

# Living with Wildfire

A Guide for Arkansas Homeowners



[www.arkansasfirewise.com](http://www.arkansasfirewise.com)

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## Wildfire is Inevitable.

In 2012 the top two causes of **Arkansas wildfires** were arson and burning debris (which includes leaf piles, burning trash, etc.). While wildfires don't always get media attention, they pose a local threat to homeowners. It is important to know how these fires start and how they transfer to homes. The first goal of the Firewise program is to make homeowners aware of a wildfire possibility.

Most of Arkansas is a wooded, natural landscape. Areas where homes are near potentially flammable trees, cropland, brush piles, logging slash or open forests are the primary focus of Firewise. The Firewise program is a nationwide effort to reduce wildfire damage. It is managed through state liaisons. Firewise doesn't ask that homeowners stop building in natural landscapes, but that they take extra safety steps, if living in or near these settings.

## Arkansas Wildfire Causes 2012



<b>Burning Debris</b>	<b>28.7%</b>
<b>Incendiary Device</b>	<b>24.6%</b>
<b>Misc.</b>	<b>16.3%</b>
<b>Lightning</b>	<b>15.1%</b>
<b>Equipment Use</b>	<b>10.7%</b>
<b>Smokers</b>	<b>2.0%</b>
<b>Children</b>	<b>1.3%</b>
<b>Campfire</b>	<b>0.7%</b>
<b>Railroad</b>	<b>0.6%</b>



## Preparing for Fire

Firewise strategies focus on creating **defensible space** — an area that extends 30 to 300 feet between a home and the wildland. Think of defensible space as creating a fire barrier between homes and an approaching wildfire; a fire resistant home is surrounded by a landscape prepared to resist fire.

Firewise strategies are applied in a step by step process — homeowners can make small changes to the defensible space over time. Defensible space does not have to be without trees, landscaping or grass; however, it is important that homeowners understand how to protect property from wildfire hazards by using greenery and decoration. This handout will help homeowners assess their homes and land and prepare to withstand wildfire.

## Firewise Can Help

Wildfire mitigation is the **responsibility of homeowners**. The Firewise program works through fire departments to provide **communities** with **wildfire training and preparation**. The Arkansas Forestry Commission is the primary sponsor of Firewise because a fire-adapted community makes a big difference in stopping the spread of wildfire.

This handout contains construction and landscaping guidelines to help insure wildfire-free homes and communities. It contains a home assessment guide to rate an individual home's fire risk.

The Firewise Team is happy to speak to local groups, civic organizations and associations, church groups, high school organizations, or fire departments at no cost to you. Your community may be eligible to become a Firewise-certified community, allowing your fire department to create a community wildfire plan, perform home risk assessments to residences in the wildland/urban interface and receive opportunities for grant money.

**The Arkansas Firewise team can be reached at 501-296-1940 or [www.arkansasfirewise.com](http://www.arkansasfirewise.com).**



Most wildfires begin as small, creeping flames, not torching crown fires.



Homes are usually ignited because of some flammable object or material in a home's defensible space, the area directly surrounding a structure. Most Firewise strategies focus on maintaining a lean, clean and green defensible space. Defensible space can be divided into Home Ignition Zones, pictured below.



Zone One:  
5-10 feet from home

Zone Two:  
10-30 feet from home

Zone Three:  
30-100 feet from home

How do homeowners create a lean, clean and green defensible space in the home ignition zone?

**Zone 1**

*This well-irrigated area encircles the structure and attachments.*

- 1) Plants should be carefully spaced, low-growing and free of resins, oils and waxes that burn easily.
- 2) Prune trees up 6 to 10 feet from the ground.
- 3) Space trees 30 feet between crowns. Trim back trees that overhang the house.
- 4) Use non-flammable landscaping materials and/or high-moisture-content annuals and perennials.
- 5) Remove dead vegetation from under decks.
- 6) Consider fire-resistant material for patio furniture, swing sets, etc.
- 7) Firewood stacks and propane tanks should not be located in this zone.
- 8) Water plants, trees and mulch regularly.

**Zone 2**

- 1) Plants in this zone should be low-growing, well irrigated, and less flammable.
- 2) Leave 30 feet between clusters of 2 to 3 trees, or 20 feet between individual trees.
- 3) Prune trees up 6 to 10 feet from the ground.

**Zone 3**

- 1) Thin this area, and remove heavy accumulation of woody debris. Reduce the density of tall trees, so canopies are not touching. Should a wildfire reach this area, hopefully it is thinned enough that it would be stopped before reaching close proximity to the home.



While homeowners don't always have the luxury of building an entirely new home, some construction guidelines can be followed when adding onto a house, or adding an adjacent building such as a workshop or garage. **A few places to begin** include:

- 1) Build on the most level portion of the land, as fire moves rapidly up slope.
- 2) Set a single story structure at least 30 feet back from a ridge.
- 3) Provide at least two ground level doors for safety exits and at least two means of escape in each room so that everyone has a way out in case of an emergency.
- 4) Inspect your property, removing wood piles and debris for at least 30 feet from the home.
- 5) Make an occasional inspection of your home or building, looking for deteriorating cracks in structures, warping wood, or spaces in tile—replace and repair these before fire finds a way in.
- 6) Make your driveways big enough for emergency vehicles to access (at least 12 feet wide).
- 7) Keep gutters, eaves and roofs clear of debris.

