



Annual Report
July 2020–June 2021
**Promoting Ecosystem Resilience and
Fire Adapted Communities Together**

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The Nature Conservancy

(PERFACT)

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The Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT) cooperative agreement supports the Fire Learning Network (FLN), Prescribed Fire Training Exchanges (TRES), Fire Adapted Communities Learning Network (FAC Net) and Indigenous Peoples Burning Network (IPBN). Together, the Fire Networks apply six broad strategies that support the three goals of the National Cohesive Wildland Fire Management Strategy, and increase the number and range of people and institutions involved in, and responsible for, various aspects of fire management. They help build equitable and inclusive partnerships that underlie effective and sustainable work together. And they develop resources that inform, support and connect this expanded fire management community.

A

Expand the scope of ownership of, and responsibility for, fire management.

Work under this strategy is wide-ranging—from building public support for active fire management and tolerance for smoke and other risks of prescribed fire, to support for truly all-hands, all-lands implementation on the ground. This might be expressed as moving toward co-ownership: “These are our landscapes, our communities, our fires—our problems, our solutions.”

The Western Klamath Mountains FLN epitomizes this approach. Last fall, for example, partners implemented a prescribed burn on the Lower Camp unit in Orleans that filled a final gap in a landscape-scale fuel break near the community of Orleans, connecting the Klamath River, Tshanik, Lower Camp, West and East Simms, White Oak, Bacon Flat and Ishi Pishi burn units back to the Klamath River again.

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Staff and TRES coaches are also working with California State Fire Training to develop a new **state-certified burn boss** program for non-agency burners. They hosted the inaugural course this spring and initiated certification for 18 burn bosses.

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In New Mexico, we supported an effort among local, state and federal partners to develop landscape-scale fire management plans for private lands that leverage spatial wildfire risk assessments and PODs. These will facilitate the use of modified suppression tactics to achieve ecological objectives in multiple-ownership landscapes.

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FAC Net supported Wildfire Adapted Partnership as they worked to bring a new sector into the wildfire adaptation fold, establishing a continuing education program for local realtors.



Photos: above © Sashwa Burrous, opposite © TNC (Adam Warwick)

B

Support and maintain equitable partnerships.

Sharing ownership and responsibility requires partnerships that are robust, in which all stakeholders have a role and voice, and where power and responsibility are distributed equitably. Intentional investment in these relationships builds a foundation for working, innovating and learning together, and for the transmission of new methods and best practices.

Formal trainings in various diversity, equity, inclusion and justice (DEIJ) concepts are offered to all members of the Fire Networks, to raise awareness and build skills that will benefit our networks, communities and work. This year's offerings included a fall training in unconscious biases (with 32 participants), a four-part workshop series in January based on the Adaway Group's "Whiteness at Work" course (24), and a two-hour "Active Bystander, Active Self" workshop in April (12). Participants in the FAC Net book club also read and discussed the book *Braiding Sweetgrass*.

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Staff provide workshop design and facilitation support to help members host convenings that equitably and effectively engage a broad array of stakeholders. For example, FAC Net staff worked with state network coordinators in six states this year, through one-on-one coaching, participation in board and steering committee meetings, and serving on hiring committees.

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FAC Net also provided intensive coaching and technical assistance to a number of fire department affiliates including assisting West Metro Fire (CO) to design the community engagement components of a CWPP update.

C

Increase local and individual capacity.

Shared ownership of fire demands more of people, communities and organizations in fire-prone landscapes. This requires investment in a wide range of leaders and resources—from community organizing and facilitation skills, to mitigation crews and emergency response capacity.

A pair of New Mexico residents decided their rural neighborhood needed to prepare for fire—and that they could lead the way. TNC and TREX put them in touch with prescribed fire training opportunities in Minnesota and Iowa. Afterwards, they told their story in a *Notes from the Field*.

D

Build and diversify a workforce for co-management of fire.

