Semi-Annual Report July – December 2015

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

2014 - 2019

and

Promoting Ecosystem Resiliency through Collaboration (PERC):
Landscapes, Learning and Restoration
2011 – 2015

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Promoting Ecosystem Resilience and Fire Adapted Communities Together (PERFACT)

Semi-Annual Report: July - December 2015

Executive Summary

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:

- the Fire Learning Network (FLN), fostering collaboration for restoration and fire management in landscapes across the country;
- the Fire Adapted Communities Learning Network (FAC Net), which is doing the same for communities adapting to wildfire;
- Prescribed Fire Training Exchanges (TREX) and cooperative burns, experiential training that integrates a range of people, places and aspects of fire; and
- targeted restoration action under Scaling-up to Promote Ecosystem Resiliency (SPER).

PERFACT efforts—the FLN and FAC Net, TREX and SPER work that it has inspired and incubated—are inter-connected and support each other. Our impacts are greater and results more durable where multiple overlapping and complementary efforts are directed. As the four strategies are becoming more interwoven, they are becoming more powerful.

In the Fire Learning Network, eleven regional networks and large landscapes were supported during this reporting period: California Klamath-Siskiyou, Central Appalachians, Centennial, Great Plains, New Mexico, Oregon, Pikes Peak, South Central, Southern Blue Ridge, Washington Dry Forests and Western Klamath Mountains. FLN staff also continue to lead planning workshops in the Klamath Mountains and in the developing FireScape Mendocino landscape, and mentor the team in FireScape Monterey.

This fall FLNs met with partners in landscape and regional workshops to share learning and coordinate work. They held partner field tours to assess treatment effectiveness and plan burning. They provided leadership to prescribed fire councils, hosted TREX and worked on the Burned Area Learning Network. In California, lessons and partnerships from the FLN, FAC Net and TREX efforts helped inform the developing Cultural Burn Network. In the sum of their efforts, FLNs continue to engage hundreds of partners, from state and federal agencies to private landowners and researchers, and from coast to coast.

The Fire Adapted Communities Learning Network—The core of this network is made up of 16 organizations working with communities in Arizona, California, Colorado, Florida, Georgia, Idaho, Minnesota, Montana, Nevada, New Jersey, New Mexico, Oregon, Texas and Washington. In addition to a state-wide sub-network launched in Washington in the spring, state-wide networks are now developing in Colorado, Nevada and New Mexico with network support.

Working collaboratively with community teams, network members receive financial, technical and peer network support to implement and innovate fire adapted community concepts and best practices, and to share them within the network and beyond. Locally, this fall FAC Net members hosted chipper days and published fuel treatment fact sheets, revised CWPPs to reflect a broader view of fire adaptation and align with the Cohesive Strategy, and interacted with scores of community members and local stakeholders. Nationally, they shared the lessons from these and dozens of other actions with their peers, inside the network and beyond. FAC Net members from Flagstaff travelled to Ashland for a learning exchange. Fire department members from Austin and Boise worked with the IAFC to build a fire department learning exchange program based on their successful exchange earlier in the year. On a daily and weekly basis, members stay in touch through an online workspace, email, phone, webinars and connections with their staff liaisons. Looking outward, members and staff spoke to audiences from the Backvards and Beyond conference to the Association for Fire Ecology Congress, and to officials at a Wildland Fire Leadership Council and in a Senate committee hearing.

This summer, the network began building out seven communities of practice identified as fruitful areas for work during the national workshop in June. Groups working on topics from CWPPs to building better networks are now working out ways to organize, and beginning to build a shared body of knowledge and experience. As the COPs mature, they will be turning outward and engaging others in the field. This will be supported by a new website developed over the fall that went live in January.

Staff and network members continue to work with researchers Sarah McCaffrey (USFS Northern Research Station) and Bruce Goldstein (University

of Colorado), to increase the rigor of network operations and activities, and investigate how networks and the FAC approach contribute to growing community resilience. This will help the network make the greatest possible impact on the development of fire adapted communities nationwide.

Five Prescribed Fire Training Exchanges and a cooperative burn, all built on the principles of integrated fire management, were held this fall in California and New Mexico. Efforts in California expanded to the point that three back-to-back events resulted in fuels reduction and forest resiliency treatments taking place over a wide area throughout the whole month of October. At the first of the three, the 90 participants made up three crews, burning simultaneously in and near communities along the Klamath River. The California TREX were also closely integrated with FAC Net efforts in the area, and burns took place as part of SPER projects there. In New Mexico, the Spanish Language TREX completed treatments to help protect the Santa Fe municipal watershed, and a cooperative burn was tied in to FAC Net and SPER work in the northern part of the state. Together these five events offered training and experience to 210 practitioners and treated 1,778 acres with fire.

The fall also saw planning for the spring 2016 TREX season, with two events planned in the Great Plains, two in Oregon, and one in California. Planning is also well underway for a "train the trainer" workshop in late spring that will help develop the cadre of people who can deliver TREX and cooperative burns in support of broad community and landscape goals.

Scaling-up to Promote Ecosystem Resiliency (SPER III) work is taking place in three landscapes, in California, New Mexico and Oregon. These projects are integrating fire and fuels management, water security and fire adapted communities' actions. These projects are supporting the enabling social and operational capacity conditions needed to bring "right fire" back to these landscapes.

