

Promoting Ecosystem Resilience and Fire Adapted Communities Together Collaborative Engagement, Collective Action and Co-Ownership of Fire

Final Report for PERFECT I: August 1, 2014–June 30, 2019

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Where We Were

In 2014, we envisioned our work as broadly leading on the three goals of the Cohesive Strategy—resilient landscapes, fire adapted communities and safe and effective wildland fire response—overlapping, and resting on a base of science, learning and cultural knowledge. The work plans that guided us were organized around the Fire Learning Network and Fire Adapted Communities Learning Network (addressing resilient landscapes and fire adapted communities), training and capacity-building (wildfire use and response) and strengthening the enabling conditions to accelerate the pace of restoration and resilience.

Where We Are

By the time PERFECT I drew to a close, both the way we envisioned the work and structured our work plans had shifted. Most significantly, the three individual goals of the Cohesive Strategy are no longer central as discrete goals. As the overlap and interactions among them became increasingly clear, it made less sense to consider them separately. Instead, PERFECT strategies are in service to the Cohesive Strategy as a whole. Our approach is captured in a set of [six strategies](#) that now form the core of our work plan going forward:

- Expand the scope of ownership of, and responsibility for, fire management.
- Support and maintain equitable partnerships.
- Increase local and individual capacity.
- Build and diversify the workforce for co-management of fire.
- Expand enabling infrastructure and knowledge networks for a shared management system.
- Shift regulatory, policy and funding environments to support integrated fire management.

How We Got Here

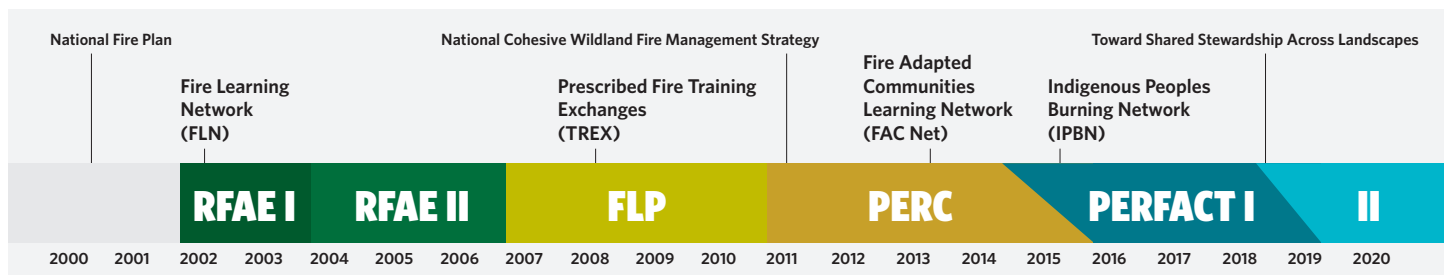
Work under this cooperative agreement—PERFACT, and the iterations that came before— isn't about designing programs. It's about working, through relationships, to create change on the

ground by whatever means are best suited to the circumstances at hand and the resources available. It is a learning approach, centered on continuous adaptation to the people and places involved, and evolving as needed. What might be called “programs” elsewhere—the Fire Learning Network (FLN), Fire Adapted Communities Learning Network (FAC Net), Prescribed Fire Training Exchanges (TREX), Indigenous Peoples Burning Network (IPBN)—are instead vehicles that people use to address their wildfire challenges. These efforts focus on different facets of wildfire solutions, and together can address the system in all its complexity. We have found that some of our greatest successes have occurred when these efforts are “stacked,” approaching the local fire problem from multiple angles simultaneously.

PERFACT has also worked to expand the breadth of interests represented in its partnerships, which in 2014 were largely landscape resilience-focused. Over the course of PERFECT I community-oriented leaders and organizations played a larger role, through the growth of FAC Net, of course, but also in the numerous places where the FLN and TREX began focusing more on communities. Similarly, the IPBN is bringing tribal partners—and their deep cultural connections with fire—to the mix.

Administratively, there has been a strong trend toward sharing leadership, and mentoring both individuals and local organizations to encourage a broader, more effective workforce to organize and manage this work. The roots of this extend back to 2002, when the Forest Service and Department of the Interior entrusted leadership of the FLN to The Nature Conservancy. For the next decade, most FLNs were led or co-led by TNC staff, taking advantage of the organization's administrative capacity, reach and processes (as well as talent). By the start of PERFECT I, two or three FLN landscapes were being led by other NGOs, and the Watershed Research and Training Center, leading the new FAC Net, had become a partner in moving this work forward at the national scale. As the

History of the Cooperative Agreements between USDA Forest Service, Department of the Interior and The Nature Conservancy



- RFAE I (January 2002–December 2003), RFAE II (January 2004–December 2006)—Restoring Fire Adapted Ecosystems
- FLP (January 2007–December 2011)—Fire, Landscapes and People: A Conservation Partnership
- PERC (January 2011–December 2015)—Promoting Ecosystem Resiliency through Collaboration: Landscapes, Learning and Restoration
- PERFECT I (August 2014–June 2019), PERFECT II (July 2018–June 2022)—Promoting Ecosystem Resilience and Fire Adapted Communities Together: Collaborative Engagement, Collective Action and Co-ownership of Fire

networks have matured over the course of PERFECT I, putting in place procedures to manage subcontracts with local partners has let us share leadership more widely, taking advantage of a far broader array of skills and connections, and creating new opportunities for growth, innovation and resiliency in the system as a whole.

Growth Under PERFECT I

While there was a good deal of continuity under the succession of cooperative agreements that preceded PERFECT, this five-year period saw some remarkable growth, and a new focus on broadening the constituencies that are engaged and served.

FAC Net began as a small experiment under PERC. Under PERFECT, it has grown to a robust network of 18 core members, 150 affiliate members, five statewide networks—and a broad portfolio of shared work, of learning and peer assists, and new tools for improving FAC practices within the network and beyond. FAC Net has significantly contributed to the current understanding about what community wildfire adaptation is—and how to do it.

