



Lomakatsi Restoration Project Responds to the Almeda Fire

Lomakatsi Restoration Project is a non-profit, grassroots organization that develops and implements forest and watershed restoration projects in Oregon and Northern California.

An interview with:

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What was the impact of the Almeda Fire on the local community and ecosystem?

The Almeda Fire began on September 8, 2020, starting in Ashland, Oregon and quickly spreading through the riparian corridor of Bear Creek and devastating the towns of Phoenix and Talent, before it was stopped in south Medford. The fire burned 3,200 acres, claimed four lives, and destroyed over 2,400 homes. It hit close to home—three Lomakatsi staff members lost their homes. This was a high intensity fire, not just to the homes that were lost, but also to the riparian corridor and the trees and vegetation. Bear Creek is a fish-bearing stream and key tributary to the Rogue River. It's located largely in an urban watershed and supports anadromous fish including

Coho and Chinook salmon, Steelhead, and Pacific lamprey. The fire destroyed much of the important streamside vegetation across nearly 400 acres of riparian habitat, threatening water quality and the health of riparian and aquatic wildlife. Lomakatsi has been working for a couple of decades in Bear Creek doing riparian restoration with partners, and we know the ground very well. This fire made deep, devastating cuts to both human and ecological communities.

What made the fire so intense?

We live in a dry forest ecosystem here, with a frequent fire system influenced by lightning and thousands and thousands of years of frequent, low to moderate intensity fires used by indigenous communities to steward the landscape.



Lomakatsi workforce mobilized to help stabilize the streambanks in burned areas along Bear Creek.

To secure funding for your own restoration projects visit **Promise the Pod**.

With the generous support of One Tree Planted, the Arbor Day Foundation, and other donors, we are on track to support the planting of close to 2,000,000 native plants in the PNW in 2021. This includes over 200,000 plants directed to fire recovery areas.

Do you need additional resources for your plantings?

Reach out to hbuehler@b-e-f.org for more information.



The Almeda Fire burned at high intensity along the Bear Creek Greenway.

Over the past century, as most fires have been suppressed, vegetation densities have largely increased across the landscape and we're seeing the impacts in large, more destructive wildfires.

The Almeda Fire was driven by an uncharacteristically strong wind event late in the Rogue Valley's dry season. This region has a hot summer Mediterranean climate, meaning there is often little to no precipitation in the summer months—in 2020, zero precipitation was recorded in Medford for 99 consecutive days between June 24 and September 23. Extreme winds, very little moisture, and dry vegetation created the perfect storm for a high intensity fire.

Another primary factor in fire intensity was the high density of non-native plant species along the Bear Creek riparian corridor, including large, continuous stretches of invasive Himalayan blackberry brambles that can reach 10-15 feet high. There was also a large fuel bed of dead blackberry canes among the brambles. After a long, hot summer, these plants retained very little moisture, and were easily ignited. The native trees and plant species here have evolved alongside fire for millennia, and native species are generally more resistant to fire than invasive ones.

Following the removal of indigenous peoples as the primary caretakers of the land, settlers began removing healthy streamside forests to support grazing and urban development. Over time, riparian corridors have been heavily degraded and inundated with invasive species—including some highly flammable varieties such as non-native blackberry.

The fire highlighted the vulnerability of these urban riparian systems to this type of situation. Our thinking is evolving with riparian restoration and how we can create more resilient, resistant, climate adapted systems that take into account this new reality we're living in, of increasing frequency and severity of wildfire.

How is Lomakatsi involved in post-fire actions on the ground?

When the Almeda Fire hit, our crews were just coming off a long season of wildland firefighting, and we were commissioned by Jackson County Emergency Management to act immediately. Lomakatsi was dispatched to do emergency erosion mitigation work before the rainy season started, and in preparation for the spawning season of salmon coming up from the Rogue River to Bear Creek. We installed straw wattles and spread straw to shore up the streambanks and mitigate sediment influx into Bear Creek, to preserve spawning habitats. Lomakatsi's multi-cultural crews were assisted in these efforts by an inter-tribal workforce we employed including members of the Northern Paiute, The Klamath Tribes, Shasta Nation and Ajumawi-Atsuge Nation (Pit River Tribe).

