

FIREWISE ALASKA

**HELPING PROTECT YOU AND YOUR COMMUNITY
FROM THE THREAT OF WILDLAND FIRE**



WILDLAND FIRES: NECESSITY AND THREAT3

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Wildland Fires: Necessity and Threat

Fire plays a significant ecological role in Alaska's wildland environments. It helps to shape the wildlife habitats and wildlife populations Alaska is famous for. But many Alaskans enjoy living in or near wildlands, and an ever-increasing number of homes and other structures are being built in these areas. Firefighting agencies call places where human development meets or mixes with natural vegetation the *wildland/urban interface*. Wildland fires that occur in or near these areas, whether caused by lightning or by careless human behavior, can pose significant threats to homes and other structures. Although there are times when weather and burning conditions can overcome the best efforts of firefighters, firefighting agencies are committed to suppressing these fires and to protecting developed areas from the threat of wildland fires.

Many wildland/urban interface areas in Alaska become susceptible to fire as soon as the snow melts. Both live and dead trees are extremely flammable. Fire in dry grasses can burn and spread rapidly, especially before the spring/summer season.

Firefighting agencies are prepared to respond to wildland fire emergencies, but there are several factors that determine firefighting circumstances and effectiveness:

- The distance between a structure in your community and the nearest fire station or firefighting force greatly affects the emergency response time.
- If many fires are burning at once, or one very large fire, there will not be enough personnel and equipment available to protect every threatened structure.

- Some areas may not be safe for firefighters to enter.
- If a building has ignited because of a wildland fire, wildland firefighters may not be trained or equipped to do anything other than try to check the fire's further spread.

Any of these factors could mean that firefighting efforts would not be feasible or effective for all structures threatened by a wildland fire. You and your community members must evaluate the ability of your community to withstand an approaching wildland fire without the intervention of firefighting personnel and equipment. You must assume some responsibility for making preparations before a wildland fire occurs by preplanning and preparing for a safe evacuation.

What Can You Do?

During the 1996 Miller's Reach fire near Big Lake, Alaska, over 400 structures were lost when the fire overwhelmed firefighting efforts, yet over 1,000 threatened structures survived. Many were saved through the efforts of firefighters and community members, and many more as a result of *preparations made by community members*.

Firewise focuses on prefire preparedness and community education and involvement. This booklet will show you how you and your neighbors can develop a *Firewise community action plan*. It addresses the six elements of a Firewise community and describes how to establish and implement your Firewise action plan.

Step I: Evaluation

The first step toward developing a Firewise plan for defense against wildland fire is to look at your surroundings and evaluate them for susceptibility to fire. When you are doing your evaluation, imagine the worst wildland fire scenario: winds greater than 20 mph; hot, dry conditions; and dry vegetation. All wildland fire disasters have these conditions in common. Fires under these conditions are very difficult to control, even for professional firefighters.

Determine the Hazard

Hazards can be defined simply as the fuels and topography of an area. Examining hazards will help you to identify the potential for a large fire. Work through the Home Hazard Assessment rating form provided in the handouts to determine the hazard level for your home and property. If you need help with the worksheet, you can contact your nearest fire response agency.

Identify Values

Values are defined here as things that are important enough to you that their destruction by wildland fire would be

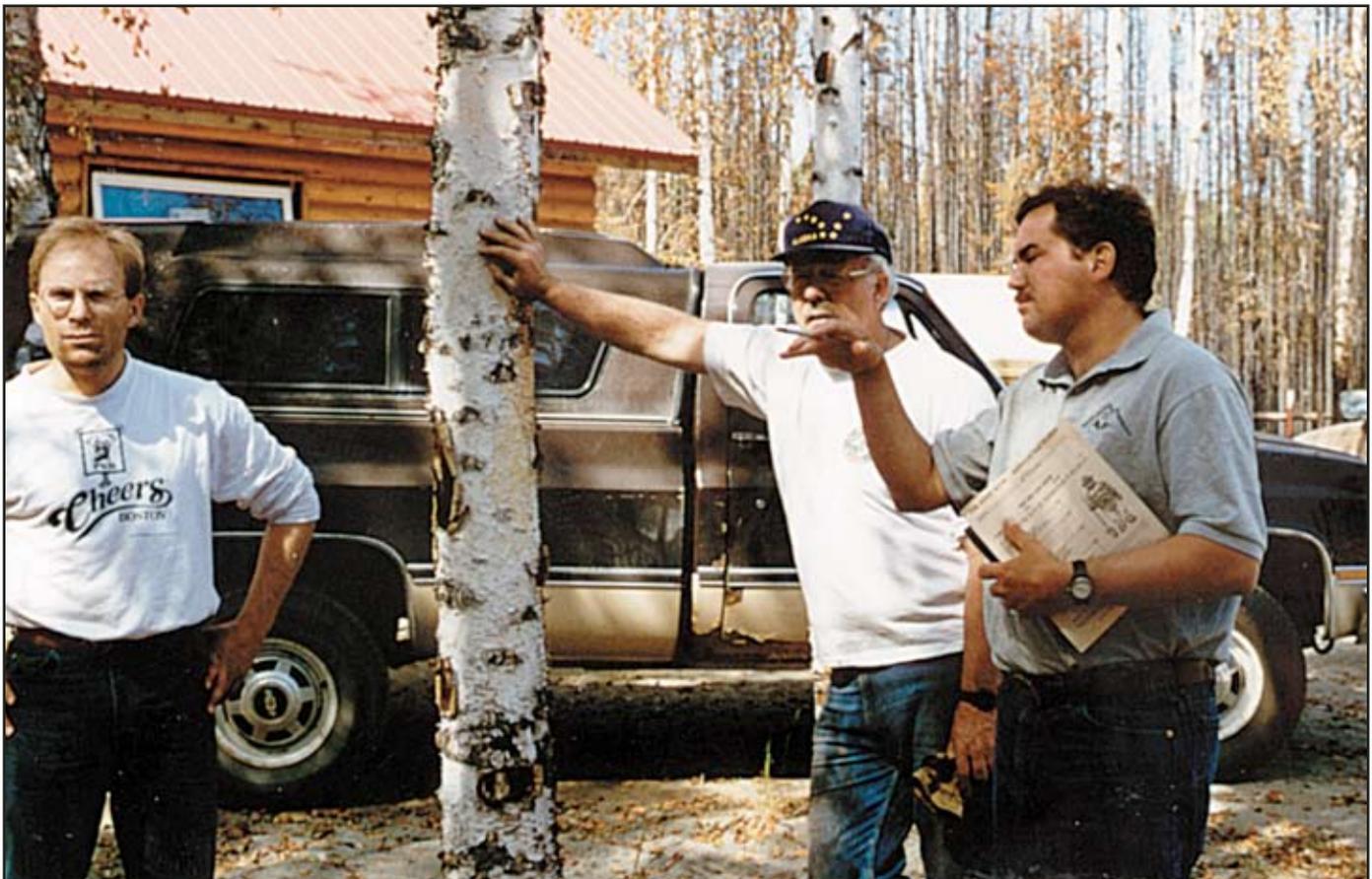
unacceptable. You should identify and rate your values at risk so you can clarify your goals and prioritize preventative actions. These values might be life, property, and keepsakes, or might include intangibles like the privacy created by a screen of trees, or the ability to view wildlife close at hand.