The number of TREX and cooperative burn events conducted annually—and the number of people served—[nearly doubled](#) with the formation of the TREX coaches network. Five years ago, most TREX were led by PERFECT staff, and supported largely by PERFECT (along with volunteer match); most TREX are now led by coaches, with local organizers leading on financial support. The dynamic has shifted from “bringing” TREX to a place to helping local organizers work with partners to host an event that is uniquely theirs. The TREX model has also been the inspiration for other capacity-building efforts, such as [cooperative burns](#) and mobile burn teams.

Previously, our work with tribes and cultural burning was informal and not central to the main body of work. Under PERFECT, connections made through the FLN, TREX and FAC Net in northern California were nurtured into the new IPBN. The first IPBN landscape [learned about and adapted the Healthy Country Planning process](#), began expanding their use of cultural burning, and has now helped expand the network to two additional locations, with further expansion on the horizon.

PERFECT members are beginning to explicitly address pre-fire planning for issues that come up after wildfires. A growing awareness of the inevitability of severe wildfire, and the flooding and erosion that can follow, led to the development of the Burned Area Learning Network ([BALN](#)) in New Mexico. Partners there have been assessing the state of practice, collecting resources, and documenting best practices in the field. At the 2018 fire networks workshop in Wenatchee, post-fire recovery needs of communities were highlighted, bringing [recovery and equity](#) issues to the fore. Across the networks, members are working to ensure that pre-fire planning for post-fire recovery becomes a standard practice.

Throughout, the FLN continues to serve as both a foundation for the relationships that make collaborative work possible, and as an incubator for new ways of working. In addition to the networks above, which have grown from the FLN, the

network’s partnerships have helped develop and share tools and practices ranging from [engaging public outreach podcasts](#) to shared [seasonal prescribed fire modules](#). The FLN is vital in helping adapt and spread practices across geographies, for example in the recent introduction of the [prescribed burn association](#) model [from the Great Plains](#) to northern California. Other needs and opportunities identified over the course of PERFECT I—such as finding a liability insurance solution for private burners and ensuring that spatial fire planning can be implemented in a truly collaborative manner—are also now being addressed as work continues under PERFECT II.

Supporting State and National Fire Management

Work under this cooperative agreement continues to serve as a testing ground and resource for efforts at the federal level and in states that are facing acute wildfire problems. And as co-management of fire becomes increasingly necessary, the networks are building the relationships and structures needed to disseminate and deploy the lessons and practices to a growing body of stakeholders.

The first decade of FLN work served as a living laboratory that helped daylight possibilities and shape the ideas that developed into the Cohesive Strategy. Similarly, the broadened scope of our networks—particularly TREX and FAC Net—helped create the enabling conditions (like the “steady increase in collaboration capacity” and enduring partnerships) that made it possible for the Forest Service to propose co-management of risk and a scaling-up of treatments.

Network members—in addition to working routinely with partners from a wide array of federal, state and local agencies as well as nonprofits, universities, private landowners and contractors—are using their on-the-ground experience and connections to help shape state policies in ways that support national priorities. In California and [Washington](#), for example, members have informed legislation that has dramatically shifted approaches toward wildfire management, and are helping implement the increases in prescribed burning and community engagement that have resulted. In Oregon, network members, working with partners, helped change how the state deals with the smoke from prescribed fires so that this necessary tool can be used—while protecting those sensitive to smoke. In [New Jersey](#), fire adapted communities work that began in a single township is now affecting the entire state, and is feeding into strategies to increase the use of prescribed fire there.

The coming years will undoubtedly bring new challenges to light—as well as new opportunities. Which brings us to perhaps the most important “product” of this work: the network of people itself. Through thoughtful planning and adaptive management, learning from others in the field, and patient mentoring of some remarkable people, the cooperative agreement has created something special: a flexible, living “natural resource” that will continue to scan for issues, collaborate on solutions, share learning, and contribute to our shared goal of living better with wildfire.

What Our Strategic Approach Looks Like on the Ground

The partnership's work under the PERFECT agreement has resulted in significant progress—strategically moving toward the idea of shared ownership of fire, building local and individual capacity, expanding and diversifying the workforce, connecting people to develop and share knowledge, and helping learning from the field to inform policy. Over the five years under PERFECT I, there were hundreds of success stories, large and small. Here are a few.

● An On-the-Ground Example of What Shared Responsibility for Fire Looks Like: Western Klamath Mountains

There is probably no better example of shared ownership of fire and the [embodiment of Cohesive Strategy](#) goals than the Klamath Mountains in far northwestern California. In a landscape shaped by cultural management and frequent fire, remote and reliant on their neighbors, community members in the Klamath Mountains have a history of struggle and conflict with the federal agencies tasked with managing virtually all of the land.

Starting Over

Following a particularly contentious period, when three years of local collaboration [went awry](#), breaking the trust developed by partners, the PERFECT partnership was able to offer support. Through a facilitated [Open Standards](#) for the Practice of Conservation planning process, and sustained investments in capacity building, strategic planning and support for actively using prescribed fire, PERFECT has supported local leaders in changing those relationships, and the future of fire in this place.

The new direction began in early 2013, when the FLN facilitated the first in a series of planning workshops with a set of partners who became the Western Klamath Restoration Partnership (WKRP). Through this planning effort, they created a more inclusive process and established a shared identity. Over the course of eight workshops, the group defined a planning area of 1.2 million acres, and [mapped out prescriptions and next steps](#) to begin implementation. In 2015, PERFECT supported

a [facilitative leadership workshop](#), building local capacity for effective collaborative leadership. [WKRP](#) is now the foundation for a wide body of work in the area, using stewardship agreement authorities that enable the collaborative to stay engaged during all project phases—planning, implementation, monitoring and adaptive management.

