17, 2010.



Don Flickinger on November 16, 2018 on Cottonwood Creek. We all want to be beavers!



Mitzi Wickman gathering bathymetric data at the Independence thermal refuge site on December 13, 2011.



Will Harling gets some help from famous restorationists from the north, Larry Lastelle and Tim Abbey. This is what it looks like when a floodplain reconnection project works! Photo taken on March 29, 2017 on the South Fork Nooksak.



Jon Grunbaum, Bob Bearding, and Will Harling on Horse Creek on October 15, 2020, working on the Horse Creek Helicopter Wood Loading Project.



Florance Condos leveling the total station on Horse Creek on November 25, 2020. Florance is using the total station to collect accurate coordinates of the logs installed for the Horse Helicopter Wood Loading Project.



Rachel Krasner and Jimmy Peterson prepping the salvage logs with large squares of flagging, with the intent of streamlining communication between the ground and air crews for the Horse Helicopter Wood Loading Project. Photo taken on October 12, 2020.



MKWC Plants Director Tanya Chapple at the Aikens Creek restoration site on August 14, 2020.



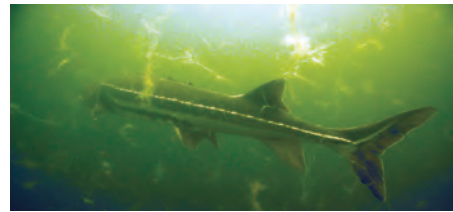
Jimmy Peterson tracks the number of logs flown by the helicopter for the Horse Helicopter Wood Loading Project on October 19, 2020.



Mark Thomas from Mark Thomas Logging acquiring the logs with root wads for the Horse Helicopter Wood Loading Project. Photo taken on September 23, 2020.



Jimmy Peterson gets some help from Tony Dennis taking discharge measurement on Horse Creek on February 27, 2017.



Ishxikkihar (green sturgeon)



Will Harling, Jon Grunbaum, and Toz Soto during the Horse Helicopter Wood Loading Project on October 18, 2020.



Charles Wickman and Rocco Fiori getting ready to start their day of directing the placement of logs for the Horse Helicopter Wood Loading Project. Photo taken on October 20, 2020.



Akraah (Lamprey)



Karuk Tribe Fisheries Program personnel conducting a population estimate for the Upstream Lawrence Pond on Horse Creek on February 6, 2019.



Charles Wickman conducting topographic survey on Seiad Creek on February 22, 2011.

20 Years of Fire and Fuels in the Mid Klamath

By Will Harling

Restoring good fire to this land has been at the center of our work since the beginning of the Mid Klamath Watershed Council, back when we were still arguing over the name of our organization and forming the Orleans/Somes Bar Fire Safe Council in the meantime. Our first \$200,000 grant from the California Fire Safe Council arrived in 2002 in the form of a check to our makeshift office in my guest bedroom. We had to scramble to find a fiscal sponsor, put together a local brushing crew, purchase a tractor/chipper/mower, and ramp up efforts to collaboratively plan and implement volunteer and grant funded workdays, workshops, and trainings. With the passage of the National Fire Plan in 2000, it seemed like our country was ready to embrace a new relationship with fire, and turn away from the top down agency driven fire management of the previous century.

The 2001 Orleans Fire became a unifying event that galvanized broad based community engagement in fuels reduction workdays and collaborative fire planning with CAL FIRE, the Karuk Tribe, the Forest Service, MKWC, Orleans Volunteer Fire Department, and other organizations that laid the foundation for the Orleans/Somes Bar Community Wildfire Protection Plan. This document incorporated a holistic view of fire management that went beyond community protection and set the stage for the restoration of historic fire regimes at the landscape scale. While we were dreaming big of a new fire management paradigm based on the time tested cultural fire practices of the Karuk, Yurok, and Hupa people, we were showing up at elder's homes on weekends to create defensible space in a forest left too long without fire.

I will never forget an early Orleans/Somes Bar Fire Safe Council workday at Ruth Knudsen's place on Wilson Creek in 2002. Ruth was over 90-years-old and fiercely beating back the deer brush encroaching on her house with a pair of hand clippers. She wasn't strong enough to cut the main stalks of the *Ceanothus*, but had meticulously clipped every side branch she could reach for a quarter acre around the house. In one rainy afternoon we cleared that quarter acre and more, cutting and piling and pile burning. Ruth was moved to tears by the fact that so many people were willing to come help her fire-safe her place. These monthly workdays continued for years, even as our paid and contract brushing crews grew and reduced the need for volunteers.



MKWC's first broadcast burn with Tony Hacking on his homestead 2003

In March of 2003, Tony Hacking, MKWC's first board president and a wildlife biologist for the Orleans/Ukonom Ranger District, hosted a three-acre prescribed burn behind his place to maintain a fuelbreak that SRRC had created a few years prior. The 20 or so participants had gathered earlier in the day at Merrill Creek just down the road to plant riparian trees around the fish barrier culvert that had been replaced with a bridge, and then we switched over to burning in the afternoon.

