

Summer 2012

Living with Fire:  
Wildfire  
Preparedness Plan



JEFFERSON COUNTY OREGON

# Reduce Your Wildfire Risk

**Fire Adapted Community (FAC):** is a community located in a fire-prone area that requires little assistance from firefighters during a wildfire. Residents of these communities accept responsibility for living in a high fire-hazard area. They possess the knowledge and skills to:

- Prepare their homes and property to survive wildfire.
- Evacuate early, safely and effectively.
- Survive, if trapped by wildfire.

## About this Guide

The information provided in this booklet will help residents to prepare in the event of a catastrophic fire, and provide information on ways to protect themselves and their home.

## Why is This Important?

Fire departments fight fires along the **Wilderness Urban Interface (WUI)**, defined as areas where homes are built near or among lands prone to wildfire. WUI's exist in every state and county and are considered a higher risk of wildland, rangeland, brush or forest fires.

## Jefferson County at Risk

As Jefferson County slowly expands, citizens move into the WUI landscape and away from urban centers, thereby increasing their risk and exposure to wildfires. Fire response times lessen as residents move farther into the WUI. Jefferson County has three rural fire protection districts: **Crooked River Ranch, Jefferson County Fire District #1, and the Lake Chinook**



*A wildfire would advance very rapidly in a heavily fueled area creating embers and radiant heat spotting over a large area. Any wind or slope would intensify the fire spread.*

**Fire & Rescue** and two **range land protection areas: Gateway and Ashwood**. Each district serves areas separated by difficult and varied terrain. During extreme fire seasons, the response in these areas is dependant upon the local district and residents. Federal and State fire units will respond, but may need more time.

## A Fire Adapted Community Can Survive Wildfire with Little or No Assistance from Firefighters

### Before Treatment



### After Treatment



*Ground, ladder fuels and other flashy fuels have been removed leaving a good defensible space. Fire will not be carried away even with a strong wind. Fire fighters would have a good chance of containment before reaching the house.*

# The Elements of a Fire Adapted Community

## Community Protection

Well-designed fuelbreaks and safe areas protect the community.

Pages 4-5

## Access

Good access helps emergency responders arrive in a timely manner.

Pages 6-7

## Structural Environment

Appropriate home construction and proper maintenance resists ignition.

Pages 8-9



## Evacuation

Communities can evacuate safely and effectively.

Pages 16-17

## Ready, Set, Go

Prepared communities can be prepared in the event of a wildfire.

Pages 14-15

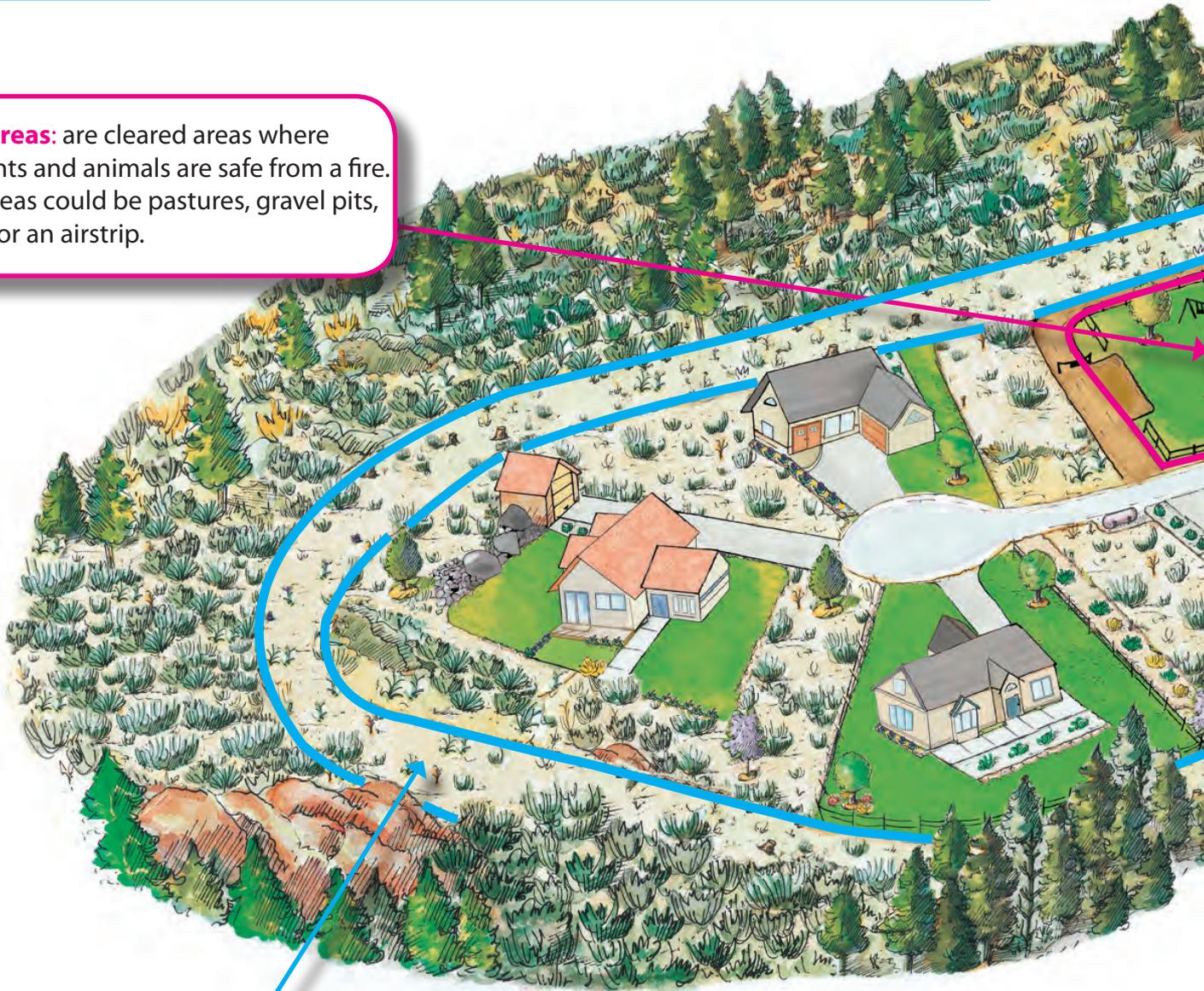
## Defensible Space

Proper management of vegetation surrounding the home reduces the wildfire threat.

