



Fire Adapted Communities Pathways Tool

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Introduction

Improving fire outcomes for communities requires local organizing and action. The Fire Adapted Communities Pathways Tool helps communities identify a set of strategies which are tailored to their strengths and needs, and that are based on practices which have been successful in communities similar to theirs. The tool combines insights and experiences from community-based wildfire resilience practitioners and researchers who have been investigating the factors that influence community adaptation for more than 20 years.

Completing the steps outlined in this Tool will result in:

- a community description;
- an initial community archetype which can help guide selection of adaptation practices;
- a selection and analysis of practices that are likely to be successful in your community, including considerations, examples, and resources;
- an action guide to facilitate your next steps.

The goal of the tool is to help organize and facilitate adaptive choices by local people who know their communities, not to prescribe "answers" about the best or only ways to adapt. The tool provides multiple options that partners can collaboratively consider when building their own fire adaptation pathways. This includes suggestions of practices that existing research or practice indicate may be effective in various community "archetypes" and opportunities to catalog unique local contexts and match them with a broader selection of practices.

How to Use This Tool

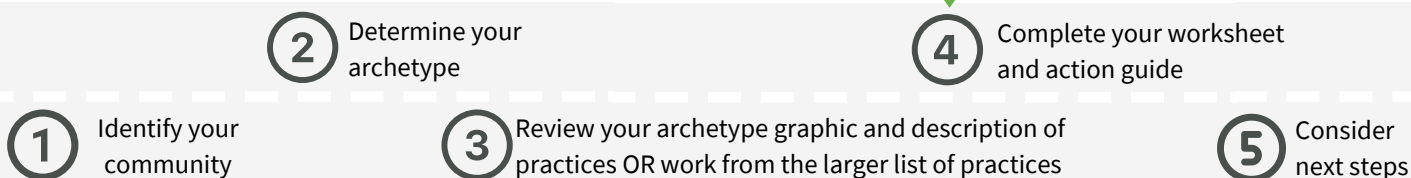
Users can complete the Fire Adapted Communities Pathways Tool using a five-step process. Each step is outlined in the introductory section of the Tool (pages 1-15). Where appropriate, a road graphic (see bottom of page) is shown to help you navigate the process.

Steps 1 (Identify your community) and 2 (Determine your archetype) are critical opportunities for users to tailor the tool to their local circumstances. Steps 3-5 of the process are unique and based upon your selections during the first two steps.

IMPORTANT: This Tool, if printed in its entirety, is likely to feel overwhelming. We recommend reading and printing the opening section (pages 1-15) BEFORE you take any other action!

The road graphic is provided to help you navigate throughout the opening section of the Tool.

The "You are Here" icon is used to indicate your current step in the process.





Fire Adapted Communities Pathways Tool

How to Use This Tool

Table of Contents

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The Tool Development Process

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed by the Fire Adapted Communities Network and our research partners to support community-based fire adaptation. This Tool represents the first step in a larger project that will ultimately include a web-based portal for practitioners.

This Tool has been tested by fire adaption practitioners but more testing and adjustments are underway as we build the full package of tools. For instance, this version of the Pathways Tool includes three different methods for selecting a community archetype (see Appendix A). This tool will evolve as more field testing is accomplished and results are integrated into future versions.

If you, or your community, would like to participate in the testing and development process, please fill out [this short form](#). Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area.



Fire Adapted Communities Pathways Tool

Community

Step 1: Identify your community and scale of action.

Wildfire management policies, programs, and networks often use the word "community." Understanding and defining community—where and how it occurs, and what it can help us accomplish—is often a prerequisite for those attempting to create change.

Community often implies a connection to place, including geographical space that people value. This Tool is designed to directly support people working on fire issues in particular places rather than addressing general or abstract issues. The focus on particular places is based on decades of research and practice demonstrating the importance of reflecting or working with site-specific social and ecological conditions when promoting effective fire adaptation.¹

Community can be defined in many ways;² you know your community best. As you define your community, think about the following:



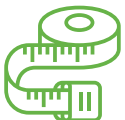
Community is emergent, and built by the ways that people interact. Community reflects shared commitment, action, and engagement among individuals who often care about a common locality. The concept of community is perhaps most useful when thought of as the ability of local people to combine their collective resources, skills and passions to address shared challenges.



Communities may or may not have "official" boundaries, or be contiguous. Be realistic about the scale at which you can work with residents, partners, professionals, and policymakers when planning for actionable fire adaptation across human populations. Community boundaries often correspond to a combination of social or cultural ties which connect groups of people and landscape features.



Not everyone in a community has to agree, have the same background, or share the same demographics. Community members have shared social networks and valued interpersonal connections, the capacity or occasion to interact in ways that build the potential for action, and a shared locale or "place" that they all care about. Communities can draw or learn from many cultures when developing local bonds and shared values that allow them to work together.



The scale and size of community is variable. Community can be a collection of people who connect to the land through agriculture and stewardship, the defined boundaries of a subdivision on the edge of a city, a large commercial core with interspersed residential properties, or people who live along a network of backroads and who share an attachment to the nearby public lands. The point is that community can take many forms, and it's important that you decide how it occurs in the places where you would like to apply this tool.

The Fire Adapted Communities Pathways Tool is best used by identifying a specific "community" in your region that might benefit from additional fire adaptation planning.



Identify your community.

Describe the community you have chosen for the exercise. Who lives there? Does it have a name?

What makes these people a community? What defines them? What binds them together as a community?

Can you describe the boundaries of the community? If you have a map, locate the community. The boundaries can be fuzzy, non-contiguous and imperfect!

What do people in this community value? How do those values link to wildfire?

What scale (e.g., neighborhood, drainage, city, county) did you select? If you find yourself gravitating to formal community boundaries (such as a county or fire district), consider whether this boundary is the appropriate scale for your work and peoples' willingness to work together.



2

Determine your archetype

4

Complete your worksheet and action guide

1

Identify your community

3

Locate your archetype graphic and description of practices OR work from the larger list of practices

5

Consider next steps



Fire Adapted Communities Pathways Tool

Archetypes

Step 2: Determine your archetype.

The community archetypes outlined below are derived from more than 20 years of existing and ongoing research that engages diverse communities across the United States. Decades of research findings document how the presence or expression of local characteristics combine to help understand different ways that communities likely adapt to wildfire.³ These characteristics often combine in broad patterns, called community archetypes, which can help communities distinguish the types of wildfire adaptation practices that may be better suited for advancing wildfire adaptation in their place.

We are still learning about all of the local characteristics and conditions that influence wildfire adaptation practice, including the full range of social diversity and its influences on wildfire adaptation. This includes recognizing the importance of cultural diversity in historically underserved populations. We know there are other community archetypes to be explored, and a better understanding of whole communities will lead to more equitable wildfire management systems. Your participation—using and expanding on this tool—will help document a fuller range of cultural contexts and communities, each with their own knowledge, values, assets and fire adaptation needs.

Archetypes are not the same as stereotypes. Archetypes represent complex and repeatable patterns of tangible characteristics which often recur, and which often relate to distinct values and social networks that are harder to document. Stereotypes are generally overly simplified expressions of a single trait, magnified and exaggerated without grounding in fact. Community archetypes can help provide initial orientation for communities exploring a variety of practices. Rather than hard and fast categories, archetypes represent a set of initial options which can help communities more quickly identify lessons, tools and resources which might advance their adaptation. Communities are constantly evolving and changing, as are the people, values, and interactions that define them.

Equity Matters

Be mindful as you define your community and select an archetype. Without a thoughtful approach, inequitable systems could be reinforced. Implicit bias, current programs and investments, and many other factors are likely shaping your perceptions. There are several things you can do to improve the outcomes of this process from an equity lens:

- Include the people in the community of interest in this process.
- Authentically build relationships and connections to many different people within the community.
- Get hyper local. Strip away formal socio-political boundaries and get to the relationship-driven community boundaries that identify who sees themselves as connected in this work.
- Consider how the practices you ultimately select do or do not meet the needs of all of the residents in your community and how this could be mitigated.
- Recognize the power of diversity.
- Approach this work from an asset-based perspective rather than a deficit one.
- Recognize how injustice and exclusionary policies may have impacted the communities you are working with and do not reinforce inequitable systems with this process.



2 Determine your archetype

4 Complete your worksheet and action guide

1 Identify your community

3 Review your archetype graphic and description of practices OR work from the larger list of practices

5 Consider next steps



Fire Adapted Communities Pathways Tool

Archetypes

The Fire Adapted Communities Pathways Tool suggests practices that are likely to apply to your local conditions based on the archetype you select. Read the descriptions of the community archetypes below to determine which is *most* similar to the community you outlined in Step 1. Your community may not perfectly fit any archetype (in fact, it probably won't be a perfect fit) and that is okay. The purpose of selecting an archetype is to identify a reference point with similar characteristics.

To determine your archetype, carefully read the descriptions (starting on page 8 below) and select the archetype that most closely matches the community you described in Step 1.



TIPS As you consider the archetypes, keep the following in mind:

Focus on the characteristics **that do** reflect your community. If some of the characteristics are resonant for your community, keep that archetype in consideration. You can think about the archetypes as a sewing pattern. Find the pattern closest to your communities "measurements." Then, in steps 3-5 of the Tool, you will have the chance to make custom alterations to your fire adaptation pathway.

If your community is changing rapidly think about what archetype currently exists and which may be emerging.

Consider which characteristics would be most resonant for the people who live in your community. These are likely important indicators to use in making this first choice.

Think about the ways that you would describe your community as compared to other communities in the region. What are the defining characteristics that set them apart from other nearby communities? These are likely important indicators in picking your initial archetype.



Fire Adapted Communities Pathways Tool

Archetypes



Archetype characteristics
focused on PEOPLE



Archetype characteristics
focused on PLACE



Archetype characteristics
focused on INTERACTION

To determine your archetype, carefully read the descriptions below and select the archetype that most closely matches the community you described in Step 1.



Working Landscape



- Strong sense of place attachment due to “working on the land;” often exhibit intergenerational ties or an affinity for close connection with natural resources.
- Livelihoods are often tied to land or resource management (e.g., farming, ranching, orchards, timber). Relatively high knowledge of local ecology and access to skills/equipment for managing landscapes (e.g., large equipment, vegetation clearing, road maintenance).
- Desire to be highly independent, can prefer local government (e.g., county, state) or grassroots action; sometimes distrustful of larger government.
- Interested in stewardship, resource use or resource development of broader public lands or landscapes.



- Boundaries are informal and often tied to larger landscape scales (e.g., drainages, sections of a county) or social connections (e.g., cattlemen's associations, irrigation districts, schools).
- Low density residential development, often with larger tracks of private properties, primary homes, and resource management industry land (e.g., timber groups, commercial farms or ranches, rock quarries).
- Less land turnover or development; encroachment of residential areas can be seen as a threat to traditional ways of life in the region.



- Residents tend to communicate through informal means (e.g., person-to-person interaction, public spaces, social media) and have fewer formal communication organizations.
- Often desire to be active in implementing wildfire or natural resource related management actions; in-person and sustained local relationships are important.
- Shared desire to “be a good neighbor” and help one another with common hardships; strong informal ties among families and underlying trust in others in community.



Fire Adapted Communities Pathways Tool

Archetypes



Archetype characteristics
focused on PEOPLE



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focused on INTERACTION



Rural Lifestyle



- Place attachment is tied to desire for “rural living,” privacy from neighbors, access to nearby wildlands or public lands.
- Communities are made up of people with a wide range of backgrounds or skills. Skills and ability to manage landscapes, write grants, respond to emergencies, manage businesses and more may be present.
- Some residents have the know-how and ability to help manage vegetation or operate equipment for landscape management.
- Attitudes toward public lands and land management tied to forest/range health, fuels reduction and wildlife habitat.



- Fewer formal boundaries for the community; often tied to common responsibilities (e.g., road maintenance or snowplowing), shared infrastructure (e.g., water systems or historical societies), or interdependence of resources (e.g., “Friends of” groups or common riverfront).
- Lower density rural residential parcels often featuring native vegetation and outbuildings, often with more difficult ingress and egress. Potential geographical boundaries occur at a range of scales from the road to the drainage.
- Residents often move here to develop “rural properties,” retire, or for a more rural lifestyle; mix of primary homes and second homes or recreational properties.



- Residents may establish more formal groups (e.g., community newsletter, board, social media group) to communicate with one another about fire resilience issues, but tend to favor informal communication and individual property rights.
- Local action may begin with grassroots organizing by one or two residents. Collective action begins as shared commitment to individual action across properties.
- Residents tend to value preserving the rural nature of the area and responsible management of wildlands that can include sustainable resource use.



Fire Adapted Communities Pathways Tool

Archetypes



Archetype characteristics
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High Amenity/ High Resource



- Place attachment is tied to outstanding outdoor amenities (rivers, lakes, recreation trails, ski areas) and/or presence of nearby public lands, including protected areas (e.g., national or state parks, national monuments, etc.).
- Community members have predominantly professional backgrounds or are retirees; fewer residents have ties to resource management, landscape management, or firefighting/emergency services.
- Willing to work with local, state and federal governments, often through formal collaborative groups.
- Residents can be passionate about preserving or protecting local ecology, and often want to learn more about it through expert or scientific means.



- Community boundaries are somewhat fixed, residents often identify themselves by shared drainage or named community region.
- Variably sized residential properties embedded in wildlands. Often well-developed road systems. Communities are often larger than a neighborhood and often match landscape features (e.g., along rivers, mountainsides, meadows, etc.).
- People may be moving into the area to develop recreational properties, feel more connected to natural spaces and recreation amenities, or for a change in lifestyle. Turnover in property owners can be ongoing or frequent; this can be true among residents who rent or those who own primary homes. Can feature a higher proportion of secondary homes.



- Community members can be involved in many formal groups or represent broader community development associations; communication occurs through both formal mechanisms (e.g., homeowners' or property owners' associations; community civic groups, etc.) and informal networks in the community (e.g., social media, friends, memberships in other clubs).
- Residential action often centers on shared views or initiatives about environmental management, development of local amenities, and smart growth/preservation of local recreation character (including fire risk).
- Residents tend to value restoration or preservation of ecosystem health, aesthetics of "natural" places or wildlands (including outdoor recreation).



Fire Adapted Communities Pathways Tool

Archetypes



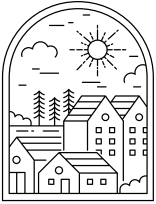
Archetype characteristics
focused on PEOPLE



Archetype characteristics
focused on PLACE



Archetype characteristics
focused on INTERACTION



Formal Subdivision



- Place attachment tied to the housing development or social networks in the region (e.g. HOAs, non-governmental organizations, service clubs).
- Often feature residents who share economic or cultural backgrounds, and who may have shared values or attitudes about resource management issues.
- Residents likely desire to preserve their privacy; willing to work with and receive aid from local, state and federal government agencies.
- Residents often rely on outside assistance for fuel reduction, home hardening services and financial support. Service providers include non-profit organizations, hired professionals, local fire services or property management companies.



- Collective identity occurs at relatively small scales and based on defined boundaries of named subdivisions, mobile home parks, or gated communities.
- Lot sizes among formal subdivision communities may vary; however, there is often a common boundary community members use to identify the area. In some places, residences may be tightly clustered.
- Predominately well-defined neighborhoods with primary homes. Residential turnover, particularly in areas with fewer rental homes, may be slow.



- Interaction occurs primarily through formal means associated with homeowners' or property owners' associations or strong, close informal ties and communication networks within the subdivision (e.g., immediate neighbors, close friends or shared memberships); community groups and clubs reinforce interaction among active residents.
- Action is often accomplished through strategic empowerment of individual community leaders who use their distinct skills to influence action of other community members.
- Some active community members may connect the community to broader organizations (e.g., spiritual, environmental, social, cultural) within the region.



Fire Adapted Communities Pathways Tool

Archetypes



Archetype characteristics focused on PEOPLE



Archetype characteristics focused on PLACE



Archetype characteristics focused on INTERACTION



Commercial and Highly Developed



- Place attachment is primarily tied to individual properties (e.g., office buildings, apartments, commercial developments, etc.), the city/town, or neighborhood.
- High diversity of skills and cultural backgrounds; residents often contribute to broader services or economy of larger municipalities and cities in the region.
- Accustomed to town or municipal services and regulations provided by professionals (e.g., road maintenance, emergency services, greenspace management).
- Residents likely have a lower ability to personally modify fuels or area ecology due to smaller parcels, apartment buildings, or multi-family housing. Common areas, green spaces, or community parks may be highly-managed.



- Community identity is highly variable; boundaries may be informally defined by district (e.g., "old town") or groups of highly interactive neighbors. Regional city identities may also be present.
- Highly developed, dense residential subdivisions or neighborhoods that can be interspersed with commercial properties, hotels, services (e.g., gas stations, grocery stores, etc.), condominiums or apartment complexes.
- Potential for frequent turnover of residents; renters can be present in large numbers.



- Communication often occurs through formal networks, including city or county governments or state agencies; presence of homeowners' associations or other groups is variable.
- Social and volunteer organizations (at multiple scales and with multiple interest areas) are often present within the community. Such organizations may provide opportunities for interaction.
- Fire resilience outreach focused on evacuation, commercial structures, infrastructure, or businesses as a primary concern for risk may be most effective.

If you have trouble determining your archetype, you may use one of the alternative archetype selection processes provided in Appendix A. Note these processes are still being evaluated for possible inclusion in the Tool; they are provided here as a courtesy.

If you still cannot determine an archetype or you feel none of the archetypes are a close enough match for your community, you can select practices from a larger list (see the Practices by Category List). This will take more time and provide less guidance, but may better fit your needs.



Fire Adapted Communities Pathways Tool

Archetypes

Step 3: Review your archetype graphic and description of practices.

Each archetype has a customized Fire Adapted Communities graphic. Different community adaptation practices are identified for each archetype (**see next page to link to your archetype**). Not all practices will work in every community and communities do not need to complete all practices in order to improve their adaptation to fire. The customized fire adaptation practices are provided to help communities identify pathways they can take to further their wildfire work in ways that reflect local conditions.

Example Archetype Graphic and Description of Practices

Importance

Some categories have a star icon indicating they are of particular importance for this archetype. The starred categories indicate topical areas typically associated with significant opportunity or concern for this archetype.

Category

The same categories of practices are present in every archetype. These categories are found in the inner teal portion of the graphics and are used as headers for the associated descriptions and resources.

Practices

Practices are customized for each archetype. Each practice also has a more complete description (located below the graphic in each archetype-specific section). Considerations resources and/or case studies are provided in the descriptions as applicable.



Landscape Treatments

Fuel breaks: Consider managing vegetation in natural areas adjacent to the community, in/near public parks, and/or around utility transmission lines to create conditions which are not conducive to high intensity fire....

Case Study: [Shaded Fuel Breaks \(Austin, Texas\)](#).

1 Identify your community

2 Determine your archetype

3 Review your archetype graphic and description of practices OR work from the larger list of practices

4 Complete your worksheet and action guide

5 Consider next steps



Fire Adapted Communities Pathways Tool

Worksheet and Action Guide

Examine your archetype graphic and read the included descriptions of each practice. Unique archetype graphics and descriptions of practices begin on the following pages:

- Commercial and Highly Developed Archetype
- Formal Subdivision Archetype
- High Amenity/High Resource Archetype
- Rural Lifestyle Archetype
- Working Landscape Archetype
- Practices by Category List and Action Guide

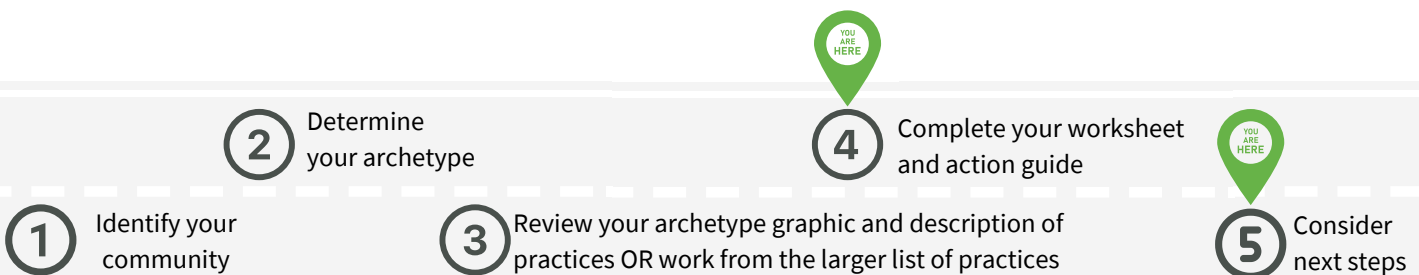
Consider whether each practice is a good "fit" for your community and the circumstances that affect your ongoing adaptation needs. Will each practice be something that local people can and will support? Is the practice one that community members and partners can contribute to or will organize around? How does each practice reflect the needs or values of community members? These are critical questions to consider when reviewing the archetype graphic and list of practices.

Step 4: Complete your worksheet and action guide!

Complete the worksheet and action guide located at the end of the practice descriptions for your archetype, or at the end of the Practices by Category list. The worksheet is designed to help you reflect on the resources, needs, and importance of various categories and practices in your pathway. The action guide is designed to help you prioritize practices to build community resilience.

Step 5: Consider your next steps.

After completing your worksheet and action guide, think about the ways you can incorporate this information into your local fire adaptation processes.





Endnotes

1 See the following for initial examples of wildfire research emphasizing place-specific considerations:

- Carroll, M.S., Higgins, L.L., Cohn, P.J., & Burchfield, J. (2006). Community wildfire events as a source of social conflict. *Rural Sociology*, 71(2): 261-280.
- Jakes, P.J., Kruger, L., Monroe, M., Nelson, K., & Strutevant, V. (2007). Improving wildfire preparedness: Lessons from communities across the U.S. *Human Ecology Review*, 14(2): 188-197.
- McCaffrey, S. (2015). Community wildfire preparedness: a global state-of-the-knowledge summary of social science research. *Current Forestry Reports*, 1(2): 81-90.
- Paveglio, T.B., Abrams, J. & Ellison, A. (2016). Developing fire adapted communities: The importance of interactions among elements of local context. *Society & Natural Resources*, 29(10): 1246-1261.
- Paveglio, T.B. (2021). From Checkers to Chess: Using Social Science Lessons to Advance Wildfire Adaptation Processes. *Journal of Forestry*, 119(6): 618-639.
- Paveglio, T.B. & Edgeley, C. (2017). Community diversity and hazard events: Understanding the evolution of local approaches to wildfire. *Natural Hazards*, 87(2): 1083-1108.
- Toman, E., Stidham, M., McCaffrey, S., & Shindler, B. (2013). *Social science at the Wildland-Urban Interface: A compendium of research results to create Fire-Adapted Communities*. U.S. Department of Agriculture, Forest Service, Northern Research Station, Newtown Square, PA.

2 See the following for initial examples describing community, including examples for wildfire:

- Fairbrother, P., Tyler, M., Hart, A., Mees, B., Phillips, R., Stratford, J., & Toh, K. (2013). Creating "community"? Preparing for bush fire in rural Victoria. *Rural Sociology*, 78(2): 186-209.
- Paveglio, T.B., Boyd, A.D., & Carroll, M.S. (2017). Re-conceptualizing community in risk research. *The Journal of Risk Research*, 20(7): 931-951.
- Paveglio, T.B. & Edgeley, C. (2020). Fire Adapted Community. In *Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires*. Springer, Cham.
- Wilkinson, K.P. (1991). *The Community in Rural America*. Greenwood Press, New York. 152 p.

3 See the following for initial examples of research explaining or using the archetypes and pathways:

- Paveglio, T.B., Carroll, M.S., Jakes, P.J., & Prato, T. (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., Carroll, M.S., Stasiewicz, A., Williams, D.R., & Becker, D. (2018). Incorporating social diversity into wildfire management: Proposing 'pathways' for fire adaptation. *Forest Science*, 64(5): 515-532.
- Paveglio, T.B., Edgeley, C.M., Carroll, M.S., Billings, M. & Stasiewicz, A. (2019). Exploring the Influence of Local Social Context on Strategies for Achieving Fire Adapted Communities. *Fire*, 2(2), 26.
- Paveglio, T.B., Moseley, C., Carroll, M.S., Williams, D.R., Fischer, A.P., & Davis, E.J. (2015). Categorizing the social context of the Wildland Urban Interface: Adaptive capacity for wildfire and community "archetypes." *Forest Science*, 61(2): 298-310.

For More Information

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed to support community-based fire adaptation. Additional information, facilitation guides, graphics, and more is available at

<https://fireadaptednetwork.org/resources/fac-pathways-tool>

To provide feedback or to share the results of your worksheet and action plan, email info@fireadaptednetwork.org. Your worksheet and action plan will be kept confidential; they can be of great help to practitioners, policymakers and researchers in the monitoring or design of programs and partnerships designed to help communities adapt to wildfire.

Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area. If you are interested, please fill out [this short form](#).

If you want to know more about the research involved in the creation of this Tool email Dr. Travis Paveglio at tpaveglio@uidaho.edu



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Public Health

Smoke preparedness

Smoke provides a strategic opportunity to talk about wildfire and its impacts among community members who may not see themselves as being at risk from wildfire. Large wildfires are beginning to directly and indirectly impact portions of developed cities, providing the opportunity to broaden conversation among stakeholders in ways that include new partners (e.g., public health departments, medical centers) and that may motivate residents to take action. Smoke preparedness actions may include residential HEPA filter programs, clean air shelters, or individual actions such as sealing doors and windows or understanding local air quality.

Resource: Wildfire Smoke: A Guide for Public Health Officials (EPA, 2021).

Social services

Utilize existing social programs in the region which help relocate displaced residents, provide temporary housing, or provide mental health services to populations affected by wildfires. Existing programs (possibly tied to the city or county) may not have experience serving wildfire-related needs. Consider expanding training and networking opportunities in advance of the fire. Consider the needs of unhoused populations who also will be affected by smoke and fire impacts.

Case Study: Ready LA County: Emergency Preparedness for the Unhoused



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Public Health (cont.)

Environmental health

Cascading impacts of wildfire have the capacity to negatively affect infrastructure and environmental conditions that influence human health. Consider, for instance, how fire might impact municipal water systems, result in exposure to or the need for cleanup of hazardous materials burned during the fire, and create mudflows or loss of soil nutrients. Work with partners such as environmental health authorities, water utilities and waste managers to proactively identify issues and develop mitigation, adaptation or protection strategies.

Resource: [*Water Quality after a Wildfire* \(USGS, 2018\)](#)



Ignition prevention campaigns

Consider starting prevention campaigns by focusing on small ways communities can avoid large "urban conflagrations" that cause significant damage. This may begin with prevention campaigns that are organized around reducing ignition sources (e.g., fireworks, backyard debris fires, or preventative utility shutdowns on high fire risk days). Another key consideration may be to focus prevention efforts on the reliance residents have on one another when considering wildfire risk and spread.

Case Study: [*Mercer Island Wildfire Prevention and Fire Safety*](#)

Municipal workforce integration

Involve or interact with existing municipal services as you develop your prevention workforce. Consider programs that expand and train city employees to help perform mitigation activities as part of their existing duties (e.g., establish fuel breaks when creating green space, reduce house-to-house transmission while making recommendations about flashing and fencing). These efforts may eventually open up opportunities for additional funds, grants or service fees which can help broaden wildfire adaptation.

Case Study: [*County of San Mateo Parks Department Forest Health & Community Safety Initiative*](#)

Public safety power shutoffs

Prepare for public safety power shutoffs in advance of a wildfire by interfacing with your local utility provider. Work with essential services and businesses (e.g., your local transportation authority, radio station, etc.) to ensure they have continuity of operations plans. Communicate with those who rely on power for medical device support in advance of the wildfire season.

Resource: [*Prepare for Power Down*](#) (California-based utilities)



Regulations, Policy & Plans

Codes & ordinances

Consider building codes or land use standards to help reduce future wildfire risk. Building codes could focus on requirements to retrofit existing structures/commercial buildings upon new purchase or during renovations. Considering mass evacuation or shelter-in-place capabilities during community design.

Resource: [*Planning in the Wildland-Urban Interface*](#) (American Planning Association, 2019)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Regulations, Policy & Plans (cont.)

Comprehensive hazard planning

Consider making connections between wildfire hazard planning and comprehensive hazard planning. Adapt and expand pre-existing comprehensive hazard plans to include actions that reduce future wildfire risk or harden resources and structures at risk (e.g., require residential sprinklers, reduction of flammable ornamental vegetation). These plans may also be key places to explore opportunities to share resources or establish smoke shelters.

Resource: [*Create a Hazard Mitigation Plan*](#) (FEMA)

Conflagration planning

Explore the risk of wildfire spreading to developed areas via embers. Consult with experts and use modeling processes to explore how embers might start spot fires in dense developments and promote quickly-moving structure fires which spread from structure-to-structure. Using this information, consider how firefighting resources and evacuation would proceed during a large conflagration of burning homes (e.g., wildfire containment lines, critical infrastructure and evacuation corridor protection). Community members and professionals can be of great help in providing details about cleared spaces, road widths, and water resources that may not be captured by large-scale GIS data. Planning with these tools should likely focus on establishing critical lines of defense to limit or stop the transition of wildfires into dense conflagrations of residential homes. Consider incorporating conflagration planning into other local planning processes such as your Community Wildfire Protection Plan or Natural Hazard Mitigation Plan.

Resource: [*Urban fire: Conflagration*](#) (Central Virginia Planning District Commission)

Green space design

The design and maintenance of green space (e.g., developed areas, forested corridors, natural space) can be used to reduce the risk of fire transmission leading to large-scale conflagrations. Other considerations include the careful design/modification of open spaces or conservation spaces required by large-scale developers. Such areas could include a buffer of managed area where active firebreaks can be installed as part of the development process. These features could be critical opportunities for both risk reduction and provide for potential internal safety zones. They can also represent an increased risk of wildfire ignition or transmission if they are not actively and consistently managed.



Infrastructure & Business

Insurance coverage

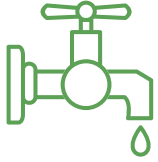
Residents (including homeowners, renters, and business owners) should review their insurance coverage annually and ensure they understand its provisions, limitations, and requirements specific to wildfire or smoke damage. For businesses, determine whether coverage includes, or should include, extended loss of power, inability to use the premises for production or work, direct wildfire damage, or indirect damage (e.g., erosion and/or flooding). Cooperating groups of neighborhoods or businesses (such as those convened through a chamber of commerce) may be able to negotiate coordinated mitigation strategies or policies which improve insurance protections.

Resource: [*Insurance for Wildfire*](#) (Insurance Information Institute)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Infrastructure & Business (cont.)

Business continuity & preparedness planning

Work to identify the range of hazards that may impact business functions. As an example, consider whether high levels of smoke would reduce opportunities for outdoor dining or require protective equipment for employees or customers. Wildfires may impact infrastructure and power systems on which businesses rely. Consider redundancy in these systems; backup generators and/or mobile generators can help keep businesses operational, especially those which require ongoing services (e.g., refrigeration). Plan for supply chain disruptions; business continuity planning processes may help. Consider having off-site records storage and/or options for remote operation.

Resource: [*Open for Business Toolkit*](#) (Insurance Institute for Business and Home Safety)

Critical infrastructure protection

Determine whether there is additional critical infrastructure that will need protection before or during wildfire events. Critical infrastructure protection can include preventative work in advance of wildfire or direct protection during a fire. Consider protection of resources such as water towers, water and sewer facilities, and the electrical grid. Consider industrial or commercial sites which may require special protection due to the presence of hazardous, explosive, or flammable materials. Consider the vulnerability of important transportation infrastructure such as rail or shipping lines. Work to determine how best to protect these assets, what proactive work is necessary, and which partners are essential to the process.

Resource: [*Emergency Management and Response -- Information Sharing and Analysis Center*](#) (US Fire Administration)



Recovery

Impacts to neighboring communities

Large-scale evacuations, particularly those which extend for long periods of time, can have significant impacts on neighboring communities. Housing demand can increase as can demands on infrastructure and municipal systems. Consider where your population is likely to go if displaced (either temporarily or for an extended period of time). Work with neighboring jurisdictions to identify, and plan for, overnight increases in population size.

Case Study: [*Chico, CA*](#) ([*LA Times Article*](#) and [*Housing Market Conditions Presentation*](#))

Grant assistance

Community members and representatives should consider establishing relationships with organizations and entities that have experience navigating the processes associated with applying and receiving funds from FEMA, state hazard assistance, and other sources of aid in advance of wildfires. Seek to train key city or county officials on the processes, best practices, and financial accounting practices associated with the monitoring and distribution of various types of recovery aid.

Case Study: [*Financial assistance available after the Marshall Fire*](#)

Hazardous materials clean-up & remediation

Clean-up of hazardous materials (e.g., industrial chemicals, household solvents, remnants of burned vehicles or structures) may require considerable work. Consider developing protocols for both immediate and long-term recovery of affected sites, including the coordination of cleanup crews with specialized equipment and training. Review existing examples of site monitoring to assess the legacy of these hazardous materials before rebuilding.

Case Study: [*Household Hazardous Waste Cleanup after the Kincadee Fire 2019*](#) (County of Sonoma)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Recovery (cont.)

Housing demand

There will likely be a need for short-term housing among large populations of residents following fire events that impact a high number of private properties. Neighborhoods should coordinate with city and county governments to plan for short term housing (e.g., staging of FEMA trailers requires large parking lots or fields for placement, residential housing through hotels requires coordination lodging facilities, etc.). There is a potential longer term dip in the county tax base if losses are extensive enough.

Resource: [Planning Considerations--Disaster Housing, Guidance for State, Local, Tribal and Territorial Partners \(FEMA, 2020\)](#)

Long-term recovery planning

Consider undertaking long-term recovery planning before a fire event to plan for impacts to social services, industries, and the ecosystem. Impacts can occur in those industries which rely on natural resource amenities (e.g., vacation rentals, outdoor recreation retailers, tour and guide companies, lodging facilities, etc.) as well as those who work outside of ecosystem-related fields. Community social services or essential functions may be disrupted, either by direct wildfire impacts or secondary flooding. Plans which anticipate these potential impacts, and convene stakeholders to mitigate them, can be completed in advance of wildfire.



Safety & Evacuation

Mass evacuation alert & warning system

Systems for evacuation notification and warning, including providing fire progression information, are important given the challenges of evacuating large populations. Communities should consider notification systems for residents (such as the Integrated Public Alert and Warning system) and plan to test these systems in advance of the fire. Centralized and redundant mechanisms for notifications may be necessary given the large number of people needing notification. Consider setting notification action points that provide a significant amount of lead time.

Resource: [Alerts, Warnings, and Notifications Program Planning Toolkit \(FEMA\)](#)

Evacuation/shelter for large buildings

Work with partners to identify and establish procedures for evacuation of high-capacity buildings (e.g., hotels, stadiums, factories, grocery stores). High-capacity structures (e.g., apartment complexes, hotels, schools, residences) should be evaluated for their ability to resist ember ignition and/or to serve as a sheltering points during fast moving fires or when evacuation is not possible.

Resource: [FAQs About Building Evacuation \(National Fire Protection Association\)](#)

Traffic modeling

Communities and professionals may want to focus on evaluations of traffic capacity and evacuation challenges during large fire events. For instance, evaluation of transportation route capacities, planning of most efficient routes, and plans to coordinate evacuation would be helpful in assessing the need for additional mitigations (e.g., improvement of transportation infrastructure, development of safety zones, identification of bottlenecks). Transportation modelling may also be helpful in understanding the significant challenges associated with evacuating dense populations and motivating pre-fire mitigations.

Case Study: [City of Ashland Evacuation Time Estimate Study \(KLD Engineering, 2021\)](#)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Wildfire Response

Conflagration preparedness

Wildfires in commercial and highly developed communities often contain conditions, risks and management practices that bridge wildland and structural fire response. Fire response agencies and emergency management entities should plan for the different types of equipment, tactics and protocols which may be required as wildfires transition into developed neighborhoods or commercial areas. Consider what Memorandums of Understanding or mutual aid agreements may be necessary. Work to build relationships between structural fire response agencies and adjacent wildland response agencies prior to fire incidents. Account for conflagration risk in pre-planning efforts. As an example, consider documenting hazardous/flammable materials and equipment associated with commercial businesses either directly in the wildfire planning process or by integrating existing structural pre-plans into the wildfire management system.

