

# ADOPTING A LEARNING NETWORK APPROACH FOR GROWING FIRE ADAPTED COMMUNITIES



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Portions of this article are adapted from *The Fire Learning Network: A Promising Conservation Strategy for Forestry* (Goldstein et al. 2010) and used with permission.

## Introduction

The Forest Service's Fire Adapted Communities (FAC) program invests in a wide range of partnerships and programs to promote the mitigation of wildfire threats and impacts to communities. FAC supports Firewise Communities/USA; Ready, Set, Go!; and community wildfire protection plans. FAC staff also leads the national Fire Adapted Communities Coalition, among other efforts. Both prior to and in concert with the development of the National Cohesive Wildfire Management Strategy, FAC program leaders have sought to prioritize effective and innovative ways

to accelerate the adoption of best practices in the movement toward fire adapted communities across the Nation.

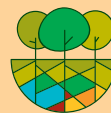
The Forest Service recognized that supporting in person and interactive forms of communication and learning provides one of the most efficient and effective means of accelerating program adoption and transferring best practices and innovations across geographies. The Fire Learning Network (FLN), a project led by The Nature Conservancy (TNC) in partnership with the Forest Service and the

U.S. Department of the Interior, has demonstrated the value of the learning network model for advancing the restoration of fire adapted ecosystems across the United States over the past decade (Goldstein et al. 2010).

The complexity of contemporary resource management challenges, including community adaptation to wildland fire, requires strategies that promote adaptive management (Norton 2005); facilitate networking and collaboration within and across disciplinary, institutional, and property boundaries; and build

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## FIRE ADAPTED COMMUNITIES LEARNING NETWORK

The Fire Adapted Communities (FAC) initiative and the FAC Learning Network (FAC Network) are helping homeowners, communities, and land managers in fire-prone areas prepare for inevitable fires—to “live with fire” safely. The FAC Network encourages the development and sharing of best practices and innovations in order to accelerate the adoption of fire adapted community concepts nationwide. The FAC Network supports selected hub organizations and communities that have committed to implementing, assessing, and sharing the work that they are doing to increase their communities' resilience to wildfire. Funding is provided by the Forest Service's FAC Program (and participants' matching funds), and the FAC Network is managed by the Watershed Research and Training Center and The Nature Conservancy. More information is available at <http://facnetwork.org/>.

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a community of practice (Wenger 1998). Managers must be able to continually adapt, learn, and respond to the unique characteristics of each landscape and community in which they work. They must also be able to collaborate and coordinate as a unified group to address policy and regulatory barriers.

The Forest Service is working in partnership with the Watershed Research and Training Center (WRTC) and the FLN to establish a nationwide FAC Learning Network pilot project. Project partners share information and use the FLN model, in coordination with the existing FAC Coalition and others, to accelerate the growth and development of fire adapted communities nationwide.

### Conservation Learning Networks

Learning networks in general, and conservation learning networks (CLNs) in particular, have three core components: a domain, a community, and a practice (Wenger 1998).

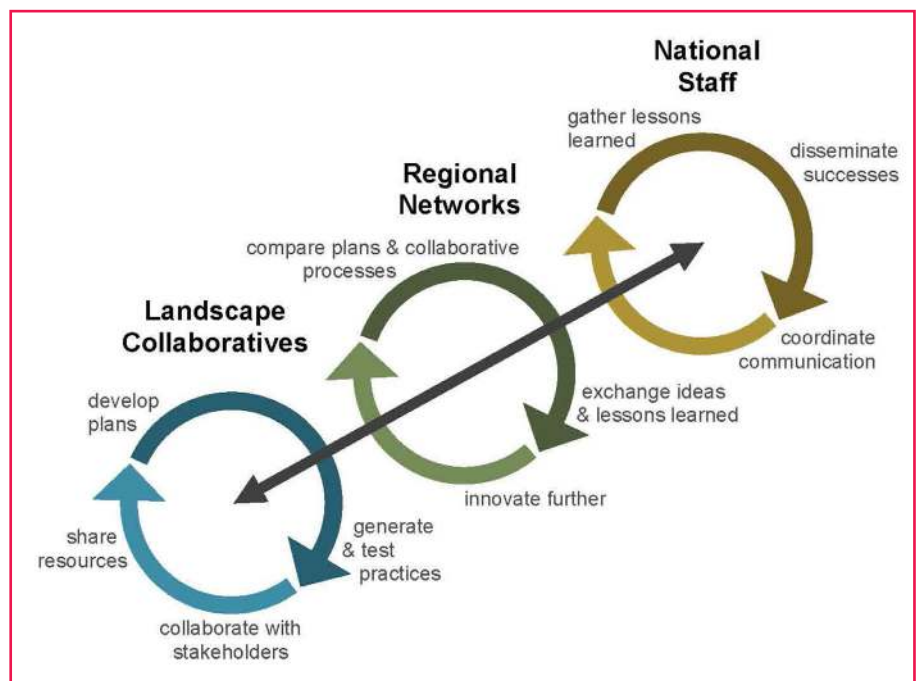
A *domain* is the core issue on which the network focuses (for example, adapting to wildfire). A network is much more likely to be sustainable if organized around a single problem or issue rather than a broad spectrum of interests.

