

Plant availability

Fire resistant plants are available at a variety of locations in the area. The box stores as well as the local nurseries all carry an array of both fire resistant plants as well as some highly flammable species. The following is a short list of fire resistant plants as well as a list of non-recommended plants that are highly flammable. If you are unable to find a fire-resistant plant at one of the many local nurseries, or box stores you can contact the Washington State University (WSU) Chelan/Douglas Counties Master Gardeners Plant Diagnostic Clinic at (509) 667-6540 for assistance in finding a source that might carry the plant you are looking for.

Fire Resistant Plants

Scientific Name	Common Name	Landscape Zone
Ground Covers		
Arctostaphylos uva-ursi	Kinnickinnick	2 or 3
Delosperma nubigenum	Yellow iceplant	1, 2 or 3
Dianthus species & hybrids	Pinks	1, 2 or 3
Phlox subulata	Creeping phlox	2 or 3
Veronica liwanensis	Speedwell	1, 2 or 3
Vines		
Actinidia kolomikta 'Arctic beauty'	Kiwi vine	1,2 or 3
Clematis species & cultivars	Clematis*	1,2 or 3
Humulus lupulus	Hops	1, 2 or 3
Lonicera sempervirens 'Magnifica'	Trumpet honeysuckle	1, 2 or 3
Herbaceous		
Aquilegia species	Columbine	1,2 or 3
Asclepias species	Milkweed	1,2 or 3
Aster species	Aster	1,2 or 3
Chamerion angustifolium	Fireweed	2 or 3
Geranium species	Cranesbill hardy geranium	1,2 or 3
Guem triflorum	Prairie smoke	1,2 or 3
Penstemon species & hybrids	Beardtongue	1,2 or 3
Deciduous Shrubs		
Amelanchier species	Serviceberry	3
Cornus sericea	Red osier dogwood	2 or 3
Rosa woodsii	Wood's rose	2 or 3
Syringa species	Lilac	2 or 3
Broadleaf Evergreen Shrubs		
Mahonia repens	Creeping Oregon grape	2 or 3
Paxistima myrtifolia	Oregon boxwood	2 or 3
Potentilla fruticosa	Shrubby Cinquefoil	2 or 3
Prunus laurocerasus 'Otto Luyken'	Compact Cherry Laurel	2 or 3
Rhododendron species & cultivars	Rhododendron/azalea	2 or 3
Non Turf Grasses		
Festuca glauca	Blue fescue	2 or 3
Nassella tenuissima	Mexican feather grass	3
Carex species & cultivars	Sedge	1,2 or 3
Deciduous Trees		
Acer species	Maple	3
Aesculus x carnea 'Briotii'	Red Horse Chestnut	2 or 3
Cornus sericea	Red twig Dogwood	2 or 3
Cornus florida varieties & cultivars	Florida flowering dogwood	2 or 3
Cotinus coggygria varieties & cultivars	Smoketree	3
Gymnocladus dioicus	Kentucky Coffee Tree	3
Sorbus aucuparia	European Mountain Ash	2 or 3

Unfavorable plant characteristics

Below is a short list of some of the plants that are not recommended for use in fire-prone environments.

The plants in this category have some common characteristics:

- High surface area to volume ratio, which means, they have fine-textured parts.
- Low moisture content
- High percentage of dead fuel matter or debris
- High resin content

DO NOT PLANT LIST

Trees	Shrubs	Grasses
Pine	Bitterbrush	Pampas grass
Firs	Sagebrush	Cheat grass
Larch	Mugo pine	
Spruce	Arborvitae	
Douglas fir	Juniper	
Yew	Yew	
Arborvitae		
Hemlock		
Cedar/Juniper		

Publication available at: A more comprehensive publication, "Fire-Resistant Plants for Chelan and Douglas County Washington" is available for those who need additional assistance in landscaping around their buildings at: Chelan/Douglas County Extension Office at, 400 Washington Street Wenatchee, WA 98801, as well as on the internet at the sites below.

