



FIREWISE USA®
RESIDENTS REDUCING WILDFIRE RISKS

FIREWISE USA® RECOGNITION PROGRAM COMMUNITY WILDFIRE RISK ASSESSMENT



This information is intended to help guide you and your community through the risk assessment process.

Each state has the ability to designate their own template and special requirements for Firewise USA® participants. **Before starting this assessment, please contact your state liaison to determine their process.** Completing the assessment should be done, and is more robust, when it is a collaboration between residents and their state forestry agency, local fire department, or other designated partner.

These resources will additionally provide assistance in understanding the interaction between wildfire behavior and the Home Ignition Zone:

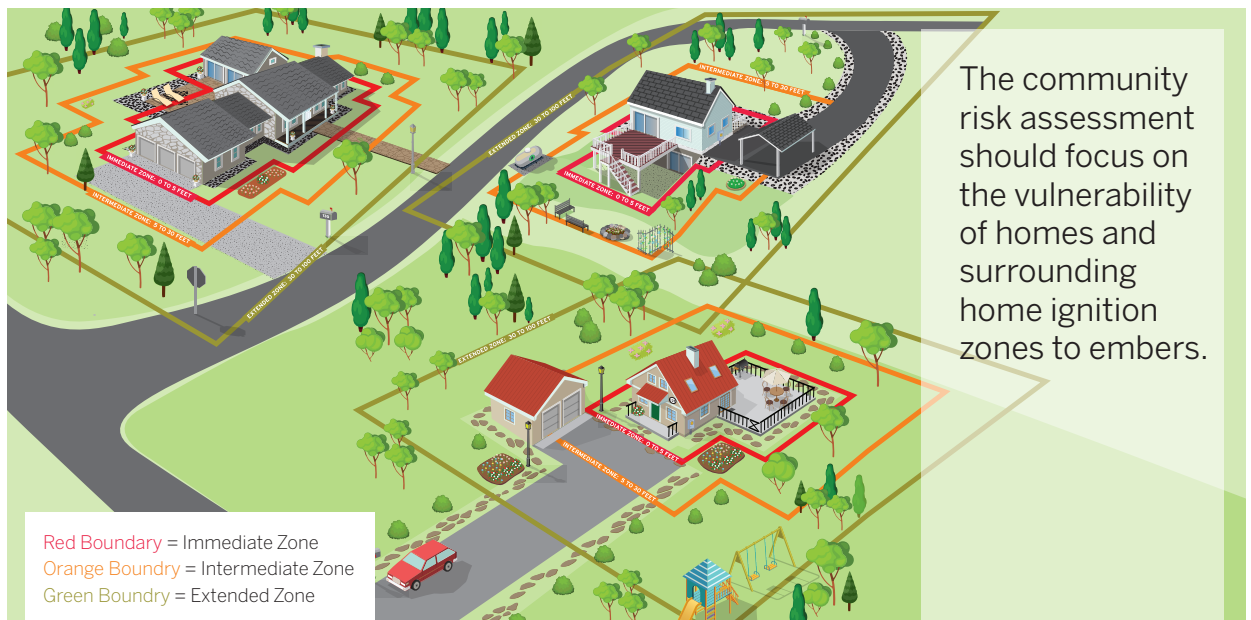
- E-learning: Understanding the Wildfire Threat to Homes
<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA/Online-learning-opportunities/Online-courses>
- Actions that reduce risk – tips and resources
<https://www.nfpa.org/preparinghomesforwildfire>

INTRODUCTION

NFPA's Firewise USA® program teaches people how to live with wildfire and increase their home's chance of survival through proactive actions, while encouraging neighbors to work together to reduce losses and damage. The community wildfire risk assessment is an important step in the Firewise USA® recognition process. It's a tool to help residents and their community members understand their wildfire risk and engage them in risk reduction efforts.

Research has shown embers (burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind) and small surface fires to be the primary source of home ignitions during wildfires.

Residents must prepare their home to withstand embers and minimize the likelihood of flames or surface fire touching the home or any attachments. This can be accomplished by limiting the amount of flammable vegetation, choosing ignition-resistant building materials and construction techniques, along with periodic exterior maintenance within the three home ignition zones (HIZ). These zones include the Immediate Zone: 0 to 5 feet around the house including the deck and attachments; Intermediate Zone: 5 to 30 feet; and the Extended Zone: 30 to 100 feet.