Recognize Risk of Ignition

Risks are defined as potential sources of wildland fire ignition. Wherever there are concentrations of people or their activities, there is the potential for human-caused fires. Examples would be RVs, campers, barbecues, cigarettes, mining, logging, and tourism. In many places in Alaska, there's also the potential for lightning to start fires.

Check Regulations

Examine codes, ordinances, covenants, and regulations that are applicable to your community. Make a list of these as you begin to develop your plan. Identify community leaders who may help you implement local programs.





LANDSCAPING

Develop and Maintain a Firewise Landscape Around Your Home

Objective: Manage your landscape vegetation to reduce the amount of fuel available to any fire approaching your property.

Your first defense against wildland fires is to create a Firewise landscape around your home. You can do this by removing flammable vegetation and replacing it with fire-resistant plants, by spacing the plants in your yard, and by clearing away dead vegetation and debris around your home.

Create a Defensible Space: Landscape With Fire Prevention in Mind

You can start with the vegetation around your home. Many of the plants that grow naturally on your property are highly flammable during the summer and can actually fuel a wildland fire, causing it to spread rapidly through your neighborhood. See the appendix for a list of fire-resistant plants. More information about fire-resistant vegetation is available at your local Cooperative Extension Service or Division of Forestry office.



Defensible space is an area that will help protect your home and provide a safety zone for those who are battling the flames

- *Remove or transplant* more flammable vegetation *within 30 feet of your home* and replace it with low-growing, fire-resistant plants; this is one of the easiest and most effective ways to create defensible space.
- Select landscape plants based on fire resistance and ease of maintenance as well as looks.

General characteristics of fire-resistant plants:

- grow close to the ground
 - have a low sap or resin content
 - grow without accumulating dead branches, needles, or leaves
 - are easily maintained and pruned
 - are drought tolerant in some cases
- Remove some of the trees from heavily wooded areas on your property to decrease the fire hazard and improve growing conditions. Also remove dead, weak, or diseased trees, leaving a healthy mixture of older and younger trees.
 - Work together with your neighbors to clear common areas between houses and prune areas of heavy vegeta-

tion that are a threat to homes and other structures.

- Electrical power lines should be clear of vegetation. Avoid planting trees near lines where they may grow into and contact the lines under windy conditions, causing a fire.
- Remove dead tree limbs hanging over your roof and any limb within 10 feet of your chimney.
- Roofs, gutters, and other areas around the house collect leaves, needles, and other woody debris. These areas must be cleared several times during the spring, summer, and fall. Burning embers carried to these areas can easily ignite the fine, dry fuels that collect in them.
- Create a three-foot nonflammable barrier around your home, such as a rock garden.
- Locate burn barrels at least 30 feet from any structure and clear the ground around the barrel for a minimum of 10 feet. A burn barrel must be in good condition and should be covered with a woven metal screen.
- Properly dispose of all cut vegetation by an approved method. Open burning may require a burning permit. Contact your nearest fire agency, department, or village public safety officer for local requirements.

Consider alternatives to burning:

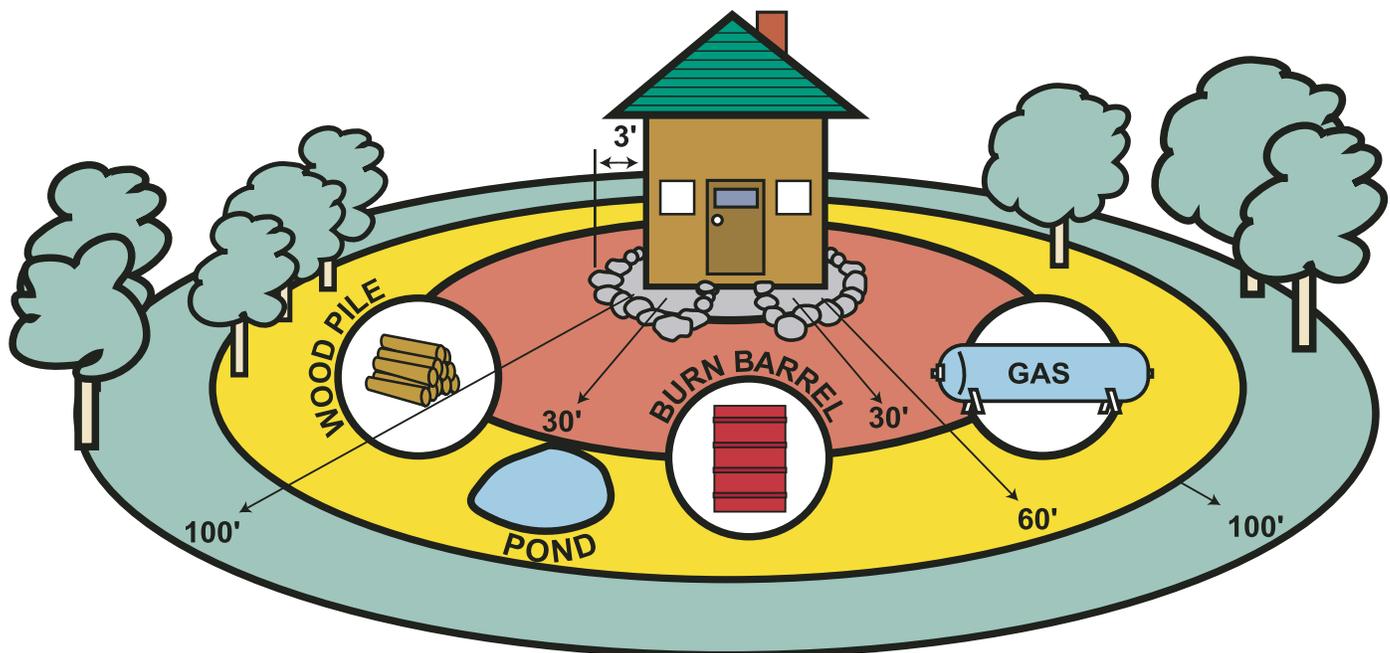
- use as firewood if possible
 - send through wood chipper; then scatter or use the chips for mulch or compost
 - bury on site
 - haul to landfill
- Stack firewood and scrap wood piles at least 30 feet from any structure; then clear away any flammable veg-

etation within 10 feet of the piles. Many homes have survived as a fire moved past, only to burn later from a woodpile that ignited after the firefighters moved on to protect other homes.