The *community* is composed of participants who operate in the domain and who share common objectives to enhance a particular practice (for example, fire special-

ists). Strong communities are grounded in mutual trust and reciprocity that sustain an atmosphere of openness and the ability to admit mistakes and learn from them, as well as the capacity and willingness to contribute skills, access, and resources toward the group's shared ends. Participants must see the network as contributing to this community, as well as their own work priorities, in a mutually reinforcing way as members share understanding and experiential knowledge about their successes and failures. Close, direct, and sustained engagement is critical to support the relationships that allow each participant to contribute his or her own experience and learn from others (Brown and Duguid 2001).

Finally, learning networks are about a *practice*—the expertise, skills, methods, and techniques used to solve problems (for example, identifying ecologically appropriate, institutionally sanctioned, socially acceptable, and fiscally responsible fire management practices).

CLNs are distinct from other learning strategies such as formal curriculum, technology transfer, and experiential education. CLNs promote learning both from and by practitioners and professionals, fostering the spread of best practices and emerging concepts within and throughout the field (Daniels and Walker 2001). Learning networks draw lessons from experience, instill sound decisionmaking processes, and identify barriers and solutions to effective practice. They are more participatory and less hierarchical than traditional learning strategies such as academic degree programs and agency training workshops. They create



**Figure 1.**—Fire Learning Network cross-scalar relationships: landscapes, regions, and the Nation.

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more opportunity for reflection and open and free exchange than is possible in a workplace setting that is typically focused on reactive problemsolving. Learning networks encourage autonomy, adaptability, and self-coordination so that relationships can emerge that reflect mutual work and shared everyday concerns (Goldstein and Butler 2010).

Learning networks can support a variety of services and activities, such as field projects, planning activities, exchange visits, field trips, information clearinghouses, publicity, and the creation and

assist others and take risks if they know they will be encouraged and supported and that their contributions will be reciprocated (Bryan 2004). Network ideas can have influence beyond their members. By sharing their learning more broadly, networks can jumpstart initiatives that might lead to more fundamental change.

## The Fire Learning Network

Learning network principles, coupled with nearly a decade of experience with the FLN, has provided evidence for the application

better plans and policies, strengthening collaborations, and establishing a shared store of actions that lead to desired results, the FLN has helped collaboratives shift priorities and practices toward more ecologically sound fire management (Butler and Goldstein 2010). The FLN demonstrates how a multiscalar collaborative learning network may help to overcome rigidity within natural resource management and promote adaptation and resilience (figure 1).

The FLN has successfully enabled participants to collaborate across organizational and administrative boundaries to develop and implement ecological restoration plans for fire-adapted ecosystems. In the decade since its founding, the FLN has included some 750 organizations distributed across more than 163 collaboratives, on landscapes ranging from 100,000 to 11 million acres. These landscapes are organized into regional networks, where they exchange information, learn new techniques, and give and receive feedback (a map of the active and historical FLN landscapes is shown in figure 2).

Together, these landscapes encompass 162 million acres that have been affected by improved collaborative planning and management. Partners in these landscape collaborations have leveraged more than \$27 million in additional funding for planning and restoration, and they have planned and conducted more than 490,000 acres of treatments.

