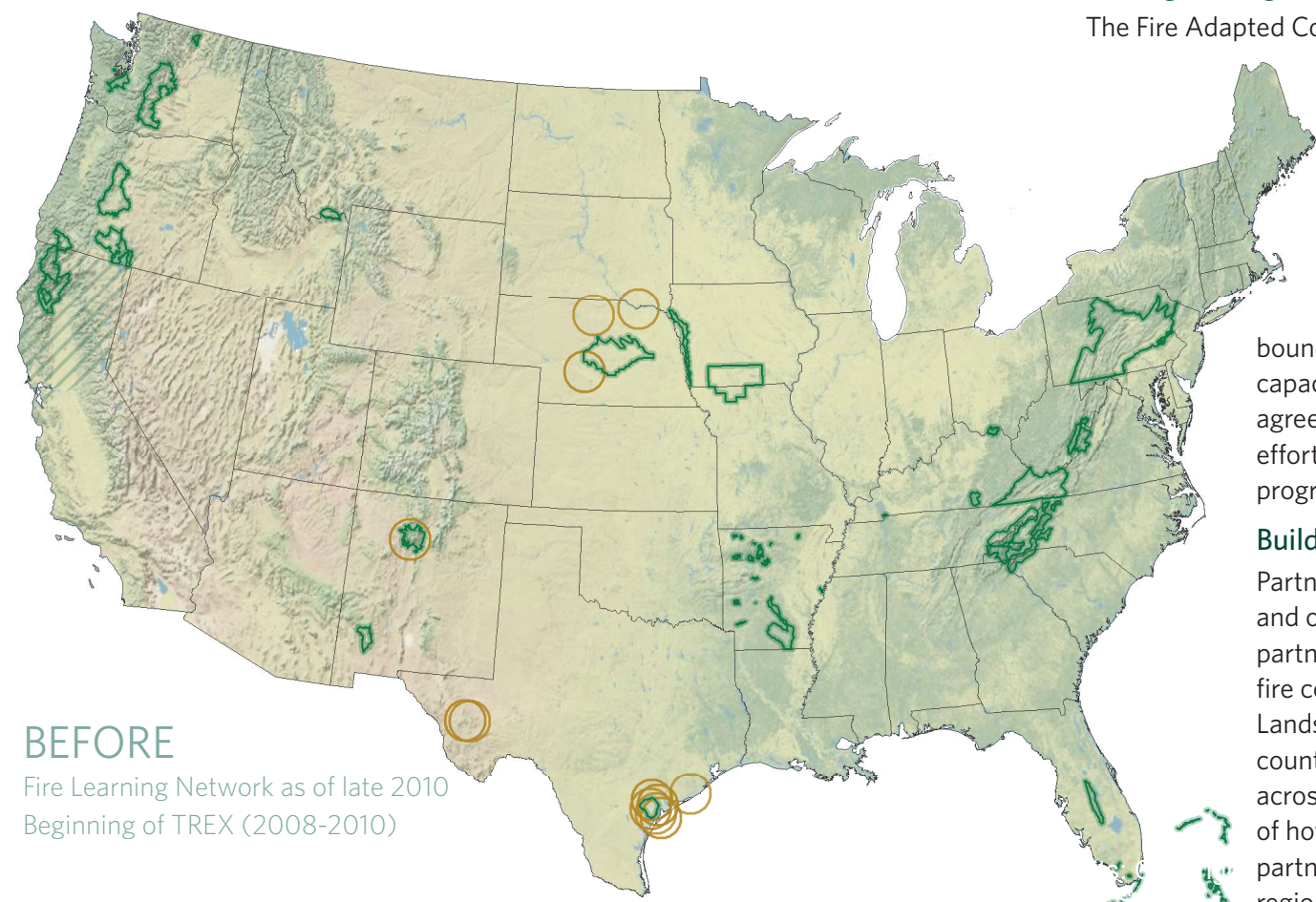


Promoting Ecosystem Resiliency through Collaboration: Landscapes, Learning and Restoration

Cooperative Agreement between the U.S. Forest Service, Agencies of the Department of the Interior and The Nature Conservancy (2011-2015)

A Holistic, Cohesive Approach to Fire

The PERC cooperative agreement was framed around the nascent Cohesive Strategy. In March 2011, the Wildland Fire Leadership Council was made midway through a three-year strategy development process. With the signing of the PERC agreement that month, we began implementing what would become the Cohesive Strategy's goals—resilient landscapes, fire adapted communities, and safe and effective wildfire response.