This burn led to a series of landowner led burns up and down the river. Neighbors helping neighbors. We essentially reinvented the Prescribed Burn Association model used in the Midwest and Southeast to burn millions of acres annually. I remember a CAL FIRE battalion chief showing up to one of our burns, dropping off a bunch of hand tools, and saying "you guys are way out here and we are going to have a hard time getting you resources, but we support what you are doing and GOOD LUCK!"

As fate would have it, a grant from CAL FIRE in 2004 to get more acres burned started us on the road needed to implement prescribed burns with permits and environmental compliance, insurance, and qualified burn bosses. This journey to good fire has connected us with a national and international community of fire practitioners who are struggling along with us to restore beneficial fire to their landscapes, and we have been learning



from each other ever since. The Nature Conservancy's (TNC) family of learning networks, through the North American Fire Initiative, have been critical in building communities of practice and helping us find resources to be more effective with our work. Through the Fire Learning Network, Fire Adapted Communities Learning Network, Prescribed Fire Training Exchange (TRES) Program, and Indigenous Peoples Burning Network, we have been able to implement innovations rapidly and build partnerships that have helped to create a shared vision for fire and fuels management. Indeed, it was professional facilitation from TNC that allowed us to bring together diverse groups to form the Western Klamath Restoration Partnership (WGRP) in 2013.

Over the past eight years, WGRP has built a solid foundation of agreed upon values and strategies for how to restore fire process at the landscape scale that honors the viewpoints and basic needs of tribes, environmental groups, NGO's, state and federal agencies, and industry partners. We have found there is incredible power in having a shared vision for land management, as we have since garnered over \$14 million in the past five years to plan and implement pilot projects, including annual TRES events, the Somes Bar Integrated Fire Management Project, and a ten year funding plan for future projects. We were recently selected by the national Collaborative Forest Landscape Restoration Program (CFLRP) to receive up to \$40 million (\$4 million/year) over the next ten years to implement instream and upslope projects.



The Cronan Fire in 2021

At the same time we are implementing larger scale manual, mechanical, and prescribed fire projects, we are also working to revise state and federal laws that prevent prescribed and cultural fire from being implemented at meaningful scales. MKWC supported the Karuk Tribe in producing the "Good Fire" policy paper that played a large part in recent successful state legislation, including Senate Bill 332 that increased protections for prescribed burn bosses and protects cultural fire practitioners; as well as, Assembly Bill 642 that mandates a cultural fire liaison position with CAL FIRE and the formation of a Prescribed Fire Training Center, and a \$20 million Prescribed Fire Claims Fund for organizations like MKWC to access if they are sued for implementing prescribed fire treatments with due diligence.

We have come a long ways in the past 20 years, and we are starting to see some the changes we could only dream of back then. These successes are bittersweet as we have not facilitated a shift in fire management fast enough to avoid major impacts to our river communities. The 2020 Slater Fire in Happy Camp is a grim reminder of the high stakes river communities face every summer. Together with our local, tribal, state, and federal partners, we will continue to work for a day when fire is more friend than foe, and we no longer have to live in fear of losing our homes, lives, and the places we love. As I write this, our local, tribal, and national TRES resources are up on the mountain near Patterson Ranch implementing a prescribed burn to protect one of our most at-risk neighborhoods that was threatened this summer by the 2021 McCash Fire. It's time for me to head up and join their burn operation, and support the next generation of fire practitioners in carrying on this work.



The Slater Fire

A Story of Fire in the Mid Klamath Region

By Michael Max Hentz

On the morning of September 8th, 2020, smoke from the distant Red Salmon Complex fire filled the air. Heading into Happy Camp for work, through the beauty of Elk Creek canyon, the air began to clear, but as I descended past the town trail, a new discernible smoke column appeared to the East and North. This smoke was coming from the area of the Slater Butte lookout and was instantaneously ominous as an unusually strong East wind event had been predicted by the weather service. Upon arriving to work, I found the power out and the people in town already aware of the threat.

The Fire

The Slater Fire was extremely unusual in its severity, intensity, and geographic extent. Roughly 100,000+ acres of forest were consumed at the highest severity within 24-36 hours, from Happy Camp up the Indian Creek Watershed into Oregon.

The risk was predicted by forward-looking fire specialists including Co-Director of MKWC Will Harling, who included Indian Creek as a key part of his presentations about the fire future of the Mid Klamath Region. The Indian Creek watershed had been excluded from both natural wildfire (i.e. lightning) and cultural fire for over 100 years. Normally fire return intervals within the Indian Creek watershed would have been about 5-15 years. Over a 100 year period the watershed has missed 10-20 natural fire return intervals. Cultural fire use by the Karuk people, the Indigenous people of the region from time immemorial, had also been extinguished. These fires would have reduced fuel loading and forest growth, and

created mosaics of different fire patterns, helping to defend the landscape from catastrophic wildfire.

Fire-savvy locals are attuned to the lightning strikes, thunderstorms, and other warnings that accompany naturally occurring wildfires. But on September 8th, the Slater Fire started early morning / late night, and was likely started by high voltage power lines compromised during this unusually intense high speed wind event. This was a silent fire start, there was no warning, and there was little time.

