

CITY OF BOULDER FIRE-RESCUE

WILDLAND FIRE *Preparedness Guide*



This guide is designed to help City of Boulder residents *prepare their families, homes, and property* against the year-round threat of wildfires. We live in a location where the wildfire threat is real. Wildfires happen frequently.

A wildfire that threatens your Boulder home is not a matter of if, but when.

The City of Boulder's Fire-Rescue Department, along with our cooperating agencies, will make every effort to safely protect lives and property. However, *the responsibility is on you, the resident, to prepare for this event.* The work you put in to preparing your home and family beforehand is often the deciding factor in whether your home survives.

Boulder Fire-Rescue is here to support your efforts to prepare for a wildfire. If we can help, let us know!



THE HOME IGNITION ZONE

The “Home Ignition Zone” concept categorizes the area in and around your home into four zones.

ZONE 3

This area encompasses 100-200 feet from the home. Place low-growing plants and well-spaced trees in this area, remembering to keep the volume of vegetation (fuel) low. For many homes in the City of Boulder, ‘Zone 3’ is your neighbor’s yard. Talk to your neighbors about how you can work together to protect both of your homes and property.

ZONE 2

This area encircles 30-100 feet from the home. Low flammability plant materials should be used here. Plants should be low-growing and the irrigation system should extend into this section. Shrubs and trees should be limbed up and spaced to prevent crowns of trees from touching.



**Be EMBER
AWARE**

Most of the damage or destruction that occurs to homes from a wildfire is the result of *hot embers or fire-brands landing on or near a home*. While some homes are damaged or destroyed by the flaming front, you can best protect your home by being ember aware! If you live *within 1 mile* of a location where a large wildfire could occur, you are in the “*ember zone*.”

20

80

17

83

ZONE 1

This well-irrigated area encircles the structure for at least 30 feet on all sides including decks and fences, and provides space for fire suppression equipment in the event of an emergency. Lawns should be well maintained and mowed. Plantings should be limited to carefully-spaced, low-flammability species.

In particularly fire prone areas, non-flammable mulch should be considered.

HOME ZONE

Harden your home against wildfire.

This includes fences, decks, porches and other attachments.

If it is attached to the house, it is a part of the house. Non-flammable or low flammability construction materials—especially for roofs, siding and windows—are recommended for new homes or retrofits. Keep any flammables, including plantings and mulch out of the area within 5 feet of your home's perimeter. Easily maintained hardscaped surfaces are recommended within 3 feet of the base of structures, including the entire perimeter.

MOWED LAWN & GROUNDS

LIMBED TREES



0'

5'-30'

0-5'