Adding Layers, Forwarding the Work

Meanwhile, in 2013 the [Karuk Tribe](#), whose ancestral lands are in this landscape, became one of the first core members of FAC Net. From the start, the work of FAC Net (with Bill Tripp as the nominal lead) and the FLN (with Will Harling as the nominal lead) has been so closely intertwined as to be difficult to track separately, reflecting the interconnectedness of people and landscape in the Klamath.

Prescribed Fire Training Exchanges ([TRES](#)) first came to California in 2012, with a NorCal TRES just south of the Klamath. In the spring of 2014, the Yurok Tribe began [using TRES](#) in this landscape, renewing their burning to restore and protect cultural and food resources. This growing nexus of indigenous fire helped incubate what would become the Indigenous Peoples Burning Network, which held its [first workshop](#) in this landscape in 2015. These have since led to an increased focus on [family-led burning and intergenerational learning](#).

In the fall of 2014, the first Klamath River TRES was held to increase local capacity for prescribed fire implementation, while [engaging with the local community through social media](#) throughout the event. This [TRES has grown](#) to be the largest in the country, often drawing nearly 90 participants, and has undergone several transformations, based on the feedback about balancing restoration, risk reduction and capacity-building needs of participants and hosts. This TRES also began incorporating aspects of cultural burning early on, inviting members of the Karuk Tribe to share their knowledge and relationship with fire with participants; later TRES explicitly included discussion of cultural resources and considerations in the formal daily incident action plans.

Fire issues in the Klamath landscape are now being approached from a wide variety of angles, and there is a place for everyone somewhere in the networks—as well as plenty of overlap among people, places and projects, to keep all the threads connected.

Finding Solutions, Seeing Results

Empowering local leaders and anchoring their work to a set of shared values has resulted in the development and refinement of a number of new approaches. For example, the [Community Liaison Program](#) makes a two-way connection between the community to the wildfire response system. “One of the most important aspects to creating positive outcomes during wildfire events is making sure that communities, agencies and fire management teams have a clear understanding of what to expect, and that they have a means of honest communication throughout the event.”



Left: Western Klamath Mountains FLN landscape boundary (red outline). Land ownership in this area is predominantly federal, with the Klamath and Six Rivers national forests covering most of the region.
Right: Smoke rises from a prescribed burn during the 2017 Klamath River TRES. Participants completed 311 acres of burning that year, across 14 units, many of which were small but complex.
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A map-based exercise at a 2017 WKRP workshop focused on a 40,000-acre area that hadn't seen fire in over a century; through the exercise and discussion, everyone came to agree that, with careful management, it would be a good place to let wildfire do its work. That exercise, along with other partner efforts, contributed to the social license that facilitated the Klamath NF Forest Supervisor's decision to manage the Island Fire for resource objectives, an important step toward the long-term goal of more "good fire" in this landscape.

Another map-based project, the [values-based planning and mapping](#) process that grew from the WKRP planning process, helped the collaborative write specific prescriptions for what is now the Somes Bar Integrated Fire Management Project. The project will include mechanically treating 809 acres and manually treating 1,500 acres, in preparation for applying prescribed fire to 5,500 acres. The California Climate Investment program recently [awarded WKRP a \\$5 million grant](#) for implementation of the project.

For as much as the PERFECT partnership has invested in partners in the western Klamath, the networks have benefitted tenfold in the form of inspiration, tools and connections developed and fostered by leaders there.

Bringing Equity to the Fore: Addressing Power Dynamics to Support Resilience

Inequity is a problem in every aspect of contemporary society. The wildfire sector is no different and presents some unique challenges given the complexity of governance and management, and the severe impacts fire can have. The current fire management system mirrors and reinforces the inequitable ways information, funding, access and influence are distributed. And, too often, the acute impacts of emergency events are disproportionately borne by marginalized communities. These challenging power dynamics get in the way of whole-community resilience.

At the same time, the wildfire management field does not represent the full diversity of the country. Whether this is a matter of access to careers in the field or acceptance by colleagues once hired, or failure to recognize the value of millennia of indigenous peoples' fire use, the result is a loss to



The Spanish-language TREX is held annually in northern New Mexico. In 2018, information on inclusive behavior and active bystander skills was added to both English and Spanish versions of unit log books used at TREX.

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the system—of both human resources available and breadth of experience than can be brought to bear on the challenges we face.

Creating a [more equitable approach](#) to living with fire means taking action on many fronts. In addition to exposing fire managers and community leaders to diversity, equity and inclusion concepts, there is much work to be done in balancing institutional and systemic equity in our fire management approach. PERFECT and its members have begun doing this work, in their communities, and in their personal and professional development.

A Place for Everyone

We need more diverse representation in our partnerships, among our community leaders, and on our prescribed fire crews. Work under the cooperative agreements has long been moving in this direction—seen, for example, in the [diversity of organizations](#) TREX draw participants from, or the wide range of [FAC Net members](#) and partners. Under PERFECT I, TREX expanded opportunities for [Spanish-speaking participants](#), and started more explicitly engaging more women, offering the first Women-in-Fire TREX ([WTREX](#)) in 2016.

Valuing Difference Leads to Resilience

But it's not just representation that is required. Also needed is a change in how we think about difference—valuing it as a strength rather than a wedge. Over the last five years, we've begun working in earnest to use an approach centered on equity, diversity and inclusion to [strengthen our work](#). Partnering with TNC's Global Equity, Diversity and Inclusion team has contributed to our understanding and ability to begin addressing these issues.

For many, this work began with one of several trainings PERFECT provided to members (as well as staff), including active bystander trainings [offered at some TREX](#) and at the 2019 FAC Net annual workshop, a January 2019 workshop on engaging diverse communities attended by 20 FAC Net and FLN members in the Pacific Northwest, and a webinar training on unconscious bias offered to all members. Two TREX coaches also attended a train-the-trainer workshop on unconscious bias, to allow this training to be a part of more TREX. [Tools](#) to support this work are also being collected, adapted and shared.

