

Semi-Annual Report

July – December 2017

Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT):
Collaborative Action and Co-ownership of Fire

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Submitted by:
The Nature Conservancy



Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT)

Semi-Annual Report: July – December 2017

Overview & Contents

The Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT) partnership works to restore our relationship with fire, helping us get to “right fire” through interwoven strategic efforts:

- The Fire Learning Network (FLN) fosters collaboration for restoration and integrated fire management in landscapes across the country.
- The Fire Adapted Communities Learning Network (FAC Net) supports and connects people and communities striving to live more safely with wildfire.
- The Indigenous Peoples Burning Network (IPBN) supports traditional burning knowledge and practices to perpetuate traditions and a healthy environment.
- Prescribed Fire Training Exchanges (TREX) and cooperative burns provide experiential training that integrates a range of people, places and aspects of fire, expanding our collective capacity to manage fire well.
- Scaling-up to Promote Ecosystem Resiliency (SPER), which wrapped up its third phase in December 2017, supported targeted restoration action and capacity-building in pilot landscapes where the other efforts had laid strong foundations. SPER projects took social and operational capacity for right fire at a meaningful scale to the next level.

Because PERFACT efforts are inter-connected and support each other, our impacts are greater and results more durable where multiple overlapping and complementary efforts are directed. As our strategies are becoming more interwoven, they are becoming more powerful.

This fall, the work that steadily builds on the 16-year history of the partnerships grown under this agreement included:

- more than 80 local and regional workshops and learning exchanges for members and partners to share, learn, plan and work together;
- nine TREX and cooperative burns provided experience and training to 311 people; treated 3,344 acres with fire in support of landscape resilience, community safety and cultural resources; and provided a fire behavior laboratory for a multi-agency team of 30 researchers; and
- five family-led burns in the Yurok-Hoopa-Karuk IPBN landscape that helped revitalize the traditional practice of burning along family lines.

This fall saw geographic growth as well, such as the new Southern Cherokee FLN landscape in Tennessee, an emerging statewide FAC network in Montana, and the first TREX to be held in Washington.

HIGHLIGHTS & LEARNING

Summaries focus on specific aspects of PERFACT, illustrated with examples from this reporting period. Of necessity, they cover but a small proportion of the work. These are suitable for use as handouts or information sheets.

PERFACT—four pages briefly introduce the main PERFACT strategies and how relationships within and between them address fire strategy goals

Fire Learning Network—four pages briefly cover how the FLN works and includes highlights from across the network in the latter part of 2017

Prescribed Fire Training Exchanges—four pages cover the TREX and cooperative burns offered this fall, and how they managed a challenging wildfire season

Fire Adapted Communities Learning Network—four pages cover some overarching strategies the network is using to nurture FAC practices and people, with highlights of recent member work

Scaling-up to Promote Ecosystem Resiliency—final report—four pages capture the highlights from three years of work under SPER III, including key actions taken, lessons learned and critical factors for success

Indigenous Peoples Burning Network—two pages highlight family-based burning, planning and other IPBN work this fall

APPENDIXES

A: Delivery on Actions from PERFACT Work Plan for FY 2018—work plan table with work delivered for the first half of the fiscal year

B: FLN Regional Network & Landscape Work Plan Progress Detail—work plan with work delivered for the first half of the fiscal year, and brief narrative highlights

C: Prescribed Fire Training Exchanges & Cooperative Burning—brief descriptions of each training, numerical summaries of participants and acres treated, and links to media highlights and *FLN Notes from the Field*

D: FAC Learning Network Core Member Organization and State Network Work Plans—work delivered this reporting period by FAC Net members, with brief narrative highlights

E: Work Plan Details for Projects under “Scaling-up to Enable the Social and Operational Capacity for ‘Right Fire’” (SPER III)—work plans with work delivered during this reporting period (three projects)

F: SPER III Final Report Narratives

Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT)

A cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior

“The network provides the push I need to keep innovating, stay connected, and to consider the relevance of our local and regional efforts to the challenges faced nationally.”

Rio Trampas TREX © FSG (Sam Berry)



DELIVERING ON A VISION FOR A BETTER RELATIONSHIP WITH FIRE

The PERFACT partnership works to restore our relationship with fire by moving us toward “right fire”—where good fire can do its work on the landscape, and both human and natural communities are better able to live with fire. We invest in the people who share our goals in implementing the integrated tenets of the Cohesive Strategy, helping them develop the resources and relationships they need to succeed. We work in key places, with the people and organizations leading the charge locally, and also at regional and national scales.

PERFACT works through interwoven strategic efforts. The Fire Learning Network (FLN) fosters collaboration for restoration and integrated fire management in landscapes across the country. The Fire Adapted Communities Learning Network (FAC Net) supports and connects people and communities who are striving to live more safely with wildfire. The Indigenous Peoples Burning Network (IPBN) supports traditional burning knowledge and practices to perpetuate traditions and a healthy environment. Prescribed Fire Training Exchanges (TREX) and cooperative burns provide experiential training that integrates a range of people, places and aspects of fire, expanding our collective capacity to manage fire well. And,

finally, the third phase of Scaling-up to Promote Ecosystem Resiliency (SPER), which wrapped up in 2017, supported targeted restoration action and capacity-building in pilot landscapes where the other efforts had laid strong foundations; SPER projects boosted social and operational capacity for right fire—at a meaningful scale—to the next level.



© TNC

As a mature network, the FLN is focusing on cultivating new leaders and strengthening connections across networks. Some FLNs are nurturing growth in geographic reach—for example, the Southern Blue Ridge FLN added the Southern Cherokee landscape; the South Central FLN works on multi-state initiatives, hosting a learning exchange on shortleaf pine for practitioners from Tennessee this fall. Other FLNs are prioritizing closer integration with complementary PERFACT strategies—in Washington, FLN partners hosted their first TREX this fall; an Oregon FLN landscape held its first cooperative training burn, and a landscape in North Carolina hosted a Community Mitigation Assistance Team to incorporate communities in their wildfire recovery work.

FAC Net members are dismantling the silos that have kept community work, fire management and landscape resilience apart. By integrating their work, they are moving from one-off projects to long-term system-wide change. In the Tahoe Basin, work on NEPA planning and capacity-building are moving in tandem, so projects can be implemented as soon as they’re through review. An integrated approach to smoke in Oregon includes advocating for flexibility in the state smoke management strategy revision, while also pursuing ways to help residents reduce health impacts. Along the Colorado-New Mexico border, connecting FAC Net, TREX and FLN partners brings together diverse skills and builds capacity that is leading to joint projects—and a shared vision for integrated fire management.

In spite of a severe fall wildfire season, PERFACT burning and training events adjusted as needed and went forward. Seven TREX provided training for 251 people and treated 1,587 acres with fire. Training burns were also implemented in New Mexico and Oregon, and the TREX model spread abroad, with members of the TREX Coaches Network helping lead a TREX in Portugal. In northern California, members of the IPBN also continued returning cultural fire to the land, with five family-led burns this fall.

Three years of work under SPER finished with remarkable progress in all five pilot projects. They had proposed 1,300 acres of treatments, along with creating enabling conditions for active fire use on their landscapes. By the end, they had treated over 2,000 acres, and had all opened doors to more use of fire.

In California, two projects made great strides building local capacity for fire management while completing strategic treatments around communities to allow wildfires to be safely managed for resource benefit. They saw success when the Island Fire was allowed to burn, with good community support. SPER demonstrated the feasibility of burning on private lands and across boundaries in New Mexico. This helped the Rio Grande Water Fund draw more partners—and funding for the next steps. New partnerships that cross the Colorado state line will also facilitate cooperative work in the upper reaches of the watershed. In Oregon, burning done during the Ashland TREX, coupled with meaningful community engagement, helped the community come to terms with working together on smoke. The transparency and trust that were built laid a good foundation for the community to continue using fire to protect its watershed and its landscape.

“Projects matter—but also who we’re working with, and how it happens: the story is in the relationships.”

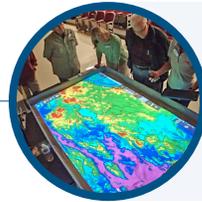
PERFACT *works* because it works at all scales—from individuals, to communities and landscapes, to states and regions, to the country as a whole and our national fire-related institutions. PERFACT works because people, and the relationships among them, are at its core. Over and over again, members of the networks have reiterated the central role of relationships to their successes.

Relationships power the flow of information and innovation. Written resources are essential, but it’s people who help each other efficiently find the right ones, and refine or modify them as needed. Some of the most effective tools and resources can’t be easily reduced to words, and are better transmitted person-to-person through hands-on experience. And, finally, we’re more likely to try new things when we learn them from a person we trust, and have their support through the trial.

Relationships between individuals build the partnerships and collaboratives that plan together, and get work done together in a particular community and landscape. Relationships between people help join these local efforts into larger-scale work.



A FAC Net learning exchange of members from several municipal fire services opened doors on how to enhance home and property assessment processes, since they had the opportunity to see three distinct approaches—from communities in New Mexico, Oregon and Washington—to using these tools in their areas. But maybe the most impactful aspect of the exchange was when participants shared their priorities and job descriptions, and how they are making their personal marks on what leading fire adaptation efforts in their respective communities means.



