

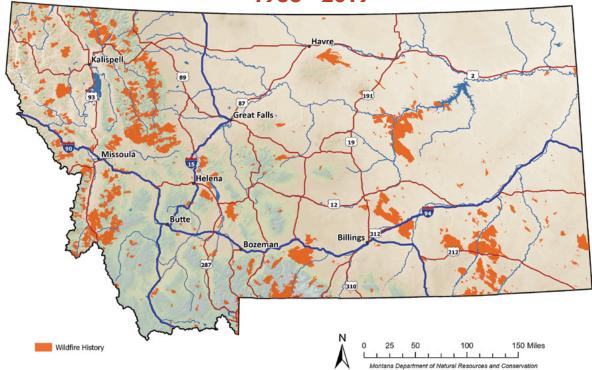
# Fire is a part of Montana

Fire is as much a part of Montana as big skies, rugged mountains, and hardworking people.

It is so integral to our landscapes that we, as Montanans, must learn to live with fire.



## Montana Wildfire History 1988 - 2019



This document will help you learn how to both prepare for and adapt to fire on Montana's landscapes.

- LEARN about the role of fire in Montana's landscapes,
- Be READY by preparing your home, family, and community before a fire,
- Get SET with situational awareness when fires occur,
- And GO early when a fire starts.



# No matter where you live in Montana, the land that you call home burned at one point in the not-too-distant past.

These landscapes will continue to burn. This is quite often beneficial, because our state's forests and grasslands depend on fire to stay healthy and productive.

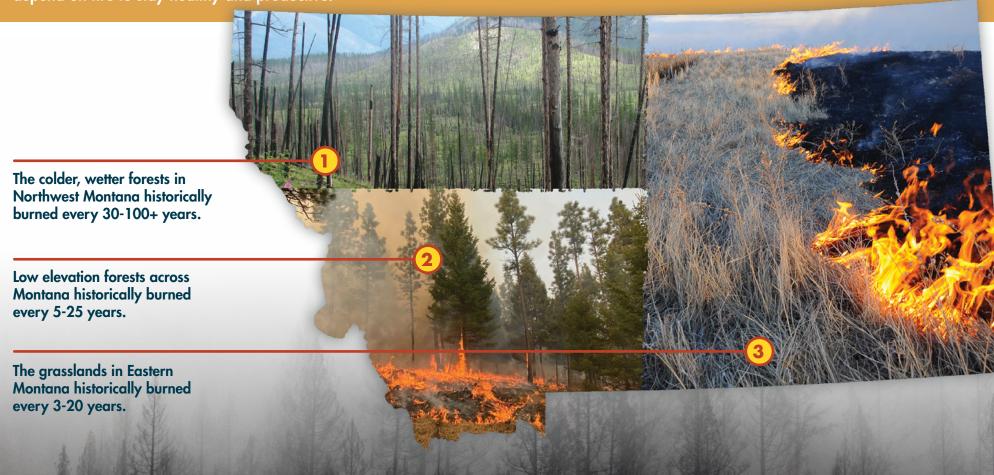


Photo Credits: Colder, wetter – Julia Berkey, Montana DNRC; Grasslands – The Nature Conservancy<sup>1</sup>; Low elevation – David Hanna, The Nature Conservancy

<sup>1</sup>TNC-MT, TNC-ND and US Fish & Wildlife Service joint Rx burn on TNC's Matador Ranch Grassbank, South Phillips County near Zortman, April 7-9, 2014. Burned multiple grassland units over 2 days, totaling over 500ac. Brian Martin = Burn Boss.

### Many of our native plant species are either adapted to or dependent on fire to stay healthy & productive.

It's why some lodgepole pinecones will only release seeds after being exposed to extreme heat.

It is how ponderosa pines have developed their thick, fire-resistant bark.

And it's why grasslands are often revived after low intensity fire restores soil nutrients.





Photo Credits: Toby Dahl; Julia Berkey, Montana DNRC

# Indigenous relationship and use of fire<sup>3</sup>

Though the state of Montana is only 130 years old, Indigenous Peoples have lived in these valleys, mountains, prairies, and woodlands from at least the end of the last ice age—over 12,000 years ago. As of 2021, there are eight federally recognized tribal nations, seven reservations, and twelve major tribes. For hundreds of generations, Indigenous Peoples in what is now Montana subsisted entirely or primarily by hunting, fishing, and gathering.

Tribes actively employ many tools to nurture and augment the foods and materials that were of importance to human life. The single most powerful of those tools—the tool that most expansively shaped our landscapes—was fire. For thousands of years, many of the region's prairies and woodlands were primarily shaped by the deliberate and careful application of fire by Indigenous People.

Tribal nations treated the landscapes with fire for a variety of reasons and in many specific ways, each of them learned and honed over thousands of years living in this place. Indigenous People use fire not only to benefit human beings, but also to help the plants and animals for their own sake. They often applied fire to the prairies and grasslands to ensure rich and productive grazing for bison and other ungulates, and in more recent centuries, for horses.