Lost

The total number is still uncertain, but at least 200 residents lost their homes and livelihoods within day one of the Slater Fire. My wife's parents had little warning as they struggled to gather some blankets and basic food and scramble through the fire to shelter in the waters of the South Fork of Indian Creek. They survived there for three days, through flames, without food, and with hardly any warmth or shelter to protect them. Upon emerging from their refuge, they found their home and all of their beloved belongings gone.

Structures are commonly quoted in reporting the damage done by fire, but more importantly perhaps should be considered the loss of memories, heirlooms, and regalia—the generations of being in a place disastrously disrupted.

I recently met with a Karuk elder, a grandmother and basket-weaver. One year after the Slater Fire she is still displaced. It is hard to hear about what she lost in the fire, the cultural importance of her own masterpieces, and of her families' regalia, which was in her keeping. I have met with local residents who lost their property, and they question, “why move back and re-build when the whole landscape is black and dead, desolate, and barren”.

Cultural Tradition

As a European descendant, it is hardly my place to describe the beauty, knowledge, and intelligence of the Karuk people who inhabited these lands of the Mid Klamath since the beginning of time. I have learned of the inter-generational transference of knowledge, of the healing ceremonies to protect the Earth, the Salmon, and all beings, of the belief that we are connected to all things spiritually as relations. Ceremonies are conducted to continue this relationship. That medicine, food, tools,



Beth Buchanan lost her home and bridge but still has green forests around her property as a result of fuels reduction efforts and prescribed fire.



homes, and art are interconnected with this place, that fire is sacred for the purpose of life. The stewardship of the Karuk people created a world of life and beauty in the Mid Klamath region which has been drastically altered by the coming of the Europeans. This change in stewardship is inextricably connected with “modern” land management, of which the devastation of the Slater Fire is one.

When western Europeans came to this area, they saw the forest as a place of many uses; hunting, timber, grazing, dam building, and recreation. Fire exclusion was a tool used to protect it. Smokey the Bear, the emissary of “Bad Fire”, was considered by many to be one of the most successful public relations campaigns ever launched. It is now very clear and commonly understood that the policy of fire exclusion was in error. The strategy of fighting “all” fire to save the forest is now in question by even the most seasoned professional “fire-fighters”. These forests and ecosystems were built with fire and native people understood this relationship, building cultural practices over time to steward the land and live with fire successfully and purposefully. Fire is a relative, a tool for re-birth and healing, for hunting, food, basket materials, and medicine.

Over 20 years ago, the Karuk Tribe and MKWC (through the Orleans Somes Bar Fire Safe Council) reintroduced fire to the landscape on private properties through prescribed burns and fuels reduction. Several landowners in the Slater Fire area, have described to me how fuels reduction efforts and prescribed fire helped protect their property. Dean Davis attributes fuels reduction to saving his life. Beth Buchanan, an effervescent and always cheerful spirit, describes how she still has green forests around her property as a result of fuels reduction efforts and prescribed fire. She lost her home and the bridge to her home, but miraculously her partner found her wedding ring in the ashes of her fireplace. Mark Motyka, though losing his home, barn, and other important structures, states with certainty, that fuels reduction work and prescribed fire was instrumental in saving the green and living oaks, cedars, firs and pines still surrounding his place. Giving him a place to return to and rebuild.

Community Help

Is it instructive that the Karuk Tribe has taken the leadership role in helping displaced families, providing support and assistance to those who have lost everything in the Slater Fire. Though Federal agencies like “FEMA” [Federal Emergency Management Agency], have come in with money & equipment to “clean-up” fire ravished properties, they are not here to stay and they are not here to care for the land and the people. Local people, local community organizations, particularly the



Mark Motyka, lost his home, barn, and several structures but claims prescribed fire kept his homestead green.

Karuk Tribe, are the ones who believe in this place, helping to re-build and restore communities, families, and livelihoods for generations to come.

Past as Present

Under more “normal” fire behavior, so much of the fuels reduction work which has taken place along the Indian Creek corridor by the Happy Camp Fire Safe Council and even the U.S. Forest Service, would have been more effective. This fire was a worst case scenario; dense forests, heavy fuels, and an unceasing, strong east wind event.

If you take a drive up the Indian Creek watershed, once so diverse and beautiful with rich mountain forests, lush meadows and riparian ribbons, sheltering critical salmon spawning habitat, there is devastation. It is a lesson in humility. For many it is a reckoning of past failures, but I am hopeful that it is also a call to action.

The Future

As I write this, my family and our home appears to have survived the current McCash Fire of 2021. I believe fire in our forests is both a cultural concern and one of plain physics. Our lands grow vegetation and trees, however, without “natural” fire regimes, including culturally practiced fire, these fuels accumulate to the point of great danger, flammability, and severity. We can either re-introduce cultural fire practices with the aid of fuels-reduction efforts around our communities and the application of “prescribed fire” on a local and landscape scale, or continue to see devastating fires which are all consuming and tragic for the long term. Let us please be proactive and forward looking, while also looking to Indigenous knowledge for guidance.

