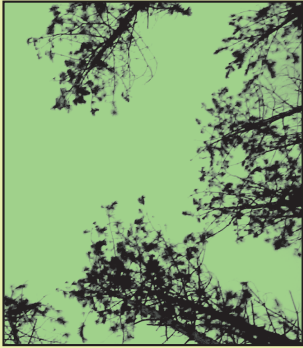


Before thinning.



After thinning.

- ▶ Purchase and use a NOAA weather alert radio. Many types of emergencies are announced through this service.
- ▶ Replace vinyl gutters and downspouts with non-flammable metal gutters and downspouts.
- ▶ Install a spark arrestor or heavy wire screen with an opening less than 1/2" on wood burning fireplaces and chimneys.

Moderate cost actions

(\$50-\$250 and a little more work)

- ▶ Build a gravel turnaround area near your house big enough to allow a firetruck to turn around.
- ▶ Join your neighbors in having an additional access road into your neighborhood. Share the costs.
- ▶ Treat flammable materials like wood roofs, decks, and siding with fire retardant chemicals.
- ▶ Modify driveway gates to accommodate firetrucks. They should be at least 10' wide and set back at least 30' from the road. If locked, use a key box approved by your local fire department or use a chain loop with the lock that can be cut in an emergency.
- ▶ Enclose decks to prevent accumulation of leaves, needles, and debris. Include a metal screen with a 1/8" mesh opening to prevent sparks from getting under the deck.

High cost actions *(more than \$500)*

- ▶ Replace your roof with fire-resistant materials such as Class A shingles.
- ▶ Install a roof irrigation system to protect your home's roof.
- ▶ Install an independent water supply for a sprinkler system with a non-electric (e.g., propane) powered pump capable of running unattended for 24 hours.
- ▶ Replace wood or vinyl siding with non-flammable material.
- ▶ Replace single-pane glass windows and plastic skylights with tempered, double-pane glass.
- ▶ Box in eaves, fascias, and soffits with aluminum or steel materials with metal screens to prevent entry of sparks.
- ▶ Improve driveway culverts and bridges to accommodate the weight of a firetruck.
- ▶ Relocate propane tanks inside the defensible space but at least 10' from the house. Have non-flammable ground cover such as gravel around them for 10'.
- ▶ Have electric service lines to your house placed underground.
- ▶ Improve your driveway by straightening sharp curves and filling in sharp dips that would hinder a firetruck.



Log home in pines.

Be a FIREWISE advocate

Talk to your neighbors about wildfire safety. Discuss how your neighborhood can work together to prevent a wildfire disaster.

The Minnesota Department of Natural Resources-Forestry Division is working in cooperation with your local Fire Department and other partners in your community to identify areas at risk to wildfire and develop strategies to reduce this risk.

If you would like more information on wildfire risk or this community project, contact one of the following:

DNR Information Center
651-296-6157 Metro Area
(1-888-646-6367) MN Toll Free
www.dnr.state.mn.us/firewise



©2009, State of Minnesota, Department of Natural Resources

Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, age, sexual orientation, membership or activity in a local commission, or disability. Discrimination inquiries should be sent to MN-DNR, 500 Lafayette Road, St. Paul, MN 55155-4031; or the Equal Opportunity Office, Department of the Interior, Washington, DC 20240.

This document is available in alternative formats to individuals with disabilities by calling 651-296-6157 (Metro Area) or 1-888-MINNDNR (MN Toll Free) or Telecommunication Device for the Deaf/TTY: 651-296-5484 (Metro Area) or 1-800-657-3929 (Toll Free TTY).

Printed on recycled paper containing a minimum of 10 percent post-consumer waste and soy-based ink.

WILL YOUR HOME SURVIVE?

50 things
you can do
to protect
your home
from wildfire

BE FIREWISE

Homeowner's



“Watch Outs!”

Will Your Home Survive? The Homeowner's “Watch Outs!” will allow you to evaluate your situation and set a plan to correct any concerns.