A “Living with Fire” workshop in Minnesota drew heavily on successful public engagement activities developed by other FAC Net members. The Citizens Fire Academy in Oregon, Island Park’s Incident Command Team reenactment and Santa Fe’s use of the Simtable provided the main ideas for the workshop. The workshop was well attended by permanent residents and seasonal landowners alike and participants felt empowered by the knowledge they gained.



The Cascadia TREX was the first TREX held in Washington, and was planned and implemented in a relatively short timeframe. Its success was made possible by strong local partnerships that provided a foundation of trust, good communications and a wide range of skills. Together, these partners were able to tackle the complexities of a TREX because of key support from several members of the TREX Coaches Network, who guided them through the planning process and were on site through the event as mentors.



From the Yurok-Hoopa-Karuk landscape of the IPBN in the West to the Potomac Highlands FLN in the East, network members plan together, so they can then work together with a shared vision and strategy. While at least one person at the IPBN Healthy Country Plan workshop was rather young, it was fitting, given the emphasis on inter-generational learning in the newly developed plan.



An important partner organization in New Mexico hired a former lead of the Great Plains FLN as its director this year. Her experience with TREX and prescribed burns—and established ties to the NM FLN, through the national network—were among factors enabling on-the-ground work in the Chama landscape of the Rio Grande Water Fund to accelerate. Likewise, relationships between the NM FLN and FAC Net members in southwest Colorado played a key role in launching a new collaborative effort spanning two states, three national forests and two forest regions.

“Participation in the network has reinforced the importance of reaching out to others, forming partnerships, and looking for ways to leverage others’ efforts and not just undertaking this work on your own.”

“We feel that we are not alone—we are all in this together and what we are working towards is collectively addressing a significant social, economic and ecological issue that requires long-term solutions.”

Relationships between individuals help move the lessons and culture of these specific places and regions into our institutions. Individual voices, speaking from personal experience, can power the national conversation.



The FLN has been key to the growth of a new generation of prescribed fire councils that bring together prescribed fire practitioners and a full range of stakeholders, from researchers to private landowners to air quality and other regulatory agencies. Together they identify goals and barriers, strategize, and act. Lenya Quinn-Davidson helped form the Northern California Prescribed Fire Council in 2009, was instrumental in forming the Washington council, and advises the Southern Sierra council. She is now on the board of the Coalition of Prescribed Fire Councils, bringing this approach—and learning from her work with FAC Net—to the national level.

This is why PERFECT supports actions that connect people, and that build the skills and capacity of people in the places they work.



Northern California needs a more robust local fire management workforce and more private-land burning. The FLN is building capacity for both. Training burns—such as those near Hayfork and Weaverville this fall—build skills and give the wide range of local burners experience working together, bridging any institutional barriers. Work is also under way to launch a prescribed burn association to help private landowners burn cooperatively. The FLN held two training burns in Humboldt County and is working with a partner NGO to build an equipment cache for private burners.

Strong networks also build resiliency and sustainability. Groups that work together can continue moving forward when one or a few people leave. Having relationships in place allows a group and a community to weather a crisis—or seize an opportunity. And a proven ability to work together and get things accomplished also leads to greater success in obtaining funding to keep moving work forward; PERFECT support routinely launches efforts that leverage funding by this means.



The Heart of the Appalachians landscape has recently seen significant turnover in partners from numerous agencies. This FLN is weathering the turnover because of its long history of partner work together—and is even being revitalized by the changes. In October a small group met to discuss plans for the coming burn season, and ended up developing a plan to revise the landscape’s strategic plan; a workshop is set for the late winter. Many of these newly identified leaders will take part in leading the workshop—and carrying forward the current network.



Wildfires in California turned lethal shortly after the Women in Fire TRES near Yosemite National park got started, and all burning in the state was shut down. Strong working relationships and a commitment to resiliency meant that WTRES went forward. The organizing team rapidly developed an alternative plan. Drawing from within their ranks, they put together trainings based on the expertise of people on the roster and opportunities at hand, including fire effects monitoring on a managed wildfire, providing valuable learning experiences for all.



PERFACT invests in work that demonstrates what is possible when people collaborate and focus on solutions rather than what “can’t” be done. The earliest TRES ran on a little money and borrowed equipment; more support grew TRES into an increasingly effective and replicable model that drew a broader base of support, both financial and technical. Now, half of all TRES are entirely or primarily supported with other funds, linked and guided by the TRES Coaches Network. Similarly, the relatively small SPER pilot projects demonstrated the feasibility of burning in key areas, and led to funding for continuing work in those landscapes.

“FAC Net introduced me to the principles of collaborative leadership. Working in the command-and-control focused world of emergency fire suppression, this presented a shift in thinking in how solutions can be invented through the power of collaboration.”



Klamath River TREX © Erica Terence

CASE STUDY: WORKING PERFECT-LY IN WASHINGTON

On a PERFECT team call this fall, we asked partners in Washington to reflect on their history together, and how they got to their recent great leaps forward.

The story, they said, began in earnest around 2008, with turning points for two local efforts that would become key drivers, the Tapash FLN landscape and the Chumstick Wildfire Stewardship Coalition. A several-year incubation period followed, with a lot happening in site-specific, and not always connected, ways for these and other players.

Things sped up in 2013—the FLN geographic scale expanded and Chumstick joined the newly launched FAC Net. In 2014 several factors—including a wicked wildfire season—converged to accelerate things even more. This phase was “rough”—but the long-term relationships and complex web of connections among efforts saw them through to remarkable success.

Washington now has a statewide FAC network and active prescribed fire council. These were instrumental in getting legislation passed (HB 2928) that is changing the state’s approach to prescribed fire. They are leading the drive to use that new framework to get fire on the ground for forest resiliency and community protection. And, because of their experiences and recognition that severe fires will still happen, they are leading post-fire recovery work. Their approach integrates landscape, human and economic recovery factors.

This network of networks continues to collaborate, complement each other, and live by the best practices they’ve discovered along the way:

- Seize opportunities.
- Make room for each other.
- Say “no” strategically.
- Use the Cohesive Strategy.
- Be willing to suspend your disbelief.
- Have faith the pie will get bigger, for everyone.



© WA RC&D

PUBLICATIONS & MEDIA HIGHLIGHTS

Peer-reviewed publications that look at aspects of PERFECT:

Goldstein, Bruce Evan et al. “Transforming with a Soft Touch: Comparing Four Learning Networks,” *Systems Research and Behavioral Science* (<http://onlinelibrary.wiley.com/doi/10.1002/sres.2479/full>).

Lake, Frank et al. “Returning Fire to the Land: Celebrating Traditional Knowledge and Fire,” *Journal of Forestry* (<https://www.fs.usda.gov/treesearch/pubs/54392>).

Highlights from the 50+ media pieces on PERFECT projects and partners this reporting period:

“Wildfires Are Essential: The Forest Service Embraces a Tribal Tradition,” *Yes! Magazine* (<http://www.yesmagazine.org/issues/science/wildfires-are-essential-the-forest-service-embraces-a-tribal-tradition-20170403>).

“In the West, Communities Pioneer Cooperative Approach to Fighting Wildfires,” *The Christian Science Monitor* (<https://www.csmonitor.com/Environment/2017/0921/In-the-West-communities-pioneer-cooperative-approach-to-fighting-wildfires>).

“Friendly Fires: Training Exchange Teaches Controlled Burn Strategies in Roslyn,” *Yakima Herald* (http://www.yakimaherald.com/sports/outdoors/friendly-fires-training-exchange-teaches-controlled-burn-strategies-in-roslyn/article_45fe369e-aeef-11e7-97fa-07d11710d2d6.html).

“It’s Impossible to Prevent Wildfires. So How Do We Prepare?” *Fortune Magazine* (<http://fortune.com/2017/10/19/california-wildfires-preparation/>).

“Fire as Friend, Fire as Foe: Klamath TREX and the 2017 Wildfire Season Show Us the Two Faces of Fire,” *Forest and River News* (http://www.treesfoundation.org/wp-content/uploads/2017/11/FRN_Winter2017_final.pdf).

“Yes, Something Can Be Done About Wildfires,” *New York Times* (<https://www.nytimes.com/2017/12/19/opinion/california-wildfires-helping.html>).

Recent Awards

- Will Harling (FLN, TREX, SPER), Lenya Quinn-Davidson (FLN, FAC Net, TREX) and Margo Robbins (IPBN, TREX, FLN) received the three “2017 Partnership Awards” from CAL FIRE
- Grandfather Restoration Collaborative (Central Escarpment FLN landscape) received 2017 USFS Southern Region “Restored and Resilient Landscapes Award”
- USFS FMO Brian Schaffler (Southern Blue Ridge Escarpment FLN landscape) received a South Carolina Forestry Commission “Wildfire Mitigation Award”
- Deschutes Collaborative Forest Project received the 2017 USFS “Chief’s Honor Award” for their work on the West Bend Project

More Online

- <http://www.conservationgateway.org/fln>
- <http://FireAdaptedNetwork.org>
- <http://nature.ly/trainingexchanges>



Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT) is a cooperative agreement between The Nature Conservancy, the USDA Forest Service and agencies of the Department of the Interior. For more information, contact Lynn Decker at Idecker@tnc.org or (801) 320-0524.

