

# LIVING WITH FIRE



**A GUIDE FOR  
HOMEOWNERS  
2004**

This supplement was prepared by the  
Great Lakes Forest Fire Compact Fire Prevention Committee.



## August 9<sup>th</sup> marks Smokey Bear's 60<sup>th</sup> birthday.

Young and old alike have been hearing Smokey's message, "Only You, Can Prevent Forest Fires", since 1944. While Smokey's message of fire prevention has stayed largely the same over the years it has undergone a bit of an evolution. As our understanding of the role that fire plays in the wildlands has grown, Smokey's message has been fine-tuned.

The word "Wildfires" now replaces "Forest Fires", because we now understand that some fires in the forest are important for maintaining forest health. It is the uncontrolled wildfires that worry Smokey the most. Wildfires have always presented a threat to wood resource and wildlife habitat. Today, as more and more people choose to move to their dream home or cabin in the woods, they are finding that their homes are at risk from wildfire as well.



As more of these homes appear in the woods, Smokey's message is more important than ever. A few decades ago, rural fire agencies had only one or two homes at risk when there was a fire in the forest. Today they have hundreds of homes to protect. Firefighting resources have not seen the same increase in numbers. Homeowners are finding that it is up to them to create an environment around their homes, which will help to keep it safe from wildfire.

A fire safe home starts with Smokey's traditional message—Prevent Wildfires. Most wildfires are caused by the careless acts of people. Do not be the cause of a wildfire. However, because wildfires do occur, we need to prepare our rural homes and this supplement provides some basic information on doing that.

Additional information is available from your local fire agency and on the following websites [www.firewise.org](http://www.firewise.org) and [www.partnersinprotection.ab.ca](http://www.partnersinprotection.ab.ca).

# 60 Years of Smokey Bear



Smokey Bear first appeared in a poster in 1944, pouring a bucket of water on a campfire. In 1952, Congress passed the Smokey Bear Act taking him out of the public domain and placing him under the control of the Secretary of Agriculture. The Act provided for the use of collected royalties to help fund forest fire prevention and protect Smokey from exploitation. By 1970 Smokey had become one of the most recognizable symbols in America. In 1984 the US Postal Service issued a Smokey Bear Commemorative Stamp. Even now, we still have a lot of work to do. Each new generation must be reminded of their role in wildfire prevention.



## We live in a Fire Environment

We don't think of wildfires as being in our back yards. The truth is, in the Great Lakes area, thousands of wildfires occur every year. Some are ecologically useful, while others are destructive. Long before our cities and towns were established, our forests and prairies burned as a result of lightning from frequent thunderstorms passing through the area. Today, most wildfires are the result of careless use of fire by people. There are an increasing number of individual homes, subdivisions, and seasonal cabins being built in forested areas where fires can occur. Few are prepared to survive a wildfire. Our ability to live safely in this fire environment greatly depends on the actions taken before a wildfire occurs to improve the survivability of people and homes. They include proper vegetation management around the home, use of fire resistant building materials and appropriate subdivision design.



Deborah Rose, MNDNR.



# The **FIRE** Environment

The fire environment includes many factors which affect the way a fire behaves. Weather, fuel and human activity are the key factors that affect how easily a fire will start, how fast it will spread and the direction it will go. We have no control over the weather, but we can change the fuels and human activity.



## WEATHER

Weather influences the dryness of the fuels that burn in a wildfire. In the spring, from the time of snowmelt until the vegetation ‘greens up’, the risk of wildfire is often higher since dead grass and leaves can burn easily. Later in the year, hot summer weather can dry out vegetation and increase the risk of wildfires. The combination of lightning storms, high temperatures, high winds and dry fuels create prime conditions for wildfires. High winds, in particular, can transform a small, easily controlled fire into a catastrophic event in a matter of minutes.

## Fuel

Fuel is required for any fire to burn. Fuel for a wildfire is usually dry grass, trees or shrubs. But a home in a fire’s path will also burn. Changing the vegetation around a home, or the characteristics of the building itself, can keep a wildfire from reaching and destroying a home.

## Human Activity

The risk of wildfire increases when people use fire in a wildland environment. Using alternatives to burning such as composting or chipping and keeping recreational fires small and contained will reduce the risk of wildfire.

## The Use of Prescribed Fire

Not all fires are bad; some fires in the forest are good. Fires planned and executed under controlled conditions are called prescribed burns. Land managers use prescribed burns to promote tree seeding and reduce competition from other plants. Periodic fires in forests can reduce the build-up of woody vegetation in the understory: reducing the intensity of future fires. Some ecosystems such as prairies can only be maintained by periodic use of fire to control invasion of non-prairie species and promote germination of prairie plants.

