



## National Wildfire Coordinating Group Communicator's Guide for Wildland Fire Management: *Fire Education, Prevention, and Mitigation Practices*

### 9. Fire Mitigation

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#### Living in the WUI

Mitigation is essential to reducing the loss of homes and resources in the wildland/urban interface. This chapter presents sample strategies for fostering community collaboration to reduce wildfire vulnerability. Overall **communication planning processes, tactics, and materials development** are included in other chapters.

Consult the **APPENDIX** for this chapter for a number of related resources.

## Wildland/Urban Interface Overview

Over the past century, America's population has nearly tripled, with much of the growth flowing into traditionally natural areas. This trend has created an extremely complex landscape that has come to be known as the wildland/urban interface (WUI): a situation under which a wildfire reaches beyond trees, brush, and other natural fuels to ignite homes and their immediate surroundings.

Consequently, in many areas of the country, the WUI can provide conditions favorable for the spread of wildfires and ongoing threats to homes and people. Many individuals move into these picturesque landscapes with urban expectations. They may not recognize wildfire hazards or might assume that the fire department will be able to save their home if a wildfire threatens.

However, when a wildfire spreads, it can simultaneously expose dozens — sometimes hundreds — of homes to potential ignition. In situations such as this, firefighters often do not have the resources to defend every home. Homeowners who take proactive steps to reduce their homes' vulnerability have a far greater chance of having their homes withstand a wildfire.

A critical element of any WUI outreach project is to help the public understand wildland fire and the challenges it presents in the WUI. While individuals who live in the WUI may realize that wildland fire is part of their ecosystem, it is not universally understood that residents and communities must take proactive steps on their own to reduce their vulnerability. In addition, many who are aware of mitigation efforts lack the motivation to take action and often do not see the value of making such changes.

Motivating individual residents and communities to mitigate their risk is a significant task. There are a number of resources available, including the national Firewise Communities program, Community Wildfire Protection Plans (CWPP), and regional and local programs such as Fire Safe Councils or Firewise Councils.

The interface is made up of three types of configurations.

- The **"classic" interface** is a result of urban sprawl. Homes and structures are placed in direct contact with wildland, and the inhabitants often have come directly from urban areas.
- The **"intermix" interface** occurs when single or clustered homes and other structures are scattered throughout a wildland area, e.g., summer homes, suburban homes on large tracts of land, and isolated recreation areas, such as cabins, mobile homes, and camping facilities. Many individual structures are often surrounded by woodland vegetation, and are served only by narrow roads, making it very difficult to reach these areas if fires occur.
- The **"occluded" interface** consists of islands of wildland within an urban area, such as a city park, or land considered unsuitable (e.g., too steep) for a structure. The threat of fire in these areas is low, but when fires break out here, there can be a substantial risk to surrounding structures and to those who use the natural areas.

### WUI Defined

The wildland/urban interface refers to a set of conditions under which a wildland fire reaches beyond natural fuels (such as trees and brush) to homes and their immediate surroundings. A substantial human presence coexists uneasily with areas of fire-prone forest, brush, and grassland vegetation.

## **WUI Fire Concerns**

There are a number of concerns we face in the WUI. WUI fires tend to be more damaging than urban structural fires, are often more difficult to control, and behave differently than structural fires. Other concerns include:

- Interface areas are likely to be increasingly flammable because of intensive suppression of fires in the past.
- Fires ignite indirectly in structures, and directly from accidental causes related to recreational and commercial use of the wildland. When these fires occur, people and structures must take priority, often at a devastating expense to natural resources. People who live in these areas often come directly from urban areas, and may bring with them careless habits and little understanding about wildland fire cycles and dangers.
- Homes and other structures are built and maintained in a manner which leaves them and their occupants vulnerable. Thus, wildland fires become a significant threat to both humans and natural resources.
- Structural firefighters are trained and equipped differently than wildland firefighters. Urban firefighters rely on the water systems provided in urban settings, and count on catching the fire in its early stages. Often, neither of these situations exists in the WUI. Wildland firefighters have no ready water supply except what they transport to the site. They also anticipate larger fires, and are thus trained to fight the fire from its perimeter, clearing fuel to prevent spread.

## **Who's Responsible for Addressing the Problem?**

There is considerable debate about who should take responsibility for this unique problem, and what can be done about it. Some believe that homeowners should take the most responsibility. In other words, some argue the risk-takers should pay for their decision to live in a potentially dangerous interface area, by paying more taxes and by taking precautions around their property. Realtors have the responsibility to disclose the fire hazard possibilities. Designers and developers also need to take more responsibility. However, critics argue that making the necessary economic investments would be impossible for some residents, and others are unwilling to modify their home and surroundings for fear of compromising the rustic look.

Wildland fires are a natural process. Making homes compatible with nature can help save homes and, ultimately, entire communities during a wildfire.