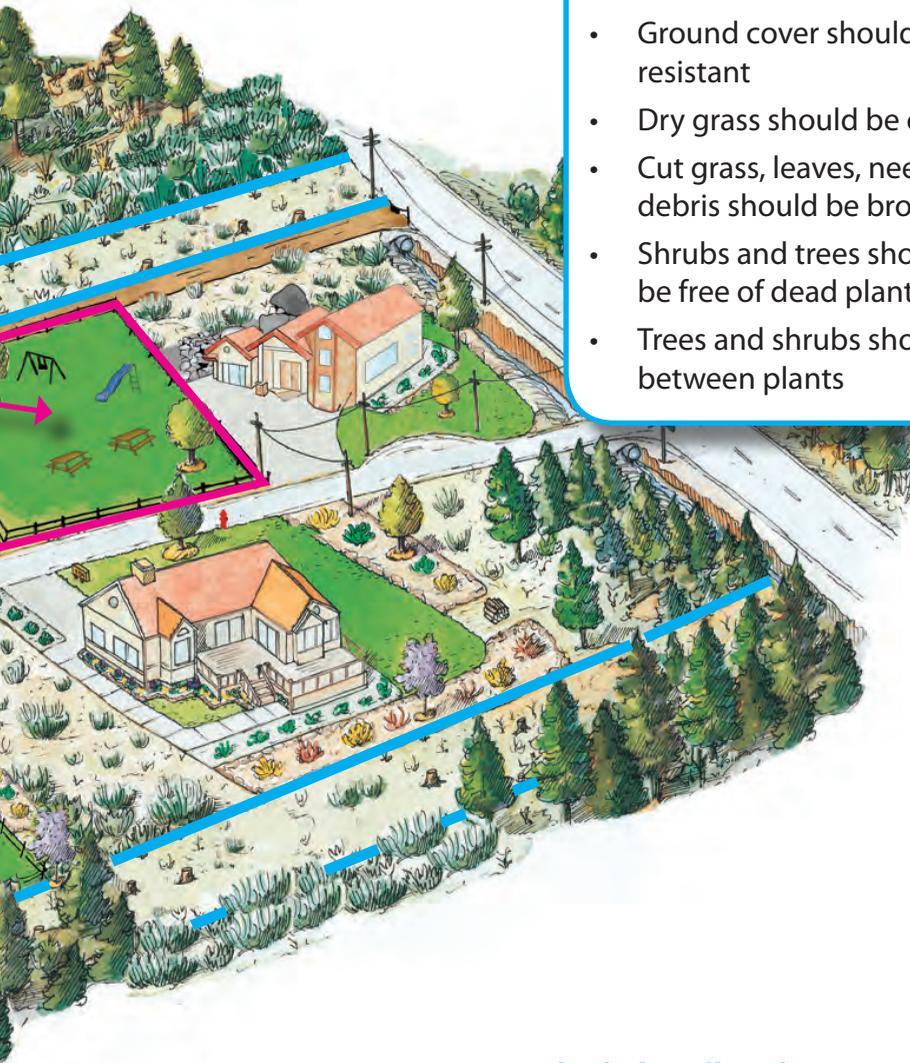
Pages 10-13

# Community Protection

**Safe Areas:** are cleared areas where residents and animals are safe from a fire. Safe areas could be pastures, gravel pits, parks, or an airstrip.



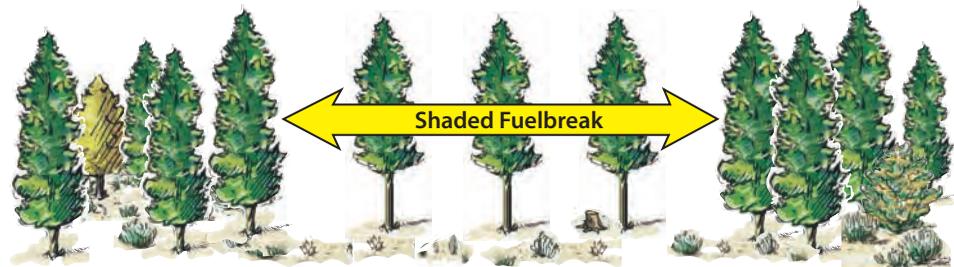
**Community Fuel Break:** is a treated buffer where vegetation has been reduced to allow firefighters a foothold to stop the advancing fire front. The shape of the fuel break mirrors the footprint shape of the community .



### Creating a Shaded Fuel Break

- Natural firebreaks such as rock out cropping or bodies of water
- Ground cover should be mainly non-flammable or fire resistant
- Dry grass should be cut to a height of less than 4 inches
- Cut grass, leaves, needles, twigs and similar small vegetation debris should be broken up
- Shrubs and trees should be maintained in a green condition, be free of dead plant materials, and ladder fuels removed
- Trees and shrubs should be arranged so fire cannot spread between plants

### Shaded Fuelbreak



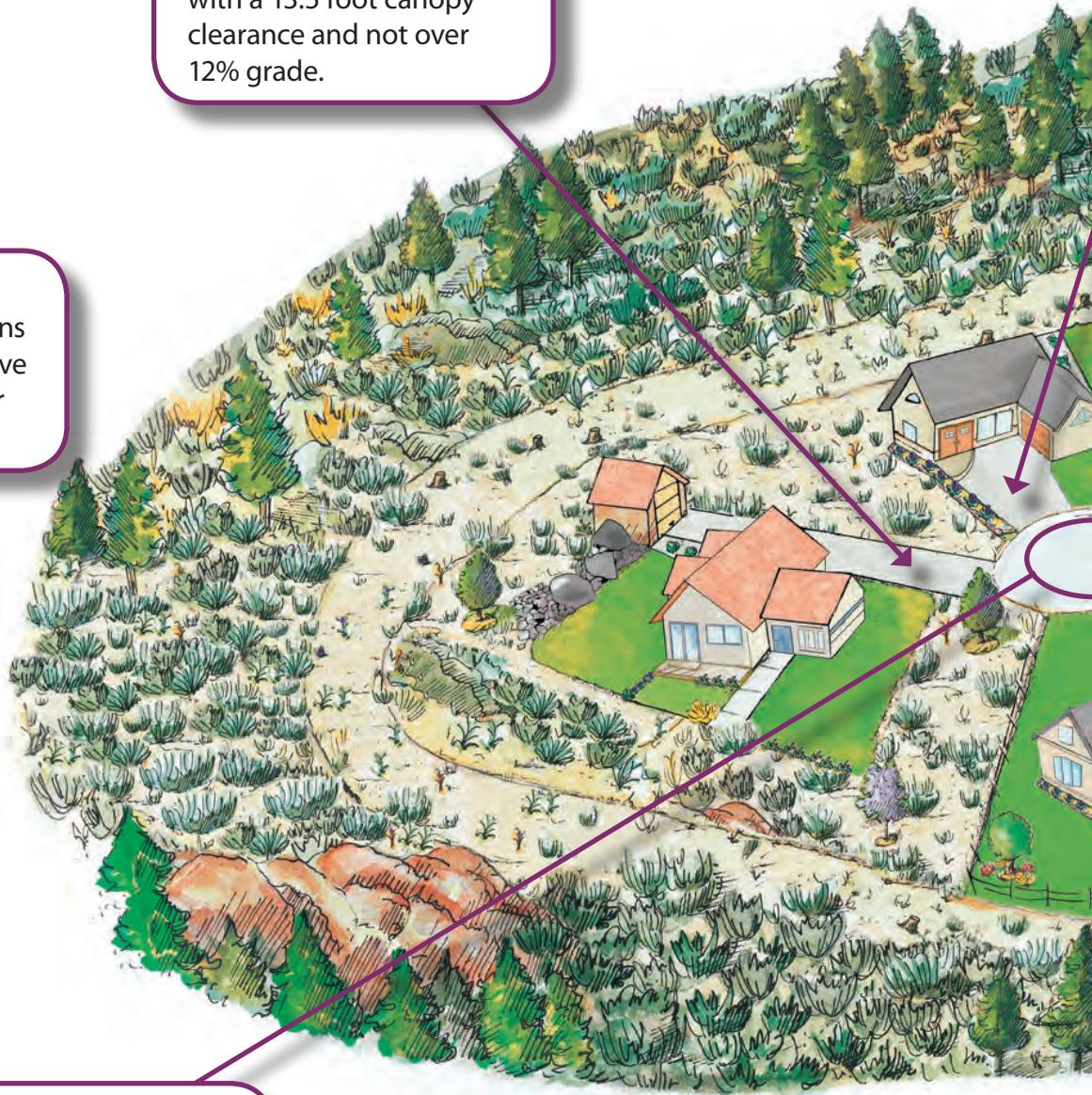
A shaded fuelbreak is created on forested lands when trees are thinned, tree canopies raised by removing lower branches and the understory vegetation managed to reduce the fire threat. Moisture retention in green healthy trees block fire embers.