BEFORE
Fire Learning Network as of late 2010
Beginning of TREX (2008-2010)

The Fire Adapted Communities Learning Network is Born

Discussions in early 2012 clarified a critical missing piece of effective fire management efforts: to be successful in and around communities, we needed to enable communities. And enabling required more than “education” with its one-way flow of information. Communities needed to build their capacity for action, and to do this needed resources—some money, plus people to interact with, rather than PSAs and paper. Having communities as partners in the work would not only increase their adaptation to fire, but support the work of restoring resilient landscapes, including managing wildfires for ecosystem health, which is key to success at a scale that matters.

With support from the Forest Service FAC program, the new FAC Learning Network set out to accelerate the pace of communities becoming adapted and resilient in a wildfire environment. This included broadening the concept of FAC from a checklist to a way of being; placing FAC in a whole-system context; leveraging learning from the FLN; supporting a culture of innovating and sharing knowledge; helping communities scale up to reach tipping points; garnering funding to implement plans; and encouraging the viral spread of the network and its ideas.

With 16 core communities, developing communities of practice, and a website that allows dozens of additional affiliate members to engage, the FAC Net provides value to its members far beyond the modest monetary support they receive from it. Members report that connections to new ideas and other practitioners are the most valuable things the network offers them. FAC Net members will continue to pioneer the practice of fire adaptation, and the network will be there to support and share their work as our country transitions to a new fire paradigm.



FAC Net is helping communities define what it means to be fire adapted—for them, in their places, under their conditions—and how to make a plan that will move them toward adaptation. The network's self-assessment tool (FAC SAT) was developed with the help of researchers to guide community groups through an assessment process, and make sense of the results. It was tested in the field by network members in 2014-2015, and member input was meticulously compiled and used to improve the tool, which is now available nationally through the website.

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The FAC Net has national influence. We are documenting that “fire adapted communities” is about all three of the Cohesive Strategy goals. Our work is recognized as key in ushering in a new wildfire paradigm (e.g., see the January 2016 *JFSP Fire Science Digest* “Scanning the Future of Wildfire”). We gather success stories and lessons from members and share them through our network and website and through partners. Network learning also generates ideas for improving national policy and appropriations—as through Nick Goulette's 2015 testimony before the U.S. Senate Committee on Energy and Natural Resources. © TNC/Liz Rank



Small investments in our members yield big outcomes. Washington state was hit hard by wildfires in 2014 and 2015. FAC Net members and partners in Leavenworth helped get back with incident communications and post-fire recovery, including creation of the After the Fire toolkit (posted at <http://afterthefirewa.org/>). With the FLN working with communities in Yakima County, PERC efforts have helped bring about big changes in policy, funding and public sentiment related to wildfire resilience and forest restoration. Investments in this FAC Net member also helped catalyze a growing state-wide network that now has dedicated staff and funding from the BLM.

To succeed we needed to rapidly learn how to help build local grassroots capacity for action in all aspects of the Cohesive Strategy. We saw this capacity as complementary to the agency integration described in the Cohesive Strategy and a necessary docking station for technical assistance and other resources of agency partners.

Lynn Jungwirth (Watershed Research & Training Center) and Lynn Decker (The Nature Conservancy) on the need for the FAC Learning Network

WESTERN KLAMATH MOUNTAINS, NORTHERN CALIFORNIA

Community leaders in this landscape—long-time partners in the California Klamath-Siskiyou FLN—submitted their first proposal for landscape-scale work in 2013. Having learned from the FLN not to scribble on a good planning process, they embarked on a facilitated collaborative process that incorporates ecological and social factors on an equal basis. By the end of 2015, members of the Western Klamath Mountains Restoration Partnership were in the field together discussing and planning the land treatments that will protect communities and make forests more resilient. Adding to (or multiplying) the effectiveness of FLN efforts, the Karuk Tribe—a partner in WKRP—is one of the first cohort of core members in the FAC Net, reinforcing the focus on community aspects of fire. This FLN also hosts the Klamath River TREX, first in 2014, burning 240 acres on 17 units in and near communities along the river. A year later, the TREX had three crews at work, with 90 people—many local—conducting 400 acres of fuel treatments.