Others assert that the whole community should take responsibility for the hazards. Property owners should be encouraged to make their own land fire resistant and defensible, and community governments should create, promote, and enforce fire-safety laws and adequate zoning codes. Community planners also need to understand and foresee how population growth, use patterns, and changing demographics will influence and contribute to the interface problem. Insurance companies should provide incentives and disincentives that encourage homeowners to take risk-reducing measures. Fire protection agencies should be more aggressive in effectively communicating the problem, consequences, and solutions of interface fires. However, critics fear that the community approach ignores the natural environment and its protection, and only concentrates on people and structures. There is also skepticism about getting all of the involved parties to work together.

Land management agencies have also been called upon to take a more active role in helping to control the problem by reducing fuel around interface areas regularly, so that fires are easier to manage and control. They may also rely on a prescribed fire regimen, but these carry some elements of risk. The concepts of "not in my backyard" and smoke impacts restrict options. In

reality, residents must understand that fire and resulting smoke will occur on the site; the question is will it occur under a controlled, prescribed burn or as a conflagration. However, a regimen that involves both land management agencies and private landowners cooperating to maintain reduced fuel around structures could be much less destructive, more cost-efficient than suppressing fires, and much safer.

Though a comprehensive solution to the wildland/urban interface problem may not be immediately forthcoming, there are several simple and relatively inexpensive precautions the private homeowner can take to reduce the risk.

The National Firewise Communities program offers extensive information and resources for living in the WUI. Visit [www.firewise.org](http://www.firewise.org) for details.

Of particular note regarding responsibility is the publication *Firewise: Community Solutions to a National Problem*, available free at [www.firewise.org](http://www.firewise.org).

## WUI Messages

When talking about wildfire mitigation, it is important to acknowledge that fire is a natural process, and it will occur. However, those who choose to live in the WUI can take action to reduce wildfire vulnerability to their citizens, homes, and essential infrastructure and resources.

The following key messages have been developed by the NWCG Wildland/Urban Interface Working Team. For the most updated information, visit: [www.firewise.org](http://www.firewise.org).

- Through community planning and preparedness, wildfires can occur without catastrophic loss.
  - Wildfire is an essential, natural process. Under the right conditions, wildfires can occur in almost any area of the country. But homes don't have to burn.
- Wildfires are going to occur. It is not a matter of *if* – it is a matter of *when*.
  - Wildfires can occur anywhere that conditions such as fire-prone vegetation and patterns of dry and windy weather exist.
  - These conditions can be found nearly anywhere in the U.S. at some point during a typical year.
  - Wildfires may even make it impossible for firefighters to get to your property when fire is approaching.
- There are no guarantees that a home/community will be *fireproof*. But if you take action to be *firewise*, you can greatly increase the chances that your home/community will withstand a wildfire.
  - The most successful approach incorporates efforts of homeowners, communities, and businesses, along with federal and state agencies, tribes, and fire departments.
  - A comprehensive approach to wildfire preparedness involves sound land use planning, creative mitigation measures, supportive infrastructure, collaborative decision making, and effective emergency response.

The Firewise Communities Newsroom ([www.firewise.org/newsroom](http://www.firewise.org/newsroom)) includes a number of resources for reporters and fire communicators, including current news from the program and a link to the **Firewise Communities Communications Guide** with sample materials.

## Community Considerations

Know the community and be sensitive to its needs.

- Reassure them that the state/federal government is not going to come in and remove vegetation on their property.
- Reassure them that “Firewise” does not mean “ugly.”
- Encourage the community that they can still have privacy, woods, views, etc.
- Use specific examples.
  - Identify local wildland fire risks and address hazards.
- Use plain language and avoid jargon.
  - If technical terms are necessary, explain them.
    - Mitigate = Reduce risk, hazard, or vulnerability
    - Canopy/crowns = Tops of trees or other tallest vegetation
    - Firebrands = Burning embers

Be sure to draw the distinction that Firewise does not *prevent* fires – it helps to make homeowners and communities more prepared when a wildfire does occur.

Engage home-related industry professionals, such as architects, landscapers, landscape architects, community planners, home construction and remodeling, home improvement retailers, insurance industry representatives, Red Cross, emergency management services.

- Initiate regular communication:

- Firewise presentations during meetings
- Include relevant Firewise information in their client mailings
- Spokespersons for local media, byline articles for trade publications, letters to local officials, letters to the editor, op-eds, etc.

## National Firewise Communities Program

The fire season of 1985 motivated wildfire agencies and organizations to focus on local solutions to wildfire risks in WUI areas by forming what is now the Firewise Communities program, directed by the National Wildfire Coordinating Group's [Wildland/Urban Interface Working Team \(WUIWT\)](#), a consortium of representatives from federal and state wildland fire agencies and organizations.