PERFACT is an equal opportunity provider.

Fire Learning Network

A cooperative program of the Forest Service, Department of the Interior agencies and The Nature Conservancy, the FLN has a 16-year track record of helping to restore our nation's forests and grasslands and to make communities safer from fire.



The Fire Learning Network supports public-private landscape partnerships that engage in strategic planning, implementation and monitoring. This builds the trust and relationships critical to durable, sustainable collaborations that facilitate work across boundaries and leverage a diversity of investments. The FLN also provides a means for sharing the tools and innovations that increase capacity and enable strategies to get to scale.

This year, the FLN is focusing on expanding and diversifying participation in cross-network peer



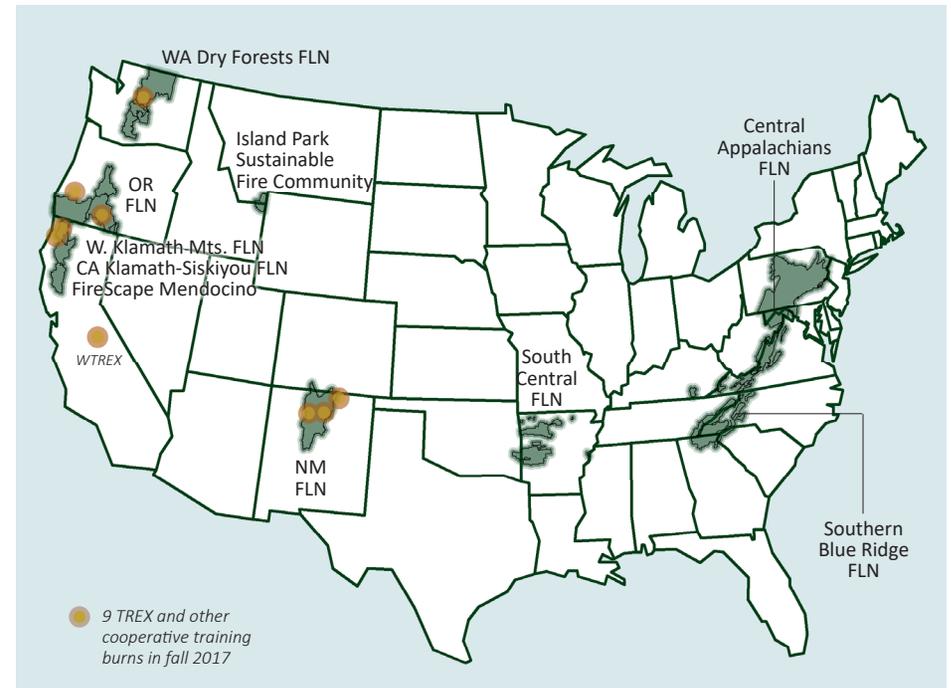
exchanges and cultivation of emerging network leaders. For example,

- California Klamath-Siskiyou FLN assisted a promising new partner in the San Francisco Bay Area with formulating a regional prescribed fire strategy and supported a field learning exchange with private landowners in partnership with FireScope Mendocino;
- South Central FLN partners from Arkansas hosted agency representatives from Tennessee for a shortleaf pine-oak woodland restoration workshop;
- Central Appalachians FLN leaders served on the planning team and took part in the Women in Fire TRESX, and diversified their own annual workshop planning committee with rising leaders from several state and federal agencies; and
- Western Klamath Mountains FLN supported an emerging tribal community leader's participation in a Yurok-Hoopa-Karuk IPBN landscape workshop.

Top: A burn boss trainee briefs TRESX and local fire agency resources at the McCartney Creek prescribed burn during the Cascadia TRESX in Washington. © Cheryl Barth

Bottom: A trainee at a cooperative training burn hosted by the California Klamath-Siskiyou FLN conducts his first after action review.

© WRTC (Dave Jaramillo)



This fall, ten regional FLN networks and large landscapes advanced a shared vision of integrated and adaptive fire management through 27 landscape collaboratives across the country.

Several FLN collaboratives and landscape partners were recognized for their accomplishments in 2017. The Deschutes Collaborative Forest Project, part of the Deschutes Basin landscape of the Oregon FLN, received the 2017 Forest Service's Chief's Honor Award for their work on the West Bend Project. The Grandfather Restoration Collaborative, in the Central

Escarpment landscape of the Southern Blue Ridge FLN, received the 2017 Restored and Resilient Landscapes Award from the USFS Southern Region. CAL FIRE awarded its Partnership Awards for Superior Achievement to Will Harling, Lenya Quinn-Davidson and Margo Robbins, all key leaders in the California Klamath-Siskiyou or Western Klamath Mountains FLNs.

Highlights from around the Network: July-December 2017

California Klamath-Siskiyou FLN

Fall 2017 was a **landmark season for cooperative burning** in Humboldt and Trinity counties, with FLN partners conducting four live-fire trainings totaling more than 320 acres. These burns not only improved firefighter qualifications and helped them complete position task books, but changed the way that landowners, VFDs and CAL FIRE look at private lands burning, greatly expanding perspectives and opportunities across the counties.

Building on these on-the-ground relationships, a small group met in December to discuss formation of the Humboldt Prescribed Burn Association, which is anticipated to officially launch this spring. And with financial support from the California Deer Association and other private donations, partners continued to develop their prescribed fire equipment cache that included three slip-in units (one 200-gallon and two 50-gallon), 30 hand tools, 6 drip torches, about 800 feet of hose, two backpack pumps and an equipment trailer.

Right: In October, a group of volunteer fire departments, non-government organizations and private landowners completed a 140-acre training burn on a private ranch in Humboldt County.

© UC Extension (Lenya Quinn-Davidson)



Central Appalachians FLN

Left: Partners made smoke observations during a cooperative burn at Sideling Hill Creek Preserve in western Maryland. The burn unit had been featured in planning exercises and a field tour at the first Potomac Headwaters FLN landscape workshop in early 2017. That workshop, along with assistance from many key partners, including the Maryland Forest Service, Department of Natural Resources—Heritage and Conservation Corps, made the burn possible.

© TNC (Matt Kane)

The annual regional workshop in November was once again well attended, with 76 people from 23 agency units participating. Through small-group work sessions, participants made significant progress towards **building capacity in four critical areas**: planning, burn prep, fire qualifications and fire effects monitoring. Planning of the workshop was, in itself, a step toward increased capacity as the planning committee included ten people from five agencies. The Virginia Department of Forestry also announced that its staff will be able to participate in prescribed burns hosted by other agencies. This **new policy, long sought by staff and partners**, will open doors for co-management and training opportunities and bring essential equipment to the partnership.

FireScope Mendocino



Informed by an FLN field learning exchange and armed with the technical support he needed, a landowner conducted pile burns on his Round Valley ranch this fall and is preparing several others for burning over the winter.

© Chris Baldo

Staff from the Mendocino NF, CAL FIRE, Watershed Research and Training Center and Environmental Protection Information Center met with private landowners in the Covelo and Round Valley area in November. This field learning exchange, coordinated by community engagement specialist Jana Carp, was designed to foster relationships and share resources for prescribed fire, on both public and private lands. As a result, several **landowners are now planning to implement controlled burns** on their properties. In addition, the Mendocino NF added a burn project on the Estell grazing allotment to their 2018 program of work, and began pre-NEPA planning for several other projects.

Island Park Sustainable Fire Community



credit: USFS (Liz Davy)

Wildfire Awareness Days kicked off this year with an evening presentation at the Conservancy's Flat Ranch Preserve. The Forest Supervisor from the nearby Salmon-Challis NF shared his experience in using prescribed fire in lodgepole pine for mitigating future wildfires. Saturday then brought a half day of activities and information exchange about wildfire preparedness—along with some good community fun.

Later in the month, homeowners from five neighborhoods participated in a series of “Are You Prepared for Wildfire?” workshops built on a successful sand table wildfire simulation exercise held last spring. The workshops provided opportunities to interact with staff from the Caribou-Targhee NF and Fremont County Emergency Management, and helped community members to **refine evacuation plans, define neighborhood escape routes and emergency vehicle access areas, and plan fuels reduction activities.**

New Mexico FLN



A sign in the Manzano Mountains warned motorists of the risk from post-fire flooding.
© Forest Stewards Guild (Zander Evans)

The Burned Area Learning Network (BALN)—a community of practice for post-fire planning, response and recovery—continues to engage new partners through leadership of the New Mexico FLN and a subaward with the Forest Stewards Guild. The Santa Fe City Water Division has begun **using BALN products for its analysis of post-fire risk** to reservoirs and they have engaged in planning initiatives for the Santa Fe Fireshed. Water Division staff serve as lead communicators with local government and have provided funds to facilitate public events. The Greater Santa Fe Fireshed Coalition has also initiated a post-fire response plan, and BALN leads are producing a new newsletter for managers who have attended workshops or expressed interest in learning more about burned areas and post-fire practices.