- Label and locate liquefied petroleum gas (LPG) or propane tanks or any fuel storage containers at least 30 feet from a structure. Use stone or iron instead of wood for cribs under tanks. If you store gasoline, label it.
- Clear flammable vegetation at least 10 feet around all such tanks.
- All-terrain vehicles, snowmachines, and other machinery should be parked away from your home.
- Maintaining your Firewise landscape is important. You should irrigate to maintain moisture in the vegetation during dry periods. Your local fire agency or department is a good source of information about creating and maintaining a defensible space, and there is additional information about fire resistant plants and landscaping on pages 18 and 19.



Prune limbs 6 to 10 feet from the ground, depending on the height of the ground fuels, to prevent fire from spreading into the trees.



Use the zone concept for thinning, limbing, and clearing flammable vegetation from around your home.



FIREWISE CONSTRUCTION

Build or Remodel to Make Your Home Resistant to Fire

Objective: Your home and other structures should be able to survive a wildland fire without firefighters' presence.

Your home could be vulnerable to a wildland fire because of its design, construction, or location. If you are preparing to build, buy, or remodel a house, you should know what to look for in a Firewise house. A few modifications to your construction plans can reduce the chance of your house catching fire.

Consider Fire-safe Sites When Building

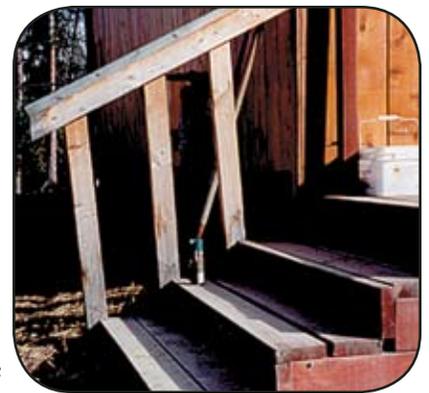
- If possible, locate a new house at least 30 feet from the boundary of your lot. This will allow you to design your landscape with at least 30 feet of defensible space.
- Don't build on ridge tops, in canyons, and between high points on a ridge. These are extremely hazardous locations because they become natural chimneys. A fire moves rapidly upslope, preheating the fuels in front of the fire and increasing its intensity. You should set the home back from the top edge of the slope to avoid direct impact by flames burning up the slope.



The most important step you can take to create a Firewise house is to build or reroof with a fire-resistant material such as a metal roof.

Choose Nonflammable Building Materials

- Choose exterior construction materials such as metal, which resists fire much better than wood. If you have a wood exterior, it is especially important that you follow the Firewise practices outlined in this booklet.
- Vinyl siding can melt from the heat of a fire.
- Generally, thicker siding materials are more fire resistant.
- Enclose, or skirt, the area underneath the house, porches, balconies, and decks with fire-resistant materials. If not enclosed, these areas can trap flames and burning embers that can ignite your home.



Enclose the areas under the house, balcony, and porch to keep out debris.

- Clear all debris from under the decks, steps, and around the base of the house to eliminate fuels for windblown embers.

Realize the Importance of Roof Materials and Maintenance

Your roof is the most vulnerable part of your house because it can easily catch fire from windblown sparks. The single most important step you can take to create a Firewise house is to build or reroof with a fire-resistant or noncombustible material. Contact your local wildland fire suppression agency, your insurance company, your local fire department, or a building supplier for specific roofing guidelines.

Other Building Considerations

- Roof eaves extending beyond exterior walls are also susceptible to flame exposure and should be limited in length and boxed, or enclosed with fire-resistant materials.
- Attic or ridge vents can allow easy entry of embers and sparks. Cover all vents with a nonflammable screen with $\frac{1}{4}$ -inch mesh.
- Every chimney and stovepipe must be covered by a nonflammable screen with a mesh no larger than $\frac{5}{8}$ inch.
- Limit the size and number of windows facing large



Roof eaves should be enclosed with fire-resistant materials and vents screened with $\frac{1}{4}$ -inch nonflammable mesh screen.

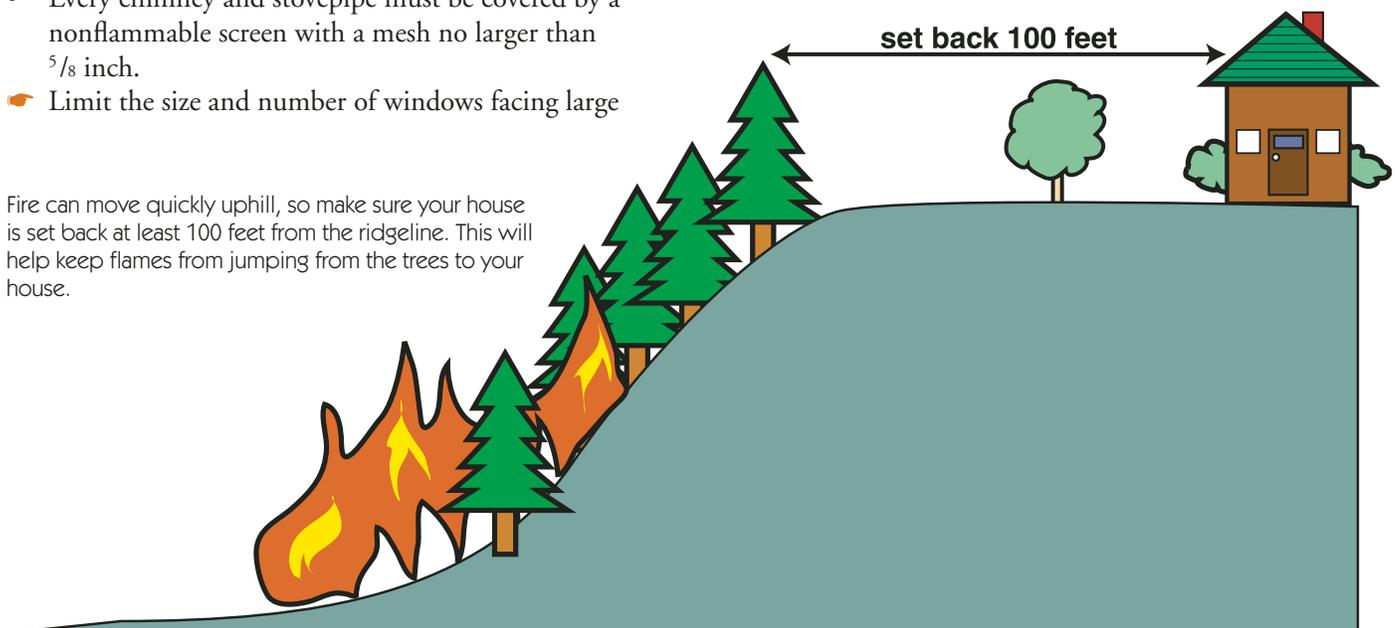
areas of vegetation. Even from a distance of 30 feet, the heat from a wildland fire may be enough to ignite furniture or curtains in your house.

