

# Firewise Landscaping to Reduce Wildfire Risk

## Introduction

Firewise landscapes help to protect your home, property and save lives. Careful design and wise plant choices help to create a defensible space around your home. A wide array of attractive and fire-resistant landscape materials, trees, shrubs and flowering plants are available. Fire-resistant does not mean fireproof. This handout is intended as a guide, not a guarantee.

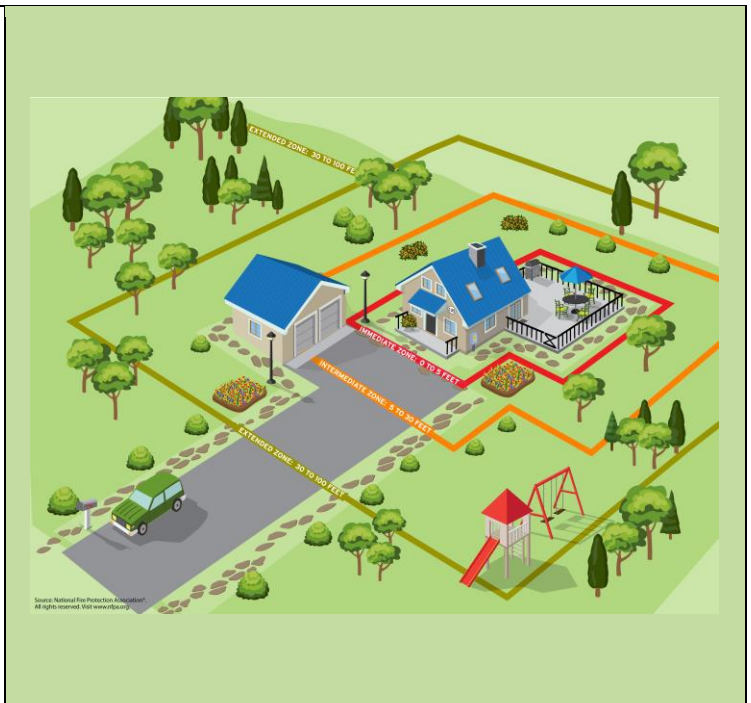
## Assess your Home and Yard for Wildfire Risk Factors

There is much you can do to reduce risks! Two primary factors determine whether a home survives a wildfire: 1. The effectiveness of the defensible space surrounding it (i.e., firefighter access to the property)  
2. Its structural ignitability. These two elements define the **Home Ignition Zone** or HIZ.

Immediate Zone, HIZ 1 - Includes the home out to 5 feet from the foundation. Objective: reduce the chance of ignition near the home. No vegetation other than annual baskets/containers and well-maintained lawn.

Intermediate Zone, HIZ 2 – Includes 5-30 feet around your home. Objective: prevent the fire from climbing into upper portions of trees or shrubs to keep the home safe. Eliminate ladder fuels - low tree branches and nearby shrubs that can boost flames to reach the home. This zone should be “lean, clean and green.”

Extended Zone, HIZ 3 - Includes 30-100 (or more) feet around your home. Objective: reduce the energy of the wildfire and slow its advance to reach buildings. This zone becomes larger where steep slopes are present because slopes increase flame lengths of fires. Create a clean, discontinuous path of vegetation, making it difficult for the fire to burn directly to the building.



Source: National Fire Protection Association

## Structural Ignitability

Did you know that the majority of homes lost to wildfires are the result of embers from a wildfire and not the fire itself? Pay close attention to flammability of structures such as the home, fences, decks and outbuildings. Roofs are the most vulnerable in a fire due to flying embers. Embers can also enter through the ventilation system. Changing flammable building materials to more fire-retardant materials like metal, tile, pavers and rock can make a difference. Use fire-protection vents designed to be ember and fire safe. Use of Class 1 roofing materials and keeping the roof and gutters clear of organic debris deter ignition. Keep firewood and combustible materials such as overhanging trees and dense plants adjacent to buildings, vents, windows and decks away from home.

## Firewise vs Traditional Landscaping

| Fire-Resistant Plants Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Highly Flammable Plants Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| Important qualities: High moisture content, open branching habits and non-resinous vegetation. The high moisture acts as a heat sink, reducing the intensity and spread of fire. Generally, deciduous trees and plants are less flammable than conifers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Flammable plants have low moisture content and often substances such as oils, resins, wax or pitch. Examples include ornamental juniper, Leyland cypress, Italian cypress, rosemary, arborvitae, eucalyptus.                                                                                                                                                                                                                                                                                                                                   |
| Fire-Resistant Plant Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Highly Flammable Plants to Avoid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>HIZ 1</b> Plants that work include annuals &amp; turf. Keep them well irrigated.</p> <p><b>HIZ 2</b> Includes low growing, open branching shrubs such as lilac and snowberry as well as smaller trees such as vine maple and crabapple. Annuals and perennials that do not contain volatile compounds may also be used.</p> <p><b>HIZ 3</b> Incorporates larger trees and scrubs with adequate spacing. Trees are trimmed up with large, open spaces between them. Deciduous trees in leaf, such as flowering dogwood and western catalpa, can be fire resistant. Ponderosa pine and western larch are the most fire resistant of the conifers. The OSU publication below has a wide array of plants, scrubs and trees for the firewise landscape.</p> | <p><b>HIZ 1</b> Avoid shrubs, especially those containing volatile compounds, such as juniper, arborvitae and rosemary. Also avoid trees that overhang the roof to produce roof litter prone to embers. Fire in branches and the crown of an overhanging tree provides ladder fuels.</p> <p><b>HIZ 2 &amp; 3</b> Conifers tend to be more flammable than deciduous trees. Pay attention to patches of invasive plants such as blackberry and French broom. If left unmanaged, they can form patches of dry debris that add fuel to a fire.</p> |
| Positive Cultural Practices at Home                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fire Hazards Around the Home and Property                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>HIZ 1</b> Maintain plants with appropriate watering and pruning. Dispose of dead plant debris. Keep the lawn mowed.</p> <p><b>HIZ 2</b> Keep plants healthy with watering and pruning. This zone can be mulched if irrigated. Rake and remove debris.</p> <p><b>HIZ 3</b> Keep a wide access path so First Responders can maneuver. Maintain mature trees/shrubs by trimming up lower branches and removing diseased or dying parts. Remove overgrown invasive plants. Prune dense vegetation and thin out clusters of trees.</p>                                                                                                                                                                                                                      | <p><b>HIZ 1</b> Mulch is not advised, due to its combustible nature. Wooden fences, gates and arbors can act as ladder fuels. Maintain wooden decks and don't store combustible materials under or near decks.</p> <p><b>HIZ 2</b> Don't place highly flammable plants adjacent to any structure. Keep grass mowed. Rake and remove vegetation debris.</p> <p><b>HIZ 3</b> Store firewood at least 30 feet from home.</p>                                                                                                                      |
| Fire-Resistant Landscaping Material Guidelines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Highly Flammable Landscaping Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Noncombustible materials: concrete, gravel, brick, rock, iron, aluminum, glass. Lawn and low-growing ground covers may slow flames and create fire breaks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Tests show that Western red cedar bark is the most easily ignited mulch. Fences, gates, and trellises made from wood are combustible.                                                                                                                                                                                                                                                                                                                                                                                                          |

### For More Information

*The Home Ignition Zone: Protecting your property from wildfire*

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9247.pdf>

*Fire-Resistant Plants for Home Landscapers*

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw590.pdf>

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