WALDO CANYON FIRE COLORADO SPRINGS, 2012

FOURMILE CANYON FIRE BOULDER COUNTY, 2010

% OF DESTROYED/BURNED STRUCTURES LOST TO SURFACE FIRE
% OF DESTROYED/BURNED STRUCTURES LOST TO FLAMING FRONT

LANDSCAPING

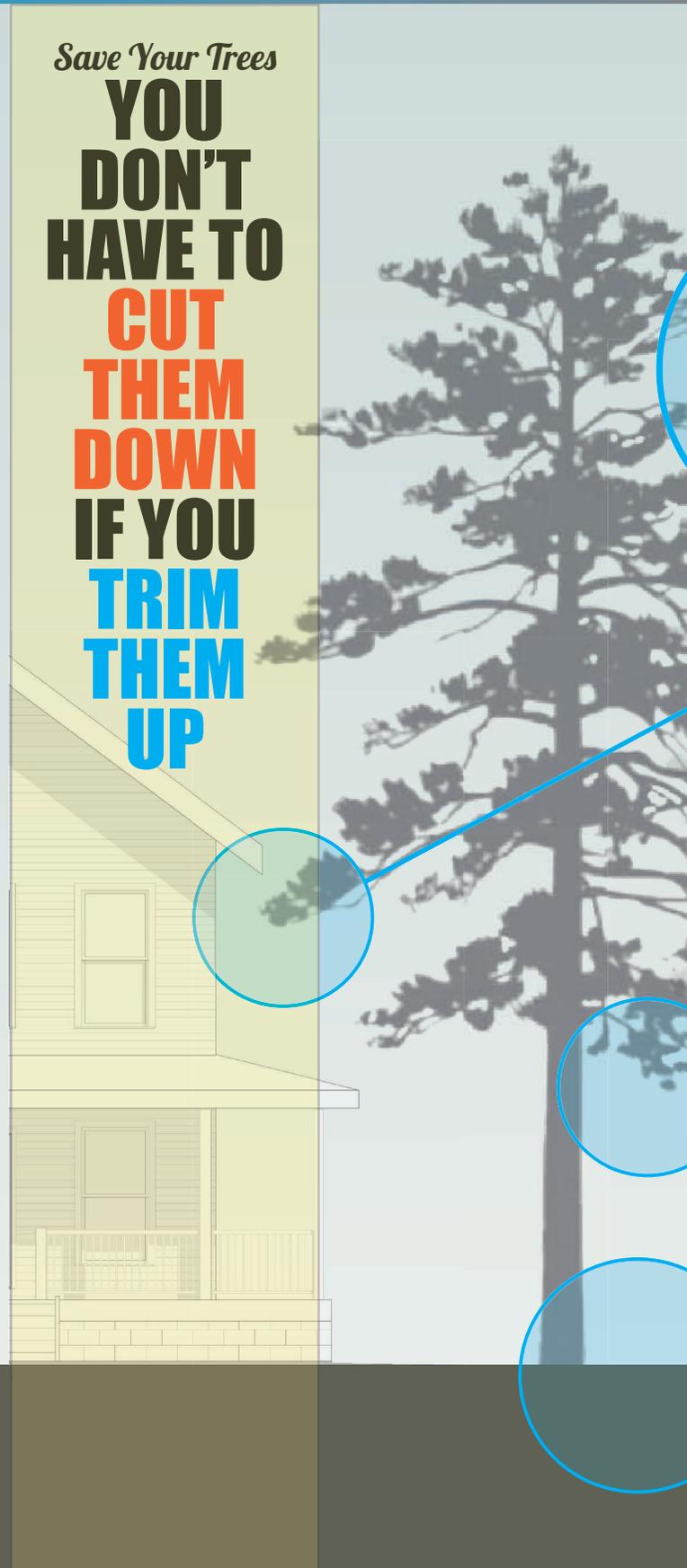
Site Design & Maintenance

- ❑ Mow your lawn regularly.
- ❑ Create a “fire-free” area within five feet of the home, using non-flammable landscaping materials and/or high-moisture-content annuals and perennials.
- ❑ Remove dead vegetation from under deck and within 10 feet of the house.
- ❑ Water plants, trees, and mulch regularly.
- ❑ Consider using pebbles or rock-scape instead of mulch near the home’s foundation where possible.
- ❑ Maintain the irrigation system regularly.
- ❑ Remove leaf clutter and dead and overhanging branches. Especially in areas where the wind “eddies” and deposits leaves and trash.
- ❑ Encourage a mixture of deciduous and coniferous trees.

Plants

- ❑ Plants should be carefully spaced, low-growing and free of resins, oils, and waxes that burn easily.
- ❑ Prune (limb) trees up six to ten feet from the ground.
- ❑ Space conifer trees 30 feet between crowns.
- ❑ Trim back trees that overhang the house.
- ❑ Install hardscape at the base of trees.

Save Your Trees
**YOU
DON'T
HAVE TO
CUT
THEM
DOWN
IF YOU
TRIM
THEM
UP**



The primary goal for Firewise® landscaping is **FUEL REDUCTION** — limiting the amount of flammable vegetation and materials surrounding the home and increasing the moisture content of remaining vegetation. This includes the entire “home ignition zone” which extends up to 200 feet in high hazard areas.