The scale of the wildfire challenge requires growing the workforce beyond what federal and state agencies alone can be expected to provide. The complexity of the challenge calls for bringing more diverse viewpoints, skills and life experiences to bear.

PERFACT introduced prescribed burn associations (PBAs) to California in 2016. This year we provided mentorship and hands-on trainings to at least 10 PBAs in the state.

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Women are under-represented in wildland fire, but made up a full 25 percent of participants at TREX events in FY21, significantly exceeding the percentage for the field as a whole.

E

Expand the enabling infrastructure and knowledge networks for a shared management system.

A broadened fire management system will require new ideas, new practices and new ways of communicating them among players. Agency structures and institutional knowledge will remain core to safe and effective response, but as other individuals and organizations assume their roles, innovations will be required. Similarly, as learning in the field becomes increasingly dispersed and local, new ways of capturing and sharing it will be needed.

**F**

Shift the regulatory, policy and funding environments to support integrated fire management.

Hundreds of network members and partners across the country are identifying challenges and finding and refining ways to meet them. They are a valuable resource to inform the policy environment—at all levels—so that we can, collectively, more effectively meet our goal of living better and more safely with fire.

Speaking about new legislation that supports more prescribed burning by clarifying liability for private landowners and creating a certification program, the New Mexico state forester wrote in an email, “I wanted to ... reaffirm the key role TNC played in conceptualizing this bill through the HM42 working group, and then getting the bill passed during a pandemic-limited legislative session (when most bills are not getting to the finish line).... TNC was key to getting these policy changes to expand prescribed burning in New Mexico.”

FAC Net supported the City of Flagstaff Sustainability Office and Fire Department with seed funding for a staff person to lead climate impact work, including smoke and other fire-related impacts on Arizona residents. As a result, they were able to leverage that small initial investment into a full-time position.

The Colorado Front Range has an excess of piles from thinning projects, with no plan for them to be burned. Without other viable methods of large-scale biomass removal, it is essential that this land management tool live up to its full potential. Colorado has a certified burner program, but many landowners who receive certification feel they need more experience. FLN investment in the Pile Burn Cooperative project provides hands-on training to fill this gap—empowering private landowners to burn piles and have a hand in risk reduction.

A participant in the 2019 Klamath TRES followed that experience with participation in the first Bay Area Cal-TRES, hosted by Fire Forward, in late 2020. “All of us who participated are creating the new, pandemic-context (or other disaster-context) of hyper-local, trained groups, as an alternative to traveling and congregating for TRES, other training efforts, or disaster response.”

She recently joined the nonprofit Save the Redwoods League, where she looks forward to advancing the prescribed fire program on SRL lands, and partnership with Indigenous stewards and burners on their sovereign lands.

In Minnesota, FLN and IPBN leaders contributed to a first-of-its-kind fire management MOU between the Midwest Region of the BIA and TNC. Not only has the MOU already facilitated spring 2021 cooperative burning, connections made through the networks are allowing it to be used as a template elsewhere, including the Southwest Region.

Tools and learning developed by network members are captured and shared widely with other practitioners, by means such as webinars (“[Did Your Prescribed Burn Meet Your Goals & Objectives?](#)”), handbooks (“[The Fire Manager’s Guide to Blue Ridge Ecozones](#)”) or *Notes from the Field* (“[Learning from the Plumas County Cal-TRES](#)”).

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FAC Net continues to expand its online reach, with over 2,000 people receiving the weekly blog and nearly 1,900 receiving *The FAC Circular*, a monthly newsletter relaunched this spring. The *FLN Networker* reaches 1,250 practitioners every three weeks.

A policy learning group hosted by FAC Net provided technical assistance to Fire Network members so they could give testimony on relevant bills in their places. Of the 70 people in the group, at least half a dozen who went on to immediately give testimony this session.