Staff also coach local partnerships that are striving to be more equitable—with support in engaging a broader range of residents, going beyond translation to work in tailored, culturally appropriate ways. Members are learning to consider how their tools and approaches could be applied differently to get more equitable outcomes; for example, in Austin, they have begun considering [socio-demographic information](#) to get a more complete picture of fire risk and resilience.

And some of the work is a shift in mindset—centering equity, diversity and inclusion as a value across our partnership, and strategically investing in diversifying the workforce and empowering leaders from a range of places and backgrounds, and with a variety of lived experience and expertise.

● Creating a Robust Workforce for Integrated Fire Management

PERFACT takes a holistic approach to capacity-building: strengthening a workforce that can meet our wildfire challenges requires a wide array of skills and of people who possess them. Getting good fire on the ground by conducting a prescribed burn obviously requires an experienced burn planner, a qualified burn boss, a crew who can safely and effectively wield their tools—but also, behind the scenes and no less important, people who have done everything from securing liability insurance to packing the lunches. Getting to the point where the burn can be contemplated takes another set of skills and people—from organizing and facilitating planning efforts to communicating with other stakeholders. These skills also form the basis for community preparedness efforts—along with spearheading neighborhood action, designing and delivering educational outreach, organizing community work days and more.

Training in Technical Skills ... and People Skills

Nationally, regionally and locally, PERFACT and its many members provide training, mentoring and peer-learning in a range of skills needed across the full spectrum of roles in a workforce that embraces co-management of fire. For example:

TREX are well known for providing hands-on experiential training in traditional fireline skills and helping practitioners from government agencies and nongovernmental organizations alike make progress on their formal wildfire qualifications. But they also integrate other skills needed to build a truly effective workforce, from effective [public outreach and media relations](#), to recent advances in technology, to learning to support others through [unconscious bias and active bystander](#) training.

Gathering people to plan together is key to much of PERFACT's work, but organizing effective processes and meetings doesn't just happen. Numerous partnerships began (or renewed) their work together through a facilitated Open Standards for the Practice of Conservation process to guide strategic planning; as the IPBN was getting started, PERFACT supported training in the related Healthy Country Planning process, which the landscape then used to guide their planning—and later [provided mentoring to peers](#) in Canada.

Regular ongoing meetings and workshops also require skillful organization, such as that shared through the Interaction Institute's Facilitative Leadership for Social Change workshops. PERFACT supported this training for partners in the [Western Klamath Mountains](#) and FireScope Mendocino FLN landscapes in 2015 and 2016, and then by popular request at a [national workshop for FLN and FAC Net](#) members in late 2018.

"Probably the most helpful workshop I have ever participated in. The tools presented I feel I will use not only in my work but in my personal life as well."

*—Participant in the December 2018
Facilitative Leadership workshop*



Building the workforce needed to support a robust integrated fire management system requires developing leaders with a broad toolbox of skills, on the fireline and in their communities and workplaces. PERFACT members share training in everything from (clockwise) effective facilitation to identifying and mapping community assets to collaborative plant monitoring—to safely putting fire on ground.

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A Culture of Learning and Sharing

On an ongoing basis, the networks provide channels for members to share with and learn from peers, and capture some of the useful tools they develop so that others in the networks—and beyond—can benefit from them. Recent examples of these include TREX coaches collecting some of their [approaches to capacity-building](#) in a series of briefs, Jana Carp's [series of how-to guides](#) on asset-based community development based on [her work with FireScope Mendocino](#), the [neighborhood ambassador toolkit](#) developed by Wildfire Adapted Partnership, [monitoring protocols](#) collaboratively developed by partners in the Central Appalachians, webinars on [conservation planning tools](#) and [fire effects monitoring results](#), and blog posts covering topics ranging from [best practices for peer-learning exchanges](#) to burn boss tips for [conducting a burn on private property](#).

Not on the agenda for TREX or FLN cooperative burns, but equally important, are the opportunities they provide to learn to work with a crew that brings a diversity of everything from technical expertise and life experience to radio protocols. This experience in learning to integrate disparate members to form a cohesive, effective crew is key to being able to build the workforce needed to truly share stewardship and co-manage fire on the ground.

Together, the networks of people and skills provide a flexible, forward-thinking resource to address challenges and opportunities as they arise.

● Developing an All Hands All Lands Team for Co-Management of Fire in New Mexico

Five years ago, there was essentially no non-governmental capacity for using fire for forest management in New Mexico. But there was a lot of forested land—federal, state and private—in need of fire: for forest health and, more urgently, to reduce the risk of catastrophic wildfires. Several threads of work under PERFACT have been critical to building a solution.

Forest Stewards Guild

The Guild is a national organization that "practices and promotes responsible forestry as a means of sustaining the integrity of forest ecosystems and the human communities

dependent upon them.” Its Southwest regional office is in Santa Fe, and for 25 years they have worked with forest-dependent communities in northern New Mexico that have been struggling to find an alternate economic base after unsustainable commercial forestry was closed down in the 1980s and 90s. Central to this work has been engaging with those most affected—the pueblos and largely Hispanic communities nestled in the forests—and with underserved and underrepresented urban populations. Also central have been the Guild’s wide connections in the state, with stakeholders including state and federal agencies, Rocky Mountain Youth Corps and The Nature Conservancy.

[Eytan Krasilovsky](#), managing the Guild’s work in the state, could see that the forest restoration work they were doing, through [youth conservation corps](#) and other programs, wasn’t enough—the forests needed fire. But the seasonal timing was wrong for the state’s Forest Service fire crews: New Mexico’s prime prescribed fire season falls in August and September, just when the federal workforce is being drawn to California and other western states as their wildfire season peaks.