Websites: For additional assistance and information consult the following websites:

Chelan/Douglas Master Gardeners
<http://extension.wsu.edu/chelan-douglas/gardening/mg/>

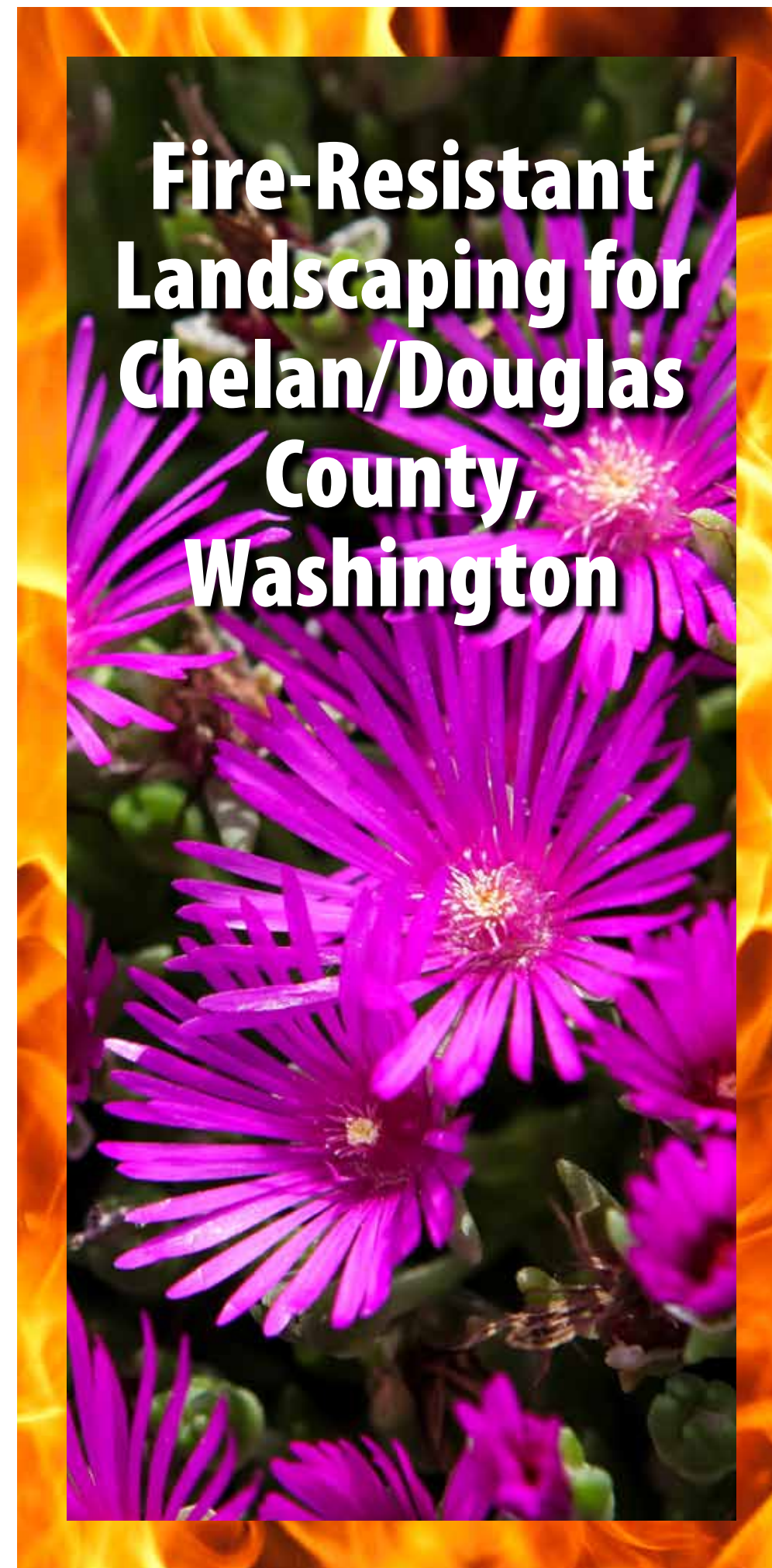
Cascadia Conservation District
<http://cascadiacd.org/wildfire-preparedness>

Chelan County Fire District #1. <https://www.chelancountyfire.com/>

Douglas County Fire District #2. <http://www.douglasfire2.org/>



WSU Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through you local Extension office. Persons with disabilities who require alternative means for communications or program information or reasonable accommodation need to contact Jennifer Marquis at 400 Washington St., Wenatchee, WA or 509-667-6540 or jgmarquis@wsu.edu at least two weeks prior to the event.