Fire Adapted

FAC Net supports better fire outcomes by investing in community-based leaders. We offer funding support for strategic place-based projects, host learning groups and skill building sessions, provide coaching and connections and share lessons from these leaders via our publically available communications channels. COVID kept us from traveling, but it didn't stop us from learning together—or working on solutions for living better with fire.

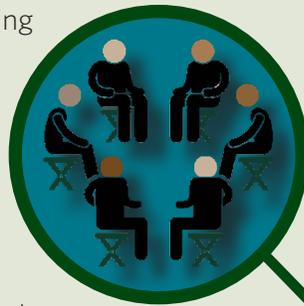
This year we revised our FAC graphic, expanding the number of categories of work that can contribute to a community's adaptation to wildfire. It can be used as a convenient way of categorizing or thinking about the many actions a community, its residents, businesses and leaders can use to build their wildfire resilience.

Forty-seven public health experts, smoke modeling specialists, social scientists, prescribed fire practitioners and community resilience organizers shared tools, programs and ideas for supporting smoke mitigation and preparedness in their communities through FAC Net's Smoke Learning Group, hosted January through June 2021.

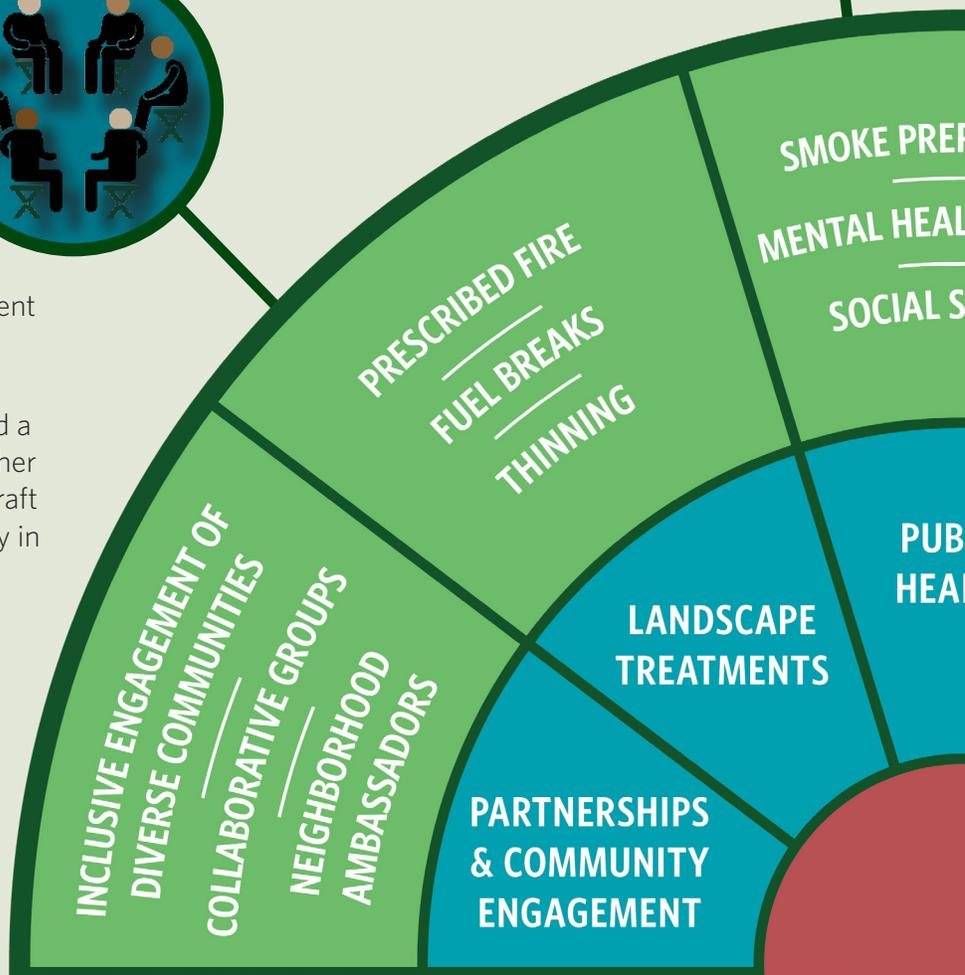


The Fire Adapted Montana Learning Network (FAMLN) created an online learning exchange for prescribed fire enthusiasts and practitioners in the state. More than 60 Montanans were joined by 21 speakers from across the United States. FAMLN made connections with many of the speakers through FAC Net, and facilitation and event design were supported by FAC Net staff.