Prescribed Fire Training Exchanges

In 2008 and 2010, the Guild and the State Land Office mechanically thinned hundreds of acres of ponderosa pine and mixed conifer forests on state trust lands, and realized they needed fire to finish restoring the forests. In 2011 the Guild and State Land Office contacted Jeremy Bailey about using the TREX model to get the burning done. Then in 2012, the [first Spanish-language TREX](#) was held on the Santa Fe NF, and it was evident that the model could work in this landscape. Further planning led to the successful implementation of the Black Lake TREX in 2013 and again in 2014. [Lessons](#) from this were applied to numerous TREX and cooperative burns on private lands over the next few years, with the Guild providing strategic direction and organizing capacity, and the FLN and TREX coaches coming in to provide fire leadership.



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Rio Grande Water Fund

Meanwhile, it was increasingly clear that forest health work needed to be scaled-up dramatically. For example, in the 1.7-million-acre watershed that feeds the Rio Grande—which supplies water to half the state’s population—much of the forested land is overgrown and at risk for high-severity fires that would leave the landscape vulnerable to flooding and erosion, and cities and towns without clean drinking water. In July 2014 The Nature Conservancy and partners announced the launch of the [Rio Grande Water Fund](#), which established a mechanism to coordinate and leverage funding for a 20-year plan to address the area’s fire and water challenges. This landscape and project are now the focus of FLN work in the state.

Gravitas Peak Wildland Fire Module

Elsewhere, [Dave Lasky](#), a volunteer firefighter from Colorado found himself at the 2016 Klamath River TREX. The model was

a great fit for him, and for his vision of creating a wildland fire module that would create a career pathway for underserved youth. He almost immediately became a member of the new TREX coaches network, and started figuring out how to make the module a reality. Again, the networks helped, as he searched for a home for the module; a first iteration was through a partnership with Terra Fuego—a non-profit associated with Firestorm, which had grown from Firestorm’s work with TREX in the Great Plains—but it became clear an organization with more administrative capacity would be needed.

Scaling-Up

Back in New Mexico, through 2016 and 2017 the Guild continued to lead TREX and cooperative burns, with funding support from Scaling-up to Promote Ecosystem Resiliency ([SPER](#)) and with skilled leaders coming in from the coaches network. The projects got more complex, and trust and skills were being built. So when the Rio Grande Water Fund received implementation funding in 2017 and put out a request for proposals, the Guild—along with the Chama Peak Land Alliance and Rocky Mountain Youth Corps—put together a proposal that included significant prescribed burning. Other proposals focused on thinning, so this stood out; the Rio Grande Water Fund recognized the value of fire as a restoration tool and the Guild’s readiness to implement it, and funded the proposal. This allowed the Guild to hire a fire manager, giving them local fire leadership capacity for the first time. And so Dave Lasky joined the team, and assembled the core crew needed to lead prescribed burns.

“All Hands All Lands is both the end of an arc that got started a long time ago, as well as the beginning of a brand new arc. It’s a model for how we start cost-effectively working on a landscape scale.”

*—Dave Lasky, Forest Stewards Guild
quoted in [Bitterroot Magazine](#)*

All Hands All Lands Burn Team

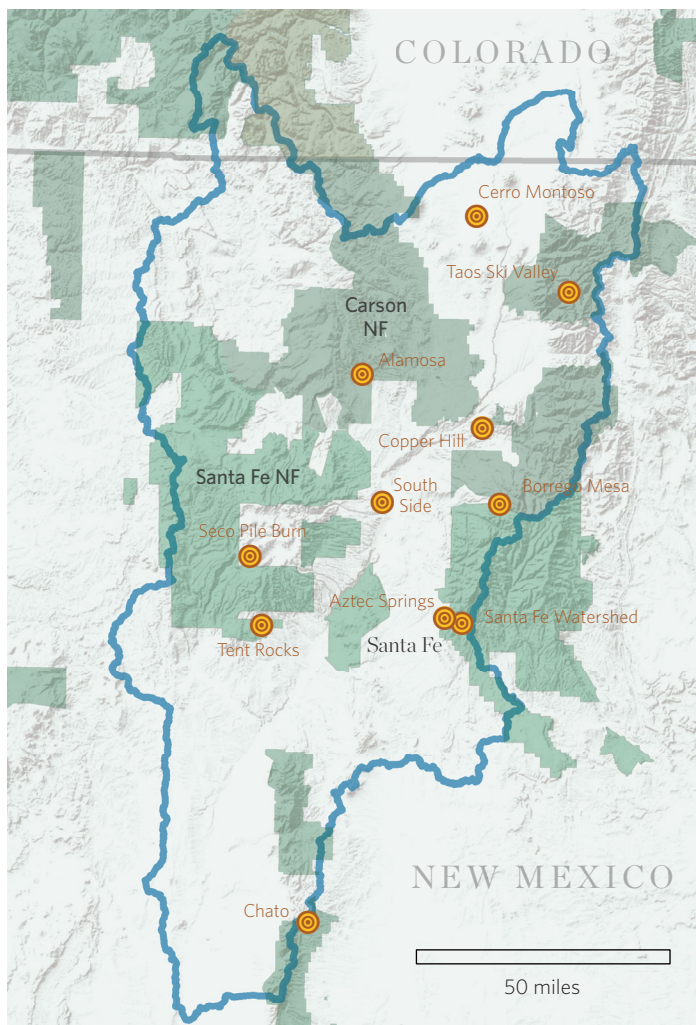
With this, the pieces were in place to make a qualitative jump in fire capacity. In 2018, the Guild mobilized the All Hands All Lands ([AHAL](#)) Burn Team to support partner burns throughout the Rio Grande Water Fund Landscape. AHAL is a flexible model rather than a static crew. A small core of qualified, experienced fire leaders manages an on-call list of volunteers, contractors, cooperators and paid staff; when partners need additional capacity for a burn, there is now a central place to call, and to coordinate among partners to share resources. The [Gravitas Peak Wildland Fire Module](#) crew can provide leadership and coordination for the resulting team that comes together on a burn. [Youth opportunities](#) are central to the team as well, with the Guild’s [Forest Stewards Youth Corps](#) playing a central role along with a strong partnership with the Rocky Mountain Youth Corps. The module provides training opportunities, integrating youth corps members into AHAL and recruiting graduates to staff the module.