To learn more or send support please contact:
Slater Fire Long Term Recovery Group, (530) 493-5117
<https://www.facebook.com/SlaterFireLTRG/>



3am Fire Musings

By Will Harling

I lay in bed at 3am unable to sleep, mind on fire with a thousand loose ends from planning another crazy prescribed fire training exchange (TRES) event. My youngest, Rory, nestled beside me looking angelic in the dappled Alameda streetlight.

I am not at our Klamath TRES for the first time since its inception in 2014. Now that we had the silly idea of standing up a burn team for two months, I have to be in the Bay with my kiddos for some weeks. No... I GET to be in the Bay with Owen and Rory. Making magic in this time before they fly.

But these are the burn days when fire speaks in the old tongue and brings new life, that makes the planning work all year seem worth it, and I feel its pull 300 miles away. I tiptoe into the living room to write until the voices quiet.

I meant to write my MKWC newsletter article but damned if I didn't get sucked in to looking at the recent pics from the TRES burn Tuesday in Happy Camp at Morgan Point. This picture to the right said a thousand words. The firing team watching the fire they are putting down. I can hear the radio chatter, firing and holding, and burn boss and operations, fire effects monitors, all talking, sharing observations, dialing the tempo of the burn to maximize the benefits. Fire men and women from this place, and some amazing teachers from around the north state, and the next generation of fire practitioners, all working together with a common goal.

Old fire dogs from municipal departments. Agency firefighters picking up some extra training assignments after a long fire



Members of the Karuk 1 Crew conduct firing operations on an understory burn unit at Morgan Point near Happy Camp, CA, as part of the 2021 Klamath TRES. Photo by Bruno Seraphin

season, planning forward to when their legs don't buck the mountains like they do now. Scientists whose plots are set to show how fire changes the vegetation and fuels. Students here to do something real, to learn practical skills, to help tell a part of this unfolding story.

And the Karuk Tribe's K1 crew, who have since the beginning, been integrating into these burn teams, sharing not just local fire knowledge, but also the fix-the-worldview, as they fix themselves, connecting with their culture through the practice of applying fire to the land.

The fire candles up the largest pine in a stringer of honeysuckle, blackberry, and poison oak, speaking of a time when this was meadow, making the lighters go slow to keep the older trees from torching. All these clues that speak of the forest before suppression. Let's go there. 180-200 years ago into an early October.

First, disappear every tree you see in this picture. Notice the old stump holes from the initial logging for flume to service the Muck-A-Muck Mine. Massive sugar pine, ponderosa pine, cedar, huge true oaks dotting the meadow. It's way more open and you can see much further, up to the low snaky serpentine ridge jutting far out into the Klamath canyon, and almost down to the river. You can see the ground and the sky. Instead of pine duff and ferns and brambles and poison oak, there's



a lush pasture of native grass, fed by deep springs. Brodiaea, hazel, mock orange, native raspberries. A huge old bay tree that gets visited often. It feels, like a garden, like a giant garden. Without a fence.

The village is nearby, pit houses nestled in the high bar river silt. The sound of a drum and singing, gambling. Still alive with the spirit of the New Year ceremonies. Salmon drying on sticks on the river bar. Kids remembering that story about chiimooch the lizard when he tricked grizzly bear, and keeping an eye out and not straying too far. Fires lit weeks ago still skunking around in the tan oaks between the meadow and the ridge, all the grass from the Spring already burned off, revealing the fresh growth rising from the first fall rains. Time in the day to think about and take care of the generations to come. To keep the world whole.

Time speeds up. 200 years later and I hear Tyler singing in the old tongue, his song projected with love and sorrow and hope and joy and strength. Without words I feel all that was broken, the unholy path from there to here. I remember the old name for Happy Camp from Jack Norton's truth-telling. My vision is clouded, by privilege, by thick trees and brush, by tears for those who see the echoes of the genocide in their family tree, for those we have lost along the way.

In the end, our success in restoring fire processes, and the forests that were shaped by these fires, hinges on our ability to create a shared vision of what we are managing toward. Reconciling what was, and what is, and working towards what could be: it's a hard balance. This is private land. We won't kill very many pines in this burn as we honor the landowner's wishes but still nudge this stand towards the long-term cultural and ecological goals we agreed to through the Western Klamath Restoration



By Heather Rickard

All graphics from TREX Tee Shirts over the years.

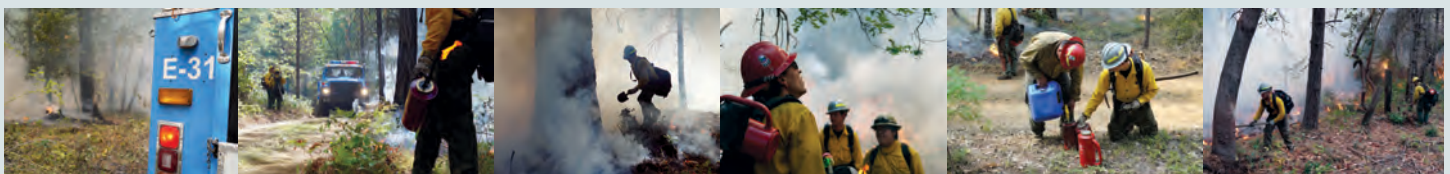
Partnership. This fire will open up a little light for some grass to come in, protect the larger conifers but also make room for some oaks to return. Bring back the game. Open up the view. Clear my vision.