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# Debris Burning

Every year wildland firefighters and local fire departments respond to thousands of wildfires. Careless debris burning causes many of these wildfires. Burning of household waste is illegal in most areas. Consider recycling, reusing and reducing.

## Use Alternatives to Burning

Material to dispose	How to dispose
Paper, cardboard, metal, plastic, rubber, building materials.	In some areas it is illegal to burn these materials, take them to your community recycling center.
Food waste	In some areas it is illegal to burn these materials. Put it in the garbage or start a compost pile that can be used to fertilize your garden.
Tree stumps	Commercial grinders are available to grind the stumps below the surface level. Chips from the grinding can be used in yard landscaping. Stumps can also be left to decompose naturally.
Trees & large branches	Some trees may be of value to a logger or a specialty mill for lumber, carving or other specialty products. Lower quality trees may be of value as firewood for personal use or for sale to others who heat with wood or have recreational fires.
Leaves and small branches	If the above methods are not options, mechanical chippers can chip all but the largest of trees. Chips can be used for mulch around trees and plants and other landscaping uses. Leaves can be added to your compost pile.

## Remember...

**Your fire is your responsibility. If it gets away, you are responsible for damages and any costs of putting it out.**

**Only You,  
Can Prevent Wildfires.**

# Recreational Fires

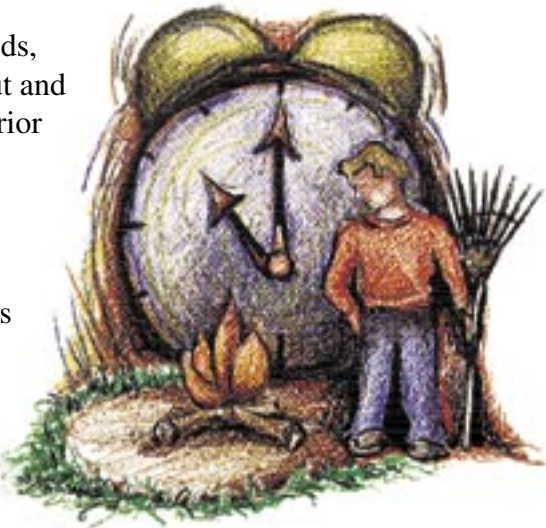
Campfires are part of enjoying the outdoors. But campfires cause many wildfires each year. To keep your campfire safe, follow these guidelines:

- Check for local restrictions
- Use a designated fire pit.
- If there is no designated fire pit, clear a 5 foot (2m) circle down to bare earth and set your fire in the center. Avoid areas with overhanging branches.
- Keep water and a shovel nearby.
- Never leave your fire unattended
- Put your fire out by dousing it with water, stirring and dousing again until coals are cold to the touch.



## If you MUST burn, follow these tips:

- ✓ **Clear and Remove** – Clear out at least 5 feet (2 metres) around piles to bare dirt. Remove dirt from burn piles. Piles full of dirt will smolder for days afterward.
- ✓ **Piles** – Burn small piles - less than 6 feet (2 metres) across.
- ✓ **Watch** – An adult should be present at all times with a shovel and water.
- ✓ **Materials** – Brush, weeds, trimmings should be cut and dried at least 30 days prior to burning.
- ✓ **When to burn** - Never burn when the wind is gusting or over 10 miles (15 km) per hour.
  - It is much safer to burn when the ground is snow covered.
  - Burn in evening when weather is cooler and calmer.
- ✓ **Burn Barrels** – Make sure your burn barrel is approved by your local fire agency.



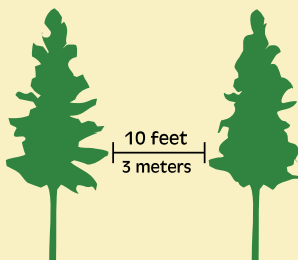


# Survivable space

Are you worried  
about the wildfire threat to your home? Not sure how to  
increase the chances for your home to survive a wildfire? Follow these recommendations  
to create a more effective survivable space.

## Before You Build

The ideal time to create survivable space is when you're planning to build. Locate your buildings in natural openings away from trees and tall grasses. Site your buildings on level ground away from the edge of steep hills where fire can race uphill with great intensity. As you make a clearing for your driveway and building, take this opportunity to create defensible space. Remove evergreens within 30 feet (10 metres) of your building and space other trees so there is at least 10 feet (3 metres) between the branches. Also, make the driveway wide enough for emergency vehicles, at least 12' wide with a 14' overhead clearance. These activities are much easier to do before utilities and buildings arrive on site.