## Prioritizing a Fire Adapted Communities Learning Network

Recent prioritization of the learning network approach to advancing

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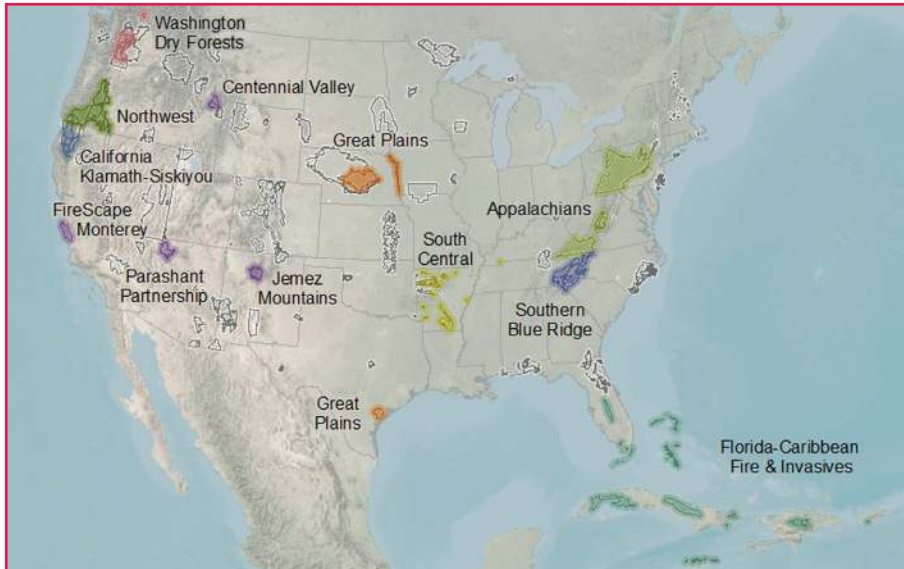
maintenance of a central contact list. Less tangibly, networks support an increased capacity to solve problems across organizational and procedural boundaries, to connect and share insights, and to use common analytic strategies. These abilities allow individuals to stay current in their profession, save time otherwise spent hunting for answers, and prioritize information.

In addition to helping experienced practitioners pass on professional “know-how” to others, networks can provide a safe and engaging space to question the status quo and develop new perspectives, operational procedures, and action strategies (Argyris and Schon 1996). The network model fosters innovation by building trusting relationships and shared purpose. Individuals are more inclined to

of learning networks in advancing complex fire management objectives.

As noted earlier, CLNs improve practice by creating and rewarding innovation and reaching across institutional, professional, and disciplinary barriers to focus on the needs of practitioners. The FLN shows how this works in action. Its success has fostered restoration of fire-adapted ecosystems and exposed an ever-widening group of professionals and practitioners to the best practices of ecological fire restoration.

The enhanced collaborative capacity built by these networks has enabled fire managers and stakeholders to operate in partnerships, share resources, avoid redundancy, and capture synergies. By developing



**Figure 2.**—Fire Learning Network landscapes encompass 162 million acres that have been affected by improved collaborative planning and management. The Fire Learning Network spans the country with landscapes in 39 States (plus Puerto Rico) from coast to coast and 6 countries in the Caribbean.

fire adapted communities emerged both from the Western Region Cohesive Strategy’s assessment (<http://www.forestsandrangelands.gov/strategy/>) of the state of community-focused fire management strategies, and from the prioritization of “hub-and-spoke” networks for achieving FAC goals in the regional strategies.

In 2012, the Western Region Cohesive Strategy’s communications working group engaged the WRTC to develop and implement an assessment titled, *Living with Wildfire: The State of Practice in Western Communities* (Goulette 2012). More than 500 participants from across the West, representing the full diversity of stakeholders engaged in fire management, provided their insights. The final report provided a number of recom-

mendations intended to inform the Western Region Cohesive Strategy and other national fire management strategies, policies, and programs.

The resulting findings supported a recent fire social science research synthesis (McCaffrey and Olsen 2012) and specifically indicated that “in both the provision of technical information and assistance, and in learning about new developments in support of fire management, respondents strongly favored various forms of in-person and interactive communications (peer networks, personal contacts, workshops, field tours, etc.) as the most effective tools” (Goulette 2012).

Along with indications of practitioner and stakeholder preferences evidenced by social science and

assessment findings, stakeholders collaborating in the development of regional cohesive strategies provided further prioritization for the learning network approach. In setting out their FAC strategies, the three regions suggested the development of a hub-and-spoke FAC network as an element of their regional action plans. The prioritization of the FAC Network concept by the Western Regional Cohesive Strategy further supports the decision by Forest Service leaders to initiate the FAC Learning Network pilot project.

## FAC Learning Network Goals, Structure, and Function

Working under the administration of Forest Service FAC program leaders, the WRTC and TNC serve as the pilot project managers for the FAC Learning Network. Representatives from the Fire Adapted Communities Coalition are working with the WRTC and TNC to coordinate and steer the project. Together, the WRTC and TNC have jointly designed and will administer the project working with pilot community leaders and subregional network hub leaders.

Network leaders and participants have defined the following goals for the network:

- Support pilot community leaders in facilitating FAC local coordinating groups and prioritized FAC activities.
- Work with hub leaders and partners to facilitate the development of subregional peer learning networks.
- Use regional peer learning networks as venues to accelerate the adoption, innovation, and diffusion of best practices associated

Local Fire Adapted Communities’ success will be built upon a collaborative approach to connect all those who play a role in wildfire education, planning, and action with comprehensive resources to help reduce risk.