# Access

**Road Height, Width and Grade Clearances:** Roads should be 20 feet wide with a 13.5 foot canopy clearance and not over 12% grade.

**Gated Areas:** Make sure to have pre-arranged plans for local authorities to have access to or through your property.

**Turnarounds:** Turn around areas need to be large enough to turn large fire equipment, at least a 45 foot radius.



**Driveway Clearance:** On a driveway that is at least 150 feet long, it is necessary to remove obstructions over the driving surface, and create a fuel break along the driveway's fringe. Driveway clearance should be:

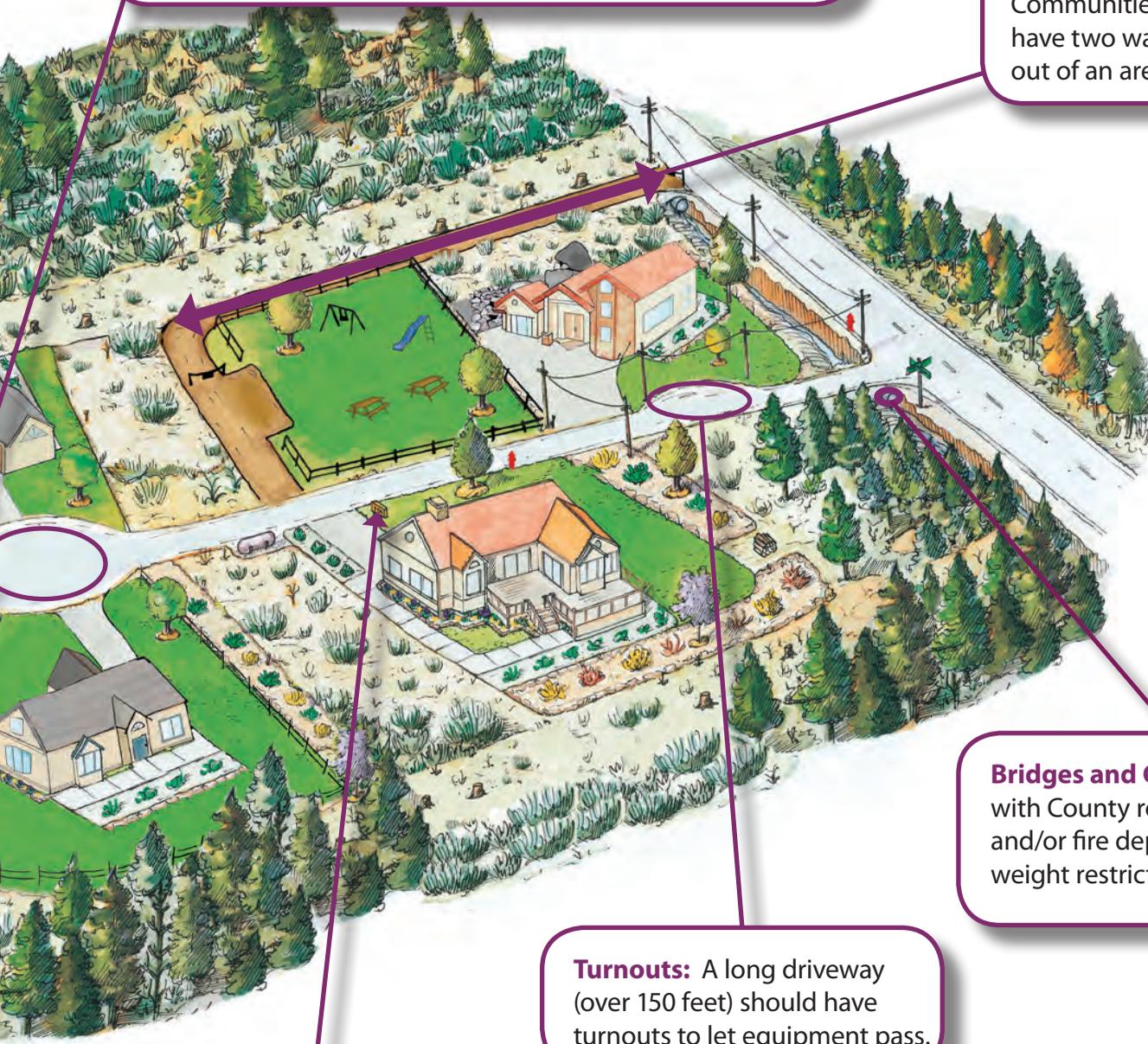
- Height - 13.5 feet
- Width - 12 feet
- Driveway edge - 10 feet on either side from the center line