Work here also brought to light a need to be in service to tribal efforts to revive and advance cultural burning practices. The new Indigenous Peoples Burning Network has been bringing together the Karuk, the Yurok (who have held several small TREX aimed at cultural burning) and the Hupa (also along the Klamath River).

Together, these efforts are engaging local communities and agencies in co-learning and co-planning. Good collaboration and planning has drawn the funding needed to support implementation. Active community outreach—including excellent use of social media—is building support among even non-participants and is improving communication and outcomes during wildfires. In short, motivated and able people are proving here that a new shared governance model can lead to dramatically different results, in a remarkably short time.



Top: A USFS fire planner said of the 2013 Northern California TREX, “Hands down, it was the best training I have ever experienced, with an excellent balance of the science and application of prescribed fire management, and a wonderful group of people to build working relationships with.” Private landowners whose properties received fuel treatments were also pleased. Bottom: A commercial forester, local resident and USFS ecosystem management staff officer used Google Earth during a FireScale Mendocino began its collaborative work in 2013, and is using an FLN-facilitated Open Standards process for its foundational planning. This group brings together a full range of stakeholders from the landscape and its human communities. They have established four workgroups—for fire-ready communities, landscape-scale vegetation management, fire and recreation infrastructure, and air quality.

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Below: From community workdays to booths at block parties, and from chipper days to prescribed burning the Tahoe Fire and Fuel Team helps communities prepare to live safely in a landscape with inevitable wildfires.

© North Lake Tahoe FPD

During the 2015 Flagstaff Festival of Science, community members were invited to help mark trees for thinning by the Flagstaff Watershed Protection Project.

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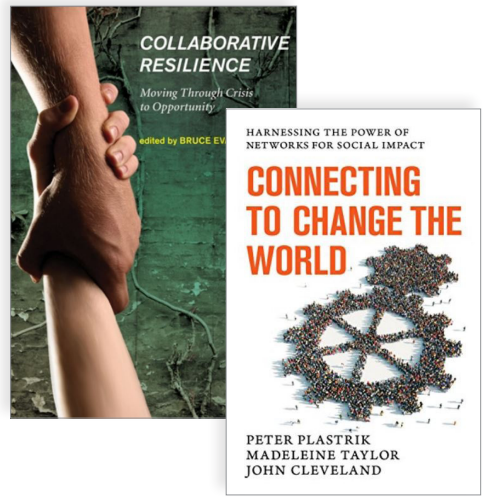
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Fire Learning Network: Grounded in Collaboration

The FLN continues to innovate—and to be the foundation for much other work under the agreement, from TREX and SPER, to the launch of the FAC Net, to the recent start of networks to address other needs uncovered by FLN work, including post-burn issues and cultural burning by indigenous peoples.

The FLN also continues to model successful application of collaboration and work that spans boundaries and organizations. This has been applied to other programs, including the CFLRP and the Joint Chiefs' Landscape Restoration Partnership.

And the FLN continues to be a frequently cited exemplar in academic work examining how transformational changes can be spurred.



The FLN was one of the 10 case studies in the 2014 book *Connecting to Change the World*. In the last five years it was also cited as an example or case study in at least six papers and book chapters between 2011 and 2015, including publications in *Ecology and Society*, *Fire Management Today* and the book *Collaborative Resilience*.

SPER supported critical communication functions for all-lands work in the Ashland municipal watershed. Work with a range of public stakeholder groups has put to rest the notion that “the public” doesn't support their forest resiliency work. And through efforts like a 2014 field tour (below), these partners have been able to share a concrete demonstration of the success of a collaborative, cross-boundary approach with agency and organizational leadership.



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Prescribed Fire Training Exchanges Accelerate

