

# FIREWISE Vegetation Guide

*Protect your home from wildland fire*

Anchorage Wildfire Partnership  
Anchorage Fire Department  
U.S. Fish and Wildlife Service  
Department of Natural Resources  
Student Conservation Association  
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## Anchorage Wildfire Partnership

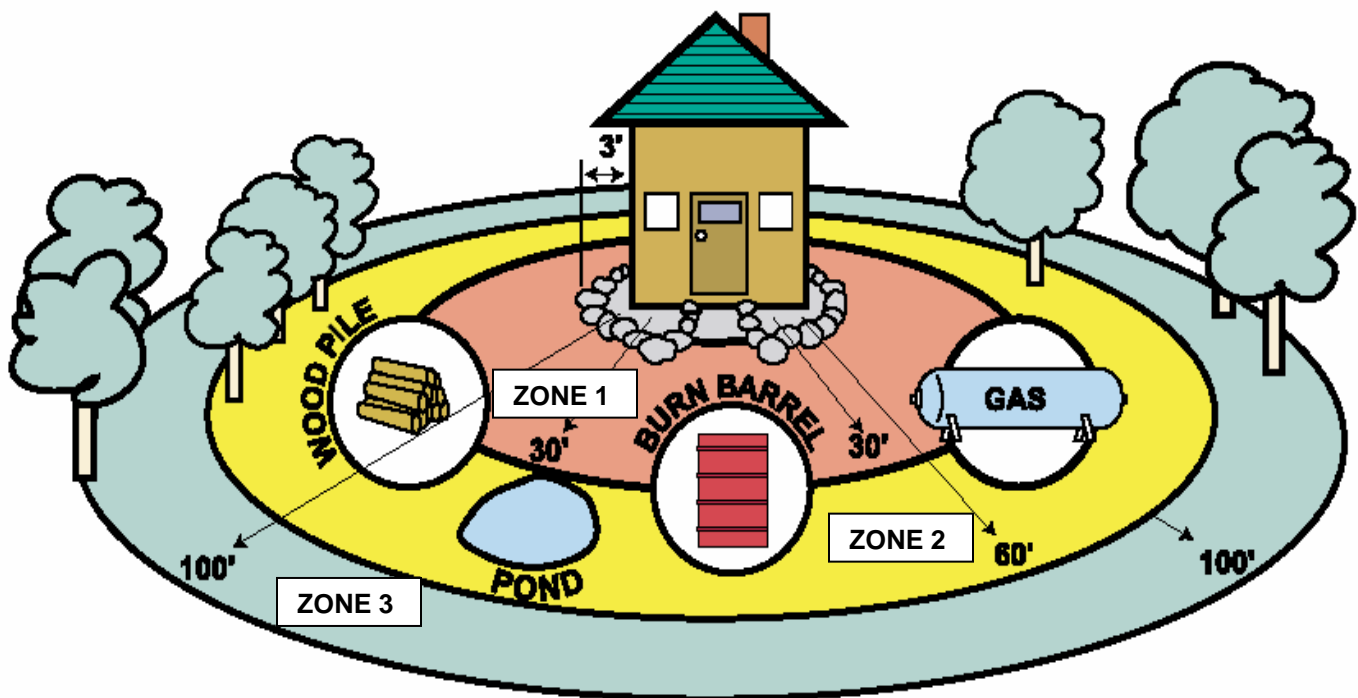
The Anchorage Wildfire Partnership is an effort by local, state, and federal agencies to reduce the threat of wildfire within the Municipality of Anchorage. The partnership follows the principles set by FIREWISE and the Alaska Wildland Fire Coordinating Group.

Human caused fires accounted for 64% of wildfire events in Southcentral Alaska in 2002. The vegetation and wildlife in parks, campgrounds and adjacent residential areas would more likely be destroyed by a fire resulting from human carelessness than a natural event, such as a lightning strike. Creating defensible space around homes will decrease its potential for ignition and also protects a community's natural resources.

### Creating *defensible space* around your home

Wildfire threatens lives and homes in many parts of Alaska. However, you can help protect your home and other valuables by creating *defensible space* – a safety zone around your home with little fuel for a wildfire and enough space to fight a fire if necessary. An important step every homeowner can take is choosing and retaining FIREWISE plants and maintaining them regularly. When plants are chosen and maintained in a FIREWISE manner, your defensible space can still be aesthetically pleasing and provide important habitat for songbirds and other wildlife.