More information about PERFACT is available online. The FLN website, http://www.conservationgateway.org/fln, has general information on the FLN as well as links to the new edition of the *Learning Networks Field Guide*, and materials developed by FLN projects. Information about the FAC Net—including the bi-weekly blog—is on their new website at http://fireadaptednetwork.org, Information about TREX, including announcements and applications for the spring TREX, is at http://nature.ly/trainingexchanges.

REPORT CONTENTS

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—two pages give a brief introduction to each of the four areas of work (FLN, FAC Net, TREX, SPER) and how they work together

Fire Learning Network (FLN)—two pages briefly cover how the FLN works, illustrated with highlights from the second part of this year

Prescribed Fire Training Exchanges (TREX)—two pages highlight some of the themes that guide TREX and cooperative burns, with examples from the five fall events

Fire Adapted Communities Learning Network—three pages give an overview of how the network functions, with recent examples

Scaling-up to Promote Ecosystem Resiliency (SPER III)—two pages introduce the three projects and their recent work

APPENDIXES

- **A: Delivery on PERFACT Work Plan Actions**: work plan table for the fiscal year, with work delivered in this reporting period
- **B:** FLN Regional Network & Landscape Work Plan Progress Detail: work plan tables for funded FLNs for July-December, with work delivered
- **C: Prescribed Fire Training Exchanges**: TREX offered July-December, and tables of number and affiliations of participants, and acres treated
- **D: FAC Learning Network Hub Organization Work Plans**: tables for FAC Net member organizations for July-December, with work delivered
- E: Work Plan Details for Projects under "Scaling-up to Enable the Social and Operational Capacity for 'Right Fire'" (SPER III): work plan tables for the three SPER III projects for July-December, with work delivered
- **F: Media Coverage Resulting from PERFACT Actions**: media coverage of projects and network and community leaders quoted, with links
- G: Field Guide, Fact Sheets and Briefing Papers for Aspects of Work under PERFACT: links to new or recently updated overviews of work













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

This partnership works to restore our relationship with fire by helping us get to "right fire"—where good fire can do its necessary work on the landscape, and both human and natural communities are better able to live with fire. We work in key places with individual people, and also at regional and national scales. We also leverage the connections between those scales. This work is accomplished through:

- the Fire Learning Network (FLN), fostering collaboration for restoration and integrated fire management in landscapes across the country;
- the Fire Adapted Communities Learning Network (FAC Net), which is doing the same with communities adapting to wildfire;
- Prescribed Fire Training Exchanges (TREX) and cooperative burns, providing experiential training opportunities that integrate a range of people, places and aspects of fire; and
- targeted restoration action under Scaling-up to Promote Ecosystem Resiliency (SPER).

These efforts—the FLN and those that it has inspired and incubated—are interconnected and continue to support each other. We and our partners are starting to see that our impacts are greater and results more durable where multiple overlapping and complementary efforts are directed. As the four strategies are becoming more interwoven, they are becoming more powerful.

The goal of this partnership is to help us all live with fire—with fire adapted human communities, resilient natural landscapes, and the operational and social capacity to flourish in a challenging, changing fire environment.

Our efforts are rooted in collaboration, and they integrate the best available science and cultural knowledge with a strong emphasis on co-learning and adaptive management.



Science, Learning &

Cultural Knowledge







FLN Networker No. 200: December 23, 2015

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Resources created by PERFACT this fall include the revised Fire Adapted Communities Self Assessment Tool (and a new user guide) and FAC quick guides about using plans and regulations. Also published were a new edition of the Learning Networks Field Guide and the 200th issue of the FLN Networker.

Fire Learning Network

More than thirty landscapes—most working as part of regional networks—are now active in the FLN in 20 states. These partnerships are engaged in a wide range of place-specific activities, relationship-building and adaptive learning. These efforts include newer FLNs hosting planning workshops to build consensus and design landscape conservation strategies. Workshops of established FLNs create opportunities for partners to share knowledge and develop local tools, or support the work of landscape-scale projects and statewide prescribed fire councils. FLNs also host prescribed fire training exchanges, monitor fire effects, develop interpretive signage, publish restoration resources, and link their work to nearby fire adapted communities efforts. In doing so, they engage hundreds of diverse partners, from state and federal agencies to researchers and private citizens, and from coast to coast.

Fire Adapted Communities Learning Network

Modeled after the FLN, the FAC Net was launched in April 2013 with a workshop for representatives and partners from eight community-based organizations. In March 2014, another group of community-based organizations joined. And over the course of 2015, several state-wide efforts either grew from local work or joined the network. About 20 organizations are now core members of the network. These groups work locally with collaborative teams, and receive financial, technical and peer network support to implement and innovate fire adapted community concepts and best practices in their communities and states, and to share them within the network and beyond. They are working on projects as diverse as updating CWPPs and county-wide integrated fire plans, developing community wildfire liaison programs, and gathering and sharing the lessons learned from first-hand experiences with wildfires. The network communicates through an online workspace and public blog, as well as in quarterly peer-learning webinars and an annual workshop.