Oregon FLN

The U.S. Environmental Protection Agency deployed a weather balloon to collect data on smoke emissions during a controlled burn at Sycan Marsh Preserve. © TNC (Craig Bienz)

The Big Coyote Fuels Reduction Project, enabled by the first Supplemental Project Agreement in USFS Region 6 under a new **Master Participating Agreement between the FLN and USFS, facilitated cross-boundary treatments** on more than 1,100 acres in 2017.

In October, a 900-acre cooperative burn at Sycan Marsh Preserve provided **training for more than 30 people**, and hosted a team of 30 scientists from the EPA, National Center for Atmospheric Research, USFS Fire Research Lab, University of Montana and Western Wildland Environmental Threats Assessment Center. The research team used a multi-scale assessment approach—from micro-fuels plots to unmanned aircraft systems to fixed-winged remote sensing—to quantify fire intensity, behavior and effects. Participants reported that the exchange between fire scientists and fire managers during the burns **delivered one of the best co-learning opportunities possible.**



South Central FLN

The FLN hosted a five-day shortleaf pine-oak woodland restoration workshop and learning exchange in October. © TNC (McRee Anderson)

Over 20 people from nine agencies participated in a fall learning exchange to assist conservation partners in Tennessee with the **development of shortleaf pine management and restoration.** The workshop highlighted restoration needs, commercial and non-commercial timber sales, red-cockaded woodpecker management, fire effects monitoring, prescribed fire messaging and public engagement. Participants visited several sites in the Interior Highlands of Arkansas, including the Ouachita NF Buffalo Road Shortleaf Pine Restoration Area, the West Frazier Sawmill in Russellville, the Ozark NF Woodland Ecosystem Restoration Project and the Petit Jean Wildlife Management. The field exchange closed at the Mount Magazine State Park West End Restoration and Demonstration Site with discussion of how the partnership promotes high-profile prescribed burns in some of the busiest Arkansas parks.



Southern Blue Ridge FLN

Southern Blue Ridge Escarpment landscape partners look at the fire landscape as a whole, prioritizing burn units regardless of ownership. *USFS/CAFMS (Helen Mohr)*

Over the summer and fall, five of the nine landscape collaboratives in the Southern Blue Ridge regional network held partner workshops—many taking advantage of windows between wild-fire details in western states to **jointly plan next year’s scope of work and prescribed fire seasons**. The Georgia Blue Ridge Mountains landscape met in Ellijay, Georgia in December, with a record 40 people from 10 agencies participating. Discussions included prescribed fire techniques, wildlife monitoring, local FAC Net efforts to engage communities, and 2018 prescribed fire plans. In the new South Cherokee landscape, the focus was on outreach to existing and potential partners, developing goals, and refining landscape boundaries. The final version of Ecomath, a GIS-based ecological fire prioritization tool, was completed for the South Zone of the Cherokee NF and helped fire managers in **determining fire needs across the landscape**.



Washington Dry Forests FLN

Broad support for the Cascadia TRES was visible in the range of vehicles from multiple federal, state and local fire agencies parked on site during a prescribed burn outside the community of Roslyn. *© John Marshall*

The Cascadia TRES facilitated the training of 18 individuals from eight federal, state and local agencies from Washington, Oregon and Idaho through 419 acres of controlled burning on Forest Service, National Park Service, non-profit and private lands, and through field and classroom workshops. As the **first TRES in Washington**, it brought positive attention from partners, stakeholders, media (newspaper, TV stations, radio, blogs and social media) and the public to prescribed fire. Engagement with partners throughout the development and implementation of the six burns **demonstrated success, strengthened partnerships and established a foundation** for—and interest in—future burning. Outreach materials, strategies and lessons learned for communicating with the public about prescribed fire and smoke that had been developed through the 2928 Forest Resiliency Burning Pilot were instrumental in fostering community support for the burn that took place just outside Cle Elum.

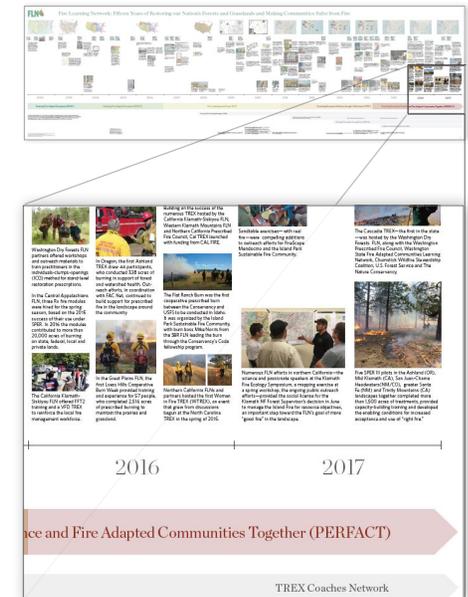
“We focus often on the resiliency of our landscapes, but the resiliency of our institutions and organizations is important too. It is important to foster partnerships and networks within our landscapes to build the resiliency needed to adapt to unexpected changes, to quickly change directions when needed, and to take on new opportunities when they arise.”

Western Klamath Mountains FLN



During the Klamath River TRES, a controlled burn was conducted on a unit that had burned at high severity in the 2013 Orleans Fire. Since that fire burned through town four years ago, FLN partners have been creating a continuous fuelbreak around the community of Orleans to prevent future wildfires from impacting the town. *© Stormy Staats*

The Klamath River TRES gathered more than 80 participants in Orleans and Happy Camp; together they completed **310 acres of controlled burning on 14 separate units**. When burning paused on red flag warning days, participants prepared another 800 acres for future burning. The Klamath TRES Public Information Unit was particularly active this year, **publishing four video updates** (“TRES Connects”) that highlight active cooperative burning, fire effects and cultural fire management; these stories of good fire have been viewed more than 650 times on YouTube.



FLN staff developed a timeline poster highlighting 15 years of accomplishments and success stories from across the network. This project grew out of a team building and reflection exercise at the FLN Leads annual workshop in June 2017, and will serve as a touchstone for the network’s shared history as it moves forward.

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

PERFACT is an equal opportunity provider.

Prescribed Fire Training Exchanges and Cooperative Burning

Experiential training events in support of landscape restoration and resiliency, fire adapted communities and workforce capacity-building

In a season filled with both remarkable growth and serious challenges, the fall Prescribed Fire Training Exchanges provided training for more than 250 participants, treated more than 1,500 acres with much-needed fire, and kept messages about good fire and our ability to work together to live better with fire in the conversation through media outreach.

TREX events are organized as prescribed fire assignments, managed using the Incident Command System (ICS) and hosted by a combination of federal, state and non-governmental organizations. A typical two-week agenda begins with classroom presentations and field trips where participants learn about local ecology, conservation challenges and opportunities, and tour sites of wildland fires in the area to

explore and discuss their impacts. Participants are then divided into modules, and begin training with their assigned equipment and scouting burn units. Over the course of the TREX, the modules work as part of a burn team completing a series of prescribed burns on a variety of ownerships. Through this process, participants learn how to effectively work on interdisciplinary teams, and experience how legal and administrative frameworks for cooperative burning can enable regions to increase the pace and scale of prescribed fire. They also gain experience working for—and leading—firefighters, managers and practitioners from other states, regions and countries.

The fall started with the Spanish-language TREX, hosted—for the seventh year—by the Santa Fe National Forest, bringing together fire managers and technicians from Latin America and the U.S. Also returning this fall was the community-based Klamath River TREX in Orleans, California, where a collaboration between tribes and other local residents continues to demonstrate how federal, state, tribal and private cooperators can accomplish more together. The Yurok tribe hosted its second TREX of the year, and following last year’s enthusiastic response, the



In an example of how flexibility—and having crews mobilized—can be key to success, participants in the first Umpqua TREX did two things at once on their very first day. The fire effects monitoring team and a burn boss trainee took part in the cooperative burn at the Sycan Marsh Preserve, while the rest of the participants burned in grass and oak woodland on private land south of Roseburg, Oregon.
© TNC (Amanda Stamper)

Training, Treatments & Outreach

Prescribed Fire Training Exchanges & cooperative training burns provide:

- hands-on training and NWCG position task book opportunities
- prescribed fire treatments that meet local objectives
- outreach to community leaders, media outlets and land managers

Fall 2017 TREX



© Justin Humbert

		people	acres
Spanish-language TREX	NM	17	40
Cascadia TREX	WA	21	419
Yurok TREX	CA	32	92
Klamath River TREX	CA	86	311
Women in Fire TREX (WTREX)	CA	31	20
Rio Trampas TREX	NM	34	160
Umpqua TREX	OR	30	545
TOTAL:		251	1,587

second Women in Fire TREX was held, this time hosted by Yosemite National Park.

There were three first-time TREX events this fall as well, hosted by partners in Washington, New Mexico and Oregon—the Cascadia, Rio Trampas and Umpqua TREX, respectively. Also new was the CalTREX initiative, a program sponsored by the U.S. Forest Service and CAL FIRE to build capacity and demonstrate effective cooperative burning through a series of TREX events across California; the first two events were scheduled for this fall (in Butte and Calaveras counties), but the deadly October fires in northern California led to a statewide burn ban and all previously issued permits were rescinded. This also impacted the longstanding flagship NorCal TREX, causing it to be postponed until spring.