I owe it to this land that feeds me, to our tribal community, and to all us settlers, to learn to see the forest through these trees, set in motion things we will not see in our lifetimes, but will benefit future generations, to remember my responsibility to all living things in my actions. This is the time to make space for fire to come back in a good way. Support native communities as they reclaim their right to use fire as a tool for managing the land.

I am getting older and my legs won't always be able to drag the torch. Still hoping for another 30 years or so, and next week we will be burning in Orleans...I promise I will quit when my knuckles hit the dirt. But I am more certain now than ever before, there will be others to carry this torch. And that is some good medicine. Rory's alarm is about to go off. I should get a little sleep before the sun. Might even take a nap this afternoon. Make sure to remember to bring Rory with me burning this winter so she has a relationship with fire from a young age. My teachers are passing. It is time for me to pick up their torch.



By Vikki Preston



Fire Safe Councils Emphasize Individuals' Responsibility

The Orleans/Somes Bar Fire Safe Council (OSB FSC) was an independent entity a few years before MKWC was established. While they both had their roots in a 1990s era community-based group of volunteers concerned with fire safety, fisheries, and watershed health in general, it was OSB FSC that landed our first grant funding. Currently OSB FSC operates under the umbrella of MKWC, as does the Happy Camp FSC.

Fire Safe Councils (FSCs) are unique to California, though in recent years many organizations in other states have started focusing on wildfire preparedness. The first FSCs were established in the 1990s and now there are over 100 of them in the state.



2013 Pile Burning Crew at the Strouss homestead.

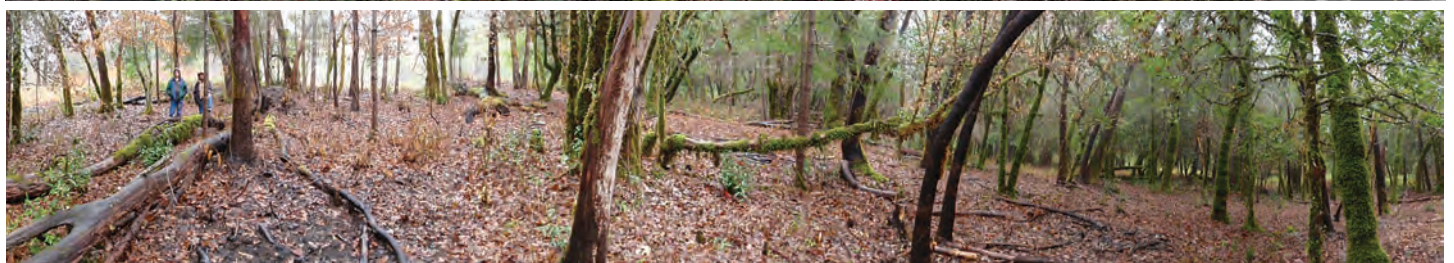
FSCs are generally grassroots, community-led organizations that mobilize residents to protect their homes, communities, and environments from catastrophic wildfire. The newer national version of this kind of organization is the Firewise USA program. Like Fire Safe Councils, Firewise USA emphasizes

community and individual responsibility in creating and maintaining communities that are safe from wildfire.

Our two local FSCs expand on these objectives by recognizing and promoting the use of prescribed fire as a critical tool for making our communities safer in this wildfire prone bioregion.

In the very early years, most of the OSB FSC grants were funding small projects on many private parcels. In three years (2001-2003) almost 90 households received small defensible space and shaded fuel break treatments on their properties. Most of the participating landowners volunteered to burn the piles resulting from these projects, thereby getting a taste for doing this work themselves. Volunteerism, as a built-in component for many of our fuels reduction projects, helped to ingrain the sense of individual and community responsibility.

More recently many of our fuels projects have concentrated on larger treatment areas, working toward creating contiguous



2009 Fuels Reduction Before and After



Laverne Glaze at the 2006 Cooper Burn.



Lenya Quinn presenting at the Orleans 2017 KFES

shaded fuelbreaks around these communities in their Wildland Urban Interface (WUI) areas. These large projects do not preclude or minimize the continuing objective to educate and assist landowners and residents in creating and maintaining



2011 KFES fieldtrip with Six Rivers National Forest Fire Lead David Markin.



Will Harling and Ben Riggins wrote the first grant MKWC received under the OSBFSC auspices.

defensible space around their homes. Firewise events and the FLASH (landowner rebates for fuels work) program are two examples of how the FSCs continue to improve residents' awareness and sense of responsibility as we all work together to become a truly fire-adapted community.