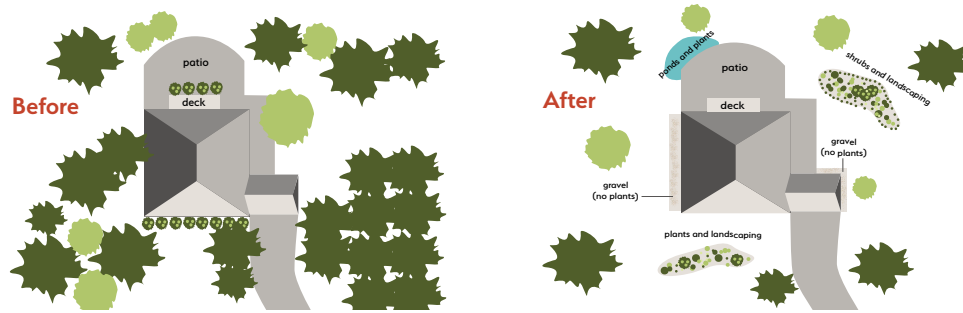


Fire occurrence in North Central Washington

On average, wildland fires occur in Chelan and Douglas counties between every six and 30 years. Wildland fire has been a part of the North Central Washington ecosystem since the retreat of the Continental glaciers more than 10,000 year ago. Wildland fire is an essential part of the environment in this area. Fire serves as a key component in maintaining a healthy and productive ecosystem. To reduce fire damage in the fire-prone wildland urban interface of North Central Washington, home owners can site buildings, use appropriate construction materials, and select fire-resistant plants to minimize losses. Wildland fire will always burn in North Central Washington but that does not mean homes have to be lost to wildland fires. There are many actions a home owner can take to live safely in a fire prone environment.

Defensible Space

The most important person in preventing a structure from burning in a wildland fire is the property owner. Home owners, not fire departments, have the responsibility to take action before a fire ever happens. Actions taken **before** the fire often determine the final outcome. Creating defensible space around a home is one of the most important and effective steps one can take to protect families, firefighters and homes from catastrophic wildfire. Defensible space is the area between a structure and an oncoming wildfire (or between a burning structure and wildland vegetation) where nearby vegetation has been modified to reduce a wildfire's intensity and ability to spread. Having a defensible space not only protects homes, it also helps protect those who are defending homes by providing safe ingress and egress.



Home Ignition Zone and Landscape Zones

The Home Ignition Zone begins at the home and extends out as far as 100 to 200 feet depending on the characteristics of adjacent lands. Maintaining the Home Ignition Zone lean, clean and green reduces ignition risk and the fire spread potential. Within the Home Ignition Zone, a fire-resistant landscape can be created by reducing flammable fuels. These Landscape Zones within the Home Ignition Zone can be used when selecting fire-resistant vegetation in fire-prone environments.

Landscape Zone 1: 0-5 feet if the structure has one-hour flame-resistant siding OR 0-10 feet if the structure has non-flame-resistant siding. In this zone, the goal is to prevent ignitions on or near a structure.

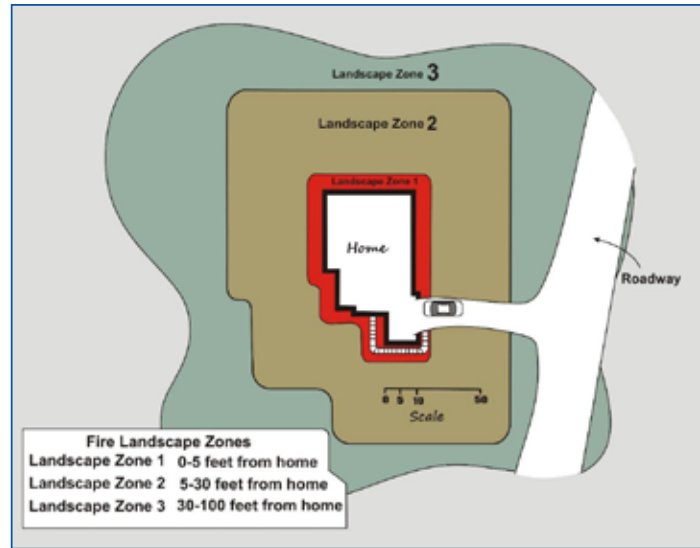
- ▶ Plant no trees or shrubs.
- ▶ Use only inorganic mulch. (Rubber mulch is not acceptable for use.)
- ▶ Plant fire-resistant plants with high moisture content.

Landscape Zone 2: 5-30 feet. In this zone, the goal is to prevent any spread of a fire that may be ignited from burning embers or other ignition sources.

- ▶ Plant single trees that are pruned at least 10' from the ground.
- ▶ Plant single shrubs. Keep well groomed.
- ▶ Clean up dead fuels.
- ▶ Eliminate continuous ground fuel and ladder fuels.

Landscape Zone 3: 30-100+ feet. In this zone, the goal is to reduce the heat generated by a fire (intensity) as it gets closer to a structure.