For more information, visit Fire on the Land.



<sup>&</sup>lt;sup>2</sup> Montana Forest Action Advisory Council. (2020, December). Montana Forest Action Plan: Statewide Assessment of Conditions. Retrieved November 15, 2021, from https://www.montanaforestactionplan.org/pages/assessment

#### The downside of fire exclusion.

For the protection of life, property, and natural resources, suppression efforts by fire managers have kept fire out of Montana's landscapes for over 100 years.

### We know that not allowing fire to play a natural role in Montana has led to:



**Increasing conifer density** across Montana. This has resulted in a loss of diverse landscape mosaics, which has left our forests with fewer meadows and aspen groves and has created continuous, unhealthy conifer stands.



Frequent lightning and indigenous-lit fire in these mountains east of Arlee resulted in diverse, healthy forest habitats. This photo was taken in 1920, before people started suppressing most wildfires.



This photo, taken in 1990, shows the loss of that diversity after 70 years of wildfire suppression. This increased tree density also increases the potential for larger wildfires that burn more contiguous area.



A buildup of fuel, composed of small trees in the understory along with dead and downed debris (like pine needles, sticks, and logs) on the ground. Frequent, low-severity wildfires would have removed these small trees and debris in the past while allowing large trees with thick bark to thrive.



Frequent fire in this forest has resulted in a stand composed of large trees, spaced apart, with a few smaller trees in between and limited debris on the forest floor. Fire in this stand releases nutrients into the forest soil, which helps support a healthy forest.

When a fire comes through this stand, it will stay on the forest floor and not burn into the crowns of the larger trees.



After 80+ years of fire suppression, that same forested stand has become thickly crowded with trees, other vegetation, and debris.

Photo Credit: CSKT Division of Fish, Wildlife, Recreation, and Conservation; John Fisher, CSKT Forestry Department

<sup>4</sup> Stanton, R., Chen, W., & Sloniker, E. (2017, November 9). Trees Tell Us Much About Fire: What Will We Do About It? Cool Green Science. Retrieved January 25, 2022, from https://blog.nature.org/science/2017/11/08/trees-tell-us-much-about-fire-what-will-we-do-about-it/

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**Increasing spread of insects & diseases** as dense forests compete for resources, such as water, nutrients, and sunlight. This competition, combined with hotter drier summers and mild winters, places stress on trees and makes them less able to fight off forest pests.



Due to the build-up of fuels in this stand, a wildfire can move from the ground to the crowns of the larger trees. This creates a **high-severity wildfire** that kills more trees than would have occurred in this stand prior to fire suppression.



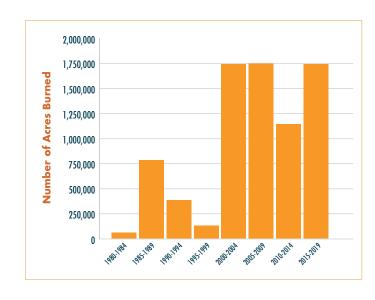
The result is a forest stand composed of dead standing trees, known as snags. It will take decades, at least, before this stand has large, healthy trees again.

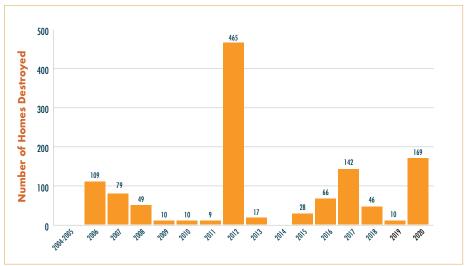


The impacts of insects (western spruce budworm) on forest health in Glacier National Park.<sup>5</sup>

The standing dead and downed trees killed by insects & disease increase the potential for high-severity wildfire.

# The result: large, high-severity wildfires that destroy homes, impact businesses, and threaten lives each year.

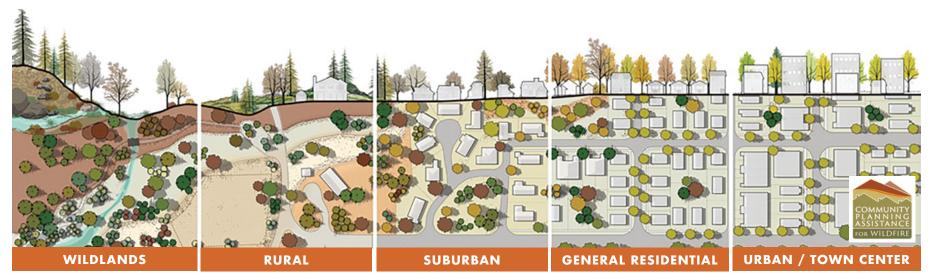




According to a recent report by Headwaters Economics, the number of structures destroyed by wildfires has been increasing since 2000.6

In western Montana, the number of homes built in areas with high or moderate wildfire risk is growing significantly faster than areas with low risk.<sup>7</sup>

- Over the last 30+ years, the number of homes in areas of high wildfire risk has almost doubled.<sup>7</sup>
- This increase in homes results in increased firefighting costs, as the defense of private property accounts for 50-95% of firefighting costs. In 2017, nearly 3,000 Montana homes were within one mile of a wildfire, which increased suppression costs by at least \$25 million for that year.