- Installing small-paned or dual-panel windows can reduce the potential for breakage from windblown debris and reduce the amount of heat transmitted from the fire to the inside of your home.
- Sliding glass doors and large picture windows should be made of tempered safety glass.
- Open windows should be screened to prevent entry of embers, in case you are away from home at the time of the fire and the window is left open.
- Plastic skylights may melt from the intense heat of a wildland fire and allow windblown embers to enter.
- Wooden fences act like fuel bridges, leading the fire to your house. Separate a wooden fence from the building with a space or partition built from fire-resistant materials such as stone or metal.
- A wooden trellis may also pose a fire hazard. Consider metal or iron for a decorative touch.
- Inspect your home annually for deterioration such as cracks or crevices that could trap embers.



Every chimney and stovepipe must be covered with no larger than $\frac{5}{8}$ -inch nonflammable screen.

Fire can move quickly uphill, so make sure your house is set back at least 100 feet from the ridgeline. This will help keep flames from jumping from the trees to your house.





EMERGENCY WATER SUPPLY

Establish Your Alternative Water Supply

Objective: Maintain water supply during a power outage and periods of high demand.

Even a Firewise home may not survive a wildland fire without an emergency water supply. Without an on-site water source, firefighters have little chance of protecting a threatened house or extinguishing one that is burning. Some communities have water systems with large storage facilities and well-spaced hydrants that generally meet the needs of wildland firefighters.

Identify or Create Your Personal Alternative Water Supply

If your home or cabin does not have access to an adequate community water system, you will need to develop an individual well or water source that provides suitable storage and fire equipment access. A minimum water storage supply of 2,500 gallons is recommended for use in emergency situations.



You must have a gasoline-powered pump to transfer water from an alternative source.

Storage facilities may include perennial streams, lakes, or ponds; above- or below-ground tanks; or swimming pools. A dry hydrant may be installed to improve efficiency and accessibility to your water source. More information about dry hydrants can be found at www.firewise.org.

You can cooperate with your neighbors to develop a common emergency water storage facility for your home and several others.

You can obtain water storage or water delivery system designs or specific system requirements by contacting your local wildland fire service agency or by referring to the resource list at the end of this publication (page 17).



A gasoline-powered generator will allow you to operate your well pump during a power outage.

Create Access to Your Alternative Water Supply

Once you have established an alternative water supply, you must make sure firefighters can get to it.

- If your water comes from a well, you should have a gasoline-powered generator so firefighters can operate your well pump during a power failure. The generator **MUST** be installed with a safety transfer switch to prevent feedback into power lines!
- If you don't have a well with a submersible pump, you must have a gasoline-powered, portable pump to transfer water from your alternative water source.
- Firefighters must also be able to locate your water supply. Your water supply must be clearly marked.
- In some situations you may plan for exterior sprinkler systems that can be deployed when



Firefighters should be able to get to an emergency water supply.

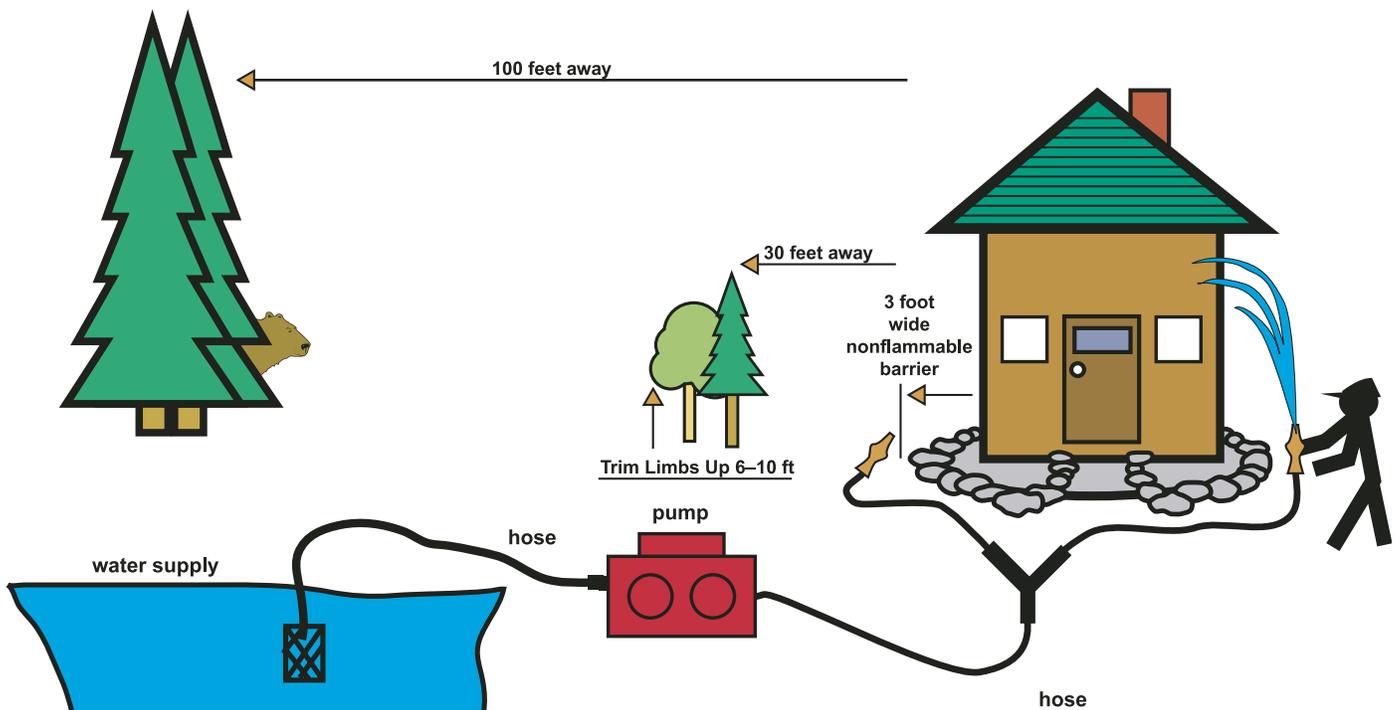
needed. The water should not be turned on until the fire is close at hand. Remember that the water you use before the fire arrives will not be available to you or firefighters as the fire comes closer.