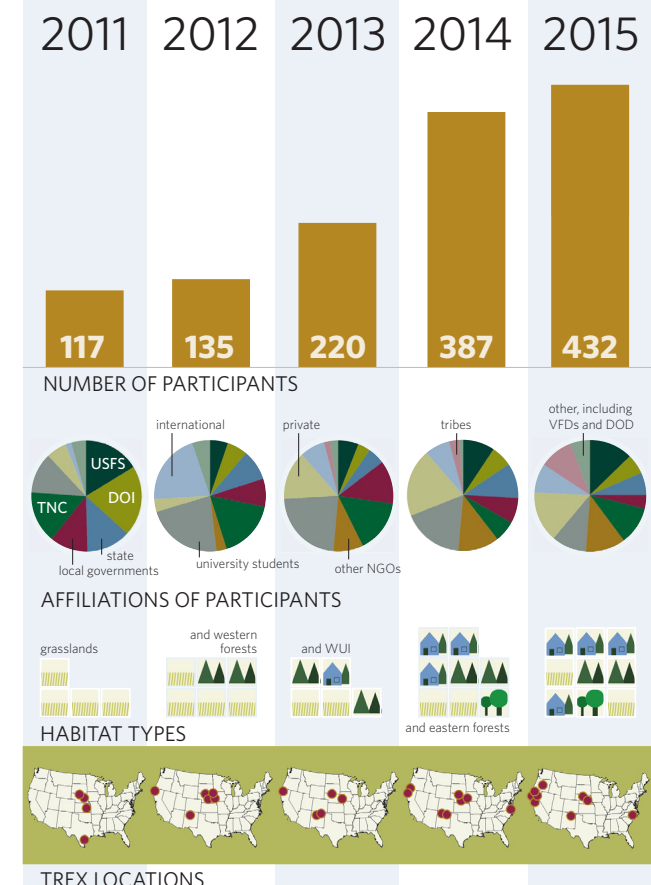
TREX are based on the premise that in order to get more good fire accomplished, more people have to be using fire. Agencies and land-based conservation organizations working alone—or even together—do not have the capacity to meet the scale of the need. By engaging a wider array of practitioners, TREX increases both the number of people able to contribute to the effort and social acceptance of fire.

The first TREX were offered on FLN landscapes in the Great Plains in 2008; by 2011 or so, the main components that needed to be delivered to yield consistently successful events and effective strategy results were in place. We then began to introduce TREX to new landscapes, bringing in more partners and leaders. In 2012, TREX made the move to its first forest landscape. TREX objectives also expanded to include burning in and around communities to enhance community safety. TREX now fully embody the Cohesive Strategy, delivering events that address all three of its goals in an integrated package to a diverse set of stakeholders.



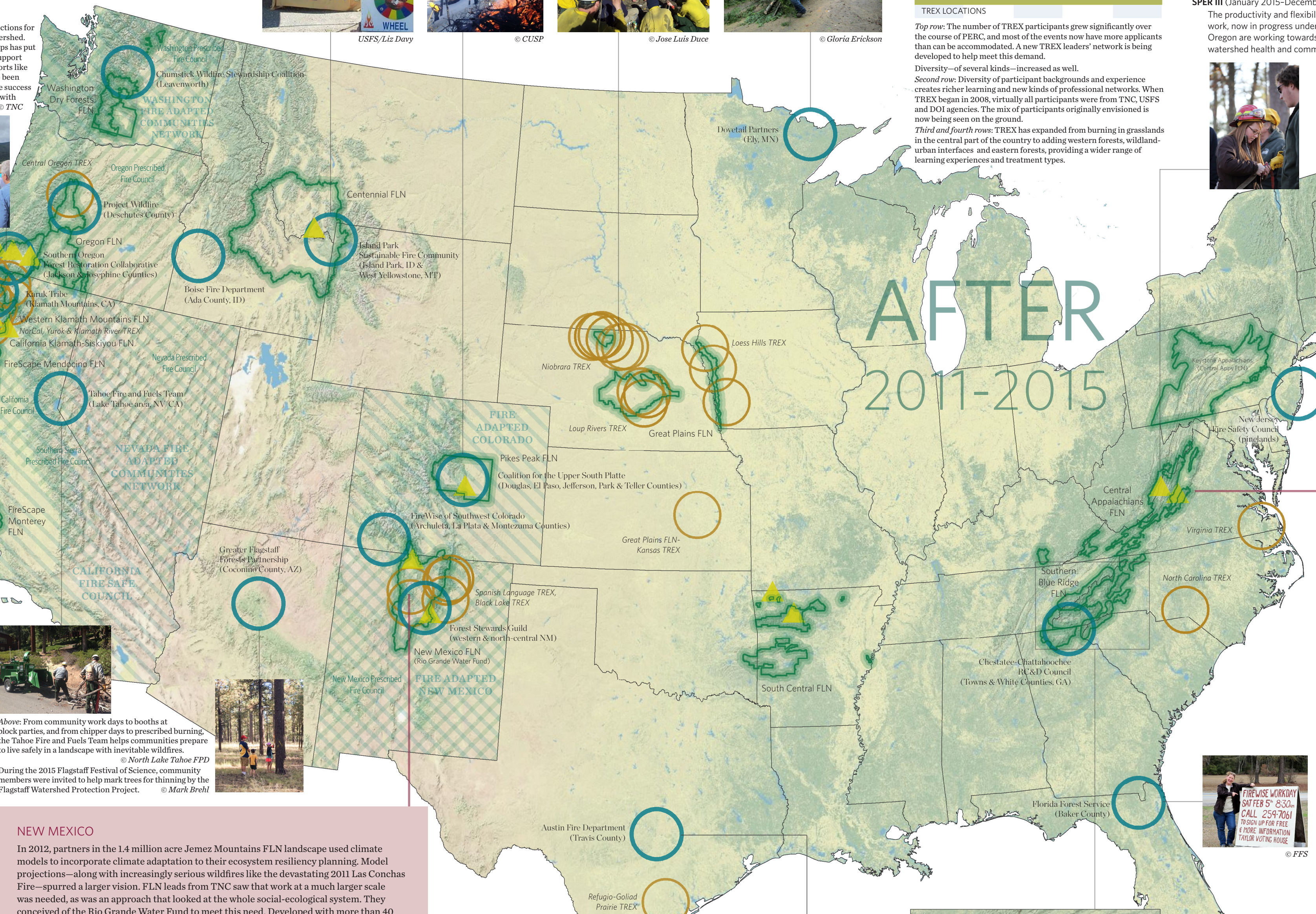
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TREX expand the realm of what can be done—in terms of who can work together, and on what lands—by looking past “we can't do that” and getting the agreements and related tools in place to let people work across organizational and other boundaries.