This guide recommends appropriate plants and offers suggestions on using them to create an attractive FIREWISE landscape. It supplements *Firewise Alaska*, which describes many ways to protect your home from wildfire. *Firewise Alaska* is available at local garden centers and fire stations. Additional sources of information for making your home and property FIREWISE are listed on pages 9-10 of this guide.



## **Zone 1      Within 30 feet of structures**

This is the minimum area needed for firefighters to protect a structure from wildfire. On a slope, increase the distance to 100 feet downhill from any structure you want to protect.

- Plant ground covers and low-growing, herbaceous perennials, which retain more moisture than turf grass. Use only plants less than 18 inches tall near buildings.
- Trees may be present in Zone 1 if the trunks are 20 feet apart and crowns are at least 10 feet apart at maturity. For trees taller than 20 feet, remove branches within eight feet of the ground.
- Plant only small shrubs spaced so they are several feet apart at maturity.
- Use rock or herb gardens and flower beds to create islands of vegetation.
- Use stone, gravel, concrete and other non-flammable materials in walls, walkways, and borders around structures to create fire breaks.
- Do not use a wooden walkway, fence, or wood chips in a way that could lead a fire to any structure you want to protect.
- Remove conifers and their branches growing within 10 feet of a building and any tree or shrub that drops debris on the roof or in gutters.
- In the event that a tree is left within the 10 foot zone, it should be pruned to no more than 30% the height of the tree and all ladder fuels should be removed.
- Keep vegetation healthy and tidy by watering, pruning, and mowing as needed. Areas should be free of debris, needles, and dead vegetation.

## **Zone 2      30 – 60 feet from structure**

- Deciduous trees and shrubs and widely-spaced conifers may be planted in Zone 2.
- Remove branches within eight feet of the ground (no more than 30% the height of the tree) and space trees so that crowns remain 10 feet apart at maturity.
- Space shrubs or groups of shrubs a distance of two to three times their height apart.
- Small evergreen shrubs may be used with proper spacing and maintenance.
- Thin dense areas of shrubs and remove tall grass and dead trees.
- Use flower and vegetable gardens and non-flammable features such as rock to break up areas of vegetation.
- Remove all vegetation from around flammable materials such as wood piles and propane tanks for at least 10 feet.

## **Zone 3      60+ feet from structure**

Only slight modifications may be needed in some natural woodlands in Zone 3.

- Retain deciduous trees and shrubs but thin areas of dense shrubs.
- Thin spruce to reduce the density of stands and remove lower branches.
- Mow tall grass or replace with less flammable broad-leafed plants.
- Retain healthiest plants and a variety of species and ages.
- A trail in Zone 3 can serve as a fire break.

## **Maintenance - *the key to a FIREWISE landscape***

- Separate islands of vegetation with less flammable material to eliminate a continuous fuel source from wildlands to structures and to slow the spread of fire.
- Place groups of plants with similar needs together to allow for easier watering and maintenance.
- Keep all vegetation well-watered throughout the season. Plants will be healthier and less likely to burn.
- Prune lower branches of large trees to eliminate ladder fuels — ground vegetation that grows under larger trees should be trimmed to keep fire from climbing into trees.
- When pruning, do not remove more than one-quarter of the live crown. Prune lower limbs from spruce in late summer or fall. A tree wounded in the spring may attract spruce bark beetles. Information on proper pruning is available from the Alaska Community Forestry Program.

## **Fire Resistant Vegetation**

All plants will burn under extreme wildfire conditions, but fire resistant plants burn at a lower intensity, with slower rates of spread, and with shorter flame lengths. All of these factors contribute to the potential for home ignitions during a wildfire.

### **Characteristics of plants that ignite readily and burn intensely:**

- Resinous plants, such as spruce, pine, juniper, and fir
- Leaves and wood containing waxes or oils
- Gummy, resinous sap with a strong odor, like sap from a spruce tree
- Coniferous trees that retain their needles in winter
- Stiff, leathery, fine, or lacy leaves
- Leaves that emit a strong odor when crushed

### **Characteristics of fire resistant plants:**

- High water content and supple, moist leaves.
- Water-like, thin sap, similar to sap from a birch tree
- Little or no accumulation of dead vegetation on the plant or on the ground

Following is a list of FIREWISE plants that are hardy in most of Southcentral Alaska. However, there are different temperature zones even within Anchorage and some plants that are hardy in west Anchorage may not be hardy on the upper hillside. Ask your favorite garden center for plants that are best suited for your location. There are many other plants appropriate for FIREWISE landscaping; use this list as a guide. Many of the plants recommended here are native to Alaska.