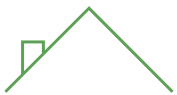
Integrated fire & emergency management response

Fire response in commercial and highly developed communities will likely require the coordination of multiple fire services (e.g., volunteer and career fire services, state and federal fire response agencies), emergency services and local governments. Establish and work through tabletop exercises for a range of potential fire scenarios and based on a variety of situations (e.g., ember-ignited fires, local ignition under extreme weather) to help identify, mitigate, and/or avoid breakdowns in coordinated response. Local politicians should be ready to implement disaster declarations if necessary.

Water supply

Evaluation of water infrastructure such as water towers, water treatment facilities, and water lines can be an important consideration when assessing fire vulnerability. Consider working to increase reliable water supply for wildfire events. Efforts to harden water infrastructure, reduce surrounding vegetation, or establish protocols for water systems following wildfires may be critical opportunities for community members and local officials to contribute to broader wildfire resilience.

Resource: [Emergency Response for Drinking Water and Wastewater Utilities](#) (US Environmental Protection Agency)



Resident Mitigation

Commercial building preparedness

Residents, business owners and politicians should review the vulnerability of existing commercial properties with regards to ignition potential (e.g., building materials, backup power, or fire suppression equipment). Commercial building standards could be evaluated to assess how well they address the hardening of structures to ignition from spot fires, structure-to-structure fires, and/or combustible/hazardous materials. Consider amending building codes for commercial businesses that are likely to be affected by wildland fires that burn into populated areas.

Resource: [Protect Your Business from Wildfire](#) (Insurance Institute for Business & Home Safety)

Building sprinklers

The establishment of residential or commercial sprinklers and associated water supplies are likely to be an important factor in reducing large-scale losses during conflagration fire events. Consider expanding state and federal emergency management cost-share programs to include structural retrofitting in highly developed areas. Identify resources such as federal grants to help upgrade water supply systems.

Structure hardening

Modifying residential structures to help withstand fire damage is a key component of fire adaptation. This can include recommendations for using ignition-resistant fencing or flashing that will reduce fire transmission between closely spaced homes, retrofitting or building with ignition-resistant materials (e.g., stucco, brick, cementitious siding), creating vegetation-free gravel pads or xeriscaping directly next to homes, or replacement of wood shake roofing.

Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business & Home Safety)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed



Partnerships & Community Engagement

Inclusive engagement of whole communities

Explore who lives in your community and determine how well represented all residents are in community governance and planning decisions. Identify trusted partners from different segments of the community and work with them to connect and engage with residents. Your community likely includes people with a variety of identities, experiences and cultures. This diversity is a strength when you are able to authentically engage and work with community members to leverage their differences. Consider multiple aspects of diversity within your community as you organize residents: have you considered access and functional needs in smoke and/or evacuation planning? Are your efforts communicated in the range of languages spoken in your community? How are you centering community-driven initiatives and opportunities for co-creation? What cultural norms around shared work, or traditional fire knowledge are held within your community?

Resource: [Guide to Equitable, Community-Driven Climate Preparedness Planning](#) (Urban Sustainability Directors' Network (2017))

Leverage existing partners

Connect with existing community partners such as community development councils, the local chamber of commerce, service organizations, community health districts, local government, and volunteer organizations active in your community. These existing social networks can help further other elements of fire adaptation, whether it be individual mitigation, smoke preparedness, business continuity planning or other.



Landscape Treatments

Ecosystem services

Consider the range of services the broader landscape provides to the community. Some residents may use nearby state/federal lands for recreation while a nearby river may supply drinking water. Connect residents and professionals to larger landscape services as a way to demonstrate how fire will affect them. Connecting residents to broader landscape services reinforces the idea that wildfire is a shared responsibility and an important focus of community work. Some communities have placed a value on ecosystem services and designed a payment system (e.g., an additional fee on a water bill to fund watershed protection work in the larger landscape) to account for the value that public lands provide.

Resource: [Ecosystem Services Toolkit for Natural Resource Management](#) (Duke University)

Fuel breaks

Consider managing vegetation in natural areas adjacent to the community, in/near public parks, and/or around utility transmission lines to create conditions which are not conducive to high intensity fire (more widely spaced vegetation, less understory). Use existing landscape features or plan residential/commercial growth in ways that provide the opportunity for natural fuel breaks or potential fire containment lines. Consider the importance of viewsheds and recreation in the larger community when planning treatments.

Case Study: [Shaded Fuel Breaks](#) (Austin Wildfire Division)

Open space management

Work with developers, city planners and neighbors to manage open spaces (e.g., community developments, interspersed public parks, or large greenbelts). Focus on reducing the likelihood that greenspaces can transmit fire through interconnected neighborhoods or commercial districts. Consider working with local parks departments or municipal crews to identify ways to include wildfire in landscape management or landscaping decisions.

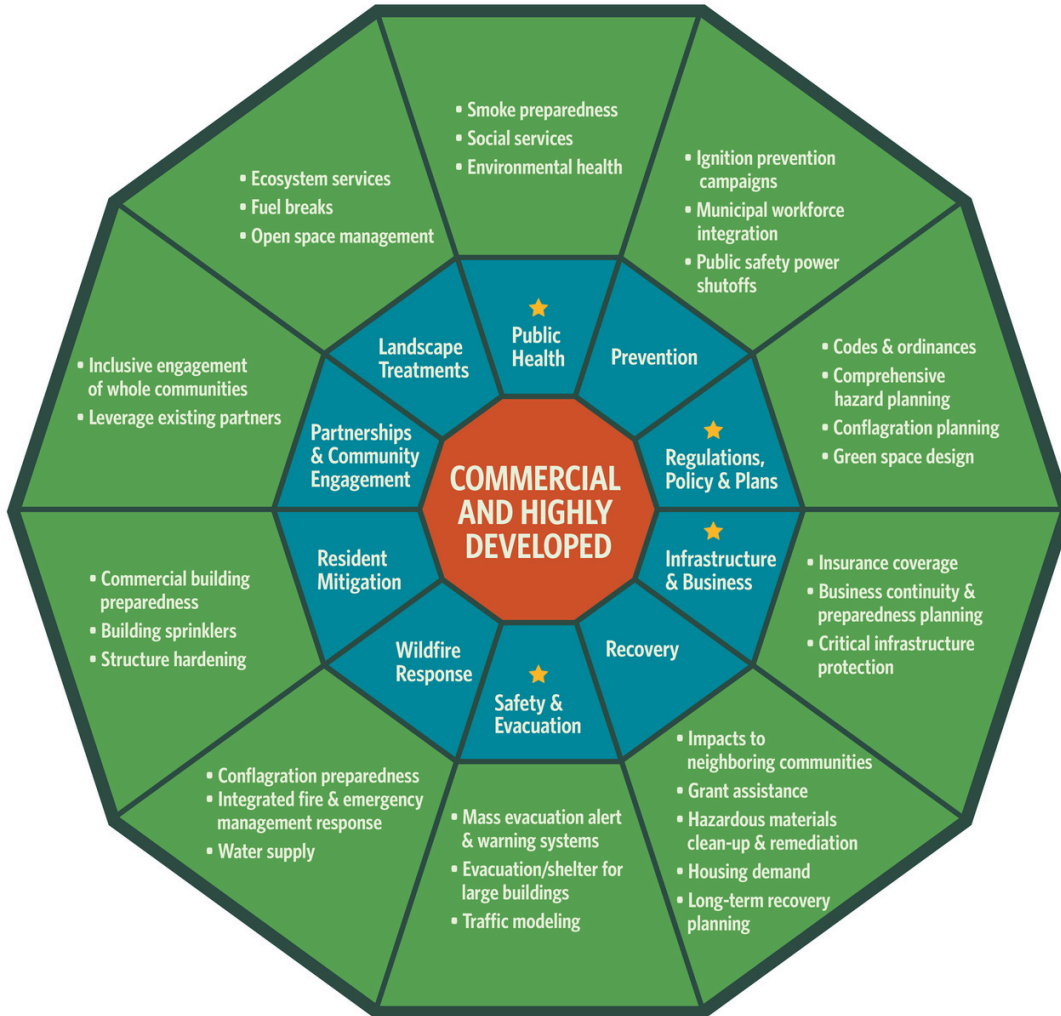
Case Study: [Open Space Authority, Santa Clara Valley](#)



Fire Adapted Communities Pathways Tool

Commercial and Highly Developed WORKSHEET

Read through the descriptions of practices suggested for your archetype before continuing with this worksheet.



Start here and move to the right



Place a **STAR** next to **UP TO 5** practices you feel will have the **MOST IMPACT** on your community wildfire resilience.



CIRCLE UP TO 5 practices you feel are the **MOST FEASIBLE** for you to accomplish at this time. Consider your assets, resources, and partnerships as you mark these practices.



Place a **QUESTION MARK** next to **UP TO 5** practices that you would like additional guidance, partnerships, or help carrying out.



Place a **DOLLAR SIGN** next to **UP TO 5** practices that are **CURRENTLY** the most **WELL-RESOURCED** in your community. Resources can include personnel, money or other assets.



Place an **EXCLAMATION MARK** next to **UP TO 5** practices where you **WOULD LIKE** more **RESOURCES**. Resources can include personnel, money, or other assets.



Place a **HEART** next to **UP TO 5** practices you feel will most support community fire adaptation in the long-term, without regard to your current resources or capacity.



WRITE-IN any **KEY** practices you are pursuing in a category which are not listed in the graphic.

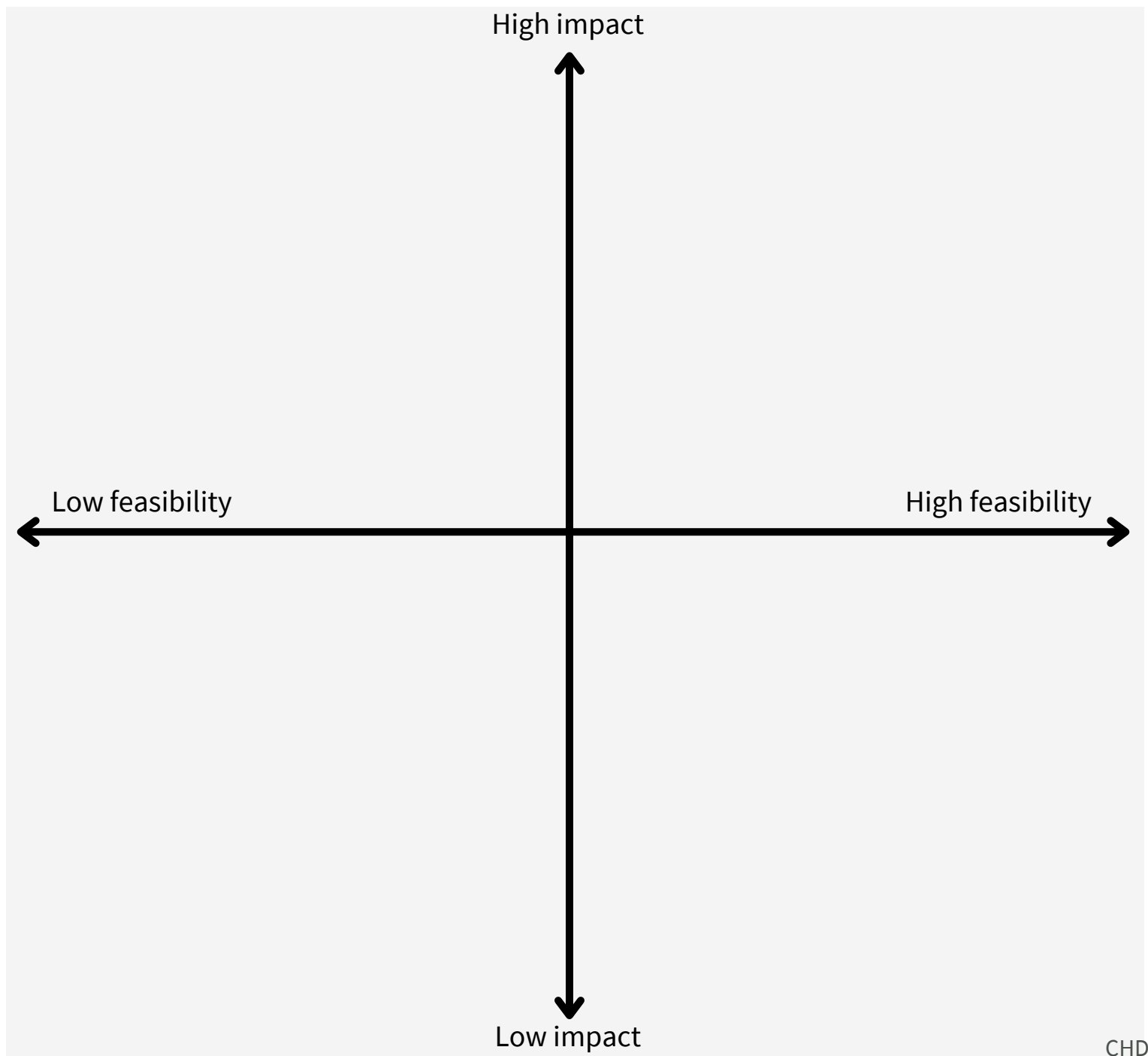


Fire Adapted Communities Pathways Tool

Commercial and Highly Developed ACTION GUIDE

If you are working with a group, **ensure everyone has a copy** of the completed worksheet and action guide before beginning your discussion. Review your worksheet. **Place any practice which you have circled, written-in, or marked (e.g., !, \$, ★, ♥)** in the grid below. Don't worry about being too exact or precise! You will consider what the results mean in the following step.

A practice is **high impact** if it significantly increases your community's ability to prepare for, respond to, or recover from wildfire. This may be due to the practice increasing community capacity, resources, knowledge or ability to maximize positive fire outcomes and minimize negative fire outcomes. A practice has **high feasibility** if it can be carried out with the support, resources, knowledge, best practices, partnerships or other capacity available to the community.





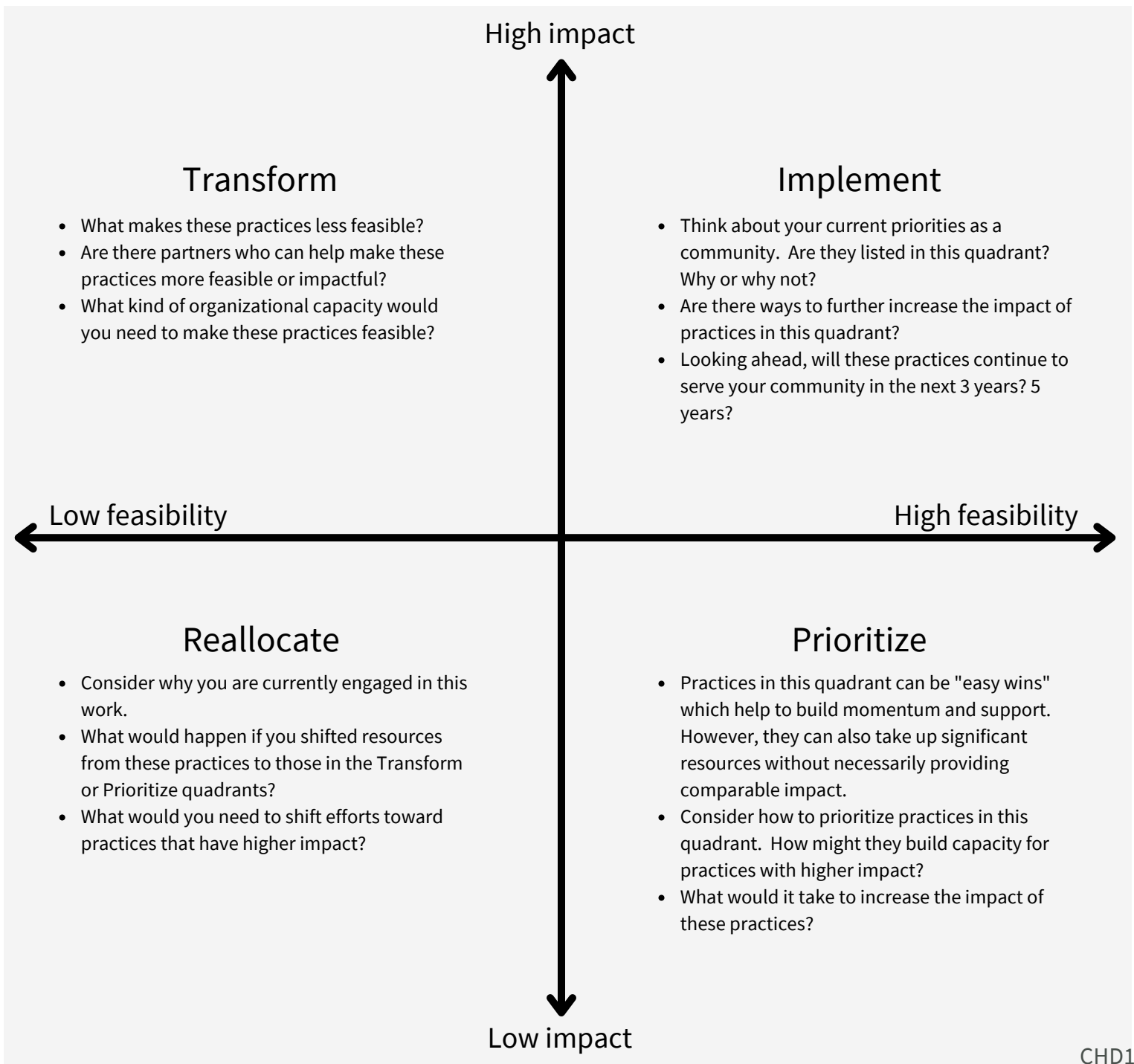
Fire Adapted Communities Pathways Tool

Commercial and Highly Developed ACTION GUIDE

Consider the grid you completed from the previous page and the questions below.

You may also place ANY practice you are currently undertaking, or wish to undertake, on the grid from the previous page. This may be particularly helpful as you consider long-standing or evolving practices you have undertaken in your community. Are there things you have been doing for a long time which need to be evaluated in the context of your other work? Which could be used to leverage or build toward new practices?

Consider how you will prioritize practices moving forward. **Working on your grid from the previous page**, and in light of the questions provided below, **CIRCLE** three practices you would like to emphasize in the coming year.





Fire Adapted Communities Pathways Tool

Commercial and Highly Developed Considerations for Next Steps



TIPS As you consider your next steps, the following may be helpful:

Consider your worksheet and action guide as a blueprint for fire adaptation progress. Draw from your customized graphic when planning next steps, when considering new programs or new initiatives, or when pursuing longer-term initiatives with various partners. Your graphic, practices and associated priorities from the worksheet can be used to quickly communicate community needs, capacities, and progress to partners, other community members, funders, and other stakeholders.

Integrate your graphic and practices into a larger Community Wildfire Protection Plan planning process, consider how this tool intersects with a hazard mitigation plan, or assess whether existing emergency service priorities match community efforts.

Use your graphic and practices as a way to start dialogue to increase wildfire resilience. Use the products created in this process to jumpstart partnerships, combine resources with community partners or otherwise support progress on site-specific adaptations that fit your local circumstances.

Share your graphic, practices and priorities with other communities in your region. Encourage them to complete their own process and compare notes. What have you each been successful in achieving? How can you help each other learn from those processes? Do other communities possess assets or opportunities that you both could leverage when working at broader scales? What assets does your community have that could be leveraged more broadly?

Join the Fire Adapted Communities Learning Network as an Affiliate Member and find other communities to learn from or connect with. Network members identify and demonstrate new approaches and practices for fire resilience. You can share ideas for emerging and needed work in communities like yours via participation in the Network.

For More Information

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed to support community-based fire adaptation. Additional information, facilitation guides, graphics, and more are available at <https://fireadaptednetwork.org/resources/fac-pathways-tool>.

To provide feedback or to share the results of your worksheet and action plan, email info@fireadaptednetwork.org. Your worksheet and action plan will be kept confidential; they can be of great help to practitioners, policymakers and researchers in the monitoring or design of programs and partnerships designed to help communities adapt to wildfire.

Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area. If you are interested, please fill out [this short form](#).

If you want to know more about the research that informed the creation of this Tool email Dr. Travis Paveglio at tpaveglio@uidaho.edu.

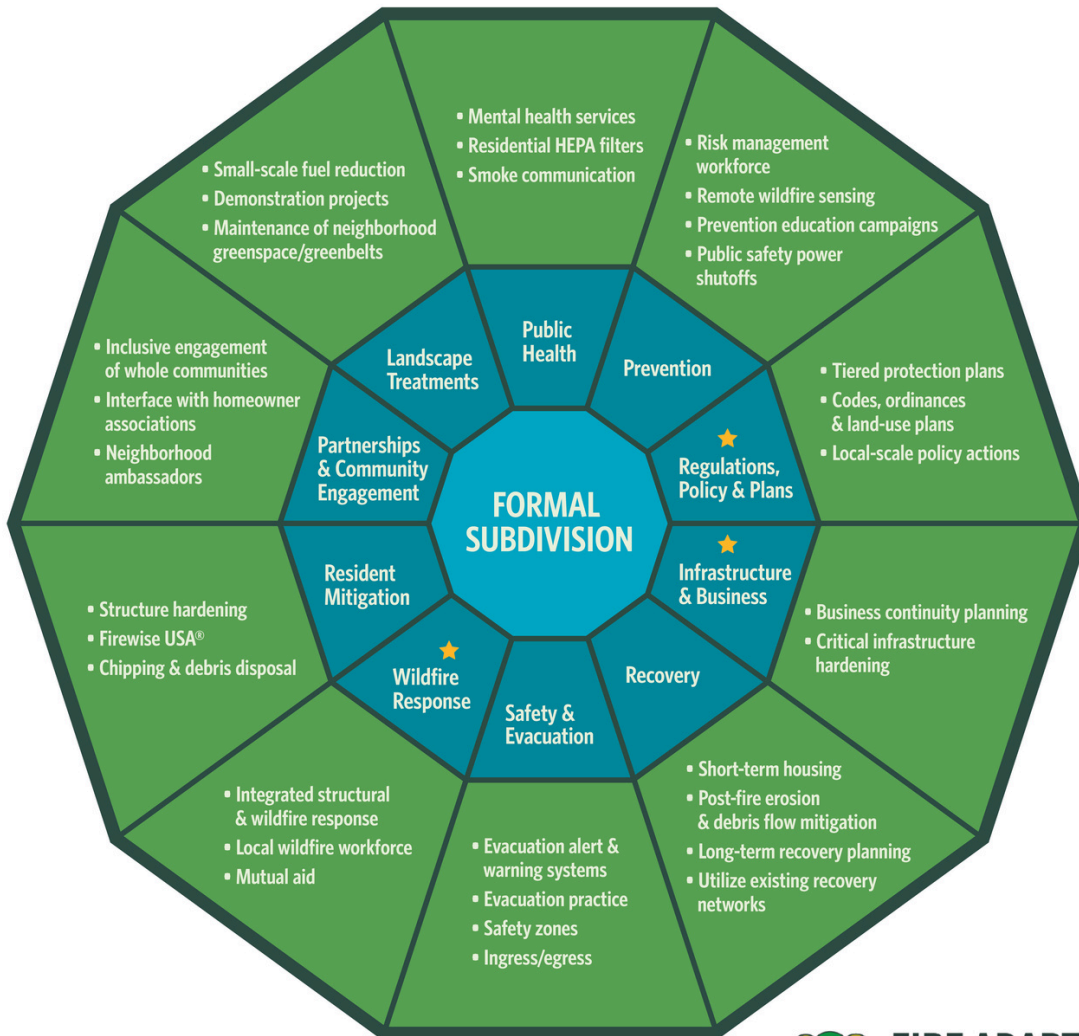


This document was created by the Fire Adapted Communities Learning Network, in partnership with Dr. Travis Paveglio. FAC Net is a community of wildfire adaptation practitioners across the nation that is supported by the United States Forest Service, Departments of the Interior, The Nature Conservancy and the Watershed Research and Training Center. Visit www.fireadaptednetwork.org to learn more about the Network, become a member, or subscribe to our weekly blog.



Fire Adapted Communities Pathways Tool

Formal Subdivision



Public Health

Mental health services

The potential for long-lasting mental health impacts exists where there is the potential for significant wildfire impacts. Consider preparations to mobilize mental health resources and provide opportunities for counseling and other mental health services. This includes preparations and options for children, who may be particularly influenced by disruptions.

Resource: [Disaster Distress Helpline](#) (Substance Abuse and Mental Health Services Administration)

Residential HEPA filters

Consider expanding or offering programs that promote HEPA filter use in residential air systems. This may include loans, grant programs, or communication of "Do-It-Yourself" options. Plan for supply chain considerations with regards to HEPA filters, including communication to avoid disruptions. Strategic reserves developed by the subdivision/nearby communities may also help ensure availability.

Resource: [HEPA Filter Community Programs: A Whole Community Approach](#) (FAC Net, 2021)

Smoke communication

Develop programs to mitigate smoke exposure (e.g., safe air spaces, education campaigns centered on sealing windows and doors). Create and maintain communication systems to inform residents of any planned ignitions or nearby wildfires.

Resource: [Protecting Yourself from Wildfire Smoke](#) (California Air Resources Board)



Fire Adapted Communities Pathways Tool

Formal Subdivision



Prevention

Risk management workforce

Work within existing organizational frameworks such as Homeowners' Associations, municipalities, fire districts, common-space managers and others to develop a sustainable wildfire prevention workforce. Discuss opportunities to collectively hire a risk manager or connect with existing local fire prevention specialists to help develop community capacity for fire prevention (e.g., share fire cause data, test risk mitigation communication).

Remote wildfire sensing

If your formal subdivision is a defined community in a more rural area or next to large tracts of public lands, consider partnering with adjacent municipalities and county governments to establish technologies that quickly assess fire starts in the region. These networks could be as simple as monitored cameras or fire lookouts to advanced fire-detection systems that monitor fire starts using infrared technology. They could also include autonomous sensor networks that relay information directly to authorities.

Prevention education campaigns

Focus education campaigns on fire ignition prevention within, and in close proximity to, subdivisions. Also consider campaigns to foster actions such as mowing lawns early in the morning or securing trailer chains which can prevent wildfire ignitions. Prevention actions may also focus on reducing risk through restrictions (e.g., reduced motorized vehicle access, no open fires, fireworks). Fire prevention education is particularly important around structures or on nearby recreational lands during high fire risk conditions.

Resource: [*One Less Spark Campaign*](#)

Public safety power shutoffs

Prepare for public safety power shutoffs (PSPS) during wildfire by interfacing with your local utility provider. Discuss the potential length of PSPS and the populations likely to be affected. Consider dedicated power options (such as generators) for loss of electric utility services. In formal subdivisions, this may grow toward common buildings with dedicated backup power. Communicate with those who rely on power for medical device support or cooling systems in advance of the wildfire season.

Resource: [*Prepare for Power Down \(California-based utilities\)*](#)



Regulations, Policy & Plans

Tiered protection plans

Formal subdivisions should consider developing localized supplements to Community Wildfire Protection Plans (CWPP) or create their own CWPP specific to the subdivision to best capture the local conditions, resources, and concerns that will guide site-specific wildfire risks. These tiered plans should likely intersect with Homeowner's association (HOA) covenants, restrictions, or other subdivision regulations to promote uniform mitigation standards. Institutionalization of planning will also open up opportunities for collective risk reduction activities (e.g., development of common areas as fuel breaks, fundraising for development of staged equipment for firefighter use in response).

Resource: [*Integrating Community Wildfire Protection Plans and Natural Hazard Mitigation Plans \(FEMA\)*](#)

Codes, ordinances, & land-use plans

Consider reinforcing or expanding land use development standards or building codes that help reduce future wildfire risk. This might mean amending subdivision requirements for fencing materials, residential sprinklers, or retrofitting homes when renovations are planned. Other considerations may include requirements surrounding maintenance of properties, requirements about building on slopes, or restricting actions that might lead to ignitions during high risk times of the year (e.g., fireworks, burn pits).

Resource: [*Building to Coexist with Fire: Community Risk Reduction Measures for New Development in California*](#)



Fire Adapted Communities Pathways Tool

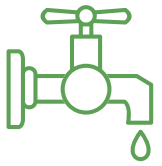
Formal Subdivision



Regulations, Policy & Plans (cont.)

Local-scale policy actions

Residents are likely to have the most immediate influence on applicable fire policy by engaging with local government officials. Consider developing community-wide wildfire risk adaptation priorities or programs that can be shared with city council members, county commissioners, and local planning officials. Representatives of these governments can influence applicable codes, ordinances, or resource allocations at a local level.



Business continuity planning

Significant disruptions or damages from wildfire in formal subdivisions are likely to impact businesses near (or reliant upon residents from) the subdivision. Fires may also impact services like gas stations, daycares, etc. Disruptions of these critical services should be factored into hazard and vulnerability assessments of the region. What industries or sectors do businesses serve in the broader areas? How might disruptions to the subdivision cause a break in services that both the community and broader region need? Consider working with local service organizations, Chambers of Commerce, or Economic Development District to encourage business continuity planning. During this process, businesses should develop plans for addressing supply chain disruption.
Resource: [Open for Business Toolkit](#) (Insurance Institute for Business and Home Safety)

Critical infrastructure hardening

Partner with utility companies to promote fuel reduction along transmission lines or reduce potential ignitions, both of which can reduce the need for Public Safety Power Shutoffs (PSPS). Prioritize the hardening of water supply pipes, water towers, and communal buildings (e.g., clubhouses, nearby schools, etc.) on which the subdivision relies. Explore local utility projects or subsidies to maintain power grids or improve existing infrastructure (e.g., development of micro-grids or grid-scale batteries).
Case Study: [Hardening the Electric System](#) (PG&E)



Recovery

Short-term housing

Consider existing housing inventory prior to wildfire and prepare for short-term housing needs during the rebuilding phase. This is particularly important in places with housing insecurity. Work with partners to pre-identify disaster shelters, options for management of food and water, clothing, etc.
Resource: [Planning Considerations--Disaster Housing, Guidance for State, Local, Tribal and Territorial Partners](#) (FEMA, 2020)

Post-fire erosion & debris flow mitigation

Explore the potential for secondary impacts from wildfire that may occur regardless of direct fire impact. For instance, subdivision residents may be unprepared for post-fire erosion downstream or downslope after fire. Such impacts can occur after the fire, and result in damage from secondary hazards. Make sure to engage programs and extension professionals who can help subdivisions implement post-fire mitigation measures such as erosion control fencing and emergency slope stabilization.
Resource: [Debris Flow Survival Guide](#) (US Army Corps of Engineers, 2015)



Fire Adapted Communities Pathways Tool

Formal Subdivision



Recovery (cont.)

Long-term recovery planning

There will likely be significant pressure to "return to normal" quickly after losses. However, recovery takes time and progresses through multiple phases. A long-term view is needed to ensure true resiliency. Communities could learn about existing recovery networks or resources prior to events (e.g., Volunteer Organizations Active in Recoverys [VOADs], Red Cross, etc.) and consider how they might coordinate complementary resources. Likewise, recovery leaders from the community will need to work with emergency management professionals, who will likely take the lead in the early phase of recovery. Consider developing localized plans or template grant applications for post fire erosion and/or secondary flooding in order to be prepared for potential recovery needs. Ensure that there are plans to help with longer term recovery; often after the acute initial phase of recovery, local people are still determining how to re-establish themselves in changed circumstances.

Resource: [Long Term Recovery Guide \(National Voluntary Organizations Active in Disaster, 2012\)](#)

Utilize existing recovery networks

Activate and utilize existing recovery networks such as the local Department of Emergency Management, Voluntary Organizations Active in Disasters (VOADs), the Red Cross and others to enhance recovery options. Deepen your understanding of what each of these networks can provide, what coordination or communication efforts are already in place, and how your efforts can contribute to the whole. Existing community networks or faith-based organizations can also serve as an important connector to the community after disasters.

Resource: [National Voluntary Organizations Active in Disaster](#)



Safety & Evacuation

Evacuation alert & warning systems

Rapid evacuation notification and warning systems that provide information on fire progression are likely to be very important given the challenges of egress for large populations. Communities should evaluate the adoption and use of existing notification systems among residents and consider supplementing these systems with local communication networks (e.g., sirens, phone trees). Ensure alert and warning communication is available in the languages present in your community. This likely means planning in advance of evacuation to ensure language access.

Evacuation practice

Consider rehearsing neighborhood-wide evacuation to prepare residents and local emergency managers. Test your notification systems as well as traffic control and emergency response. Explore a range of "management action points" that would allow for sufficient time for large populations to evacuate if properly notified. Assess whether these drills point toward a need for additional egress development.

Safety zones

Consider community-specific safety zones or common buildings as safe shelter locations during fast moving fires or as areas of last resort when evacuation is not possible. Consult with local fire experts to determine the size, capacity, or applicability of these existing locations for shelter points (e.g., school gymnasiums, clubhouses, nearby grocery stores). Stress that these options are last resorts.

Ingress/egress

Prepare major ingress/egress routes by removing overhanging branches and fuel adjacent to the roadways. Improve right-of-way and road conditions to enable rapid evacuation. Identify alternative routes, if available, and consider whether signage or pre-determined routes for different segments of the community makes sense.



Fire Adapted Communities Pathways Tool

Formal Subdivision



Wildfire Response

Integrated structural & wildfire response

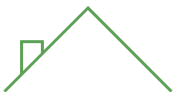
Work with local wildfire response agencies to ensure seamless transitions between wildfire and structural response. This may take the form of mutual aid agreements, interagency coordinating groups, or memorandums of understanding. Consider what equipment is needed by local first responders to enable them to transition between wildfire and structural fire response.

Local wildfire workforce

Consider developing a dedicated fire workforce who will undertake the formal actions needed throughout the community. This may mean increasing capacity for funded fire district personnel, including fire prevention specialists, managers of common space, community managers who can enforce covenants, and/or coordinators who can help with grant processes. Include workforce housing in long-term planning for workforce development.

Mutual aid

Bolster local wildland fire response capacity with support from neighboring jurisdictions. Work with neighboring fire services to determine their capacity (for both structural and wildfire response). Determine if regional resources are able to respond to approaching wildfires in the wildlands or if threatening subdivisions. Work with neighboring jurisdictions to enable regional wildfire response that best leverages individual strengths or resources. Support any mutual aid agreements with regional training opportunities that include a variety of scenarios (e.g., rapid ignition near outskirts of community, large wildland fire approaching community, ember driven spot fires, etc.). Ensure interoperability of communications equipment and frequencies among fire services and test these on a regular basis.
Resource: [National Incident Management System Guideline for Mutual Aid](#) (FEMA, 2017)



Resident Mitigation

Structure hardening

Coordinating home ignition zone assessments performed by trained neighborhood assessors, local fire departments, and/or federal/state agency specialists (where communities are proximal to wildlands) are likely the most effective way to reach residents. Residents should focus on hardening elements of the structures, including reducing structure ignitions that come from embers by installing non-flammable wall, roofing and fencing materials, residential sprinklers, vent screening, and xeriscaping. Consider whether structure assessments could be done in small groups on the same road or cul de sac to reinforce the importance of mitigation actions with neighbors. In some subdivisions, linkages to insurance rates may be motivating, as are strong recommendations by professionals from fire or emergency services. In other subdivisions, it may be most effective to support neighborhood ambassadors to enable structure hardening information to come from within.
Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business and Home Safety)

Firewise USA[®]

Community-based recognition programs can help neighbors work together to reduce the impacts of wildfire. Community preparedness actions, such as community clean-up or chipper days, can help further individual actions. Property Owners Associations and Homeowners' Associations are particularly well-suited to formal recognition programs.

Resource: [Firewise USA[®]](#) (National Fire Protection Association)



Fire Adapted Communities Pathways Tool

Formal Subdivision



Chipping & debris disposal

Resident Mitigation (cont.)