It is not uncommon for home ignition zones to overlap onto adjacent properties. This makes the conditions of neighboring homes and vegetation a part of the wildfire threat. To maximize benefits, it's extremely important that neighbors work collaboratively with each other, and talk with each other, to reduce their shared risk.

The community wildfire risk assessment speaks to the general conditions of the overall Firewise USA® site and does not provide details on each individual dwelling.

The assessment should focus on:

- Vulnerability of homes to embers, surface fire, and crown fire
- Condition of the structures themselves
- Immediate hazards within the HIZ on individual properties
- Concerns presented by common/open space areas or adjacent public lands

Also consider factors that impact risk and influence fire behavior or structure ignitability:

- Structural characteristics (such as roofing, siding, and decks)
- Vegetation types
- Slope and aspect (direction a community faces - north, south, east, or west)
- Housing density

The recommendations provided by the completed assessment will be the board/committee's primary tool in determining action priorities within the site's boundaries, documented in their **action plan**. The Firewise USA® program requires assessments be **updated at a minimum of every five years**.

OVERVIEW

The assessment:

- Can be completed in a variety of ways, including a walkthrough or a drive-by and does not require each individual dwelling unit to have a home risk assessment completed prior to the community assessment
- Should focus on the condition of vegetation within the participating site's boundary;

general landscaping characteristics; and home construction (materials used for roofs, siding, decks, etc.)

- Needs a logical recognized site boundary (HOA, defined neighborhood, street, etc.)

Assessment Participants

List the principal participants who assisted in data gathering and development of this document (include name, role/organization, phone and email). This can be your district forester, fire department, Firewise Board members, etc.

Name	Role/Organization	Phone	Email

DEFINING YOUR FIREWISE USA® SITE

For this section, there may be an existing community wildfire protection plan that includes your site and can provide this information. Ask your State Forestry representative if one exists.

General Site Description

Site name: _____
City: _____
County: _____
State: _____
Latitude: _____
Longitude: _____

Boundary Description (Provide a description of your site's recognized site boundary, this could be defined by your HOA, subdivision, defined neighborhood, street(s), etc.):

Area (provide number of acres or square miles) (OPTIONAL): _____

General Site Information

Number of dwelling units – Firewise USA® participation requires a minimum of 8 individual dwelling units and not to exceed 2,500 (for new sites in 2018 or later), within the site's identified boundary.

For definition purposes, a dwelling unit is a:

- Household/residence built for occupancy by one person, a family, or roommates, including mobile homes and cabins; and for multi-family residential occupancies (i.e. duplexes, and other types of attached housing)
- An apartment building with 10 units would be considered ten dwelling units
- Multiple sites can be located within a single large master-planned community/HOA



- The Firewise USA® program is designed for residential occupancies where residents actively participate in reducing the wildfire risk where they live; it is not a program for every occupancy type, or an entire town, city or county

Contact NFPA's Firewise USA® program, <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Contact-us>, with any questions about your area's eligibility.

Number of dwelling units: _____ Number of residents: _____

Description of Properties within the Boundary

Residential types in your site (check all that apply):

- ☐ Single family ☐ Duplex ☐ Townhomes
☐ Apartment ☐ Mobile/Manufactured ☐ Other: _____

Types of ownership (check all that apply):

- ☐ Private ☐ Common ☐ Public (county, state, federal, etc.)

Lot sizes (check all that apply):

- ☐ Less than .10 acres or 4,356 square feet
☐ .10 to .50 acres or 4,356 to 21,780 square feet
☐ .51 to 1 acres or 22,215 to 43,560 square feet
☐ Greater than 1 acre or 43,560 square feet

Other site information that you would like to provide (OPTIONAL):

Description of Local Wildland Fire Characteristics

Fire intensity and rate of spread depend on the vegetation type and condition (live/dead), topography, and typical weather patterns. This information can be obtained from your state forestry agency or local fire department.

Describe the common vegetation type(s) in your site (i.e., grasses, shrubs, and trees):

Describe the topography within your site (geographical features such as canyons, chimneys, steep slopes, or is the area primarily flat, and what direction slopes face):

Wind exposure:

- ☐ Not in an area with regular exposure to winds
☐ Regularly exposed to winds ☐ Frequent severe winds

History of Wildfire:

- ☐ Area with history of fire occurrence
☐ Area with no history of fire occurrence ☐ Unknown



FIREWISE USA® SITE OBSERVATIONS AND RECOMMENDATIONS

Use this section to record observations from within your site and recommendations for action that can be included in the site's Action Plan. Consider taking photos to keep in your site's files that illustrate successful risk reduction efforts and areas that need improvement.