The Firewise Communities program is designed to reach beyond the fire service to involve homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from wildfire – *before the fire starts*. This approach emphasizes community responsibility for the design and maintenance of a safe community, including sound land use planning, creative mitigation measures, supportive infrastructure, collaborative decision making, and effective emergency response.

The Firewise Communities program serves as a resource for agencies, tribes, organizations, fire departments, and communities across the U.S. who are working toward a common goal: reduce loss of lives, property, and resources to wildfire by building and maintaining communities in a way that is compatible with our natural surroundings.

### **Firewise Defined**

Originally coined in 1992 by a botanist, the term “firewise” describes the state of being knowledgeable and prepared for wildfire in residential or urban settings. While the national program carries the title “Firewise Communities,” there are thousands of local and regional efforts that are committed to this concept. The Firewise Communities program is designed to support and complement these efforts – it does not conflict or compete with them.

### **Resources for State Forestry Agencies**

The Firewise Communities program offers a number of resources to state forestry agencies, including support for local workshops, an interactive website ([www.firewise.org](http://www.firewise.org)), educational tools, and support for fire organizations and community groups.

Of particular interest to state forestry agencies is the Firewise Communities/USA program, which recognizes residential developments that take action to mitigate their wildfire risk. Communities that meet the program’s criteria are encouraged to apply for national recognition through their state forestry agency. Large organized efforts, such as county-wide Fire Safe Councils, can help foster the creation of Firewise Communities/USA sites within their neighborhoods, subdivisions, and other residential developments.

### **National Firewise Communities Program** [www.firewise.org](http://www.firewise.org)

The National Firewise Communities Program provides wildland/urban interface resources for firefighter safety, community planning, landscaping, construction, and maintenance to help protect people, property, and natural resources from wildland fire.

Web site visitors can view streaming video; download checklists, school education materials, and other information; browse an extensive list of helpful links; and use a searchable library of national, state, and local documents on a wide range of wildfire safety issues. Communities can also contact Firewise staff for assistance in hazard planning and mitigation.

## **Firewise Communities/USA**

The Firewise Communities/USA program can be an incentive for communities working on a CWPP. Firewise Communities/USA is a nationwide program to recognize communities that maintain an appropriate level of fire readiness. State forestry organizations help administer the program at the state and local level.

Communities can earn Firewise Communities/USA status by meeting the following criteria:

- Have a WUI specialist complete a community assessment, and create a plan that identifies achievable solutions to be implemented by the community.
- Sponsor a local Firewise committee, council or board that maintains the Firewise Communities/USA program and tracks its progress.
- Observe a Firewise Communities/USA Day annually that is dedicated to a local Firewise project.
- Invest a minimum of \$2 per capita annually in Firewise projects. Work by municipal employees or volunteers using municipal and other equipment can be included, as can state and federal grants dedicated to that purpose.
- Submit an annual report to Firewise Communities/USA that documents continuing compliance with the program.

This program is of special interest to small communities and neighborhood associations that are willing to mitigate against wildfire by adopting and implementing programs tailored to their needs. The communities create these programs themselves with cooperative assistance from state forestry agencies and local fire officials. Contact your state forestry office or visit the Firewise Communities/USA Web site ([www.firewise.org/usa](http://www.firewise.org/usa)) to find out more about how to begin the assessment process.

As of March 2006, more than 150 communities across the U.S. have earned Firewise Communities/USA recognition. For a complete list of recognized communities, visit [www.firewise.org/usa](http://www.firewise.org/usa).



## Firewise Communities/USA: Windcliff, Colorado



Windcliff is a development of 155 properties, situated on 240 acres in Estes Park, Colorado approximately two hours north of Denver. It is bordered on two sides by Rocky Mountain National Park and on a third by the Roosevelt National Forest. The subdivision contains 50 acres of common community "green space" and the proximity of the national park and national forest along with its large population of trees constantly reminds residents of their common responsibility to protect this precious resource.

The community began formulating and carrying out a strong fire mitigation plan in 1997. It has partnered with the Town of Estes Park, Larimer County, the State of Colorado Forestry Service, Rocky Mountain National Park and the YMCA of the Rockies to undertake a proactive stance toward fire mitigation.

In order to encourage and educate property owners of the importance of being Firewise, a demonstration area of approximately five acres was limbed and thinned according to the Colorado State Forester's prescription. Property owners used this area as a benchmark for improving their property. Encouraged by the results, the Windcliff Board of Directors now budget approximately \$10,000 annually for fire mitigation work and are committed to the program's continuance.



The community of Windcliff holds two cleanup days a year. Residents are encouraged to volunteer to help trim, thin and limb to reduce fuel within the "green space" area. Response to these days has been excellent and is seen as a way to not only reduce fuels within the community, but also as an opportunity to socialize and meet neighbors.



A dumpster is made available to all residents, during the summer, to dispose of all slash related items.