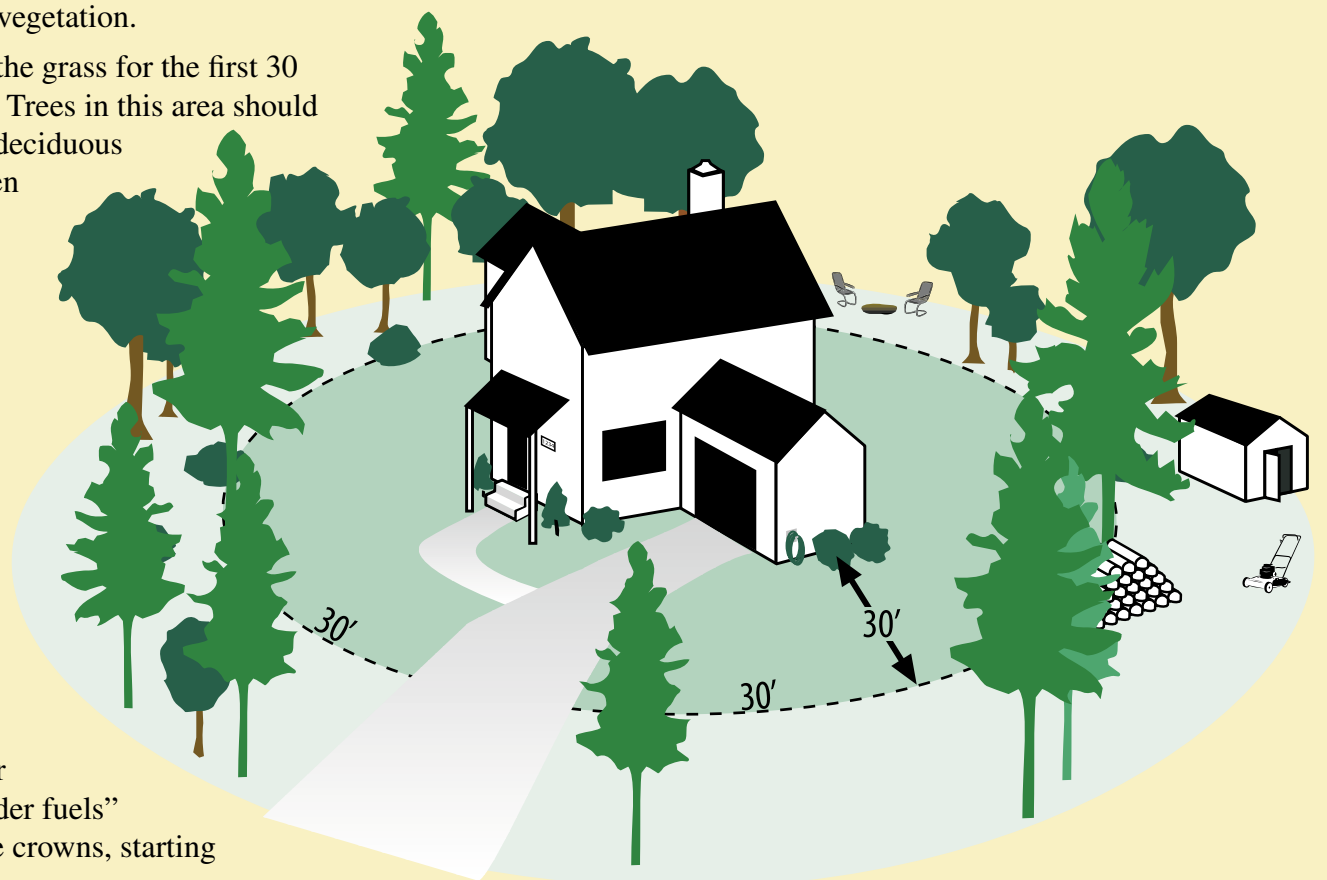


## Landscaping

Creating a defensible space is the key to home survival in a wildfire. Starting at the foundations of your buildings, keep plants short and well spaced. Avoid plantings around and under decks and windows. Keep all plants around the foundation clean of dead vegetation.

As you move away from buildings, keep the grass for the first 30 feet (10 metres) cut short and well watered. Trees in this area should be well spaced and preferably restricted to deciduous trees. Look for potential "fuses" like wooden walkways, fences and weedy gardens that reach from the woods to your buildings. Break these up with patios or green lawn. Keep flammables like lumber and firewood piles out of this area.