The launch of the TREX Coaches Network over the summer is already leading to the spread of the TREX model and increased collaboration by developing and empowering TREX leaders to expand their impact. There were two particularly important outcomes from the Coaches Network this fall. First, there was a marked increase in cross-pollination of TREX, with coaches from one area participating in and helping lead a TREX in another area; this included five TREX coaches rendezvousing in northern New Mexico to assist with 800 acres of burning on the Vermejo Park Ranch, a 600,000-acre private property with important conservation programs.

And in November, the first TREX hosted outside the country—the Alto Minho TREX—was held in northern



The Klamath River TREX is tightly bound to the communities along the river. In addition to providing training for local residents and conducting strategically placed burns to protect homes and infrastructure, outreach is key. This comes in many forms, from bringing kids out to gather a healthy acorn crop made possible by fire, to hosting media on the fireline.

© Stormy Staats, Erica Terence



Burning hazel produces a regrowth of straight, flexible shoots needed for basket weaving. The Yurok TREX brought together participants with skill levels ranging from new FFT2 trainees to firefighters with decades of experience. Their burn objectives were equally wide-ranging, including to enhance the propagation of basket weaving materials, medicinal plants and traditional foods; prairie restoration; home protection; and fuel reduction along the Highway 169 corridor, an area rated by CAL FIRE as a very high fire hazard severity zone.

© Cultural Fire Mgmt. Council (Margo Robbins)



The Camp Stoney dining hall, before and after fuel reduction work by the Spanish-language TREX crew. Adding a defensible space assessment and demonstration project at the base camp was a pilot project for TREX, intended to promote such practices in this area near Santa Fe.

© Erin Banwell



Scientists install monitoring instruments before a cooperative burn at the Sycan Marsh Preserve.

Through Fire Learning Network partnerships, host sites can make use of a national administrative agreement that enables cooperative burning between the U.S. Forest Service and The Nature Conservancy. In southern Oregon, long-time FLN partners used this agreement to host their first cooperative burn at the Sycan Marsh Preserve. In addition to the benefits of the burn to the landscape, it provided training opportunities for more than 30 fire practitioners. It also hosted a large multi-organization research team that collected datasets for evaluating coupled fire-atmosphere models, smoke production and dispersion models.

© TNC (Craig Bienz)



Hosted by the Forest Stewards Guild in northern New Mexico, the Rio Trampas TREX took participants from shelter tests to 160 acres of burning in 12 days. This TREX provided a good boost to local prescribed fire capacity, with a large proportion of the participants coming from within the state. Twenty-five trainees worked on position task books ranging from Fire Fighter 2 to Burn Boss.

© Forest Stewards Guild

Portugal, with four coaches helping to inspire, plan and lead the event.

With the launch of the TREX Coaches Network and the CalTREX initiative, the TREX strategy is not only developing resiliency, it is growing—doubling the number of events held a year or two ago. The Fire Learning Network (FLN) began supporting cooperative burn training events in 2008; FLN leaders soon adding field days and diverse learning objectives to make the most of participants' time together, and TREX was born. Fast forward to 2017—and the FLN has now delivered more than 70 events that have provided training, hands-on experience and relationship-building for more than 2,500 participants and

implemented more than 100,000 acres of planned burns.

The most recent evolution of the TREX strategy is a shift toward host sites being fully capable of financially, administratively and organizationally supporting their own TREX events. For the fiscal year 2018 prescribed fire seasons—the fall burns just completed, and the spring events with planning underway—only half of the 22 TREX events planned will receive direct funding and support from the FLN. The others—with leadership from members of the TREX Coaches Network—will carry on the TREX vision, model and effectiveness with funding and organization provided by federal, state and non-governmental organizations.

Smoke rose—again—near the City of Roslyn, Washington. Cascadia TREX crews successfully burned near a town that just weeks earlier had been under threat from the Jolly Mountain Fire—a fire that had put the whole TREX, let alone the particular burn unit, very much up in the air. But a change in the weather—and the diligent work of local partners—allowed the work to go forward. With support from local fire agencies, the TREX crew conducted a prescribed burn adjacent to the Roslyn Urban Forest, less than a mile from downtown Roslyn. It was an important burn, for both restoration, and to begin the work needed to protect the community from future fires. © John Marshall



Poor air quality in the Central Valley, and then a state-wide burn ban due to fatal wildfires, precluded much prescribed burning during this year's Women in Fire TREX (WTREX). The crews immediately turned to other work—from training on engines to working with local CAL FIRE partners to practicing fire effects monitoring (FEMO) skills on the Empire Fire in Yosemite National Park.

© TNC (Nikole Swaney); Erin Banwell



The first TREX to be held outside the United States took place in Alto Minho, in the north of Portugal, this fall. Planned by a team of inter-municipal managers (similar to county managers), the Alto Minho TREX drew participants from throughout Portugal's fire management and firefighting community—foresters, district managers, professional wildland firefighters and volunteer firefighters from federal and municipal agencies—as well as wildland firefighters from Spain, Brazil and the United States. Using many of the lessons learned over the years in the U.S., this team was able to pull off a remarkably successful event. Like California, Portugal suffered devastating fires this year, with June and October conflagrations killing more than 110 people and blackening hundreds of thousands of acres. As the TREX teams gathered a couple weeks later, burn bans were still in place. With community and agency leadership support built through months of planning and coordination, however, the TREX leaders were able to get burn ban waivers approved by federal authorities. They completed many of their planned burns, and received positive national and local coverage in newspapers and on television.

Leaders and participants alike believe the lasting result will be better integration of firefighting teams and managers, and better coordination and outreach that together will result in an increased commitment to prescribed burning. Even a month after the TREX, leaders were reporting an increase in the amount and kind of prescribed burning being used. © TNC

Tested by a Fiery Fall

There is always uncertainty about the weather and burn conditions—especially since TREX must be planned 6-12 months in advance to allow participants and hosts to complete all the advance work and scheduling. There are always surprises. But even by TREX standards, the fall 2017 burn season was particularly impacted—by a long hot summer, drought, heavy rains and deadly wildfires.

TREX events, however, have built a robust culture of assessing any situation and asking “What can we do?” rather than focusing on what can’t be done. There are always back-up plans. And when Plan B needs a Plan B? TREX leaders build resiliency into their planning. Hosts put thought into variability in their burn unit selections, having ready both broadcast and pile units, including a variety of slopes and aspects, and having multiple ownerships or jurisdictions available to work in. Leaders also have non-fire work lined up—like the preparation of additional burn units or scouting—and a range of learning opportunities, from sand-table exercises to additional ecology presentations to firefighting courses like S-212 or S-131.

This fall, TREX coaches and hosts maintained their focus on finding the path to opportunity, rather than on the barriers. They focused on finding opportunities to accomplish the important burns—but also on the less weather-sensitive aspects of TREX: delivering high quality training, and public outreach through print, radio and television.

Key elements of TREX resiliency include having a selection of diverse burn units, opening a wider window to find suitable burning conditions. Mobilizing the burn team for two weeks gives flexibility to navigate uncooperative weather—but also provides a creative and committed network of practitioners, hosts and coaches who can together find solutions to unexpected challenges. A commitment to flexibility is also invaluable: when a two-week time frame absolutely won’t work, a willingness to re-group and shift the dates rather than cancel, allowed two TREX this fall to go forward almost as planned.

Few TREX go exactly as planned. This fall, the Spanish-language TREX assisted on a wildfire and with wildland-urban interface hazard mitigation work when prescribed burning wasn’t possible. The Umpqua TREX was delayed due to wildfires, but then conducted a burn adjacent to a recently threatened town (and received very positive media coverage for it). The Rio Trampas TREX was postponed not once, but twice, before being successfully implemented. But these challenges can even end up enriching a TREX, by spurring the creativity and learning driven by the question “What is possible here?” Through their resiliency as a team of committed practitioners, TREX leaders—and their crews—continue to find ways to accomplish their burn objectives safely, while providing training and outreach to firefighters and communities.



An evening burn on the Klamath River TREX took advantage of cooler temperatures and higher humidity during a warm, dry season. This fall, in addition to completing 310 acres of burns, crews from the Klamath River TREX prepped more than 800 acres for later burns as they waited for Red Flag warnings to pass.

© Stormy Staats

MORE ONLINE

Upcoming TREX—planning generally begins 6-12 months before a TREX: <http://www.conservationgateway.org/ConservationPractices/FireLandscapes/HabitatProtectionandRestoration/Training/TrainingExchanges/Pages/Upcoming-Training-Exchanges.aspx>

FLN Notes from the Field—Index: <http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/USFLNPublications/Pages/Index-FLN-Notes-from-the-Field.aspx>

Prescribed Fire Training Exchanges are supported by *Promoting Ecosystem Resilience and Fire Adapted Communities Together* (PERFACT), a cooperative agreement between The Nature Conservancy, the USDA Forest Service and agencies of the Department of the Interior. For more information, contact Lynn Decker at (ldecker@tnc.org) or (801) 320-0524.