SPACING

Provide 30' of distance between any flammable part of adjacent trees. The goal of spacing is to prevent a single torching tree from spreading to others on the property.

OVERHANGING BRANCHES

Branches that overhang or touch the house can provide a “fuse” that can carry fire from the tree to the house. Remove branches that overhang any part of the house or accessory structures.

LIMB

Remove any limbs within 6 to 10 feet of the ground. This prevents a surface fire from “climbing” into the crown of the tree.

HARDSCAPE

Encircle the base of your tree with hardscaping: gravel, non-flammable mulch, flagstone pavers, or rocks. Hardscaping around the base will prevent a surface fire from nearing the tree. It will also prevent embers that land near the tree from igniting more fuel.

Firewise® + Plants

The plants listed below are **NATIVE, FIREWISE, WATERWISE, SAFE FOR PETS & LIVESTOCK,** and **ADAPTED TO BOULDER'S ELEVATION.**

These plants have it all!

VERY LOW & LOW WATER NEEDS

SMALL PLANTS & FLOWERS

Dotted gayfeather

SHRUBS

Little leaf mountain mahogany

Rabbitbrush

Apache plume

Banana or broad leaf yucca

Spanish bayonet (Small soapweed,
great plains yucca)

LARGE SHRUBS & TREES

Utah serviceberry

Mountain mahogany

LOW & MEDIUM WATER NEEDS

SMALL PLANTS & FLOWERS

Prairie sage

Porter aster

Whiplash daisy / trailing fleabane

Blanket flower

Sand Lily

White stemless evening primrose

Mat penstemon

Germander penstemon

Prairie coneflower

Smooth goldenrod

SHRUBS

Ocean spray / rock spirea

Western sand cherry

Antelope bitterbrush

This is a partial list. There are over 100 Firewise plants!
For a complete list, contact the City of Boulder Fire-Rescue at wildfire-help@bouldercolorado.gov

STILL HAVE QUESTIONS?

Call or email the City of Boulder Fire-Rescue for a **FREE ON-SITE HOME EVALUATION.**

(303) 441-3368 or wildfire-help@bouldercolorado.gov

BUILDING MATERIALS

The following are recommendations for existing residential structures to help harden homes and property against the threat of damage from a wildfire. When defending your home against wildfire, remember to think of embers first--make your home **EMBER TIGHT!**

Defensible

VENTS

Roof, appliance, and crawls space vents can be a pathway into your home for embers. Cover vent openings with 1/8" metal screening.

ROOF

Roofing material with a Class A rating is fire resistant and will help keep flames from spreading. Examples include composition shingles, metal, clay, and cement tile.

EAVES

Enclose or "box in" eaves, fascias, and soffits with fire-resistant materials or enclose them with metal screens.

GUTTERS

Keep your gutters clear of flammable material. Check them often; wildfires can occur at any time of year! Also, consider gutter designs that prevent flammable material from entering gutters.

SIDING

Use fire-resistant building materials on exterior walls. Examples include fiber cement, plaster, stucco, masonry (concrete, stone, brick, or block).

WINDOWS

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.

OVERHANGS/ATTACHMENTS/ADDITIONS

Anything attached to the house (decks, porches, fences, and outbuildings) should be considered part of the house.