"My season with the Forest Stewards Youth Corps has prepared me with the skills and knowledge necessary for a career in wildland fire. Through training and work, I was challenged and enabled to develop personally and professionally. This experience will forever prove to be an invaluable opportunity that I am thankful for."

—Youth Corps member

Action on the Ground

In its first season, AHAL supported 11 burns, with burners from the Angel Fire FD, BIA, Forest Stewards Youth Corps, Philmont Scout Ranch, Pottawattamie Conservation District, Rocky Mountain Youth Corps, Santa Fe FD, Santa Clara Pueblo, Taos County FD, Taos Ski Valley, Tesuque Pueblo, U.S. Air Force and volunteers. Together, they helped complete 6,236 acres of burning on projects that spanned nearly the entire length of the Rio Grande Water Fund landscape. Looking ahead, the Guild and its water fund partners plan to continue to invest in AHAL with a particular focus on returning fire to private and other non-federal lands in the watershed while building the workforce to keep the successes coming.



The All Hands All Lands Burn Team worked on 11 burns in its first year, helping complete a total of 6,236 acres in the Rio Grande Water Fund landscape (outlined in blue). *adapted from map provided by the Forest Stewards Guild*

Expanding Networks and Connecting Leaders Transforms Their Work—And the System

The most valuable thing members report getting from the PERFECT networks is connection—to new ideas and to other practitioners. The partnership delivers value to members through strategic coaching, modest investments and, most importantly, critical connections with other practitioners, thought leaders, and new ideas for living better with fire.

The Pacific Northwest “Pod”

Many of the members in the Pacific Northwest first met through PERFECT workshops and online platforms, where they discovered they had common challenges and opportunities—and valuable resources, in each other. They have since been investing in one another—and those investments have paid off: in more strategic priorities, new initiatives to address challenges, and a tight-knit group of leaders who know there are people out there who understand their issues, who are rooting for them, and who are ready to answer the phone when they call for advice.

Over the last five years, PERFECT hosted a series of learning exchanges that helped forge these relationships, exposed members to new practices and ideas, and provided opportunities for work together that has expanded our collective understanding of fire issues. The [first set of exchanges among partners](#) from Ashland (Oregon), Bend (Oregon) and Leavenworth (Washington) in 2016 laid the groundwork for strategic changes in members’ local work, expanded influence in the region, and better methods and tools for the networks to advance our goals. Learning events since then have focused on specific themes, such as [business resilience and long-term recovery](#).

Learning from Peers: Broadening Local Work, Supporting Its Leaders

Participants in the exchanges recognized the need to add dimensions of fire resilience to their programs after being exposed to ideas from the other communities and landscapes. When asked how their work has changed as a result of the exchanges, one member replied that “it changed who I was talking to, it changed how I developed partnerships, it changed how I worked with our steering committee—it just changed every part of how I was operating in my silo.” These changes have manifested in the form of business resilience initiatives, pre-fire planning for post-fire recovery, and shared smoke outreach strategies across the region.

The learning exchanges also served to forge lasting relationships among participants. Adaptability, flexibility, reciprocity and learning are



In Deschutes County (Oregon), Project Wildfire hosted the [first learning exchange](#) for members from Oregon and Washington, the start of what would become a robust regional partnership.

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Over the course of a few months in early 2016, Pacific Northwest pod members [toured and learned about](#) each others' communities and landscapes in a series of three learning exchanges. © Michelle Medley-Daniel/WRTC

values that permeate the PERFECT networks and members know they can turn to these partnerships for a morale boost. The work is “inherently ... very challenging and there are no clear answers about fire work ... but every time this group gets together you get enough optimism out of it to keep you going This network is really powerful in supporting that optimism.”

Seeing Paths to Success: Elevating Others' Approaches Can Change the Game

Making change is hard, and already difficult issues are often made to seem more so by the complexities of local politics and power dynamics. Is the change you're seeking even possible? Being able to access examples and models that are working in other places can be a powerful tool in clarifying what is possible, and in brokering new agreements. Members have used such examples to help them take steps forward. One noted that when they were talking to county commissioners about implementing a partnership for landscape-scale forest restoration, the networks give them examples “that feel really similar to them that they identify with ... the commissioners can say, ‘Boise's a lot like us’ ... they can see, if Boise's doing it then we should probably be doing it.” What this gives members is not just case studies and examples, but also people: “I've been able to not only point to an example, but say ‘Here's the person that I can connect you with.’”

Scaling-up: Local Learning to State Policy

Participants in the Pacific Northwest “pod” are using their networks to help move their ideas and practices beyond their communities to state and regional decision-makers and officials. “My role has been working with these communities in Washington and Oregon, hearing what they're saying.... So that when I go to our state DNR and Forest Service or BLM ... I'm able to take those messages and move them up the chain. I've been able to continue those conversations forward.”