**Secondary Access:** Communities should have two ways into and out of an area.

**Bridges and Culverts:** Check with County road department and/or fire department for weight restrictions.

**Turnouts:** A long driveway (over 150 feet) should have turnouts to let equipment pass.

**Address:** All residences should to have visible street names and house numbers.



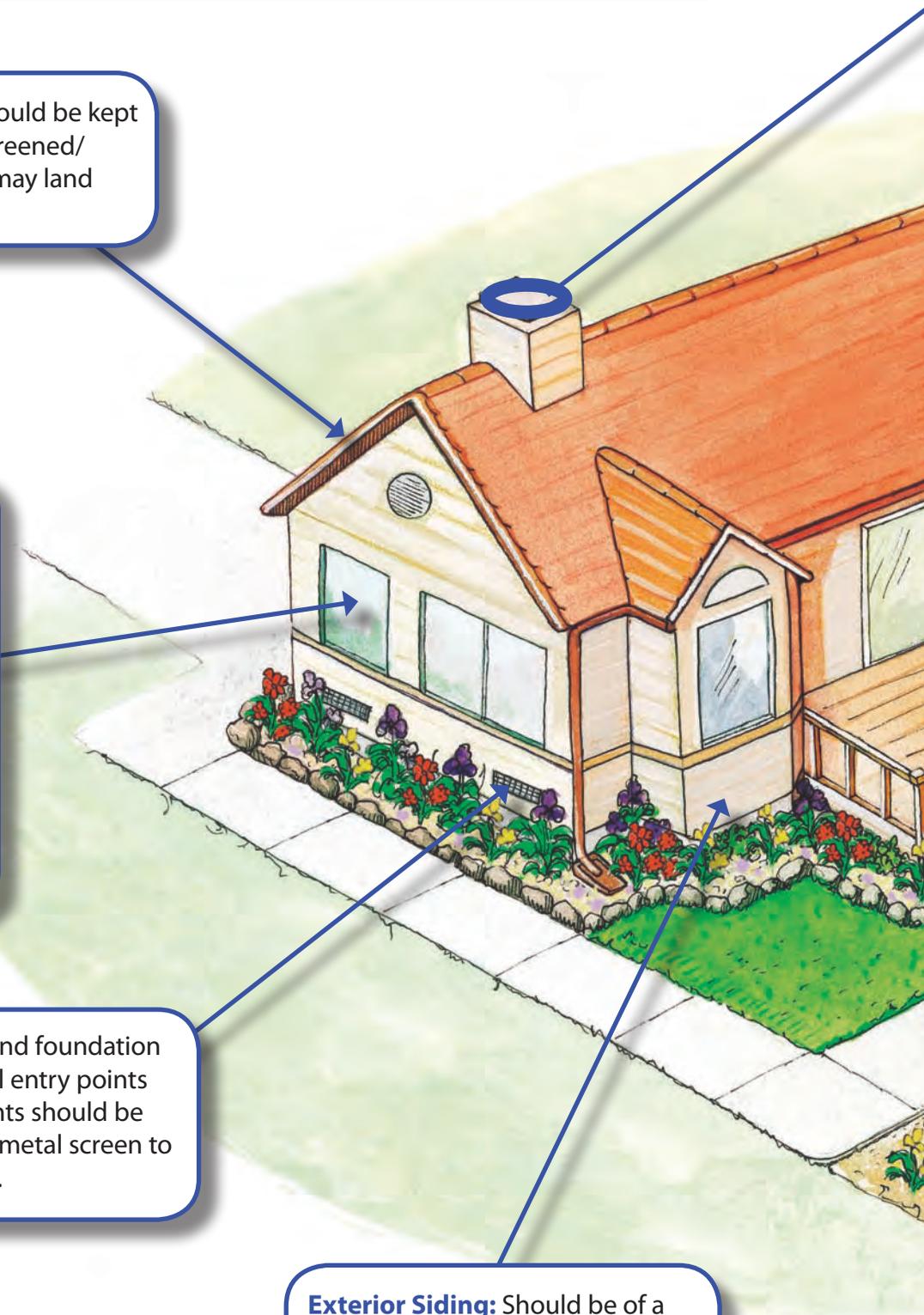
# Structural Environment

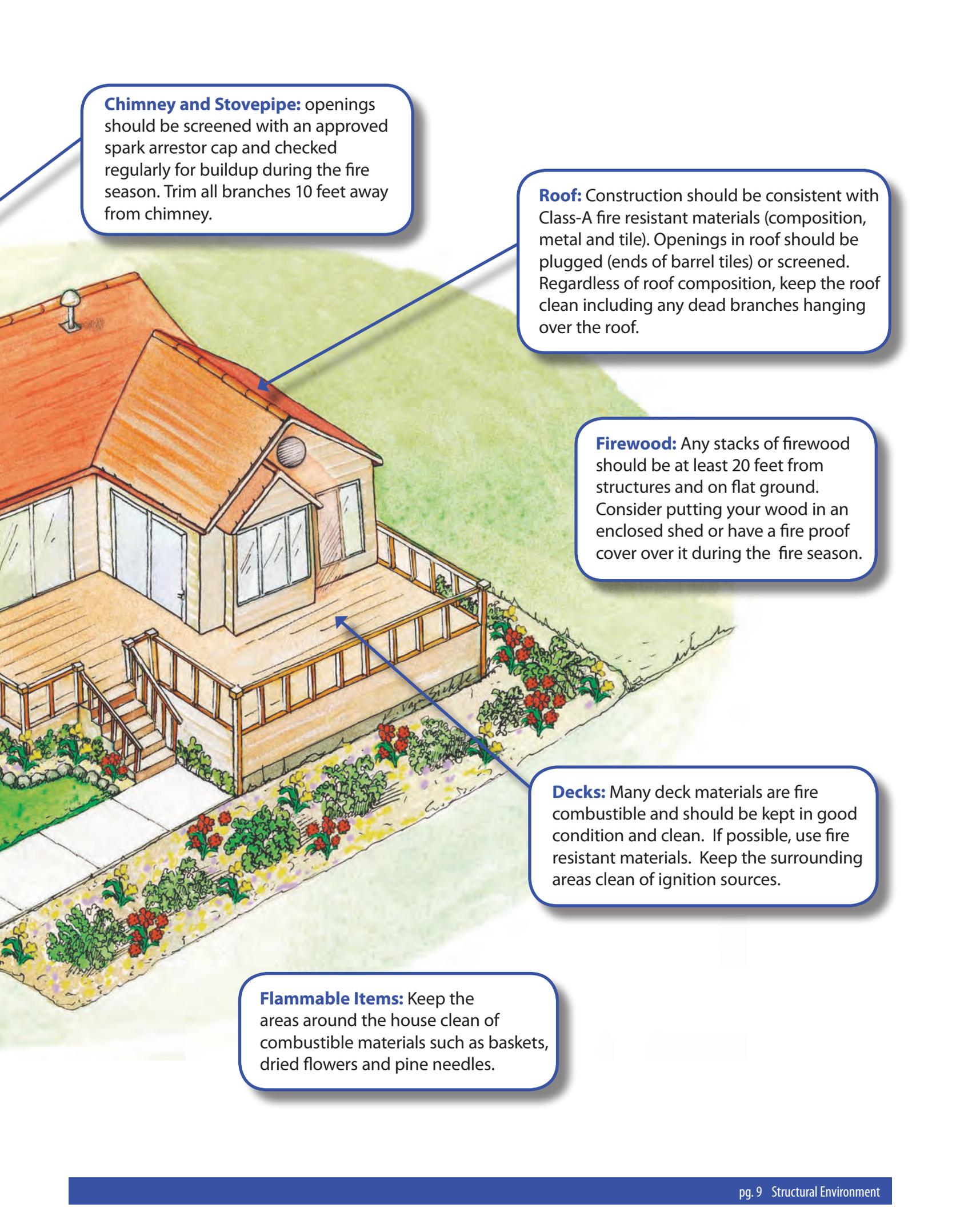
**Eaves & Gutters:** Should be kept clean of debris or screened/covered as embers may land and ignite.