2006 Cooper Burn participants



2014 Hydrant painting project

New \$5 Million Award from CAL FIRE to WKRP



WKRP is thrilled to have received a second \$5 million direct award from CAL FIRE through the Climate Change Initiatives program (CCI) for project work. The first award, received in 2018, is coming to a close next spring so this couldn't be more timely! The aim of the work will be to implement WKRP's innovative plan to restore healthy fire processes in the Klamath Mtns. Areas of focus include: reducing wildfire threats to communities; reducing wildfire risks to ecosystem

services and cultural resources; restoring fire damaged areas including work within the Slater Fire burn scar; and more. Some impressive figures from the proposal include: 2,325 acres of hand pile burning; 2,075 acres of controlled burning; 1,195 acres of prescribed burning prep (and more) within the geographies of the WUI of Happy Camp, Somes Bar, Sawyers Bar, Cecilville, Forks of Salmon, Orleans, Weitchpec, Hornbrook, and Pecwan.



Mapping exercise at WKRP workshop #20 in May, 2019 in Happy Camp, CA



Nolan Colegrove (Six Rivers National Forest) and Bill Tripp (Karuk Tribe) at a June WKRP workshop in 2017



Site visit at October, 2015 WKRP workshop #12, featuring joint Karuk Tribe and Six Rivers National Forest leadership



Partner Organizations Over the Years

Backcountry Press
 Bella Vista Foundation
 Bigfoot Trail Alliance
 Bureau of Reclamation
 California Coastal Conservancy
 California Conservation Corps -
 Watershed Stewards Project
 California Department
 of Fish and Wildlife
 California Department
 of Food and Agriculture
 California Department
 of Forestry & Fire
 California Fire Foundation
 California Fire Safe Council
 Christine and Jalmer Berg Foundation
 Coast Central Credit Union
 Community Food Council
 Community Foundation of the North
 State – the McConnell Foundation Fund
 County of Humboldt
 County of Siskiyou
 Dancing Tides Foundation
 Dean Witter Foundation
 Dream Quest
 Environmental Protection
 Information Center
 Firewise Communities
 First 5 Humboldt
 Fish America Foundation
 Ford Family Foundation
 Georgia-Pacific LLC
 Happy Camp Fire Safe Council
 Harper Family Foundation
 Headwaters Fund
 Humboldt Area Foundation
 Humboldt State University
 Jewish Community Federation
 Jiji Foundation Fund
 Karuk Indigenous Basketweavers
 Karuk Tribe
 Klamath Forest Alliance
 Klamath Knot Arts Council
 Klamath River Inter-Tribal
 Fish & Water Commission
 Klamath Riverkeeper
 Klamath Salmon Media Collaborative
 Krall Giving Fund
 Lomakatsi Restoration Project
 Mary A. Crocker Trust
 McLean Foundation
 National Fire Protection Association
 National Fish & Wildlife Foundation
 National Forest Foundation
 Native Plant Society
 New Belgium Brewing Company
 Norcross Wildlife Foundation, Inc.
 North Coast Coop
 North Coast Resource Partnership
 Orleans Volunteer Fire Department
 Pacific Coast Seed
 Pacific Gas and Electric Company
 Pacific Power Foundation
 Pacific States Marine
 Fisheries Commission
 Pacificorp
 Pantarhea Foundation
 Patagonia
 Penney Family Fund
 /Common Counsel Foundation
 PG&E Corporate Foundation
 Redwood Empire Public TV, Inc.
 Rocky Mountain Elk Foundation
 Salmon River Fire Safe Council
 Salmon River Restoration Council
 Shasta Valley Resource
 Conservation District
 Sierra Club
 Siskiyou County
 Department of Agriculture
 Siskiyou Resource Conservation
 District
 Smith River Alliance
 Somes Bar Arts Council
 Stewardship Council
 Strong Foundation
 The California Endowment
 The Nature Conservancy
 The Tides Foundation
 – J Vance Huckins Fund
 Thendara Foundation
 Trees Foundation
 U.S. Environmental Protection Agency
 U.S. Fire Learning Network
 U.S. Fish and Wildlife Service
 UC Berkeley
 UC Cooperative Extension
 UC Davis
 USDA Agriculture & Natural
 Resources
 USDA Food and Nutrition Service
 USDA Forest Service
 – Klamath National Forest
 USDA Forest Service
 – Six Rivers National Forest
 USDA Pacific Southwest
 Research Station
 USDA Region 5 Remote Sensing Lab
 Watershed Research & Training Center
 Western Region Strategy Committee
 Whitman College
 Yellow Chair Foundation
 Yurok Tribe



Foodsheds Retrospective

The MKWC Foodsheds sprouted in 2010 through a partnership with Jennifer Sowerwine of UC Berkeley and blossomed into a full-fledged program as part of a Klamath Basin wide project to promote food security in tribal homelands. Over the next six years the Foodsheds program, in partnership with the Karuk Tribe Department of Natural Resources, gave workshops on all aspects of food production; hosted plant sales and seed swaps; connected local school kids with gardens, farms, and fresh, local produce; catalogued and grafted local heirloom fruit trees; restored heirloom orchards; helped to support youth-led community health assessments, and compiled regional gardening and agriculture publications on the Foodsheds website and Facebook page. The Karuk Tribe continues to work on food security throughout the region.