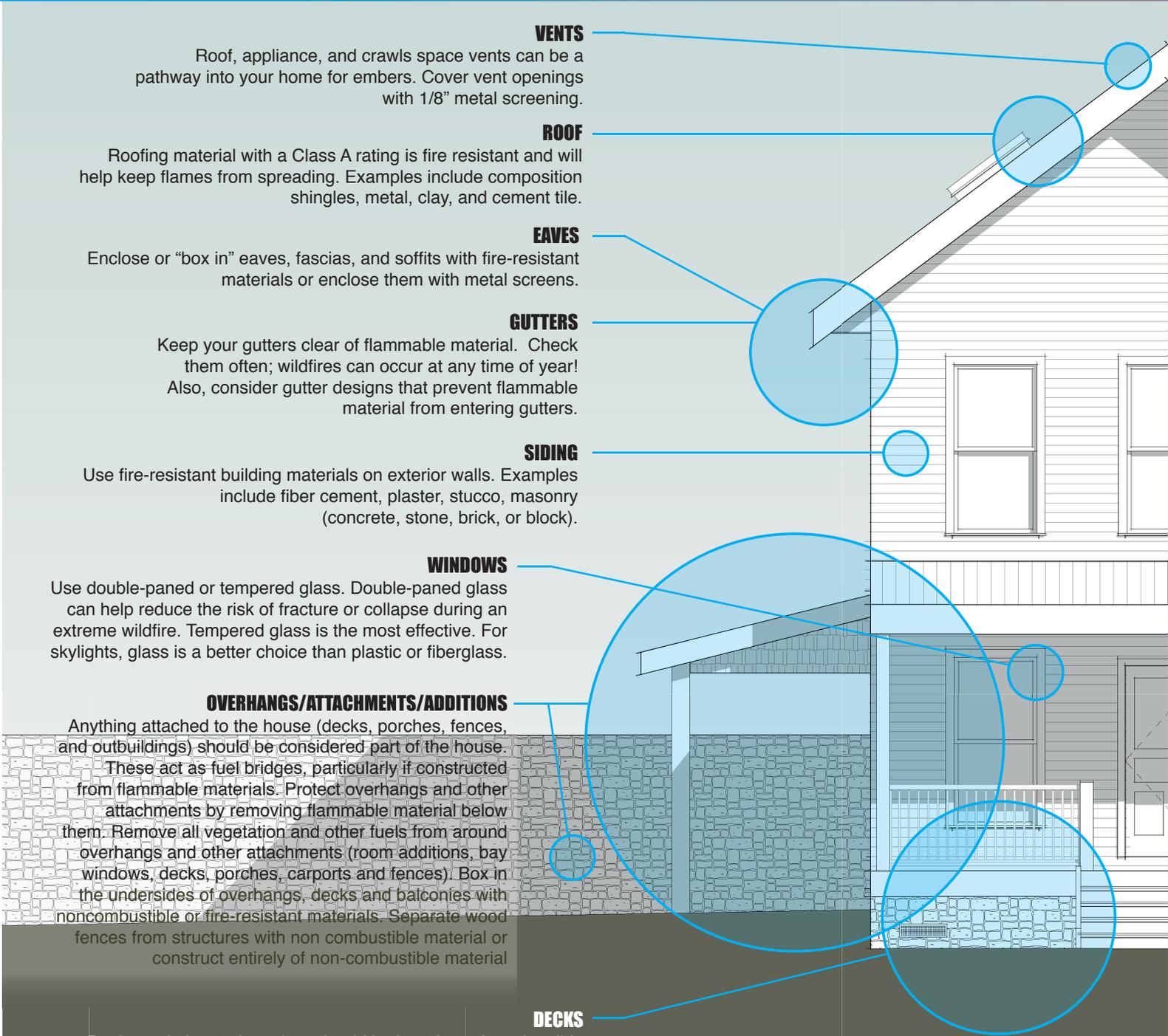
These act as fuel bridges, particularly if constructed from flammable materials. Protect overhangs and other attachments by removing flammable material below them. Remove all vegetation and other fuels from around overhangs and other attachments (room additions, bay windows, decks, porches, carports and fences). Box in the undersides of overhangs, decks and balconies with noncombustible or fire-resistant materials. Separate wood fences from structures with non combustible material or construct entirely of non-combustible material

DECKS

Decks and elevated porches should be kept free of combustible materials and debris both below and above. Choose non-combustible deck furniture and keep cushions inside when not in use.

THE *Real* THREAT

You may be surprised to learn that **embers** pose the far greatest risk to your home, whereas direct flame impingement by a flaming front is a relatively rare cause of structure losses during a wildland fire.