**Windows and Skylights:** In high fire-hazard areas, windows that are at least double-paned and that utilize tempered glass for the exterior pane are the best. The type of window frame (wood, aluminum or vinyl) is not as critical; however, vinyl frames should have metal reinforcements. Skylights should be kept clean of needles and other flammable materials.

**Vents:** Attic, eave and foundation vents are potential entry points for embers. All vents should be covered with 1/8" metal screen to decrease your risk.

**Exterior Siding:** Should be of a noncombustible materials such as metal, stucco or brick.



An illustration of a two-story house with a red-tiled roof, a chimney, a wooden deck, and a garden with red flowers. Blue arrows point from text boxes to specific parts of the house: the chimney, the roof, the deck, and the garden area.

**Chimney and Stovepipe:** openings should be screened with an approved spark arrestor cap and checked regularly for buildup during the fire season. Trim all branches 10 feet away from chimney.

**Roof:** Construction should be consistent with Class-A fire resistant materials (composition, metal and tile). Openings in roof should be plugged (ends of barrel tiles) or screened. Regardless of roof composition, keep the roof clean including any dead branches hanging over the roof.

**Firewood:** Any stacks of firewood should be at least 20 feet from structures and on flat ground. Consider putting your wood in an enclosed shed or have a fire proof cover over it during the fire season.

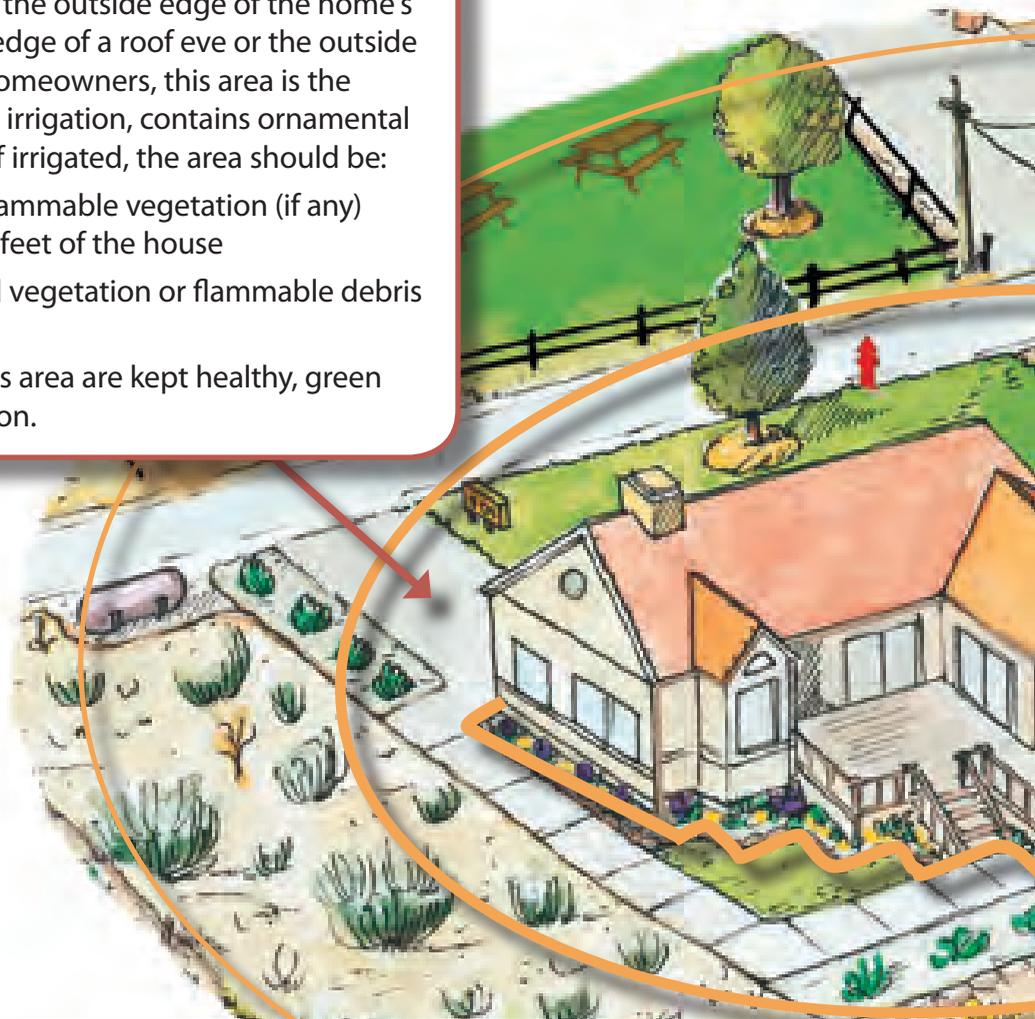
**Decks:** Many deck materials are fire combustible and should be kept in good condition and clean. If possible, use fire resistant materials. Keep the surrounding areas clean of ignition sources.

**Flammable Items:** Keep the areas around the house clean of combustible materials such as baskets, dried flowers and pine needles.

# Defensible Space

**Primary Fuel Break or Home Ignition Zone:** is the zone at least 30 feet from the home starting from the outside edge of the home's furthest extension. This may be the edge of a roof eave or the outside edge of a deck or porch. For most homeowners, this area is the residential landscape. This often has irrigation, contains ornamental plants and is routinely maintained. If irrigated, the area should be:

- **Lean** - only a small amount of flammable vegetation (if any) should be present within the 30 feet of the house
- **Clean**- no accumulations of dead vegetation or flammable debris within the area.
- **Green** – plants located within this area are kept healthy, green and irrigated during the fire season.