Staff and network members are working with researchers Sarah McCaffrey (USFS Northern Research Station) and Bruce Goldstein (University of Colorado), to increase the rigor of network operations and activities, and investigate how networks and the FAC approach contribute to growing community resilience. This will help the network make the greatest possible impact on the development of fire adapted communities nationwide.

Prescribed Fire Training Exchanges

These training events, which combine experiential learning and principles of integrated fire management, are held in numerous locations each year; this fall saw TREX in California (three back-toback events) and New Mexico, and a cooperative burn in New Mexico that drew heavily on TREX experience, and had an important training component. The integration of professional wildland firefighters with less-traditional training partners expands both the capacity of the fire community and its breadth of knowledge. It strengthens the ability to conduct controlled burning effectively and with full social license. and builds connections that are helping wildfires be managed with sensitivity to local plans and concerns. TREX also actively engage local, regional and national media, and help participants communicate key messages with skill.









PERFACT encompasses a wide array of learning and actions that make landscapes and communities more resilient to wildfire. *Clockwise from upper left:* Field tour at a Western Klamath Restoration Partnership workshop; a member of the Cultural Fire Management Council and private contractor check in during the Yurok TREX; a family marks trees for thinning during the Flagstaff Festival of Science; practicing fire shelter deployment at a TREX.

Photos: Will Harling/MKWC, Margo Robbins, Mark Brehl, Elyssa Duran

Since 2008, 45 events have served more than 1,550 practitioners and treated more than 78,000 acres. The earliest TREX were in FLN grasslands, but they are now offered in forested landscapes and quite frequently in wildland-urban interface (WUI) areas, in support of fire adapted community efforts as well as landscape-scale ecological restoration. TREX continue to evolve to meet local needs—this fall, the Klamath River, Yurok and Nor Cal TREX ran immediately after each other in overlapping northern California landscapes. By doing so, they provided flexible timing for local practitioners to get training and experience, and took advantage of a month-long burn window to complete priority treatments for community safety and forest resilience.

Many TREX participants have attended multiple events, and are becoming TREX leadership. Staff roles have shifted from running TREX to mentoring others and developing a TREX Toolkit to support them. These shifts are helping the TREX model—and its integrated way of viewing fire management and doing prescribed fire—become adaptable, self-sustaining, and more widespread.

Fire Learning Network http://www.conservationgateway.org/fln
Fire Adapted Communities Learning Network (new) http://FireAdaptedNetwork.org
Prescribed Fire Training Exchanges http://nature.ly/trainingexchanges
Learning Networks Field Guide (new)

 $http://www.conservationgateway.org/ConservationPractices/\\ FireLandscapes/FireLearningNetwork/USFLNPublications/Pages/FLN-Field-Guide.aspx$

RECENT WORK

In the second half of 2015, PERFACT supported:

- 13 Fire Learning Networks (FLNs) encompassing 34 landscapes and 81 million acres,
- 15 Fire Adapted Communities Learning Network (FAC Net) organizations working with pilot communities in 13 states and 5 state-wide efforts,
- 4 Prescribed Fire Training Exchanges (TREX) and a cooperative burn that together provided training and experience for 245 people while treating 5,287 acres with fire, and
- 3 SPER III projects working to enable landscape-scale "right fire."

In 2015, FLN partnerships also leveraged more than \$1.8 in additional federal funds and more than \$1.1 million in non-federal funds for treatments that will build forest, watershed and community resilience.

Scaling-up to Promote Ecosystem Resiliency

The first two phases of SPER targeted modest amounts of implementation funding to fill gaps in a landscape or provide a catalyst to accelerate work. Six projects in the first phase and five in the second phase completed a total of 23,000 acres of treatments, mainly on small, strategically-placed parcels that leveraged and connected treatments on federal lands. SPER III work began in 2015, with projects in California, New Mexico and Oregon working intensively to bring "right fire" to scale in landscapes critical to communities embedded within, or dependent upon, them. Their work focuses as much on the social as the operational capacity needed to accomplish this. From finding the right scale and venues for engaging key landowners to using fuzzy logic mapping to assess stakeholder values, the social capacity foundation is being built in these landscapes.

Working Together

Staff and partners at all levels work to tie the networks, training and implementation into a larger whole. FLN and FAC Net leads and partners meet and work together on projects, and both have hosted TREX to increase their capacity to do the work they have identified as necessary for resilience. SPER III projects are also built on the partnerships developed through these networks, and in many cases provide the burn units needed for TREX training opportunities.

Learning and sharing knowledge also span all areas of work. This was formalized through the launch of seven network-spanning communities of practice in June. These will strengthen both the flow of information and its development, and as they mature, will become another way the networks engage the larger fire community.











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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 14-year track record of helping to restore our nation's forests and grasslands and to make communities safer from fire.



The FLN currently supports 13 partnership groups. These include multi-state regional networks with numerous landscapes in the Centennial Valley, Central Appalachians, Great Plains and Southern Blue Ridge; groups with multiple landscapes within a state, in Arkansas, Oregon and Washington; and large single-landscape projects in California, Colorado and New Mexico. Some of these partners have been in the FLN since its start in 2002 and are exploring new areas in which to collaborate and learn. Others have more recently begun the FLN journey, and are gathering partners, learning from others in the network, and setting their courses.