Communities might want to consider prioritizing programs that provide the means for residents to dispose of yard debris and accumulation of fuels at regular intervals. These efforts should focus on ways to make disposal of fuels more economically viable for residents (e.g., service for dumping or off-site pile burning). Other options may be to set up and collectively fund mobile chippers that can be positioned in or around the subdivision at key times of the year. Similar considerations may be necessary for removal of other yard debris (e.g., old fencing, immobile vehicles) to reduce hazards. Consider partnering with neighboring formal subdivisions to contribute the fees necessary for equipment; this may also build a broader sense of community as the program evolves.

Resource: [Chipping Program Best Practices](#) (International Association of Fire Chiefs)



Inclusive engagement of whole communities

Partnerships & Community Engagement

Seek opportunities to empower community-driven work. Community members have skills, knowledge, and experience to help organize at the subdivision level. Empowering residents is key to inclusive engagement in fire adaptation. Are there opportunities to work with others who have trusted relationships within the community to empower local leaders? Consider multiple aspects of diversity within your community as you organize residents: have you considered access and functional needs in smoke and/or evacuation planning? Are your efforts communicated in the range of languages spoken in your community? How are you centering community-driven initiatives and opportunities for co-creation? Take care to ensure the whole community is included in the planning process.

Resource: [A Whole Community Approach to Emergency Management](#) (FEMA, 2011)

Interface with homeowner associations

When present, Homeowners Associations (HOAs) can be a significant vehicle for collective action in formal subdivision communities. Work with your local HOA to cultivate neighborhood leaders, communication networks, and volunteer efforts. Build fire mitigation actions into local practice by integrating them with codes, covenants and restrictions. Foster and organize shared support for community initiatives (e.g., evacuation planning, shared media campaigns, fire prevention seminars). Consider establishing a formal committee in the HOA to help champion activities that might advance fire resilience, or articulate the community-specific fire risks that are most important to address. Where possible, engage with property management companies who organize dues, regulations and management of shared spaces. Connect these groups with local fire districts to talk about institutionalizing best practices for wildfire, and the potential benefits that would provide with regards to property value and professional safety.

Case Study: [Homeowners Associations As Promising Structures for Wildfire Risk Reduction](#) (Ecosystem Workforce Program, 2014)

Neighborhood ambassadors

Adapt the existing neighborhood ambassadors program to help develop local level norms about practices that residents can take to reduce shared wildfire risk. If you have a large neighborhood, consider using "block captains" to foster broader discussion and complimentary efforts among smaller units. Consider establishing a wildfire-centered committee as part of an existing Homeowners' or Property Owners Associations.

Resource: [Fire Adapted Communities Neighborhood Ambassador Approach](#) (Wildfire Adapted Partnership, 2018)



Fire Adapted Communities Pathways Tool

Formal Subdivision



Landscape Treatments

Small-scale fuel reduction

Consider fuel reduction at small scales, including through novel means. Available tools may include using goats for grazing, conducting pile burning through local university or service clubs, and/or engaging landscaping companies to develop green spaces. Consider contracting with adjoining municipalities or nearby communities to both supply a workforce and contribute to workforce development.

Resource: [Goat Grazing](#) (Fire Safe Marin)

Demonstration projects

Explore opportunities to model fuels reduction activities or fire-resistant plantings in green spaces and parks such as through Firewise USA[®] demonstration gardens. Utilize field trips to demonstrate projects on public lands. Field trips can help develop support for landscape level treatments and foster relationships among collaborators who can engage in broader landscape-level management initiatives affecting the local community (e.g., all lands management convening groups, formal collaborative groups).

Case Study: [Demonstration Gardens & Projects](#) (Idaho Firewise)

Maintenance of neighborhood greenspace/ greenbelts

Complete and maintain shared or community greenspace or greenbelt projects to improve overall wildfire resilience. Common areas, community parks, and other shared landscapes are well-suited as demonstration properties that can create support for fuels treatments outside the immediate subdivision or on its outskirts. Consider working with adjoining municipalities or developments to "adopt" green spaces or natural areas and for which subdivisions will take formal responsibility for maintaining in terms of wildfire risk reduction. These sites, without consistent and proper management, may increase risk. Care should be taken to ensure long term commitment, resources and planning for projects like these. Considerations about how such features may figure into evacuation options is also suggested.

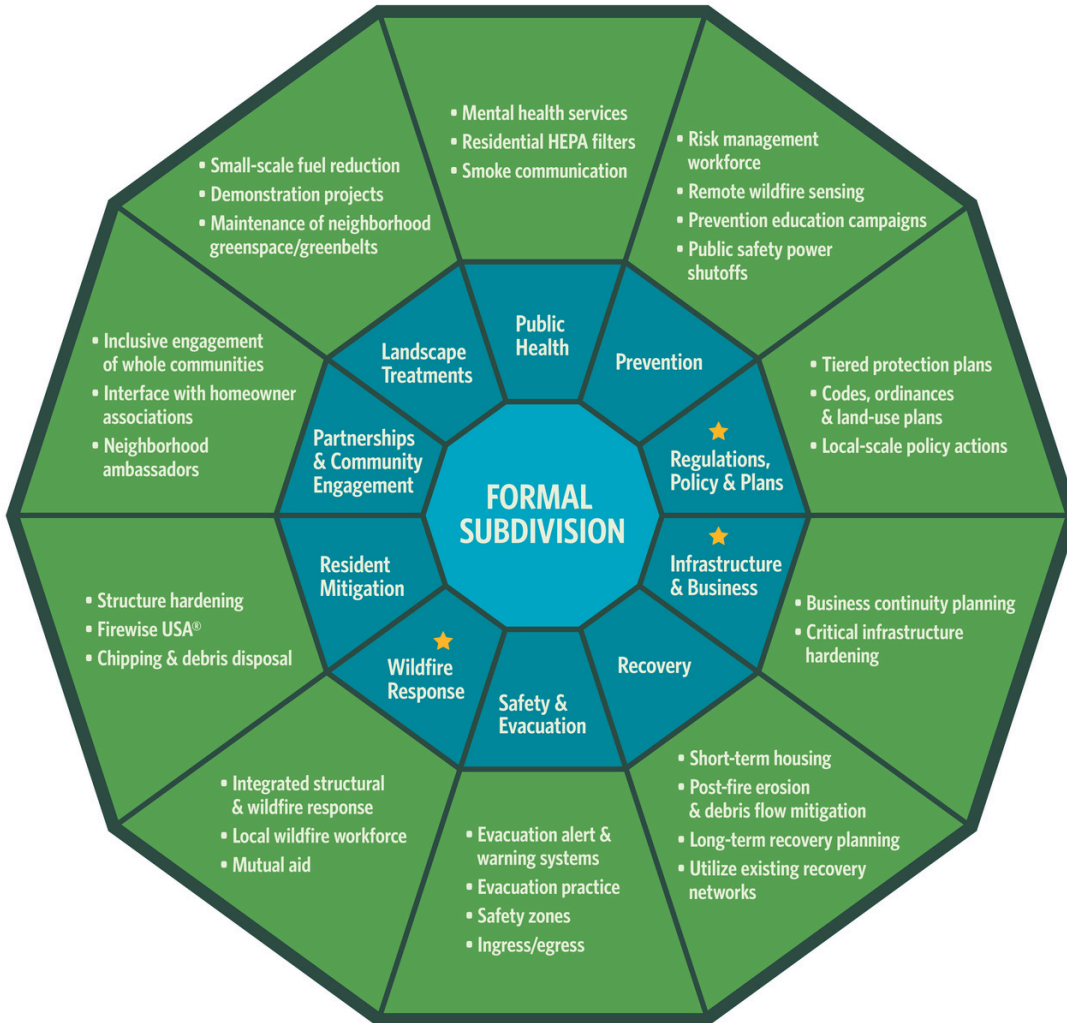
Case Study: [Portland Parks & Recreation](#)



Fire Adapted Communities Pathways Tool

Formal Subdivision WORKSHEET

Read through the descriptions of practices suggested for your archetype before continuing with this worksheet.



Start here and move to the right



Place a **STAR** next to **UP TO 5** practices you feel will have the **MOST IMPACT** on your community wildfire resilience.



CIRCLE UP TO 5 practices you feel are the **MOST FEASIBLE** for you to accomplish at this time. Consider your assets, resources, and partnerships as you mark these practices.



Place a **QUESTION MARK** next to **UP TO 5** practices that you would like additional guidance, partnerships, or help carrying out.



Place a **DOLLAR SIGN** next to **UP TO 5** practices that are **CURRENTLY** the most **WELL-RESOURCED** in your community. Resources can include personnel, money or other assets.



Place an **EXCLAMATION MARK** next to **UP TO 5** practices where you **WOULD LIKE** more **RESOURCES**. Resources can include personnel, money, or other assets.



Place a **HEART** next to **UP TO 5** practices you feel will most support community fire adaptation in the long-term, without regard to your current resources or capacity.



WRITE-IN any **KEY** practices you are pursuing in a category which are not listed in the graphic.

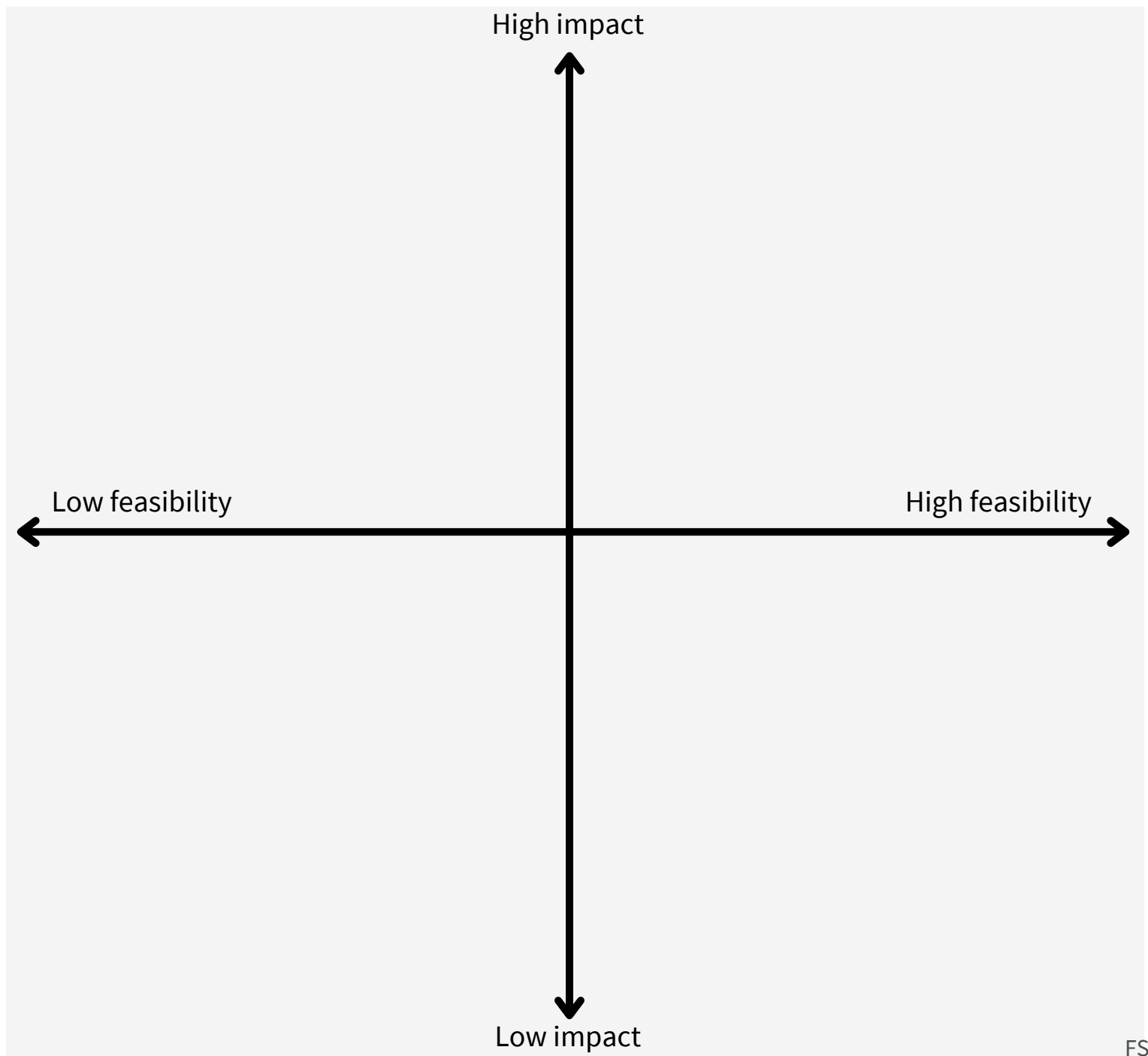


Fire Adapted Communities Pathways Tool

Formal Subdivision ACTION GUIDE

If you are working with a group, **ensure everyone has a copy** of the completed worksheet and action guide before beginning your discussion. Review your worksheet. **Place any practice which you have circled, written-in, or marked (e.g., !, \$, ★, ♥)** in the grid below. Don't worry about being too exact or precise! You will consider what the results mean in the following step.

A practice is **high impact** if it significantly increases your community's ability to prepare for, respond to, or recover from wildfire. This may be due to the practice increasing community capacity, resources, knowledge or ability to maximize positive fire outcomes and minimize negative fire outcomes. A practice has **high feasibility** if it can be carried out with the support, resources, knowledge, best practices, partnerships or other capacity available to the community.





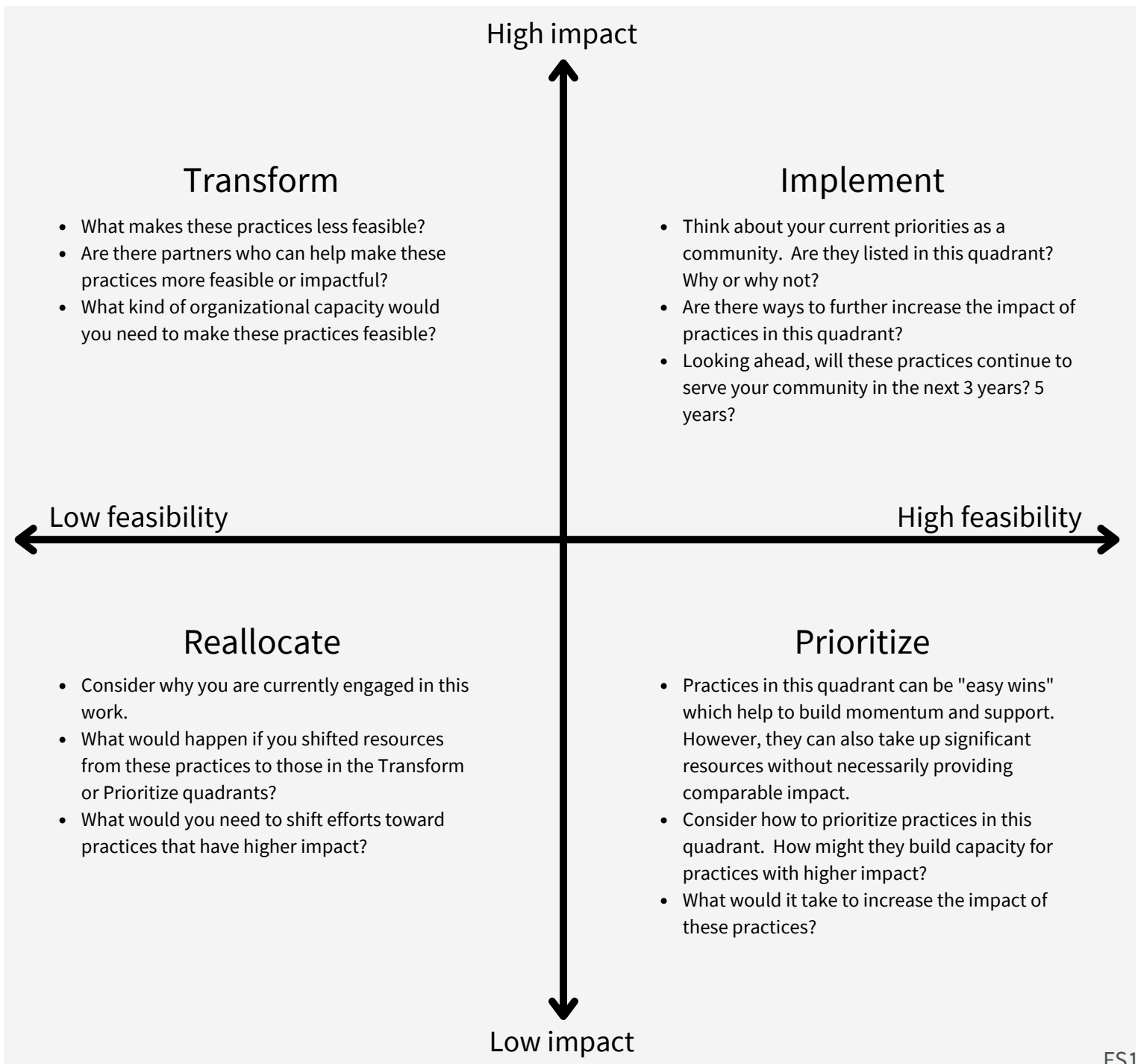
Fire Adapted Communities Pathways Tool

Formal Subdivision ACTION GUIDE

Consider the grid you completed from the previous page and the questions below.

You may also place ANY practice you are currently undertaking, or wish to undertake, on the grid from the previous page. This may be particularly helpful as you consider long-standing or evolving practices you have undertaken in your community. Are there things you have been doing for a long time which need to be evaluated in the context of your other work? Which could be used to leverage or build toward new practices?

Consider how you will prioritize practices moving forward. **Working on your grid from the previous page**, and in light of the questions provided below, **CIRCLE** three practices you would like to emphasize in the coming year.





Fire Adapted Communities Pathways Tool

Formal Subdivision Considerations for Next Steps



TIPS As you consider your next steps, the following may be helpful:

Consider your worksheet and action guide as a blueprint for fire adaptation progress. Draw from your customized graphic when planning next steps, when considering new programs or new initiatives, or when pursuing longer-term initiatives with various partners. Your graphic, practices and associated priorities from the worksheet can be used to quickly communicate community needs, capacities, and progress to partners, other community members, funders, and other stakeholders.

Integrate your graphic and practices into a larger Community Wildfire Protection Plan planning process, consider how this tool intersects with a hazard mitigation plan, or assess whether existing emergency service priorities match community efforts.

Use your graphic and practices as a way to start dialogue to increase wildfire resilience. Use the products created in this process to jumpstart partnerships, combine resources with community partners or otherwise support progress on site-specific adaptations that fit your local circumstances.

Share your graphic, practices and priorities with other communities in your region. Encourage them to complete their own process and compare notes. What have you each been successful in achieving? How can you help each other learn from those processes? Do other communities possess assets or opportunities that you both could leverage when working at broader scales? What assets does your community have that could be leveraged more broadly?

Join the Fire Adapted Communities Learning Network as an Affiliate Member and find other communities to learn from or connect with. Network members identify and demonstrate new approaches and practices for fire resilience. You can share ideas for emerging and needed work in communities like yours via participation in the Network.

For More Information

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed to support community-based fire adaptation. Additional information, facilitation guides, graphics, and more are available at <https://fireadaptednetwork.org/resources/fac-pathways-tool>.

To provide feedback or to share the results of your worksheet and action plan, email info@fireadaptednetwork.org. Your worksheet and action plan will be kept confidential; they can be of great help to practitioners, policymakers and researchers in the monitoring or design of programs and partnerships designed to help communities adapt to wildfire.

Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area. If you are interested, please fill out [this short form](#).

If you want to know more about the research that informed the creation of this Tool email Dr. Travis Paveglio at tpaveglio@uidaho.edu.



This document was created by the Fire Adapted Communities Learning Network, in partnership with Dr. Travis Paveglio. FAC Net is a community of wildfire adaptation practitioners across the nation that is supported by the United States Forest Service, Departments of the Interior, The Nature Conservancy and the Watershed Research and Training Center. Visit www.fireadaptednetwork.org to learn more about the Network, become a member, or subscribe to our weekly blog.



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Public Health

Social services

Utilize existing social workers/programs in the region that help relocate, provide temporary housing, or provide mental health services to populations affected by wildfires. Provide cross training in social services for emergency volunteers in the region so that they are prepared for disruptions that are likely to occur post-fire. Finally, consider impacts and needs of unhoused populations who also will be affected by smoke and fire impacts.

HEPA filtration programs

Promote the benefits of using residential and commercial HEPA filters during high smoke impact events. Have materials ready and available for distribution or purchase during fire seasons. Work to establish community clean air shelters for those particularly sensitive to wildfire smoke; the act of working toward these centers can be a good way to engage collaborative groups and can help develop additional capacity for local hospitals, city or county government offices, and cultural centers.

Resource: *HEPA Filter Community Programs-- A Whole Community Approach (FAC Net, 2021)*



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Public Health (cont.)

Smoke communication

Identifying and discussing the inevitability of smoke impacts will be important among residents and professionals. When communicating about prescribed fire impacts, include information about the length or severity of smoke impacts, when and where prescribed fires are likely to occur, and who will be conducting the prescribed fire. More communication, as opposed to less communication, is important in this community. Consider promoting burning during shoulder seasons to reduce impacts to tourism or other seasonal industries in the area.

Resource: *Engaging Communities in Prescribed Fire and Smoke* (Wildfire Planning International, 2017)



Prevention

Prevention workforce

There may be a need for development of a dedicated fire prevention workforce who can help promote action across various private landowners. This workforce may include professionals with specialized training in wildfire prevention, wildfire risk assessment and mitigation, consulting foresters, and local fuels crews.

Remote wildfire sensing

Consider working with local and regional partners to establish technologies that quickly detect and report fire ignitions in the region. Systems can provide early warnings for wildland fires and identify fire starts which could become fast-moving fires in, or near, communities. Consider creating Memorandums of Understanding to locate camera systems or remote sensors or for establishing and linking sensors with emergency services in order to contribute to broader wildfire initiatives. These efforts can build a system of prevention efforts which leads to broader information sharing across communities. This can include the development of communication systems or portals for cooperative fire management or prevention.

Seasonal prevention messages

Work with partners to determine common fire causes. Develop messages that are focused on those causes and during the season(s) of highest risk. Consider recreation-based businesses, campers, and visitors as potential audiences. As an example, consider working with local tourism boards, chambers of commerce, and recreation-based business to develop and distribute seasonal wildfire prevention messaging for both year-round and seasonal residents as well as out-of-area or part-time guests.

Case Study: *Whitefish, Montana*

Public safety power shutoffs

Consider dedicated power options (such as generators) for periodic loss of electric utility services. These power options could incorporate clean energy alternatives (e.g., solar roofs, Tesla Wall, etc.). Promotion of these alternatives could be supported by community codes, covenants and requirements or eventually built into planning and zoning requirements for the renovation or construction of new buildings. Prepare for public safety power shutoffs in advance of a wildfire by working with your local utility provider to determine whether the community is in a high-risk area for ignitions and the potential frequency of shutoffs. Communicate with those who rely on power for medical device support in advance of the wildfire season.

Resource: *Public Safety Power Shutoffs-- Disability Disaster Access & Resources* (California Foundation for Independent Living Centers)



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Regulations, Policy & Plans

Community Wildfire Protection Plans

Updating the action plans in Community Wildfire Protection Plans (CWPPs) can be an effective strategy which can lead to collective projects such as landscape-level fuel breaks or establishment of land use development standards. CWPPs can provide a priority list of community-driven projects; these projects can create change on the landscape as well as help develop community-based partnerships. Consider "tiered" plans for different large residential developments in the same area/drainage. These tiered plans can help structure negotiations about regional properties and avoid competition that leads to conflict.

Resource: [*Preparing a Community Wildfire Protection Plan*, March 2014](#)

Spatial fire planning

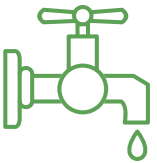
Residents and professionals should collaborate to collectively define priorities for values at risk. Potential Operational Delineations (PODs) planning processes may be a particularly good vehicle for spatial fire planning, as they can facilitate a shared understanding of fire suppression response and/or help set priorities for modification of infrastructure (e.g., powerlines, road networks, access) in the future. Work with the community to help integrate community priorities into the process, share the science behind PODs planning, and communicate the results of the planning process.

Resource: [*Potential Operational Delineations* \(USDA Forest Service\)](#)

Codes & land use standards

Community members and professionals should focus efforts on codes and ordinances that improve home hardening and fuels reduction in the home ignition zone (HIZ). Special consideration could be placed on standards which are required during the remodeling of existing homes, focused on vegetation maintenance requirements for empty parcels and/or rental properties (short or long-term). Land use standards associated with residential development can facilitate creation of fuel breaks, use natural landscape features to reduce fire exposure, and/or influence the design of residential neighborhoods/communities to reduce fire transmission.

Resource: [*Planning in the Wildland-Urban Interface* \(American Planning Association, 2019\)](#) and [*Building a Wildfire Resistant Home: Codes and Costs* \(Headwaters Economics, 2018\)](#)



Infrastructure & Business

Workforce housing

Work with local planning and zoning departments, county governments and appropriate federal agencies (e.g. Housing and Urban Development) to evaluate the availability of affordable housing in and near the community. Affordable housing can be key to building community and ensuring sustainable capacity for wildfire management and ecosystem services.

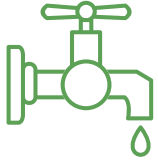
Tourism & economic continuity

High amenity/high resource communities often have economies linked to outdoor recreation, seasonal amenities, tourism and visitor services (e.g., equipment rentals, hotels, Air B&Bs). Wildfire may impact these services in the short-term (through closures or reduced visitation) as well as in the longer-term (from closures of public lands, the need for road rehabilitation, and/or the potential change to vegetative communities or viewsheds). Consider what support the local Chamber of Commerce, Economic Development District, Small Business Association, or local municipalities can provide to businesses with short-term losses or what potential local tax breaks can be provided in the event of longer term damages. Have a plan for how you will continue business operations. This business continuity plan may include planning for the reopening of outdoor amenity locations following fire. Plans may also include communications as well as considerations for unique opportunities to view and learn from burned area recovery. Media and communication plans should capitalize on visitors' and residents' sense of place and their attachment to the broader region or community. Reopening of major transportation corridors can help reestablish local supply chains. In addition, consider working with businesses to ensure adequate wildfire insurance on lodges, visitor centers, ski resorts, etc.



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Wood utilization

Infrastructure & Business (cont.)

Explore options for development of wood-products industries locally or regionally. Support and grow sawmill or wood product facilities at small scales, and which sustain local investment for services. Wood product options may include reliable supply for cogeneration plants that power city and regional services (e.g., schools, municipal offices, hospitals) using wood-fired energy. Consider developing investor networks.

Critical infrastructure protection

Work with the local community and county government to identify the range of critical infrastructure that is important to your community. Critical infrastructure protection in high amenity, high resource communities may extend beyond the power grid, roads, and bridges to encompass broader municipal watersheds, gravity-fed water systems and reservoir facilities. Communities may be able to improve overall resilience by mitigating the risk to these resources ahead of time; consider hardening these resources and protecting against secondary flooding, bridge washout, or water quality issues. Stream restoration activities and landowner practices regarding range/forest management can demonstrate a wide array of benefits which may open up other opportunities such as improved water quality, recreation access, or improved wildlife habitat.



Recovery

Recovery transformation

Framing the recovery process as an opportunity to think about long-term sustainability is likely to be a good tactic. This would include prompting community members to consider how rebuilding and landscape restoration should reflect longer-term desires (e.g., restoration of native species, spatial arrangement of homes on adjacent parcels, improvement of water or road infrastructure for future events, rebuilding structures to be more fire resistant). Try to avoid or counteract the tendency to rebuild exactly the same way using insurance payouts. Communities should encourage residents to explore their insurance coverage, with special focus on how their coverage deals with wildfire-specific losses and secondary hazards (e.g., post fire flooding, landslides, etc.).

Resource: [Rebuilding for a Resilient Recovery-- Planning in California's Wildland Urban Interface \(Next 10, 2021\)](#)

Landscape rehabilitation

Wildfire impacts to ecosystems and area public lands may disrupt residents' appreciation for, or attachment to, the natural systems that drew them to the area. Recovery efforts can account for potential "loss of the landscape" impacts by demonstrating the benefits associated with fire or by encouraging reconnection with burned lands as unique and interesting landscapes of value. Post-fire landscapes and opportunities for rehabilitation or habitat recovery are good options for mobilizing volunteers. Opportunities for restoration of streams, wetlands or other landscape features following wildfire can provide useful demonstrations of the benefits of fire and may reconnect individuals to the landscape. These efforts can perpetuate a long-term willingness to support landscape health, including wildfire.

Resource: [Study Examines New Type of Wildfire Health Impact \(FAC Net, 2015\)](#)

Long-term recovery planning

Wildfire impacts to ecosystems and area public lands may impact industries that rely on natural resource amenities (e.g., vacation rentals, hiking and biking tours, rafting guides, etc.). Wildfire impacts may also require planning for secondary flooding and damage to infrastructure. Such impacts should be documented in initial damage assessments in order to plan, or seek resources, for ongoing impacts. Recovery planning should likely plan for short- and longer-term impacts to local industries and prioritize restoration of viewsheds that are important aspects of tourism in the area. Consider developing a Community Organization Active in Disaster (COAD) to support the development of long-term recovery plans for the community, which can help plan for, and mitigate damage to, community infrastructure, services, and natural resources.

Resource: [Community Organizations Active in Disaster \(Extension Disaster Education Network\)](#) and [Leavenworth Resident Recovery Guide \(Washington State Fire Adapted Communities Learning Network\)](#)



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Safety & Evacuation

Evacuation & communication planning

Communities should account for both residents and seasonal visitors in their evacuation planning process. GIS data and modeling can provide insights into site-specific challenges (such as periods of heavy traffic). Determine how you will communicate with all those present in your community; some may not live there full-time and may not be familiar with your evacuation systems. Work with lodging associations, chambers of commerce, and other short-term rentals to provide evacuation information ahead of a wildfire.

Case Study: [Emergency Preparedness and Evacuation Guide](#) (North Tahoe and Meeks Bay Fire Protection Districts)

Ready, Set, Go!

Connect with your local fire department to determine how to adapt the Ready, Set, Go! outreach program for your community. Resources include communication materials and toolkits for local fire departments.

Resource: [Ready, Set, Go! Program](#) (International Association of Fire Chiefs)

Safety zones

Consider designating particularly defensible residential properties or common buildings as safe shelter locations during fast moving fires or as areas of last resort when evacuation is not possible. Special emphasis also should be on safety zones or gathering points in nearby cities or developed urban cores. Primary emphasis should be on early evacuation; safety zones or areas of refuge can be clearly demarcated as backup plans.

Ingress/egress

Ensure that communities have multiple opportunities for ingress/egress, especially considering the influx of fire professionals likely to respond to, or stage resources near, private properties. Consider avenues that incentivize or require developers to help improve the width or drivability of community roads. Seek out grant opportunities for right-of-way access points through private lands that help improve ingress/egress during rapid evacuation. Prepare major ingress/egress routes by removing overhanging branches and fuel adjacent to the roadways.

Case Study: [2021-2022 Evacuation Route Vegetation Management Projects](#) (Central Marin Fire Department)



Wildfire Response

Community interface with incident management teams

Consider working with local land management agencies (e.g., the USDA Forest Service, USDI Bureau of Land Management, state forestry departments) in advance of a wildland fire to determine how community-based organizations can interface with Incident Management Teams during an incident. Good avenues for useful community information gathering include documentation of designated safety zones (even if informal), priorities for values-at-risk in and around the community, and populations with mobility issues.

Mutual aid

Ensure local fire departments are working with partners to formalize response agreements that allow response support from surrounding communities. Review, update, or revise existing Memorandums of Agreement or other partnership documents. Consider joint training exercises and ensure or county officials have ready-to-share information about the existing response structure, mitigations (e.g., defensible space, fuel breaks) or evacuation plans in place for the community.

Resource: [National Incident Management System Guideline for Mutual Aid](#) (FEMA, 2017)

Catalog & prioritize values at risk

Consider cataloging values-at-risk in and around the community (e.g., infrastructure such as water systems, wildlife habitat, watersheds, nearby recreation areas, etc.). Residents should discuss and prioritize these values-at-risk to provide local officials and responders with information about the potential losses posed by wildfire. Cataloging and prioritizing values-at-risk not only helps inform firefighting priorities, but can help provide added emphasis for pre-fire mitigation. These values at risk can be incorporated into any Potential Operational Delienatons (PODs) developed in the community.

Case Study: [What Comes First: Collaborative Mapping or Mapping Collaboration?](#)



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Resident Mitigation

Structure hardening

Enabling widespread home hardening in residential communities is a good avenue for reducing future risk and building a culture of fire management. Pursue state and federal mitigation grants which promote home hardening (e.g., establishment of a non-combustible gravel pad 0-5 feet from the home, retrofitting or remodeling roofs); work with state and federal agencies to understand what grants are available and how best to access them.

Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business and Home Safety)

Firewise USA[®]

The formal nature of the Firewise USA[®] program, paired with the potential attainment of recognition, can be very effective in motivating mitigation actions among residential landowners. Community members should consider integrating Firewise USA[®] into their existing methods of community governance (e.g., property management company duties, Homeowners' association requirements). This program can serve as a means to adapt new and increasingly innovative strategies for reducing wildfire risk found in other portions of the Fire Adapted Communities Graphic, and by using Firewise USA[®] to demonstrate community efforts to take responsibility for potential wildfire losses.

Resource: [Firewise USA[®]](#) (National Fire Protection Association)

Renters & second homeowners

Consider developing and providing specific guidance for second homeowners, vacation properties and rental property owners for wildfire risk reduction in their community, including its importance to other properties in the community and the benefits to other values (e.g., wildlife and aesthetics). Information could provide options for how and when to conduct fuels reduction or property maintenance (e.g., reduction of fine fuels or improvements to structures to reduce ignition potential) around properties, lists of contractors or companies who will perform such services, and schedules of risk reduction assessments. Provide information on mitigation actions specific to residents who rent (e.g., keeping driveways clear of yard waste, ensuring flammable materials are stored away from the structure, etc.) and provide resources about protection of property in the event of damages (e.g., renter's insurance).

Defensible space

Provide home ignition zone/landscape assessments adapted from state and national guidance and in concert with local professionals. These guidelines should reflect specific risk conditions in and around the community. Try, where possible, to have residents think strategically about the ways their fire-adapted landscaping can create continuous areas of risk reduction. Consider partnering with a series of neighbors to plan for coordinated landscape actions such as local fuel breaks.

Resource: [Prepare for Wildfire-- Defensible Space](#) (CAL FIRE)



Partnerships & Community Engagement

Collaborative groups

Communities should identify collaborative groups working at landscape scales and consider whether they have adequate representation or connection with such groups. If no groups exist, establishing more formal partnerships with area fire entities, emergency services, land management agencies, and land use planning groups may help foster landscape-level partnerships to influence planning across private and public lands.

Resource: [Collaboration Resources](#) (National Forest Foundation)

Neighborhood ambassadors

Consider a neighborhood ambassador program to develop local resident leaders who disseminate wildfire planning information among neighbors. Integrate the program into existing Homeowners' Associations and neighborhoods with a well-developed sense of community. Partner with existing community organizations (e.g., social service organizations) to extend the ambassador approach throughout the community.

Resource: [Fire Adapted Communities Neighborhood Ambassador Approach](#) (Wildfire Adapted Partnership, 2018)



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Partnerships & Community Engagement (cont.)

Identify common ground

High amenity, high resource communities are often represented on a number of local/regional non-governmental organizations (e.g., land trusts, conservation groups, advisory committees, chambers of commerce, etc.) or organized groups (e.g., regional hiking club, "friends of" groups, winery associations). One of the best tactics for achieving collective action on wildfire in these communities is connecting existing resources, interests, and skills of these groups to wildfire as a larger issue. Think about how wildfire risk or management intersects with each of these groups. Identify and present the overlapping interest or benefit from addressing wildfire risk. Bring together organizations with the same interests or investments to build stronger partnerships. Look for opportunities to combine efforts, share volunteers/staff, or create synergy between similar programs.