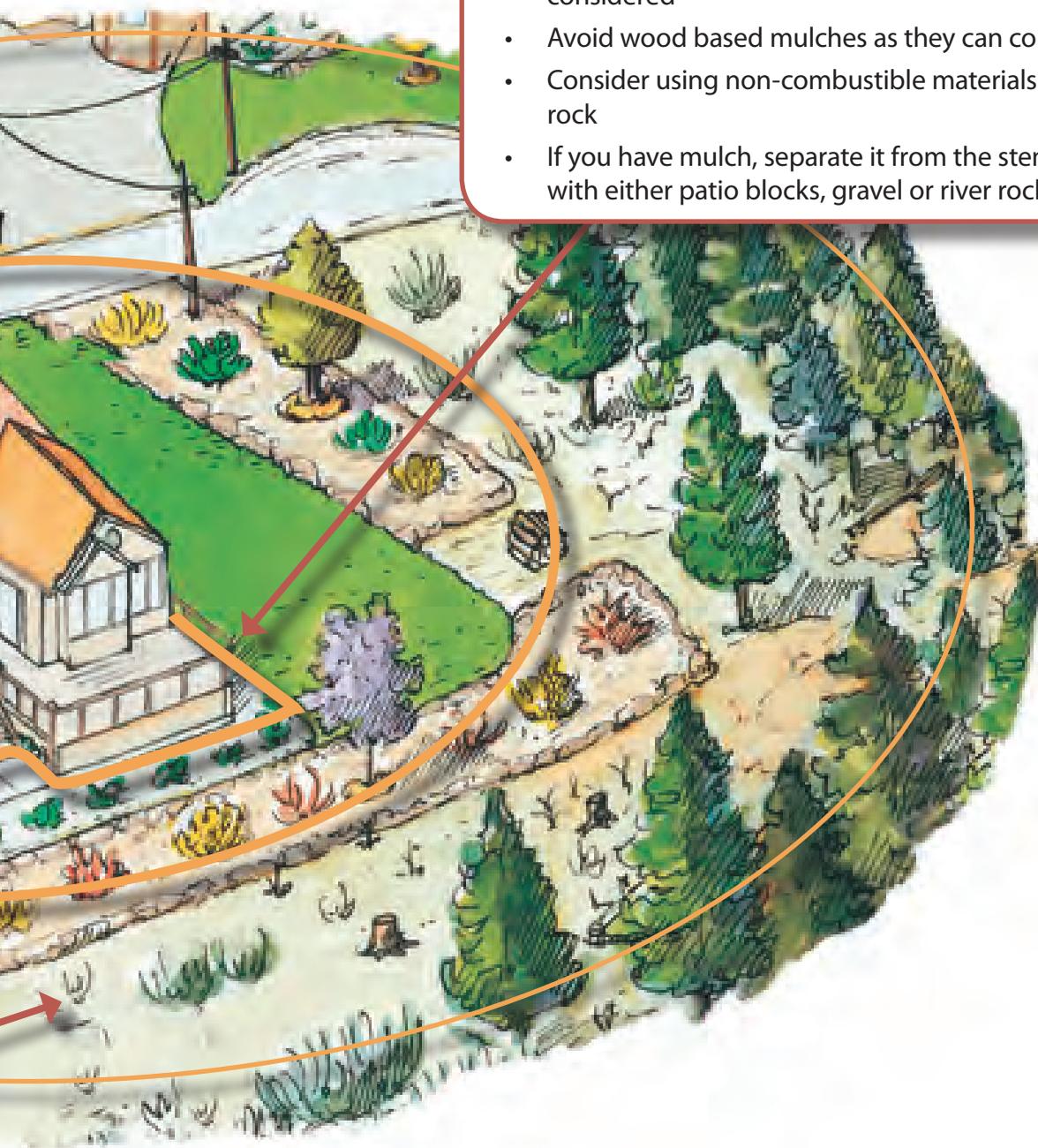


**Secondary Fuel Break or Wildland Fuel Reduction Area:** is the area that lies beyond the primary fuel break or residential landscape area (an additional 20 to 70 feet) and is where sagebrush, juniper and other wild plants grow. Within this area:

- Remove all dead vegetation (dead brush, dried grass and fallen branches)
- Thin out thick shrubs and trees to create a separation between them – use shaded fuel break techniques
- Remove ladder fuels by removing low tree branches and removing or pruning any shrubs under the trees

**Home Foundation Planting or Landscaping:** is the area immediately adjoining the home and any additions such as decks or porches. The following guidelines should be followed:

- Plant material should be fire resistant and succulent
- Avoid plant material that creates heavy hedges such as junipers and cedars
- Ground covers that are low growing, green and fire resistant can be considered
- Avoid wood based mulches as they can combust and cause a fire
- Consider using non-combustible materials such as gravel or river rock
- If you have mulch, separate it from the stem wall, porches and decks with either patio blocks, gravel or river rock



See page 12, **Five Steps to Creating an Effective Defensible Space**

# 5 Steps to Creating an Effective Defensible Space

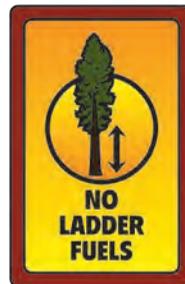
## What is a defensible space?

A defensible space is the area between a house and an oncoming wildfire where the vegetation has been managed to reduce the wildfire threat and allow firefighters to safely defend the house. In the event that firefighters are not available, defensible space improves the likelihood of a home surviving without assistance.



### Step 1. The Space

- Determine your recommended defensible space distance (see table)
- Once this space is known, tie strips of cloth or flagging on shrubs to mark the boundary
- Make this a neighborhood project! Defensible space improves when entire neighborhoods implement these practices



### Step 4. Remove Ladder Fuels

- Remove ladder fuels (vegetation that can carry fire from low-growing plants) to a height of at least 10 feet
- Removal of tree branches should not exceed 1/3 of the total tree height
- Remove shrubs and trees growing under the drip line unless they are well maintained and will not carry a fire



### Step 2. Removal

Within the recommended Defensible Space Zone, remove:

- Dead and dying: trees, native and ornamental shrubs, branches, leaves, needles, grass, weeds, flowers and twigs within 30 feet of the house



### Step 5. Lean, Clean & Green

- Lean - small amount of flammable vegetation
- Clean - no accumulation of dead vegetation or debris
- Green - healthy, green and irrigated plants



### Step 3. Thin

Within the Defensible Space Zone, native trees and shrubs should not occur in dense stands. Dense stands of trees and shrubs pose a significant wildfire threat. Thin dense tree and shrub stands to create more space between them.



### RECOMMENDED DEFENSIBLE SPACE DISTANCE

(The terrain at your house is...)	Flat To Gently Sloping 0-20%	Moderately Steep 21-40%	Very Steep +40%
Grass	30 feet	100 feet	100 feet
Shrubs and Woodland	100 feet	200 feet	200 feet
Trees	100 feet	100 feet	200 feet

## Ladder Fuels

A **ladder fuel** refer to shrubs, grass, branches, leaves, needles and other combustible vegetation that may allow a wildfire to spread from lower growing vegetation to higher growing vegetation.