Each year, hundreds of homes are destroyed or damaged by wildland fires. If you live, or plan on living in an area subject to wildland fires, it is your responsibility to protect your family and home from danger.

You live in rural areas because you like the life-style and beauty. You do not have to live in a steel building or bunker to be safe. The two most important things you can do to protect your family and home is to have at least 30-feet between your home and the surrounding wildland fuels AND have a roof that will not burn.



The key is in reducing the ignition potential of your home. That means, to make it compatible with its surroundings by considering these factors:



- **Fuels** (natural and ornamental)
- **Topography** (slope, canyons and draws)
- **Your Home** (construction, design and materials)
- **Access** (roads and bridges)
- **Family Protection** (evacuation plans)

You can live safely in the woods, if you take some simple steps to protect your family and home. ***It is YOUR responsibility to protect yourself and your family.***

FROM THE ACCESS ROAD

(1) The access road is not named or marked!



Concern: If the road leading to your home is not identified, emergency services personnel will not be able to easily find it when you call for help.

Your Situation?

☐ Yes ☐ No

Solution: Post a sign with the name of the road in reflective letters at a place where people can easily see it on a dark or rainy night.

(2) The house number is not posted!



Concern: If your street address is not clearly posted, the emergency services personnel may have to go house to house to find you.

Your Situation?

☐ Yes ☐ No

Solution: Post the house number in reflective numerals where it can be easily seen from the road.

(3) The driveway has a bridge across the creek!



Concern: Large, heavy emergency vehicles may not be able to safely cross the bridge to get to the house.

Your Situation?

☐ Yes ☐ No

Solution: Build bridges of sufficient capacity to support fire trucks, or provide a creek crossing beside the bridge.

(4) The driveway is steep and narrow!



Concern: If the driveway is steep and narrow, emergency vehicles may not be able to gain quick access to the house.

Your Situation?

☐ Yes ☐ No

Solution: Keep driveway grades reasonable; provide a hard surface that will support a fire engine; make it wide enough for a big vehicle (fire truck).

(5) The brush or vegetation grows up to the edge of the road!



Concern: Flammable vegetation too close to the road will make it unsafe to travel (going in or coming out) during a wildfire.

Your Situation?

☐ Yes ☐ No

Solution: Reduce flammable vegetation at least 15 feet on each side of the driveway.

(6) The driveway is over 1/4-mile in length and there is little or no area for a fire engine to turn around!



Concern: The first fire engine will block the driveway so you can't leave; it is too far to lay hose from the road to the house.

Your Situation?

☐ Yes ☐ No

Solution: Keep driveways as short as possible, and provide a turn around/parking area near the house to accommodate a fire truck.

OUTSIDE THE HOME

(1) The native vegetation grows up to the side of your home!



Concern: Direct flame contact and radiant heat from burning brush/trees will set your house on fire.

Your Situation?
☐ Yes ☐ No

Solution: Maintain at least a 30-foot clearance (more on steep slopes) of flammable vegetation around the house. Use fire resistant plants for landscaping.

(2) Tree limbs are within 10-feet of your chimney or stovepipe!



Concern: Sparks from the chimney can set the tree on fire, which in turn can set the house on fire.

Your Situation?
☐ Yes ☐ No

Solution: Remove all tree limbs from within 10 feet of the chimney; remove all dead limbs overhanging or near the house.

(3) The trees around the house have dead limbs near the ground!



Concern: A grass fire can climb up the tree and spread to other trees and then to the house.

Your Situation?
☐ Yes ☐ No

Solution: Remove all dead limbs within 15 feet of the ground.

(4) Dry grass grows right up next to the house!



Concern: A grass fire can spread directly to the house.

Your Situation?

☐ Yes ☐ No

Solution: Remove all dry grass within 3 feet of the building; keep all other dry grass within 30 feet mowed short.

(5) Wood is stacked next to your home!



Concern: Sparks from a wildfire can land in the woodpile and a fire there will spread quickly to the house.