At all levels, the FLN continues to assess challenges and opportunities, work with old partners and reach out to new ones, push at boundaries and try new things, learn and change as needed. What the FLN has long been working toward has now been captured nationally in the goals of the Cohesive Strategy: resilient landscapes, fire adapted communities, and safe and effective wildfire response.



The FLN Brings People Together

Fundamental to everything the FLN does is getting people together. Giving natural partners a forum for meeting is an obvious—though not always easy—part of this. But in addition, depending on circumstances FLNs bring in past (or potential) litigators, people from often-neglected departments, or stakeholders who may not fit traditional categories. This diversity not only helps prevent conflict down the road, but makes a more robust and better informed path for getting there.

The FLN Builds Relationships that Support Other Collaborative Efforts

Years of planning and learning together have built the relationships that let people work together in the field in new ways. Cooperative cross-boundary burning that may have seemed nearly impossible is now almost routine in many FLN landscapes. FLNs are also now hosting many of the Prescribed Fire Training Exchanges (TREX)—this fall the Western Klamath Mountains FLN took the lead on the Klamath River TREX and the California Klamath-Siskiyou FLN and Northern California Prescribed Fire Council led the Nor Cal TREX.



A soil charcoal sampling demonstration during the October 2015 joint workshop of the Central Appalachians FLN and the Consortium of Appalachian Fire Managers and Scientists. This was one of 33 FLN workshops and field tours in the latter part of 2015 in which partners and stakeholders met to share knowledge, learn together and work toward effective solutions.

Photo: Marek Smith/TNC

The FLN Helps Launch Complementary Efforts

FLNs across the country have also launched and nurtured a variety of complementary efforts that address other aspects of fire and restoration. The FLN is the model on which the Fire Adapted Communities Learning Network, launched in 2013, is based. FLNs also continue to play key roles in prescribed fire councils—FLN partners have leadership roles in councils in northern California and Washington. and networks from Oregon to North Carolina work closely with their state councils, bringing collaborative, holistic and solution-oriented voices to the table.

"The support for both our integrated fire management partnership and the prescribed fire council is invaluable. The flexible nature of the funding— focused on innovation and pushing the bounds of existing programs and partnerships—is difficult to replicate. It allows us to continue to lead the field and move partners to more fully engage with ecological and socially progressive fire management approaches."

After two years of preliminary work, the Indigenous Peoples Burning Network held community workshops in its first landscape this fall. In the combined ancestral territories of the Hupa, Karuk and Yurok Tribes of northern California, the group laid out its vision, operating principles, work priorities and capacity-building needs, and began planning for a culturally-based prescribed burn. Their work complements other efforts in this region, including two FLNs, several TREX and a Fire Adapted Communities Learning Network pilot led by the Karuk Tribe.

The FLN Creates and Shares New Approaches and Tools

For example, in the Klamath Mountains, the FLN and FAC Net are pursuing a multi-pronged strategy that includes a Community Liaison Program, mentoring local community members so they can work with Incident Command Teams and bring local knowledge to the many large wildfire incidents the area sees.

In Oregon, the FLN delivered a new mobile app for applying the "Individuals—Clumps—Openings" method for marking trees for thinning, and provided training in its use at a workshop for Forest Service staff. The app reduces layout time in treatment areas by more than 50 percent.

THE FLN Looks Beyond Restoration to Resilience, Adaptation and Recovery

FLNs look ahead, to the next challenge, and the next opportunity. The network is nimble, and ideally suited to deal with emerging issues and to look at old issues in new ways.

The New Mexico FLN has been looking ahead to what to do after severe wildfire, in that state and beyond. As it becomes clear that climate change and other factors will make mitigation and other preparations insufficient, they have started a Burned Area Learning Network. They have found that interest in burned area management is broad and deep, and that there is a whole other sector of science and governance concerned with post-fire impacts on water and water infrastructure management. Community-level concerns are also becoming clearer, so this group is working to see how to coordinate with the FAC Net to address them. In New Mexico, they are on track to have post-fire impacts included in CWPP updates.

"Wisdom from the Field: Principles and Best Practices of the Fire Learning Network"

- Today's fire problems are so complex that no single person or party can solve them.
- Collaboration is built on the premise that for complex problems, people working together from different perspectives will arrive at better solutions, faster.
- Collaboration is not intuitive. It requires new skills and practices that don't always come naturally.
- Focus on Zones of Agreement. There is so much to do. Dig there.

- People make choices based on a handful of deeply rooted values. These are personal and unlikely to change.
- Facts are different from values. Facts change as we learn more. Sharing and questioning facts helps us learn more rapidly.
- Work in an open forum, then volunteer to contribute what you can, within your home procedures.
- Sometimes you have to go slow to go fast. Be patient with one another and the collaborative path.

Excerpted from a document by Mary Huffman. See http://www.conservationgateway.org/Conservation Practices/FireLandscapes/FireLearningNetwork/Network Products/Pages/FLN-Wisdom-from-the-Field.aspx

Fire Learning Network

http://www.conservationgateway.org/fln

The FLN is Affecting Fire Management Decisions

In at least two places this summer fire season there was clear evidence that FLN actions and partnerships are having an impact on fire management on their landscapes. In California, an FLN/FAC Net lead was able to facilitate Minimum Impact Suppression Techniques with Six Rivers National Forest leadership to ensure the Nickowitz Fire achieved significant ecological benefits while minimizing risks to firefighters and communities. And in North Carolina, a Forest Service report on the Bald Knob Fire highlighted the importance of FLN work there in making management for restoration possible on the fire, noting that the formation of the Southern Blue Ridge FLN marked "a shift in objectives from simply fuel reduction to include restoration of fire adapted ecosystems."