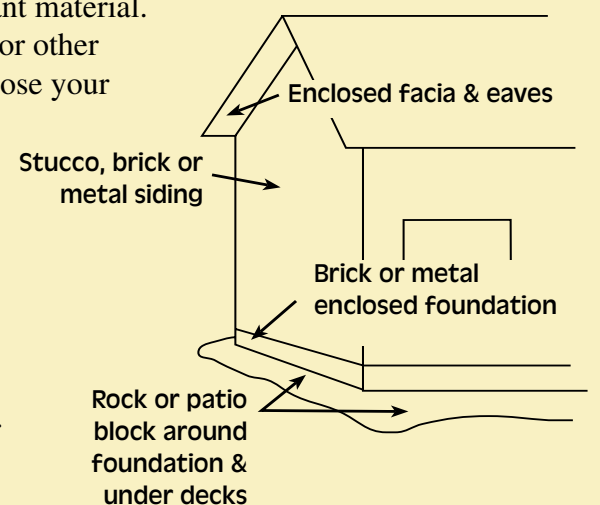
If the area beyond 30 feet (10 metres) is predominantly evergreens, its modification is critical. Consider removing some trees (thinning) so that the crowns of the remaining trees are at least 10 feet (3 metres) apart. Prune the remaining trees 6 to 10 feet (2–3 metres) up the trunk. Remove tall underbrush so that there is a space of 6 or more feet (2 or more metres) between the tops of the plants and the lower branches of the trees. This reduces the "ladder fuels" that would allow a fire to climb into the tree crowns, starting an uncontrollable crown fire.



## Construction/Renovation

When building or renovating your home or cabin in the woods, use fire resistant materials and design. Starting from the roof, use Class "A" rated fiberglass shingles, metal or tile. Enclose eaves and soffits with metal or other fire resistant material.

Use brick, stucco, metal or other fire resistant siding. Enclose your foundation with brick or metal and never bank your foundation with straw. Use building designs free of alcoves, valleys or other places where leaves can collect. Place rock or patio blocks around your foundation and beneath decks and overhangs.



# Maintenance Checklist

*A fire safe home takes periodic maintenance to maintain its fire resistant qualities. Below is a checklist you should go through every year to make sure your property continues to be fire safe.*

## Winter

- **Activity Calendar** – Plan the activities you want to do this year to make your home safer. Share with others.
- **Insurance Policy** – Check your fire insurance policy annually to make sure it is adequate to cover a fire loss.
- **Pruning** – Finish trimming and pruning trees and shrubs.

## Spring

- **Home Assessment** – Doing a home assessment prior to the spring fire season will help you prepare for the threat of a wildfire
- **Firewood** – Move your firewood and lumber piles away from your buildings.
- **Garden Hose** – Connect your garden hose to an outside spigot, and attach a nozzle. Make sure other firefighting tools like shovels, rakes and buckets are ready.
- **Dead vegetation** – Clean dead vegetation out of shrubs and other foundation plantings.

## Summer

- **Lawn Care** – Keeping your lawn green and mowed short into the fall is critical to keeping wildfire in the woods from reaching your home.
- **Access improvements** – Now that all the vegetation is leafed out, you can better see where you have address visibility and other access problems.
- **Enclose** – Enclose soffits and under decks. Replace flammable roofing, siding and foundation enclosures with fire resistant materials.



## Fall

- **Leaves** – Clean leaves out of roof valleys, gutters, siding gaps, window sills, alcoves and on and under decks.
- **More leaves** – Clean leaves and other dead vegetation out of foundation rock mulch and plantings, especially evergreens.
- **Annuals** – Remove annuals after they have gone to seed, or when the stems dry out.
- **Composting** – A good time to start composting is in the fall, when you are looking for a place to dispose of your leaves and other yard debris.
- **Pruning** – For tree health, do your pruning after the leaves fall. Prune branches off trees up at least 6 feet (2 metres) from the ground, but take no more than 1/3 of the live branches on the tree.

- **Indoor Fire Safety** – Before you close up for the winter, make sure your home is fire safe inside. Check chimneys, smoke detectors and fire extinguishers.

## Fire at the door!

### It CAN happen to you!

We hear about devastating wildfires that burn hundreds of homes in the west, but can it happen here in the Great Lakes area? Yes! While we haven't lost the numbers of homes other areas have - every year many homes and cottages are lost in the Great Lakes area.