The Larimer County Wildfire Safety Specialist conducted a wildfire hazard risk assessment of homes and lots. To date he has inspected approximately 75 percent of the homes and lots, and has made suggestions for improving their chances should a wildfire occur. Every property that was inspected acted on the suggestions.

Members of Larimer County and the State of Colorado. These representatives have helped Windcliff secure County and State grants to defray many costs involved with cleanup efforts.

The Windcliff plan includes:

- Continuous monitoring of all properties and working closely with an Architectural Control Committee to maintain a fire safe area around new construction.
- Budget \$50,000 for a large fuel reduction project on the mountain.
- A 4th of July picnic that encourages owners to become Firewise.
- Distribute annual mailings with Firewise tips and advice.
- Continue to work with all agencies and encourage neighboring communities to be more proactive toward fire mitigation.

## Firewise Community Projects

Firewise community projects can be as varied as the residents' imaginations. Following are just a few examples of what neighborhoods can do to protect their communities from wildfire.

- Host a "Chipping Day" for residents to remove excess vegetation from their property, as well as community property.
- Hold a pine needle or debris removal day in cooperation with the local fire department.
- Hold a Firewise education day that provides information about proper landscaping and construction choices, introduces local staff, and distributes pertinent Firewise information to the community.
- Create a fuel removal project that uses local volunteers.
- Place articles in the local paper about fire season and the need for your community to be prepared for it. Showcase your accomplishments.
- Conduct Firewise landscaping and construction information sessions at a local home improvement store.
- Modify homeowner association covenants to include Firewise concepts.
- Utilize local fire officials to conduct a wildfire hazard overview at a community meeting.
- Distribute Firewise information at community festivals.
- Include homeowner tips in community newsletters.
- Conduct Firewise information sessions at neighborhood association meetings.
- Conduct homeowner Firewise assessments in cooperation with the local fire department.

Most states have a designated Firewise state liaison who has access to additional Firewise resources, such as the ability to order bulk quantities from the online Firewise catalog. Contact your state liaison to see what Firewise materials may be designed specifically for your state and to see what activities might be happening near you. For a state liaison listing, visit [www.firewise.org/usa](http://www.firewise.org/usa).

## Community Wildfire Protection Plans

The idea for community-based forest planning and prioritization is neither novel nor new. However, the incentive for communities to engage in comprehensive wildfire planning and prioritization was given new and unprecedented impetus with the enactment of the Healthy Forests Restoration Act (HFRA) in 2003.

This landmark legislation includes the first meaningful statutory incentives for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to give consideration to the priorities of local communities as the agencies develop and implement forest management and hazardous fuel reduction projects.

In order for a community to take full advantage of this new opportunity, it must first prepare a **Community Wildfire Protection Plan (CWPP)**. Local CWPP's can take a variety of forms, based on the needs of the people involved in their development. CWPP's may be designed to address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection—or all of these.

The process of developing a CWPP can help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the WUI. It also can lead community members through valuable discussions regarding management options and implications for the surrounding forested lands.

The language of HFRA provides maximum flexibility for communities to determine the substance and detail of their plans and the procedures they will use to develop them. Because the legislation is general in nature, some communities may benefit from assistance on how to prepare such a plan.

This section is intended to provide communities with a concise, step-by-step guide to use in developing a CWPP. It addresses, in a straightforward manner, issues such as who to involve in developing a plan, how to convene other interested parties, what elements to consider in assessing community risks and priorities, and how to develop a mitigation or protection plan to address those risks.

This guide is not a legal document, although the recommendations contained here carefully conform to both the spirit and the letter of the HFRA. It offers one of several possible approaches to planning. It should prove useful in helping communities establish recommendations and priorities that protect their citizens, homes, and essential infrastructure and resources from wildfire.

### Communities and the WUI

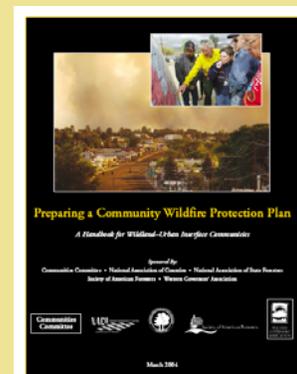
The WUI has been described as the zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels. This zone poses risks to life, property, and infrastructure and is one of the most dangerous and complicated situations firefighters face.

Both the National Fire Plan and the *Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment* place a priority on working collaboratively within WUI communities to reduce their risk from wildfire.

The National Association of State Foresters and its members have agreed to take the lead in preparing these plans. For a briefing, visit

[www.stateforesters.org/reports.html](http://www.stateforesters.org/reports.html)

A guide is available online at <http://www.safnet.org/policyandpress/cwpphandbook.pdf>



The HFRA builds on existing efforts to restore healthy forest conditions near communities and essential community infrastructure by authorizing expedited environmental assessment, administrative appeals, and legal review for hazardous fuels projects on federal land.

The Act emphasizes the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatment areas identified by communities themselves in their CWPP.