Inclusive engagement of whole communities

As your community develops processes, programs, plans and actions for fire adaptation, take care to ensure the whole community is able to participate. In some High Amenity/High Resource communities, relatively high costs of property and living mean that many of the people who work in your community reside elsewhere. Consider not only residents, but also your workforce, when planning resilience efforts, for example evacuation initiatives. Work to develop partnerships throughout the community to support fire adaptation efforts. A single organization may not be the best conduit for wildfire mitigation work across the entire community. Seek out partners who already have trusted relationships throughout your community and work collaboratively to ensure the diversity of your community is mirrored in the diversity of your planning and implementation actions.

Resource: [Toolkit to Integrate Health & Equity into Comprehensive Plans](#) (American Planning Association, 2020)



Landscape Treatments

Prescribed fire

Consider using prescribed fire as a method to improve the health and fire resilience of the landscape. If prescribed fire has not been used in the area previously, consider starting with demonstrations to build trust in those conducting burns as well as build prescribed fire capacity. When using prescribed fire, consider the impacts of smoke to community health and outdoor pursuits. Following early use, prescribed fire could expand using "learn and burn" events, engagement with community-based burning programs (TRES), and larger treatments.

Case Study: [Engaging Communities in Prescribed Fire and Smoke](#) (Wildfire Planning International, 2017)

Fuel breaks

Consider the development of community-scale fuel breaks as an effective way to develop shared support; emphasize the dual benefits of improving overall forest condition and reducing wildfire risk. Consider community recreation and viewshed values during the planning process. Initiatives to create community fuel breaks should integrate with national forest or state lands planning. Where possible, discuss the co-design of treatments that extend across ownerships. Explore opportunities for the community to provide access to state or federal lands for work along private roadways or access points. Consider whether and how communities can contribute to maintenance of fuel breaks near or on their land, and in ways that perpetuate agency support, expertise or guidance. Work to develop and maintain treatment plans, implementation and maintenance schedules, monitoring plans, as well as mapping data that can integrate fuel breaks into databases that will inform suppression response or landscape health initiatives.



Fire Adapted Communities Pathways Tool

High Amenity/High Resource



Landscape Treatments (cont.)

Restoration

Support for fuel reduction in the form of thinning should likely consider how prescriptions will impact ecosystem health. Consider emphasizing thinning as a tool to improve landscape health and resiliency as well as recreational opportunities in the area. Thinning projects can be considered in terms of how they support landscape-level treatments across other properties. The development of shared agreements or coordination of treatments are good avenues for planning.

Case Study: [Ashland Forest Resiliency Stewardship Project](#)

Federal planning authorities

Consider using federal planning authorities to facilitate the development of local or regional workforces focused on the intersection of landscape stewardship, wildfire management and ecosystem restoration. Funding mechanisms such as Joint Chiefs' Landscape Restoration Partnerships and Collaborative Forest Landscape Restoration Program may help advance work. Stewardship contracting or the Wyden Authority are other good avenues that might allow local people the initial mechanisms to take more responsibility for landscape-level management of fire conditions.

Resource: [Joint Chiefs' Landscape Restoration Partnership](#) (USDA Natural Resource Conservation Service)



Fire Adapted Communities Pathways Tool

High Amenity/High Resource WORKSHEET

Read through the descriptions of practices suggested for your archetype before continuing with this worksheet.



Start here and move to the right



Place a **STAR** next to **UP TO 5** practices you feel will have the **MOST IMPACT** on your community wildfire resilience.



CIRCLE UP TO 5 practices you feel are the **MOST FEASIBLE** for you to accomplish at this time. Consider your assets, resources, and partnerships as you mark these practices.



Place a **QUESTION MARK** next to **UP TO 5** practices that you would like additional guidance, partnerships, or help carrying out.



Place a **DOLLAR SIGN** next to **UP TO 5** practices that are **CURRENTLY** the most **WELL-RESOURCED** in your community. Resources can include personnel, money or other assets.



Place an **EXCLAMATION MARK** next to **UP TO 5** practices where you **WOULD LIKE** more **RESOURCES**. Resources can include personnel, money, or other assets.



Place a **HEART** next to **UP TO 5** practices you feel will most support community fire adaptation in the long-term, without regard to your current resources or capacity.



WRITE-IN any **KEY** practices you are pursuing in a category which are not listed in the graphic.

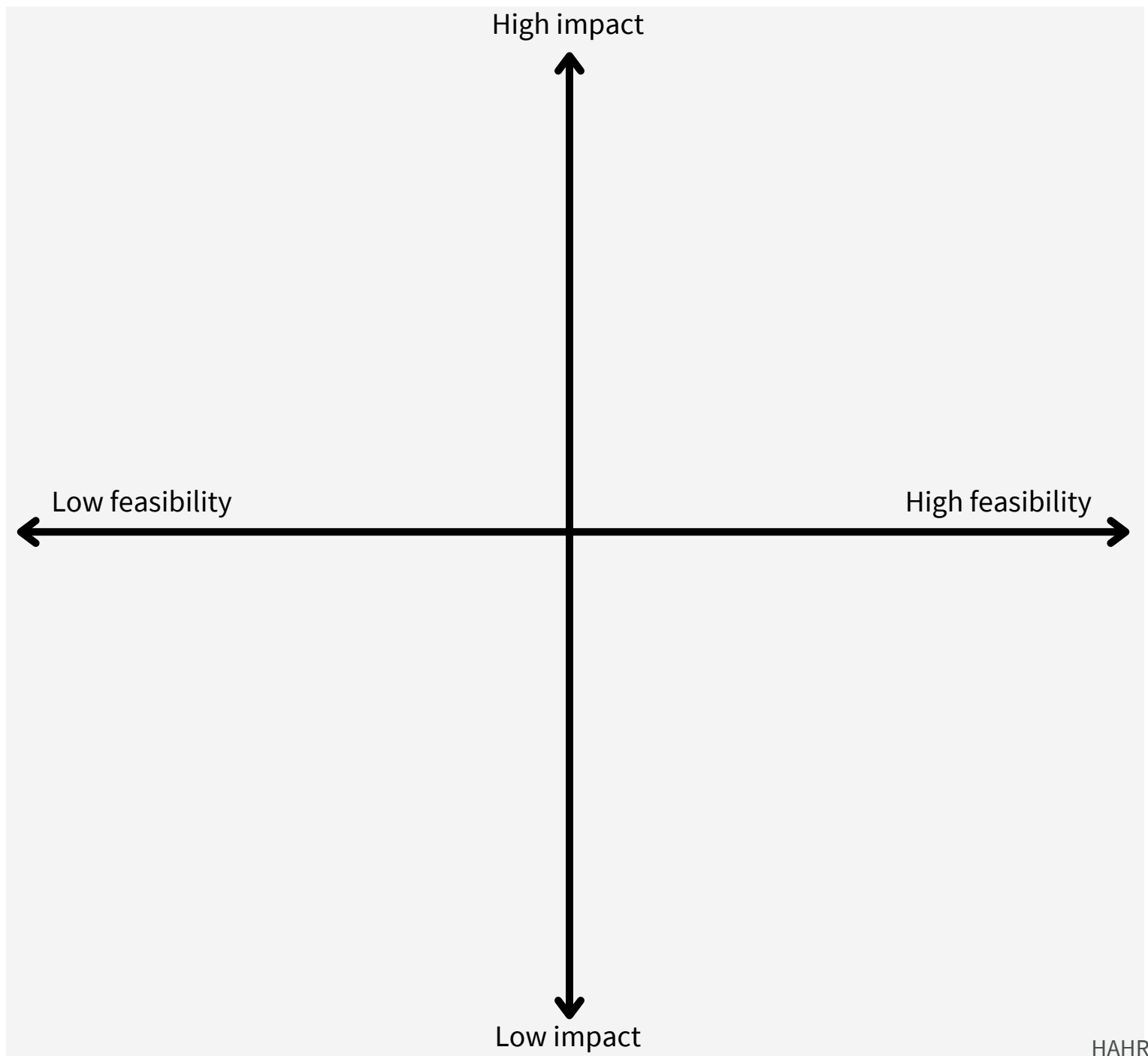


Fire Adapted Communities Pathways Tool

High Amenity/High Resource ACTION GUIDE

If you are working with a group, **ensure everyone has a copy** of the completed worksheet and action guide before beginning your discussion. Review your worksheet. **Place any practice which you have circled, written-in, or marked (e.g., !, \$, ★, ♥)** in the grid below. Don't worry about being too exact or precise! You will consider what the results mean in the following step.

A practice is **high impact** if it significantly increases your community's ability to prepare for, respond to, or recover from wildfire. This may be due to the practice increasing community capacity, resources, knowledge or ability to maximize positive fire outcomes and minimize negative fire outcomes. A practice has **high feasibility** if it can be carried out with the support, resources, knowledge, best practices, partnerships or other capacity available to the community.





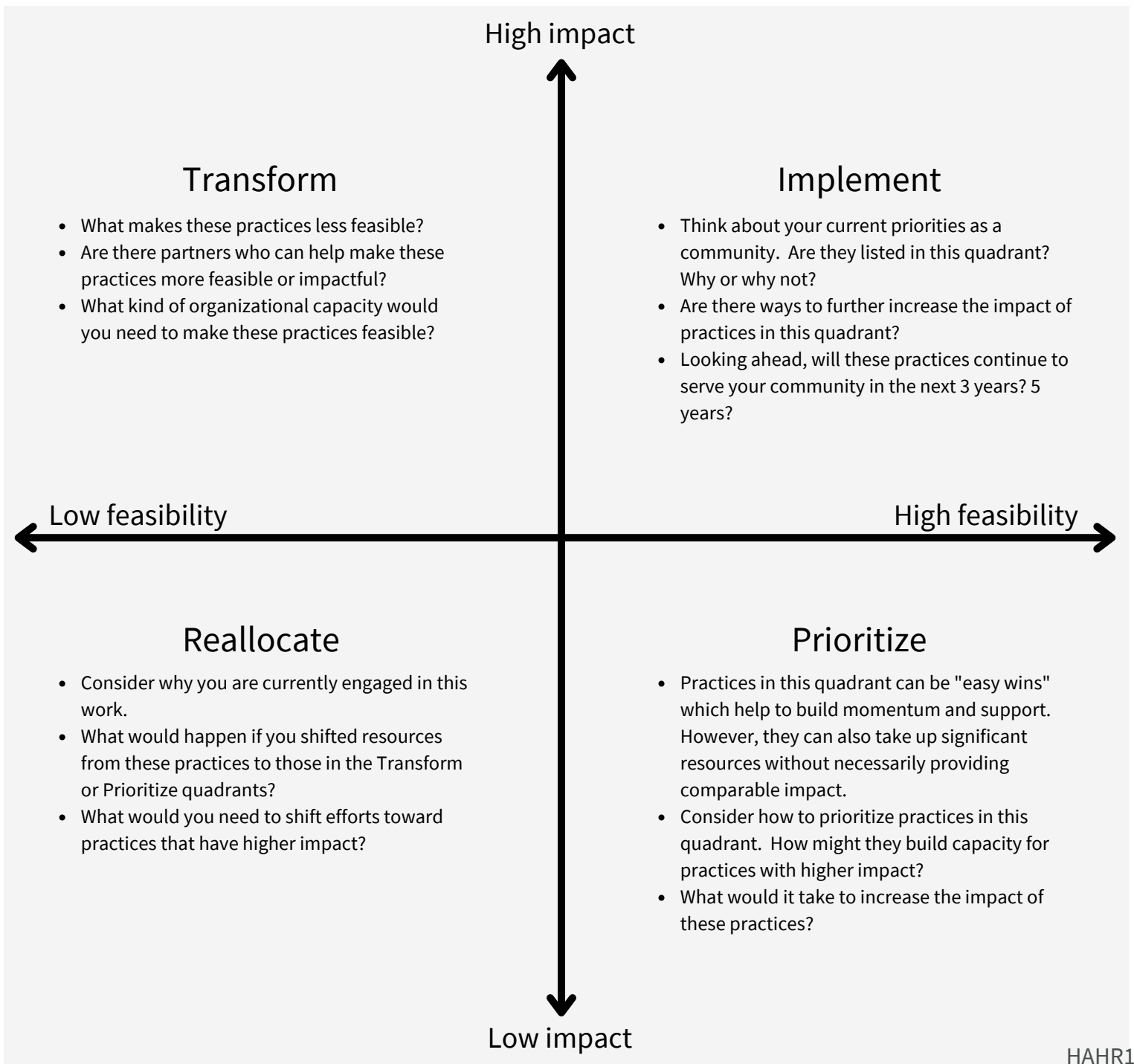
Fire Adapted Communities Pathways Tool

High Amenity/High Resource ACTION GUIDE

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Consider how you will prioritize practices moving forward. **Working on your grid from the previous page**, and in light of the questions provided below, **CIRCLE** three practices you would like to emphasize in the coming year.





Fire Adapted Communities Pathways Tool

High Amenity/High Resource Considerations for Next Steps



TIPS As you consider your next steps, the following may be helpful:

Consider your worksheet and action guide as a blueprint for fire adaptation progress. Draw from your customized graphic when planning next steps, when considering new programs or new initiatives, or when pursuing longer-term initiatives with various partners. Your graphic, practices and associated priorities from the worksheet can be used to quickly communicate community needs, capacities, and progress to partners, other community members, funders, and other stakeholders.

Integrate your graphic and practices into a larger Community Wildfire Protection Plan planning process, consider how this tool intersects with a hazard mitigation plan, or assess whether existing emergency service priorities match community efforts.

Use your graphic and practices as a way to start dialogue to increase wildfire resilience. Use the products created in this process to jumpstart partnerships, combine resources with community partners or otherwise support progress on site-specific adaptations that fit your local circumstances.

Share your graphic, practices and priorities with other communities in your region. Encourage them to complete their own process and compare notes. What have you each been successful in achieving? How can you help each other learn from those processes? Do other communities possess assets or opportunities that you both could leverage when working at broader scales? What assets does your community have that could be leveraged more broadly?

Join the Fire Adapted Communities Learning Network as an Affiliate Member and find other communities to learn from or connect with. Network members identify and demonstrate new approaches and practices for fire resilience. You can share ideas for emerging and needed work in communities like yours via participation in the Network.

For More Information

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed to support community-based fire adaptation. Additional information, facilitation guides, graphics, and more are available at <https://fireadaptednetwork.org/resources/fac-pathways-tool>.

To provide feedback or to share the results of your worksheet and action plan, email info@fireadaptednetwork.org. Your worksheet and action plan will be kept confidential; they can be of great help to practitioners, policymakers and researchers in the monitoring or design of programs and partnerships designed to help communities adapt to wildfire.

Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area. If you are interested, please fill out [this short form](#).

If you want to know more about the research that informed the creation of this Tool email Dr. Travis Paveglio at tpaveglio@uidaho.edu.

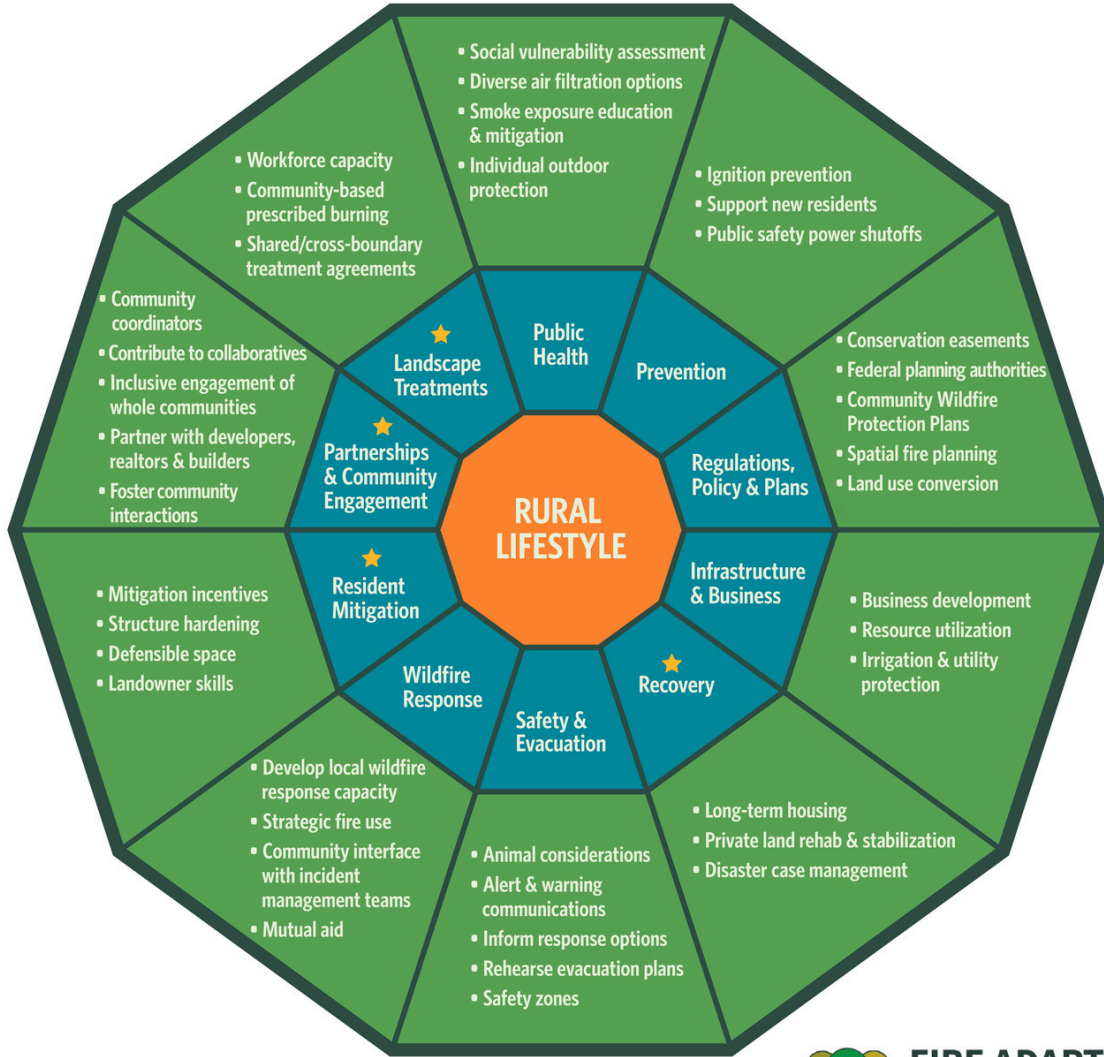


This document was created by the Fire Adapted Communities Learning Network, in partnership with Dr. Travis Paveglio. FAC Net is a community of wildfire adaptation practitioners across the nation that is supported by the United States Forest Service, Departments of the Interior, The Nature Conservancy and the Watershed Research and Training Center. Visit www.fireadaptednetwork.org to learn more about the Network, become a member, or subscribe to our weekly blog.



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Public Health

Social vulnerability assessment

Wildfire impacts some in the community more than others; work to address the availability and accessibility of mitigation and recovery programs (including insurance coverage). Such considerations are not currently well represented in vulnerability assessments at higher scales that direct mitigation resources. Consider and document a broad range of community vulnerabilities; vulnerabilities may include but are not limited to loss of a nearby recreational fishery or access to hunting lands, loss of investment in a tree farm or small business located in an outbuilding, erosion, or damages to private roads.

Diverse air filtration options

Consider a range of air filtration options that reflect the diversity and relative independence of residents who live in rural lifestyle communities. For instance, consider providing information on "Do-It-Yourself" box fan and HEPA filter arrangements that can help reduce particulate matter exposure in individual rooms, establishment of "clean rooms" for residents with family members who are particularly vulnerable to smoke, and programs to ensure adequate supplies of or subsidies for household air purifiers during prolonged exposure.

Case Study: [*Box Fan Filter, A DIY Users Guide from the Colville Tribes Air Quality Program*](#)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Public Health (cont.)

Smoke exposure education & mitigation

Smoke exposure is likely inevitable in many rural lifestyle communities due to increasing fires, the need for prescribed fire, and increased pile burning. Outreach campaigns should focus on the ability to mitigate exposure through actions that individual residents can take. Engage in conversations about the exact timing of burns and allow for demonstration burns/trainings that improve local support for prescribed fire and tolerance of smoke over time.

Case Study: [Public Health Wildfire Smoke Communication Guide](#) (Montana Department of Public Health and Human Services, 2019)

Individual outdoor protection

Consider the need for personal protection during smoke events when undertaking outdoor activities. Residents and businesses who employ outdoor workers (e.g., road crews, construction, forest workers, ag workers) may need to plan for respirators (such as N-95 masks) or other safety equipment. Respiratory protection is also important for guides, outfitters or outdoor tourism industry workers who will be active during high smoke periods. Avid recreationalists or those who live in rural lifestyle communities to be outdoors should understand how air quality is measured and where to find that information. Residents should consider options to protect themselves during sustained smoke events.

Case Study: [Nevada Department of Conservation & Natural Resources Smoke Smart](#)



Prevention

Ignition prevention

Evaluate the range of potential human ignition sources across all ownerships. Consider ignition prevention campaigns that focus on the sources most likely to create cross-boundary fires. These ignition sources may include residential burning or burn piles, campfires or dragging chains from trailers and campers, and off-road vehicle use. Address the most common sources of ignition. Tools may include pile burning permits, campfire restrictions, and reduced motorized travel during high fire risk days. Quick identification of fire ignitions is also critical to wildfire risk management. Consider direct lines of communication to report potential fires and make those communication methods known to residents and visitors.

Support new residents

Rural lifestyle communities may feature regular turnover of new residents who move from more populated areas. Consider ways to support new residents as they join your community. This may include sharing the role of fire in the landscape and the community norms for taking collective responsibility to manage wildfire. Connect new and old residents to facilitate sustained fire adaptation efforts and to meld local ecological knowledge with fire experience and/or lessons about collective action from other localities.

Case Study: [Chelan County Good Neighbor Handbook](#)

Public safety power shutoffs

Public safety power shutoffs can impact some rural lifestyle communities. Engage with public utilities to understand how frequently shutoffs are likely to occur or to establish processes for advance notification so residents can plan. More remote populations who rely on power for business or medical needs will need to plan for generator back-ups. Alternative, off-grid power sources may be required more frequently in the future. Explore longer-term options, contributions by rate-payers, and/or grants that can help insulate or protect high-risk segments of the power grid in the future (e.g., running segments of power lines underground, reducing fuel canopy, moving power lines away from evacuation routes).

Case Study: [Chelan County Public Utilities District](#)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Regulations, Policy & Plans

Conservation easements

Explore the use of conservation easements as a way to open up conversations about restoration, management and mitigation of landscape-level risk on private properties. These programs can provide multiple benefits that may promote fuels reduction actions. Consider expanding easements focused on crop development, wildlife management, and restoration of native grasslands when they serve strategic purposes for wildfire management or firefighter access.

Resource: [National Conservation Easement Database](#)

Federal planning authorities

Consider using federal planning authorities which can facilitate the development of local or regional workforces focused on the intersection of landscape stewardship, wildfire management and ecosystem restoration. For instance, the Good Neighbor Authority can be a catalyst for expanded local action regarding fuel reduction on public lands while also generating local revenue. Master stewardship agreements or the Wyden Authority also might allow local people the initial mechanisms for landscape-level management of fire conditions.

Resource: [From Ideas to Action-- A Guide to Funding and Authorities for Collaborative Restoration](#) (Rural Voices for Conservation Coalition, 2020)

Community Wildfire Protection Plans

Community Wildfire Protection Plans (CWPPs) are good vehicles to capture the values, risks and priorities of more rural populations. CWPPs provide an opportunity for Rural Lifestyle communities to define their boundaries as well as their wildland-urban interface. Residents and professionals should collaborate to collectively define priorities for values at risk. In Rural Lifestyle communities, this will likely require more information gathering and informal planning processes to develop a shared vision of the community and their values.

Resource: [Revisiting Community Wildfire Protection Plans](#) (FAC Net, 2021)

Spatial fire planning

Engage with area risk managers or land management agencies to collectively identify values at risk from wildfire. Recognize that existing spatial fire planning processes might not feature detailed local data; they likely need to be informed by shared community input. For instance, Rural Lifestyle communities may feature a more diverse or different range of values at risk, including combinations of agricultural values (e.g., small-scale crops or organic farms, grow operations, aesthetic/recreational and subsistence values such as hunting and fishing opportunities, place attachments to outdoor amenities), and more informal community networks that are less visible. Consider having rural lifestyle residents articulate and prioritize the unique risks they perceive from wildfire or management and discuss how these integrate into spatial fire planning initiatives such as Potential Operational Delineations (PODs) or risk maps.

Case Study: [How We're Using Values-Based Spatial Fire Planning to Visualize and Prioritize Collaborative Forest Restoration](#)

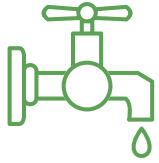
Land use conversion

Rural lifestyle communities may be in a state of flux as new residents move to rural areas or build more dense development in rural lands. Consider how patterns of future or existing land conversion will affect wildfire risk in terms of ignition, response challenges, and landscape fragmentation. Explore conservation easements or planning and zoning that prioritize landscape health or working lands (e.g., family farms, orchards, hay or dairy operations) while opening up key opportunities for fire prevention (e.g., establishment or protection of wetlands, establishment or management of community forests, land trusts that include/incentivize fire management practices to protect river corridors). Communities may also want to consider growth boundaries or minimum subdivision sizes in high-risk fire areas.



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Infrastructure & Business

Business development

Wildfire (including preparedness, response, and recovery) is likely to engage a broader range of businesses in rural lifestyle communities, including those that are somewhat dependent on local ecosystem services. Consider how rural development efforts might help grow small businesses (e.g., establishment of, and workforce training for, small-scale contractors specializing in retrofitting of homes to be more fire resistant, fuels reduction specialists or tree services) or how fires might impact their longer-term functioning (e.g., hunting and fishing guide services that might not be able to operate after fires, supply chains for rural services such as gas stations or general stores).

Resource: [Small Business Development Centers](#) (US Small Business Administration)

Resource utilization

Rural lifestyle communities may provide good opportunities for the development of wood utilization or biomass facilities. Such facilities could provide services to nearby communities (e.g., cogeneration power plants, small scale mills or particle board facilities) that pull some of their source material from fuel reduction efforts across public and private lands in the area. Explore resource utilization businesses as a way to diversify funding for fuel reduction efforts and reduce reliance on grants or cost-share programs for continued fuel reduction across the landscape. Other avenues for business development may include contracting herds of goats or other grazing animals to reduce fuels, or equipment operators to mulch vegetative fuel breaks where biomass is not an option (e.g. rabbitbrush and sagebrush).

Resource: [Colorado Wood Utilization & Marketing Program](#) (Colorado State Forest Service)

Irrigation & utility protection

Protection of irrigation and critical infrastructure is likely to be an important planning focus when preparing for wildfire in rural lifestyle communities. Consider the need to protect cell towers, wind farms, and transfer stations that would cause secondary or cascading disruptions across broader populations. Consider partnering with utility companies to promote shared fuels treatment along power lines, or to use them to construct larger fuel breaks across the landscape. Other considerations may be the protection, use, or expansion of irrigation and road networks.

Resource: [Wildfires and Safe Drinking](#) (Washington State Department of Health)



Recovery

Long-term housing

Recovery, rehabilitation, and rebuilding on private lands may require investments in long-term housing for affected residents. These efforts may be challenging due to the lack of nearby housing sources (e.g., area hotels, community shelters, rooms or rentals in nearby small towns) during the rebuilding or recovery process. Consider working in advance of wildfires to secure locations for longer-term temporary shelters that allow local residents to remain in the region. These efforts help ensure residents are able to remain in their communities.

Private land rehab & stabilization

Significant fire events in rural lifestyle communities may require assessment of, and recommendations for, landscape rehabilitation. Specialized teams exist to assess fire impacts on public lands but do not extend to private properties. Engage conservation districts, Natural Resource Conservation Service offices, and local conservation groups to enable private and state teams to assess the need for emergency stabilization or restoration of significant ecosystem functions critical to Rural Lifestyle communities. Training for these efforts should come before fires happen. Also consider the "loss of the landscape" that may occur when private landowners and recreationalists are faced with a loss of place attachment to landscapes reshaped by fire.



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Recovery (cont.)

Disaster case management

Large and impactful fire events may require organized efforts to help distribute aid, rebuild resources, and restore ecosystem services across a large, diffuse area. Consider designating primary local organizations or agencies that will come together to help with immediate and longer term recovery needs following such events. They should be familiar with and help organize the coordination of disaster organizations such as Volunteer Organizations Active in Disaster (VOADs), Salvation Army, Red Cross, and others. Perhaps more importantly, such organizations can use their knowledge of the local area to ensure that recovery processes are equitable and do not overlook populations in need. Remember to provide social and emotional support to your case managers as well; they are likely to be working directly with individuals significantly impacted by wildfire.

Resource: [Federal Disaster Case Management Program](#) and [Disaster Case Management Toolbox](#)



Safety & Evacuation

Animal considerations

Evacuation or care for animals can be a significant concern during wildfire events. Residents may try to return to their property to gather pets or tend to livestock. Consider developing neighborhood or community plans for moving livestock to designated open areas to ensure more efficient efforts for people to stay and defend or evacuate. That might include designated members of rural/volunteer fire departments who aid in moving animals or a mechanism for sharing trailers for movement of animals. Ensure that designated shelter areas or regional evacuation points have areas that will accommodate residents with pets.

Resource: [Keeping Pets and People Healthy](#) (Centers for Disease Control and Prevention)

Alert & warning communication

Encourage residents to sign up for formal evacuation notification systems. However, also be aware that many segments of rural lifestyle communities may not have the connectivity or coverage to ensure that evacuation messaging will reach them during a fire event. Work to ensure accessibility, both in terms of technology and language, into alert & warning communication systems. Encourage communities to build redundant systems of local notifications, including community phone trees, social media pages, and neighborhood signals that ensure residents can make informed decisions about when to evacuate or enact their stay and defend plans.

Inform response options

Planning in rural lifestyle communities should likely center around informed choices between evacuation, stay and defend, and what to do if residents cannot evacuate. That would mean providing more information about the high level of preparation, mitigation and preparation necessary to safely stay and defend properties or considerations and event-based cues that can help residents make dynamic decisions about evacuation. It may also require more detailed information about likely fire behavior in the area, including modeling potential fire progression and speed.

Rehearse evacuation plans

Evaluate the potential for transportation networks to effectively support the evacuation of large, diffuse populations of residents. In particular, explore effective pathways or coordinated evacuation routes in areas with multiple points of ingress/egress. Identify individual communities or neighborhoods with ingress/egress issues and practice evacuation plans. Organize evacuation drills among communities or a broader region to help illuminate planning needs, stress the hectic nature of evacuation processes, and build connections among communities who will need to coordinate ingress/egress.

Resource: [Tips to Coordinate an Evacuation Drill](#) (Fire Safe Marin)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Safety & Evacuation (cont.)

Safety zones

Collaborative designation of safety zones are likely to take on added importance in rural lifestyle communities, though they will be highly variable in their form based on local circumstances. Consider setting "sheltering points" along longer evacuation routes that may be used by populations who become cut off during evacuation, or where crowding on the roads might expose them to harmful situations. Explore the option for diffuse neighbors to designate safe houses that multiple families can use to stay and defend. Also consider whether area buildings (e.g. grange, grain elevators, quarries or gravel pits) might serve as emergency shelter locations.



Wildfire Response

Develop local wildfire response capacity

Focus on improving local wildland fire response capacity through efforts to expand community participation in volunteer fire districts or small paid fire departments. Consider educational programs in local schools or technical colleges to develop and recruit wildfire workforce members. This includes workforce development and the promotion of young local people into paid positions so that they can stay in the region and develop key relationships that will pay long-term dividends. Develop mutual aid agreements that include details about resources or containment lines and databases of equipment or volunteers who can be effectively mobilized during response.

Case Study: [Dobyns-Bennett Pulaski Club](#)

Strategic fire use

Consider whether there is enough trust among communities and local or state fire authorities to discuss the use of fire across the landscape. Explore the importance of protecting significant values at risk in the landscape, the inevitability of wildfire impacts near or in the community, and the benefits that low-intensity fires could have for the larger ecosystem. Use these elements to explore scenarios and requirements for wildfire to pass through communities without significant losses. Use these discussions to plan for when and where the use of fire across the landscape is appropriate.

Resource: [Fire FAQs--Managing Wildfire for Resource Benefit](#) (Oregon State University, 2018)

Community interface with incident management teams

Have community residents list and prioritize their values-at-risk, resources, and evacuation plans in succinct ways that can be provided to firefighters responding from outside the region. Consider working to develop a succinct description of past fires and effects in and around the community. Encourage community members to develop a comprehensive list and map of intended resident behaviors during fires (e.g., stay and defend, evacuate early, secondary or vacation homes) and particularly vulnerable populations that can help outside firefighting teams prioritize their efforts. Additional models of community interface with incident management teams exist. Explore whether a Community Liaison program is right for you.

Case Study: [Salmon River Fire Safe Council and Community Liaison Program](#)

Mutual aid

Work with neighboring jurisdictions to enable regional wildfire response. Consider working with partners to formalize response agreements that allow response support from surrounding communities. Support these agreements with regional training opportunities and ensure interoperability of communications equipment and frequencies.

Resource: [Mutual Aid Agreements](#) (US Department of Homeland Security Lessons Learned and Information Sharing)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Resident Mitigation

Mitigation incentives

Consider a wider range of mitigation incentives for rural lifestyle residents, including those that encourage interaction with neighbors and establish common bonds that might enable community development. For instance, consider programs that provide slash pick-up and disposal for residents, or mobile chippers for use in common spaces. Develop the capacity for home ignition zone and defensible space assessments or face-to-face engagement (which is often preferred).

Case Study: [Vegetation Management Cost-Share Program](#) (West Region Wildfire Council)

Structure hardening

Structure hardening is likely an important priority in rural lifestyle communities; keep in mind that important structures extend beyond homes. Barns, outbuildings, accessory dwelling units and garages may all be important structures to harden. Expand cost-share authorities to be more flexible among those pursuing home hardening and encourage retrofitting of structures with ignition-resistant materials.

Case Study: [The Home Ignition Zone](#) (Colorado State Forest Service, 2021)

Defensible space

Landscape modification practices (e.g., the creation of "defensible space") around structures is an important focus. Promote fuel reduction extending throughout the full home ignition zone (200+ from the structure). Stress the multiple benefits of these actions in terms of wildlife habitat, forest or range health, and canopy spacing that will provide more natural light in dense forests. Informal conversations and recommendations for action may be more acceptable in some rural lifestyle communities than formal recognition programs. This may be an important consideration for local leaders or professionals. In places where many residents are already mitigating risk, consider how you might create cost-share or community-driven programs to help maintain past fuel treatments.

Case Study: [How to Maintain Your Defensible Space](#) (Insurance Institute for Business & Home Safety)

Landowner skills

Residents in rural lifestyle communities may already have wildfire adaptation skills such as vegetation management (e.g., running chainsaws, equipment), retrofitting homes, or road maintenance. These skills can be shared with natural resource agencies or expanded/built upon through key partnerships. Tailored training programs, run by residents or in partnership with land management agencies, can provide additional opportunities for local residents or contractors to build qualifications, skills or certifications that improve their access to fire resilience work. Expanded trainings or links to a broader set of actions residents can take on their properties can help build a more self-sufficient population and contribute to a local ecosystem management workforce.

Case Study: [Hands-on lessons in chainsaw safety from Ely, Minnesota](#)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Partnerships & Community Engagement

Community coordinators

Community coordinators can help represent and champion the perspectives of diffuse property owners who might not have formal representation in resource collaboratives, planning meetings or agency partnerships that are increasingly driving opportunities for fire adaptation. These champions can reflect the rural values of populations and help adapt programs to better suit the communities they serve; ideally, these champions emerge from the region and reflect the values and priorities of local communities. Coordinators can also help bring dispersed property owners together, coordinate fuel reduction efforts, and advance fire adaptation in the broader community. Other options may be to adapt the Neighborhood Ambassador program to cultivate multiple "spark plugs" throughout the community or share lessons between neighborhoods. Community coordinators can also streamline efforts to engage with local, state, and federal agencies by understanding and presenting rural residents values and preferences.