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Prescribed Fire Training Exchanges and Cooperative Burning

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

TREX meet a number of essential needs: They serve wildland fire professionals in need of trainee experience and task book assignments—students who are shaping their careers—agencies learning to work together to make more efficient use of their resources and burn windows to manage their lands—local fire departments who need to respond more effectively to wildland fires—tribes working to renew traditional burning practices—and rural communities working to make themselves safer from wildfire. And they help these diverse practitioners work together.

TREX Build Local Capacity for Safer Fire

Events that focus on providing basic firefighter training and integrating local fire and forestry contractors, government agencies and conservation organizations provide basic job skills, create relationships and build trust among groups. This enlarges and improves the skill level of a new workforce: the relationships and trust built during a TREX help fire managers find qualified crews and TREX participants find jobs in the field. Training exchanges also demonstrate how groups can cooperate and collaborate, and by working together, increase an area's available fire management capacity.

A good example is the Cottonwood Gulch cooperative burn. To complete this priority burn, 16 people—most from a nearby VFD—got basic NWCG training followed by hands-on experience. They are now part of the resources that the nearby Chama SPER project can call on for its burning.

TREX Bring Together Diverse Crews to Foster Learning

Diversity matters. There are important and potent effects from having contract crews mixed with federal crews, state firefighters with tribal fire practitioners, and integrating students, scientists, researchers, private landowners and regulators into the mix. Participants thus spend time with a wide variety of people with different backgrounds and experiences—and everyone gains knowledge, insights and learning opportunities from the experience.

At the outset in 2008, TREX drew participants primarily from PERFACT agreement partners—the Forest Service, Department of the Interior agencies and The Nature Conservancy. Over time, other organizations have gradually assumed more responsibility and made up more of the participants. By 2015, TREX events are drawing the truly diverse groups that help it fulfill its promise of learning from a wide range of others' experiences.

Fall 2015 TREX and Cooperative Burning			
		participants	acres
Spanish-Language TREX	NM	33	987
Klamath River TREX	CA	90 (in three teams)	400
Yurok TREX	CA	17	45
Nor Cal TREX	CA	42	246
Cottonwood Gulch Co-op Burn	NM	28	100
TOTAL		210	1,778

TREX generally have a higher proportion of women than the fire management field at large does, but planning is underway to push this further. Work began this fall on the Women in Fire TREX, which will be held in northern California in the fall of 2016.

TREX Integrate Traditional Burning

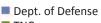
Partnerships with tribes that still use fire for traditional purposes—such as for food security, regalia and basket making materials—provides opportunities for integrating tribal



TREX Participant Affiliations

Affiliations of all participants in the nine Prescribed Fire Training Exchanges delivered in 2015.











members and their knowledge into training exchanges. By incorporating traditional burning practices into the learning, participants are learning from people who often have a longer and more complex view of the role of fire in the ecosystems. Participants begin to learn that fire and people are inseparable, and that a full exclusion approach to fire may be not only impossible, but not appropriate.

This fall, all three TREX in California had participation from members of local tribes, and the main focus of one—the Yurok TREX—was on burning for cultural values.





TREX Work through the Barriers to Burning

By combining robust planning, strong local partnerships, and participants committed to getting the work done, experience with TREX demonstrates that most of the often-touted barriers to implementing prescribed burns can be effectively managed. By being wellprepared and ready to take advantage of any windows of opportunity, TREX almost routinely burn at times when it "can't be done." In northern California, long-term engagement with CAL FIRE officials and a good range of potential burn units allowed organizers to secure permits for their burns, even though the long, severe fire season had not yet wound down—they were able to select burn units in areas where wildfire risk was lower, and bring the officials into the field to demonstrate that the specific locations were suitable for burning. In New Mexico, the Cottonwood Gulch burn was able to be arranged on very short notice. When agency agreements were not completed

Left: At the Klamath River TREX, not all of the cultural learning was among participants in the event itself. Local elementary students came into the field to learn about the value of fire, for example to ensure good acorn harvests, and to get a close look at "good fire" during a test burn.

Photos: Stormy Staats

in time for the narrow fall burn window, the relationships and experience from more than 40 TREX let partners there put together a team that completed the priority burn—and created more local VFD capacity in the process.

TREX Help Communities Become More Fire Adapted

There is no doubt that controlled burns can reduce the damaging effects of wildfires and make communities safer. All of the TREX delivered this fall conducted burning that reduced fuel loads in and around communities at risk. For example, the Spanish-Language TREX included assisting on almost 800 acres of burning in a highpriority unit in the Santa Fe municipal watershed. The 400 acres completed by the 90 participants in the Klamath River TREX may seem modest—but it was made up of at least 20 units, some of them quite small, woven throughout the WUI where the need was greatest.