Throughout the process Grant Gilkison was a driving force of the Foodsheds Program and so much more. Grant

worked tirelessly for his community and his tribe, for the youth, for the Klamath River, and for his home. Whether on or off the clock, he posted flyers, organized events, solicited food and donations, drove kids to and from events, connected people from all corners of the river community and entire basin. He was a bridge builder, dedicated father, and life of the party. He is deeply missed and resides in the hearts of many in the River community.





MKWC Justice, Equity, Diversity, and Inclusion in 2021

In the 2020 MKWC newsletter, we published our commitment to Justice, Equity, Diversity, and Inclusion (JEDI). Over the last year, we have been working with staff and board members to identify our organizational goals and priorities around JEDI work.

We're excited to let you know that MKWC now has a JEDI Committee! The committee is tasked with creating and implementing a strategic plan to help guide JEDI work, including creating a committee structure, outlining areas of improvement, describing specific steps to meet our goals, identifying ways to track progress, and implementing action items. The committee engages MKWC staff and board members along the way, as their input, experiences, and perspective are crucial in informing how MKWC can better serve our staff, community, and place.

As a new committee, we first outlined our working agreements, established a common language to support productive conversation, identified our decision making structure, and discussed strategies on how to engage staff in this process. The JEDI Committee created two anonymous surveys for

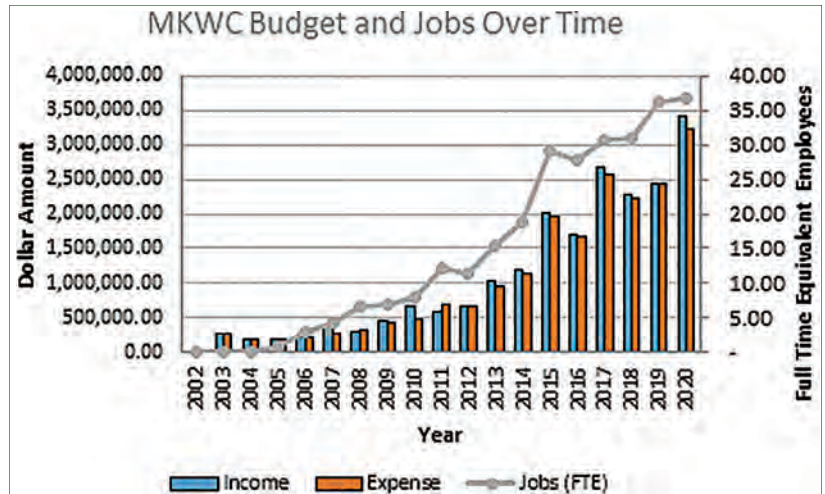
staff and board members: (1) the Equal Opportunity Survey, to better understand how MKWC employees self-identify and (2) the JEDI Organizational Assessment, to better understand MKWC staff and board perceptions and perspectives on JEDI topics that relate to our workplace, including questions on staff competencies around JEDI topics, psychological health and safety, upholding standards, and retaining and valuing employees. Feedback from these surveys help the JEDI Committee identify areas of focus, as well as provide a baseline for us to track our progress towards our goals.

We know that this work takes time and is continuous. We know that the systems that perpetuate injustice, inequity, and discrimination will not be dismantled tomorrow or next week. But we can identify the areas where we can improve and take responsibility. We can implement specific policies and programs that combat them. We can listen, learn, and adapt. We can take it one step at a time, and we look forward to keeping you updated on the journey.

If you want to get in touch with the committee, please email jedi@mkwc.org.



Oak Woodland By Sarah Hugdahl



I Want To Support MKWC!

Support Level:

\$25 - Spring \$250 - Confluence

\$50 - Creek \$500 - Estuary

\$100 - River \$1,500 - Ocean

Other: \$ _____

All supporters will receive a tax-deductible receipt and an annual newsletter.

NAME: _____

MAILING ADDRESS: _____

CITY, STATE, ZIP: _____

E-MAIL: _____

PHONE (OPTIONAL): _____

Check any that apply: I want to be anonymous, Please add me to your current events mailing list,

Other _____

Mid Klamath Watershed Council

www.mkwc.org



Directors

Will Harling, *Director*

Luna Latimer, *Director*

Carol Earnest, *Associate Director,
Community and Stewardship Director*

Myanna Nielsen, *Administrative Director*

Charles Wickman, *Fisheries Program Director*

Eric Darragh, *Fire and Fuels Director*

Tanya Chapple, *Plants Program Director*

Michael Stearns, *Human Resources Director*

Project Coordinators

Jodie Pixley, *Western Klamath Restoration Partnership
Project (WKRPP) Project Coordinator*

Chris Root, *Fire and Fuels Project Coordinator*

Michael Max Hentz, *Fire and Fuels and Fisheries
Project Coordinator*

Jimmy Peterson, *Fisheries Monitoring Program Coordinator/
Fisheries Project Coordinator*