Contribute to collaboratives

Rural lifestyle communities may have less representation on resource or forestry collaboratives that are beginning to influence forest and range management across both private and public lands. Consider seeking opportunities to engage with formal collaborative groups. Participation with formal collaborative groups can inform landscape management decisions to positively impact rural lifestyle communities (e.g., community priorities can help shape fuels treatment prescriptions) and help encourage state and federal resources to prioritize actions in a wider range of communities (e.g., places which have not traditionally received investment, are more rural, or have been historically underserved).

Resource: [*Building a Solid Foundation for Collaborative Efforts*](#) (National Forest Foundation, 2019)

Inclusive engagement of whole communities

Rural lifestyle communities are often characterized by diverse residents from different walks of life. Multi-generational rural residents, amenity migrants, retired land managers, small-scale farmers, seasonal or migrant residents, individuals seeking to live off-grid, young families and more may all be present in rural lifestyle communities. The diverse identities and backgrounds of rural lifestyle residents can be a big asset in community wildfire resilience. Understand the range of backgrounds, skills and cultures in your community in order to leverage residents' existing networks and strengths and to ensure that all community members are included in wildfire resilience work.

Case study: [*Wildfire Management Toolkit*](#) (Hispanic Access Foundation)

Partner with developers, builders, & realtors

Consider strategic partnerships with developers, builders, realtors, and/or insurance agencies to help augment careful land use planning. The same partnerships could establish mitigation requirements for new development or dense developments in the region, educate builders on ignition-resistant construction materials, provide a means for negotiation with insurers about collective rates based on fire district response or mitigations, and/or help new homeowners become familiar with landscape maintenance requirements related to living in a fire-prone ecosystem.

Resource: [*What Builders Can Do to Help Stop Wildfire Disasters*](#) (National Fire Protection Association & Green Builder)

Foster community interactions

Building capacity in rural lifestyle areas means (in part) building a sense of community among landowners who may not interact regularly or who value their privacy. Use road associations, grower's association's, non-governmental organizations or other means of addressing common problems as a starting point for shared interaction. These associations do not need to be formal. Other options for those seeking more formal community or capacity building may be to use examples like the Watershed Research & Training Center, community development centers, or conservatories as a guide in creating their own organization for community engagement and capacity building.

Resource: [*Rural Community Building Best Practices*](#) (West Virginia Community Development Hub)



Fire Adapted Communities Pathways Tool

Rural Lifestyle



Landscape Treatments

Workforce capacity

Workforce training can develop forestry contractors who help reduce fuels in and around communities, professional members of prescribed burn associations or burn bosses, consulting foresters, community planners, and specialty mills or users of vegetative material (e.g., bark chips, wood pellets, cross-laminate timber). A dedicated workforce with natural resources capacity can help support this community as well as strengthen its ties to the landscape. Explore options to ensure competitive wages to recruit and retain personnel within the workforce and sustain their capacity over time.

Resource: [*USDA Resource Guide for Rural Workforce Development*](#) (USDA Rural Development)

Community-based prescribed burning

Efforts to promote the reintroduction of wildfire in and around rural lifestyle communities will likely require support and participation of local people. Existing programs such as prescribed fire training exchanges (TREX) or the establishment of prescribed burn councils provide mechanisms and training that are likely to resonate with this community. Communities should develop relationships with federal and state agencies with existing expertise implementing prescribed burns to establish training and certifications that will allow for collaborative burns across ownerships and by local people.

Resource: [*Prescribed Fire Training Exchanges*](#) (The Nature Conservancy)

Shared/ cross-boundary treatment agreements

Consider establishing agreements between residents and agencies to locate fuel treatments on a portion of their lands. Coordination of these efforts may create opportunities for shared revenue or products and help provide funding (e.g., cooperative projects can enable Joint Chiefs' projects or use of the Good Neighbor Authority). In range environments, community agreements may include mowing, grazing or mulching of fuel breaks at regular intervals on common land or strategic properties. The diffuse nature of properties and their irregular clumping may allow for smaller, but discontinuous, fuel treatments to be effective at protecting resources and assets.

Resource: [*Fuel Breaks that Work*](#) (Great Basin Factsheet, 2015)



Fire Adapted Communities Pathways Tool

Rural Lifestyle WORKSHEET

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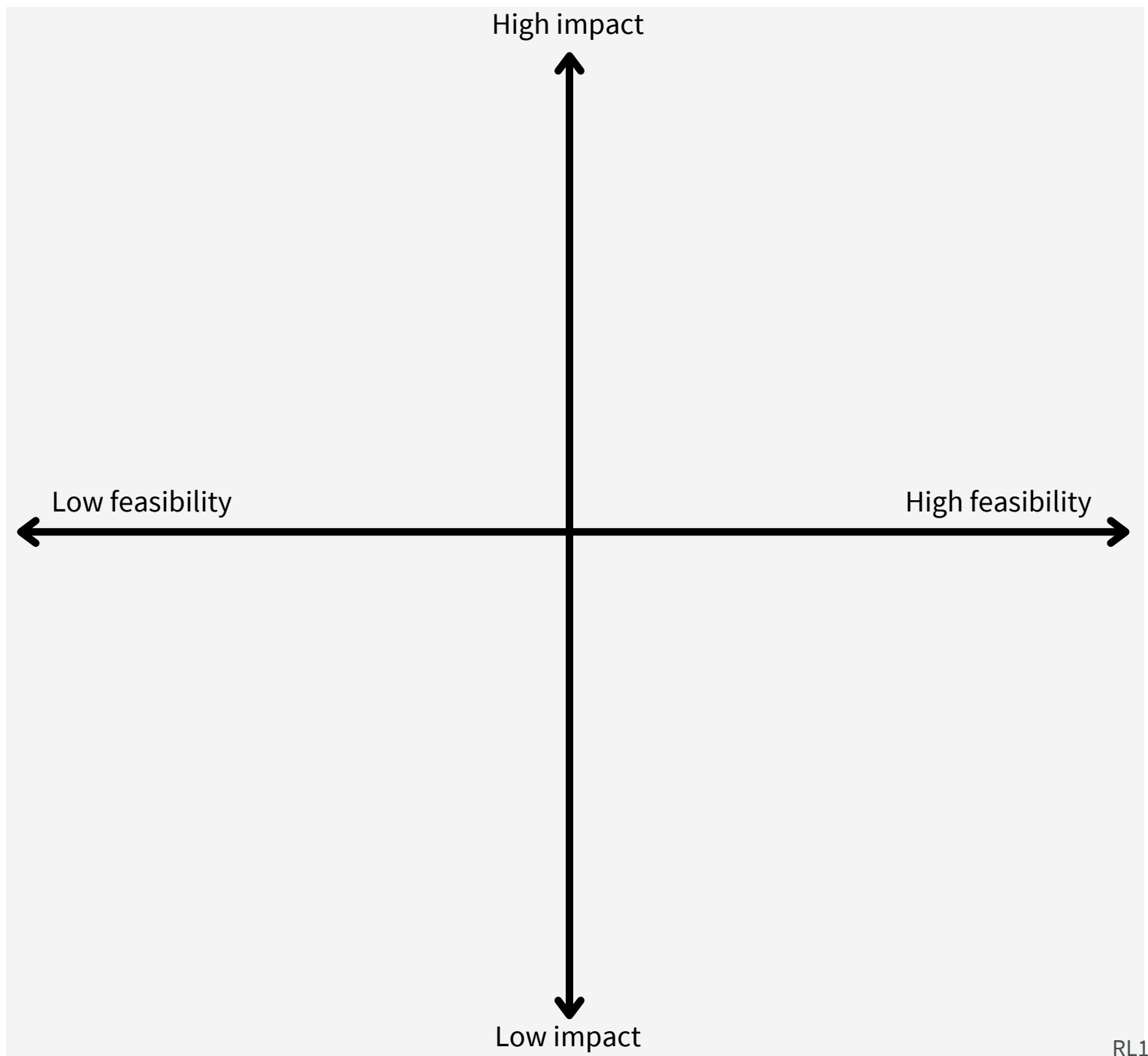


Fire Adapted Communities Pathways Tool

Rural Lifestyle ACTION GUIDE

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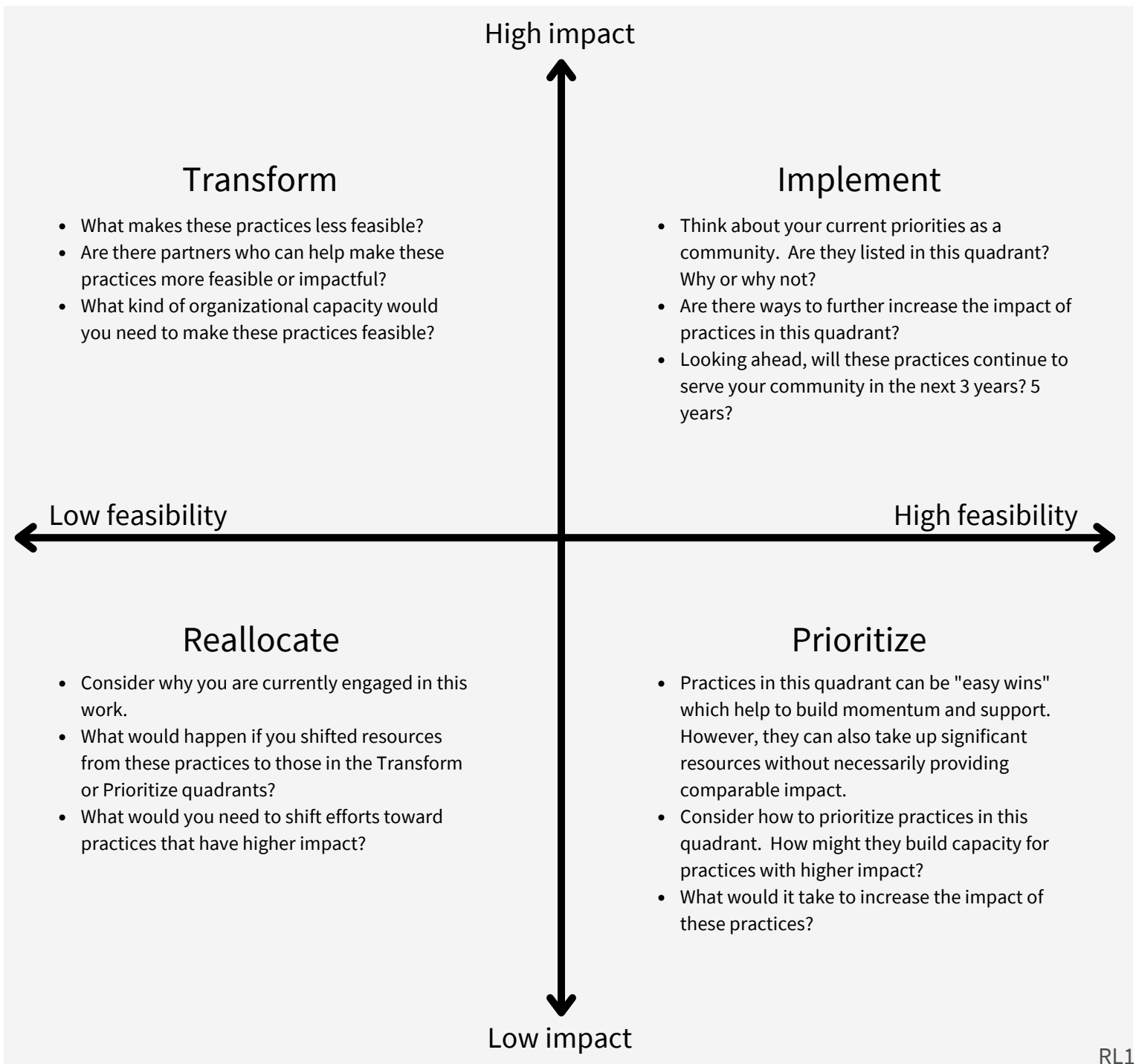
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Fire Adapted Communities Pathways Tool

Rural Lifestyle Considerations for Next Steps



TIPS As you consider your next steps, the following may be helpful:

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Integrate your graphic and practices into a larger Community Wildfire Protection Plan planning process, consider how this tool intersects with a hazard mitigation plan, or assess whether existing emergency service priorities match community efforts.

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Fire Adapted Communities Pathways Tool

Working Landscape



**FIRE ADAPTED
COMMUNITIES**
LEARNING NETWORK



Public Health

Protections for outdoor workers

Working landscapes may feature large populations of people who work outdoors (e.g., agricultural workers, loggers, ranch hands, seasonal or migrant workers). Explore efforts and avenues for providing personal protective equipment to protect outdoor workers during periods of high smoke exposure. Include evaluations of migratory worker housing in evaluations of social vulnerability. These might include hardening of structures for wildfire risk, reduction of vegetation near structures, and working to limit smoke intrusions into indoor spaces.

Resource: [Protecting Outdoor Workers Exposed to Smoke from Wildfires](#) (California Department of Industrial Relations)

Air filtration options

Explore options that help residents obtain residential HEPA filters or improve structural resistance to smoke. Examples may include installing weather stripping, upgrading windows, installing in-home filtration systems, or other best practices for minimizing smoke exposures. "Do-It-Yourself" box filtration fans are also an option to create clean indoor air spaces. Focus on information or programs that help working landscape people make their own structures or themselves more resilient to harmful smoke (e.g., distribution or obtaining N95 masks) as there is likely less opportunity for community shelters.

Case Study: [Box Fan Filter, A DIY Users Guide from the Colville Tribes Air Quality Program](#)



Fire Adapted Communities Pathways Tool

Working Landscape



Public Health (cont.)

Smoke impacts to crops, fruit, & livestock

Consider planning for smoke impacts to crops (e.g., grapes, apples, etc.). Explore regional and state-wide insurance provisions related to such losses to minimize threats to regional industries/economies. Likewise, plan for potential health impacts of smoke to livestock/horses. Large producers in areas that will experience frequent smoke may need to plan for efforts to minimize such exposure during prolonged risk (e.g., vented feedlots, warehouses, etc.).



Prevention

Minimize equipment-related ignitions

Work with local farmers and ranchers to ensure that equipment used outdoors prevents ignitions. Work to minimize risk of equipment-related ignitions through the installation of spark arrestors. Consider public education about any fire danger related use restrictions. Stress best practices for using machinery around dry, flashy fuel sources (e.g., dragging chains, use of four-wheelers).

Resource: *Protecting Farms & Ranches from Wildfire* (Texas A&M Agrilife Extension)

Utility infrastructure support

Support small rural utilities and their efforts to increase their resilience to potential damages. Explore rural power projects or subsidies to maintain power grids. Consider which redundancies, if any, make sense to allow rural utilities to recover quickly after wildfire. Protect water systems (e.g., water towers, pipelines or irrigation districts) and alternative power sources such as solar or wind energy systems.

Resource: *Rural Utilities Service* (USDA Rural Development)

Fire prevention planning

Work to determine common sources of human-caused fires in your area. Consider working with partners (e.g., local extension office, agricultural co-op, etc.) to communicate prevention actions. Key actions might include the importance of keeping residential properties and yards free of debris and volatile compounds that might cause fire growth or speed the spread of fire to other properties.



Regulations, Policy & Plans

Conservation easements

Strategically align conservation easements to help achieve landscape level management priorities or bundle benefits. For instance, conservation easements to protect wetlands can also help establish water sources, while restoration of aspen stands on private lands can help promote landscape fuel breaks. Easements also can help provide access points for emergency ingress/egress for suppression resources or evacuation. Community members in many working lands may already utilize and trust conservation easements.

Resource: *Agricultural Conservation Easement Program* (USDA Natural Resources Conservation Service)

Adapt Community Wildfire Protection Plans

Community members should adapt Community Wildfire Protection Plans (CWPPs) to reflect the greater variety of values at risk in Working Landscapes. For instance, use CWPPs to articulate critical protection needs for timber stands, cattle, grazing leases and crops. Determine where these priorities fit with regard to residential properties, infrastructure, etc. Use the CWPP process to open up discussions about Rangeland Fire Protection Associations, timber protective associations, and options for increased use of prescribed fire in the region. Finally, use the CWPP process to develop bonds/trust between local residents and federal agencies by negotiating the parameters and limitations of fire response.

Resource: *Preparing a Community Wildfire Protection Plan*, March 2014



Fire Adapted Communities Pathways Tool

Working Landscape



Strengthen ties to policy-makers

Regulations, Policy & Plans (cont.)

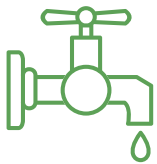
Livelihood and family networks in working landscape communities often include key links to political figures at the state level. Find and strengthen these ties in order to introduce legislation, programs, and funding that extend wildfire adaption beyond traditional residential WUI properties. Likewise, work with governments and organizations such as Tribal Councils, cattleman's associations or timber collaboratives to advance working lands and their key contributions to fire management.

Resource: [*Rural Voices for Conservation Coalition*](#)

Support working lands

Consider how patterns of future or existing land conversion will affect wildfire risk in terms of ignition, response challenges, and landscape fragmentation. Explore options to prioritize working lands (e.g., family farms, timber production lands, orchards, hay or dairy operations) while opening up opportunities for fire prevention (e.g., establishment or protection of wetlands, establishment or management of community forests, land trusts that include/incentivize fire management practices to protect river corridors). Articulate how working lands support larger ecosystem services. Consider tax incentives for larger parcels to help maintain open and working landscapes which may be more fire resilient.

Resource: [*LandCAN Conservation Assistance Network*](#)



Infrastructure & Business

Workforce sustainability

Consider the development of affordable housing (for both seasonal and full-time residents) to promote workforce sustainability. Incentives and support for younger generations seeking to steward or work the land could be strategically bundled with vegetation management programs, USDA Natural Resource Conservation Service programs that improve ecosystem services important for fire protection (e.g., restoration of riparian buffers, establishment of fuel breaks) or include development of water sources and access for fire response. Measures to retain, build or strengthen large working landscapes and their associated workforce can help prevent further landscape fragmentation that will increase the complexity of landscape-level wildfire management.

Resource: [*Farming Through Wildfire \(Farmer Campus\)*](#)

Enhance self-sufficiency

Explore opportunities to build on the existing self-sufficiency of rural populations. Support businesses, harden local rural utilities, support road maintenance or repair capabilities, and identify backup generators or energy system redundancies that will allow local people to be resilient. Ensure that local workers responsible for, and capable of repairing such utilities are located in the region or that select local residents obtain training to aid with such efforts during times of emergency. Additional development of water supplies or road infrastructure could also help promote self-sufficiency by providing better access for local/rural fire response.

Carbon accounting

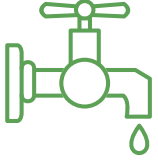
Explore options for agreements or programs that "bundle" resource stewardship and wildfire risk reduction. For instance, habitat improvement programs can serve dual purposes of improving forest/range resiliency. Farm Bill Programs can help achieve fuels reduction efforts. Consider whether payment for carbon credits or design of access roads for energy development leases can be designed in ways that help sustain working lands AND mitigate future wildfire risk.

Resource: [*Family Forest Carbon Program \(American Forest Foundation\)*](#)



Fire Adapted Communities Pathways Tool

Working Landscape



Infrastructure & Business (cont.)

Crop & timber insurance

Determine if you are adequately insured with respect to crops and timber. Consider insurance for orchards, vineyards, small forest landowners, tree farms, or agricultural commodities. Seek dialogue or collective bargaining surrounding crop and timber insurance provided there are adequate mitigations in place by groups of private landowners. For instance, some large producers may have equipment and crews trained to respond to wildfire. Small producers may have created strategic fuel breaks or self-sufficient water supplies to protect crops/orchards during fire.

Resource: [Risk Management Options for Family Forests--Timber Insurance](#) (Mississippi State University Extension, 2018)

Flexible grazing arrangements

Consider how grazing contributes to fire resilience and land management. For instance, negotiated grazing lease costs or responsibilities could help subsidize fuel treatments in strategic areas. Opening up additional grazing opportunities in strategic areas that do not contribute to resource degradation may create the opportunity for strategic fuel breaks. Ensure that there are networks and lands available for transfer of grazing leases and forage to new sites if allotments require rest and restoration following fire.

Wood utilization & biomass options

Explore options for reestablishment of small-to-medium scale forest products industries in the region. Develop workforce training pipelines that establish local contractors who conduct forest thinning or run equipment to reduce fuel loading (e.g., brush hogs for sagebrush systems). Explore Good Neighbor Authority programs, expanded stewardship contracting authorities, and links to regional industries requiring wood products in order to develop regional economies.

Resource: [Colorado Wood Utilization & Marketing Program](#) (Colorado State Forest Service)



Recovery

Support for orchards, agriculture & forestry

Recognize and anticipate the need for recovery after agriculture and forestry-related damages. Explore agricultural producers' vulnerability to disruptions resulting from loss of forage, crop, or seedlings; disruptions may occur over multiple years. Explore ways that intensive forestry and/or agriculture areas can develop support systems for producers facing wildfire-related losses, including regional and state-level recovery task forces, market stabilization, insurance cooperatives, and/or insurance provisions.

Resource: [Fire Recovery Assistance from the USDA](#) and [USDA Farm Service Agency Emergency Relief Program](#)

Long-term temporary housing

Populations in working landscapes are likely to require the establishment of longer-term housing options that keep them in the region after a wildfire. Area cities may be too far to provide long-term housing during rebuilding/recovery given the need for local people to commute to their impacted properties or lack the ability to house large animals. Housing may not be available in small towns. As such, local organizations will need to coordinate long-term housing capacity (e.g., recovery trailers, long-term recovery organizations, building of community housing that can be repurposed after recovery). Consider livestock and large animals during this process as well.

Post-fire property assessment

Establish and help provide training for state and private teams who assess post-fire ecological impacts similar to federal Burned Area Response Teams. No such avenues exist for private lands, but can be of crucial importance in determining losses and federal or state recovery funding. Teams can also help landowners conduct mitigation activities to help with restoration and rehabilitation in ways that promote future ecosystem health and reduced wildfire risk (e.g., replanting, erosion control, reseeding). Consider conservation districts, university extension, and Natural Resource Conservation Service professionals to help lead and train these teams.

Case Study: [How We Formed, Funded and Dispatched a State and Private Lands Burned Area Emergency Response Team](#)



Fire Adapted Communities Pathways Tool

Working Landscape



Suppression rehabilitation

Recovery (cont.)

Work with local land managers to maximize the use of suppression rehabilitation while Incident Management Teams are on the ground. Consider engaging with your local federal or state land manager to understand their expectations for fireline or suppression rehabilitation and explore options to maximize this work. Consider whether rehabilitation of lands and roads can have benefits for fuel reduction or forest health, or enable better conditions for use of prescribed fire.



Large animal considerations

Safety & Evacuation

Consider creating formal large animal evacuation plans. Create or communicate allowances for agricultural providers and ranchers to enter road blocks. Potential avenues for large animal planning may include establishing local groups or networks for coordinated evacuation of livestock using trailers or to help stage animals in safer locations. Consider agreements between neighbors and strategic evacuation corridors to move livestock onto nearby lands as well as locations where animals can be taken during active fires. Plan for feed and forage needs during longer-term evacuations and recovery.

Resource: [Large Animals and Livestock in Disasters](#) (American Veterinary Medical Association)

Evacuation alternatives

Consider providing information on alternatives to evacuation to the wider population. People in working landscape communities often want to explore options which preserve their independence. Also consider whether there are populations with mobility issues or who might not be able to evacuate long distances. Share information about safety zones, especially given the long distances that most affected populations will need to travel during evacuation. Establish support networks and delegated responsibilities for gathering and aiding such populations during fire events.

Safety zones

Consider region-specific safety zones or refuge areas based upon the relative concentration of residential properties and the need for longer evacuation times. These safety zones may take the form of large outdoor landscape features for emergency shelter (e.g., meadows, marshes, corrals, parking lots and harvested fields) or community buildings (e.g., grange halls, school gyms, equipment warehouses) where gathered residents might be able to plan for active defense. Residents should consult with area firefighting professionals to plan the spacing and capacity of these safety zones or refuge areas given the potential speed of fire spread.



Rural fire protection associations

Wildfire Response

Consider forming or joining a Rural or Rangeland Fire Protection Association (RFPA) if it is authorized in your state. RFPAs can enable volunteers to train and respond to wildfire incidents as part of a non-profit association. Establish or look into equipment pass-through programs that provide firefighting equipment from federal agencies. Coordinate RFPAs with agency response personnel (e.g., federal or state) to create clear agreements about response and coordination of resources/skills for larger events.

Case Study: [Why Rangeland Fire Protection Associations Matter](#)



Fire Adapted Communities Pathways Tool

Working Landscape



Volunteer fire departments

Wildfire Response (cont.)

Connect with your local volunteer fire department to ask about volunteering as a responder or in a support capacity. Many organizations may have opportunities for participation and contribution beyond fire suppression. For instance, residents with long-term or detailed knowledge of landscape dynamics or fire (e.g., identification of water sources, road networks, past fire perimeters) can effectively aid before, during and after fire through the integration of their knowledge. Seek out equipment pass-through programs that provide additional resources to rural fire departments (e.g., slip-in tanks, brush pumpers, etc.)

Resource: [Make Me a Firefighter](#) (National Volunteer Firefighters Council)

Contracting pathways

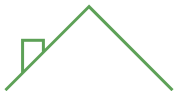
Develop expanded avenues to use local suppression resources such as dozers, tenders or trucks during a fire event. For instance, consider developing on-demand or as-needed personnel and equipment sign-ups for local fires only. Such agreements could help improve resource capacity and reduce volunteer loss or liability.

Resource: [Procurement Technical Assistance Centers and Northern Rockies Coordination Center Contract Resources](#)

Mutual aid

Mutual aid agreements offer an opportunity for neighbors to help one another. Work with neighboring jurisdictions to enable regional wildfire response. Support these mutual aid agreements with regional training opportunities and ensure interoperability of communications equipment and frequencies.

Resource: [Mutual Aid Agreements](#) (US Department of Homeland Security Lessons Learned and Information Sharing)



Resident Mitigation

Mitigation incentives

Find ways to expand existing mitigation incentives for residential homeowners to reflect expanded values (or different priorities) of working landscape residents. For instance, allow a portion of cost share funding for home hardening to go toward the hardening of barns, outbuildings, or development of water sources. Engage in the restructuring or collective negotiation of multi-peril crop insurance to reduce long-term losses incurred after fires. Explore opportunities to frame mitigation efforts as a way for local people to be self-sufficient and reduce their reliance on other industries.

Secondary income streams

Explore and expand synergies that promote residential mitigation AND provide secondary income streams that help sustain livelihoods/stewardship of resources. For instance, utilize Farm Bill programs or wetlands management efforts as means to incentivize work on private lands near public lands. Explore options for tax breaks associated with good fire practices on private properties or as a means to establish liability insurance for prescribed fire losses. Consider options to extend fuels reduction from public lands onto private lands in exchange for recreation access.

Resource: [Expanded Conservation Program Opportunities](#) (US Department of Agriculture, 2022)

Structure hardening

Communicate the importance of structure hardening, including the retrofitting of older residences, outbuildings, equipment sheds, and barns. Recognize the importance of structures on the property other than the home. Barns and agricultural buildings can also be hardened against wildfire ignition. While not all residents may engage in specific or formal home ignition zone programs, communicate the importance of protecting structures.

Resource: [Wildfire--Preparing the Ranch and Farm](#) (Oklahoma State University Extension)

Landowner skills

Explore the expansion and development of landowner courses that build on the skills already present in the community. For instance, skills courses could focus on training for pile burning, prescribed fire, and forest management practices, including chainsaw and tree felling guidance. Additional training could include burn boss certification for expanded prescribed fire use on private lands, training for stay and defend practices during wildfire, and forest/range management practices for maximizing yield or ecosystem health. Work with community members to identify opportunities as well as trusted and knowledgeable course facilitators.

Case Study: [Mid Klamath Watershed Council Fire & Forestry Program](#)



Fire Adapted Communities Pathways Tool

Working Landscape



Partnerships & Community Engagement

Inclusive engagement of whole communities

Consider the whole community when working to reduce negative wildfire outcomes. Whether identifying landscape treatment locations, working through a planning process, or implementing a program to protect outdoor workers from smoke, consider how you can work with those closest to the issues to develop solutions. Often in working landscapes, residents have to travel long distances to convene in person, typically with limited public transportation options. What could be done to ensure that people who do not have transportation are included? Consider virtual meeting accessibility as well; are there areas in your community with poor cell service or limited internet connectivity? Remote hotspots, rotating meeting locations, and carpool options can help diversify and increase community engagement. In addition, consider those who have been historically disenfranchised from wildfire risk reduction or the outdoors and work to empower those community members. When building relationships, it may be most effective to identify organizations, entities, or individuals which can act as a bridge to help connect you to those you have not previously served.

Resource: [A Guide to Supporting Engagement and Resiliency in Rural Communities](#) (FEMA, 2021)

Resource-based agency partnerships

Use federal authorities such as the Good Neighbor Authority or Wyden Amendment to expand options for landscape level management. Work to establish pathways for funding to flow across ownership boundaries and in ways that create continuity of fuel treatments across larger portions of the landscape. Build on, and utilize, good working relationships with conservation districts or Natural Resource Conservation Service offices to engage large landowners on private lands. Consider expansion or pass through of funds to local representatives of these trusted organizations to coordinate collaborative efforts.

Case Study: [Understanding Good Neighbor Authority-- Case Studies from Across the West](#) (Rural Voices for Conservation Coalition)

Be a good neighbor

Consider the extent to which the existing practice of "neighbors helping neighbors" can be mobilized to support wildfire risk reduction activities. Build upon the willingness of communities to help one another with common hardships or to maintain their way of life as a means to organize resources toward the reduction of wildfire risk. Examples include the development of shared fuel breaks, establishment of Rangeland Fire Protection Associations to help improve initial fire attack, recruitment and support for volunteer fire districts and/or the promotion of slash removal across properties following harvest.

Community-based partnerships

Leverage and build from existing networks tied to "working the land." These networks may include granges, cattlemen's associations, family forestry organizations, agricultural co-ops, etc. and are key existing resources for fire resilience. The existing trust between members of these organizations can be a useful way to develop shared commitment for fire adaptation. Other pathways might include partnerships with church groups, Tribal Councils and recovery organizations like Voluntary Organizations Active in Disasters (VOADs).

Case Study: [Drought & Wildfire Resources](#) (Washington Cattlemen's Association)



Landscape Treatments

Cultural/ traditional burning

Support the use of fire as a cultural good, a means to sustain lifestyles, or a way to steward resources. Fire has been used by Indigenous peoples for milenia to steward the land. Agricultural burning has also been used to support farming and/or ranching practices.

Prescribed burn associations

Explore opportunities to establish prescribed burn associations in the region. Consider whether these efforts can extend existing networks (e.g., agricultural producer groups, cattleman's associations) or provide complimentary avenues to engage fire-specific organizations (e.g., volunteer fire districts, Rangeland Fire Protection Associations). Work to develop local capacity to conduct prescribed fires.

Resource: [Prescribed Burn Associations](#) (Landscape Partnership)

Active land management

Develop multiple options for active land management and consider looking at large landscape treatments. This may include grazing, expanded and/or accelerated fuel treatments, or other actions which utilize and/or expand local workforce capacity. Be mindful of treatment economics and work to improve the economics of land management where possible.



Fire Adapted Communities Pathways Tool

Working Landscape WORKSHEET

Read through the descriptions of practices suggested for your archetype before continuing with this worksheet.



Start here and move to the right



Place a **STAR** next to **UP TO 5** practices you feel will have the **MOST IMPACT** on your community wildfire resilience.



CIRCLE UP TO 5 practices you feel are the **MOST FEASIBLE** for you to accomplish at this time. Consider your assets, resources, and partnerships as you mark these practices.



Place a **QUESTION MARK** next to **UP TO 5** practices that you would like additional guidance, partnerships, or help carrying out.



Place a **DOLLAR SIGN** next to **UP TO 5** practices that are **CURRENTLY** the most **WELL-RESOURCED** in your community. Resources can include personnel, money or other assets.



Place an **EXCLAMATION MARK** next to **UP TO 5** practices where you **WOULD LIKE** more **RESOURCES**. Resources can include personnel, money, or other assets.



Place a **HEART** next to **UP TO 5** practices you feel will most support community fire adaptation in the long-term, without regard to your current resources or capacity.



WRITE-IN any **KEY** practices you are pursuing in a category which are not listed in the graphic.

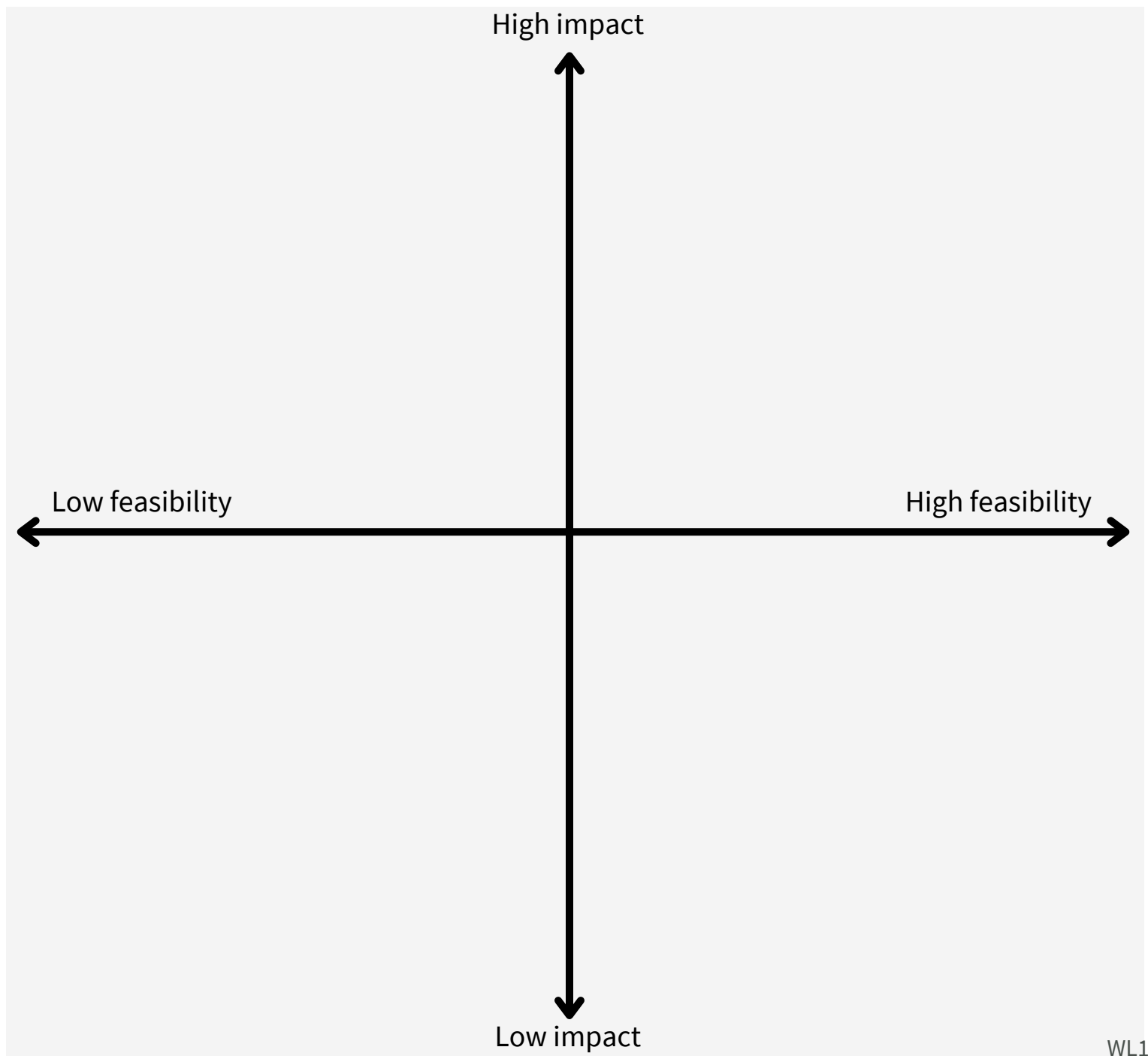


Fire Adapted Communities Pathways Tool

Working Landscape ACTION GUIDE

If you are working with a group, **ensure everyone has a copy** of the completed worksheet and action guide before beginning your discussion. Review your worksheet. **Place any practice which you have circled, written-in, or marked (e.g., !, \$, ★, ♥)** in the grid below. Don't worry about being too exact or precise! You will consider what the results mean in the following step.