Your Situation?

☐ Yes ☐ No

Solution: Stack firewood at least 30 feet away from the house, and cover it with a non-flammable cover.

(6) Grass/brush grows right up to and under the LPG tank!



Concern: If the wildfire spreads to the tank, it may explode; the area is too dangerous for firefighters to stay.

Your Situation?

☐ Yes ☐ No

Solution: Remove all flammable material from within 15 feet of the LPG tank.

THE STRUCTURE ITSELF

(1) The roof is constructed of a flammable material!



Concern: Sparks from a wildfire can land on the roof, starting the house on fire.

Your Situation?

☐ **Yes** ☐ **No**

Solution: Use ignition-resistant roofing materials such as steel, tile, or composition roofing. Steep steel roofs don't collect leaves/needles.

(2) The exterior siding is constructed of a flammable material!



Concern: Sparks and radiant heat from a wildfire can set the siding on fire.

Your Situation?

☐ **Yes** ☐ **No**

Solution: Use ignition-resistant siding such as aluminum or steel siding. Vinyl siding melts easily. Log walls are thick enough to be fire resistant.

(3) The windows are large and single pane!



Concern: Radiant heat from a wildfire can ignite materials inside the house, especially flimsy curtains.

Your Situation?

☐ **Yes** ☐ **No**

Solution: Use double or triple glazed energy efficient glass to provide insulation and reflect radiant heat. Use non-flammable blinds.

(4) The eaves are open!



Concern: Embers can collect in wind eddies under the eaves, setting the house on fire.

Your Situation?

☐ Yes ☐ No

Solution: Box in the eaves, and use small gauge screen to cover vent openings to keep sparks (and insects) out of the attic.

(5) Attic vents are open!



Concern: Sparks and embers from a wildfire can enter the attic and set the house on fire.

Your Situation?

☐ Yes ☐ No

Solution: Cover attic vent openings with small gauge wire screen to keep sparks out

(6) The undersides of wood decks attached to the house are not enclosed!



Concern: Dry grass or sparks and embers under the deck can set the house on fire.

Your Situation?

☐ Yes ☐ No

Solution: Skirt wood decks with non-flammable siding backed by wire screen to keep out critters and fire.

KEEP IT CLEAN

Yard litter has accumulated!

Concern: Dry vegetation, leaves and needles touching house can catch fire from flying embers and set the house on fire.

Your Situation?

☐ **Yes** ☐ **No**

Solution: Clean leaves and needles out of landscaping shrubs and gutters, and off your deck and roof.



The recommendations contained in this brochure

have generally been proven to enhance the survivability of your home in a wildfire situation. However, there may be unique situations that these recommendations do not specifically address. In addition, the actions you take alone may not provide the safety levels you feel are necessary. Most often, cooperation among adjacent landowners and neighbors is necessary to fully provide for fire safe and defensible space conditions. Providing adequate access and reducing fuel buildup in the surrounding forest are examples where cooperation might have benefits over “going it alone”.

For more information contact your local fire department or forestry office:

www.dnr.state.mn.us/firewise
www.firewise.org

Wildfire... Are You Prepared?

More and more people are making their homes in woodland settings — in or near forests, rural areas or remote mountain sites.



There, homeowners enjoy the beauty of the environment but face the very real danger of wildfire.

Wildfires often begin unnoticed. They spread quickly, igniting brush, trees and homes. Reduce your risk by preparing now — *before* wildfire strikes. Meet with your family to decide what to do and where to go if wildfires threaten your area. Follow the steps listed in this brochure to protect your family, home and property.



Practice Wildfire Safety

People start most wildfires . . . find out how you can promote and practice wildfire safety.