The exchange has resulted in critical connections—for example, it has allowed a legal intern for the state to learn from other states' prescribed fire councils as they draft options to address prescribed fire liability in Montana.



Click on any of the circles in this section to see related blog posts, videos or other supporting material.

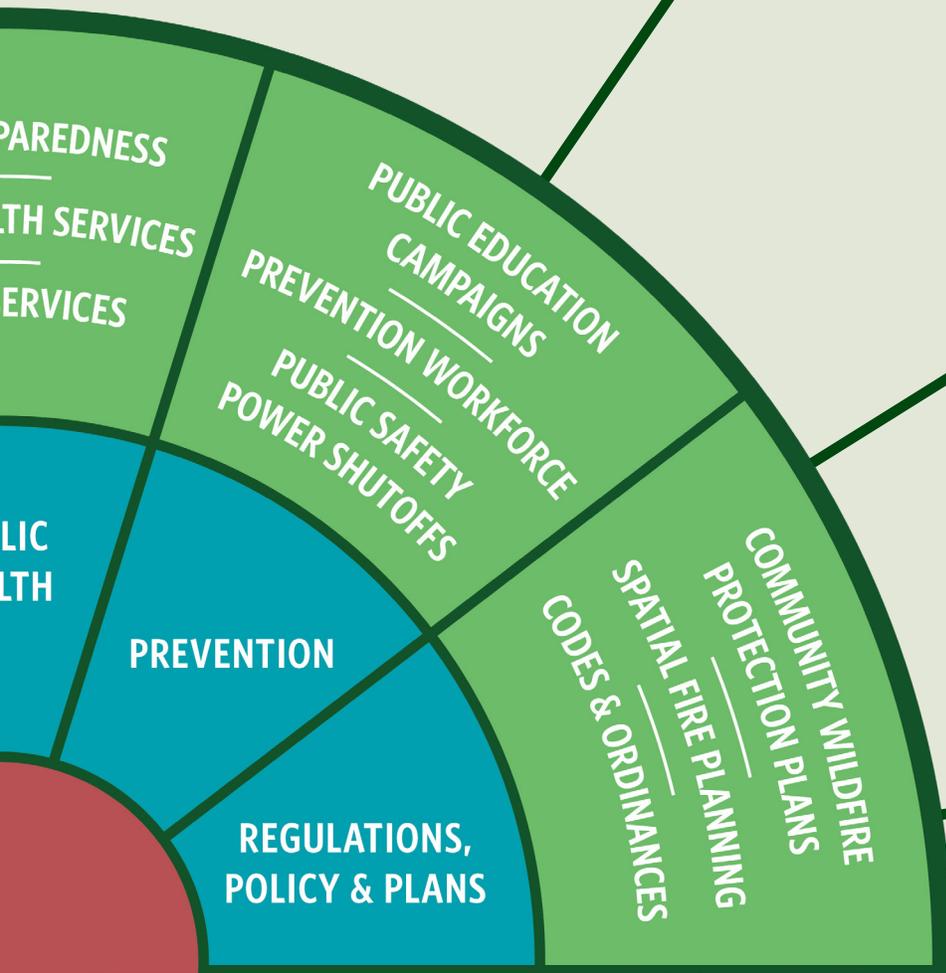


Communities Learning Network

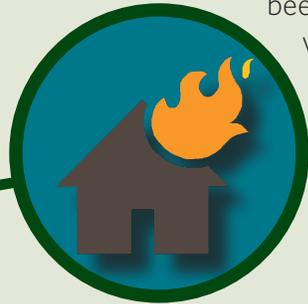
“FAC Net has been monumental in shaping my relationship with wildfire adaptation and enriching my understanding of the greater context of wildfire-related work. FAC Net’s collaborative activities (particularly the annual workshop) inspired me to think more deeply about the future I envision—a future in which we sustainably and equitably live with wildfire—and the role I play in getting there.”

FAC Net funding supported Fire Adapted New Mexico’s “Wildfire Wednesdays” newsletter that provides information on how to prepare for the wildfire season and on post-fire recovery. The newsletter led to several livestream events and interagency collaboration among partner public information officers for messaging during the 2021 wildfire season. This work has evolved into monthly “Wildfire Preparedness is Year Round” press releases with actionable steps to reduce wildfire risk to properties and people.

CWPPs are important community wildfire planning tools. However, many communities wrestle with implementation, plan updates, effective communication, engagement strategies and more. From May to December 2020, FAC Net convened participants across the country in a CWPP-focused learning group to help connect practitioners with each other and with current research.



In Oregon, Project Wildfire created a storymap highlighting the CWPPs they administer. They revise one or two CWPPs a year, and are using this tool to engage with community members as each plan is revised. Storymaps have been a successful virtual engagement alternative to face-to-face gatherings.