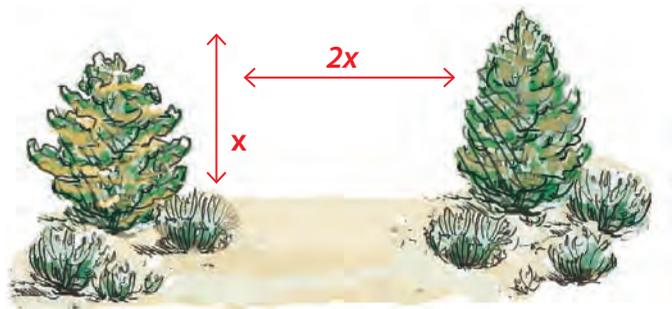
**Fuel** is considered anything that can burn including needles, leaves, dry grass, dead branches and firewood. Fuel reduction means “to lessen the amount of fuel available to a fire, to increase the distance between fuels, and to isolate fuels so fire can’t go to them”.

Ladder Fuels



## Sagebrush, Shrubs and Juniper

**On flat to gently sloping terrain**, individual shrubs or small clumps of shrubs within the Defensible Space Zone should be separated from one another by at least twice the height of the average shrub. **On steeper slopes**, the separation distance should be greater. For example, if the typical shrub height is 2 feet, then there should be a separation between shrub branches of at least 4 feet. Remove shrubs or prune to reduce their height and/or diameter. In most instances, removing big sagebrush is the preferred approach. It is a very flammable plant, is easily removed, does not re-sprout and is typically abundant.



## Maintenance

Maintaining a defensible space is an ongoing activity. Plants grow back and flammable vegetation needs to be routinely removed and disposed of properly. Before each fire season, re-evaluate your property using the five steps and implement the necessary recommendations.

## Ornamental Junipers

Firefighters often refer to ornamental junipers as little “green” gas cans. During a wildfire involving homes, embers can smolder undetected under junipers, which can ignite and burn intensely even after firefighters have left the area. Keep these plants at least 30 feet away from your house and plant less volatile plants or use hard surfaces.

## Lean, Clean & Green Tips

- Remove most or all flammable wildland plants
- If you choose to retain wildland plants, make sure they are free of dead wood and leaves, pruned to reduce the amount of fuel and separated from adjacent brush fields
- Select less flammable plants for the home landscape such as: shorter plants, less than 2-feet tall; green, herbaceous plants (grass & non-woody flowers); and deciduous shrubs and trees
- Emphasize the use of hard surfaces such as concrete, asphalt or brick
- Within 20 feet of the house, do not use wood or rubber mulches in a widespread manner
- Clear all flammable vegetation from within 10 feet of the propane tank
- Remove tree limbs that are within 10 feet of the chimney, touching the house or deck
- Remove tree limbs within 6 feet of a roof or power line
- Create a noncombustible area at least 5-feet wide around the base of the house
- Emphasize the use of irrigated herbaceous plants such as lawn, ground covers and flowers
- Use rock mulches and hard surfaces



# Ready, Set, Go

## Public Safety

Successful Fire Resistant Communities (FAC) enable residents to know how to safely and effectively evacuate, which requires preparation.

When **community evacuations** become necessary, local officials will provide information to the public through the media. In some circumstances, other warning methods, such as sirens or telephone calls from reverse 911, are also used. Additionally, there may be circumstances under which you and your family feel threatened or endangered and you feel the need to leave your home to avoid this situation.

The **amount of time you have to leave** will depend on the hazard. If the event is a wildland fire, you might have a day or two to get ready. However, many emergencies allow little time for people to gather even the most basic necessities, which is why planning ahead is essential.

The **Emergency Alert System (EAS)** can address your County or Community on very short notice in case of an emergency. Local authorities will give directions on evacuation and escape routes which will be marked with uniformed personnel and "ESCAPE" signs. Remain calm and orderly for a safe and successful evacuation.



### Preparation for a Fire Threat

- Create a **Family Disaster Plan** that includes meeting locations and communication plans and rehearse it regularly. Include in your plan the evacuation of large animals such as horses.
- Have **fire extinguishers** on hand and train your family how to use them.
- Ensure that your family knows where your **gas, electric and water** main shut-off controls are and how to use them.
- Plan several different **evacuation routes**.
- Designate an **emergency meeting location** outside the fire hazard area.
- Assemble an **emergency supply kit** as recommend by the American Red Cross (see page 15).
- Appoint an **out-of-area friend or relative as a point of contact** so you can communicate with family members outside of the area. (see page 18).
- Maintain a **list of emergency contact numbers** posted near your phone and in your emergency supply kit
- Keep an extra **emergency supply kit in your car**.
- Have a **portable radio or scanner** so you can stay updated on the fire.

### Personal Wildfire Action Guide

Use this as a guide to write up your Wildland Fire Action Guide and post it in a location where every member of your family can see it. Rehearse it with your family.

Out-of-State Contact Phone #	
Work Phone #	
School Phone #	
Other Phone #	
Evacuation Routes	
Location of Emergency Supply Kit	
Notes	

Content adapted with permission from Ready, Set, Go!



## Leave Early

Successful Fire Resistant Communities (FAC) enable residents to know how to safely and effectively evacuate, which requires preparation. Be aware of the situation when a fire threatens your community.

- Evacuate as soon as you are set!
- Alert family and neighbors
- Dress appropriately (i.e. clothing made from natural fibers, such as cotton, and work boots)
- Have goggles and a dry bandana or particle mask
- Ensure that you have your emergency supply kit
- Stay tuned to your TV or radio stations or check the local fire department website
- Stay informed: watch TV or listen to local radio stations for updates; check the fire department's website

## Inside Checklist

- Shut all windows and doors, leaving them unlocked
- Remove flammable window shades and curtains and closet metal shutters
- Remove lightweight curtains
- Move flammable furniture to the center of the room, away from windows and doors
- Shut off gas at the meter
- Turn off pilot lights
- Leave your lights on so firefighters can see your house under smoky conditions
- Shut off air conditioning

## Outside Checklist

- Gather up flammable items from the exterior of the house and bring them inside (e.g. patio furniture, children's toys, door mats etc.)
- Turn off propane tanks (including barbecues)
- Don't leave sprinklers on or water running as they waste critical water pressure
- Leave exterior lights on
- Back your car into your driveway, shut the doors and roll up the windows
- Have a ladder available
- Patrol your property and extinguish all small fires until you leave
- Seal attic and ground vents with pre-cut plywood or commercial seals if time permits



### **American Red Cross Kit Suggestions**

At a minimum, have the basic supplies listed below. Keep these supplies in an easy to carry emergency preparedness kit that you can use at home or take with you in case you must evacuate

- Water - one gallon of water per person, per day stored in unbreakable containers and labeled with the storage date. Replace every six months.
- Flashlight
- Battery powered or hand-crank radio
- Extra batteries
- First aid kit
- Medication (7-day supply) and medical items
- Multi-purpose tool
- Sanitation and personal hygiene items
- Copies of personal documents (medication list and medical information, proof of address, deed/lease to the home, passports, birth certificates)
- Cell phone with charger
- Family and emergency contact information
- Extra cash
- Emergency blanket
- Map(s) of the area

Additional items may include the following:

Medical supplies (glasses, contact lenses, surgical mask or batteries), baby supplies, pet supplies, games for children, 2-way radio, extra set of keys, manual can opener, whistle, matches, rain gear, towels, work gloves, extra clothes and shoes, plastic sheeting, duct tape, scissors, liquid bleach, entertainment items, blankets and sleeping bags.