Over the coming weeks, months and years, we will be working with our partners to plant a diversity of native trees and shrubs to prevent erosion and revegetate the streamside corridor, in a way that is much more resistant to fire than the vegetation that was there before. Jackson County did aerial seeding across the whole fire footprint, and Lomakatsi followed up with seeding on the ground and deploying straw to

areas closer to the stream banks. We gratefully received funds through the Promise the Prod program to plant six thousand trees in the fire footprint over the coming weeks.

How is Lomakatsi involved in post-fire planning and response?

Lomakatsi is working closely with Jackson County and our many partners on long-term ecological recovery efforts—including a riparian restoration strategy and developing prescriptions that include a fire-wise approach. We're working with municipalities and watershed councils to secure funding through the Federal Emergency Management Agency (FEMA), the Oregon Watershed Enhancement Board (OWEB) and other sources. We're in discussions with elected officials, tribal partners, state agencies, and foundations on how we're going to address not only the ecological but the socioeconomic impacts of these fires. Vulnerable communities were hit hard by the Almeda Fire.

Lomakatsi takes a holistic approach to ecological restoration, community engagement and collaboration with partners. As a multi-cultural organization with over 70% of our in-house staff representing Latinx and tribal communities, including in leadership positions, we've been working with diverse partners since our inception. Before working in a new area, we first engage with tribal governments and communities about work being implemented on their ancestral lands. In this case, we've been working closely with Shasta tribal leaders to guide ecological restoration and cultural resource protection efforts in the Almeda Fire area.



Lomakatsi crew members install erosion control wattles in the Almeda Fire footprint.

We're also building on Lomakatsi's established Workforce Training and Employment Program to increase regional capacity for restoration, in collaboration with economic development and community workforce organizations.

How did previous restoration efforts, including prescribed burning, impact the Almeda Fire?

We've been working on a long-term riparian restoration stewardship initiative over the past 14 years, near where the ignition started, at the confluence of Ashland Creek and Bear Creek. This has been in partnership with the City of Ashland, Rogue River Watershed Council, the local Helman Elementary School and US Fish & Wildlife Service. We've removed a lot of invasive blackberry and used controlled burning to reduce vegetation, coupled with non-chemical maintenance through digging, mulching and planting a diversity of site-specific native species in place of invasive ones.

Our treatment area did not burn as severely as adjacent untreated areas—noticeably, the fire stayed on the ground and burned at lower intensity. In untreated areas of dense blackberry, that's where the fire burned with very high intensity. In general, under most conditions, science and practice have shown that fire behavior will change if you maintain historic levels of trees and vegetation in fire-adapted ecosystems. Long-term stewardship is essential to the health of forests and streamside areas, and to building community resilience.

What would it take to scale the work you are doing to create more fire resilient forests?

In the Rogue River Basin, and throughout Lomakatsi's work across Oregon and Northern California, we have been incrementally scaling our projects over the last two decades. Many of our initiatives operate under large-scale, long-term collaboratives. Lomakatsi is involved in what are called master stewardship agreements with federal agencies including the US Forest Service and Bureau of Land Management, and with our tribal, municipal and non-profit partners, where we act as business partners and co-invest in the work.

In the dry forest, fire-adapted landscape of the Rogue Basin, we know that fires are going to come. There are over a million acres here in need of treatment—they are departed from historic conditions and are now overly dense. Also, industrial logging has had an influence on the exclusion of fire. To scale this work, we have to work together with a big collaborative team of many partners across a lot of land. Realistically, we need to be treating over 100,000 acres a year in the Rogue Basin over the next 30 years.

Restoration is expensive, but far more cost effective than dealing with the devastating impacts of wildfires on communities, ecosystem services, and biological diversity. We need more funding for accomplishing restoration on the ground, and more capacity funding to support community-based non-profit organizations like Lomakatsi that can play a key role in building partnerships and regional capacity.

What are the biggest barriers to increasing the scale and impact of prescribed burning?

Controlled burning within the Wildland Urban Interface is complex and presents a number of challenges. These include the need for specific weather conditions, compliance with various laws and regulations including around air quality, funding for operations that require careful planning and qualified crews, and public support. Lomakatsi is diligently working with many partners, elected officials, tribal communities, and prescribed fire councils across Oregon and Northern California to address the impediments to prescribed fire.