Michael Stearns, *Panamnik Building Coordinator*

Mitzi Wickman, *Fisheries Project Coordinator, GIS Specialist*

Erin Cadwell, *Information Technology Project Coordinator*

Nancy Bailey, *Fire and Fuels Project Coordinator*

Laurie Belle Adams, *Community & Stewardship
Project Coordinator*

Rachel Krasner, *Fisheries Project Coordinator,
Senior Field Technician*

Eric Nelson, *Fire and Fuels Project Coordinator*

Elben Andrews, *Plants Project Coordinator,
Youth Crew Leader*

Administrative Staff

Amanda Rudolph, *Accounts Payable*

Blythe Reis, *Administrator, Events Coordinator*

Heather Campbell, *Grants Administrator*

Lesli Laird, *Payroll Specialist and Administrative Assistant*

Beverly Yip, *Office Administrator*

Mark Dondero, *Grants Administrator*

Field Technicians, Program Assistants, and Crew Leaders

Andrew Somers, *Fire and Fuels Crew Leader*

Rudy Galindo, *Fire and Fuels Crew Leader*

Jason Reed, *Fisheries Field Technician*

Devin Finegan, *Fisheries Field Technician,
Fisheries Crew Leader*

Florance Condos, *Fisheries Senior Field Technician*

Alan Crockett, *Fisheries Senior Field Technician*

Kai Crockett, *Fisheries Field Technician*

Eric Fieberg, *Fisheries Field Technician*

Jess McLaughlin, *Fire and Fuels Field Technician*

Danny Davis, *Fire and Fuels Crew Leader*

Pamela Ward, *Panamnik Building Custodian*

Tai Kim, *Fisheries Field Technician*

Lee Anderson, *Fire and Fuels Field Technician*

William Manzo, *Fire and Fuels Field Technician*

Clifton Whitehouse, *Fire and Fuels Field Technician*

Dennis Whitehouse, *Fire and Fuels Field Technician*

Brianna Conrad, *Fire and Fuels Field Technician*

Ariel Erickson, *Fire and Fuels Field Technician*

Terrance McCovey, *Fire and Fuels Field Technician*

Lewis Olson, *Fire and Fuels Field Technician*

Michael Cook, *Fire and Fuels Field Technician*

Amanaka Yancey, *Plants Field Technician*

Teri Chanturai, *Plants Field Technician*

Breanne Vargas, *Plants Field Technician*

Ren Treiber, *Plants Field Technician*

Calvin Borges, *Fisheries Field Technician*

Tashawna Brink, *Fisheries Field Technician*

Robert Carrico, *Fire and Fuels Field Technician*

James Jackson, *Fire and Fuels Field Technician*

Daniel Farris, *Fire and Fuels Equipment Operator*

2021 Youth Interns

Xa-'tle T'sing Lincoln

Dean Wellik

Lily Stender

Madison Rilea

Jenna Boyse

Board of Directors

Heather Foust, *President*

Dean Davis, *Vice President*

Jon Grunbaum, *Secretary*

Molli Myers, *Treasurer*

Mark DuPont, *Board Member*

Jeanerette Jacups-Johnny, *Board Member*

Kathy McCovey, *Board Member*

Blythe Reis, *Board Member*

Carol Sharp, *Board Member*

Michael Stearns, *Board Member*

Sinead Talley, *Board Member*



Mid Klamath Watershed Council

Panamnik Building
38150 Highway 96
PO Box 409
Orleans, CA 95556

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.

Celebrating 20 years of MKWC Table of Content

Community and Stewardship	4-9	Fish Passage: Manual	19
How MKWC Landed in an Old Grocery Store in Downtown Orleans.....	4	Fish Passage: Off-Channel Ponds	22
Crossword.....	6	Spawner Surveys	23
Stories, Solutions, and Solasatagia.....	6	People—Crew and Partners	24
Over the Years:		MKWC News Over the Years	20-21
Local Youth Involved in Hands On Learning.....	8	Fire and Fuels:	
Plants	10-13	Restoring Good Fire to the Land and People	26-34
Helping to Restore a Thriving Native Plant Community at Aikens Creek.....	10	20 Years of Fire and Fuels in the Mid Klamath	26
Seeds.....	11	The Slater Fire	28
Back in Time with MKWC Plants.....	Pages 12	3am Fire Musings	30
Fisheries:		OSBFSC—Fire Safe Councils	
Approaching Restoration From Many Angles	14-25	Emphasize Individual’s Responsibility	32
Beaver Dam Analogues:		WKRP—Climate Change Initiative Grant	34
Natural Beaver Dams.....	14	Organizational	
MKWC and Partners Beaver Dam Analogues.....	15	Letter from the Directors	Cover
Brush Bundles.....	16	Thank you to Partner Organizations	35
Channel Reconfiguration.....	16	Foodshed Retrospective	36
Instream Wood Loading: Excavator.....	18	Who’s Working at MKWC	38
Instream Wood Loading: Helicopter.....	17	JEDI/Admin Chart/Thank you	39



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

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