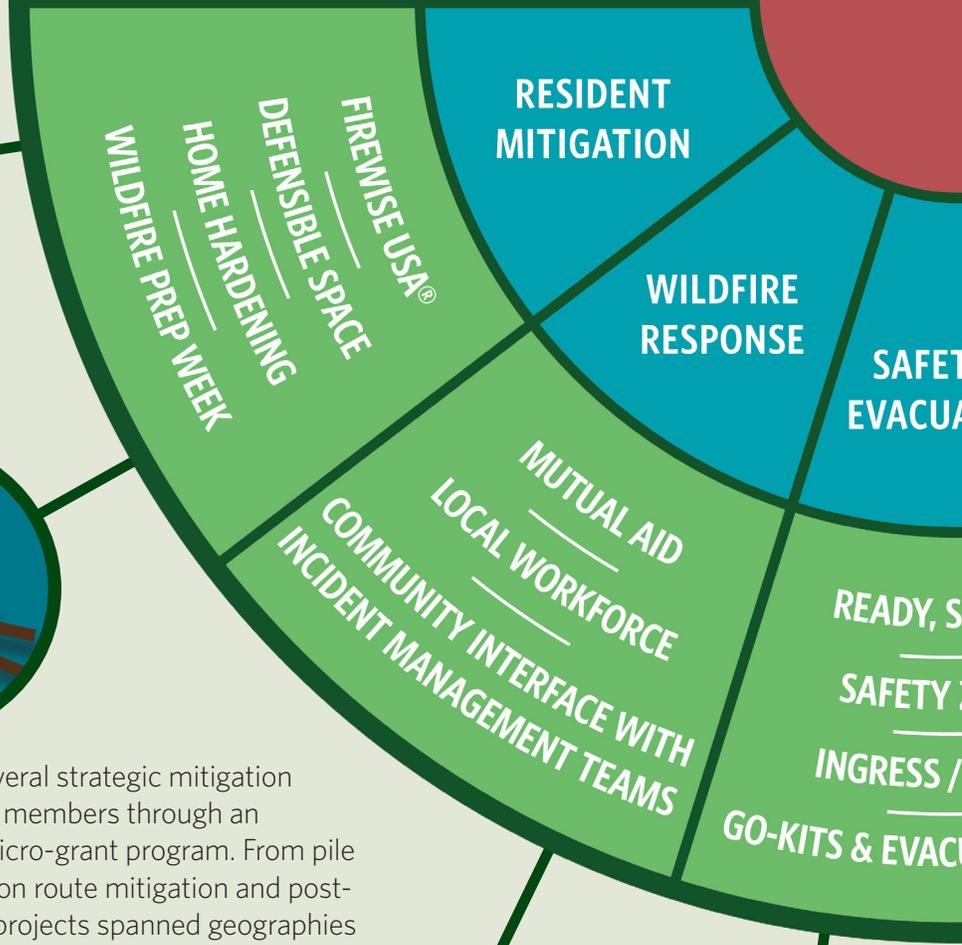




FAC Net created a project list for residents who want to take action, but aren't sure where to start. This resource covers projects that take from 10 minutes to 10 hours to complete and includes classic defensible space work as well as projects that increase connectedness in neighborhoods and increase knowledge about Indigenous fire practices.



FAC Net funded several strategic mitigation projects for affiliate members