Remember, this is a community-wide view and should report on the overall conditions of the entire site. Individual home risk assessments are not required to fill out this section, however they may end up being a recommendation for the action plan.

Observations

The observation section is broken down by the characteristics of homes and the vegetation management within the home ignition zones and common areas. Mark the appropriate box for each category that best represents the conditions within your site.

Home ignition zones

Home: General building construction (are the homes made from ignition resistant building materials?)

Roofing Materials: composite shingles, metal, cement tile and clay

- ☐ Greater than 75% of homes have metal, tile or Class A asphalt or fiberglass shingles
- ☐ 50 to 75% of homes have metal, tile or Class A asphalt or fiberglass shingles
- ☐ 25 to 50% of homes have metal, tile or Class A asphalt or fiberglass shingles
- ☐ Less than 25% of homes have metal, tile or Class A asphalt or fiberglass shingles

Soffit vent: a screened vent in a house soffit that allows air to flow to the attic or the space below roof sheathing.

- ☐ Greater than 75% of homes have non-combustible soffit vents with mesh or screening
- ☐ 50 to 74% of homes have non-combustible soffit vents with mesh or screening
- ☐ 25 to 50% of homes have non-combustible soffit vents with mesh or screening
- ☐ Less than 25% of homes have non-combustible soffit vents with mesh or screening
- ☐ Unknown

Siding: stucco, masonry products, plaster and cement

- ☐ Greater than 75% of homes have non-combustible siding
- ☐ 50 to 74% of homes have non-combustible siding
- ☐ 25 to 50% of homes have non-combustible siding
- ☐ Less than 25% of homes have non-combustible siding

Skirting: material used around the bottom of homes and sometimes decks to protect the underside from exposure.

- ☐ Greater than 75% of homes have skirting underneath raised floors/decks
- ☐ 50 to 74% of homes have skirting underneath
- ☐ 25 to 50% of homes have skirting underneath
- ☐ Less than 25% of homes have skirting underneath

Attachments: wood vs. non-combustible materials. Examples of non-combustible materials include decks made with wood-plastic composites, higher density tropical hardwood, or fire-retardant treated decking materials; fences that use metal or masonry when attaching fences directly to the siding of a home.

- ☐ Greater than 75% of homes have NO wooden attachments



- ☐ 50 to 74% of homes have NO wooden attachments
- ☐ 25 to 50% of homes have NO wooden attachments
- ☐ Less than 25% of homes have NO wooden attachments

Windows

- ☐ Greater than 75% of homes have multi-paned windows
- ☐ 50 to 74% of homes have multi-paned windows
- ☐ 25 to 50% of homes have multi-paned windows
- ☐ Less than 25% of homes have multi-paned windows
- ☐ Unknown what type of windows exist (single-pane vs. multi-pane)

Leaf litter, pine needles, or debris on roof or in gutters

- ☐ Greater than 75% of homes have cleaned and maintain their roof and gutters
- ☐ 50 to 74% of homes have cleaned and maintain their roof and gutters
- ☐ 25 to 50% of homes have cleaned and maintain their roof and gutters
- ☐ Less than 25% of homes have cleaned and maintain their roof and gutters

Gutter type

- ☐ Greater than 75% of homes have metal gutters
- ☐ 50 to 74% of homes have metal gutters
- ☐ 25 to 50% of homes have metal gutters
- ☐ Less than 25% of homes have metal gutters

Immediate Zone: 0 to 5 feet from the furthest attached point of homes, this area addresses the immediate vegetation and materials, creating a combustible free area. Items to consider:

- Is there dead vegetation, dried leaves, pine needles and ground debris near foundations?
 - Has hardscaping been used around perimeters to keep them free of litter/debris. Concrete, stone, or gravel walkways?
 - Have wood mulch products been replaced with non-combustible such as crushed stone/gravel options?
 - Are there trees/shrubs next to the home? Are there branches overhanging the roof or within 10 feet of chimneys?
-
- ☐ Greater than 75% of homes have treated vegetation and created a combustible free area
 - ☐ 50 to 74% of homes have treated vegetation and created a combustible free area
 - ☐ 25 to 50% of homes have treated vegetation and created a combustible free area
 - ☐ Less than 25% of homes have treated vegetation and created a combustible free area

Intermediate Zone: 5 to 30 feet from the furthest exterior point of the home. This area uses landscaping and breaks (areas of non-combustible materials such as dirt, cement, or rock) to help influence and decrease fire behavior.