### Role of Community Wildfire Protection Plans

The HFRA provides communities with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands and how additional federal funds may be distributed for projects on nonfederal lands. A CWPP is the most effective way to take advantage of this opportunity. CWPP's can take a variety of forms, based on the needs of those involved. They can be as simple or complex as a community desires.

The *minimum requirements* for a CWPP, as described in the HFRA are:

- 1. Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- 2. Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more communities and its essential infrastructure from wildfires.
- 3. Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

The HFRA requires that three entities must mutually agree to the final contents of a CWPP:

- The applicable local government (i.e., counties or cities)
- The local fire department(s)
- The state entity responsible for forest management

In addition, these entities are directed to consult with and involve local representatives of the USFS and BLM and other interested parties or persons in the development of the plan. The process is intended to be open and collaborative, involving local and state officials, federal land managers, and the broad range of interested stakeholders. If a community already has a plan that meets these requirements, the community need not develop an additional plan for the purposes of the HFRA.

### Walker Run Community Fire Plan- Reardon, Florida:

The Walker Run Community Fire Plan was developed to set clear priorities for the implementation of wildfire mitigation in the Walker Run community. The plan includes prioritized recommendations for the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. It also includes a plan for wildfire suppression. Specifically, the plan includes community-centered actions that: educate citizens on wildfire, its risks, and ways to protect lives and properties, support fire rescue and suppression entities, focus on collaborative decision-making and citizen participation, develop and implement effective mitigation strategies, and develop and implement effective community covenants and codes.

<http://www.wildfirelab.com/images/cwppwalkerrun.doc>

## **Benefits to Communities**

In the context of the HFRA, a CWPP offers a variety of benefits to communities at risk from wildland fire. Among those benefits is the opportunity to establish a localized definition and boundary of their WUI.

In the absence of a CWPP, the HFRA limits the WUI's boundary to within 1/2 mile of a community's boundary or within 1 1/2 miles when mitigating circumstances exist, such as sustained steep slopes or geographic features aiding in creating a fire break. Fuel treatments can occur along evacuation routes regardless of their distance from the community. At least 50 percent of all funds appropriated for projects under the HFRA must be used within the WUI.

In addition to giving communities the flexibility to define their own WUI, the HFRA also gives priority to projects and treatment areas identified in a CWPP, by directing federal agencies to give specific consideration to fuel reduction projects that implement those plans. If a federal agency proposes a fuel treatment project in an area addressed by a CWPP but identifies a different treatment method, the agency must also evaluate the community's recommendation as part of the project's environmental assessment process.

A guide with step-by-step recommendations for preparing a CWPP is available online at <http://www.safnet.org/policyandpress/cwpphandbook.pdf>. These recommendations are intended to help communities develop a CWPP that addresses the core elements of community protection. Items required under the HFRA are addressed, as are some additional issues that often are incorporated into wildfire protection planning. Actions beyond those listed in the legislation are not required for the purposes of the HFRA.

## Fire Safe Councils, Firewise Councils and Boards

An example of regional cooperative approach to fire safety is the Fire Safe Council program in California. Much like Firewise Communities which have Firewise Boards or Firewise Councils, a Fire Safe Council is a coalition of public and private sector organizations working to help local communities mobilize residents to reduce the wildfire vulnerability of their homes and neighborhoods.

Fire Safe Councils, Firewise Councils or Boards may be formed with the specific task of addressing the fire safety issue in their area, but must be committed to carrying out the tasks they identify. Another option is to leverage established groups such as homeowners associations, chambers of commerce, or rotary clubs to serve the Fire Safe Council, Firewise Council or Board role.

### **State Level Fire Safe Council**

The California Fire Safe Council's mission is to preserve and enhance California's resources by providing leadership and support that mobilizes all Californians to protect their homes, communities and environment from wildfires.

Since its formation in April 1993, the Council has united diverse membership to speak with one voice about fire safety. The Council has distributed fire prevention education materials to industry leaders and their constituents, evaluated legislation pertaining to fire safety and empowered grassroots organizations to spearhead fire safety programs.

At the statewide level, the Fire Safe Council is made up of numerous members who have a vested interest in decreasing losses from fire, and preserving natural and man-made resources. Possible activities include the following.

- The statewide chapter can help form local fire safe councils.
- The statewide Fire Safe Council can provide contacts in the community who will participate in organizing efforts.
- If an existing organization is used to address the fire problem, the Fire Safe Council can help by providing information about possible funding sources for fire safe projects.
- The Fire Safe Council can identify programs presently underway.

## Conducting a Local/Regional Firewise Workshop

The national Firewise Communities program supports regional and local organizations interested in hosting a one-day Firewise Communities workshop using materials supplied by the national program. These dynamic workshops prepare participants to recognize WUI fire hazards, make homes and landscapes more resistant to wildfire, deliver fire education to residents, and incorporate Firewise planning into existing and developing areas of communities.