through an opportunity fund micro-grant program. From pile burning to evacuation route mitigation and post-fire recovery work, projects spanned geographies and focus areas.

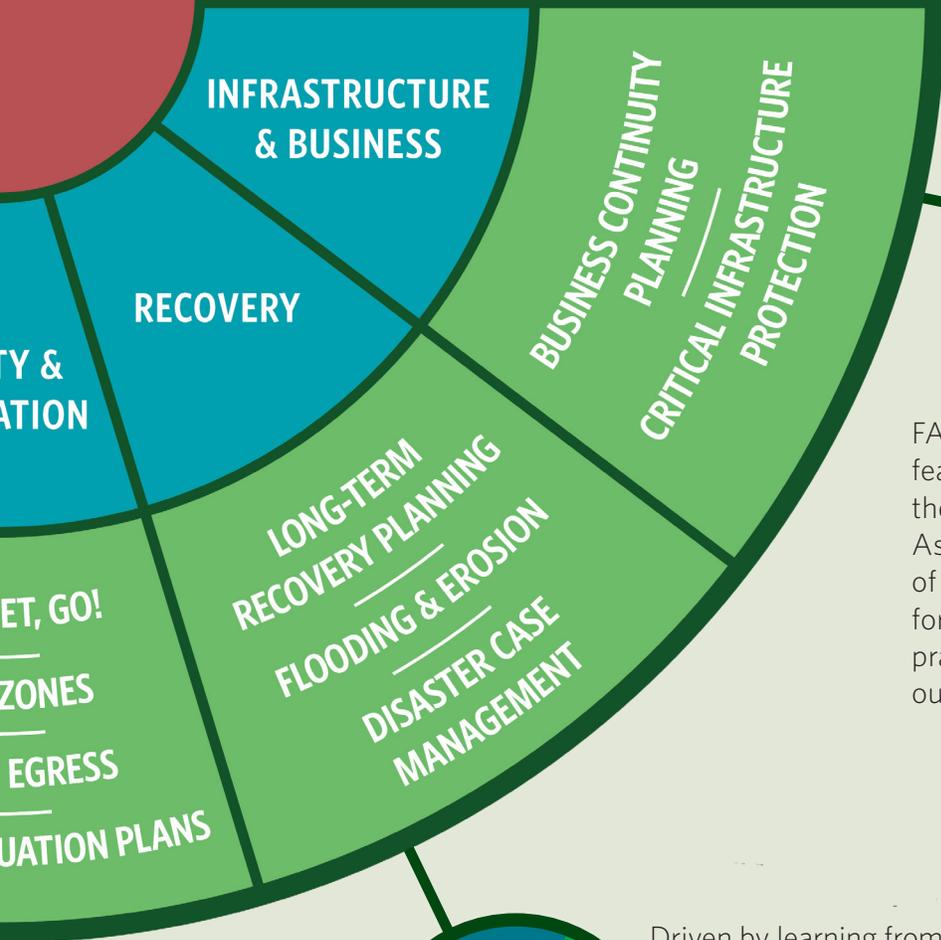


FAC Net designed and co-hosted a webinar about fire departments and their roles in fire adaptation. The webinar, attended by 148 people from 34 states, featured practitioners from Massachusetts and New Jersey alongside a national programs panel.