## Construction Guidelines

### Use Rated Roofing Material

Roofing material with a Class A, B or C rating is fire resistant and will help keep the flame from spreading.

Examples:

- Composition shingle
- Metal
- Clay
- Cement tile

### Use Fire-Resistant Materials on Exterior Walls

Examples include:

- Cement
- Plaster
- Stucco
- Masonry (concrete, stone, brick or block)

While vinyl is difficult to ignite, it can fall away or melt when exposed to extreme heat.

### Use Double-Paned or Tempered Glass.

Double-paned glass can help reduce the risk of fracture or collapse during an extreme wildfire. Tempered glass is the most effective. For skylights, glass is a better choice than plastic or fiberglass.

### Enclose Eaves, Fascias, Soffits and Vents.

Box eaves, fascias, soffits and vents, or enclose them with metal screens. Vent openings should be covered with 1/8" metal screen.

### Protect Overhangs and Other Attachments

- 1) Remove all vegetation and other fuels from around overhangs and other attachments (room additions, bay windows, decks, porches, carports and fences).
- 2) If a wood fence is attached to the house, separate the fence from the house with a masonry or metal barrier.
- 3) Decks and elevated porches should be kept free of combustible materials.
- 4) Elevated wooden decks should not be located at the top of a hill; if a slope is present, homeowners might consider a terrace.



When planning or maintaining a more Firewise landscape, consider these important factors:

- 1) Site location and overall terrain (For example: Do you have slopes and hills nearby that your landscaping should protect you from? Is a pine plantation close that could affect the proximity of brush piles and firewood stacks to your home?)
- 2) Consider the prevailing winds and seasonal changes in your area.
- 3) What property boundaries and contours will affect your efforts?
- 4) What type of water irrigation (ditches, ponds, streams, overflows) affects your yard?
- 5) Where will you dispose of yard cuttings and debris so it won't create an additional fire hazard?
- 6) Are your flammable and/or poisonous liquids (pesticides, gasoline, etc.) stored away properly?
- 7) Most importantly, don't be so concerned with changing everything at once; and remember all efforts should focus on one thing: fuel reduction.

## Landscaping Guidelines

Leave a minimum of 30 feet around the house to accommodate fire equipment.

**Carefully space the trees you plant.** (A list of fire-resistant trees is provided below) While trees add color and shade, they also create ladder fuels for fire. If trees are spaced so that branches do not touch one another or the roof, a fire can not transfer as quickly from a wooded area to homes.

Give yourself added protection with fuel breaks such as driveways, gravel walkways, secondary flower gardens and stone terracing.

Keep shrubs and bushy trees pruned.

Remove leaf clutter and dead overhanging branches.

Store firewood away from the house.

Use care when refueling garden equipment.

Become familiar with local regulations regarding vegetative clearance, disposal of debris, and fire safety standards of equipment.

Finally, fire-resistant plants can be used as a colorful additions to lawns, flower gardens and other decoration. Some trees and shrubs may be toxic to animals and/or may not grow in your area — be sure to make sure each species is compatible with your area of Arkansas.

Trees: Thornless honeylocust, Kentucky coffeetree, butternut, black walnut, golden raintree, tulip poplar, blackgum, black cherry, white oak, southern red oak, black locust, eastern redbud, flowering dogwood, sassfrass, shining sumac,  
 Shrubs: American elderberry, maple leaf vibernum, oakleaf hydrangea and Japanese pachysandra.



Golden raintree

Honey locust tree



Kentucky coffeetree

Flowering dogwood



American elderberry



mapleleaf vibernum



Japanese pachysandra



Oakleaf hydrangea



Eastern redbud tree



Tulip poplar tree



**A Firewise-safe home should be able to withstand a low-lying wildfire without depending on fire department response. Should an emergency situation take place that makes fire response slow, homeowners can protect structures themselves.**

Arkansas currently leads the nation in certified Firewise communities; 600+ communities across the nation participate, 1/5 of those are here in Arkansas. Wildfire has a real presence in our state—which makes this program applicable to every Arkansas homeowner.

The Arkansas Firewise website and the National Firewise website have more information about wildfire mitigation and homeowner efforts.  
[www.arkansasfirewise.com](http://www.arkansasfirewise.com)  
[www.firewise.org](http://www.firewise.org)

Other helpful information can be found at these partner websites:

**USDA Forest Service**  
[www.fs.fed.us](http://www.fs.fed.us)

**U.S. Department of the Interior**  
 Bureau of Land Management  
 Bureau of Indian Affairs  
 Fish and Wildlife Service  
 National Park Service  
<http://www.doi.gov/bureaus/index.cfm>

**National Association of State Foresters**  
[www.stateforesters.org](http://www.stateforesters.org)

**National Fire Protection Association**  
[www.nfpa.org](http://www.nfpa.org)

**U.S. Fire Administration**  
[www.usfa.fema.gov](http://www.usfa.fema.gov)

**Federal Emergency Management Agency**  
[www.fema.gov](http://www.fema.gov)

**Additional Safety Suggestions**



1) Try to ensure that your home can be accessed from two different routes. Often new subdivisions are planned around a single road in. If this single route becomes blocked, emergency personnel cannot get to your home.