A practice is **high impact** if it significantly increases your community's ability to prepare for, respond to, or recover from wildfire. This may be due to the practice increasing community capacity, resources, knowledge or ability to maximize positive fire outcomes and minimize negative fire outcomes. A practice has **high feasibility** if it can be carried out with the support, resources, knowledge, best practices, partnerships or other capacity available to the community.





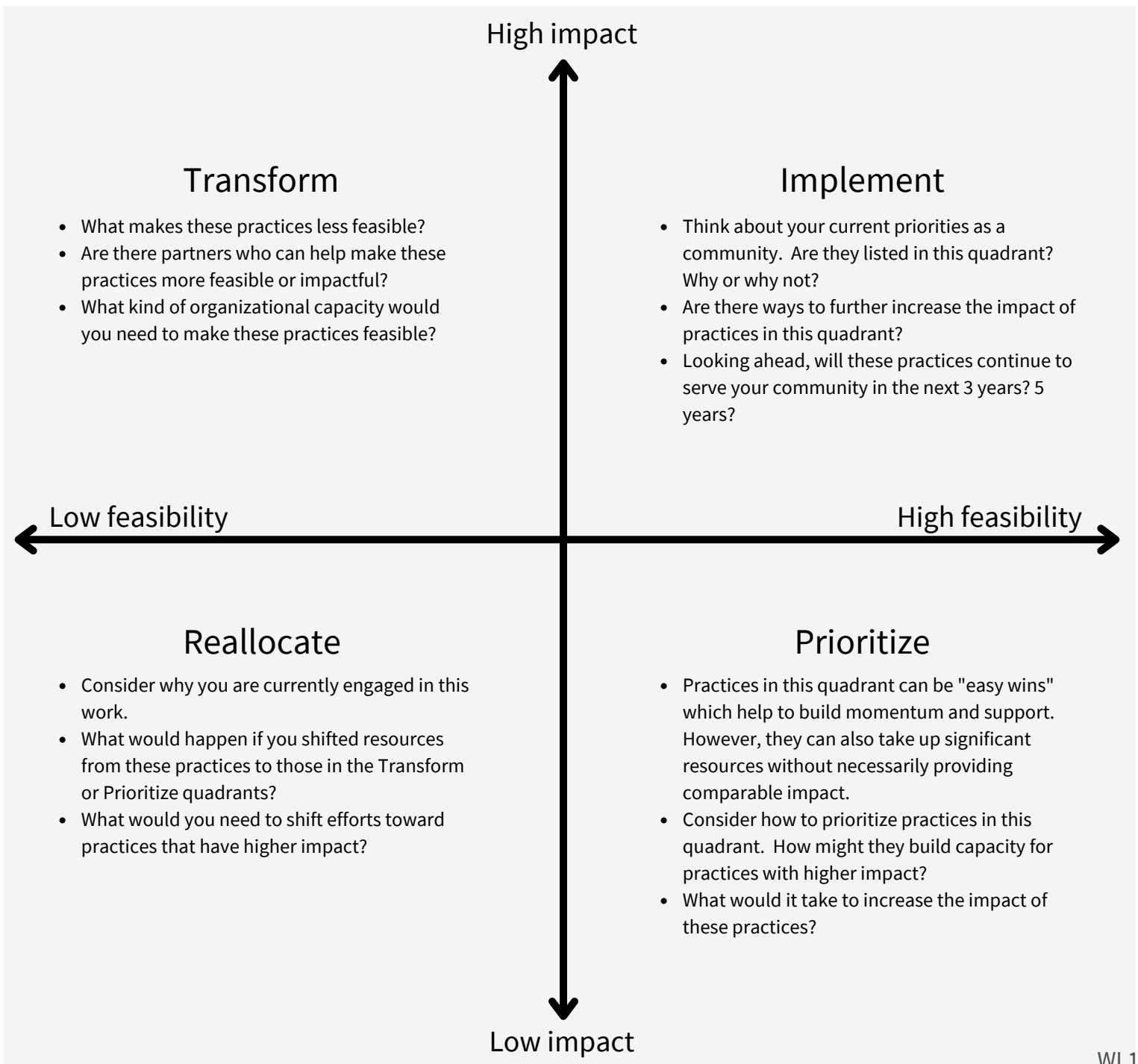
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Fire Adapted Communities Pathways Tool

Working Landscapes Considerations for Next Steps



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Fire Adapted Communities Pathways Tool

Practices by Category

CHD Commercial and Highly Developed

FS Formal Subdivision

HAHR High Amenity/ High Resource

RL Rural Lifestyle

WL Working Landscape

A master list of suggested practices, separated by category, is provided below. Icons are used to indicate the archetype that the practice and resource are likely to be most applicable for; however, any practice can be used in any community!

If you intend to complete the Worksheet and Action Guide at the end of this list, **underline between three and five** practices in each category you feel are particularly well-suited to your community as you read through the list.

To navigate to any section of the practices list, click on the hyperlinked text below. At the bottom of each list of practices by category, you may click "Return to Index" to return to this page.





Fire Adapted Communities Pathways Tool

Practices by Category

CHD Commercial and Highly Developed

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Public Health

Smoke preparedness



Smoke provides a strategic opportunity to talk about wildfire and its impacts among community members who may not see themselves as being at risk from wildfire. Large wildfires are beginning to directly and indirectly impact portions of developed cities, providing the opportunity to broaden conversation among stakeholders in ways that include new partners (e.g., public health departments, medical centers) and that may motivate residents to take action. Smoke preparedness actions may include residential HEPA filter programs, clean air shelters, or individual actions such as sealing doors and windows or understanding local air quality.

Resource: [Wildfire Smoke: A Guide for Public Health Officials \(EPA, 2021\)](#)

Residential HEPA filters



Consider expanding or offering programs that promote HEPA filter use in residential air systems. This may include loans, grant programs, or communication of "Do-It-Yourself" options. Plan for supply chain considerations with regards to HEPA filters, including communication to avoid disruptions. Strategic reserves developed by the subdivision/nearby communities may also help ensure availability.

Resource: [HEPA Filter Community Programs: A Whole Community Approach \(FAC Net, 2021\)](#)

HEPA filtration programs



Promote the benefits of using residential and commercial HEPA filters during high smoke impact events. Have materials ready and available for distribution or purchase during fire seasons. Work to establish community clean air shelters for those particularly sensitive to wildfire smoke; the act of working toward these centers can be a good way to engage collaborative groups and can help develop additional capacity for local hospitals, city or county government offices, and cultural centers.

Resource: [HEPA Filter Community Programs-- A Whole Community Approach \(FAC Net, 2021\)](#)

Diverse air filtration options



Consider a range of air filtration options that reflect the diversity and relative independence of residents who live in rural lifestyle communities. For instance, consider providing information on "Do-It-Yourself" box fan and HEPA filter arrangements that can help reduce particulate matter exposure in individual rooms, establishment of "clean rooms" for residents with family members who are particularly vulnerable to smoke, and programs to ensure adequate supplies of or subsidies for household air purifiers during prolonged exposure.

Case Study: [Box Fan Filter, A DIY Users Guide from the Colville Tribes Air Quality Program](#)

Air filtration options



Explore options that help residents obtain residential HEPA filters or improve structural resistance to smoke. Examples may include installing weather stripping, upgrading windows, installing in-home filtration systems, or other best practices for minimizing smoke exposures. "Do-It-Yourself" box filtration fans are also an option to create clean indoor air spaces. Focus on information or programs that help working landscape people make their own structures or themselves more resilient to harmful smoke (e.g., distribution or obtaining N95 masks) as there is likely less opportunity for community shelters.

Case Study: [Box Fan Filter, A DIY Users Guide from the Colville Tribes Air Quality Program](#)



Fire Adapted Communities Pathways Tool

Practices by Category

CHD Commercial and Highly Developed

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Public Health (cont.)

Smoke communication

HAHR

Identifying and discussing the inevitability of smoke impacts will be important among residents and professionals. When communicating about prescribed fire impacts, include information about the length or severity of smoke impacts, when and where prescribed fires are likely to occur, and who will be conducting the prescribed fire. More communication, as opposed to less communication, is important in this community. Consider promoting burning during shoulder seasons to reduce impacts to tourism or other seasonal industries in the area.

Resource: [*Engaging Communities in Prescribed Fire and Smoke*](#) (Wildfire Planning International, 2017)

FS

Develop programs to mitigate smoke exposure (e.g., safe air spaces, education campaigns centered on sealing windows and doors). Create and maintain communication systems to inform residents of any planned ignitions or nearby wildfires.

Resource: [*Protecting Yourself from Wildfire Smoke*](#) (California Air Resources Board)

Smoke exposure education & mitigation

RL

Smoke exposure is likely inevitable in many rural lifestyle communities due to increasing fires, the need for prescribed fire, and increased pile burning. Outreach campaigns should focus on the ability to mitigate exposure through actions that individual residents can take. Engage in conversations about the exact timing of burns and allow for demonstration burns/trainings that improve local support for prescribed fire and tolerance of smoke over time.

Case Study: [*Public Health Wildfire Smoke Communication Guide*](#) (Montana Department of Public Health and Human Services, 2019)

Individual outdoor protection

RL

Consider the need for personal protection during smoke events when undertaking outdoor activities. Residents and businesses who employ outdoor workers (e.g., road crews, construction, forest workers, ag workers) may need to plan for respirators (such as N-95 masks) or other safety equipment. Respiratory protection is also important for guides, outfitters or outdoor tourism industry workers who will be active during high smoke periods. Avid recreationalists or those who live in rural lifestyle communities to be outdoors should understand how air quality is measured and where to find that information. Residents should consider options to protect themselves during sustained smoke events.

Case Study: [*Nevada Department of Conservation & Natural Resources Smoke Smart*](#)

Protections for outdoor workers

WL

Working landscapes may feature large populations of people who work outdoors (e.g., agricultural workers, loggers, ranch hands, seasonal or migrant workers). Explore efforts and avenues for providing personal protective equipment to protect outdoor workers during periods of high smoke exposure. Include evaluations of migratory worker housing in evaluations of social vulnerability. These might include hardening of structures for wildfire risk, reduction of vegetation near structures, and working to limit smoke intrusions into indoor spaces.

Resource: [*Protecting Outdoor Workers Exposed to Smoke from Wildfires*](#) (California Department of Industrial Relations)



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Public Health (cont.)

Social services



Utilize existing social programs in the region which help relocate displaced residents, provide temporary housing, or provide mental health services to populations affected by wildfires. Existing programs (possibly tied to the city or county) may not have experience serving wildfire-related needs. Consider expanding training and networking opportunities in advance of the fire. Consider the needs of unhoused populations who also will be affected by smoke and fire impacts.

Case Study: [Ready LA County: Emergency Preparedness for the Unhoused](#)



Utilize existing social workers/programs in the region that help relocate, provide temporary housing, or provide mental health services to populations affected by wildfires. Provide cross training in social services for emergency volunteers in the region so that they are prepared for disruptions that are likely to occur post-fire. Finally, consider impacts and needs of unhoused populations who also will be affected by smoke and fire impacts.

Mental health services



The potential for long-lasting mental health impacts exists where there is the potential for significant wildfire impacts. Consider preparations to mobilize mental health resources and provide opportunities for counseling and other mental health services. This includes preparations and options for children, who may be particularly influenced by disruptions.

Resource: [Disaster Distress Helpline](#) (Substance Abuse and Mental Health Services Administration)

Social vulnerability assessment



Wildfire impacts some in the community more than others; work to address the lack of insurance (or lack of adequate insurance), the inability to access mitigation or recovery programs, and other systems barriers in advance of wildfire. Such considerations are not currently well represented in vulnerability assessments at higher scales that direct mitigation resources. Consider and document a broad range of community vulnerabilities; vulnerabilities may include but are not limited to loss of a nearby recreational fishery or access to hunting lands, loss of investment in a tree farm or small business located in an outbuilding, erosion, or damages to private roads.

Environmental health



Cascading impacts of wildfire have the capacity to negatively affect infrastructure and environmental conditions that influence human health. Consider, for instance, how fire might impact municipal water systems, result in exposure to or the need for cleanup of hazardous materials burned during the fire, and create mudflows or loss of soil nutrients. Work with partners such as environmental health authorities, water utilities and waste managers to proactively identify issues and develop mitigation, adaptation or protection strategies.

Resource: [Water Quality after a Wildfire](#) (USGS, 2018)

Smoke impacts to crops, fruit, & livestock



Consider planning for smoke impacts to crops (e.g., grapes, apples, etc.). Explore regional and state-wide insurance provisions related to such losses to minimize threats to regional industries/economies. Likewise, plan for potential health impacts of smoke to livestock/horses. Large producers in areas that will experience frequent smoke may need to plan for efforts to minimize such exposure during prolonged risk (e.g., vented feedlots, warehouses, etc.).



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Ignition prevention campaigns

CHD

Consider starting prevention campaigns by focusing on small ways communities can avoid large "urban conflagrations" that cause significant damage. This may begin with prevention campaigns that are organized around reducing ignition sources (e.g., fireworks, backyard debris fires, or preventative utility shutdowns on high fire risk days). Another key consideration may be to focus prevention efforts on the reliance residents have on one another when considering wildfire risk and spread.

Case Study: [Mercer Island Wildfire Prevention and Fire Safety](#)

Prevention education campaigns

FS

Focus education campaigns on fire ignition prevention within, and in close proximity to, subdivisions. Also consider campaigns to foster actions such as mowing lawns early in the morning or securing trailer chains which can prevent wildfire ignitions. Prevention actions may also focus on reducing risk through restrictions (e.g., reduced motorized vehicle access, no open fires, fireworks). Fire prevention education is particularly important around structures or on nearby recreational lands during high fire risk conditions.

Resource: [One Less Spark Campaign](#)

Seasonal prevention messages

HAHR

Work with partners to determine common fire causes. Develop messages that are focused on those causes and during the season(s) of highest risk. Consider recreation-based businesses, campers, and visitors as potential audiences. As an example, consider working with local tourism boards, chambers of commerce, and recreation-based business to develop and distribute seasonal wildfire prevention messaging for both year-round and seasonal residents as well as out-of-area or part-time guests.

Case Study: [Whitefish, Montana](#)

Support new residents

RL

Rural lifestyle communities may feature regular turnover of new residents who move from more populated areas. Consider ways to support new residents as they join your community. This may include sharing the role of fire in the landscape and the community norms for taking collective responsibility to manage wildfire. Connect new and old residents to facilitate sustained fire adaptation efforts and to meld local ecological knowledge with fire experience and/or lessons about collective action from other localities.

Case Study: [Chelan County Good Neighbor Handbook](#)

Ignition prevention

RL

Evaluate the range of potential human ignition sources across all ownerships. Consider ignition prevention campaigns that focus on the sources most likely to create cross-boundary fires. These ignition sources may include residential burning or burn piles, campfires or dragging chains from trailers and campers, and off-road vehicle use. Address the most common sources of ignition. Tools may include pile burning permits, campfire restrictions, and reduced motorized travel during high fire risk days. Quick identification of fire ignitions is also critical to wildfire risk management. Consider direct lines of communication to report potential fires and make those communication methods known to residents and visitors.

Fire prevention planning

WL

Work to determine common sources of human-caused fires in your area. Consider working with partners (e.g., local extension office, agricultural co-op, etc.) to communicate prevention actions. Key actions might include the importance of keeping residential properties and yards free of debris and volatile compounds that might cause fire growth or speed the spread of fire to other properties.



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Prevention (cont.)

Minimize equipment-related ignitions



Work with local farmers and ranchers to ensure that equipment used outdoors prevents ignitions. Work to minimize risk of equipment-related ignitions through the installation of spark arrestors. Consider public education about any fire danger related use restrictions. Stress best practices for using machinery around dry, flashy fuel sources (e.g., dragging chains, use of four-wheelers).

Resource: [Protecting Farms & Ranches from Wildfire](#) (Texas A&M Agrilife Extension)

Municipal workforce integration



Involve or interact with existing municipal services as you develop your prevention workforce. Consider programs that expand and train city employees to help perform mitigation activities as part of their existing duties (e.g., establish fuel breaks when creating green space, reduce house-to-house transmission while making recommendations about flashing and fencing). These efforts may eventually open up opportunities for additional funds, grants or service fees which can help broaden wildfire adaptation.

Case Study: [County of San Mateo Parks Department Forest Health & Community Safety Initiative](#)

Risk management workforce



Work within existing organizational frameworks such as Homeowners' Associations, municipalities, fire districts, common-space managers and others to develop a sustainable wildfire prevention workforce. Discuss opportunities to collectively hire a risk manager or connect with existing local fire prevention specialists to help develop community capacity for fire prevention (e.g., share fire cause data, test risk mitigation communication).

Prevention workforce



There may be a need for development of a dedicated fire prevention workforce who can help promote action across various private landowners. This workforce may include professionals with specialized training in wildfire prevention, wildfire risk assessment and mitigation, consulting foresters, and local fuels crews.

Remote wildfire sensing



If your formal subdivision is a defined community in a more rural area or next to large tracts of public lands, consider partnering with adjacent municipalities and county governments to establish technologies that quickly assess fire starts in the region. These networks could be as simple as monitored cameras or fire lookouts to advanced fire-detection systems that monitor fire starts using infrared technology. They could also include autonomous sensor networks that relay information directly to authorities.



Consider working with local and regional partners to establish technologies that quickly detect and report fire ignitions in the region. Systems can provide early warnings for wildland fires and identify fire starts which could become fast-moving fires in, or near, communities. Consider creating Memorandums of Understanding to locate camera systems or remote sensors or for establishing and linking sensors with emergency services in order to contribute to broader wildfire initiatives. These efforts can build a system of prevention efforts which leads to broader information sharing across communities. This can include the development of communication systems or portals for cooperative fire management or prevention.



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Prevention (cont.)

Public safety power shutoffs



Prepare for public safety power shutoffs in advance of a wildfire by interfacing with your local utility provider. Work with essential services and businesses (e.g., your local transportation authority, radio station, etc.) to ensure they have continuity of operations plans. Communicate with those who rely on power for medical device support in advance of the wildfire season.

Resource: [Prepare for Power Down](#) (California-based utilities)



Prepare for public safety power shutoffs (PSPS) during wildfire by interfacing with your local utility provider. Discuss the potential length of PSPS and the populations likely to be affected. Consider dedicated power options (such as generators) for loss of electric utility services. In formal subdivisions, this may grow toward common buildings with dedicated backup power. Communicate with those who rely on power for medical device support or cooling systems in advance of the wildfire season.

Resource: [Prepare for Power Down](#) (California-based utilities)



Consider dedicated power options (such as generators) for periodic loss of electric utility services. These power options could incorporate clean energy alternatives (e.g., solar roofs, Tesla Wall, etc.). Promotion of these alternatives could be supported by community codes, covenants and requirements or eventually built into planning and zoning requirements for the renovation or construction of new buildings. Prepare for public safety power shutoffs in advance of a wildfire by working with your local utility provider to determine whether the community is in a high-risk area for ignitions and the potential frequency of shutoffs. Communicate with those who rely on power for medical device support in advance of the wildfire season.

Resource: [Public Safety Power Shutoffs-- Disability Disaster Access & Resources](#) (California Foundation for Independent Living Centers)



Public safety power shutoffs can impact some rural lifestyle communities. Engage with public utilities to understand how frequently shutoffs are likely to occur or to establish processes for advance notification so residents can plan. More remote populations who rely on power for business or medical needs will need to plan for generator back-ups. Alternative, off-grid power sources may be required more frequently in the future. Explore longer-term options, contributions by rate-payers, and/or grants that can help insulate or protect high-risk segments of the power grid in the future (e.g., running segments of power lines underground, reducing fuel canopy, moving power lines away from evacuation routes).

Case Study: [Chelan County Public Utilities District](#)

Utility infrastructure support



Support small rural utilities and their efforts to increase their resilience to potential damages. Explore rural power projects or subsidies to maintain power grids. Consider which redundancies, if any, make sense to allow rural utilities to recovery quickly after wildfire. Protect water systems (e.g., water towers, pipelines or irrigation districts) and alternative power sources such as solar or wind energy systems.

Resource: [Rural Utilities Service](#) (USDA Rural Development)



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Regulations, Policy & Plans

Codes & ordinances



Consider building codes or land use standards to help reduce future wildfire risk. Building codes could focus on requirements to retrofit existing structures/commercial buildings upon new purchase or during renovations. Considering mass evacuation or shelter-in-place capabilities during community design.

Resource: [*Planning in the Wildland-Urban Interface*](#) (American Planning Association, 2019)

Codes, ordinances, & land-use plans



Consider reinforcing or expanding land use development standards or building codes that help reduce future wildfire risk. This might mean amending subdivision requirements for fencing materials, residential sprinklers, or retrofitting homes when renovations are planned. Other considerations may include requirements surrounding maintenance of properties, requirements about building on slopes, or restricting actions that might lead to ignitions during high risk times of the year (e.g., fireworks, burn pits).

Resource: [*Building to Coexist with Fire: Community Risk Reduction Measures for New Development in California*](#)

Codes & land use standards



Community members and professionals should focus efforts on codes and ordinances that improve home hardening and fuels reduction in the home ignition zone (HIZ). Special consideration could be placed on standards which are required during the remodeling of existing homes, focused on vegetation maintenance requirements for empty parcels and/or rental properties (short or long-term). Land use standards associated with residential development can facilitate creation of fuel breaks, use natural landscape features to reduce fire exposure, and/or influence the design of residential neighborhoods/communities to reduce fire transmission.

Resource: [*Planning in the Wildland-Urban Interface*](#) (American Planning Association, 2019) and [*Building a Wildfire Resistant Home: Codes and Costs*](#) (Headwaters Economics, 2018)

Green space design



The design and maintenance of green space (e.g., developed areas, forested corridors, natural space) can be used to reduce the risk of fire transmission leading to large-scale conflagrations. Other considerations include the careful design/modification of open spaces or conservation spaces required by large-scale developers. Such areas could include a buffer of managed area where active firebreaks can be installed as part of the development process. These features could be critical opportunities for both risk reduction and provide for potential internal safety zones. They can also represent an increased risk of wildfire ignition or transmission if they are not actively and consistently managed.

Conservation easements



Explore the use of conservation easements as a way to open up conversations about restoration, management and mitigation of landscape-level risk on private properties. These programs can provide multiple benefits that may promote fuels reduction actions. Consider expanding easements focused on crop development, wildlife management, and restoration of native grasslands when they serve strategic purposes for wildfire management or firefighter access.

Resource: [*National Conservation Easement Database*](#)



Strategically align conservation easements to help achieve landscape level management priorities or bundle benefits. For instance, conservation easements to protect wetlands can also help establish water sources, while restoration of aspen stands on private lands can help promote landscape fuel breaks. Easements also can help provide access points for emergency ingress/egress for suppression resources or evacuation. Community members in many working lands may already utilize and trust conservation easements.

Resource: [*Agricultural Conservation Easement Program*](#) (USDA Natural Resources Conservation Service)



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Regulations, Policy & Plans (cont.)

Comprehensive hazard planning



Consider making connections between wildfire hazard planning and comprehensive hazard planning. Adapt and expand pre-existing comprehensive hazard plans to include actions that reduce future wildfire risk or harden resources and structures at risk (e.g., require residential sprinklers, reduction of flammable ornamental vegetation). These plans may also be key places to explore opportunities to share resources or establish smoke shelters.

Resource: [Create a Hazard Mitigation Plan \(FEMA\)](#)

Tiered protection plans



Formal subdivisions should consider developing localized supplements to Community Wildfire Protection Plans (CWPP) or create their own CWPP specific to the subdivision to best capture the local conditions, resources, and concerns that will guide site-specific wildfire risks. These tiered plans should likely intersect with Homeowner's association (HOA) covenants, restrictions, or other subdivision regulations to promote uniform mitigation standards. Institutionalization of planning will also open up opportunities for collective risk reduction activities (e.g., development of common areas as fuel breaks, fundraising for development of staged equipment for firefighter use in response).

Resource: [Integrating Community Wildfire Protection Plans and Natural Hazard Mitigation Plans \(FEMA\)](#)

Community Wildfire Protection Plans



Updating the action plans in Community Wildfire Protection Plans (CWPPs) can be an effective strategy which can lead to collective projects such as landscape-level fuel breaks or establishment of land use development standards. CWPPs can provide a priority list of community-driven projects; these projects can create change on the landscape as well as help develop community-based partnerships. Consider "tiered" plans for different large residential developments in the same area/drainage. These tiered plans can help structure negotiations about regional properties and avoid competition that leads to conflict.

Resource: [Preparing a Community Wildfire Protection Plan, March 2014](#)



Community Wildfire Protection Plans (CWPPs) are good vehicles to capture the values, risks and priorities of more rural populations. CWPPs provide an opportunity for Rural Lifestyle communities to define their boundaries as well as their wildland-urban interface. Residents and professionals should collaborate to collectively define priorities for values at risk. In Rural Lifestyle communities, this will likely require more information gathering and informal planning processes to develop a shared vision of the community and their values.

Resource: [Revisiting Community Wildfire Protection Plans \(FAC Net, 2021\)](#)

Adapt Community Wildfire Protection Plans



Community members should adapt Community Wildfire Protection Plans (CWPPs) to reflect the greater variety of values at risk in Working Landscapes. For instance, use CWPPs to articulate critical protection needs for timber stands, cattle, grazing leases and crops. Determine where these priorities fit with regard to residential properties, infrastructure, etc. Use the CWPP process to open up discussions about Rangeland Fire Protection Associations, timber protective associations, and options for increased use of prescribed fire in the region. Finally, use the CWPP process to develop bonds/trust between local residents and federal agencies by negotiating the parameters and limitations of fire response.

Resource: [Preparing a Community Wildfire Protection Plan, March 2014](#)



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Regulations, Policy & Plans (cont.)

Spatial fire planning

HAHR

Residents and professionals should collaborate to collectively define priorities for values at risk. Potential Operational Delineations (PODs) planning processes may be a particularly good vehicle for spatial fire planning, as they can facilitate a shared understanding of fire suppression response and/or help set priorities for modification of infrastructure (e.g., powerlines, road networks, access) in the future. Work with the community to help integrate community priorities into the process, share the science behind PODs planning, and communicate the results of the planning process.

Resource: [*Potential Operational Delineations*](#) (USDA Forest Service)

RL

Engage with area risk managers or land management agencies to collectively identify values at risk from wildfire. Recognize that existing spatial fire planning processes might not feature detailed local data; they likely need to be informed by shared community input. For instance, Rural Lifestyle communities may feature a more diverse or different range of values at risk, including combinations of agricultural values (e.g., small-scale crops or organic farms, grow operations, aesthetic/recreational and subsistence values such as hunting and fishing opportunities, place attachments to outdoor amenities), and more informal community networks that are less visible. Consider having rural lifestyle residents articulate and prioritize the unique risks they perceive from wildfire or management and discuss how these integrate into spatial fire planning initiatives such as Potential Operational Delineations (PODs) or risk maps.

Case Study: [*How We're Using Values-Based Spatial Fire Planning to Visualize and Prioritize Collaborative Forest Restoration*](#)

Conflagration planning

CHD

Explore the risk of wildfire spreading to developed areas via embers. Consult with experts and use modeling processes to explore how embers might start spot fires in dense developments and promote quickly-moving structure fires which spread from structure-to-structure. Using this information, consider how firefighting resources and evacuation would proceed during a large conflagration of burning homes (e.g., wildfire containment lines, critical infrastructure and evacuation corridor protection). Community members and professionals can be of great help in providing details about cleared spaces, road widths, and water resources that may not be captured by large-scale GIS data. Planning with these tools should likely focus on establishing critical lines of defense to limit or stop the transition of wildfires into dense conflagrations of residential homes. Consider incorporating conflagration planning into other local planning processes such as your Community Wildfire Protection Plan or Natural Hazard Mitigation Plan.

Resource: [*Urban fire: Conflagration*](#) (Central Virginia Planning District Commission)

Federal planning authorities

RL

Consider using federal planning authorities which can facilitate the development of local or regional workforces focused on the intersection of landscape stewardship, wildfire management and ecosystem restoration. For instance, the Good Neighbor Authority can be a catalyst for expanded local action regarding fuel reduction on public lands while also generating local revenue. Master stewardship agreements or the Wyden Authority also might allow local people the initial mechanisms for landscape-level management of fire conditions.

Resource: [*From Ideas to Action-- A Guide to Funding and Authorities for Collaborative Restoration*](#) (Rural Voices for Conservation Coalition, 2020)



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Regulations, Policy & Plans (cont.)

Local-scale policy actions



Residents are likely to have the most immediate influence on applicable fire policy by engaging with local government officials. Consider developing community-wide wildfire risk adaptation priorities or programs that can be shared with city council members, county commissioners, and local planning officials. Representatives of these governments can influence applicable codes, ordinances, or resource allocations at a local level.

Strengthen ties to policy-makers



Livelihood and family networks in working landscape communities often include key links to political figures at the state level. Find and strengthen these ties in order to introduce legislation, programs, and funding that extend wildfire adaption beyond traditional residential WUI properties. Likewise, work with governments and organizations such as Tribal Councils, cattleman's associations or timber collaboratives to advance working lands and their key contributions to fire management.

Resource: [Rural Voices for Conservation Coalition](#)

Land use conversion



Rural lifestyle communities may be in a state of flux as new residents move to rural areas or build more dense development in rural lands. Consider how patterns of future or existing land conversion will affect wildfire risk in terms of ignition, response challenges, and landscape fragmentation. Explore conservation easements or planning and zoning that prioritize landscape health or working lands (e.g., family farms, orchards, hay or dairy operations) while opening up key opportunities for fire prevention (e.g., establishment or protection of wetlands, establishment or management of community forests, land trusts that include/incentivize fire management practices to protect river corridors). Communities may also want to consider growth boundaries or minimum subdivision sizes in high-risk fire areas.

Support working lands



Consider how patterns of future or existing land conversion will affect wildfire risk in terms of ignition, response challenges, and landscape fragmentation. Explore options to prioritize working lands (e.g., family farms, orchards, hay or dairy operations) while opening up opportunities for fire prevention (e.g., establishment or protection of wetlands, establishment or management of community forests, land trusts that include/incentivize fire management practices to protect river corridors). Articulate how working lands support larger ecosystem services. Consider tax incentives for larger parcels to help maintain open and working landscapes which may be more fire resilient.

Resource: [LandCAN Conservation Assistance Network](#)



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Practices by Category

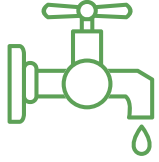
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Infrastructure & Business

Business continuity & preparedness planning

CHD

Work to identify the range of hazards that may impact business functions. As an example, consider whether high levels of smoke would reduce opportunities for outdoor dining or require protective equipment for employees or customers. Wildfires may impact infrastructure and power systems on which businesses rely. Consider redundancy in these systems; backup generators and/or mobile generators can help keep businesses operational, especially those which require ongoing services (e.g., refrigeration). Plan for supply chain disruptions; business continuity planning processes may help. Consider having off-site records storage and/or options for remote operation.

Resource: [Open for Business Toolkit](#) (Insurance Institute for Business and Home Safety)

Business continuity planning

FS

Significant disruptions or damages from wildfire in formal subdivisions are likely to impact businesses near (or reliant upon residents from) the subdivision. Fires may also impact services like gas stations, daycares, etc. Disruptions of these critical services should be factored into hazard and vulnerability assessments of the region. What industries or sectors do businesses serve in the broader areas? How might disruptions to the subdivision cause a break in services that both the community and broader region need? Consider working with local service organizations, Chambers of Commerce, or Economic Development District to encourage business continuity planning. During this process, businesses should develop plans for addressing supply chain disruption.

Resource: [Open for Business Toolkit](#) (Insurance Institute for Business and Home Safety)

Tourism & economic continuity

HAHR

High amenity/high resource communities often have economies linked to outdoor recreation, seasonal amenities, tourism and visitor services (e.g., equipment rentals, hotels, Air B&Bs). Wildfire may impact these services in the short-term (through closures or reduced visitation) as well as in the longer-term (from closures of public lands, the need for road rehabilitation, and/or the potential change to vegetative communities or viewsheds). Consider what support the local Chamber of Commerce, Economic Development District, Small Business Association, or local municipalities can provide to businesses with short-term losses or what potential local tax breaks can be provided in the event of longer term damages. Have a plan for how you will continue business operations. This business continuity plan may include planning for the reopening of outdoor amenity locations following fire. Plans may also include communications as well as considerations for unique opportunities to view and learn from burned area recovery. Media and communication plans should capitalize on visitors' and residents' sense of place and their attachment to the broader region or community. Reopening of major transportation corridors can help reestablish local supply chains. In addition, consider working with businesses to ensure adequate wildfire insurance on lodges, visitor centers, ski resorts, etc.

Business development

RL

Wildfire (including preparedness, response, and recovery) is likely to engage a broader range of businesses in rural lifestyle communities, including those that are somewhat dependent on local ecosystem services. Consider how rural development efforts might help grow small businesses (e.g., establishment of, and workforce training for, small-scale contractors specializing in retrofitting of homes to be more fire resistant, fuels reduction specialists or tree services) or how fires might impact their longer-term functioning (e.g., hunting and fishing guide services that might not be able to operate after fires, supply chains for rural services such as gas stations or general stores).

Resource: [Small Business Development Centers](#) (US Small Business Administration)



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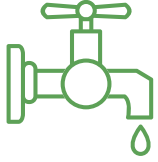
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Infrastructure & Business (cont.)

Enhance self-sufficiency



Explore opportunities to build on the existing self-sufficiency of rural populations. Support businesses, harden local rural utilities, support road maintenance or repair capabilities, and identify backup generators or energy system redundancies that will allow local people to be resilient. Ensure that local workers responsible for, and capable of repairing such utilities are located in the region or that select local residents obtain training to aid with such efforts during times of emergency. Additional development of water supplies or road infrastructure could also help promote self-sufficiency by providing better access for local/rural fire response.

Critical infrastructure protection



Determine whether there is additional critical infrastructure that will need protection before or during wildfire events. Critical infrastructure protection can include preventative work in advance of wildfire or direct protection during a fire. Consider protection of resources such as water towers, water and sewer facilities, and the electrical grid. Consider industrial or commercial sites which may require special protection due to the presence of hazardous, explosive, or flammable materials. Consider the vulnerability of important transportation infrastructure such as rail or shipping lines. Work to determine how best to protect these assets, what proactive work is necessary, and which partners are essential to the process.

Resource: [Emergency Management and Response -- Information Sharing and Analysis Center \(US Fire Administration\)](#)



Work with the local community and county government to identify the range of critical infrastructure that is important to your community. Critical infrastructure protection in high amenity, high resource communities may extend beyond the power grid, roads, and bridges to encompass broader municipal watersheds, gravity-fed water systems and reservoir facilities. Communities may be able to improve overall resilience by mitigating the risk to these resources ahead of time; consider hardening these resources and protecting against secondary flooding, bridge washout, or water quality issues. Stream restoration activities and landowner practices regarding range/forest management can demonstrate a wide array of benefits which may open up other opportunities such as improved water quality, recreation access, or improved wildlife habitat.

Critical infrastructure hardening



Partner with utility companies to promote fuel reduction along transmission lines or reduce potential ignitions, both of which can reduce the need for Public Safety Power Shutoffs (PSPS). Prioritize the hardening of water supply pipes, water towers, and communal buildings (e.g., clubhouses, nearby schools, etc.) on which the subdivision relies. Explore local utility projects or subsidies to maintain power grids or improve existing infrastructure (e.g., development of micro-grids or grid-scale batteries).

Case Study: [Hardening the Electric System \(PG&E\)](#)

Irrigation & utility protection



Protection of irrigation and critical infrastructure is likely to be an important planning focus when preparing for wildfire in rural lifestyle communities. Consider the need to protect cell towers, wind farms, and transfer stations that would cause secondary or cascading disruptions across broader populations. Consider partnering with utility companies to promote shared fuels treatment along power lines, or to use them to construct larger fuel breaks across the landscape. Other considerations may be the protection, use, or expansion of irrigation and road networks.