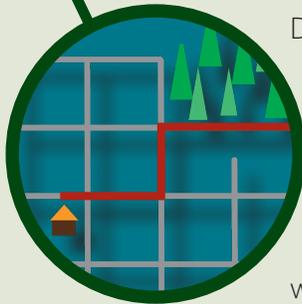


Research findings from Dr. Sarah McCaffrey were featured in an Evacuation Decision Making webinar. The session offered a framework for understanding the considerations that influence people's decision making in evacuations and highlighted the importance of physical cues and perceived preparedness levels as key factors.





FAC Net hosted a session featuring Dr. Alessandra Jerolleman—one of the founders of the Natural Hazard Mitigation Association—on “Recovery Through the Lens of Justice.” The session covered principles for just recovery and what wildfire resilience practitioners can do to build social justice into our work.



Driven by learning from the town of Paradise, California, Ashland Fire and Rescue and their partners have undertaken a comprehensive evacuation planning project. FAC Net supported the community outreach aspects of the evacuation planning process, funding the materials for 25 Community Emergency Response Team (CERT) volunteers and Wildfire Commission members to share with residents.





Thirty-five landscape collaboratives and special projects across the country are advancing an integrated approach to managing fire. FLN work—organized under five Task categories—covers the spectrum of fire on the landscape, from collaboratively defining potential operational delineations (PODs) in advance of wildfire, to developing relationships and legal instruments to work across organizations and boundaries, to pre-fire planning for post-fire recovery through the Burned Area Learning Network.

Fire Learning



In the Southern Blue Ridge FLN, partners take advantage of every opportunity the weather allows. On the Unaka and Watauga RDs a burn interval of three to five years and timber stand improvement are improving conditions for shortleaf pine and mixed oak regeneration, and cover for ground-nesting birds. © *Juniper Odell*

The call-when-needed crew model developed by this FLN has been shared by various means, including on podcasts and in “A Primer for the Call-When-Needed Crew Model.”

A crew burns on private land during the spring 2021 Plumas County Cal-TREX. © *WRTC (Erin Banwell)*

The California Klamath-Siskiyou FLN also provided coaching to ten PBAs in California, and secured Regional Forest and Fire Capacity funding to continue investing in the development and training of prescribed fire leaders and groups across the state for the next three years.

- Task 1:** Support learning and leadership across local, regional and national scales that facilitates work across a full range of integrated landscape and community fire management issues.
- Task 2:** Support capacity building, training and risk management to advance resiliency outcomes through an ecologically and socially appropriate use of fire as a tool.
- Task 3:** Integrate traditional knowledge, science and adaptive management to improve planning and implementation before, during and after wildfire.
- Task 4:** Provide targeted community engagement, social learning opportunities and adaptive feedback mechanisms to strengthen shared decision-making and responsibility among stakeholders.
- Task 5:** Support implementation of TREX and cooperative burn events.

Network



In the Western Klamath Mountains FLN in northern California, the fatawanun—the medicine man for the Panamnik World Renewal ceremonies, who also happens to be on the Karuk 1 fire crew—lights off the medicine trail. © *Stormy Staats*

“In the wake of the Slater Fire [which burned through the Karuk homeland], we are more committed than ever to changing the fire management paradigm and scaling up the delivery of good fire to this landscape, led by our tribal partners.”



Community members tour the site of the Yale Creek Timber Sale in the fall of 2020. Community field trips hosted by the Island Park Sustainable Fire Community highlight ongoing work to reduce fuels on public lands adjacent to high risk housing developments.