PERFACT is an equal opportunity provider.

v. 5 Jan 2018

Fire Adapted Communities Learning Network

Our mission is to connect and support people and communities who are striving to live more safely with wildfire. The FAC Net is a catalyst for spreading best practices and innovations in fire adaptation nationwide.



The Fire Adapted Communities Learning Network (FAC Net) is changing the way we live with wildfire in the U.S. We invest in the capacity of diverse communities to take action and improve their resilience. We connect practitioners to transfer ideas and build relationships for peer support. Together, we identify solutions to complex wildfire issues, and we support their implementation.

FAC Net's sphere of influence goes beyond our core network membership, reaching hundreds of additional communities through our affiliate member program, and working with dozens of partners at national and regional scales. April 2018 marks the network's fifth year of operations. In that time we've deeply affected the fire adaptation work of our core membership, and our momentum and reach continue to grow.

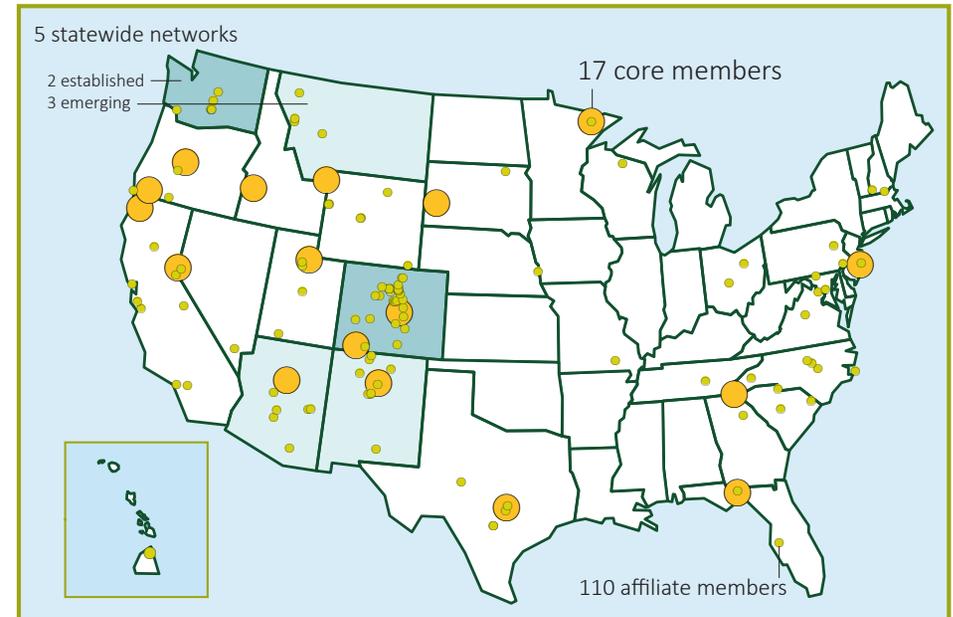
In recent months, FAC Net staff and members have invested in the health and capacity of several state network initiatives, added depth and value to our affiliate membership program, placed new emphasis on equity and inclusion, contributed to national conversations about fire, and increased wildfire resilience in the places we work.

Strategic Engagements Amplify Network Impact

In addition to stewarding FAC Net, staff provide technical assistance, facilitation, design, coaching and knowledge-building services that help us reach beyond our core and affiliate memberships—influencing and enrolling hundreds of additional partners and practitioners in our vision for fire adaptation. This fall, for example, we provided planning guidance for 120 Utah Department of Natural Resources staff, helped host a post-fire workshop for people impacted by the wine country fires in northern California, and met with state Firewise coordinators at their annual meeting in Boise. We also began working with teams in Arizona, Montana and New Mexico that are pursuing statewide network strategies to support fire adaptation.

Affiliate Membership—Growing, Connecting, Adding Value

Since launching the affiliate member program we've seen consistent growth and engagement, and well over 100 members now participate via the geospatial website and workspace. Over the past few months we have



been deepening our connections with these members. We hold webinars for affiliates and offer peer assists and staff coaching—such as conversations about mitigation fundraising strategies; coordinating job description and work plan sharing to help new WUI Coordinators craft their own priorities; reviewing CWPP revisions and providing advice and examples; and connecting practitioners that work with RC&Ds to help navigate opportunities within those organizational structures.

The www.fireadaptednetwork.org site also connects people through the member profile system—facilitating connections between 50 people in the last few months alone. One such connection was between FAC Net core members from the Greater Flagstaff Forests Partnership (GFFP) and a person at the Yarnell Fire District. The person from Yarnell found GFFP through the FAC Net website, and after learning more about their work through the profile, reached out for assistance.

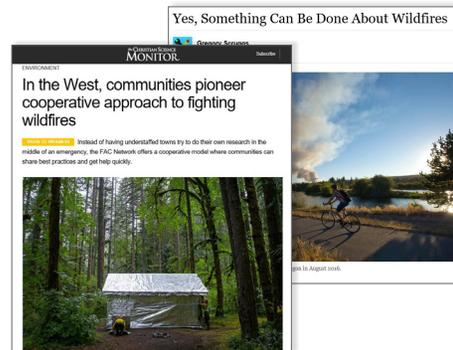
“It is difficult to convey the gigantic strides we have made in the state in just a few years with some financial and technical assistance from FAC Net and some dedicated professionals here to implement ideas. We have a statewide nonprofit, a network of Ambassadors and local Fire Safety Councils, Firewise Communities that support risk reduction efforts, and partnerships with statewide environmental nonprofits to increase wildfire resiliency. We have dozens of Ready, Set, Go! fire companies. NONE of this was present prior to our engagement with FAC Net.”

Elevating Equity and Inclusion in Community Engagement

FAC Net began working with The Nature Conservancy’s Global Diversity, Equity and Inclusion (GDEI) initiative two years ago. Through that, we have been learning ways to incorporate cultural fluency into our values and programming. Fire adapted communities work is about reducing wildfire risk, but it is equally about increasing community resilience and connectivity. That means investing in all community members’ capacity to plan for and weather natural disasters like wildfires. Too often, fire adaptation success is limited to those with the most privilege and resources. To make a real difference we must develop strategies that engage all members of our communities. As the network continues to grow, an equity and inclusion lens will guide our work.

Influencing the National Fire Conversation

FAC Net makes a difference in national, regional and local conversations about wildland fire issues. 2017 was a record year for wildfires across the U.S., with eyes and ears pointed toward California in the fall and winter. Media activity was extremely high. FAC Net staff and



members were contacted by a number of reporters, and they took advantage of the opportunity to offer examples of a better way forward. The work of FAC Net and our members was featured in more than 15 magazines, newspapers and radio stations, including the *Christian Science Monitor*, *New York Times*, *Washington Post*, *Yes!* and *Fortune*.



In December, FAC Net members from municipal fire services met for a learning exchange about FAC Coordinator roles. © WRTC (Michelle Medley-Daniel)

Building Wildfire Resilience Together

Members Helping Members—Better Work, Bigger Impact

How do WUI Coordinators from three fire departments approach their jobs? Coordinators from Ashland Fire and Rescue (Oregon), Chelan Fire District 1 (Washington) and the Santa Fe Fire Department (New Mexico) held a learning exchange in December to compare their experiences, priorities and opportunities as FAC leaders. They discussed home assessment approaches and data strategies, materials produced in partnership with the Master Gardeners program, and fire department leadership’s expectations. As more fire departments fill WUI Coordinator positions—a trend we are seeing—supporting the people in those positions through peer-mentoring will be increasingly critical, through events like this, and also through virtual peer assistance that FAC Net is enabling.

Virtual learning opportunities like webinars provide a cost-efficient way to share information and begin dialogue. The Rapid City (South Dakota) Fire Department WUI Specialist has a unique skill set due to his experience in both fire and in construction. His construction background helps him to “understand

the nature and makeup of building materials, and to recognize new possibilities in using different materials.” This fall he used that experience to host a FAC Net webinar on fire resistant building materials. The webinar was well received and several people followed up with him to learn more. Members facing similar challenges and opportunities are learning about each other’s strategies and using them at home. Project Wildfire, in central Oregon, is building fire service and business sector relationships as part of their budding business resiliency program. So they have been taking notes from Ashland Fire, which has a good collaborative partnership with their local chamber of commerce. And the central Oregon resort community of Sunriver is in the process of designing a local emergency evacuation plan for property owners and tourists. After seeing Lake Tahoe’s program last spring at the FAC Net workshop, and seeing the similarities between Sunriver and Tahoe, Project Wildfire is making connections between these partners. But Project Wildfire isn’t just learning from the network, they’re spreading their FireFree debris collection program model to affiliate members—in California, Hawaii, Montana and Washington.



In a relatively inaccessible 90-acre common area surrounded by more than 200 individual parcels, the Rapid City Fire Department helped the homeowner association complete hand and mechanical treatments, piling the excess fuels in preparation for burning.
© Rapid City FD (Tim Weaver)

Reducing Risk on the Ground

While community wildfire resilience is about more than fuels reduction, it is the centerpiece of many fire adaptation efforts, and all FAC Net members run fuels management programs in their communities.