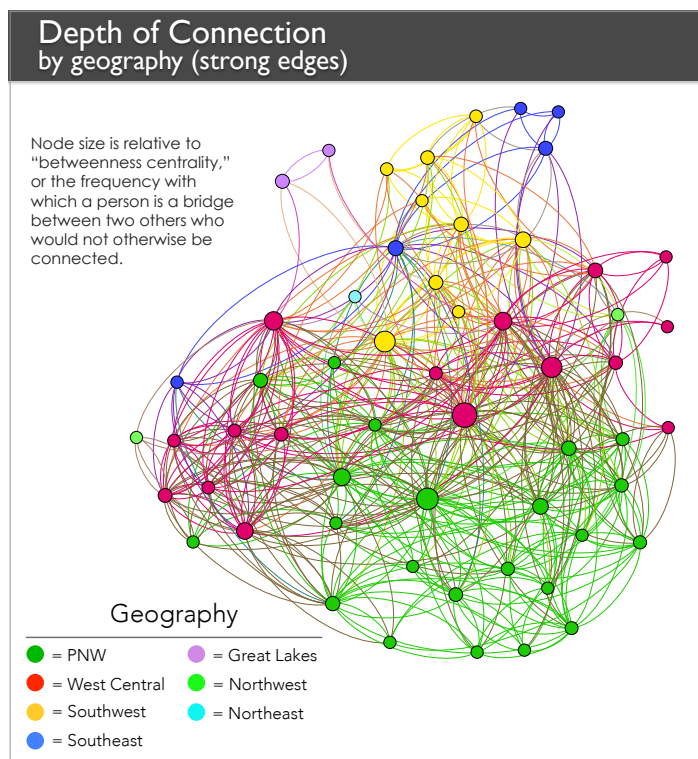
In Oregon, network participants attracted the attention of the governor's office with their smoke outreach, which propelled their approach from a local experiment to a statewide audience. Locally, they created an approach and a set of outreach resources and processed, dubbed [Smokewise](#). When invited to the governor's office, they shared what they had developed

to help residents learn how to prepare for a smoke season. Smokewise is now under consideration to become a statewide structure. The local chamber of commerce—a key partner in the effort—is well positioned with the state, and recognized as the leader for this effort to grow statewide. In the meantime, because of the support from the networks, the chamber is hosting a seven-county smoke workshop in the spring, which will help a large portion of the state prepare for the next fire season.

Scaling-up: A Model That Is Changing Our Network Operations

The Fire Learning Network and TREX have long been based on shared learning experiences, but this series of exchanges further institutionalized the approach for our partnership, offering lessons in how to achieve the multi-layered results we're seeking. Based on feedback from participants, we developed descriptions of the [various kinds of learning events](#) that are supported by the partnership to meet different content needs and learning modes, as well as resources like the [facilitator's guide](#) for conducting a learning exchange.

The lessons learned in hosting these events are helping us support learning and transformation among members in other ways as well. After reflecting on the bonds that were developed among this cohort—and measuring those ties through a formal social network analysis—we decided to change the way PERFECT staff engage with members. We are now hosting regional group interactions—in addition to one-on-one conversations and national workshops—to add value and center relationships across the membership. This approach, so successfully piloted in the Pacific Northwest, has been adopted in the Southwest and Intermountain West.



Social network analysis of members of the Pacific Northwest “pod” of members shows dense—and strong—connections among them. These underlying relationships have fueled both innovation and spread of ideas and practices in the region.

From Practice to Policy

Learning, innovations and best practices from the networks and their members have continued to inform the policy and regulatory environments governing wildland fire. With experience in collaborative planning and cooperative work on the ground, network members and partners have also been tapped to help make the leap from improved policy to implementation.

California

Multifaceted long-term [investments in northern California](#) have helped support a set of partners who are uniquely positioned to advise and assist the state as it grapples with growing wildfire and forest health problems. In addition to supporting an increase in non-agency workforce capacity—for example through the Northern California Prescribed Fire Council, TREX and other cooperative burn trainings, and the introduction of the [prescribed burn association](#) model to the state—PERFACT partners helped the state develop and pilot [CalTRES](#) trainings, are helping guide a \$20 million [Regional Forest and Fire Capacity Program](#), and have several members on the committee that will be setting standards for a new burner qualification program.

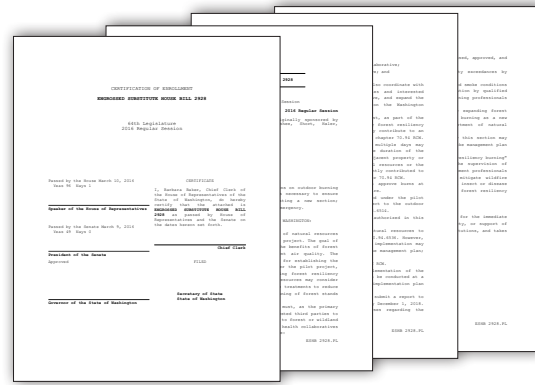


Bill Tripp—who leads or takes part in all four PERFACT networks that touch down in the western Klamath Mountains region—serves as co-chair of the leadership team for the [Western Region](#) under the National Cohesive Wildland Fire Management Strategy and is on the CAL FIRE Native American Advisory Council, which provides tribal input and perspective to the state fire agency.

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Oregon

Until recently, the state's air quality regulations prohibited prescribed burning when any smoke intrusion into communities was likely; given topography and weather conditions, this dramatically restricted burning in many areas. In 2018, FAC Net, FLN and TREX partners were among those supporting a [change in the state air quality regulations](#) that would better [balance risks](#) and allow more prescribed burning to promote forest health and protect communities from wildfire, because, as Deschutes County Forester Ed Keith put it, "having no fire is not an option here." The new standards—which allow some smoke intrusions within the "moderate" air quality category—were [approved by the state Environmental Quality Commission](#) in early 2019. PERFACT members in Deschutes County and the city of Bend are working with partners to develop the first Community Response Plan, which will identify smoke-vulnerable populations in the community and options for protecting their health, so that land managers can apply for the prescribed burn exemptions laid out in the new standards.



Passed in 2016 by the Washington legislature, ESHB 2928 instituted the Forest Resiliency Burning Pilot Project to "ensure restrictions on outdoor burning for air quality reasons do not impede measures necessary to ensure forest resiliency to catastrophic fires." It directed the Department of Natural Resources to convene three forest collaboratives (including two associated with the FLN) and the Washington Prescribed Fire Council, among others, to develop the pilot.