Top row: The number of TREX participants grew significantly over the course of PERC and most of the events now have more applicants than can be accommodated. A new TREX leaders' network is being developed to help meet this demand. Diversity—of several kinds—increased as well. Second row: Diversity of participant backgrounds and experience creates richer learning and new kinds of professional networks. When TREX began in 2008, virtually all participants were from TNC, USFS and DOI agencies. The mix of participants originally envisioned is now being seen on the ground. Third and fourth rows: TREX has expanded from burning in grasslands in the central part of the country to adding western forests, wildland-urban interfaces and eastern forests, providing a wider range of learning experiences and treatment types.

AFTER 2011-2015



NEW MEXICO

In 2012, partners in the 14 million-acre Jemez Mountains FLN landscape used climate models to incorporate climate adaptation to their ecosystem resiliency planning. Model projections—along with increasingly serious wildfires like that devastating 2011 Las Conchas Fire—spurred a larger vision. FLN leads from Santa Fe that work at a much larger scale was needed, as was an approach that looked at the whole social-ecological system. They conceived of the Rio Grande Water Fund to meet this need. Developed with more than 40 partners and stakeholders, the RGWF aims to restore the resiliency of the 7 million acre watershed that serves about half the state's population. Now underway, the project will generate sustainable funding for a 10-30 year program of large-scale forest and watershed restoration treatments—including thinning overgrown forests, restoring streams and rehabilitating areas that flood after wildfires.

In 2013, the Forest Stewards Guild became one of the first members of the new FAC Learning Network. Their work complements the FLN's, leading efforts in community outreach and a nurturing program of controlled burning. TREX was introduced to the mix in the fall of 2013; perhaps that event's greatest success was breaking down some of the community resistance to fire—they engaged with one of the most vocal skeptics of the burning in such a way that he volunteered as a community information resource for the next year's burns. The Guild also received SPER II support and effectively delivered the fuel reduction treatments as proposed—but more importantly set the stage for future success. Intensive work with county permitting agencies led to a breakthrough that allowed them to conduct the first multi-acre pile-burn on private property in Santa Fe County; the county had previously only permitted single piles, a restriction that prevented scaling up to effective levels. Together, these efforts laid the groundwork for even more integrated work under PERFACT. Ongoing work includes SPER III implementation projects in the RGWF. FAC efforts expanding to the entire state, and a new regional Burned Area Learning Network to address the challenges that come after the inevitable large wildfires.



Members of the Austin and Boise Fire Departments discussed treatments conducted in the vicinity of the Jester Estates Firewise Community near Austin during their first learning exchange in 2015. The idea for the exchanges originated at the 2014 FAC Net annual workshop when network members from the two cities recognized that they shared similar challenges. Members of each department have traveled to the other city to share knowledge and best practices that will help both communities become more resilient to inevitable wildfires.

