



# Ecosystem Workforce Program

BRIEFING PAPER  
NUMBER 60  
SUMMER 2014



## PROMOTING FIRE-ADAPTED COMMUNITIES: THE IMPORTANCE OF SOCIAL DIVERSITY IN THE WILDLAND URBAN INTERFACE

TRAVIS PAVEGLIO, AUTUMN ELLISON, JESSE ABRAMS, CASSANDRA MOSELEY, AND MATTHEW S. CARROLL

**F**ire-adapted communities are those that can effectively reduce risk to private property through community actions while allowing wildfire to play a regenerative role in the local ecosystem. However, little is known about what fire-adapted communities look like or how different kinds of communities can achieve this goal. This research advances knowledge about community fire adaptation while also recognizing that social and biophysical context varies among communities.

### Approach

This briefing paper synthesizes recently-completed work<sup>1</sup> and earlier research<sup>2</sup> investigating community characteristics that influence local approaches to dealing with wildfire risk. In total, the research represents 18 community wildfire case studies conducted during the last 15 years. Researchers performed a cross-case analysis of these case studies.

### Results

**Local adaptive capacity matters.** Adaptive capacity is the combination of local social characteristics and external forces that influence how communities take action to reduce their exposure or modify the severity of disturbance events. High adaptive capacity means high local ability and resources to perform collective or individual actions. We found that wildfire programs, outreach strategies, and recommendations for managing wildfire risk that were tailored to local adaptive capacity led to increased participation and greater success in accomplishing goals.

**Community diversity necessitates diverse approaches for building adaptive capacity.** Wildland-Urban Interface (WUI) communities across the American West have taken a variety of approaches to building adaptive capacity. A single

strategy will not work equally in all communities; different communities require different planning, mitigation, and outreach strategies to manage and live with fire. The most successful approach for any setting requires consideration of community context, and may require site-specific methods and outcomes.

**Certain characteristics affect community views and approaches to wildfire risk mitigation.** Characteristics that affect wildfire management approaches, outcomes, strategies and attitudes toward “living with fire” across cases include: (1) residents’ knowledge of the local ecosystem and experience with wildfire, or place-based knowledge; (2) access and ability to adapt scientific/technical information to a local context; (3) demographic and structural characteristics (such as income, median age, road infrastructure, and access to resources); and (4) interactions and relationships within the community that support or limit collective action.

**Categorizing WUI community diversity can lead to more appropriate strategies.** We identified four “archetypes” of communities with similar tendencies, preferences, and needs: (1) formal suburban WUI communities; (2) high amenity/



UNIVERSITY OF OREGON



University  
of Idaho



Portland State  
UNIVERSITY

high resource WUI communities; (3) rural lifestyle communities; and (4) working landscape, resource dependent communities. These archetypes provide a manageable approach to organizing the great diversity of WUI communities into groups for which similar strategies for increasing wildfire adaptation will be effective. For example, some communities benefit more from increased access to monetary resources while others primarily need to build stronger relationships internally within the community. Some communities are receptive to formal policies to improve fire preparedness whereas other communities embrace more informal social networks.

### Implications

This research suggests that there is no one pathway for achieving a “fire adapted community.” Communities have distinct assets, capacities, preferences, and challenges in becoming fire adapted. Understanding local social context is necessary to understand how communities’ progress toward wildfire adaptation will be most effective in different settings. Although local contexts may vary greatly, assessment of key local characteristics can categorize communities into groups that benefit from similar strategies.

### Takeaways:

- No single approach is equally effective in all communities.
- The most effective investments and efforts will consider community context and characteristics.
- Key community characteristics to consider include:
  - Local communication modes and social networks
  - Community capacity for preparation, response, and recovery
  - Local knowledge, experience, skills, and financial capital
  - Community/agency relationships

### More information

The complete study can be found in EWP working paper #50: “Community diversity and wildfire risk: An archetype approach to understanding local capacity to plan for, respond to, and recover from wildfires,” which is available at: [ewp.uoregon.edu/publications/working](http://ewp.uoregon.edu/publications/working)

For more information about the project and additional publications go to: [www.ewp.uoregon.edu/wfresilience](http://www.ewp.uoregon.edu/wfresilience)



<sup>1</sup> Paveglio, T.B., C. Moseley, M.S. Carroll, D.R. Williams, A.P. Fischer, and E.J. Davis. In press. Categorizing the social context of the Wildland Urban Interface: Adaptive capacity for wildfire and community “archetypes.” *Forest Science*.

<sup>2</sup> Paveglio, T.B., M.S. Carroll, P.J. Jakes, and T. Prato. 2012. Exploring the social characteristics of adaptive capacity to wildfire: Insights from Flathead County, Montana. *Human Ecology Review*: 19(2), 110-124.

Paveglio, T.B., P.J. Jakes, M.S. Carroll, and D.R. Williams. 2009. Understanding social complexity within the wildland urban interface: A new species of human habitation? *Environmental Management*: 43, 1085-1095.

This research was supported by funding from the USDA National Institute for Food and Agriculture, Grant #2011-67023-30695. Photos credits: header: U.S. Forest Service, Coconino National Forest p.2: Autumn Ellison—Ecosystem Workforce Program.