Local Firewise Communities workshops can feature interactive discussions, mapping, and simulations. The workshops are most successful when they are attended by a variety of community representatives, such as elected leaders, planners, business leaders, homeowner association members, and emergency service professionals.

Visit [www.firewise.org](http://www.firewise.org) to order the 4-CD set that contains the Firewise Communities workshop materials and the GIS-based community scenario.

### Criteria for conducting a local Firewise workshop:

Workshops meeting the following criteria are eligible to have participants receive certificates from the national Firewise Communities program office.

Local workshop coordinator must have attended a national workshop or have been trained as a coordinator or facilitator at a state-run Firewise workshop.

- Local workshop coordinator must use the 4-CD set that contains the Firewise Communities workshop materials and the GIS-based community scenario.
- The workshop must include the following sessions:
  - Presentation of Firewise concepts.
  - Introduction of simulation exercise.
  - Completion of several specified tasks.
  - A closing and summary Q&A session.
  - Total workshop minimum time, 300 min.

The ideal size for a breakout session is 12 to 16 participants.

Alternately, a “Living on the Edge” community leaders workshop provided by your state forestry agency qualifies as an equivalent workshop program. The workshop content and materials used for these workshops is distributed by the Firewise Communities program. Visit <http://www.itm-info.com/lote/> to learn more about the Living on the Edge workshops, including whether your state is offering workshops and how to register.

## Organizing a Firewise Workshop

### Workshop Steering Committee

The Firewise Communities program’s strength lies in its approach. The program encourages residents to work together as a community, along with local fire officials, builders, community planners, and developers, and others. Establishing a Workshop Steering Committee composed of representatives from the target participant list is a good way to begin outreach to these professions or segments of the community. Outreach to organizations and companies that have an interest in the wildland/urban interface is critical.

## Inviting Participants

Develop an invitation list that includes a variety of professions, such as homeowner associations, builders associations, city planners, landscape architects, engineers, architects, developers, fire suppression and mitigation professionals, lawyers, Red Cross, local city officials, utility companies, etc. Consider reaching out to professional organizations and encourage participation by their members. *Remember, invite more than capacity. Some will not be able to attend.* See the sample invitation letter below.

Invite homeowner associations and professional organizations to announce the workshop in their newsletters and/or make an announcement at an upcoming meeting.

Registration mailings and calls should start as soon as the workshop coordinator is identified and the date is confirmed. Invitation packets should be mailed at least four to six weeks prior to the workshop. Don't rely on mail alone. Follow up with personal phone calls to encourage participation.

Invitation packets should include:

- Cover letter that summarizes the workshop and invites the recipient to attend.
- Registration form with space for participant's name, organization, address, e-mail, and phone number. Also include specific directions for returning the registration form, including your phone number, address, e-mail, and fax number.
- Length of workshop and, if possible, an agenda.
- Dress code and list of items a participant should bring.
- Map to the workshop location.



## Location and Logistics

The location for the workshop should have a general session room and breakout rooms for a working group (a good rule of thumb for the size of a working group is between 12 and 16 people). The available space at your workshop location, as well as the number of facilitators you have available for the breakout sessions, will dictate the maximum number of people who can participate. Providing lunch is a good way to facilitate networking among the groups. Workshop coordinators should review the logistics checklist (below) for more considerations about workshop location and organization.

## Publicity

Workshop coordinators are encouraged to work with local media to share the Firewise message. Consider making someone available to speak with the media, should they request it.

Do not rely on news media alone to announce your workshop. Placing direct phone calls to area professional organizations and other invitees is the most effective approach in recruiting participants.

## Speakers and Facilitators

Plan on scheduling one local speaker who can address the local wildfire situation, plan to have two facilitators for each breakout session.

A workshop participant database is available on the Firewise Communities Web site ([www.firewise.org/communities](http://www.firewise.org/communities)). The database contains potential instructors or speakers who have participated in national workshops. In addition, you may contact the Firewise Communities program staff for ideas for speakers.

**Materials**

Workshop materials are available free of charge from the Firewise Communities program office (there is a small shipping fee, however). Please allow at least one month for delivery of materials. Materials include: participant workbooks, CDs, copies of informational brochures. In addition, you may order videotapes and DVDs on the Firewise Web site ([www.firewise.org/catalog](http://www.firewise.org/catalog)). Give-away items such as lapel pins and magnets are also available at cost and can be ordered on this site under Firewise Outfitters.

**Exhibits**

The Firewise Communities program has provided a number of Firewise exhibit displays to workshop coordinators around the country. They measure approximately 8 feet wide by 4 feet tall and are to be used as a tabletop display. These are available on request to be loaned for local workshops or other outreach activities. Check with Firewise program staff for a list of the locations and contacts for the Firewise exhibit displays.