Some of the homes lost to wildfire in the great lakes area.

Deborah Rose, MNDNR



# Preparing for a wildfire

Pre-planning is important. If you follow the steps outlined earlier, much of the planning necessary to increase the chance that your home will survive a wildfire will be done.

## Home Escape Plan

Do you have a home escape plan? Does everyone in your family know it? Every family member should know two ways out of every room in the house. Practice these routes. Also, you should have a meeting place—such as the mailbox. If you live in a wildland area, consider an “in-town” meeting place such as a favorite café.

Prepare for the worst. Insurance can cover some of your loss from fire, but there are some things that just cannot be replaced. Take a walk through your home and make a list of these irreplaceable items and where they are located. When the time comes to evacuate, consult your list and grab only those items. The list will save you valuable time. Here’s a partial list:

- Family photos, heirlooms, and rare collections.
- Insurance and medical records, deeds and titles and other records you might need.
- Recent computer backup
- Current medical prescriptions and medications

You may also want to consider scanning rare photos and keeping a CD of them at your work or relative’s home along with a backup of your critical computer files. To aid insurance claims, you should also take a video of all the rooms of your home, especially showing high value items like stereos, computers and televisions. Keep this video at your offsite location.

When a wildfire threatens, consult your “irreplaceable” list. Pack the car with these items. Make sure you also pack as you would for a week’s vacation; changes of clothes, cash, medications, etc.

### When it's time to evacuate:

**Remove** flammable materials from your deck and against your house. Throw lawn cushions far into the yard, rake leaves at least 5 feet (2 metres) away from your home.

**Turn on** your sprinklers to wet the lawn between you and the approaching fire.

**Place** a metal ladder against your home, away from the approaching fire for you or firefighters to access the roof in case it catches fire.



U.S.F.S.

**Turn off** the gas line to your home

**Make sure** a hose is attached to an outside spigot with a spray nozzle at the end. Turn the spigot on so you only need to squeeze the nozzle to spray water.

**Close** all your windows and heavy drapes.

**Close** all your doors, especially your garage door, with your car parked outside, facing the street.

**Leave a note** on the front door of who evacuated, where you are going and the time and date. This saves firefighters valuable time. Take your pets with you.

### Fight or Flee?

There may come that time during a wildfire where you will need to make the decision whether to evacuate or stay. If you are not physically able to fight a fire or if the fire service tells you to evacuate, you should leave. If the route from your home is narrow, winding or thickly wooded you should evacuate early, while you still have a chance.

*Remember, you, your family and those heirlooms packed in your car are the only irreplaceable items at your home. If you have protected your home from wild-fire, there is a good chance it will survive without your help.*

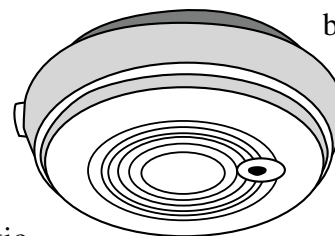
## How's Your Fire Extinguishers?

Do you have a fire extinguisher? Do you know how to use it? You should!

One fire extinguisher should be placed in the kitchen and another in the garage. Additional good locations are wood shops, near the fireplace, just outside the furnace room and in any room where people smoke. An extinguisher is easy to use, and effective if done correctly.

First, size up the fire. If the flames are more than a foot high or the fire covers more than three feet of surface area, evacuate the family and call the fire department. Only the largest fire extinguishers can handle a larger fire.

For smaller fires, twist the ring at the top of the extinguisher to break the plastic retainer strap. Pull the pin completely out. Approach the fire low and squeeze the grips on the top of the extinguisher aiming at the base of the fire so the extinguisher spray lands in front and washes over the fire. Make sure to have your extinguisher checked annually.



## How's Your Smoke Detector?

When was the last time you replaced the batteries in your smoke detector? If you can't remember, do it today. Then change the battery every fall when you set your clocks back. Do you have at least one detector on each floor of your home? Test your detector the first of each month to make sure it is still working correctly.

Carbon monoxide and other gas detectors should be in every home that heats with wood, gas or propane.



This supplement was prepared by the Great Lakes Forest Fire Compact, Fire Prevention Committee.

The Great Lakes Forest Fire Compact is a partnership between the states of Michigan, Wisconsin, Minnesota and the provinces of Ontario and Manitoba.

For more information visit [www.glffc.com](http://www.glffc.com)

The Compact serves as a forum for the exchange of information on common wildfire issues in the Great Lakes Region and as a means for initiating cost-effective prevention and education programs.