Washington

A story that has unfolded over the last dozen years is told in the 2018 [story map](#) "Changing the Culture of Fire in Washington." What that title doesn't capture is that as the culture changed, so did action on the ground and, ultimately, policies that [put fire to work](#) with a good deal of help from partners in the FLN, FAC Net, Washington Fire Adapted Communities Learning Network and [Cascadia TREX](#).

Collaborative Engagement, Collection Action and Co-Ownership of Fire

To live better with fire we need change at every level—from individual residents, to the wildland fire management workforce, to the policies and frameworks that guide investment, shape partnerships and set overall goals. The members and partners in PERFACT are collectively demonstrating successful ways to work toward meeting these challenges. We have meaningful impact in the places we work. And through the power of networks and enduring partnerships that span geographies, fields of practice and scales of work, our partnership is spreading practices and ideas that will help move all of us closer to our shared vision—of resilient landscapes, fire adapted communities and safe and effective fire management.



In May 2018, FAC Net, FLN and IPBN members and TREX coaches [gathered for a joint workshop](#). The group exemplified the diversity of relationships to fire and skillsets that members bring to the table, with participants from about 65 organizations having more than 90 different job titles. They came from communities large and small, in states across the country, in a wide range of ecological contexts. © Liz Rank/TNC

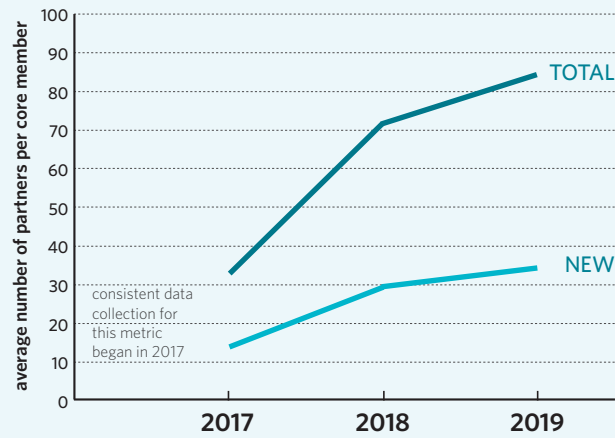
Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT) is a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. The agreement supports the Fire Learning Network (since 2002), Prescribed Fire Training Exchanges (2008), Fire Adapted Communities Learning Network (2013), Indigenous Peoples Burning Network (2016) and other efforts that bring people together to collectively identify and meet our wildfire challenges. For more about PERFACT, contact Marek Smith (marek_smith@tnc.org).

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Appendix: Number Summaries

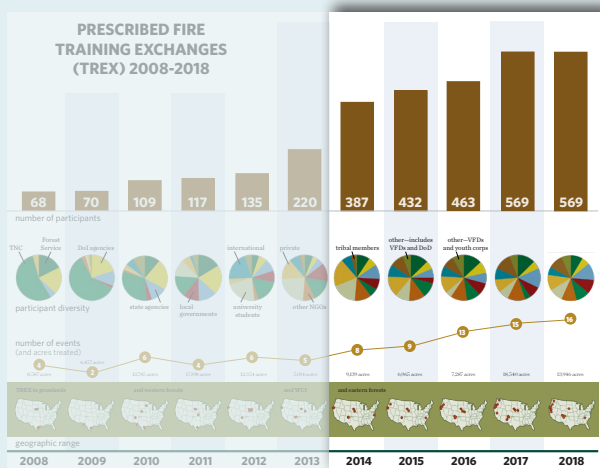
The People of PERFECT

FAC Net Members Are Building Their Partnerships



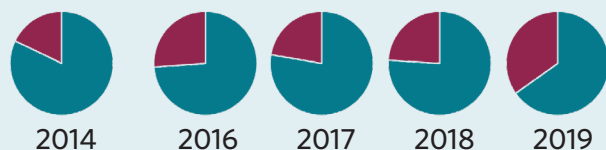
FAC Net members also report an average of 3-5 funders leveraged per reporting period over this time frame. Total amounts awarded ranged widely, with members reporting from \$500 to \$6.75 million in a reporting period (with an average of \$400K and a median of \$100K per reporting period).

TREX Participation Grows More Diverse



More than 2,300 training opportunities were offered through TREX and cooperative burns over the course of PERFECT I. As originally envisioned, TREX now engage participants from a wide range of organizational and experience backgrounds (*pie charts*).

In 2016, TREX began more explicitly addressing gender diversity, offering the first Women-in-Fire TREX (WTREX). Along with other efforts (for example, incorporating training in unconscious bias and inclusive behavior in TREX), this has had the effect of increasing the percentage of women in TREX events.



The 2014 data are estimated; no data for 2015. This trend is present, though less marked, even when WTREX are not included.

Prescribed Burning & Related Treatments

TREX and Related Cooperative Training Burns

	acres	# of events
2014	9,139	8
2015	6,965	9
2016	7,287	10
2017	18,540	15
2018	13,946	16
total	55,877	58

Scaling-up to Promote Ecosystem Resiliency (SPER III) Treatments

	Rx acres	thinning etc.	total
2015	268	209	477
2016	514	322	836
2017	196	30	226
total	978	561	1,539

Totals do not include acres completed through TREX events. The three projects had proposed to complete 965 acres of treatments over the course of SPER III. See the [SPER III final report](#) for details.

Treatments Completed by FLN Partners Through Cooperative Burning or Otherwise Aided by FLN Partnerships

	Rx acres	thinning etc.	total
2014	281,643 *	1,250	282,893
2015	132,598 *	2,073	134,671
2016	33,946	1,610	35,556
2017	57,383 *	5,175	62,558
2018	92,283	10,173	102,456
total	597,853	20,281	618,134

* Total includes work on CFLRP or Joint Chiefs projects

Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT) is a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior.

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