Are you noticing climate change impacts where you work and are you doing anything differently as a result?

In upland environments, we are seeing increases in drought related impacts. Directly through reduced tree growth, and indirectly through increased susceptibility to wildfire, insects and disease. Forests with higher tree densities are more susceptible to these impacts than forests that are less dense. These drought environments also relate to soil temperature and soil moisture availability in addition to air temperature and precipitation. Our restoration work is ecological forestry, and we promote those resilient forests by reducing tree densities in favor of species that are more adapted to hotter, drier conditions like oaks and Ponderosa pines. And on top of that, we also focus on retention of live and dead legacy components that provide important ecological habitat viability and also increase on site carbon storage.

In riparian zones, we can see a decline in vitality of native tree and shrub species that need moisture. They are struggling more now than they were 20 years ago. There's definitely a need for more watering in the first several years when we plant because of the drier soil conditions. Also, invasive blackberries taking over spaces where the native trees would be growing, and now the native seeds will never germinate. We are losing tree canopies in riparian systems, which are really important for ecological health and future large wood recruitment into streams that benefit fish habitat.

Native ecosystems are very drought tolerant. They are adapted to hot, dry conditions, and so in our work we promote those native species assemblages that are already ecologically appropriate and would be most adaptable moving forward. The shift from native perennial understory communities to invasive annuals (Himalayan blackberry) is a major concern. Additionally, we're already experiencing a significant loss of oak habitat, which provides important ecocultural and subsistence lifestyle resources for tribal communities.

What ideas and practices can partner organizations learn from tribal and indigenous organizations?

Response from Belinda Brown, Lomakatsi Tribal Partnerships Director and member of the Kosealekte Band of the Ajumawi-Atsuge Nation (Pit River Tribe).

Reach out to tribes. Ask about the fire affected land. Involve tribal communities in restoration work.

It is a best practice to involve tribes and tribal communities in decision-making that impacts their ancestral lands. Fires expose cultural sacred sites, gravesites and resources, so it's important to reach out to the tribes of the area to understand what happened on that land in the past that could now be uncovered. It is best to hire tribal cultural monitors from the local area, as Lomakatsi does when working in the Alameda Fire area. We also strive to hire tribal community members to help support work on the ground. Hiring cultural monitors and inter-tribal crews helps not only in healing the land, but also in supporting the socioeconomic connection by providing jobs, having different tribal members working together, and providing opportunities for youth and young adults to build their skillsets. We communicate with our partners in a good way and work together as a team as we continue to plan, respond,

recover and mitigate any further damages to the land or the people. As restoration practitioners, having input and involvement from tribes is vital, and indigenous knowledge layered into restoration plans and strategies makes for more successful projects.

Unfortunately, right now at the broader level, tribal engagement is an afterthought because the lands are usually county and state managed. If it's not federal funding going onto the ground, the revegetation and restoration requirements are quite distinct. Our goal is to elevate our Tribal Partnerships Program and the tribal leadership within the organization and throughout Southern Oregon. Lomakatsi has representatives of seven tribes within our organization, from our board to our technical team to our program leadership, to our prescribed fire team and our forestry team. We are happy to make connections throughout the region.

We must always recognize that we're on indigenous Aboriginal lands. We want to normalize the process of meaningfully engaging with the tribes—not just checking the box, but actually collaboratively engaging and taking the time to do that. It's not often in trainings or at meetings we see tribal representation. Whether working to restore forests or riparian areas, we must promote ecocultural restoration and tribal involvement in all we do.



Lomakatsi crew members install erosion control wattles in the Alameda Fire footprint.



In 2020, **Solectrac**, manufacturer and distributor of zero emission electric tractors and an innovative B Corp with a mission to disrupt climate change through sustainable farming solutions, saw an opportunity to support tree planting with BEF partners as part of a community engagement strategy. Six months later, Solectrac's funds are at work supporting Lomakatsi post-fire replanting for Alameda fire recovery. Coincidentally, a close family member of Solectrac leadership lost their home in the Alameda fire, making this work that much more poignant and meaningful. "We reached out initially wanting to amplify our climate goals and were deeply touched by the work underway in support of rivers, communities, and critically endangered species. We were touched that plantings will impact people who we know personally and love dearly" says Christiane Heckerth, CCO Solectrac.