- with FAC programs across communities and geographies.
- Share learning and innovation across the three goals of the National Cohesive Wildland Fire Strategy: resilient landscapes, fire adapted communities, and response to wildfire, supporting their purposeful integration to build truly fire adapted communities.
  - Provide a meaningful and efficient feedback loop to the FAC Coalition and Federal program leaders to more efficiently and effectively support fire adapted communities.

Eight FAC pilot communities have been selected to participate in 2013–14. Beginning in spring 2013, local leaders, working in partnership with hub organization leaders in the pilot communities, organized local coordinating groups to integrate relevant fire management efforts including assessment, planning, communications, implementation, response, and recovery in support of collectively prioritized fire adapted community goals. Local FAC success will be built upon a collaborative approach to connect all those who play a role in wildfire education, planning, and action with comprehensive resources to help reduce risk. Pilot communities will demonstrate and synthesize local learning about this collaborative approach.

Over time, the regionally based hub organizations will work with other regional and State-level partners (State forestry agencies, resource conservation districts, etc.) to convene and facilitate workshops and peer learning exchanges between pilot communities and other local coordinating groups in their respective geographies.

At the national level, WRTC and TNC will convene network-wide workshops, aggregate learning, and share across regions and with Forest Service program leaders, FAC Coalition members, and other partners to help adapt programs and strategies over time. Together, these collective efforts will promote collaboration and adoption of best practices among local, State, tribal, and Federal partners, as well as facilitate multiscale learning to accelerate the growth of fire adapted communities in the United States.

FAC Learning Network leaders will work with the Forest Service and other stakeholders to evaluate the learning emerging from the pilot project and its efficacy as a strategy to advance the overall goals and objectives of the FAC program and allied efforts.

Look for more detailed information about the FAC Learning Network pilot project and the participating communities at <<http://www.fireadapted.org/region/fac-learning-network.aspx>>. You can also contact Nick Goulette, director of the Watershed Center, at <[nickg@hayfork.net](mailto:nickg@hayfork.net)>, (530) 628 4206 or Lynn Decker, director of the Fire Learning Network, at <[ldecker@tnc.org](mailto:ldecker@tnc.org)>.

For more information on the Fire Adapted Communities program, visit <<http://www.fireadapted.org>> or contact Pam Leschak, Forest Service Fire Adapted Communities program manager, at <[pleschak@fs.fed.us](mailto:pleschak@fs.fed.us)>; or Tim Melchert, Forest Service cooperative fire specialist, at <[tmelchert@fs.fed.us](mailto:tmelchert@fs.fed.us)>.

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## References

- Argyris, C.; Schon, D. 1996. *Organizational learning II: Theory, method, and practice*. Reading, MA: Addison-Wesley. 305 p.
- Brown, J.S.; Duguid, P. 2001. Knowledge and organization: A social-practice perspective. *Organization Science*. 12 (2): 198–213.
- Bryan, T. 2004. Tragedy averted: The promise of collaboration. *Society and Natural Resources*. 17: 881–897.
- Butler, W.H.; Goldstein, B.E. 2010. The US fire learning network: Springing a rigidity trap through multi-scalar collaborative networks. *Ecology and Society*. 15(3): 21.
- Daniels, S.E.; Walker, G.B. 2001. Working through environmental conflict: The collaborative learning approach. Westport, CT: Praeger Publishers. 299 p.
- Goldstein, B.E.; Butler, W.H. 2010. Expanding the scope and impact of collaborative planning: Combining multi-stakeholder collaboration and communities of practice in a learning network. *Journal of the American Planning Association*. 76(2): 238–249.
- Goldstein, B.E.; Butler, W.H.; Hull, R.B. 2010. The fire learning network: A promising conservation strategy for forestry. *Journal of Forestry*. 108(3): 121–125.
- Goulette, N. 2012. Living with wildfire: The state of practice in western communities. <[http://www.forestsandrangelands.gov/strategy/documents/rsc/west/LivingwithFire\\_StateofPractice\\_AssessmentFindings\\_Final\\_10\\_12\\_12.pdf](http://www.forestsandrangelands.gov/strategy/documents/rsc/west/LivingwithFire_StateofPractice_AssessmentFindings_Final_10_12_12.pdf)> (06 April 2013).
- McCaffrey, S.M.; Olsen, C.S. 2012. Research perspectives on the public and fire management: A synthesis of current social science on eight essential questions. Gen. Tech. Rep. NRS 104. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 40 p.
- Norton, B. 2005. *Sustainability*. Chicago, IL: University of Chicago Press. 608 p.
- Wenger, E. 1998. *Communities of practice: Learning, meaning, and identity*. Cambridge, U.K.: Cambridge University Press. 23 p. ■