**Certificates**

If the workshop is conducted according to specific guidelines outlined by the national Firewise Communities program, the workshop coordinator can submit a list of participants to the national Firewise Communities program office and certificates documenting continuing education units will be awarded to participants. More information is available at [www.firewise.org/fw\\_youcanuse/workshop.htm](http://www.firewise.org/fw_youcanuse/workshop.htm).

## **Firewise Communities Workshop Logistics**

### **Workshop Checklist**

#### Workshop site:

- Large room for general sessions
- Small rooms for breakout sessions

#### Registration:

- Name tags and holders
- Registration table
- Registration packets, including:
  - o Writing tablets and pencils for participants
  - o Firewise Communities Workshop Participant Workbook
  - o Firewise lapel pins (can be ordered at cost at [www.firewise.org](http://www.firewise.org))
  - o Firewise Around Your Home brochure
  - o Firewise CD set #1 and #2
  - o List of workshop participants, including facilitators and speakers
  - o Evaluation sheet

#### General session:

- Adequate number of chairs
- TV/VCR/videos/remote
- Overhead projector
- Laptop computer
- Power strip and extension cord
- Flip chart/magic markers

#### Breakout sessions: (you will need as many of the items below as the total number of sessions/rooms \_\_\_\_)

- Tables and chairs for 12-16 in each room
- Projector and screen
- Flip chart/magic markers
- Laptop
- Power strip and extension cord
- Trash can
- Available restroom directions

#### Lunch:

- Provided by \_\_\_\_\_
- Paper products and drinks
- Delivery of lunch to workshop location

#### General Needs:

- Tables for refreshments, such as coffee and tea
- Road signs to direct participants to workshop and/or parking
- Room signs to direct participants to breakout sessions

## Home Ignition Zone – Resident Communication

When communicating with residents about the home ignition zone, it is helpful to give a brief overview of how homes ignited as a result of a wildfire – without going into too much technical detail that will lose their interest. Following is sample text for including in communication materials for residents regarding the home ignition zone.

### How Homes Ignite

Wildfires are much less likely to ignite a home if the home has been prepared with simple landscaping, construction, and maintenance methods such as those recommended by the national Firewise Communities program.

The information outlines steps you, your family, and your community can take to prepare for potential wildfires. The first step is to look at the climate, vegetation, and terrain of your community to determine the hazards facing your property. The following categories are general descriptions of hazards that will help guide you when deciding how to best protect your home. Not all characteristics must be present. The category that most closely resembles the characteristics of your area determines your hazard level. For information about hazard assessment of your area, contact your local fire department or state forestry office.

### Landscape: Lean, Clean, and Green Landscape

Landscaping is among the first elements of a home that others notice. The balance of colorful plants, trees, shrubs, rocks, mulch, and other landscaping materials helps establish a home's personality, and it can enhance the beauty and value of any property. If managed effectively, landscaping can also serve as a fuel break, protecting a home in the event of a wildfire. The primary goal for Firewise landscaping is fuel reduction — limiting the level of flammable vegetation and materials surrounding the home and increasing the moisture content of remaining vegetation. Firewise landscaping also allows plants and gardens to reveal their natural beauty by leaving space between individual and groups of plants and trees.

### **Home Ignition Zone vs. Defensible Space**

The NWCG WUI Working Team and Firewise Communities program have begun emphasizing the Home Ignition Zone (HIZ) – the home and its immediate surroundings within 100 to 200 feet) – and placing less emphasis on “defensible space.” The HIZ enables broader discussion about home construction as opposed to strict focus on the landscape, as well as the land beyond the defensible space guidelines – typically 30 to 100 feet – that may also need consideration based on the hazard area and other conditions.

In addition, the historical use of the term defensible space referred to space for firefighters to defend the home during a fire. While this space is indeed used for that reason when feasible, the Firewise Communities program's primary focus is on **mitigation** *before a fire ever starts*.

The use of the term defensible space could refer to *the home's ability to defend itself*. However, confusion over the term may remain, giving residents a sense that firefighters will always defend their home during a wildfire, which often is not possible.

## The Home Ignition Zone

Whether conducting regular maintenance on existing landscaping or designing a new setting, the following tips can help homeowners prepare the area surrounding the home for an intense wildfire. Consider the entire “home ignition zone,” **which includes the home** and its immediate surroundings within 100 to 200 feet depending on your hazard area. Firewise Communities divides this area into three zones, depending on the hazard level for your area. Assess your landscaping several times a year to ensure that it is lean, clean, and green.

Consult local guidelines for space needed in each zone.



### **ZONE 1: (All Hazard Areas)**

For all hazard levels, this area should be well-irrigated and free from fuels that may ignite your home, such as dry vegetation, clutter, and debris. Flammable attachments to the home, such as wooden decks, fences, and boardwalks, are considered part of the house. The perimeter should extend beyond these attachments.