You can install a dry hydrant to improve accessibility to your water source.

- Another option is to incorporate a foam system into your exterior home or portable water supply. (Contact a wildland firefighting agency for information on limitations and dangers involving the use of foam.)
- Assemble a portable 200- to 300-gallon water tank and pump on a trailer or pickup for use by the community.

Resource: *Planning for Water Supply and Distribution* (NFPA publication) www.nfpa.org





ACCESS AND SIGNS

Make Sure Emergency Personnel Can Locate and Get to Your Home

Objective: Clearly marked signs and/or landmarks and adequate road access.

The first few minutes of a fire are the most critical for saving your home from a wildland fire. Firefighting personnel must be able to immediately find and safely travel to your home if they are to protect it.

Clearly Identify Road Signs and Addresses

- Road signs and house addresses must be clearly posted. Your street name and address should be printed in letters and numbers that are at least four inches tall, on a contrasting color background. They should be visible from all directions of travel for at least 150 feet. The sign should be made of fire-resistant and reflective materials.
- Each of the streets and roads in your area should be labeled, and each should have a different name or number.
- Your home should have its own house number, which should be in numerical order along your street or road.
- If your house is set back from the street, road, or trail, post your address or name at the entrance of your driveway.
- In situations where more than one home is accessed from a single driveway, all addresses should be posted at the street and at each appropriate intersection along that driveway.
- Cabins in remote areas can be protected from wildland fires only if fire suppression agencies know they exist. Make sure the proper suppression agency knows where your cabin is.



Roads, driveways, and bridges should be built to carry at least 40,000 pounds, which is the average weight of a fire engine.



Every dead-end street or long driveway should have an area large enough for fire equipment to turn around.

Provide Fast Access to Your House

Even if your street and house are clearly identified for firefighters, precious time can be lost if firefighters have difficulty getting to your house. *Narrow roads, dead-end streets, steep driveways, and weak bridges can*

delay firefighters or prevent them from arriving at all. Remember, firefighting equipment is much larger and heavier than your family car or truck.



Road and street systems must be designed to provide safe emergency evacuation and fire department access.

- Roads must be able to accommodate busy traffic. At the same time that fire engines and other emergency equipment are trying to drive into your area, you must be able to escape in your car with your family, pets, and most valuable personal possessions.
- A minimum of two primary access roads should be designed into every subdivision and development.
- All private and public streets should provide two traffic lanes, each a minimum of nine feet wide, which is just enough space for a fire engine and car to pass each other. Curves and intersections should also be wide enough to allow large fire equipment easy passage and the ability to turn.
- In communities with fire departments, the *roads, driveways, and bridges should be built to carry at least 40,000 pounds*, the average weight of a fire engine. (By comparison, the average family minivan weighs about 4,000 lbs.)
- Streets and driveways must not be too steep or have sharp curves, which can prevent emergency equipment from arriving to protect your home.
- Every dead-end street or long driveway should have a turnaround area designed as either a “T” or a circle large enough to allow fire equipment to turn around.
- Single-lane, one-way roads and driveways should have turnouts constructed within sight of each other or at regular distances apart.
- You can improve visibility for emergency personnel by clearing away flammable vegetation at least 10 feet from

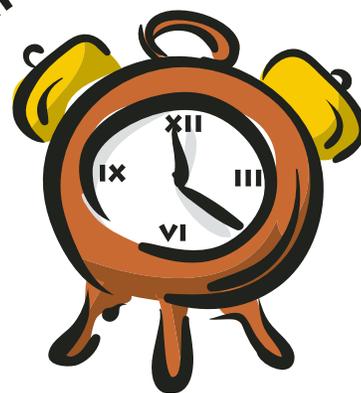
all roads and at least five feet from driveways. If possible, cut back and prune vegetation even more than this and make sure trees and shrubs are widely spaced. Cutting back any overhanging tree branches above the road will give you and your neighbors a better evacuation route and will provide arriving firefighters with greater protection.

- If you have any questions about emergency access to your home, including construction widths, grades, or strengths, contact your local fire agency or public works department. Each of these steps will give wildland firefighters a better chance of finding and protecting your home and will give you a better chance of evacuating safely, if that becomes necessary. A delay of only a few minutes can mean the difference between saving your home and losing it.



Remember, during a major fire, firefighters throughout the state arrive to help local firefighters, and they rely on clear street signs to find your house.

**TAKING THE TIME TO BE
FIREWISE MAY SAVE YOUR
LIFE AND PROPERTY**





HOME PLANNING

Create Fire Safety Inside Your Home

Objective: Ensure safety of all family members.

Smoke detectors have saved many lives and may save yours. More than half of all fatal residential fires take place at night. If a fire starts while your family is asleep, smoke detectors provide your best chance of waking in time to get out. They are your first line of defense.

Use Smoke Detectors Properly

- Position smoke detectors on the ceiling just outside each bedroom. If you have a multilevel home, install a detector on every level. If you sleep with your bedroom door closed, place an additional detector inside your bedroom.
- Before you buy a smoke detector, make sure it is listed and approved by an independent testing laboratory. Read the instructions that came with your smoke detector carefully to find out exactly how and where to install it.
- Be sure to test your smoke detector each month and change its batteries at least twice a year. A good habit to follow is to change the batteries in your smoke detectors in the spring and fall when you change your clocks.

Learn to Use Your Portable Fire Extinguisher

Portable fire extinguishers can save lives and property by helping you put out or contain small fires until the fire department arrives. But they must be used properly and under the right conditions.

- Be sure the fire extinguisher is listed and approved by an independent testing laboratory. Extinguishers are identified by the type of fire on which they can be used:

Type	For Use On
Type A	wood or cloth fires
Type B	flammable liquid fires
Type C	electrical fires
Type D	flammable metal fires

- Make sure that each member of your family can hold and operate the fire extinguisher and knows where it is located.
- Mount extinguishers in easy-to-get-to places.
- Remember that fire extinguishers need annual maintenance and must be recharged after every use.

Consider a Home Sprinkler System

Home sprinkler systems are one of the most reliable and effective forms of protection because they provide an immediate response to a house fire, whether you are awake, asleep, or away from home. Home sprinklers may pay for themselves in just a few years through reduced insurance premi-

ums. Contact your local fire agency or insurance company for information on selecting an approved sprinkler system for your home.