Photo: Stormy Staats

TREX Help the Media Share a More Nuanced View of Fire

TREX continue to be an excellent way to work a more balanced view of fire into the public conversation. Reporters need compelling content; TREX offer an alternative to the (admittedly gripping) wildfire-asdisaster narrative, by letting reporters get a close look at "good fire"—and the people who are passionate about it. To do this, TREX integrate work with local media into their agendas—it cannot be effectively done as an afterthought. This fall, the effort led to at least a dozen stories about good fire, from local papers and TV stations to a long piece in Circle of Blue, a publication that takes a global look at water-related issues.

TREX information & announcements: http://nature.ly/trainingexchanges











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Fire Adapted Communities Learning Network

Members of the FAC Net share a vision of accelerating the adoption of fire adapted community concepts across the nation using a tested learning network approach.

FAC Net Works in Communities Coast to Coast

The FAC Net is designed to spread the best ideas and approaches to building wildfire resilience in communities throughout the U.S. When the FAC Net was launched in 2013—with eight diverse communities and organizations representing a wide range of places across the country—the intent was to use them as centers of excellence from which to grow a network of people and places committed to becoming better adapted to fire. A number of the pilots are taking this path: state-wide efforts are coalescing in several states, including Colorado, Nevada and Washington; in New Jersey the FAC Net is engaging with a broader state-wide sustainability effort; and the Georgia FAC Net, led by a Resource Conservation and Development (RC&D) Council, is beginning to spread through RC&D Councils in the Southern Appalachian region. Central to the success of these efforts has been a strategy of finding the right people to engage. Success requires FAC practitioners who not only take action in their own communities, but have the drive—and the capacity—to carry and spread the message to their peers in other places.

Because not all of the network's places and organizations are at this point on their trajectories, the FAC Net has been adjusting its structure to embrace a wider range of members—and to meet some of the remarkable demand for connection that has been discovered. Work during 2015 has been preparing the FAC Net to reach this wider network of people working in all aspects of FAC in 2016.

"I honestly don't know how we could have gotten as far as we have in our exploration if we had not been able to interact with the FAC Net. Staff and partners have brought valuable insights and experience to our efforts. From the start, we had a general sense of what we wanted to accomplish, but without the support of the FAC Net, we would have missed great ideas or wasted valuable time and money re-inventing the wheel."



Who Needs a Fire Adapted Communities Learning Network?

By creating a network of FAC practitioners, we are able to elevate reallife examples—and the people who live FAC on a daily basis become the messengers for the cause. The FAC Net provides multiple layers of value to individuals, organizations and agencies, communities, and to the public as a whole.

- Individuals benefit through the opportunity to co-create a community of people who are passionate about FAC and who are willing to share their time and talents with other members of the network.
- Agencies charged with managing our natural resources, and organizations committed to community and environmental resilience, have a forum in which to deeply engage in taking action and sharing responsibility.
- Communities are connected internally to the capacity that emerges when people gather to coordinate about FAC actions, and to people in other places who are willing to offer new perspectives and to help each other across geographic space and organizational divides.
- Nationally, the FAC Net is helping to untangle the "wildfire problem" by spreading the best ideas and connecting people who are working at every scale to create a more wildfire resilient future.

FAC Net Builds Communities of Practice

Among the changes that will help the FAC Net both be more effective internally and reach outward to other practitioners is the development and support of communities of practice (COPs). There are currently seven active COPs, with members drawn from both the FAC Net and the Fire Learning Network:

- Community Wildfire Protection Planning
- Engagement and Communication
- Network Building
- Treatment Economics
- Community of Practice for Using Fire
- Watershed Management
- Working with Landowners/ Homeowners

"The learning exchange was an incredible opportunity to work one-on-one with another FAC Net member. We understand this experience was just the beginning of a meaningful relationship, and we look forward to building upon this first exchange."



Though nearly a thousand miles apart, Flagstaff (AZ) and Ashland (OR) have striking similarities from a community wildfire resilience perspective—recent wildfire experience, a history of fuels work in the communities and watersheds, nearby federal projects...and strong leadership from their municipal fire departments. The two FAC Net members took advantage of this in October, with a learning exchange in Ashland.

Photo: Paul Summerfelt



At the December webinar, USFS Research Social Scientist Sarah McCaffrey gave a presentation on "Engaging the Public in Improving Fire Outcomes." In the brief talk she highlighted current research that contradicts much of the conventional wisdom about public perceptions of wildfire, and discussed the relationship (and differences) between understanding and acceptance.

The COPs are at various stages of development, but all have online work spaces set up and communications underway. Most have begun gathering useful documents and other resources to share. And all are poised to continue growth in the coming year.

FAC Net Connects People to Accelerate Adaptation

FAC Net continues to provide valuable "infrastructure" that helps members stay connected. Some of the connections are virtual—a private online workspace (on the Podio platform), for example, allows members to post resources, ask questions of each other, and share their successes (and challenges) in an open yet safe forum. Quarterly webinars provide another opportunity for members to keep up with others' work—and both learn from and contribute to it—and to hear from other practitioners in the field.

Live, person-to-person contact remains key, however. The annual workshop is a highlight for many members, but for the other 51 weeks of the year, the net is kept woven by interactions with the three staff network liaisons, and, increasingly, by in-person relationships between members themselves.