For more information visit the American Red Cross at:

[www.redcross.org](http://www.redcross.org)

# Evacuation

**Evacuation Centers:** Are designated areas that are designed to receive initial evacuees from the district being evacuated. These are safe zones where Evacuees arriving at a center will be safe to stay while the fire passes. Evacuees will be processed and may be directed to proceed to a Relocation Center.

## Evacuation Centers in Jefferson County

### Crooked River Ranch

- Crooked River Ranch Fire & Rescue Training Field
- Dick Chandler Ball Field
- The Pasture
- The Golf Course - 5195 SW Clubhouse Rd.
- The Commercial area around Ranch Chapel

### Madras

- Fairgrounds - 430 Southwest Fairgrounds Road
- High School - 390 SE 10th Street

### Grandview / Three Rivers Area

- Three Rivers Day Use Area at the Marina
- Lake Billy Chinook Airport (enter at the Lake Chinook Village Store, 8241 SW Jordan Rd.)

**Relocation Centers:** Are designated areas to receive evacuees from Evacuation Centers. Evacuees arriving at a Relocation Center will be processed and provided with shelter, food and beverages for the duration of the emergency. Some evacuees will want to choose their own Relocation Center but should still be processed so loved ones may be notified of their location.

## Relocation Centers in Jefferson County

### Crooked River Ranch

- Terrebonne School - 1199 'B' Ave., Terrebonne

- The Ranch Chapel - 5060 SW Clubhouse Road
- *Animal relocation:* Rodeo Arena - 14290 SW Chinook Drive

### Important Contact Information

County Sheriff Emergency	911	Jefferson County EMA	911
Jefferson County Sheriff Office	541-475-2201	Madras Police Department	541-475-2424
Oregon State Police	541-475-3898	Fire Information	541-410-5077
Jefferson County Burn Line	541-475-1789	Jefferson County Animal Shelter	541-475-6889
Crooked River Ranch	541-923-6776	Jefferson County Fire District	541-475-7274
Lake Chinook Fire & Rescue	541-771-0992	American Red Cross	541-475-3943
C.O. Interagency Dispatch Center	541-416-6800	Oregon Department of Forestry	541-447-5658
Bonneville Power	541-548-4015 800-282-3713	Cascade Natural Gas	888-522-1130
		Portland General Electric	800-743-5000
Pacific Power and Light	503-408-3604 800-245-7575	Cascade Electric Cooperative	541-548-2144 800-924-8736
Crooked River Ranch   <a href="http://www.crrfire.org">www.crrfire.org</a>		Jefferson County FD#1   <a href="http://www.jcfd-1.org">www.jcfd-1.org</a>	
Lake Chinook Fire & Rescue   <a href="http://www.LakeChinookFireandRescue.org">www.LakeChinookFireandRescue.org</a>			

## Evacuation

During a wildfire, it will likely be dark, smoky, windy, dry and hot. There may be burning embers being blown about, no power, no phone service and poor water pressure. Remember, there is nothing you own worth your life! Please evacuate immediately when asked by fire or law enforcement officials. If you are concerned, don't wait to be asked to leave. Drive slowly, turn on your vehicle headlights and stay as far to the right side of the road as possible.

### When do I leave?

Leave early enough to avoid being caught in fire, smoke or road congestion. Don't wait to be told by authorities to leave. In an intense wildland fire, they may not have time to knock on every door. If you are advised to leave, don't hesitate!

### Where do I go?

Evacuate to a pre-determined location (see evacuation and relocation centers on page 16). If you cannot make it to a relocation or evacuation center, make sure you are in a low-risk area such as a well-prepared neighbor or relative's house).

### How do I get there?

Have several travel routes in case one route is blocked by the fire or emergency vehicles and equipment. Choose an escape route away from the fire.

### What do I take?

Take your emergency supply kit containing your family and pet's necessary items (see page 15).

### If you cannot Evacuate

- Call 911 for assistance
- Stay in your home during the fire
- Bring garden hoses inside house
- Patrol inside your home for spot fires and extinguish them
- Wear long sleeves and long pants made of natural fibers such as cotton
- Stay hydrated
- Turn on all exterior lights
- Stay away from windows and move to an interior room or hallway
- Only leave when the fire has passed and it is safe
- Fill sinks and tubs with water
- Place wet rags under doors and other openings to prevent entry of embers and smoke
- Once the fire front has passed, check your flower beds, roof, rain gutters, attic and crawl space for fires or burning embers
- If you have to leave the house, remember that it is 4 to 5 times as hot outside in a fire than inside

## Evacuate Your Animals

Evacuate your animals if possible (see relocation centers). Ensure that your animal has some form of identification and bring current photo, health records (especially vaccinations) stored in waterproof bags, and medications and dosage instructions. Secure pets in their own carrier or cage



## If You Cannot Evacuate Your Animals

- Bring small animals indoors, do not leave pets tethered outdoors
- Leave only dry food in non-spill containers
- Leave water in bathtubs, sinks or non-spill containers
- Do not confine mixed species of pets, such as cats and dogs
- Move livestock and horses to a safe area, such as a recently grazed or mown pasture, riding arena or irrigated pasture
- Never release livestock or horses onto streets and roads
- Provide enough feed and water for at least 48 hours
- Notify fire agency personnel of livestock to coordinate evacuation
- Notify Animal Services about animals you could not evacuate

### In an emergency tune to:

**KBYT 89.1 FM**  
**KWSO 91.9 FM**  
**KWLZ 96.5 FM or 1340 AM**  
**KMAB 99.3 FM**  
**KGBZ 102.5 FM**  
**KNLR 97.5 FM**  
**KLTW 95.1**

# Notes

**Your Phone Number(s):** \_\_\_\_\_

**Local Fire District:**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**State Fire Protection District**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Neighbors**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Employment**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Doctor**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Veterinarian**

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

# Notes

## Schools:

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

## Out-of-area contact (friend or relative)

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

## What is your Evacuation Route?

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## Additional Notes:

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334 NE Hawthorne Ave.  
Bend, OR 97701

## Acknowledgements

This publication was adapted from *Fire Adapted Communities: The Next Step in Wildfire Preparedness*, UNCE publication #SP-10-10, with permission from the University of Nevada Cooperative Extension. Agencies who wish to create a customized version of this publication may register at [www.livingwithfire.info](http://www.livingwithfire.info) to receive a master CD.

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