- Are there fuel breaks such as driveways, walkways/paths, patios, and decks?
- Are lawns and native grasses maintained (general recommendation is a height of 4 inches)?
- Is vegetation in this area spread out? It is recommended that trees and shrubs should be limited to small clusters of a few each to break up continuity; trees should be spaced to a minimum of 18 feet between crowns.
- Have ladder fuels (vegetation under trees) been removed so a surface fire cannot reach the crowns? Have trees been pruned? General recommendations are up to six to ten feet from



the ground; for shorter trees do not exceed 1/3 of the overall tree height.

■ Are plants, trees, and lawns watered to keep them from becoming dry?

- ☐ Greater than 75% of homes have treated vegetation
- ☐ 50 to 74% of homes have treated vegetation
- ☐ 25 to 50% of homes have treated vegetation
- ☐ Less than 25% of homes have treated vegetation

Extended Zone: 30 to 100 feet, out to 200 feet (where applicable). Generally, this area focuses on landscaping - managing the vegetation to influence fire behavior and spread. The goal here is not to eliminate fire, but to interrupt fire's path and keep flames smaller and on the ground. At these distances property lines may overlap, presenting the opportunity and need to work collaboratively with neighbors. Items to consider:

- Are there heavy accumulations of ground litter/debris?
- Is there dead plant and tree material that should be removed?
- Are storage sheds and/or other outbuildings in this zone clear of vegetation? Do mature trees have small conifers and brush growing between them or is the space maintained?
- Do trees 30 to 60 feet from the home have at least 12 feet between canopy tops? Is there at least 6 feet between canopy tops of trees located 60 to 100 feet from the home?

- ☐ Greater than 75% of homes have treated vegetation
- ☐ 50 to 74% of homes have treated vegetation
- ☐ 25 to 50% of homes have treated vegetation
- ☐ Less than 25% of homes have treated vegetation

Common/open space areas or adjacent public lands:

- ☐ Not adjacent to wildlands with accumulated fuels
- ☐ Adjacent to wildlands with accumulated fuels
- Is there a management plan for these fuels? If so, please describe:

Additional comments or observations regarding site conditions:



Summary

Use this section to summarize observations. The percentages captured will help you briefly explain a snap-shot of your community's current status and areas for successful focus. List areas where there is significant success and also list areas where improvements could be made, especially at low cost with sweat equity/volunteer labor. Emphasis should be on the immediate Home Ignition Zone.

Example: Greater than 75% of homes observed have non-combustible roofs; however there were several noted with wood shake shingles.

Recommendations

Using the findings from the observation phase, identify actions and steps the site can take to reduce their risk from wildfire. Prioritize recommendations based on the potential fire threat to homes. It's recommended that residents address hazards at the home first and work their way out into the three home ignition zones. Remember, small things can have a huge impact on home survivability. Use these recommendations to create your site's action plan.

Examples:

- Less than 75% of homes observed had a roof free of leaf litter, pine needles, and other debris. Encourage residents to remove the debris and keep those areas clean, work towards greater than 75% compliance.
- Bark mulch is widely used within the immediate area, recommend removing bark mulch and replacing with an ignition resistant material (i.e. crushed stone/gravel).
- Work with residents to improve the number of homes that have removed flammable materials 0 to 5 feet from the home.



NEXT STEPS

The information you have collected during the assessment process will help you develop recommendations that can be applied to your site's action plan. Action plans are a prioritized list of risk reduction projects and the related investments needed to achieve them for the site. Action plans also highlight suggested homeowner actions and education activities that participants will strive to complete annually, or over a period of multiple years. Action plans should be **updated at a minimum of at least every three years**.

Visit

<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA/Become-a-Firewise-USA-site> to view the full list of required criteria needed to complete the Firewise USA® recognition program's application process.

Visit <https://portal.firewise.org> to start your application.

These are not required, but you may also consider adding addendums that cover other community/fire safety issues such as:

- Hydrant locations
- Ingress/egress routes
- Location of fire district and capabilities
- Street signs and address numbers
- Water supply for fire response

We recommend reaching out to your local fire department for assistance in determining what other safety issues should be addressed.