## Ground Covers and Herbaceous Perennials

### Native

Columbine – *Aquilegia formosa*  
Height: 8-36" Spread: 10"

Kinnikinnick – *Arctostaphylos uva-ursi*  
Height: 8-12" Spread: 24-36"

Artemisia / wormwood – *Artemisia*  
Height: 8-10" Spread: 8-15"

Dwarf dogwood / bunchberry – *Cornus canadensis*  
Height: 4-6" Spread: 24"

Ferns – Various species (Wood, Lady, Ostrich)  
Height: 1-4' Spread: 1-3'

Wild Strawberry – *Fragaria virginiana*  
Height: 8-12" Spread: 12"

Chocolate lily – *Fritillaria camschatcensis*  
Height: 5-18" Spread: 4-10"

Geranium / cranesbill – *Geranium*  
Height: 10-18" Spread: 18-24"

Iris – *Iris setosa*  
Height: 12-24" Spread: 6-10"

Lupine – *Lupinus arcticus*  
Height 1-3' Spread 1'

Forget-me-not – *Myosotis alpestris*  
Height: 6-12" Spread: 6-12"

Jacob's ladder – *Polemonium*  
Height: 1-3' Spread: 1'

Nagoon berry – *Rubus arcticus*  
Height: 2-4" Spread: 2-5"

Red raspberry – *Rubus idaeus*  
Height: 2-4' Spread: 6-8'

Speedwell – *Veronica*  
Height: 6-24" Spread: 6-10"

Violet – *Viola*  
Height: 6-12" Spread: 6-12"

### Non-Native

Bishop's weed – *Aegopodium podagraria*  
Height: 6-12" Spread: 6-12"

Astilbe – *Astilbe*  
Height: 2' Spread: 2'

Bergenia – *Bergenia* (E)  
Height 12-20" Spread 10-20"

Lily of the valley – *Convallaria majalis*  
Height: 6-8" Spread: 10"

Bleeding heart – *Dicentra spectabilis*  
Height: 2'-4' Spread: 2'-4'

Hosta – *Hosta*  
Height: 1-3' Spread: 1-3'

*Iris sibirica*  
Height: 1-2' Spread: 1-2'

Tulip – *Tulipa*  
Height 8-12" Spread: 6"

## Shrubs

### Native

Serviceberry – *Amelanchier*  
Height: 3-13' Spread: 3-8' shrub or small tree

Red-twig dogwood – *Cornus stolonifera*  
Height: 3-12' Spread: 4-12'

Sweet gale – *Myrica gale*  
Height: 1-4' Spread: 2-6'

Potentilla – *Potentilla fruticosa*  
Height: 2-5' Spread: 2-4'

Currant – *Ribes*  
Height: 3-6' Spread: 3-5'

Prickly rose – *Rosa acicularis*  
Height: 1-4' Spread: 3-4'

Willow – *Salix*  
Height: 3-30' Spread: 3-20'

Red Elder – *Sambucus racemosa*  
Height: 4-12' Spread: 8'

Spirea – *Spiraea*  
Height: 1-4' Spread: 2-4'

Blueberry – *Vaccinium alaskaense*  
Height: 1-5' Spread: 2-4'

High bush cranberry – *Viburnum edule*  
Height: 4-8' Spread: 2-4'

### Non-Native

Amur maple – *Acer ginnala*  
Height: 10-20' Spread: 15-20' shrub or small tree

Nanking cherry – *Prunus tomentosa*  
Height: 6-8' Spread: 6-8'

Flowering almond / rose tree of China – *Prunus triloba*  
Height: 12' Spread: 12'

Rugosa rose / Sitka rose - *Rosa rugosa*  
Height: 5-7' Spread: 5-7'

Meyer lilac / dwarf Korean lilac – *Syringa meyeri*  
Height: 4-8' Spread: 8-10'

American cranberry bush – *Viburnum trilobum*  
Height: 3-12' Spread: 3-12'

## Trees

### Native

Alaska paper birch – *Betula papyrifera* var. *neoalaskana*

Height: 20-80' Spread: 15-30'

Balsam Poplar – *Populus balsamifera*

Height: 30-90' Spread: 20-60'

Quaking aspen – *Populus tremuloides*

Height: 40-80' Spread: 20-25'

Black Cottonwood – *Populus trichocarpa*

Height: 40-90' Spread: 20-60'

Mountain ash – *Sorbus*

Height: 10-40' Spread: 10-30'

### Non-Native

Flowering crabapple – *Malus*

Height: 10-30' Spread: 8-25'

Chokecherry – *Prunus virginiana*

Height: 20-30' Spread: 18-25'

Ussurian pear – *Pyrus ussuriensis*

Height: 30-40' Spread: 20-30'

Japanese tree lilac – *Syringa reticulata*

Height: 20-30' Spread: 15-25'

**CAUTION:** THE FOLLOWING PLANTS CAN INCREASE THE INTENSITY AND RATE OF SPREAD OF A WILDFIRE AND REQUIRE SPECIAL CARE AND PLACEMENT IF THEY ARE RETAINED WITHIN 30 FEET OF THE HOME.