- The Greater Flagstaff Forests Partnership received a grant to reduce fuel loads and fire risk on 270 acres in key areas in and around Flagstaff. They also completed work on 325 acres in Ft. Tuthill County Fairgrounds.
- Island Park completed 61 home assessments, and two slash pickup events yielding 2,300 cubic yards of slash from hundreds of people.
- The Forest Stewards Guild and their partners burned 160 acres in the WUI as part of the Rio Trampas TREX. An additional unit was thinned and prepped for pile and broadcast burning in the spring.
- The Klamath TREX burned 310 acres this fall, and FAC Net members secured another investment from the Reserved Treaty Rights Lands Program to support future TREX.
- Project Wildfire hosted a FireFree event that brought in over 14,000 cubic yards of material from residents, and Project Wildfire treated another 728 acres.

- FireWise of Southwest Colorado started a defensible space cost-share program, conducting over 160 site visits and 44 cost-share projects. They completed four large mitigation projects adjacent to, and in partnership with, the Forest Service. They also worked with the Pine River Irrigation District to dispose of 200 loads of slash—1,000 volunteer-hours of work—using the district's air curtain burner.
- In Rapid City, SD a 90-acre common area surrounded by private parcels has been the site of extensive work. The HOA that owns the property requested help from the Rapid City Fire Department, and with grant funding they completed treatments on nearly the entire parcel.



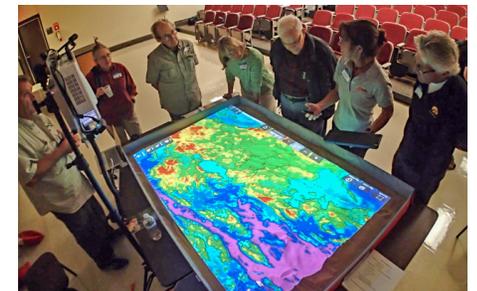
Learning Events Boost Capacity for Living with Fire

In Idaho, Island Park Sustainable Fire Community held workshops for people to share their fire fears, needs and wants and to make new connections. Following a walk-through of one subdivision with the county Emergency Response Coordinator and the Forest Service Fire Manager where discussion centered on evacuation plans and emergency preparedness, property owners immediately solidified plans to take action.

FAC Net members in Georgia focused on reaching a rural audience this fall, with "Firewise on the Farm" events helping them engage over a hundred people from rural communities. These events were the fruit of a broad partnership, held in cooperation with local fire departments, Soil & Water Conservation Districts, RC&D councils, mitigation contractors, extension services, 4-H, landowner associations, state and federal agencies and others.

In northern Minnesota, the July "Living with Fire" workshop in Ely was inspired by the work of other FAC Net members,

including the Citizen's Fire Academy in Oregon, Island Park's Incident Command reenactment and Santa Fe's Simtable workshop. Well attended by permanent and seasonal residents alike, meeting evaluations indicated the messages got through—responses included, "I need to work on my driveway to make it safe for local emergency personnel," "I need an evacuation plan," and "controlled fire is a good thing!" And the organizers reported that participants in the event now want more—more in-depth work-shops, more technical assistance with mitigation work, more field learning.



The director of the Wildfire Network—a member of FAC Net from New Mexico—hosted a Simtable wildfire modeling session during the "Living with Wildfire" event in Ely, Minnesota. These hands-on sessions that let people explore wildfire scenarios near their communities have been used by several FAC Net members to engage residents and spur action. © Timberjay Newspaper (Keith Vandervort)

Left: "Firewise on the Farm" took FAC concepts to rural communities in northern Georgia this fall.

© Chestatee-Chattahoochee RC&D

“The support and seed money we received from FAC Net as we started our collaborative played a huge role in what I consider to be one of our most significant accomplishments over the past one or two years, which is an enhanced relationship with the National Forest.”

Project Wildfire and the Bend Parks Department gave a presentation at the Oregon Parks and Recreation Association conference this fall. They spoke about a May 2017 controlled burn in Shevlin Park—a treasured and heavily used public space in Bend—sharing lessons on prescribed fire use and smoke mitigation techniques with administrators from across the state.



Shevlin Park Burn

© Project Wildfire

Aligning Plans, Policies and Authorities for All-Hands All-Lands Work

The work of FAC Net members includes the collaboration, planning and implementation to allow cross-boundary work that mitigates risk and increases wildfire resilience. In Arizona, the Greater Flagstaff Forests Partnership is working with the Natural Resource Conservation Service on a Conservation Implementation Strategy. This strategy prioritizes treatments on private, state and

municipal lands and advances fire adaptation goals. In South Dakota, the Black Hills Resilient Forest Strategy and the Mountain Pine Beetle Strategy have been combined into a single strategy that will help agencies move forward with a Cohesive Strategy approach. The effort has been influenced by FAC Net members and the resources they’ve shared with Rapid City members.

Sometimes, policy change is required to address fire risk. In Boise, a new fuels reduction policy enables residents to treat grass on City-managed open space adjacent to their property, helping landowners manage the risks that come with living in the WUI.

In southwest Colorado, the San Juan National Forest is working with the Colorado State Forest Service on at least three Good Neighbor Authority projects that adjoin several FireWise of Southwest Colorado communities. Most of the communities that FireWise works with adjoin the Forest, so authorities that enable all-lands work are critical to their success. According to FireWise staff, “forest managers are starting to recognize the wildfire preparation efforts made by these communities. The result is the communities wanting to do more now that they see the Forest Service taking action.”

A Little More Capacity— A Lot More Impact

Successful fire adaptation efforts require coordination. Without someone bringing together various parts of the system, everything is a one-off project that cannot live up to its potential. FAC Net members are investing in the kind of local and regional capacity that stitches the components of a robust resilience strategy together.

In Texas, the Austin Fire Department has filled seven new full-time positions dedicated to implementation of the Cohesive Strategy, including a dedicated Fire Adapted Communities Coordinator. FAC Net members shared staffing models and position descriptions that assisted with these hires.

In New Mexico, The Forest Stewards Guild is increasing its capacity for prescribed fire and fire adaptation by adding two new staff positions and by working with the Gravitas Peak Wildland Fire Module. The Guild and the Module have aligned missions, and working together will increase capacity for prescribed fire and fuels reduction at a scale beyond which either can achieve alone.

The Tahoe Fire and Fuels Team is tackling treatment planning in tandem with workforce capacity issues. By

working on both, they’ll have shovel-ready projects and the regional capacity to implement them aligned.

“Support from FAC Net has helped raise the collaborative profile of our work and created a tipping point in our visibility and credibility in the community and amongst the local decision-makers that have wildfire responsibilities.”

<http://fireadaptednetwork.org/>
<https://www.facebook.com/FACNetwork>
<https://twitter.com/fireadaptednet>



The Fire Adapted Communities Learning Network is supported by *Promoting Ecosystem Resilience and Fire Adapted Communities Together* (PERFACT), a cooperative agreement between The Nature Conservancy, USDA Forest Service and Department of the Interior, in partnership with the Watershed Research and Training Center. For more information about the FAC Net, contact Michelle Medley-Daniel at michelle@thewatershedcenter.com.

PERFACT is an equal opportunity provider.

Scaling-up to Promote Ecosystem Resilience

Scaling-up to Enable the Social and Operational Capacity for “Right Fire”

January 2015 – December 2017

SPER III FINAL REPORT

The SPER initiative began in the fall of 2011 as a two-year pilot program to test new methods of increasing the scale of forest restoration by focusing on cross-boundary forest treatments in Fire Learning Network (FLN) landscapes. In the fall of 2013, the second phase of SPER built on this successful strategy by advancing work on a subset of those landscapes with partners in the Fire Adapted Communities Learning Network (FAC Net).

The next logical step was to more deeply engage partners and community members to deepen the understanding

about why achieving active fire use on the land was critical, and to create a rich multi-scale co-learning environment in which to achieve social and ecological fire goals, including prescribed fire and greater use of natural ignitions.

Our working hypothesis was that we could accelerate towards our goal by synergizing our strategies—primarily the Fire Learning Network (FLN), FAC Net and Prescribed Fire Training Exchanges (TREX)—in a select number of places that we had developed enabling social and ecological conditions to a critical level. And

through further strategic focus on some of the less-robust elements—diplomacy, critical co-learning about fire, fire effects, smoke, prescribed fire and fire use—we could accelerate to enabling integrated fire management, a less expensive and more socially and ecologically sustainable future option than mechanical thinning.

We selected three pilot landscapes for the first work under SPER III—in northern California (Klamath-Siskiyou region), southern Oregon (Ashland area) and northern New Mexico (Rio Grande watershed). In

2016, additional projects in adjacent landscapes in California and New Mexico were added.

Through this approach we developed clear examples of local achievement of integrated manifestation of the goals of the Cohesive Strategy. Key to the success of all the SPER III projects was approaching the work collaboratively, with community, state, federal and tribal partners all having important and complementary roles.