- Contact your local fire department, health department or forestry office for information on fire laws. Make sure that fire vehicles can get to your home. Clearly mark all driveway entrances and display your name and address.
- Report hazardous conditions that could cause a wildfire.
- Teach children about fire safety. Keep matches out of their reach.
- Post fire emergency telephone numbers.
- Plan several escape routes away from your home — by car and by foot.
- Talk to your neighbors about wildfire safety. Plan how the neighborhood could work together after a wildfire. Make a list of your neighbors' skills such as medical or technical. Consider how you could help neighbors who have special needs such as elderly or disabled persons. Make plans to take care of children who may be on their own if parents can't get home.





PROTECT YOUR HOME

- Regularly clean roof and gutters.
- Inspect chimneys at least twice a year. Clean them at least once a year. Keep the dampers in good working order. Equip chimneys and stovepipes with a spark arrester that meets the requirements of National Fire Protection Association Code 211. (Contact your local fire department for exact specifications.)
- Use 1/2-inch mesh screen beneath porches, decks, floor areas and the home itself. Also, screen openings to floors, roof and attic.
- Install a smoke detector on each level of your home, especially near bedrooms; test monthly and change the batteries two times each year.
- Teach each family member how to use the fire extinguisher (ABC type) and show them where it's kept.
- Keep a ladder that will reach the roof.
- Consider installing protective shutters or heavy fire-resistant drapes.
- Keep handy household items that can be used as fire tools: a rake, axe, handsaw or chainsaw, bucket and shovel.

Before Wildfire Threatens

Design and landscape your home with wildfire safety in mind. Select materials and plants that can help contain fire, rather than fuel it. Use fire resistant or non-combustible materials on the roof and exterior structure of the dwelling. Or treat wood or combustible material used in roofs, siding, decking or trim with UL-approved fire-retardant chemicals. Plant fire-resistant shrubs and trees. For example, hardwood trees are less flammable than pine, evergreen, eucalyptus or fir trees.

Create a 30-50 foot safety zone around your home

Within this area, you can take steps to reduce potential exposure to flames and radiant heat. Homes built in pine forests should have a minimum safety zone of 100 feet. If your home sits on a steep slope, standard protective measures may not suffice. Contact your local fire department or forestry office for additional information.

- ❑ Rake leaves, dead limbs and twigs. Clear all flammable vegetation.
- ❑ Remove leaves and rubbish from under structures.
- ❑ Thin a 15-foot space between tree crowns, and remove limbs within 15 feet of the ground.
- ❑ Remove dead branches that extend over the roof.
- ❑ Prune tree branches and shrubs within 15 feet of a stovepipe or chimney outlet.
- ❑ Ask the power company to clear branches from powerlines.
- ❑ Remove vines from the walls of the home.
- ❑ Mow grass regularly.
- ❑ Clear a 10-foot area around propane tanks and the barbecue. Place a screen over the grill — use non-flammable material with mesh no coarser than one-quarter inch.
- ❑ Regularly dispose of newspapers and rubbish at an approved site. Follow local burning regulations.
- ❑ Place stove, fireplace and grill ashes in a metal bucket, soak in water for two days, then bury the cold ashes in mineral soil.
- ❑ Store gasoline, oily rags and other flammable materials in approved safety cans. Place cans in a safe location away from the base of buildings.
- ❑ Stack firewood at least 100 feet away and uphill from your home. Clear combustible material within 20 feet. Use only UL-approved woodburning devices.

PLAN YOUR WATER NEEDS

- Identify and maintain an adequate outside water source such as a small pond, cistern, well, swimming pool or hydrant.
- Have a garden hose that is long enough to reach any area of the home and other structures on the property.
- Install freeze-proof exterior water outlets on at least two sides of the home and near other structures on the property. Install additional outlets at least 50 feet from the home.
- Consider obtaining a portable gasoline powered pump in case electrical power is cut off.

When Wildfire Threatens

If you are warned that a wildfire is threatening your area, listen to your battery-operated radio for reports and evacuation information. *Follow the instructions of local officials.*

- ❑ Back your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows. Leave the key in the ignition. Close garage windows and doors, but leave them unlocked. Disconnect automatic garage door openers.
- ❑ Confine pets to one room. Make plans to care for your pets in case you must evacuate.
- ❑ Arrange temporary housing at a friend or relative's home outside the threatened area.