Resource: [Wildfires and Safe Drinking \(Washington State Department of Health\)](#)



Fire Adapted Communities Pathways Tool

Practices by Category

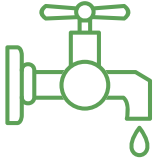
CHD Commercial and Highly Developed

FS Formal Subdivision

HAHR High Amenity/ High Resource

RL Rural Lifestyle

WL Working Landscape



Infrastructure & Business (cont.)

Workforce housing

HAHR

Work with local planning and zoning departments, county governments and appropriate federal agencies (e.g., Housing and Urban Development) to evaluate the availability of affordable housing in and near the community. Affordable housing can be key to building community and ensuring sustainable capacity for wildfire management and ecosystem services.

Workforce sustainability

WL

Consider the development of affordable housing (for both seasonal and full-time residents) to promote workforce sustainability. Incentives and support for younger generations seeking to steward or work the land could be strategically bundled with vegetation management programs, USDA Natural Resource Conservation Service programs that improve ecosystem services important for fire protection (e.g., restoration of riparian buffers, establishment of fuel breaks) or include development of water sources and access for fire response. Measures to retain, build or strengthen large working landscapes and their associated workforce can help prevent further landscape fragmentation that will increase the complexity of landscape-level wildfire management.

Wood utilization

HAHR

Explore options for development of wood-products industries locally or regionally. Support and grow sawmill or wood product facilities at small scales, and which sustain local investment for services. Wood product options may include reliable supply for cogeneration plants that power city and regional services (e.g., schools, municipal offices, hospitals) using wood-fired energy. Consider developing investor networks.

Resource utilization

RL

Rural lifestyle communities may provide good opportunities for the development of wood utilization or biomass facilities. Such facilities could provide services to nearby communities (e.g., cogeneration power plants, small scale mills or particle board facilities) that pull some of their source material from fuel reduction efforts across public and private lands in the area. Explore resource utilization businesses as a way to diversify funding for fuel reduction efforts and reduce reliance on grants or cost-share programs for continued fuel reduction across the landscape. Other avenues for business development may include contracting herds of goats or other grazing animals to reduce fuels, or equipment operators to mulch vegetative fuel breaks where biomass is not an option (e.g., rabbitbrush and sagebrush).

Resource: [Colorado Wood Utilization & Marketing Program](#) (Colorado State Forest Service)

Wood utilization & biomass options

WL

Explore options for reestablishment of small-to-medium scale forest products industries in the region. Develop workforce training pipelines that establish local contractors who conduct forest thinning or run equipment to reduce fuel loading (e.g., brush hogs for sagebrush systems). Explore Good Neighbor Authority programs, expanded stewardship contracting authorities, and links to regional industries requiring wood products in order to develop regional economies.

Resource: [Colorado Wood Utilization & Marketing Program](#) (Colorado State Forest Service)



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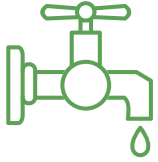
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Infrastructure & Business (cont.)

Carbon accounting



Explore options for agreements or programs that "bundle" resource stewardship and wildfire risk reduction. For instance, habitat improvement programs can serve dual purposes of improving forest/range resiliency. Farm Bill Programs can help achieve fuels reduction efforts. Consider whether payment for carbon credits or design of access roads for energy development leases can be designed in ways that help sustain working lands AND mitigate future wildfire risk.

Resource: [Family Forest Carbon Program](#) (American Forest Foundation)

Flexible grazing arrangements



Consider how grazing contributes to fire resilience and land management. For instance, negotiated grazing lease costs or responsibilities could help subsidize fuel treatments in strategic areas. Opening up additional grazing opportunities in strategic areas that do not contribute to resource degradation may create the opportunity for strategic fuel breaks. Ensure that there are networks and lands available for transfer of grazing leases and forage to new sites if allotments require rest and restoration following fire.

Insurance coverage



Residents (including homeowners, renters, and business owners) should review their insurance coverage annually and ensure they understand its provisions, limitations, and requirements specific to wildfire or smoke damage. For businesses, determine whether coverage includes, or should include, extended loss of power, inability to use the premises for production or work, direct wildfire damage, or indirect damage (e.g., erosion and/or flooding). Cooperating groups of neighborhoods or businesses (such as those convened through a chamber of commerce) may be able to negotiate coordinated mitigation strategies or policies which improve insurance protections.

Resource: [Insurance for Wildfire](#) (Insurance Information Institute)

Crop & timber insurance



Determine if you are adequately insured with respect to crops and timber. Consider insurance for orchards, vineyards, small forest landowners, tree farms, or agricultural commodities. Seek dialogue or collective bargaining surrounding crop and timber insurance provided there are adequate mitigations in place by groups of private landowners. For instance, some large producers may have equipment and crews trained to respond to wildfire. Small producers may have created strategic fuel breaks or self-sufficient water supplies to protect crops/orchards during fire.

Resource: [Risk Management Options for Family Forests--Timber Insurance](#) (Mississippi State University Extension, 2018)



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Recovery

Housing demand



There will likely be a need for short-term housing among large populations of residents following fire events that impact a high number of private properties. Neighborhoods should coordinate with city and county governments to plan for short term housing (e.g., staging of FEMA trailers requires large parking lots or fields for placement, residential housing through hotels requires coordination lodging facilities, etc.). There is a potential longer term dip in the county tax base if losses are extensive enough.

Resource: [Planning Considerations--Disaster Housing. Guidance for State, Local, Tribal and Territorial Partners \(FEMA, 2020\)](#)

Short-term housing



Consider existing housing inventory prior to wildfire and prepare for short-term housing needs during the rebuilding phase. This is particularly important in places with housing insecurity or in places with an existing long-term housing deficit. Work with partners to pre-identify disaster shelters, options for management of food and water, clothing, etc.

Resource: [Planning Considerations--Disaster Housing. Guidance for State, Local, Tribal and Territorial Partners \(FEMA, 2020\)](#)

Long-term housing



Recovery, rehabilitation, and rebuilding on private lands may require investments in long-term housing for affected residents. These efforts may be challenging due to the lack of nearby housing sources (e.g., area hotels, community shelters, rooms or rentals in nearby small towns) during the rebuilding or recovery process. Consider working in advance of wildfires to secure locations for longer-term temporary shelters that allow local residents to remain in the region. These efforts help ensure residents are able to remain in their communities.

Long-term temporary housing



Populations in working landscapes are likely to require the establishment of longer-term housing options that keep them in the region after a wildfire. Area cities may be too far to provide long-term housing during rebuilding/recovery given the need for local people to commute to their impacted properties or lack the ability to house large animals. Housing may not be available in small towns. As such, local organizations will need to coordinate long-term housing capacity (e.g., recovery trailers, long-term recovery organizations, building of community housing that can be repurposed after recovery). Consider livestock and large animals during this process as well.

Hazardous materials clean-up & remediation



Clean-up of hazardous materials (e.g., industrial chemicals, household solvents, remnants of burned vehicles or structures) may require considerable work. Consider developing protocols for both immediate and long-term recovery of affected sites, including the coordination of cleanup crews with specialized equipment and training. Review existing examples of site monitoring to assess the legacy of these hazardous materials before rebuilding. *Case Study: [Household Hazardous Waste Cleanup after the Kincade Fire 2019 \(County of Sonoma\)](#)*

Grant assistance



Community members and representatives should consider establishing relationships with organizations and entities that have experience navigating the processes associated with applying and receiving funds from FEMA, state hazard assistance, and other sources of aid in advance of wildfires. Seek to train key city or county officials on the processes, best practices, and financial accounting practices associated with the monitoring and distribution of various types of recovery aid.

Case Study: [Financial assistance available after the Marshall Fire](#)



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Recovery (cont.)

Long-term recovery planning

CHD

Consider undertaking long-term recovery planning before a fire event to plan for impacts to social services, industries, and the ecosystem. Impacts can occur in those industries which rely on natural resource amenities (e.g., vacation rentals, outdoor recreation retailers, tour and guide companies, lodging facilities, etc.) as well as those who work outside of ecosystem-related fields. Community social services or essential functions may be disrupted, either by direct wildfire impacts or secondary flooding. Plans which anticipate these potential impacts, and convene stakeholders to mitigate them, can be completed in advance of wildfire.

FS

There will likely be significant pressure to "return to normal" quickly after losses. However, recovery takes time and progresses through multiple phases. A long-term view is needed to ensure true resiliency. Communities could learn about of existing recovery networks or resources prior to events (e.g., Volunteer Organizations Active in Recoverys [VOADs], Red Cross, etc.) and consider how they might coordinate complementary resources. Likewise, recovery leaders from the community will need to work with emergency management professionals, who will likely take the lead in the early phase of recovery. Consider developing localized plans or template grant applications for post fire erosion and/or secondary flooding in order to be prepared for potential recovery needs. Ensure that there are plans to help with longer term recovery; often after the acute initial phase of recovery, local people are still determining how to re-establish themselves in changed circumstances.

Resource: [Long Term Recovery Guide](#) (National Voluntary Organizations Active in Disaster, 2012)

HAHR

Wildfire impacts to ecosystems and area public lands may impact industries that rely on natural resource amenities (e.g., vacation rentals, hiking and biking tours, rafting guides, etc.). Wildfire impacts may also require planning for secondary flooding and damage to infrastructure. Such impacts should be documented in initial damage assessments in order to plan, or seek resources, for ongoing impacts. Recovery planning should likely plan for short- and longer-term impacts to local industries and prioritize restoration of viewsheds that are important aspects of tourism in the area. Consider developing a Community Organization Active in Disaster (COAD) to support the development of long-term recovery plans for the community, which can help plan for, and mitigate damage to, community infrastructure, services, and natural resources.

Resource: [Community Organizations Active in Disaster](#) (Extension Disaster Education Network) and [Leavenworth Resident Recovery Guide](#) (Washington State Fire Adapted Communities Learning Network)

Disaster case management

RL

Large and impactful fire events may require organized efforts to help distribute aid, rebuild resources, and restore ecosystem services across a large, diffuse area. Consider designating primary local organizations or agencies that will come together to help with immediate and longer term recovery needs following such events. They should be familiar with and help organize the coordination of disaster organizations such as Volunteer Organizations Active in Disaster (VOADs), Salvation Army, Red Cross, and others. Perhaps more importantly, such organizations can use their knowledge of the local area to ensure that recovery processes are equitable and do not overlook populations in need. Remember to provide social and emotional support to your case managers as well; they are likely to be working directly with individuals significantly impacted by wildfire.

Resource: [Federal Disaster Case Management Program](#) and [Disaster Case Management Toolbox](#)



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Recovery (cont.)

Landscape rehabilitation

HAHR

Wildfire impacts to ecosystems and area public lands may disrupt residents' appreciation for, or attachment to, the natural systems that drew them to the area. Recovery efforts can account for potential "loss of the landscape" impacts by demonstrating the benefits associated with fire or by encouraging reconnection with burned lands as unique and interesting landscapes of value. Post-fire landscapes and opportunities for rehabilitation or habitat recovery are good options for mobilizing volunteers. Opportunities for restoration of streams, wetlands or other landscape features following wildfire can provide useful demonstrations of the benefits of fire and may reconnect individuals to the landscape. These efforts can perpetuate a long-term willingness to support landscape health, including wildfire.

Resource: [*Study Examines New Type of Wildfire Health Impact*](#) (FAC Net, 2015)

Post-fire erosion & debris flow mitigation

FS

Explore the potential for secondary impacts from wildfire that may occur regardless of direct fire impact. For instance, subdivision residents may be unprepared for post-fire erosion downstream or downslope after fire. Such impacts can occur after the fire, and result in damage from secondary hazards. Make sure to engage programs and extension professionals who can help subdivisions implement post-fire mitigation measures such as erosion control fencing and emergency slope stabilization.

Resource: [*Debris Flow Survival Guide*](#) (US Army Corps of Engineers, 2015)

Private land rehab & stabilization

RL

Significant fire events in rural lifestyle communities may require assessment of, and recommendations for, landscape rehabilitation. Specialized teams exist to assess fire impacts on public lands but do not extend to private properties. Engage conservation districts, Natural Resource Conservation Service offices, and local conservation groups to enable private and state teams to assess the need for emergency stabilization or restoration of significant ecosystem functions critical to Rural Lifestyle communities. Training for these efforts should come before fires happen. Also consider the "loss of the landscape" that may occur when private landowners and recreationalists are faced with a loss of place attachment to landscapes reshaped by fire.

Post-fire property assessment

WL

Establish and help provide training for state and private teams who assess post-fire ecological impacts similar to federal Burned Area Response Teams. No such avenues exist for private lands, but can be of crucial importance in determining losses and federal or state recovery funding. Teams can also help landowners conduct mitigation activities to help with restoration and rehabilitation in ways that promote future ecosystem health and reduced wildfire risk (e.g., replanting, erosion control, reseeding). Consider conservation districts, university extension, and Natural Resource Conservation Service professionals to help lead and train these teams.

Case Study: [*How We Formed, Funded and Dispatched a State and Private Lands Burned Area Emergency Response Team*](#)

Suppression rehabilitation

WL

Work with local land managers to maximize the use of suppression rehabilitation while Incident Management Teams are on the ground. Consider engaging with your local federal or state land manager to understand their expectations for fireline or suppression rehabilitation and explore options to maximize this work. Consider whether rehabilitation of lands and roads can have benefits for fuel reduction or forest health, or enable better conditions for use of prescribed fire.



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Recovery (cont.)

Impacts to neighboring communities



Large-scale evacuations, particularly those which extend for long periods of time, can have significant impacts on neighboring communities. Housing demand can increase as can demands on infrastructure and municipal systems. Consider where your population is likely to go if displaced (either temporarily or for an extended period of time). Work with neighboring jurisdictions to identify, and plan for, overnight increases in population size.

Case Study: Chico, CA ([LA Times Article](#) and [Housing Market Conditions Presentation](#))

Utilize existing recovery networks



Activate and utilize existing recovery networks such as the local Department of Emergency Management, Voluntary Organizations Active in Disasters (VOADs), the Red Cross and others to enhance recovery options. Deepen your understanding of what each of these networks can provide, what coordination or communication efforts are already in place, and how your efforts can contribute to the whole. Existing community networks or faith-based organizations can also serve as an important connector to the community after disasters.

Resource: [National Voluntary Organizations Active in Disaster](#)

Recovery transformation



Framing the recovery process as an opportunity to think about long-term sustainability is likely to be a good tactic. This would include prompting community members to consider how rebuilding and landscape restoration should reflect longer-term desires (e.g., restoration of native species, spatial arrangement of homes on adjacent parcels, improvement of water or road infrastructure for future events, rebuilding structures to be more fire resistant). Try to avoid or counteract the tendency to rebuild exactly the same way using insurance payouts. Communities should encourage residents to explore their insurance coverage, with special focus on how their coverage deals with wildfire-specific losses and secondary hazards (e.g., post fire flooding, landslides, etc.).

Resource: [Rebuilding for a Resilient Recovery-- Planning in California's Wildland Urban Interface \(Next 10, 2021\)](#)

Support for orchards, agriculture & forestry



Recognize and anticipate the need for recovery after agriculture and forestry-related damages. Explore agricultural producers' vulnerability to disruptions resulting from loss of forage, crop, or seedlings; disruptions may occur over multiple years. Explore ways that intensive forestry and/or agriculture areas can develop support systems for producers facing wildfire-related losses, including regional and state-level recovery task forces, market stabilization, insurance cooperatives, and/or insurance provisions.

Resource: [Fire Recovery Assistance from the USDA and USDA Farm Service Agency Emergency Relief Program](#)



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Safety & Evacuation

Mass evacuation alert & warning system



Systems for evacuation notification and warning, including providing fire progression information, are important given the challenges of evacuating large populations. Communities should consider notification systems for residents (such as the Integrated Public Alert and Warning system) and plan to test these systems in advance of the fire. Centralized and redundant mechanisms for notifications may be necessary given the large number of people needing notification. Consider setting notification action points that provide a significant amount of lead time. *Resource: [Alerts, Warnings, and Notifications Program Planning Toolkit \(FEMA\)](#)*

Evacuation alert & warning systems



Rapid evacuation notification and warning systems that provide information on fire progression are likely to be very important given the challenges of egress for large populations. Communities should evaluate the adoption and use of existing notification systems among residents and consider supplementing these systems with local communication networks (e.g., sirens, phone trees). Ensure alert and warning communication is available in the languages present in your community. This likely means planning in advance of evacuation to ensure language access.

Evacuation & communication planning



Communities should account for both residents and seasonal visitors in their evacuation planning process. GIS data and modeling can provide insights into site-specific challenges (such as periods of heavy traffic). Determine how you will communicate with all those present in your community; some may not live there full-time and may not be familiar with your evacuation systems. Work with lodging associations, chambers of commerce, and other short-term rentals to provide evacuation information ahead of a wildfire. *Case Study: [Emergency Preparedness and Evacuation Guide \(North Tahoe and Meeks Bay Fire Protection Districts\)](#)*

Alert & warning communication



Encourage residents to sign up for formal evacuation notification systems. However, also be aware that many segments of rural lifestyle communities may not have the connectivity or coverage to ensure that evacuation messaging will reach them during a fire event. Work to ensure accessibility, both in terms of technology and language, into alert & warning communication systems. Encourage communities to build redundant systems of local notifications, including community phone trees, social media pages, and neighborhood signals that ensure residents can make informed decisions about when to evacuate or enact their stay and defend plans.

Traffic modeling



Communities and professionals may want to focus on evaluations of traffic capacity and evacuation challenges during large fire events. For instance, evaluation of transportation route capacities, planning of most efficient routes, and plans to coordinate evacuation would be helpful in assessing the need for additional mitigations (e.g., improvement of transportation infrastructure, development of safety zones, identification of bottlenecks). Transportation modelling may also be helpful in understanding the significant challenges associated with evacuating dense populations and motivating pre-fire mitigations. *Case Study: [City of Ashland Evacuation Time Estimate Study \(KLD Engineering, 2021\)](#)*

Ready, Set, Go!



Connect with your local fire department to determine how to adapt the Ready, Set, Go! outreach program for your community. Resources include communication materials and toolkits for local fire departments. *Resource: [Ready, Set, Go! Program \(International Association of Fire Chiefs\)](#)*



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Safety & Evacuation (cont.)

Ingress/ egress

FS

Prepare major ingress/egress routes by removing overhanging branches and fuel adjacent to the roadways. Improve right-of-way and road conditions to enable rapid evacuation. Identify alternative routes, if available, and consider whether signage or pre-determined routes for different segments of the community makes sense.

HAHR

Ensure that communities have multiple opportunities for ingress/egress, especially considering the influx of fire professionals likely to respond to, or stage resources near, private properties. Consider avenues that incentivize or require developers to help improve the width or drivability of community roads. Seek out grant opportunities for right-of-way access points through private lands that help improve ingress/egress during rapid evacuation. Prepare major ingress/egress routes by removing overhanging branches and fuel adjacent to the roadways. *Case Study: [2021-2022 Evacuation Route Vegetation Management Projects](#) (Central Marin Fire Department)*

Evacuation practice

FS

Consider rehearsing neighborhood-wide evacuation to prepare residents and local emergency managers. Test your notification systems as well as traffic control and emergency response. Explore a range of "management action points" that would allow for sufficient time for large populations to evacuate if properly notified. Assess whether these drills point toward a need for additional egress development.

Rehearse evacuation plans

RL

Evaluate the potential for transportation networks to effectively support the evacuation of large, diffuse populations of residents. In particular, explore effective pathways or coordinated evacuation routes in areas with multiple points of ingress/egress. Identify individual communities or neighborhoods with ingress/egress issues and practice evacuation plans. Organize evacuation drills among communities or a broader region to help illuminate planning needs, stress the hectic nature of evacuation processes, and build connections among communities who will need to coordinate ingress/egress.

Resource: [Tips to Coordinate an Evacuation Drill](#) (Fire Safe Marin)

Animal considerations

RL

Evacuation or care for animals can be a significant concern during wildfire events. Residents may try to return to their property to gather pets or tend to livestock. Consider developing neighborhood or community plans for moving livestock to designated open areas to ensure more efficient efforts for people to stay and defend or evacuate. That might include designated members of rural/volunteer fire departments who aid in moving animals or a mechanism for sharing trailers for movement of animals. Ensure that designated shelter areas or regional evacuation points have areas that will accommodate residents with pets.

Resource: [Keeping Pets and People Healthy](#) (Centers for Disease Control and Prevention)

Large animal considerations

WL

Consider creating formal large animal evacuation plans. Create or communicate allowances for agricultural providers and ranchers to enter road blocks. Potential avenues for large animal planning may include establishing local groups or networks for coordinated evacuation of livestock using trailers or to help stage animals in safer locations. Consider agreements between neighbors and strategic evacuation corridors to move livestock onto nearby lands as well as locations where animals can be taken during active fires. Plan for feed and forage needs during longer-term evacuations and recovery.

Resource: [Large Animals and Livestock in Disasters](#) (American Veterinary Medical Association)



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Safety & Evacuation (cont.)

Safety zones

FS

Consider community-specific safety zones or common buildings as safe shelter locations during fast moving fires or as areas of last resort when evacuation is not possible. Consult with local fire experts to determine the size, capacity, or applicability of these existing locations for shelter points (e.g., school gymnasiums, clubhouses, nearby grocery stores). Stress that these options are last resorts.

HAHR

Consider designating particularly defensible residential properties or common buildings as safe shelter locations during fast moving fires or as areas of last resort when evacuation is not possible. Special emphasis also should be on safety zones or gathering points in nearby cities or developed urban cores. Primary emphasis should be on early evacuation; safety zones or areas of refuge can be clearly demarcated as backup plans.

RL

Collaborative designation of safety zones are likely to take on added importance in rural lifestyle communities, though they will be highly variable in their form based on local circumstances. Consider setting "sheltering points" along longer evacuation routes that may be used by populations who become cut off during evacuation, or where crowding on the roads might expose them to harmful situations. Explore the option for diffuse neighbors to designate safe houses that multiple families can use to stay and defend. Also consider whether area buildings (e.g., grange, grain elevators, quarries or gravel pits) might serve as emergency shelter locations.

WL

Consider region-specific safety zones or refuge areas based upon the relative concentration of residential properties and the need for longer evacuation times. These safety zones may take the form of large outdoor landscape features for emergency shelter (e.g., meadows, marshes, corrals, parking lots and harvested fields) or community buildings (e.g., grange halls, school gyms, equipment warehouses) where gathered residents might be able to plan for active defense. Residents should consult with area firefighting professionals to plan the spacing and capacity of these safety zones or refuge areas given the potential speed of fire spread.

Evacuation/ shelter for large buildings

CHD

Work with partners to identify and establish procedures for evacuation of high-capacity buildings (e.g., hotels, stadiums, factories, grocery stores). High-capacity structures (e.g., apartment complexes, hotels, schools, residences) should be evaluated for their ability to resist ember ignition and/or to serve as a sheltering points during fast moving fires or when evacuation is not possible.

Resource: [FAQs About Building Evacuation](#) (National Fire Protection Association)

Inform response options

RL

Planning in rural lifestyle communities should likely center around informed choices between evacuation, stay and defend, and what to do if residents cannot evacuate. That would mean providing more information about the high level of preparation, mitigation and preparation necessary to safely stay and defend properties or considerations and event-based cues that can help residents make dynamic decisions about evacuation. It may also require more detailed information about likely fire behavior in the area, including modeling potential fire progression and speed.

Evacuation alternatives

WL

Consider providing information on alternatives to evacuation to the wider population. People in working landscape communities often want to explore options which preserve their independence. Also consider whether there are populations with mobility issues or who might not be able to evacuate long distances. Share information about safety zones, especially given the long distances that most affected populations will need to travel during evacuation. Establish support networks and delegated responsibilities for gathering and aiding such populations during fire events.



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Wildfire Response

Conflagration preparedness



Wildfires in commercial and highly developed communities often contain conditions, risks and management practices that bridge wildland and structural fire response. Fire response agencies and emergency management entities should plan for the different types of equipment, tactics and protocols which may be required as wildfires transition into developed neighborhoods or commercial areas. Consider what Memorandums of Understanding or mutual aid agreements may be necessary. Work to build relationships between structural fire response agencies and adjacent wildland response agencies prior to fire incidents. Account for conflagration risk in pre-planning efforts. As an example, consider documenting hazardous/flammable materials and equipment associated with commercial businesses either directly in the wildfire planning process or by integrating existing structural pre-plans into the wildfire management system.

Integrated fire & emergency management response



Fire response in commercial and highly developed communities will likely require the coordination of multiple fire services (e.g., volunteer and career fire services, state and federal fire response agencies), emergency services and local governments. Establish and work through tabletop exercises for a range of potential fire scenarios and based on a variety of situations (e.g., ember-ignited fires, local ignition under extreme weather) to help identify, mitigate, and/or avoid breakdowns in coordinated response. Local politicians should be ready to implement disaster declarations if necessary.

Integrated structural & wildfire response



Work with local wildfire response agencies to ensure seamless transitions between wildfire and structural response. This may take the form of mutual aid agreements, interagency coordinating groups, or memorandums of understanding. Consider what equipment is needed by local first responders to enable them to transition between wildfire and structural fire response.

Community interface with incident management teams



Consider working with local land management agencies (e.g., the USDA Forest Service, USDI Bureau of Land Management, state forestry departments) in advance of a wildland fire to determine how community-based organizations can interface with Incident Management Teams during an incident. Good avenues for useful community information gathering include documentation of designated safety zones (even if informal), priorities for values-at-risk in and around the community, and populations with mobility issues.



Have community residents list and prioritize their values-at-risk, resources, and evacuation plans in succinct ways that can be provided to firefighters responding from outside the region. Consider working to develop a succinct description of past fires and effects in and around the community. Encourage community members to develop a comprehensive list and map of intended resident behaviors during fires (e.g., stay and defend, evacuate early, secondary or vacation homes) and particularly vulnerable populations that can help outside firefighting teams prioritize their efforts. Additional models of community interface with incident management teams exist. Explore whether a Community Liaison program is right for you.

Case Study: [*Salmon River Fire Safe Council and Community Liaison Program*](#)



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Wildfire Response (cont.)

Rural fire protection associations

WL

Consider forming or joining a Rural or Rangeland Fire Protection Association (RFPA) if it is authorized in your state. RFPAs can enable volunteers to train and respond to wildfire incidents as part of a non-profit association. Establish or look into equipment pass-through programs that provide firefighting equipment from federal agencies. Coordinate RFPAs with agency response personnel (e.g., federal or state) to create clear agreements about response and coordination of resources/skills for larger events.

Case Study: [Why Rangeland Fire Protection Associations Matter](#)

Local wildfire workforce

FS

Consider developing a dedicated fire workforce who will undertake the formal actions needed throughout the community. This may mean increasing capacity for funded fire district personnel, including fire prevention specialists, managers of common space, community managers who can enforce covenants, and/or coordinators who can help with grant processes. Include workforce housing in long-term planning for workforce development.

Develop local wildfire response capacity

RL

Focus on improving local wildland fire response capacity through efforts to expand community participation in volunteer fire districts or small paid fire departments. Consider educational programs in local schools or technical colleges to develop and recruit wildfire workforce members. This includes workforce development and the promotion of young local people into paid positions so that they can stay in the region and develop key relationships that will pay long-term dividends. Develop mutual aid agreements that include details about resources or containment lines and databases of equipment or volunteers who can be effectively mobilized during response.

Case Study: [Dobyns-Bennett Pulaski Club](#)

Volunteer fire departments

WL

Connect with your local volunteer fire department to ask about volunteering as a responder or in a support capacity. Many organizations may have opportunities for participation and contribution beyond fire suppression. For instance, residents with long-term or detailed knowledge of landscape dynamics or fire (e.g., identification of water sources, road networks, past fire perimeters) can effectively aid before, during and after fire through the integration of their knowledge. Seek out equipment pass-through programs that provide additional resources to rural fire departments (e.g., slip-in tanks, brush pumpers, etc.)

Resource: [Make Me a Firefighter](#) (National Volunteer Firefighters Council)

Contracting pathways

WL

Develop expanded avenues to use local suppression resources such as dozers, tenders or trucks during a fire event. For instance, consider developing on-demand or as-needed personnel and equipment sign-ups for local fires only. Such agreements could help improve resource capacity and reduce volunteer loss or liability.

Resource: [Procurement Technical Assistance Centers and Northern Rockies Coordination Center Contract Resources](#)

Strategic fire use

RL

Consider whether there is enough trust among communities and local or state fire authorities to discuss the use of fire across the landscape. Explore the importance of protecting significant values at risk in the landscape, the inevitability of wildfire impacts near or in the community, and the benefits that low-intensity fires could have for the larger ecosystem. Use these elements to explore scenarios and requirements for wildfire to pass through communities without significant losses. Use these discussions to plan for when and where the use of fire across the landscape is appropriate.

Resource: [Fire FAQs--Managing Wildfire for Resource Benefit](#) (Oregon State University, 2018)



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Wildfire Response (cont.)

Mutual aid



Bolster local wildland fire response capacity with support from neighboring jurisdictions. Work with neighboring fire services to determine their capacity (for both structural and wildfire response). Determine if regional resources are able to respond to approaching wildfires in the wildlands or if threatening subdivisions. Work with neighboring jurisdictions to enable regional wildfire response that best leverages individual strengths or resources. Support any mutual aid agreements with regional training opportunities that include a variety of scenarios (e.g., rapid ignition near outskirts of community, large wildland fire approaching community, ember driven spot fires, etc.). Ensure interoperability of communications equipment and frequencies among fire services and test these on a regular basis. *Resource: [National Incident Management System Guideline for Mutual Aid \(FEMA, 2017\)](#)*



Ensure local fire departments are working with partners to formalize response agreements that allow response support from surrounding communities. Review, update, or revise existing Memorandums of Agreement or other partnership documents. Consider joint training exercises and ensure or county officials have ready-to-share information about the existing response structure, mitigations (e.g., defensible space, fuel breaks) or evacuation plans in place for the community. *Resource: [National Incident Management System Guideline for Mutual Aid \(FEMA, 2017\)](#)*



Work with neighboring jurisdictions to enable regional wildfire response. Consider working with partners to formalize response agreements that allow response support from surrounding communities. Support these agreements with regional training opportunities and ensure interoperability of communications equipment and frequencies. *Resource: [Mutual Aid Agreements \(US Department of Homeland Security Lessons Learned and Information Sharing\)](#)*



Mutual aid agreements offer an opportunity for neighbors to help one another. Work with neighboring jurisdictions to enable regional wildfire response. Support these mutual aid agreements with regional training opportunities and ensure interoperability of communications equipment and frequencies. *Resource: [Mutual Aid Agreements \(US Department of Homeland Security Lessons Learned and Information Sharing\)](#)*

Water supply



Evaluation of water infrastructure such as water towers, water treatment facilities, and water lines can be an important consideration when assessing fire vulnerability. Consider working to increase reliable water supply for wildfire events. Efforts to harden water infrastructure, reduce surrounding vegetation, or establish protocols for water systems following wildfires may be critical opportunities for community members and local officials to contribute to broader wildfire resilience. *Resource: [Emergency Response for Drinking Water and Wastewater Utilities \(US Environmental Protection Agency\)](#)*

Catalog & prioritize values at risk



Consider cataloging values-at-risk in and around the community (e.g., infrastructure such as water systems, wildlife habitat, watersheds, nearby recreation areas, etc.). Residents should discuss and prioritize these values-at-risk to provide local officials and responders with information about the potential losses posed by wildfire. Cataloging and prioritizing values-at-risk not only helps inform firefighting priorities, but can help provide added emphasis for pre-fire mitigation. These values at risk can be incorporated into any Potential Operational Delienatons (PODs) developed in the community. *Case Study: [What Comes First: Collaborative Mapping or Mapping Collaboration?](#)*



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Practices by Category

CHD Commercial and Highly Developed

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Resident Mitigation

Structure hardening

CHD

Modifying residential structures to help withstand fire damage is a key component of fire adaptation. This can include recommendations for using ignition-resistant fencing or flashing that will reduce fire transmission between closely spaced homes, retrofitting or building with ignition-resistant materials (e.g., stucco, brick, cementitious siding), creating vegetation-free gravel pads or xeriscaping directly next to homes, or replacement of wood shake roofing.

Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business & Home Safety)

FS

Coordinating home ignition zone assessments performed by trained neighborhood assessors, local fire departments, and/or federal/state agency specialists (where communities are proximal to wildlands) are likely the most effective way to reach residents. Residents should focus on hardening elements of the structures, including reducing structure ignitions that come from embers by installing non-flammable wall, roofing and fencing materials, residential sprinklers, vent screening, and xeriscaping. Consider whether structure assessments could be done in small groups on the same road or cul de sac to reinforce the importance of mitigation actions with neighbors. In some subdivisions, linkages to insurance rates may be motivating, as are strong recommendations by professionals from fire or emergency services. In other subdivisions, it may be most effective to support neighborhood ambassadors to enable structure hardening information to come from within.

Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business and Home Safety)

HAHR

Enabling widespread home hardening in residential communities is a good avenue for reducing future risk and building a culture of fire management. Pursue state and federal mitigation grants which promote home hardening (e.g., establishment of a non-combustible gravel pad 0-5 feet from the home, retrofitting or remodeling roofs); work with state and federal agencies to understand what grants are available and how best to access them.

Resource: [Suburban Wildfire Adaptation Roadmaps](#) (Insurance Institute for Business and Home Safety)

RL

Structure hardening is likely an important priority in rural lifestyle communities; keep in mind that important structures extend beyond homes. Barns, outbuildings, accessory dwelling units and garages may all be important structures to harden. Expand cost-share authorities to be more flexible among those pursuing home hardening and encourage retrofitting of structures with ignition-resistant materials.

Case Study: [The Home Ignition Zone](#) (Colorado State Forest Service, 2021)

WL

Communicate the importance of structure hardening, including the retrofitting of older residences, outbuildings, equipment sheds, and barns. Recognize the importance of structures on the property other than the home. Barns and agricultural buildings can also be hardened against wildfire ignition. While not all residents may engage in specific or formal home ignition zone programs, communicate the importance of protecting structures.

Resource: [Wildfire--Preparing the Ranch and Farm](#) (Oklahoma State University Extension)

Commercial building preparedness

CHD

Residents, business owners and politicians should review the vulnerability of existing commercial properties with regards to ignition potential (e.g., building materials, backup power, or fire suppression equipment). Commercial building standards could be evaluated to assess how well they address the hardening of structures to ignition from spot fires, structure-to-structure fires, and/or combustible/hazardous materials. Consider amending building codes for commercial businesses that are likely to be affected by wildland fires that burn into populated areas.

Resource: [Protect Your Business from Wildfire](#) (Insurance Institute for Business & Home Safety)



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Resident Mitigation (cont.)

Firewise USA[®]

FS

HAHR

Community-based recognition programs can help neighbors work together to reduce the impacts of wildfire. Community preparedness actions, such as community clean-up or chipper days, can help further individual actions. Property Owners Associations and Homeowners' Associations are particularly well-suited to formal recognition programs.

Resource: [Firewise USA[®]](#) (National Fire Protection Association)

The formal nature of the Firewise USA[®] program, paired with the potential attainment of recognition, can be very effective in motivating mitigation actions among residential landowners. Community members should consider integrating Firewise USA[®] into their existing methods of community governance (e.g., property management company duties, Homeowners' Association requirements). This program can serve as a means to adapt new and increasingly innovative strategies for reducing wildfire risk found in other portions of the Fire Adapted Communities Graphic, and by using Firewise USA[®] to demonstrate community efforts to take responsibility for potential wildfire losses.

Resource: [Firewise USA[®]](#) (National Fire Protection Association)

Chipping & debris disposal

FS

Communities might want to consider prioritizing programs that provide the means for residents to dispose of yard debris and accumulation of fuels at regular intervals. These efforts should focus on ways to make disposal of fuels more economically viable for residents (e.g., service for dumping or off-site pile burning). Other options may be to set up and collectively fund mobile chippers that can be positioned in or around the subdivision at key times of the year. Similar considerations may be necessary for removal of other yard debris (e.g., old fencing, immobile vehicles) to reduce hazards. Consider partnering with neighboring formal subdivisions to contribute the fees necessary for equipment; this may also build a broader sense of community as the program evolves.