Get a Carbon Monoxide Monitor

- A carbon monoxide monitor is also important for your home, to warn your family of invisible hazards.

Plan Your Escape!

It is important that all family members know what to do in an emergency. Even with an early warning from a smoke detector, escaping a fire can be difficult or impossible. Fire can spread very rapidly, blocking exits and creating poisonous, blinding smoke.

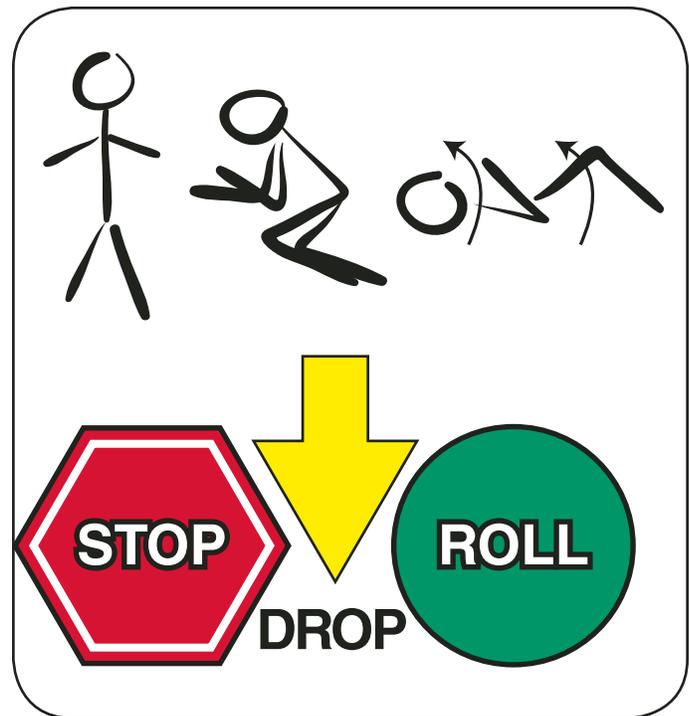
- Even a few breaths of smoke and toxic gases can choke and kill you. If you become trapped in smoke, crawl low toward your escape route or exit and keep your head down. Smoke and heat rise, so cleaner air is near the floor.
- Contact your neighbors and local authorities to plan community emergency procedures such as standard escape routes and common meeting places. Also, it is helpful to develop a community alert system that can be used during a fire or other emergency. With an alert system, anyone who spots an emergency will know how to react so that everyone in your neighborhood will be notified in time to respond.

Take these steps to plan your escape:

- ❑ Draw a floor plan of your home and mark all possible escape routes. Make sure you know two safe ways out of every room, especially the bedrooms.
- ❑ Prepare a list of valuables to take with you in an emergency. If you can, store these valuables together to save time later.
- ❑ Remember that young, elderly, and disabled persons may need assistance. Their rooms should be located as close to an exit as possible. Train the rest of your family to help them get out in an emergency.
- ❑ Remind everyone to close doors behind them as they evacuate the house to slow the spread of fire, smoke, and heat.
- ❑ Decide on an outside meeting place to assemble your family and to make sure everyone is out.
- ❑ Practice your escape! Conduct home fire drills often, varying the drill to prepare for different fire situations. You may be blinded by smoke, so try practicing your escape plan with your eyes closed.

In the event of a fire, remember the following:

- ❑ Before you exit your room, feel the door. If it is hot, don't open it. Use your second way out.
- ❑ If smoke, heat, or flame block both of your escape routes, stay in the room with the door closed.
- ❑ Stuff sheets, blankets, or towels in the cracks around the door and around the heating and air conditioning vents to keep smoke and fumes out.
- ❑ Open a door only if smoke is no longer entering the room. Hang a bright sheet or cloth out the window to signal for help if you can't get out.
- ❑ If there is a phone in the room, dial 911.
- ❑ If your clothes catch fire, STOP, DROP, AND ROLL!





WHEN WILDFIRE THREATENS

Emergency Planning

Objective: Make plans before potential emergency to avoid panic and confusion.

If you have followed the advance preparation steps outlined in this booklet, you have created a Firewise house that has a better chance of surviving a wildland fire. But when a wildland fire is immediately threatening your area, there are additional steps you can take to help protect yourself and your home.

- If you see a fire approaching your home, report it immediately by dialing 911 or your local emergency number. Remember to stay on the phone long enough to answer all questions the emergency dispatcher may ask.

IF THERE IS TIME BEFORE THE FIRE ARRIVES, DO THE FOLLOWING:

Prepare to Evacuate

- ❑ Park your car heading out (so you don't have to back out), with the windows closed and keys in the ignition.
- ❑ Close the garage door but leave it unlocked; disconnect the automatic garage door opener in case of power failure.
- ❑ Park your ATV, heading out, with the key in the ignition.
- ❑ Place valuable documents, family mementos, and pets inside the car in the garage for quick departure, if necessary.
- ❑ Keep a flashlight, portable radio, and fresh batteries with you at all times.
- ❑ If you do evacuate, use your preplanned route, away from the approaching fire front.
- ❑ If you are trapped by a fire while evacuating in your car, park in an area clear of vegetation, close all vehicle windows and vents, cover yourself with a blanket or jacket, and lie on the floor.
- ❑ If you are trapped by fire while evacuating on foot, select an area clear of vegetation along a road, or lie in the road ditch. Cover any exposed skin with a jacket or blanket. Avoid canyons that can concentrate and channel fire.



If you do evacuate, use your preplanned route, away from the approaching fire front.

Outside Your Home

- ❑ Move combustible yard furniture away from the house or store it in the garage; if it catches fire while outside, the added heat could ignite your house.
- ❑ Cover windows, attic openings, eaves, vents, and sub-floor vents with fire-resistant material such as 1/2-inch or thicker plywood. This will eliminate the possibility of sparks blowing into hidden areas within the house. Close window shutters if they are fire resistant.
- ❑ Attach garden hoses to spigots and place them so they can reach any area of your house.
- ❑ Fill trash cans and buckets with water and locate them where firefighters can find them.
- ❑ Shut off liquefied petroleum gas (LPG), propane, or natural gas valves.
- ❑ If you have an emergency generator or a portable gasoline-powered pump that will supply water from a hot tub, pond, well, tank, or river, clearly mark its location and make sure it is ready to operate.
- ❑ Place a ladder against the house on the side opposite the approaching fire to help firefighters get onto your roof.
- ❑ Place a lawn sprinkler on flammable roofs, but don't turn it on unless the fire is an immediate threat. You do not want to reduce the supply of water for the firefighters.
- ❑ If you choose to evacuate by your private aircraft, do so before the fire's arrival. Remember, the airspace surrounding the fire will be filled with suppression aircraft and a collision could occur. Once you are evacuated, do not re-enter the airspace until all flight restrictions are lifted.