If advised to evacuate, do so immediately

- ❑ Wear protective clothing — sturdy shoes, cotton or woolen clothing, long pants, a long-sleeved shirt, gloves and a handkerchief to protect your face.
- ❑ Take your Disaster Supplies Kit.
- ❑ Lock your home.
- ❑ Tell someone when you left and where you are going.
- ❑ Choose a route away from fire hazards. Watch for changes in the speed and direction of fire and smoke.

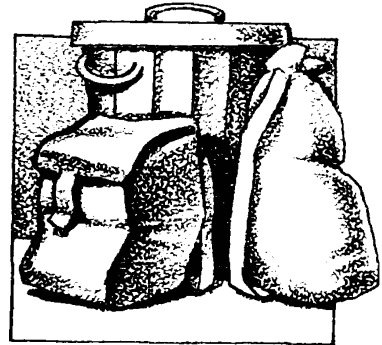
If you're sure you have time, take steps to protect your home:

Inside:

- ❑ Close windows, vents, doors, venetian blinds or non-combustible window coverings and heavy drapes. Remove lightweight curtains.
- ❑ Shut off gas at the meter. Turn off pilot lights.
- ❑ Open fireplace damper. Close fireplace screens.
- ❑ Move flammable furniture into the center of the home away from windows and sliding-glass doors.
- ❑ Turn on a light in each room to increase the visibility of your home in heavy smoke.

Outside:

- ❑ Seal attic and ground vents with pre-cut plywood or commercial seals.
- ❑ Turn off propane tanks.
- ❑ Place combustible patio furniture inside.
- ❑ Connect garden hose to outside taps.
- ❑ Set up the portable gasoline-powered pump.
- ❑ Place lawn sprinklers on the roof and near above-ground fuel tanks. Wet the roof.
- ❑ Wet or remove shrubs within 15 feet of the home.
- ❑ Gather fire tools.



EMERGENCY SUPPLIES

When wildfire threatens, you won't have time to shop or search for supplies. Assemble a Disaster Supplies Kit with items you may need if advised to evacuate. Store these supplies in sturdy, easy-to-carry containers such as backpacks, duffelbags or trash containers.

Include:

- A three-day supply of water (one gallon per person per day) and food that won't spoil.
- One change of clothing and footwear per person and one blanket or sleeping bag per person.
- A first aid kit that includes your family's prescription medications.
- Emergency tools including a battery-powered radio, flashlight and plenty of extra batteries.
- An extra set of car keys and a credit card, cash or traveler's checks.
- Sanitation supplies.
- Special items for infant, elderly or disabled family members.
- An extra pair of eyeglasses.

Keep important family documents in a waterproof container. Assemble a smaller version of your kit to keep in the trunk of your car.

CREATE A FAMILY DISASTER PLAN

Wildfire and other types of disasters — hurricane, flood, tornado, earthquake, hazardous materials spill, winter storm — can strike quickly and without warning. You can cope with disaster by preparing in advance and working together. Meet with your family to create a disaster plan. To get started...

Contact your local emergency management or civil defense office or your local American Red Cross chapter

- ☐ Find out about the hazards in your community.
- ☐ Ask how you would be warned.
- ☐ Find out how to prepare for each type of disaster.

Meet with your family

- ☐ Discuss the types of disasters that could occur.
- ☐ Explain how to prepare and respond to each type of disaster.
- ☐ Discuss where to go and what to bring if advised to evacuate.
- ☐ Practice what you have discussed.

Plan how your family will stay in contact if separated by disaster

- ☐ Pick two meeting places:
 - 1) a place a safe distance from your home in case of a home fire.
 - 2) a place outside your neighborhood in case you can't return home.
- ☐ Choose an out-of-state friend as a "check-in contact" for everyone to call.