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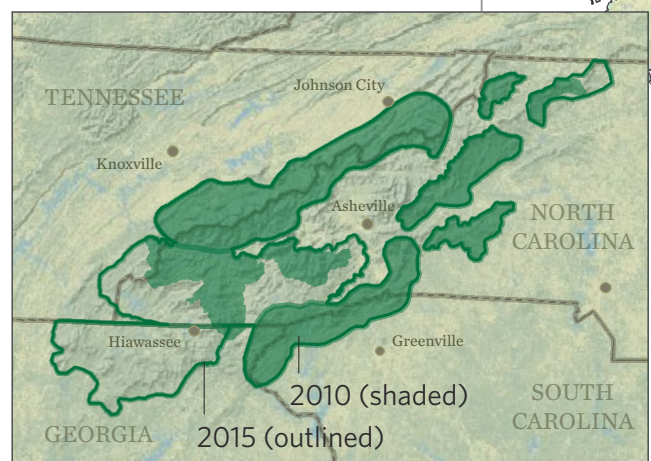
An important piece of the TREX strategy is communication with local communities (and occasionally national audiences) through engagement with the media. Participants craft and share messages about “good fire,” and get practice in communicating them effectively.

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Media invited to 2013 TREX in New Mexico helped local communities engage and have their concerns allayed. This paved the way for burning that came after.

© TNC/Wendy Fuks



The value of the network to partners in the Southern Blue Ridge FLN has fueled long-term growth in this regional network. Growth has been both through individual landscapes expanding their boundaries, and with the addition of a new landscape in Georgia. Among the outcomes of this has been numerous “firsts” in cooperative implementation, such as burning across the border between North and South Carolina. This FLN has also been critical to the development and work of the Grandfather CFLRP project and the fuels projects that enabled fire management objectives for the 2015 Bald Knob Wildlife on the Pisgah National Forest to include restoring fire adapted ecosystems, an important decision for the region.

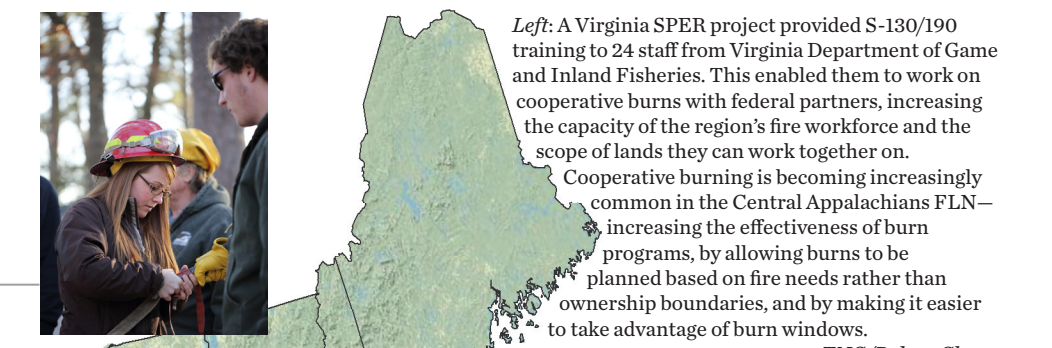
Scaling-up to Promote Ecosystem Resiliency

SPER was created to bridge complementary work on federal and non-federal land, bringing it to landscape scale. By supporting cross-boundary treatments in places with strategies to sustain their effectiveness, SPER projects increased the amount of prescribed fire and other strategic treatments being accomplished. By strengthening capacity through collaborative burning and incorporating training, SPER projects helped ensure that the efforts can be maintained. Together this sets the stage for more fire use, ultimately by managing wildfires for resource benefit, which is essential for getting to the scale needed.