© *TNC (Matthew Ward)*

A Supplemental Project Agreement with the Caribou-Targhee NF will enable TNC to support the forest’s prescribed fire program by increasing capacity by hiring a five-person prescribed fire module. This will help address the 28,000-acre back log of prescribed fire projects on the forest.



A Cascadia TREX crew lights an 80-acre burn unit with the Kalispel Tribe and their partners. The burn was led by a contract burn boss with a RXB2 trainee from the tribe. © *TNC (Reese Lolley)*

The pandemic caused the Washington Dry Forests FLN to shift from a two-week, camp-oriented training to a **six-week on-call model**. This created opportunities to engage more deeply with the community, partnering with local fire departments and making more connections with private landowners. “While we had been setting up TREX to engage with private landowners and fire districts more intentionally, when the pandemic hit it required us to reframe our approach quicker than we would have and forced us to experiment with new ideas that paid off.”

TREX Coaches



TREX coaches support getting more people engaged with prescribed fire—and getting more fire on the ground—in a variety of ways. In a normal year, much of their time might be spent assisting at one or more of the dozen or so TREX being offered around the U.S. and beyond. With travel restricted by the pandemic, coaches turned to locally staffed capacity-building projects, and to investments in future work, such as developing instructional and guidance materials.

Bay Area TREX participants learn spot-fire suppression tactics in a training environment early on so they're prepared for potential spots on future burns. This training is a key part of an effort led by TREX coach Sasha Berleman to increase local prescribed fire and response capacity.

© *Sashwa Burrous*



A community member in Pichincha, Ecuador, wields a torch during a pasture burn with training and fire protection objectives. She was one of many practitioners interviewed for a series of short bilingual videos on fire training and traditional ecological knowledge of fire currently in development by TREX coach José Luis Duce. © *Antonella Carrasco*

Lessons From the Pandemic

“Switching all of our trainings to an outdoor setting has been very powerful. People are much more engaged and focused during the trainings, and it has pushed us to develop creative, hands-on trainings, rather than just relying on PowerPoint presentations. We will continue to host trainings and NWCG courses outdoors.”

“Cooperative burning with the Yurok Tribe Wildland Fire program was the unexpected opportunity we discovered due to the pandemic. We realized that we have enough trained people between our two programs to carry out Rx burns. We are now able to take advantage of every burn window that opens.”

“In some cases, turning to virtual meetings has been very helpful. Engaging more tribal partners has been a very good outcome. Tribes don't always have travel budgets, so a virtual option has helped them participate in more collaborative efforts.”

“I think the pandemic has forced us to take stock of many things in our lives and to reevaluate and reprioritize based on a new perspective. It has forced outside-the-box thinking and the setting of new expectations. This sets up such promising opportunities for growth and maturity of the FLN.”



Indigenous Peoples Burning Network



The 2020 wildfire season brought enthusiastic mainstream interest in Indigenous fire management and cultural burning. Media attended the Klamath TRES and experienced culturally informed prescribed burning. Members of the IPBN also spoke with numerous reporters over the course of the season, and their voices were heard in more than 20 articles in late 2020 and early 2021, in media channels that included the *Arizona Republic*, *Eos*, *History*, *National Geographic*, NPR, *Nature Conservancy*, *QZ*, *San Francisco Chronicle*, *Science Friday* and the *Wall Street Journal*.

The IPBN grew significantly this year, with the addition of the Alabama-Coushatta Tribe of Texas, the Washoe Tribe of California and Nevada, and the Nause-Waiwash Band, in what is now Maryland (in yellow). They join four existing members (in blue)—the Yurok-Hoopa-Karuk (in what is now California), Pueblos of New Mexico, Leech Lake Band of Ojibwe (Minnesota) and the Klamath Tribes (Oregon).



The Fire Networks are supported by Promoting Ecosystem Resilience and Fire Adapted Communities Together, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. For more information, contact Marek Smith (marek_smith@tnc.org).

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