Resource: [Chipping Program Best Practices](#) (International Association of Fire Chiefs)

Defensible space

HAHR

RL

Provide home ignition zone/landscape assessments adapted from state and national guidance and in concert with local professionals. These guidelines should reflect specific risk conditions in and around the community. Try, where possible, to have residents think strategically about the ways their fire-adapted landscaping can create continuous areas of risk reduction. Consider partnering with a series of neighbors to plan for coordinated landscape actions such as local fuel breaks.

Resource: [Prepare for Wildfire-- Defensible Space](#) (CAL FIRE)

Landscape modification practices (e.g., the creation of "defensible space") around structures is an important focus. Promote fuel reduction extending throughout the full home ignition zone (200+ from the structure). Stress the multiple benefits of these actions in terms of wildlife habitat, forest or range health, and canopy spacing that will provide more natural light in dense forests. Informal conversations and recommendations for action may be more acceptable in some rural lifestyle communities than formal recognition programs. This may be an important consideration for local leaders or professionals. In places where many residents are already mitigating risk, consider how you might create cost-share or community-driven programs to help maintain past fuel treatments.

Case Study: [How to Maintain Your Defensible Space](#) (Insurance Institute for Business & Home Safety)

Building sprinklers

CHD

The establishment of residential or commercial sprinklers and associated water supplies are likely to be an important factor in reducing large-scale losses during conflagration fire events. Consider expanding state and federal emergency management cost-share programs to include structural retrofitting in highly developed areas. Identify resources such as federal grants to help upgrade water supply systems.



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Resident Mitigation (cont.)

Renters & second homeowners

HAHR

Consider developing and providing specific guidance for second homeowners, vacation properties and rental property owners for wildfire risk reduction in their community, including its importance to other properties in the community and the benefits to other values (e.g., wildlife and aesthetics). Information could provide options for how and when to conduct fuels reduction or property maintenance (e.g., reduction of fine fuels or improvements to structures to reduce ignition potential) around properties, lists of contractors or companies who will perform such services, and schedules of risk reduction assessments. Provide information on mitigation actions specific to residents who rent (e.g., keeping driveways clear of yard waste, ensuring flammable materials are stored away from the structure, etc) and provide resources about protection of property in the event of damages (e.g., renter's insurance).

Mitigation incentives

RL

Consider a wider range of mitigation incentives for rural lifestyle residents, including those that encourage interaction with neighbors and establish common bonds that might enable community development. For instance, consider programs that provide slash pick-up and disposal for residents, or mobile chippers for use in common spaces. Develop the capacity for home ignition zone and defensible space assessments or face-to-face engagement (which is often preferred).

Case Study: [Vegetation Management Cost-Share Program](#) (West Region Wildfire Council)

WL

Find ways to expand existing mitigation incentives for residential homeowners to reflect expanded values (or different priorities) of working landscape residents. For instance, allow a portion of cost share funding for home hardening to go toward the hardening of barns, outbuildings, or development of water sources. Engage in the restructuring or collective negotiation of multi-peril crop insurance to reduce long-term losses incurred after fires. Explore opportunities to frame mitigation efforts as a way for local people to be self-sufficient and reduce their reliance on other industries.

Landowner skills

RL

Residents in rural lifestyle communities may already have wildfire adaptation skills such as vegetation management (e.g., running chainsaws, equipment), retrofitting homes, or road maintenance. These skills can be shared with natural resource agencies or expanded/built upon through key partnerships. Tailored training programs, run by residents or in partnership with land management agencies, can provide additional opportunities for local residents or contractors to build qualifications, skills or certifications that improve their access to fire resilience work. Expanded trainings or links to a broader set of actions residents can take on their properties can help build a more self-sufficient population and contribute to a local ecosystem management workforce.

Case Study: [Hands-on lessons in chainsaw safety from Ely, Minnesota](#)

WL

Explore the expansion and development of landowner courses that build on the skills already present in the community. For instance, skills courses could focus on training for pile burning, prescribed fire, and forest management practices, including chainsaw and tree felling guidance. Additional training could include burn boss certification for expanded prescribed fire use on private lands, training for stay and defend practices during wildfire, and forest/range management practices for maximizing yield or ecosystem health. Work with community members to identify opportunities as well as trusted and knowledgeable course facilitators.

Case Study: [Mid Klamath Watershed Council Fire & Forestry Program](#)

Secondary income streams

WL

Explore and expand synergies that promote residential mitigation AND provide secondary income streams that help sustain livelihoods/stewardship of resources. For instance, utilize Farm Bill programs or wetlands management efforts as means to incentivize work on private lands near public lands. Explore options for tax breaks associated with good fire practices on private properties or as a means to establish liability insurance for prescribed fire losses. Consider options to extend fuels reduction from public lands onto private lands in exchange for recreation access.

Resource: [Expanded Conservation Program Opportunities](#) (US Department of Agriculture, 2022)



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Partnerships & Community Engagement

Leverage existing partners



Connect with existing community partners such as community development councils, the local chamber of commerce, service organizations, community health districts, local government, and volunteer organizations active in your community. These existing social networks can help further other elements of fire adaptation, whether it be individual mitigation, smoke preparedness, business continuity planning or other.

Neighborhood ambassadors



Adapt the existing neighborhood ambassadors program to help develop local level norms about practices that residents can take to reduce shared wildfire risk. If you have a large neighborhood, consider using "block captains" to foster broader discussion and complimentary efforts among smaller units. Consider establishing a wildfire-centered committee as part of an existing Homeowners' or Property Owners Associations.

Resource: [Fire Adapted Communities Neighborhood Ambassador Approach](#) (Wildfire Adapted Partnership, 2018)



Consider a neighborhood ambassador program to develop local resident leaders who disseminate wildfire planning information among neighbors. Integrate the program into existing Homeowners' Associations and neighborhoods with a well-developed sense of community. Partner with existing community organizations (e.g., social service organizations) to extend the ambassador approach throughout the community.

Resource: [Fire Adapted Communities Neighborhood Ambassador Approach](#) (Wildfire Adapted Partnership, 2018)

Foster community interactions



Building capacity in rural lifestyle areas means (in part) building a sense of community among landowners who may not interact regularly or who value their privacy. Use road associations, grower's association's, non-governmental organizations or other means of addressing common problems as a starting point for shared interaction. These associations do not need to be formal. Other options for those seeking more formal community or capacity building may be to use examples like the Watershed Research & Training Center, community development centers, or conservatories as a guide in creating their own organization for community engagement and capacity building.

Resource: [Rural Community Building Best Practices](#) (West Virginia Community Development Hub)

Be a good neighbor



Consider the extent to which the existing practice of "neighbors helping neighbors" can be mobilized to support wildfire risk reduction activities. Build upon the willingness of communities to help one another with common hardships or to maintain their way of life as a means to organize resources toward the reduction of wildfire risk. Examples include the development of shared fuel breaks, establishment of Rangeland Fire Protection Associations to help improve initial fire attack, recruitment and support for volunteer fire districts and/or the promotion of slash removal across properties following harvest.

Identify common ground



High amenity, high resource communities are often represented on a number of local/regional non-governmental organizations (e.g., land trusts, conservation groups, advisory committees, chambers of commerce, etc.) or organized groups (e.g., regional hiking club, "friends of" groups, winery associations). One of the best tactics for achieving collective action on wildfire in these communities is connecting existing resources, interests, and skills of these groups to wildfire as a larger issue. Think about how wildfire risk or management intersects with each of these groups. Identify and present the overlapping interest or benefit from addressing wildfire risk. Bring together organizations with the same interests or investments to build stronger partnerships. Look for opportunities to combine efforts, share volunteers/staff, or create synergy between similar programs.



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Partnerships & Community Engagement (cont.)

Inclusive engagement of whole communities

CHD Explore who lives in your community and determine how well represented all residents are in community governance and planning decisions. Identify trusted partners from different segments of the community and work with them to connect and engage with residents. Your community likely includes people with a variety of identities, experiences and cultures. This diversity is a strength when you are able to authentically engage and work with community members to leverage their differences. Consider multiple aspects of diversity within your community as you organize residents: have you considered access and functional needs in smoke and/or evacuation planning? Are your efforts communicated in the range of languages spoken in your community? How are you centering community-driven initiatives and opportunities for co-creation? What cultural norms around shared work, or traditional fire knowledge are held within your community?

Resource: [Guide to Equitable, Community-Driven Climate Preparedness Planning](#) (Urban Sustainability Directors' Network (2017))

FS Seek opportunities to empower community-driven work. Community members have skills, knowledge, and experience to help organize at the subdivision level. Empowering residents is key to inclusive engagement in fire adaptation. Are there opportunities to work with others who have trusted relationships within the community to empower local leaders? Consider multiple aspects of diversity within your community as you organize residents: have you considered access and functional needs in smoke and/or evacuation planning? Are your efforts communicated in the range of languages spoken in your community? How are you centering community-driven initiatives and opportunities for co-creation? Take care to ensure the whole community is included in the planning process.

Resource: [A Whole Community Approach to Emergency Management](#) (FEMA, 2011)

HAHR As your community develops processes, programs, plans and actions for fire adaptation, take care to ensure the whole community is able to participate. In some High Amenity/High Resource communities, relatively high costs of property and living mean that many of the people who work in your community reside elsewhere. Consider not only residents, but also your workforce, when planning resilience efforts, for example evacuation initiatives. Work to develop partnerships throughout the community to support fire adaptation efforts. A single organization may not be the best conduit for wildfire mitigation work across the entire community. Seek out partners who already have trusted relationships throughout your community and work collaboratively to ensure the diversity of your community is mirrored in the diversity of your planning and implementation actions.

Resource: [Toolkit to Integrate Health & Equity into Comprehensive Plans](#) (American Planning Association, 2020)

RL Rural lifestyle communities are often characterized by diverse residents from different walks of life. Multi-generational rural residents, amenity migrants, retired land managers, small-scale farmers, seasonal or migrant residents, individuals seeking to live off-grid, young families and more may all be present in rural lifestyle communities. The diverse identities and backgrounds of rural lifestyle residents can be a big asset in community wildfire resilience. Understand the range of backgrounds, skills and cultures in your community in order to leverage residents' existing networks and strengths and to ensure that all community members are included in wildfire resilience work.

Case study: [Wildfire Management Toolkit](#) (Hispanic Access Foundation)



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Partnerships & Community Engagement (cont.)

Inclusive engagement of whole communities (cont.)



Consider the whole community when working to reduce negative wildfire outcomes. Whether identifying landscape treatment locations, working through a planning process, or implementing a program to protect outdoor workers from smoke, consider how you can work with those closest to the issues to develop solutions. Often in working landscapes, residents have to travel long distances to convene in person, typically with limited public transportation options. What could be done to ensure that people who do not have transportation are included? Consider virtual meeting accessibility as well; are there areas in your community with poor cell service or limited internet connectivity? Remote hotspots, rotating meeting locations, and carpool options can help diversify and increase community engagement. In addition, consider those who have been historically disenfranchised from wildfire risk reduction or the outdoors and work to empower those community members. When building relationships, it may be most effective to identify organizations, entities, or individuals which can act as a bridge to help connect you to those you have not previously served.

Resource: [A Guide to Supporting Engagement and Resiliency in Rural Communities](#) (FEMA, 2021)

Interface with homeowner associations



When present, Homeowners Associations (HOAs) can be a significant vehicle for collective action in formal subdivision communities. Work with your local HOA to cultivate neighborhood leaders, communication networks, and volunteer efforts. Build fire mitigation actions into local practice by integrating them with codes, covenants and restrictions. Foster and organize shared support for community initiatives (e.g., evacuation planning, shared media campaigns, fire prevention seminars). Consider establishing a formal committee in the HOA to help champion activities that might advance fire resilience, or articulate the community-specific fire risks that are most important to address. Where possible, engage with property management companies who organize dues, regulations and management of shared spaces. Connect these groups with local fire districts to talk about institutionalizing best practices for wildfire, and the potential benefits that would provide with regards to property value and professional safety.

Case Study: [Homeowners Associations As Promising Structures for Wildfire Risk Reduction](#) (Ecosystem Workforce Program, 2014)

Collaborative groups



Communities should identify collaborative groups working at landscape scales and consider whether they have adequate representation or connection with such groups. If no groups exist, establishing more formal partnerships with area fire entities, emergency services, land management agencies, and land use planning groups may help foster landscape-level partnerships to influence planning across private and public lands.

Resource: [Collaboration Resources](#) (National Forest Foundation)

Contribute to collaboratives



Rural lifestyle communities may have less representation on resource or forestry collaboratives that are beginning to influence forest and range management across both private and public lands. Consider seeking opportunities to engage with formal collaborative groups. Participation with formal collaborative groups can inform landscape management decisions to positively impact rural lifestyle communities (e.g., community priorities can help shape fuels treatment prescriptions) and help encourage state and federal resources to prioritize actions in a wider range of communities (e.g., places which have not traditionally received investment, are more rural, or have been historically underserved).

Resource: [Building a Solid Foundation for Collaborative Efforts](#) (National Forest Foundation, 2019)



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Partnerships & Community Engagement (cont.)

Community-based partnerships



Leverage and build from existing networks tied to "working the land." These networks may include granges, cattlemen's associations, family forestry organizations, agricultural co-ops, etc. and are key existing resources for fire resilience. The existing trust between members of these organizations can be a useful way to develop shared commitment for fire adaptation. Other pathways might include partnerships with church groups, Tribal Councils and recovery organizations like Voluntary Organizations Active in Disasters (VOADs).

Case Study: [*Drought & Wildfire Resources*](#) (Washington Cattlemen's Association)

Community coordinators



Community coordinators can help represent and champion the perspectives of diffuse property owners who might not have formal representation in resource collaboratives, planning meetings or agency partnerships that are increasingly driving opportunities for fire adaptation. These champions can reflect the rural values of populations and help adapt programs to better suit the communities they serve; ideally, these champions emerge from the region and reflect the values and priorities of local communities. Coordinators can also help bring dispersed property owners together, coordinate fuel reduction efforts, and advance fire adaptation in the broader community. Other options may be to adapt the Neighborhood Ambassador program to cultivate multiple "spark plugs" throughout the community or share lessons between neighborhoods. Community coordinators can also streamline efforts to engage with local, state, and federal agencies by understanding and presenting rural residents values and preferences.

Resource-based agency partnerships



Use federal authorities such as the Good Neighbor Authority or Wyden Amendment to expand options for landscape level management. Work to establish pathways for funding to flow across ownership boundaries and in ways that create continuity of fuel treatments across larger portions of the landscape. Build on, and utilize, good working relationships with conservation districts or Natural Resource Conservation Service offices to engage large landowners on private lands. Consider expansion or pass through of funds to local representatives of these trusted organizations to coordinate collaborative efforts.

Case Study: [*Understanding Good Neighbor Authority-- Case Studies from Across the West*](#) (Rural Voices for Conservation Coalition)

Partner with developers, builders, & realtors



Consider strategic partnerships with developers, builders, realtors, and/or insurance agencies to help augment careful land use planning. The same partnerships could establish mitigation requirements for new development or dense developments in the region, educate builders on ignition-resistant construction materials, provide a means for negotiation with insurers about collective rates based on fire district response or mitigations, and/or help new homeowners become familiar with landscape maintenance requirements related to living in a fire-prone ecosystem.

Resource: [*What Builders Can Do to Help Stop Wildfire Disasters*](#) (National Fire Protection Association & Green Builder)



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Landscape Treatments

Open space management

CHD

Work with developers, city planners and neighbors to manage open spaces (e.g., community developments, interspersed public parks, or large greenbelts). Focus on reducing the likelihood that greenspaces can transmit fire through interconnected neighborhoods or commercial districts. Consider working with local parks departments or municipal crews to identify ways to include wildfire in landscape management or landscaping decisions.

Case Study: [Open Space Authority, Santa Clara Valley](#)

Maintenance of neighborhood greenspace/ greenbelts

FS

Complete and maintain shared or community greenspace or greenbelt projects to improve overall wildfire resilience. Common areas, community parks, and other shared landscapes are well-suited as demonstration properties that can create support for fuels treatments outside the immediate subdivision or on its outskirts. Consider working with adjoining municipalities or developments to "adopt" green spaces or natural areas and for which subdivisions will take formal responsibility for maintaining in terms of wildfire risk reduction. These sites, without consistent and proper management, may increase risk. Care should be taken to ensure long term commitment, resources and planning for projects like these. Considerations about how such features may figure into evacuation options is also suggested.

Case Study: [Portland Parks & Recreation](#)

Fuel breaks

CHD

Consider managing vegetation in natural areas adjacent to the community, in/near public parks, and/or around utility transmission lines to create conditions which are not conducive to high intensity fire (more widely spaced vegetation, less understory). Use existing landscape features or plan residential/commercial growth in ways that provide the opportunity for natural fuel breaks or potential fire containment lines. Consider the importance of viewsheds and recreation in the larger community when planning treatments.

Case Study: [Shaded Fuel Breaks \(Austin Wildfire Division\)](#)

HAHR

Consider the development of community-scale fuel breaks as an effective way to develop shared support; emphasize the dual benefits of improving overall forest condition and reducing wildfire risk. Consider community recreation and viewshed values during the planning process. Initiatives to create community fuel breaks should integrate with national forest or state lands planning. Where possible, discuss the co-design of treatments that extend across ownerships. Explore opportunities for the community to provide access to state or federal lands for work along private roadways or access points. Consider whether and how communities can contribute to maintenance of fuel breaks near or on their land, and in ways that perpetuate agency support, expertise or guidance. Work to develop and maintain treatment plans, implementation and maintenance schedules, monitoring plans, as well as mapping data that can integrate fuel breaks into databases that will inform suppression response or landscape health initiatives.

Small-scale fuel reduction

FS

Consider fuel reduction at small scales, including through novel means. Available tools may include using goats for grazing, conducting pile burning through local university or service clubs, and/or engaging landscaping companies to develop green spaces. Consider contracting with adjoining municipalities or nearby communities to both supply a workforce and contribute to workforce development.

Resource: [Goat Grazing \(Fire Safe Marin\)](#)



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Landscape Treatments (cont.)

Ecosystem services

CHD

Consider the range of services the broader landscape provides to the community. Some residents may use nearby state/federal lands for recreation while a nearby river may supply drinking water. Connect residents and professionals to larger landscape services as a way to demonstrate how fire will affect them. Connecting residents to broader landscape services reinforces the idea that wildfire is a shared responsibility and an important focus of community work. Some communities have placed a value on ecosystem services and designed a payment system (e.g., an additional fee on a water bill to fund watershed protection work in the larger landscape) to account for the value that public lands provide.

Resource: [Ecosystem Services Toolkit for Natural Resource Management](#) (Duke University)

Restoration

HAHR

Support for fuel reduction in the form of thinning should likely consider how prescriptions will impact ecosystem health. Consider emphasizing thinning as a tool to improve landscape health and resiliency as well as recreational opportunities in the area. Thinning projects can be considered in terms of how they support landscape-level treatments across other properties. The development of shared agreements or coordination of treatments are good avenues for planning.

Case Study: [Ashland Forest Resiliency Stewardship Project](#)

Federal planning authorities

HAHR

Consider using federal planning authorities to facilitate the development of local or regional workforces focused on the intersection of landscape stewardship, wildfire management and ecosystem restoration. Funding mechanisms such as Joint Chiefs' Landscape Restoration Partnerships and Collaborative Forest Landscape Restoration Program may help advance work. Stewardship contracting or the Wyden Authority are other good avenues that might allow local people the initial mechanisms to take more responsibility for landscape-level management of fire conditions.

Resource: [Joint Chiefs' Landscape Restoration Partnership](#) (USDA Natural Resource Conservation Service)

Shared/ cross-boundary treatment agreements

RL

Consider establishing agreements between residents and agencies to locate fuel treatments on a portion of their lands. Coordination of these efforts may create opportunities for shared revenue or products and help provide funding (e.g., cooperative projects can enable Joint Chiefs' projects or use of the Good Neighbor Authority). In range environments, community agreements may include mowing, grazing or mulching of fuel breaks at regular intervals on common land or strategic properties. The diffuse nature of properties and their irregular clumping may allow for smaller, but discontinuous, fuel treatments to be effective at protecting resources and assets.

Resource: [Fuel Breaks that Work](#) (Great Basin Factsheet, 2015)

Active land management

WL

Develop multiple options for active land management and consider looking at large landscape treatments. This may include grazing, expanded and/or accelerated fuel treatments, or other actions which utilize and/or expand local workforce capacity. Be mindful of treatment economics and work to improve the economics of land management where possible.



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Landscape Treatments (cont.)

Prescribed fire

HAHR

Consider using prescribed fire as a method to improve the health and fire resilience of the landscape. If prescribed fire has not been used in the area previously, consider starting with demonstrations to build trust in those conducting burns as well as build prescribed fire capacity. When using prescribed fire, consider the impacts of smoke to community health and outdoor pursuits. Following early use, prescribed fire could expand using "learn and burn" events, engagement with community-based burning programs (TRES), and larger treatments.
Case Study: [Engaging Communities in Prescribed Fire and Smoke](#) (Wildfire Planning International, 2017)

Community-based prescribed burning

RL

Efforts to promote the reintroduction of wildfire in and around rural lifestyle communities will likely require support and participation of local people. Existing programs such prescribed fire training exchanges (TRES) or the establishment of prescribed burn councils provide mechanisms and training that are likely to resonate with this community. Communities should develop relationships with federal and state agencies with existing expertise implementing prescribed burns to establish training and certifications that will allow for collaborative burns across ownerships and by local people.
Resource: [Prescribed Fire Training Exchanges](#) (The Nature Conservancy)

Cultural/traditional burning

WL

Support the use of fire as a cultural good, a means to sustain lifestyles, or a way to steward resources. Fire has been used by Indigenous peoples for milenia to steward the land. Agricultural burning has also been used to support farming and/or ranching practices.

Prescribed burn associations

WL

Explore opportunities to establish prescribed burn associations in the region. Consider whether these efforts can extend existing networks (e.g., agricultural producer groups, cattleman's associations) or provide complimentary avenues to engage fire-specific organizations (e.g., volunteer fire districts, Rangeland Fire Protection Associations). Work to develop local capacity to conduct prescribed fires.
Resource: [Prescribed Burn Associations](#) (Landscape Partnership)

Demonstration projects

FS

Explore opportunities to model fuels reduction activities or fire-resistant plantings in green spaces and parks such as through Firewise USA[®] demonstration gardens. Utilize field trips to demonstrate projects on public lands. Field trips can help develop support for landscape level treatments and foster relationships among collaborators who can engage in broader landscape-level management initiatives affecting the local community (e.g., all lands management convening groups, formal collaborative groups).
Case Study: [Demonstration Gardens & Projects](#) (Idaho Firewise)

Workforce capacity

RL

Workforce training can develop forestry contractors who help reduce fuels in and around communities, professional members of prescribed burn associations or burn bosses, consulting foresters, community planners, and speciality mills or users of vegetative material (e.g., bark chips, wood pellets, cross-laminate timber). A dedicated workforce with natural resources capacity can help support this community as well as strengthen its ties to the landscape. Explore options to ensure competitive wages to recruit and retain personnel within the workforce and sustain their capacity over time.
Resource: [USDA Resource Guide for Rural Workforce Development](#) (USDA Rural Development)



Fire Adapted Communities Pathways Tool

ACTION GUIDE

Review the **three to five practices** you have underlined in each category and **transfer** them to the table below. In the next step, you will be able to think critically about the feasibility and impact of these practices.

Public Health	Safety & Evacuation
Prevention	Wildfire Response
Regulations, Policy & Plans	Resident Mitigation
Infrastructure & Business	Partnerships & Community Engagement
Recovery	Landscape Treatments

Using the icons indicated below, mark the practices in your table.



Place a **STAR** next to practices you feel will have the **MOST IMPACT** to your community wildfire resilience.



Place a **QUESTION MARK** next to practices that you would like additional guidance, partnerships, or help carrying out.



Place an **EXCLAMATION MARK** next to practices where you **WOULD LIKE** more **RESOURCES** in your community.



CIRCLE practices you feel are the **MOST FEASIBLE** for you to accomplish at this time. Consider your assets, resources, and partnerships.



Place a **DOLLAR SIGN** next to practices that are **CURRENTLY** the most **WELL-RESOURCED** in your community. Resources can include personnel, money or other assets.



Place a **HEART** next to practices you feel will most support community fire adaptation in the **LONG-TERM**, without regard to current resources or capacity.



WRITE-IN any **KEY** practices you are undertaking in a category which was not listed.

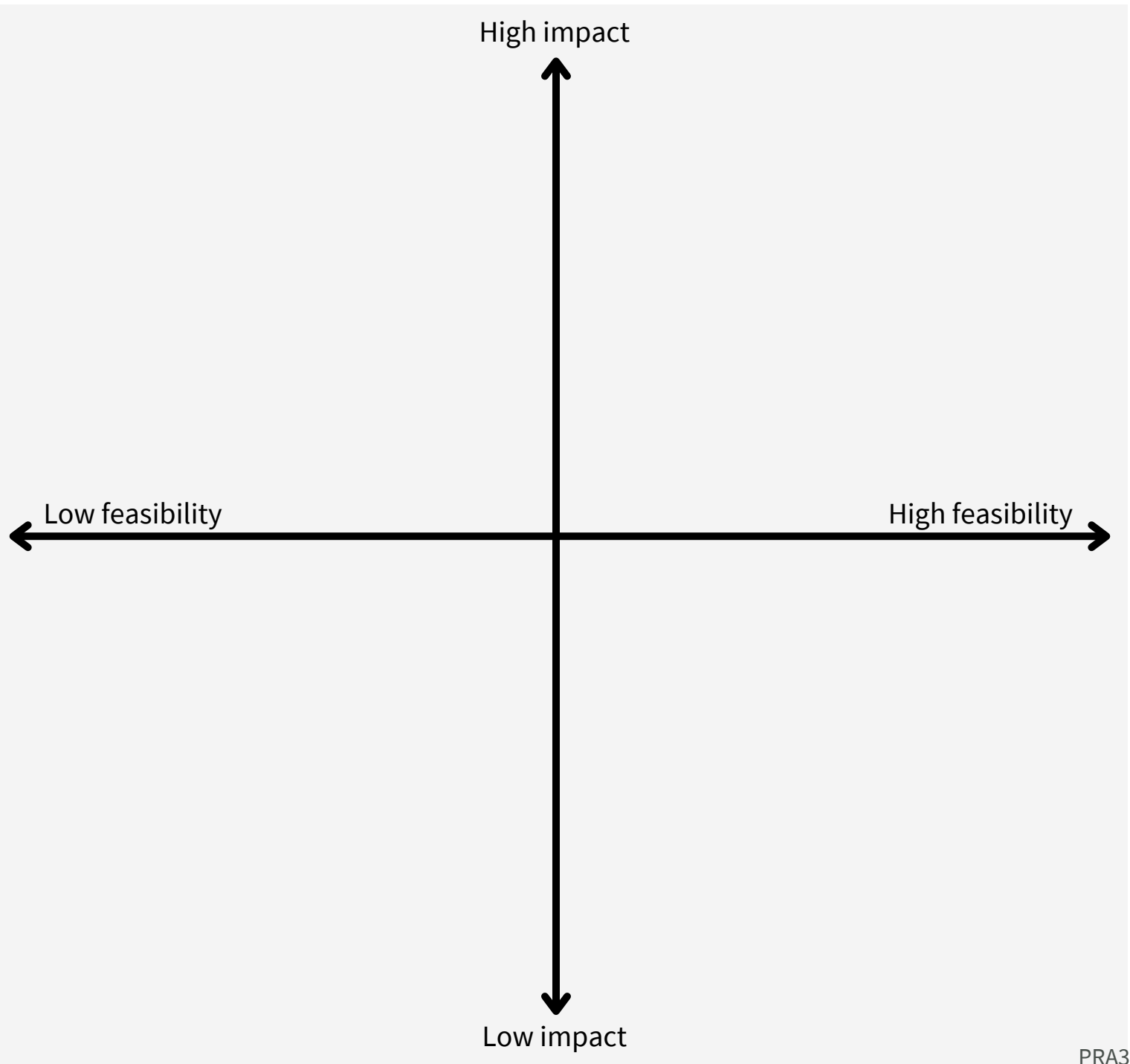


Fire Adapted Communities Pathways Tool

ACTION GUIDE

If you are working with a group, **ensure everyone has a copy** of the completed worksheet and action guide before beginning your discussion. Looking at your practices table, place each practice on the grid below. Don't worry about being too exact or precise! You will consider what the results mean in the following step.

A practice is **high impact** if it significantly increases your community's ability to prepare for, respond to, or recover from wildfire. This may be due to the practice increasing community capacity, resources, knowledge or ability to maximize positive fire outcomes and minimize negative fire outcomes. A practice has **high feasibility** if it can be carried out with the support, resources, knowledge, best practices, partnerships or other capacity available to the community.





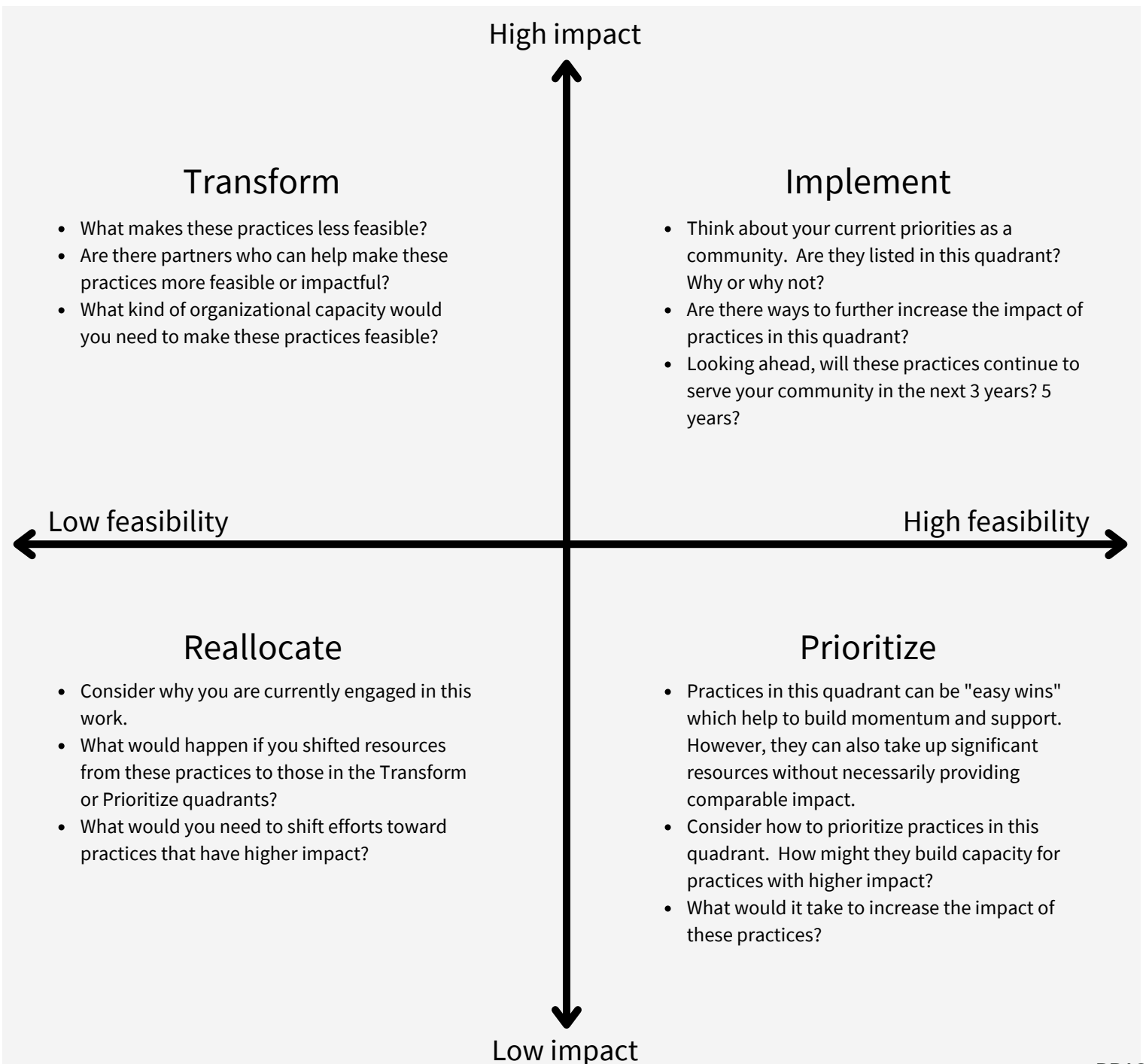
Fire Adapted Communities Pathways Tool

ACTION GUIDE

Consider the grid you completed from the previous page and the questions below.

You may also place ANY practice you are currently undertaking, or wish to undertake, on the grid from the previous page. This may be particularly helpful as you consider long-standing or evolving practices you have undertaken in your community. Are there things you have been doing for a long time which need to be evaluated in the context of your other work? Which could be used to leverage or build toward new practices?

Consider how you will prioritize practices moving forward. Looking at your grid the previous page, and in light of the questions provided below, **CIRCLE** three practices you would like to emphasize in the coming year.





Fire Adapted Communities Pathways Tool

Custom Graphic

You can create your own FAC Practices graphic by transferring the practices from your table (PRA 36) to the graphic below. This will result in a custom FAC graphic for your community. As you place practices on the graphic, consider the work done on the previous pages. You should understand why you are placing practices on this graphic.

Consider:

- How do these practices reflect the local conditions in your community?
- How do these practices contribute to fire adaptation?
- Why are these practices strategic in your community?



**FIRE ADAPTED
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LEARNING NETWORK



Fire Adapted Communities Pathways Tool

Considerations for Next Steps



TIPS As you consider your next steps, the following may be helpful:

Consider your worksheet and action guide as a blueprint for fire adaptation progress. Draw from your customized graphic when planning next steps, when considering new programs or new initiatives, or when pursuing longer-term initiatives with various partners. Your graphic, practices and associated priorities from the worksheet can be used to quickly communicate community needs, capacities, and progress to partners, other community members, funders, and other stakeholders.

Integrate your graphic and practices into a larger Community Wildfire Protection Plan planning process, consider how this tool intersects with a hazard mitigation plan, or assess whether existing emergency service priorities match community efforts.

Use your graphic and practices as a way to start dialogue to increase wildfire resilience. Use the products created in this process to jumpstart partnerships, combine resources with community partners or otherwise support progress on site-specific adaptations that fit your local circumstances.

Share your graphic, practices and priorities with other communities in your region. Encourage them to complete their own process and compare notes. What have you each been successful in achieving? How can you help each other learn from those processes? Do other communities possess assets or opportunities that you both could leverage when working at broader scales? What assets does your community have that could be leveraged more broadly?

Join the Fire Adapted Communities Learning Network as an Affiliate Member and find other communities to learn from or connect with. Network members identify and demonstrate new approaches and practices for fire resilience. You can share ideas for emerging and needed work in communities like yours via participation in the Network.

For More Information

The Fire Adapted Communities Pathways Tool is part of a suite of tools designed to support community-based fire adaptation. Additional information, facilitation guides, graphics, and more are available at <https://fireadaptednetwork.org/resources/fac-pathways-tool>.

To provide feedback or to share the results of your worksheet and action plan, email info@fireadaptednetwork.org. Your worksheet and action plan will be kept confidential; they can be of great help to practitioners, policymakers and researchers in the monitoring or design of programs and partnerships designed to help communities adapt to wildfire.

Limited support may be available to pilot the Fire Adapted Communities Pathways Tool in your area. If you are interested, please fill out [this short form](#).

If you want to know more about the research that informed the creation of this Tool email Dr. Travis Paveglio at tpaveglio@uidaho.edu.



This document was created by the Fire Adapted Communities Learning Network, in partnership with Dr. Travis Paveglio. FAC Net is a community of wildfire adaptation practitioners across the nation that is supported by the United States Forest Service, Departments of the Interior, The Nature Conservancy and the Watershed Research and Training Center. Visit www.fireadaptednetwork.org to learn more about the Network, become a member, or subscribe to our weekly blog.