Fire in the Klamath: “The SPER III funding came at a critical time when CAL FIRE and USFS Region 5 leadership were beginning in earnest to shift the fire management paradigm in California, and allowed us to provide proof of concept for many of the actions that need to be implemented regionally to shift this paradigm.... When the pilot started, relationships with key decision-makers at CAL FIRE, USFS R5 and the California Air Resources Board were not well established. Now we are being used as national examples of how the three tenets of the Cohesive Strategy can be implemented together to create fire management strategies that work—and just received news we were selected by CAL FIRE for a Partnership Award for Superior Performance in Prescribed Fire.”

© Tom Fielden

SPER III Projects

state	project	abbreviation	built on local work by
CA	Trinity Integrated Fire Management Partnership	TIFMP	FLN, FAC Net, TREX
CA	Scaling Up Right Fire in the Western Klamath Mountains	Klamath	FLN, FAC Net, TREX, IPBN
NM	Integrating Fire Adapted Communities, Resilient Landscapes and Response to Wildland Fire in the San Juan-Chama Headwaters of the Rio Grande Water Fund	RGWF	FLN, FAC Net
NM	Cooperative Burning in New Mexico	NM-Coop	FAC Net, TREX
OR	Ashland Forest All-Lands Restoration	AFAR	FLN, FAC Net

Key Actions Supported by SPER III

When asked to reflect on what the most important actions they completed under SPER III were, answers from the project leaders fell into four general categories:

Building Relationships

This included work with state fire agencies, local fire chief associations and county permitting agencies to build mutual understanding and gain support from leadership. It also included, for example, a series of fire knowledge exchange workshops with a wide range of stakeholders that used “fuzzy cognitive mapping” to help various interest groups express themselves and understand others. And it led to at least one MOU that will allow for managing natural ignitions fires across ownerships.

Expanding TRES and Other Capacity-

Building Training

SPER provided supplemental support for additional TRES in all three states, providing critical training, relationship-building and experience to local practitioners and landowners. It also supported customized live-fire training for local fire service and NGO personnel, and cooperative burning events with a strong focus on training.

Implementing Fire “Firsts”

SPER supported burns that “couldn’t” be completed in a landscape: A 500-acre burn near Black Lake showed that a cooperative burn model could be successful in a WUI and timber situation in New Mexico on non-federal lands. Burning about 300 acres of private ranch land gave landowners more confidence in using fire as a tool and increased interest in building fire capacity.

Developing Landscape-Scale Pilot Projects

With the relationships and proof-of-concept in place, SPER supported the development of projects that will carry the work forward. Three such pilot projects in the Western Klamath Mountains encompass nearly 50,000 acres. An ambitious cross-boundary project is underway in the WUI and watershed of the Weaver Basin. A science-based fire and post-fire impacts risk assessment and collaborative forest treatment strategy has been created for the Blanco and Navajo Basins, and has led to new investments by regional water authorities.



Cooperative burning in New Mexico: “Through the burning partnerships associated with the SPER III funding, and through companion investments, we are now working to bring the Gravitas Peak Wildland Fire Module under our umbrella. This significantly increases organizational capacity to advance the practice of prescribed fire in New Mexico and in the surrounding states by having a qualified and insured burn boss on staff. This is in contrast to the situation in July 2016, when our proposal to contract with an insured burn boss to burn received no bids from New Mexico or surrounding states. Ever since we first began working on our first TRES, finding an insured local burn boss was always a challenge. Now it seems that challenge has been overcome.”
© Forest Stewards Guild



AFAR “fuzzy cognitive mapping” exercise: “The community has shifted from wariness of burning, and a vigilance to detect and decry smoke intrusions, to supporting proactive burning and tolerating smoke. The mayor, the chamber of commerce, and the health community now publicly articulate the key role of using fire in regional forests and the need to tolerate smoke. The health provider community has helped us develop outreach messages, including a co-branded smoke/health management brochure. The mayor is promoting smoke-smart action planning to mitigate impacts in town, and local leadership is actively engaged alongside the Conservancy in statewide smoke management policy dialogue to increase fire use. Local government, education and business leaders have helped Ashland partners create a community engagement plan focused on fire management, and helped write a smoke communications plan. USFS fire management leaders are better engaging partners to create and take advantage of more burn windows, and after mixed results in project burning, we have advanced new communication protocol and deepened communications and professional relationships to improve team performance.”
© TNC (Darren Borgias)



Briefing before a burn on the Chama landscape in the RGWF: “SPER III funding provided the support for Conservancy staff to work consistently with the wide range of partners such a large landscape includes. We now have strong relationships on both sides of the state line, including forest and fire managers from state agencies, three national forests, FireWise of Southwest Colorado, NRCS, Bureau of Reclamation, local fire districts, and private ranch managers and owners. We will continue to build on these partnerships to expand forest and fire management efforts into the foreseeable future. The role of Chama Peak Land Alliance has likewise evolved, and the organization and its membership have gained confidence in using fire as a tool, and in playing a pivotal role in expanding collaborative forest restoration beyond private lands.”

© Steve Graydon

Lessons Learned through Work on SPER III

Planning together matters...

“Creating a shared vision for fire management on a specific landscape from local to regional and national levels is essential for success. The Open Standard Process for Conservation, that facilitates diverse groups organizing around shared values, is a powerful model for creating this shared vision.”

Partnerships matter...

“We need to integrate local fire response organizations. Support from county fire marshals and fire districts is critical if private land treatments are part of a multijurisdictional landscape, since they have the responsibility for suppression. The key questions that need to be answered satisfactorily for any effort to expand the use of fire across jurisdictions are: Who is liable? and Who pays? This makes it important that fire risk with—and without—active fire use be assessed, and that all the collaborators agree with the characterization of risk and how to reduce it.”

“Our science-based risk assessment process made it possible for us to engage with the Forest Service in a deeper way through discussions with the technical staff. We could bring useful tools to the table and not rely on the agency to provide all the data.”

People matter...

“The initiative, skill and passion of burn bosses is critical to success. I had previously worked with burn bosses who were limited in those elements. They put fire on the ground but did so reluctantly and

without vision. Then I burned with Jeremy Bailey and other high capacity burn bosses and saw what it was like to work with a leader with skill and passion....We realized excellent results with regards to training, acres and fire effects, in a way that inspired others....Moving forward, I will endeavor to work with and develop the type of burn leader that leads excellent burns and moves the large needle towards resilient landscapes and fire adapted communities.”

Real communication matters...

“As the 2017 wildfire season wore on in the Rogue River Basin, concern and uncertainty about community and economic risks, intersecting with increased national incivility and rhetoric, along with smoldering resentments of more isolated, timber-dependent communities, unleashed a vicious political backlash against the role and responsibilities of the Forest Service for managing fire, and against environmentalist views of the role of fire, and in favor of simplistic answers. But in Ashland, where investments in ongoing dialogue about using fire were underway (and also where risks to community were lower) the community dialogue remained positive and only served to reinforce the need for more controlled burning and fire managed for resource benefit.”

“Our community generally understands and is willing to live with prescribed fires and thoughtfully managed wildfires, but we really need a more open and transparent planning process to welcome their insights and recommendations on how and when to manage natural ignitions.”

Briefing before a TIMFP burn Weaver Basin: “SPER III allowed us to work on building relationships with CAL FIRE leadership at the state and local unit levels, including working with them to refine protocols and leadership direction for engaging in standby fire protection on cooperative burns. It has led to a transformation in our cooperative work with CAL FIRE. Under SPER III, we have always been able to obtain burn permits when in prescription. Further, CAL FIRE has sent engines and crews and actively helped as a holding resource on almost all of our burns on private lands during the project period.” © WRTC (Dave Jaramillo)



On-the-Ground Implementation with SPER III Support

state	project	treatment acres (fire & thinning)		notes
		proposed	implemented	
CA	TIFMP	125	386	includes 202 acres of prescribed fire
CA	Klamath			but see 2016, 2017 Klamath TREX (717 acres)
NM	RGWF	800	970	includes 718 acres of prescribed fire
NM	NM-Coop	335	520	all prescribed fire
OR	AFAR	40	183	includes 58 acres of prescribed fire; also see Ashland TREX (70 acres)
TOTAL		1,300	2,059	



TIFMP training burn in an oak woodland: “SPER III allowed us to expand our planning to a much broader geography associated with enhancing source-watershed resilience with fire. We initiated planning in the Weaver Basin, which we have parlayed into substantial funding, partnerships, burn plans, and now, implementation. We also completed our first burn plan and cooperative burn in the Upper Trinity River Watershed, which feeds California’s Central Valley Project. We were also able to expand our burn planning to new landowners around Hayfork’s community water source. This expanded planning and associated expanded partnerships have also helped attract additional funding.”

© UC Extension (Lenya Quinn-Davidson)

Critical Factors for Success Enabled by Modest Infusion of Funds

Common themes reported by SPER III project leaders included that the support enabled:

- Ability to access fire planning skills to work on collaborative planning
- Development of portfolios of places to burn that had full community support
- The important work of diplomacy with state and regional authorities to proceed, building political support for burning
- Formation of additional partnerships and key relationships
- Engaging skilled burn bosses with a holistic approach to burning
- Engaging a broader array of fire response organizations, including municipal and volunteer fire departments, as well as state and federal agencies
- Strategic assessments that included other cultural knowledge and western science
- Leveraging further funding to continue and expand work on the ground

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