Inside Your Home

- ❑ Close all windows and doors to prevent sparks from blowing inside.
- ❑ Close all doors inside the house to slow the spread of fire from room to room.

- ❑ Turn on a light in each room of your house, on the porch, and in the yard. This will make the house more visible in heavy smoke or darkness.
- ❑ Fill sinks, bathtubs, and buckets with water. These can be important extra water reservoirs.
- ❑ Move furniture away from windows and sliding glass doors to keep it from igniting from the heat of fire radiating through windows.
- ❑ Remove your curtains and drapes. If you have metal blinds or special fire-resistant window coverings, close them to block heat radiation.

If You Stay in Your Home When a Fire Approaches

- ❑ Stay inside your house, away from outside walls.
- ❑ Close all doors, but leave them unlocked.
- ❑ Keep your entire family together and remain calm. Remember: If it gets hot in the house, it is many times hotter and more dangerous outside.

After the Fire Passes

- ❑ Check the roof immediately, extinguishing all sparks and embers. If you must climb onto the roof, use caution, especially if it is wet.
- ❑ Check inside the attic for hidden burning embers.
- ❑ Check your yard for burning woodpiles, trees, fence posts, or other materials.
- ❑ Keep the doors and windows closed.
- ❑ Continue rechecking your home and yard for burning embers for at least 12 hours.

For more information on evacuation, contact your nearest wildland fire suppression agency.

RESOURCE LIST

Firewise	www.firewise.org
Alaska Division of Forestry Fire Information	www.dnr.state.ak/forestry/fire/
Bureau of Indian Affairs	www.doi.gov/bureau-indian-affairs
Bureau of Land Management, Environmental Education	www.blm.gov/education
Bureau of Land Management, Alaska Fire Service	http://fire.ak.blm.gov
California Fire Safe Council	www.firesafecouncil.org
Canadian Forest Service Fire Management Network	www.nofc.forestry.ca/fire/
Federal Emergency Management Agency	www.fema.gov
Municipality of Anchorage	www.muni.org
National Assn. of State Foresters Forestry Links	www.stateforesters.org/nasflinks.html
National Fire Protection Assn. Fire Resource Links.....	www.nfpa.org
National Interagency Fire Center	www.nifc.gov
National Park Service Alaska Support Center Home Page	www.nps.gov/akso/Fire/firehome.htm
National Park Service Fire Management Program Center	www.nps.gov/fire
National Wildland Fire Coordinating Group	www.nwfcg.gov
U.S. Fish & Wildlife Service Alaska Region Home Page	www.r7.fws.gov
U.S. Fish & Wildlife Service Fire Management Home Page	www.fws.gov/fire/
U.S. Forest Service Fire Site	www.fs.fed.us/land/#fire
WeatherNet	cirrus.sprl.umich.edu/wxnet

RESOURCE TELEPHONE NUMBERS AND ADDRESSES

General Information Numbers

Alaska Dept. of Natural Resources	907-269-8400, 550 West 7th Ave., Suite 1260, Anchorage, Alaska 99501
Alaska Dept. of Fish & Game	907-459-7259, 1300 College Rd., Fairbanks, Alaska 99701
Anchorage Fire Department, Wildfire Mitigation	907-267-4980, PO Box 196650, Anchorage, Alaska 99519
BLM Alaska Fire Service	907-356-5600, P.O. Box 35005, Fort Wainwright Alaska 99703
Chugachmiut	907-562-4155, 1840 South Bragaw Street, Suite 110, Anchorage, Alaska 99508
National Park Service	907-257-6423, PO Box 9, Denali National Park, Alaska 99755
U.S. Fish & Wildlife Service	907-786-3654, 1011 E. Tudor Rd., Anchorage, Alaska 99503
U.S. Forest Service	907-271-2500, 3301 C St., Anchorage, Alaska 99503

Division of Forestry numbers in your area to call for more information

Anchorage/Mat-Su	907-761-6300
Delta	907-895-4225
Fairbanks	907-451-2600
Valdez/Copper River	907-822-5534
Juneau	907-465-2491
Kenai/Kodiak.....	907-260-4200
Tok	907-883-5134
Haines	907-766-2120
Ketchikan	907-225-3070
McGrath	907-524-3010

Protect Your Home from Wildfire: Fire-Resistant Vegetation and Landscaping



Alaska Department of Natural Resources
Division of Forestry
Community Forestry Program
550 W. 7th Ave., Suite 1450
Anchorage, AK 99501-3566
907-269-8465 or 907-269-8466
www.dnr.state.ak.us/forestry/

Create Defensible Space

Many Alaskans live in areas where wildfire is a threat each spring and summer. You may not be able to eliminate the threat, but you can take steps to protect your home or cabin. Fire-resistant vegetation and appropriate landscaping can slow or stop the spread of fire and provide a safety zone for firefighters near your home. Firewise landscapes do not have to be stark and boring. Selecting, placing, and maintaining the proper plants can create a beautiful landscape that is also a defense from wildfire or an escaped debris or structure fire. To protect your home, create three zones of defensible space.

Zone 1: Within 30 Feet of Your Home

On a steep slope, increase this distance to 100 feet on the downhill side.

- ❑ Plant ground covers and low-growing, herbaceous perennials, which retain more moisture than grass. Use only plants less than 18 inches tall near buildings.
- ❑ Don't plant or keep trees or shrubs with volatile foliage, such as evergreen needles, in Zone 1.
- ❑ Deciduous trees may be planted or retained on the outer edges of Zone 1 if they are at least 20 feet apart, with crowns at least 10 feet apart at maturity. For trees taller than 18 feet, remove branches within eight feet of the ground.
- ❑ Use rock or herb gardens and flower beds to create islands of vegetation.
- ❑ Use stone, gravel, concrete, and other nonflammable materials in walls, walkways, driveways, borders, and other landscape features to create fire breaks.
- ❑ Don't use a wooden walkway, fence, or wood chips in a way that could lead a fire to your house.
- ❑ Remove tall trees or shrubs that could drop debris on the roof or in gutters. Trees and branches within 10 feet of a building should be removed.
- ❑ Remove thick shrubs, tall grass, and dead trees.
- ❑ Keep vegetation well watered, pruned, and mowed.
- ❑ Create a three-foot nonflammable barrier around your home, such as a rock garden.