- ▶ Maintain well-spaced trees with crowns well separated.
- ▶ Eliminate ladder fuels.
- ▶ Minimize ground/surface fuels.
- ▶ Keep shrubs pruned, thinned, and well-spaced.



Firebrands (Sparks or Embers)

Wildfire threatens homes in three ways: direct contact by flames, radiated heat, and firebrands (burning embers). **More homes burn due to firebrands than due to any other cause.** When fire conditions are right, firebrands can be lofted high into the air and transported more than a mile from the main fire. Firebrands also can be carried by wind and fire whirls. If firebrands land in easily ignitable materials such as dried grass, fallen leaves, wood shake roofs, leaf- or needle-filled gutters, a new fire easily can start. Home owners can take action to reduce the ignition potential on and immediately adjacent to the home to combat incoming firebrands.

Building Materials

The home design, location, construction materials, and access all influence its survivability during a wildland fire. The most exposed portion of your home is the roof. A Class A roofing offers fire resistance and greatly improves the likelihood of the structure surviving a wildland fire. The use of fire-resistant building materials such as cement board siding, dual-pane windows, boxed in eaves, and metal screen (1/8" or less) covering vents reduces the probability of ignition of one's home. Make sure decks and fencing are in good repair and free of clutter and debris. Remember, if it is attached to your house, it is part of your house! Consider the use of metal gates and other non-flammable materials to separate fences and decks from your home. Lawn furniture, decorations and other flammable items may serve as receptor of firebrands and pose an increased risk to your home. See www.firewise.org for additional information about building materials and construction standards.

Mulches

Mulches used around the landscape are valuable because they conserve moisture and help reduce weed growth. Organic mulches, such as bark, are often used. However, firebrands from a wildland fire can ignite dry bark mulch, conveying the fire to a building. Consider using less-combustible types of mulch such as gravel or decorative rock, or a combination of wood bark mulch surrounded by decorative rock mulch. Do not use wood or bark mulches within 5 feet of the house. Instead, consider colored rock, rock cinders, pavers, or other non-combustible, inorganic materials.

Maintenance

Maintenance is absolutely essential to a fire-resistant landscape. Plants listed as fire-resistant, if allowed to grow unchecked and poorly maintained, can become fire hazards. Practice, "if it is brown trim it down". Proper maintenance of landscaping is crucial and cannot be ignored.

Remember: "Lean, clean, and green" are the essentials to a fire-resistant landscape.

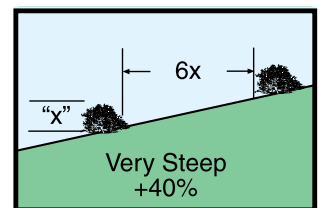
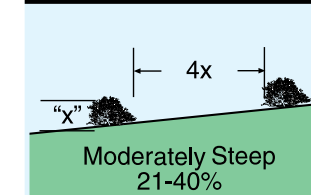
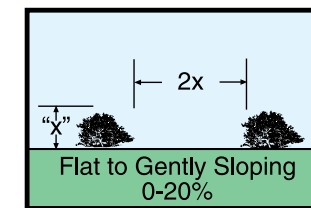
Maintenance practices for fire-resistant landscapes

The primary objective of landscape maintenance is esthetics and to reduce the spread and intensity of a threatening wildland fire.

- Washing dead debris out of plants
- Thinning
- Raking
- Mowing/Weed Eating
- Watering
- Cleaning roofs and gutters
- Cleaning up and properly disposing of yard waste
- Removing dead fuels
- Separating shrubs horizontally so they are no closer than twice their height
- Separating plants vertically so the space between the top of a shrub and the lower branches of a tree are at least three times the height of the shrub
- Practicing "Lean, Clean and Green" maintenance at least 30 feet around the structure
- Pruning to remove ladder fuels
- Spacing
- Weeding
- Using only inorganic mulch close to structures

Recommended Separation Distances for Shrubs and Small Conifers

For areas with brush and small conifer trees, the recommended separation distance is dependent upon shrub height and steepness of slope. Specific recommendations are presented below.



Note: Separation distances are measured between canopies (outermost branches) and not between trunks.

For example, if your home is located on a 10% slope and the brush is four feet tall, the separation distance would be two times the shrub height or eight feet. The recommended separation distance can be accomplished by removing plants or through pruning that reduces the diameter or height of shrubs (shorter height means less separation is needed). Removal works best for sagebrush. For shrubs which readily resprout, pruning to reduce height may be the best approach.