“When considering improvements to reduce wildfire vulnerability, the key is to consider the home in relation to its immediate surroundings. The home’s vulnerability is determined by the exposure of its external materials and design to flames and firebrands during extreme wildfires. The higher the fire intensities near the home, the greater the need for nonflammable construction materials and a resistant building design.”

Jack Cohen
USDA-Forest Service

Vulnerable

VENTS

Uncovered vent openings can catch embers, inviting the fire inside the house.

ROOF

The City of Boulder has an ordinance banning the use of wood shake shingles on roofs within the City and all homes should now be in compliance. However, allowing flammable materials--such as leaf and pine needle litter--to accumulate on your roof can make your home vulnerable.

EAVES

“Nooks & crannies” on your structure are your biggest enemy. They can catch and harbor embers and open eaves are full of them.

GUTTERS

Pine needle litter is great for starting fires! A gutter full of dried needles and leaves is a great place for an ember to land and start a fire.

SIDING

While vinyl is difficult to ignite, it can fall away or melt when exposed to extreme heat, igniting the area where it falls and worse, leaving your highly flammable sheathing and insulation exposed.

WINDOWS

Single-paned windows break more easily when exposed to the heat of a nearby fire, allowing embers into the house. Plexi-glass skylights can melt or crack.

OVERHANGS/ATTACHMENTS/ADDITIONS

Combustible materials stored in a carport or shed near or attached to the house can ignite, bringing the fire to your otherwise protected home.

DECKS

Decks or porches with flammable material stacked below are particularly vulnerable.

EMBERS

“FUSE” FUELS

FLAMES

Be Prepared to evacuate during a wildland fire with Ready, Set, Go!

READY

EMERGENCY NOTIFICATIONS

Sign up for emergency notifications at www.boulderoem.com

FAMILY DISASTER PLAN

Create a Family Disaster Plan: Include pets and livestock, rehearse it! For more information about family disaster planning go to www.ready.gov/make-a-plan. Or visit wildlandfirersg.org to get an action guide and make a plan.

MEETING SPOT

Designate an emergency meeting area outside the fire hazard area

GO BAG

Create your "go bag" and emergency supply kit. For more information on what to put in your emergency supply kit, visit www.redcross.org/prepare/location/home-family/get-kit

Go Bag

- Extra eyeglasses or contact lenses
- Prescriptions
- Medications
- Personal electronic devices
- Chargers
- Extra set of car keys
- Credit cards, cash, or travelers checks
- Important family documents, photos, and insurance documents (consider scanning these photos and documents and storing them on a flash drive)
- Easily carried valuables and irreplaceable items

SET

PREP & SECURE

- Close windows and doors
- Consider moving combustible items (patio furniture, grill, firewood) from the exterior of your home to interior or center of lawn.
- Leave exterior lights on so that firefighters can find your home in smoky conditions.
- Consider leaving sprinklers, garden hose(s), and ladders in plain view. Firefighters may use them.

ALERT

Alert family and neighbors, initiate family disaster plan.

EVACUATE

Evacuate as soon as you are set, or when notified. If you are concerned for your safety, do not delay evacuation by waiting for notification.

GO!

WHEN TO LEAVE

Do not wait to be advised to leave. If advised to leave, follow your action plan and do so quickly

WHERE TO GO

Location pre-determined in your Family Disaster Plan or RSG Action Plan, or check www.boulderoem.com for shelter locations.

WHAT TO TAKE

Bring your 'Go-bag'

FOR MORE INFORMATION

CITY OF BOULDER FIRE-RESCUE DEPARTMENT	https://bouldercolorado.gov/fire-rescue
BOULDER COUNTY OEM	http://www.boulderoem.com/
FIREWISE	http://www.firewise.org/
READY, SET, GO!	http://www.wildlandfirersg.org/
COLORADO STATE FOREST SERVICE	http://csfs.colostate.edu/

CONTACT US

Contact the City of Boulder Fire-Rescue **LIFE SAFETY STAFF** at
(303) 441-4355 or wildfire-help@bouldercolorado.gov