Zone 2: 30 to 100 Feet Beyond Zone 1

- ❑ Use more deciduous trees and shrubs and a few widely spaced conifers. Larch is a deciduous conifer that is less flammable than other conifers.
- ❑ Remove tree branches within eight feet of the ground and space, or thin, trees so that crowns remain 10 feet apart at maturity. Surround trees with low-growing ground covers.
- ❑ Separate shrubs or massed plantings of shrubs a distance of two or three times their height.
- ❑ Use flower and vegetable gardens and nonflammable features, such as rock, to break up areas of vegetation.

Zone 3: 100 Feet Beyond Zone 2

- ❑ Retain deciduous trees and shrubs but clear areas of dense shrubs.
- ❑ Thin spruce and remove lower branches so there are no dense stands.
- ❑ Mow tall grass or replace with less flammable broadleaf plants.
- ❑ Retain the healthiest plants and a variety of species and ages.
- ❑ A trail in Zone 3 can serve as a firebreak.

Maintenance

The key to a fire-safe landscape is proper and regular maintenance.

- ❑ Prune to eliminate ladder fuels—fuels at different heights and close enough together to allow a fire to climb from the ground into the crowns of trees, where it can spread rapidly.
- ❑ Thin vegetation to eliminate a continuous fuel source from wildlands to the house and to slow the spread of fire.
- ❑ Create islands of plants separated by less flammable material. Islands, or beds, of plants with similar needs also allow for easier watering and maintenance. Plants that are well watered are less likely to burn.

Access

Safe access can help you escape a fire and help firefighters reach your home.

- ❑ Create two access routes to your home if possible. A circular driveway in Zone 1 or 2 provides good access and a firebreak for your home.
- ❑ A two-way driveway should be at least 18 feet wide and

have an all-weather surface to accommodate fire engines. Remove overhanging branches and create at least 15 feet of overhead clearance.

- ❑ Fire engines need a minimum turnaround radius of 60 feet on dead-end roads and cul-de-sacs.

Clearly mark your driveway and display your address so firefighters can find your home if necessary.

Fire-resistant Vegetation

All plants will burn under extreme conditions such as drought. However, plants burn at different intensities and rates. Fire-resistant plants burn at a lower intensity, with slower rates of spread, and with shorter flame lengths.

Characteristics of fire-resistant plants and landscapes:

- ❑ Plants with a high water content and supple, moist leaves
- ❑ Plants with water-like sap (birch vs. pine)
- ❑ Little or no accumulation of dead vegetation, either on the ground or on the plant
- ❑ Slow-growing vegetation that requires less care
- ❑ Landscape with low volumes of vegetation—sparse, deciduous trees rather than dense forest or shrubs
- ❑ Forest stands without ladder fuels—small, fine branches between the ground and canopy that allow the fire to spread

Characteristics of plants that ignite readily and burn intensely:

- ❑ Resinous plants, such as spruce, pine, juniper, and fir
- ❑ Leaves and wood containing waxes, terpenes, or oils
- ❑ Blade-leaf or needle-leaf evergreens
- ❑ Stiff, leathery, or fine, lacy leaves
- ❑ Aromatic crushed leaves
- ❑ Gummy, resinous sap with a strong odor

Following are a few of the plants that may be used in Fire-wise landscapes in Alaska if placed and maintained appropriately. Some ground covers are invasive and not appropriate for all locations. Check horticultural references and local garden centers for plants recommended for your area and for information on required growing conditions and uses of these plants.

Shrubs

Currant *Ribes alpinum*, *R. Triste**

Flowering almond *Prunus triloba*

Lilac, dwarf varieties *Syringa meyeri*, *S. Patula*

Nanking cherry *Prunus tomentosa*

Potentilla *Potentilla fruticosa**

Rose *Rosa rugosa*, *R. glauca*, *R. acicularis**

Serviceberry *Amelanchier alnifolia**

Silverberry *Eleagnus comutata**

Spirea *Spirea bumalda*, *S. betulifolia**

Viburnum *Viburnum lantago*, *V. trilobum*

Trees

Amur chokecherry *Prunus maackii*

Amur maple *Acer tatarica* spp. *ginnala*

Apple and crab apple *Malus*

Birch *Betula papyrifera*, * *B. pendula*

Chokecherry *Prunus virginiana*

Japanese tree lilac *Syringa reticulata*

Larch *Larix russica*, *L. decidua*, *L. laricina**

May day *Prunus padus*, pruned as tree, not shrub

Mountain ash *Sorbus aucuparia*, *S. decora*

Quaking aspen *Populus tremuloides**

Ground Covers and Perennials

Bearberry *Arctostaphylos uva-ursi**

Bergenia *Bergenia crassifolia*, *B. cordifolia*

Bleeding heart *Dicentra spectabilis*, *D. eximia*

Buttercup, creeping *Ranunculus repens*

Chocolate lily *Fritillaria camschatcensis**

Creeping Jenny *Lysimachia nummularia*

Dogwood *Cornus canadensis*, * *C. suecica**

Ferns, native and non-native

Goutweed *Aegopodium podagraria*

Hosta

Iris, *Iris sibirica*, *I. setosa**

Jacob's ladder *Polemonium**

Johnny-jump-up *Viola tricolor*

Lily of the valley *Convallaria majalis*

Nagoonberry *Rubus arcticus** “Kenai Carpet”

Phlox, creeping *Phlox stolonifera*

Rhubarb *Rheum rhabarbarum*

Speedwell *Veronica**

Yarrow *Achillea**

Tulip *Tulipa*

*native plants

For More Information

Contact the Alaska Community Forestry Program or the Cooperative Extension Service for information on plant selection, care, and pruning. Proper care can help keep your plants safe, healthy, and attractive.

Does Your Home Pass This Test?

1. Tree and brush cover is thinned within 30 feet of my home creating a defensible space.
True False
2. My home is on a slope and the defensible space increases on the downhill side.
True False
3. I've disposed of all the slash and debris left from thinning. My family and I have removed all dead limbs, leaves, and other ground litter within defensible space.
True False
4. The firewood is stacked uphill at least 15 feet from the buildings.
True False
5. There is a greenbelt immediately around the house using grass, fire resistant plantings, rock, or other noncombustible material. There is no bark or wood chip mulch in this area.
True False
6. I keep the grass and weeds mowed and keep the vegetation well watered, especially during periods of high fire danger.
True False
7. The branches of trees within my defensible space are pruned to a minimum of 6–10 feet (15 feet on large trees with under story ladder fuels) above ground. Shrubs, small trees, and other potential ladder fuels are removed from beneath large trees so they cannot carry a ground fire into the tree crown.
True False
8. Branches do not extend over the eaves of the roof. Roof and gutters are kept free of leaves and other debris.
True False
9. Emergency personnel can locate and safely access my home.
True False
10. I have prepared and practiced an evacuation plan with my family.
True False