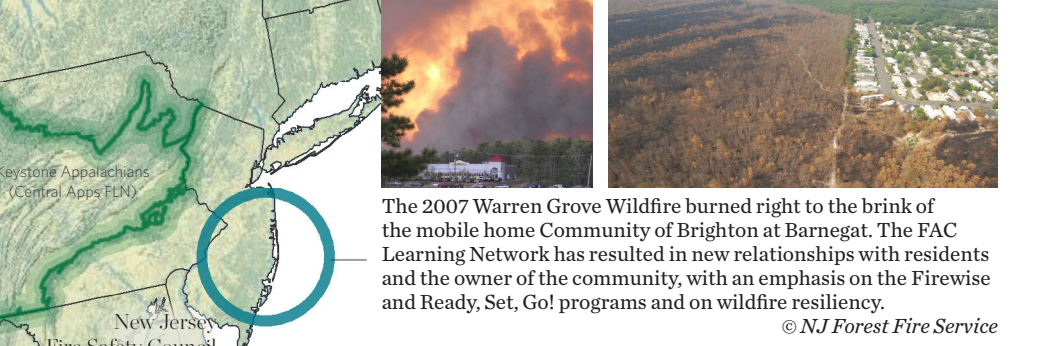
On the Ground: SPER at Work
SPER I (September 2011–December 2013)
Six teams with cross-boundary fire and forest restoration projects in priority landscapes proposed treating a total of 19,767 acres under SPER I. By the end of 2013, they had treated 20,625 acres (104%). Since the treatments were rooted in collaborative partnerships and part of long-term plans, all delivered other benefits as well, from leveraged funds to increased workforce capacity.

SPER II (October 2013–December 2014)
Building on SPER I accomplishments as well as those of FLNs and TREX, SPER II supported five projects that implemented targeted treatments to improve system health and resiliency and contribute to longer term projects by strengthening partnerships and increasing workforce capacity. Three of the projects—in California, New Mexico and Oregon—also provided critical support to fire adapted communities efforts. Together, the five projects proposed 8,368 acres of treatments and completed 9,689 acres (116%) along with another 2,900 acres of site preparations.

SPER III (January 2015–December 2017)
The productivity and flexibility demonstrated by SPER I and II set the stage for a third phase of work, now in progress under the PERFACT agreement. Projects in California, New Mexico and Oregon are working towards accelerating enabling conditions for managed wildfires to benefit watershed health and community safety.



Left: A Virginia SPER project provided S-130/190 training to 24 staff from Virginia Department of Game and Inland Fisheries. This enabled them to work on cooperative burns with federal partners, increasing the capacity of the region's fire workforce and the scope of lands they can work together on. Cooperative burning is becoming increasingly common in the Central Appalachians FLN—increasing the effectiveness of burn programs, by allowing burns to be planned based on fire needs rather than ownership boundaries, and by making it easier to take advantage of burn windows.



The 2007 Warren Grove Wildfire burned right to the brink of the mobile home community of Brighton at Barnegat. The FAC Learning Network has resulted in new relationships with residents and the owner of the community, with an emphasis on the Firewise and Ready, Set, Go! programs and on wildfire resiliency.

CENTRAL APPALACHIANS
Using FLN, SPER and TREX strategies, the Central Appalachians FLN has harnessed the power of effective partnerships to make impressive strides in cooperative and cross-boundary burning. For example, in early 2011 TNC and USFS were getting started on blackening for the 6,000-acre Big Wilson burn, collaborating on one of the largest prescribed burns in both organizations' history in Virginia. A year later they completed the first 1,500-acre unit burn together. An early 2013 network update shared a list of almost 18,000 acres of burns that partners had planned for spring, encouraging cooperation. The next update noted that 13,700 of those acres had been completed, and expressed pride about “the increased communication and coordination on burns this past year, with several burns having five or more agencies and organizations participating. Partners also travelled beyond their typical areas of responsibility to assist others across the two states. The ongoing commitment by all involved to training and safety enabled a remarkably productive year.”

Virginia also hosted a TREX and started SPER I work in 2014. When SPER was slightly behind schedule after the first burn season, the lead suggested an alternative going forward. The proposal was accepted—and very successful! A contract crew was hired for the spring burn season and assigned to priority partnership burns across a wide area. When brief windows opened, the crew was ready and able to seize them. And when eight inches of snow fell in the mountains, barring burning there for a month, the crew lent critical capacity to coastal plain and longleaf pine restoration efforts at a time when the work could not have been completed otherwise. This model proved so effective that partners have continued using it, hiring three such crews (with other funding) for the spring 2016 burn season.

The 2007 Warren Grove Wildfire burned right to the brink of the mobile home community of Brighton at Barnegat. The FAC Learning Network has resulted in new relationships with residents and the owner of the community, with an emphasis on the Firewise and Ready, Set, Go! programs and on wildfire resiliency.

Promoting Ecosystem Resilience through Collaboration and Fire Adapted Communities Together (PERFACT, 2015-2019) are cooperative agreements between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. For more information, contact Lynn Decker ldecker@tnconet.org or (800) 320-0524.

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