Complete these steps

- ☐ Post emergency telephone numbers by every phone.
- ☐ Show responsible family members how and when to shut off water, gas and electricity at main switches.
- ☐ Contact your local fire department to learn about home fire hazards.
- ☐ Learn first aid and CPR. Contact your local American Red Cross chapter for information and training.

Practice and review these steps.



The Federal Emergency Management Agency's Family Protection Program is a nationwide effort to help people prepare for disasters of all types. For more information, please contact your local or state office of emergency management.

Local sponsorship provided by:

Ask for: *Your Family Disaster Plan, Disaster Supplies Kit, and Emergency Preparedness Checklist*
Or write to: FEMA
P.O. Box 70274

WILDFIRE • WILDFIRE • WILDFIRE • WILDFIRE • WILDFIRE

Federal Emergency
Management Agency



Federal Emergency
Management Agency



Wildfire...
Are You Prepared?

WILDFIRE • WILDFIRE • WILDFIRE • WILDFIRE • WILDFIRE

Things you can do to help protect your home from wildfire

No cost, just a little time

- ▶ Move your firewood pile out of your home's defensible space.
- ▶ Perform a FIREWISE assessment of your home.
- ▶ Clean your roof and gutters of leaves and pine needles (best done in October).
- ▶ Clear the view of your house number so it can be easily seen from the street.
- ▶ Put a hose (at least 100' long) on a rack and attach it to an outside faucet.
- ▶ Trim all tree branches that overhang your house.
- ▶ Trim all tree branches from within 20' of all chimneys.
- ▶ Remove trees along the driveway to make it 12' wide.
- ▶ Prune branches overhanging the driveway to have 14' overhead clearance.
- ▶ Maintain a green lawn for 30' around your home.
- ▶ If new homes are still being built in your area, talk to the developer and local zoning officials about building standards.
- ▶ Plan and discuss an escape plan with your family. Have a practice drill. Include your pets.
- ▶ Get involved with your community's disaster mitigation plans.
- ▶ Check your fire extinguishers. Are they still charged? Are they easy to get to in an emergency? Does everyone in the family know where they are and how to use them?



Trim all overhanging branches.



Pine rows need to be thinned.

- ▶ Clear deadwood and dense flammable vegetation from your home's defensible space.
- ▶ Remove evergreen shrubs from your home's defensible space especially if your home is in a high-risk area.
- ▶ Review your homeowner's insurance policy for adequate coverage. Consult your insurance agent about costs of rebuilding and repairs in your area.
- ▶ Talk to your children about not starting fires or playing with matches.
- ▶ If you have a burn barrel that you use for burning trash, STOP!
- ▶ Compost leaves in the fall, don't burn them. Always follow local burning regulations.
- ▶ Always have a shovel on hand and hook up the garden hose BEFORE you start the fire.
- ▶ Never burn if the smoke and flames are blowing toward your home (or your neighbor's home).



Minimal cost actions (\$10-\$25 and a little time)

- ▶ Install highly visible house numbers (at least 4" tall) on your home.
- ▶ Install big, highly visible house numbers (at least 4" tall) at the entrance of the driveway onto the street. Use non-flammable materials and posts.
- ▶ Install metal screens on all attic, foundation, and other openings on your home to prevent accumulation of leaves and needles.
- ▶ Hold a neighborhood meeting to talk about fire safety. Invite your local fire chief. Have coffee and donuts for neighbors.
- ▶ Install a fire extinguisher in the kitchen AND the garage.
- ▶ Install a metal shield between your home and an attached wood fence.
- ▶ Replace evergreen shrubs with low-flammable plants in your home's defensible space.
- ▶ Thin and prune conifer trees for 30' to 100' around your home.

This home survived!

Each year hundreds of people build their dream homes away from the city. These homes are tucked in the woods or abut picturesque wildland. Unfortunately, in all their serene beauty, these homes may be vulnerable to wildfire. Fire is not just a threat to homes in remote rural areas. Every year, homes are lost in or near wildlands.