#### ***Lean***

- Plants in this area should be limited to carefully spaced plantings that are low-growing and free of resins, oils, and waxes that burn easily. For a list of low-flammability vegetation for your area, contact your state forestry agency, or local landscape specialist.
- Mow the lawn regularly. Prune all trees so the lowest limbs are at least six to 10 feet from the ground.
- Leave space between the tops of trees to reduce the risk of crown fire. Remember, trees that hang over the house will deposit leaves and branches on the house and immediate area.
- Within five feet of the home, use nonflammable landscaping materials, such as rock, pavers, annuals, and high-moisture-content perennials. Be sure to remove dead leaves and stems immediately.



### **Clean**

- Remove dead vegetation, such as leaves and pine needles from gutters, under your deck, and within 10 feet of your home. Be sure to keep the area clean of flammable debris.
- This is generally where patio furniture, swing sets, and other accessories are located. If you live in a moderate to high hazard area, consider fire-resistant material for these accessories, and be sure to keep the area around them clear of debris. Keep patio cushions inside the house when not in use during periods of high fire potential.
- Firewood stacks and propane tanks should not be located in this area. Keep them at least 30 feet from the home.

### **Green**

- Water plants and trees regularly to ensure that they are healthy and green, especially during the fire season. Mulch should also be kept watered, as it can become flammable when dry.
- Consider xeriscaping, especially in areas with low water supply or water-use restrictions. Xeriscaping is a popular method for conserving water through creative use of landscaping features that are fire-resistant, yet require limited irrigation. Contact your local nursery or landscape architect for more information.

### **ZONE 2: (Moderate and High Hazard Areas)**

Plants in this zone should be low-growing, well-irrigated, and less flammable.

- Encourage a mixture of deciduous and coniferous trees. Most deciduous trees do not support high-intensity fires.
- Give yourself added protection with “fuel breaks,” such as driveways, gravel walkways, and lawns.
- Prune trees so branches and leaves are at least six to 10 feet above the ground. Remove heavy accumulations of woody debris.



### **ZONE 3: (High Hazard Areas)**

In high hazard conditions, this area should be thinned out as well, though less space is required than in Zone 2. Remove heavy accumulation of woody debris, such as piles of stem wood or branches. Thin trees to remove smaller conifers that are growing between taller trees. Reduce the density of tall trees so canopies are not touching to reduce the ability for high-intensity crown fire to reach your home.



### **Construction**

#### **Firewise Home Construction**

Even if a landscape is designed in perfect compliance with Firewise recommendations, fire may still reach your home. For example, heavy winds can carry firebrands over the tops of trees to land on a roof. If that were to happen to your home, your home's exterior must play an important role in preventing ignitions that could lead to total home destruction. Keep in mind that the home ignition zone includes the home, in relation to its immediate surroundings within 100 to 200 feet.

- **Use Rated Roofing Material:** The roof can be the part of your home most vulnerable during wildfires. If firebrands fall on a roof with untreated, non-rated roofing, the entire roof can ignite, destroying the home. In contrast, roofing material with a Class A, B, or C rating, such as composition shingle, metal, and clay or cement tile, is fire-resistant and will help keep the flame from spreading.

- **Use Fire-Resistant Building Materials on Exterior Walls:** Wall materials that resist heat and flames include cement, plaster, stucco and masonry, such as concrete, stone, brick or block. Though some materials, such as vinyl, are difficult to ignite, exposure to extreme heat causes a loss of integrity. These materials may fall away or melt, providing the firebrands with a direct path into the home. If your home has vinyl siding, use metal screening over openings that will become exposed if the siding falls away.
- **Use Double-Paned or Tempered Glass:** Exposure to the heat of a wildfire can cause glass on exterior windows to fracture and collapse, allowing firebrands to enter the home. Double paned glass can help reduce this risk by providing an added layer of protection. Tempered glass is the most effective option, as it has a higher heat tolerance and is less likely to break. For skylights, glass is less penetrable than plastic or fiberglass, and plastic and fiberglass can melt at lower temperatures than glass.
- **Enclose Eaves, Fascias, Soffits, and Vents:** Eaves, fascias, soffits, and vents should be “boxed” or enclosed with metal screens to reduce the size of the openings, to inhibit the passage of embers or firebrands into difficult to reach and closed spaces. Ridge and soffit vent openings should be screened to help prevent firebrands or other objects larger than 1/8” from entering your home.
- **Protect Overhangs and Other Attachments:** Overhangs and other attachments, such as room additions, bay windows, decks, porches, carports and fences, are often very vulnerable to flames or firebrands. Remove all fuels from around these areas. Consider boxing in the undersides of the overhangs, decks, and balconies with noncombustible or fire-resistant materials to reduce the possibility of ignition. Make sure fences constructed of flammable materials, such as wood, don’t attach directly to your home. Remember: if it is attached to house, it’s part of your house.