FAC Net Captures and Shares Learning

At both the national and local levels, network members take the lessons they learn and put them into forms that can help others. Some of these are formal documents and tools—for example, in the last several months:

- National staff overhauled the FAC Self-Assessment Tool based on feedback from members who had field-tested the first version. The FAC SAT guides community groups through a series of questions to ask and data to collect, and ways to assess that information and begin to act upon it. A companion user guide was also developed this fall.
- The national network also produced a new set of quick guides, twopage documents that break down a complicated issue into a more manageable form. This fall's guides cover the topic of using plans and regulations to increase community fire adaptation.
- In Arizona, the Flagstaff Watershed Protection Project developed a set of fact sheets on methods being used in their watershed restoration work, from prescribed fire to helicopter logging. Each includes information about the method, and also how it



The new website, FireAdaptedNetwork.org, has features that greatly improve its functionality as a resource library, which will increase the reach of products developed in the network.

fits into their overall work. They have shared these with other members, to adapt and use locally.

FAC Net members also share their learning and experience through presentations in a variety of venues. In the latter part of 2015, this included many meetings with local stakeholders—realtors to state fire service staff to homeowner associations—and booths at farmers' markets and county fairs. At the national level. Nick Goulette testified before the Senate Energy and Natural Resources Committee hearing in August, drawing heavily on lessons from the FAC Net. There were also presentations at the Backvards and Beyond Conference (Myrtle Beach, SC) and at the AFE Congress (San Antonio, TX); the FAC Net and FLN were also among the co-sponsors of the AFE conference, and staffed a booth that reached many practitioner peers.

"The expertise and willingness of FAC Net members to share what they know is invaluable. Each connection has compounding effects, which are significant to accomplishing work, creating long-lasting partnerships and future opportunities. Over the holidays, with the help and support of network members, we were able to develop and submit a proposal that will bring the first TREX to the state. We could not have done it without garnering the lessons and experiences from the network."

FAC Net Embodies the Cohesive Strategy

The FAC Net takes a broad view of what it means to be a fire adapted community—one that is not separate from the other goals of the Cohesive Strategy. Fire adapted communities, resilient landscapes and effective wildfire response are parts of the same whole. This is reflected in actions on the ground during wildfires, such as the summer's Community Mitigation Assistance Team pilot project in Washington or the Community Liaison Program in northern California. FAC Net members are also incorporating this broad view of FAC and the Cohesive Strategy into CWPPs. At least five local or county CWPPs were made more robust last year by FAC Net efforts, with more in progress. In New Mexico, the FAC Net helped update the state-wide CWPP requirements to align with this more comprehensive approach.





FAC Net Grows Good Ideas and Helps them Spread

The network is an effective forum for addressing the major challenges of helping communities become better adapted to wildfire. But it also lets members share their everyday successes—and some of the creative ways they are engaging their communities.

Top: In Florida, model houses—one demonstrating Firewise concepts, and the other without them—make an inviting three-dimensional alternative to a poster at outreach events.

Photo: Florida Forest Service

Right: During the 2015 Flagstaff Festival of Science, community members helped mark trees for thinning by the Flagstaff Watershed Protection Project. Photo: Mark Brehl Bottom: In Colorado, the Christmas Tree Train gets people out in the woods to cut a tree, enjoy some hot cocoa—and get a

thank-you from
FireWise of Southwest Colorado, the
Forest Service and
San Juan Mountains
Association for
helping "manage the
forest" by thinning
small trees.

Photo: Pam Wilson







Above: Community and fire personnel watched the Whites Fire blow up as they gathered for a community meeting in Sawyers Bar (CA). In northern California, the FAC Net is taking the lessons from the Salmon River Community Liaison Program (CLP) and is supporting the mentoring of community members to expand a CLP across a wide region. The CLP facilitates timely and transparent communication among Incident Management Teams, local Forest Service staff and the communities affected by the fires—and firefighting activities—during and after a wildfire.

Photo: Karuna Greenberg

Left: In late summer, staff and FAC Net members from the Coalition for the Upper South Platte (CO) traveled to central Washington to pilot a Community Mitigation Assistance Team (CMAT) project led by Pam Leschak (USFS National WUI/FAC Program Manager). The team was hosted by FAC Net members from the Chumstick Wildfire Stewardship Coalition, who had the Chelan Complex wildfires in their back yard. The lessons and relationships from the FAC Net are helping CMATs better integrate the "fire adapted communities" and "effective wildfire response" goals of the Cohesive Strategy, before, during and after wildfires.

Photo: from CMAT National Pilot Highlights, August 2015











Fire Learning Network, Fire Adapted Communities Learning Network, Scaling-up to Promote Ecosystem Resiliency and 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 Idecker@tnc.org or (801) 320-0524.

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Scaling-up to Promote Ecosystem Resilience (SPER III)

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

January 2015 - December 2017

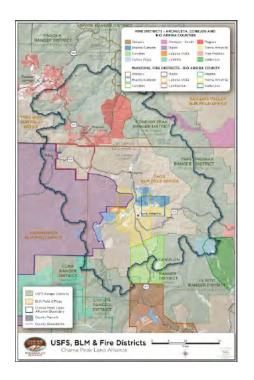
The SPER strategy began in 2011, with relatively modest amounts of implementation funding being strategically targeted to yield larger-scale impacts: SPER projects have filled gaps or otherwise helped bring work in progress to a landscape scale. They have also been catalysts to accelerate work in key places. In the first phase, six SPER I projects completed more than 20,000 acres of treatments in support of ecosystem resiliency, community safety and watershed protection. Under SPER II, five projects completed another 3,000 acres of treatments, and local fire management capacity was increased through several training opportunities.