2) Make sure that street signs have 3 to 4 inch reflective lettering so that emergency services can always find your house.



3) Remember that many fires are caused from hidden debris catching fire. For example, leaves collected under decks or patios can catch sparks that will set structures on fire many hours after a fire is considered out.



4) Count on nearby water sources as a bonus to fire protection; check with local fire department personnel to make sure that your pond or creek is accessible to equipment.



5) Consider your area's special fire hazards when making your wildfire preparation — including railroads that may cause sparks, areas with high arson history or homes near major roadways.



# Home Risk Assessment

**Answer each question using assigned point values as it applies to your home. If the question does not apply, score it as a zero. Total the points to get a value and determine the risk hazard for your home.**

**Entrance**

- 1) A. Mailbox or 911 address is clearly marked with 4-inch reflective letters (0 points). \_\_\_\_\_  
 B. Mailbox is clearly marked but difficult to read (5 points).  
 C. Address is not marked (10 points).
- 2) A. Drive is at least 12 feet wide with 15 feet vertical clearance for emergency vehicles. If there is a gate, it is 30 feet from the road, 2 feet wider than the drive, opens inward, and has a key box if locked (0 points). \_\_\_\_\_  
 B. Drive is less than 12 feet wide and cleared of brush (5 points).  
 C. Drive is obstructed with no access for emergency vehicles (10 points).

**House**

- 3) A. Home exterior has flame/heat resistant brick, stucco or metal (0 points). \_\_\_\_\_  
 B. Home has vinyl siding (5 points).  
 C. Home has wood or shake siding (10 points).
- 4) A. Roof consists of fire-resistant materials such as tin, tile or asphalt shingles (0 points). \_\_\_\_\_  
 B. Roof has cedar shake shingles (15 points).
- 5) A. Chimney has a spark arrestor and is capped (0 points). \_\_\_\_\_  
 B. Chimney is not capped (5 points).
- 6) A. Gutters are cleaned of debris. Eaves are boxed (0 points). \_\_\_\_\_  
 B. Gutters are not clean. Eaves are boxed (5 points).  
 C. Gutters are not clean. Eaves are not boxed (10 points).
- 7) A. Windows are double-paned or tempered glass (0 points). \_\_\_\_\_  
 B. Windows are single-paned (5 points).
- 8) A. Attic vent is covered with 1/8 inch mesh screening (0 points). \_\_\_\_\_  
 B. Attic vent is not covered (5 points).
- 9) A. Deck is screened underneath with lattice and 1/8 inch screened mesh (0 points). \_\_\_\_\_  
 B. Deck is not screened (5 points).
- 10) A. Wood fencing or trellis is located 10 to 12 feet from the home or is non-combustible (0 points). \_\_\_\_\_  
 B. Wood fence or trellis is less than 10 feet from the home (5 points).

**Landscaping**

- 11) A. Property is landscaped with drought-resistant plants. Shrubs are at least 5 feet from structures. Gravel, compost or chunky bark is used as mulch (0 points). \_\_\_\_\_  
 B. Shrubs or other landscaping is less than 5 feet from the home. Flammable material such as wood chips or grass have been used for mulch (10 points).
- 12) A. Overhanging limbs have been trimmed to 10 feet from the structures (0 points). \_\_\_\_\_  
 B. Overhanging limbs are less than 10 feet from structures (5 points).

**Perimeter**

- 13) A. Home has 100 feet or more space cleared from the wildland/urban interface (0 points). \_\_\_\_\_  
 B. Home has 30-100 feet of defensible space (5 points).  
 C. Home has less than 30 feet of defensible space (10 points).
- 14) A. Firewood and propane gas tanks are at least 30 feet from structures (0 points). \_\_\_\_\_  
 B. Firewood is stacked near the house. Ensure the LP tank is less than 30 feet from the home (5 points; 10 points if gas tank is obstructed with overgrown brush).
- 15) A. Outbuildings are equipped with accessible rake, shovel, ladder and hose (0 points). \_\_\_\_\_  
 B. Outbuildings are not equipped with tools (5 points).

**Score Values:**

**Total Score:** \_\_\_\_\_

- 11 points or fewer:** Congratulations! You are a Firewise home.
- 12-30 points:** Low to moderate hazard.
- 31-81 points:** Moderate to high hazard.
- 82-125:** High to extreme hazard – changes to your home are needed to improve wildfire survivability.



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The Arkansas Forestry Commission offers its programs to all eligible persons regardless of race, color, national origin, sex, age, or disability; and is an Equal Opportunity Employer.