**Bluejoint reedgrass** *Calamagrostis canadensis* is a tall grass that is a fire hazard in the spring before green-up. Dead grass burns readily and intensely and can carry fire very quickly. Cut and rake the dead grass each spring and fall; mow or separate it from other plants throughout the summer.

**White spruce** *Picea glauca* have been devastated throughout Southcentral Alaska by spruce bark beetles. The dead trees pose an additional fire hazard and should be removed, especially if located within Zone 1 or 2. Residual live trees will burn readily under dry conditions. Cultural practices such as pruning and water will reduce their potential to burn. Lower branches of live trees should be removed in late summer or fall, not in spring.

**Black spruce** *Picea mariana* are very volatile. Remove dead and lower branches which act as ladder fuels within Zone 1 and 2. Thin stands of black spruce where they occur within 100 feet of the structure.

## **Native plants**

There are many benefits to choosing plants native to your neighborhood. They will be hardy, compatible with the other vegetation, and provide important food and shelter for songbirds and other wildlife. Although many native plants are not commonly available in garden centers, there are places where they can be gathered. The best spot may be in your own yard, where you can transplant them. Anywhere birch and spruce trees are growing, you will find seedlings in flower beds, gardens, or other places where the soil has been disturbed. These can be potted or moved to a protected site until they are large enough to plant into the ground.

### **Places to gather native plants for transplanting:**

- Areas where roads are being built or widened. Contact the Department of Transportation's Regional Right-of-Way Office.
- Construction sites, especially large areas such as new subdivisions and schools. Call the contractor to ask for permission.
- On state land, 150 feet from roads, trails, or other facilities. (Not in state parks.)
- Check with local nurseries for plants and seeds.
- Watch for garden club sales in the spring.

### **Gathering plants is not allowed in:**

- City, state, or national parks
- Campgrounds
- Portage Valley
- Turnagain Pass, between the pass and Bertha Creek
- Eklutna Flats
- Hatcher Pass from the Motherlode Lodge on the east side to Little Willow Creek, west of the pass

### **Transplanting tips:**

- Some species transplant easily and others almost never survive a move. Ask a nursery employee, Native Plant Society member or the UAF Cooperative Extension which plants to gather.
- Take plenty of soil with the plant. Some will have deep roots in dry areas. In the forest, roots will grow in the top few inches of soil and spread far beyond the plant. Pruning clippers are useful for making clean and sharp cuts on the roots.
- Pack plants close together and water frequently until planted again.
- Plant as soon as possible.
- Plants transplant better when they are not in bloom
- Move plants to a site similar to the one they were growing in. A shade-loving plant will seldom thrive in an open, sunny area.
- Trees up to four feet tall are fairly easy to transplant. The roots are likely to be shallow and widespread. Make sharp cuts in the roots and keep them moist while they are exposed. Plant in a wide, shallow hole in which roots can spread.
- Tree and roots should be planted at the same depth from which they were removed. Water several times per week for the first two growing seasons.



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**Additional information and resources are available from:**

Anchorage Fire Department  
Wildfire Mitigation Office  
100 E. 4<sup>th</sup> Avenue  
Anchorage, AK 99501  
(907) 267-4956  
[www.muni.org/fire1/wildfire.cfm](http://www.muni.org/fire1/wildfire.cfm)

University of Alaska Fairbanks Cooperative Extension Service  
2221 E. Northern Lights Blvd, Suite #118  
Anchorage, AK 99508  
(907) 786-6300  
<http://www.uaf.edu/coop-ext/>

Alaska Department of Natural Resources  
Division of Forestry, Community Forestry Program  
550 W. 7<sup>th</sup> Avenue, Suite 1450  
Anchorage, AK 99501-3566  
(907) 269-8465  
[www.dnr.state.ak.us/forestry](http://www.dnr.state.ak.us/forestry)

Alaska Native Plant Society  
<http://www.alaskakrafts.com/pages/anps.htm>

US Fish & Wildlife Service  
Anchorage Fish & Wildlife Field Office  
605 West 4<sup>th</sup> Ave, Rm G-61  
Anchorage, AK 99501  
(907) 271-2888  
<http://alaska.fws.gov/>

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