SPER III is using a slightly different strategy—focusing on fewer places, more intensively. The goal is to accelerate the development of both the social and the operational capacity for using fire, benefitting forest resiliency and community wildfire protection alike. We think of this as getting to "right fire"—fire at the right time, right place and of the right size to move us toward our goal of living better with fire.

This effort was also designed to address water security issues. Resources are focused on landscapes where fire management actions will affect critical water sources for local communities or downstream water users. SPER III projects are in places where water security issues had been identified and where strategic and collaboratively-developed activities were already planned or underway, but can benefit from the additional input of funds, partnerships and expertise that SPER and the Fire Learning Network can provide.

"Our most important goal was to address the barriers to landowners being comfortable with using prescribed fire on their lands. As it turns out, local and county policies were the biggest barrier. We addressed many of these through negotiating revised burning permit conditions in two counties and now see that two landowners are planning 600 acres of prescribed burns in 2016 and 2017!"

SPER III is supporting three tests of getting to large-scale fire use. All three sites are in the first phases of cultivating the enabling conditions for success. Over the last several months they have developed, advanced and solidified necessary partnerships and agreements. In one landscape, FLN staff assisting the project made a key breakthrough in finding and facilitating contacts with an insurance company that would sell small, reasonably priced prescribed fire liability policies on a per event basis. These projects have now moved from "I'm not sure how we can do this" to "People really want to support use of fire! They want to discuss it, and support it despite smoke in the air." And all three sites have begun implementing the combination of mechanical fuels reduction and "good" fire needed to bring these large landscapes closer to "right fire."





Left: In New Mexico, partners are working on private land in the upper reaches of the watershed that serves Albuquerque. Working across numerous fire districts is one of the challenges here. Above: The implementation aspects of the work in Oregon include treatments (blue and yellow units) that extend work already underway in a USFS project (green). The City of Ashland is in the upper right corner.

California: Trinity Integrated Fire Management Partnership

Narrow burn windows, complex land ownership patterns, and local workforce capacity are among the barriers to the effective use of fire in this landscape. And the need is urgent, with major wildfires nearly every summer affecting communities for weeks or months on end. The effective use of fire—both prescribed and by managing unplanned ignitions—is essential for protecting communities and their water supplies and for restoring and supporting forest health. Work under SPER III is building the relationships and workforce needed to organize multi-owner projects and take full advantage of brief burn windows and start shifting the balance between "bad" and "good" fire in this landscape.

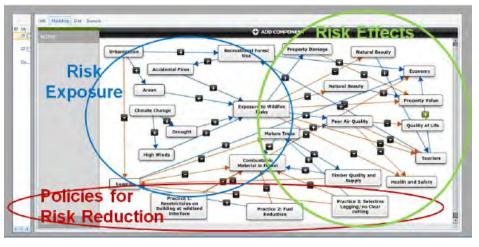
New Mexico: Integrating Fire Adapted Communities, Resilient Landscapes and Response to Wildland Fire in the San Juan-Chama Headwaters of the Rio Grande Water Fund

The Rio Grande Water Fund (RGWF) is a multi-partner effort that is working on a sustainable means of protecting the water supply for a million New Mexicans. The RGWF project area encompasses seven million acres, including 1.7 million acres of fire-adapted forests. The San-Juan Chama area, spanning the New Mexico-Colorado border, is one of four places in the RGWF project area that has been identified by The Nature Conservancy and the water fund as priority places for forest treatments. SPER III is supporting planning and treatments on private lands in this priority landscape.

"One of the most important barriers to tackle was securing the necessary state permits to conduct prescribed fires. We were able to make significant headway on this issue. Last year the state would not issue permits for burning during the 'fire season.' Through continued dialog, at several different levels, we were able to secure permits for the 2015 TREX—during 'fire season.' We learned that continued engagement is necessary to build the trust and acceptance of state fire leadership. We anticipate continued progress on this front in 2016."

Oregon: Ashland Forest All-Lands Restoration Project

SPER III is supporting the expansion of an existing project in the Ashland municipal watershed—the Ashland Forest Resiliency project—into the Ashland Forest All-Lands Restoration Project. The expansion increases the project area from 22,000 acres to 53,000, and brings in the Oregon Department of Forestry and USDA Natural Resources Conservation Service as new partners. SPER is helping to bridge transitions in the work schedule to ensure continuity, and to integrate new partners into the ongoing efforts. It is also taking on important community engagement and capacity-building, assessing and developing the social infrastructure needed for the project's success.



An example of a tool used in fuzzy cognitive mapping. In Oregon, SPER is pioneering the use of this tool for fire and forest restoration action. In partnership with university researchers, the SPER lead designed and led a process to integrate information gleaned from five knowledge exchanges attended by different unique stakeholder or interest groups. The results are being analyzed by researchers and, after refinements at workshops in the spring, will guide further strategy refinement and actions in this landscape.











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