The connectivity of fuels between the wildlands, our homes, and our residential areas puts these communities at greater risk of negative wildfire impacts.<sup>8</sup>

## It doesn't have to be this way.

In many cases, fire suppression is necessary to protect lives, homes, and livelihoods. However, because we live in a fire adapted ecosystem, sometimes fires will burn. **That doesn't mean that we as Montanans are powerless.** Instead, it means that we must learn to live with fire by:

- Maintaining our properties to reduce flammable materials,
- Building our homes with ignition-resistant materials,
- Actively managing our forests,
- Increasing awareness and preparedness during times of high fire danger, and...
- Preparing our families and communities for the realities of fire.

This guide was created to help Montanans take action to protect what matters most—our families, homes, and communities.

8 Mowery, Molly. Living on the Edge: Get to Know Your WUI. American Planning Association. Retrieved January 31, 2022, from https://www.planning.org/blog/blogpost/9141903/



Keep reading to learn the easy steps you can take to make your family & your home more prepared for wildfire.

## Did you know?

#### Montana recently updated its Forest Action Plan!

The Forest Action Plan is the state's plan for addressing forest health and wildfire risk issues across all land ownerships in Montana. To learn more, check out:

- The <u>Assessment of Forest Conditions</u>, which identifies the current conditions of our state's forests and highlights the threats to this natural resource.
- 2. The <u>Priority Areas for Focused Attention</u>, which shows the nearly 4 million acres of forests with significant forest health issues and high wildfire risk to communities and infrastructure.

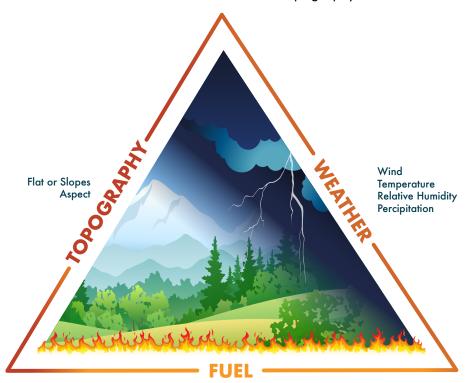
## Why have fire seasons gotten worse?

Listening to the news during a smoky summer, you may have heard that wildfire seasons are getting longer, fires are burning more area, and those fires are getting much harder (or impossible) to control.

This has made fighting wildfire incredibly expensive - since 2009, \$20.4 million (on average) is spent each year suppressing wildfires on state and private land in Montana.

Understanding why this is happening requires an understanding of the **Fire Behavior Triangle**.

The triangle tells us that, once a fire is burning, three primary factors influence fire behavior: fuels, weather, and topography.



Fine or Heavy • Arrangement & Continuity • Fuel Moisture

These components interact and influence the likelihood of a fire starting, the direction and speed at which a fire will travel, the wildfire severity, and the ability to control or extinguish the fire.

Fire seasons have become more challenging because two components of the fire triangle are out of whack: fuels and weather.



### **FUELS:**

After suppressing fires for ~100 years, Montana is packed with dense, burnable vegetation. Most homes are also built with flammable materials, which adds even more fuel to the landscape.



#### **WEATHER:**

With a changing climate, summers are getting hotter and precipitation is decreasing, resulting in fire seasons that have become longer and drier.

With the weather and fuel components of the fire behavior triangle becoming more severe, wildland firefighters are unable to suppress all wildfires; some wildfires escape control. In a major wildfire, there simply may not be enough firefighting resources or firefighters to protect every home.

So, what can I do as a homeowner or landowner?

Great question and the answer is... A LOT! Most of this work can be accomplished with small, weekend projects that you can chip away at throughout the year.

## Managing wildfire for resource benefit

Even for the wildfires that firefighters can control, we now understand that some wildfires benefit Montana's landscapes and communities.

Allowing a wildfire to burn when weather conditions are moderate and the fire does not pose a threat to homes and/or infrastructure is crucially important because it removes the build-up of fuel. This decision benefits both the ecosystems that the fire passes through, as well as the nearby communities. Putting such fires out does not reduce wildfire risk. Instead, it delays the risk until the next wildfire comes – maybe on a hotter, drier, or windier day when the conditions for wildfire are even more dangerous and harder to contain!

Fire managers only make the decision to allow a wildfire to burn after careful consideration. They evaluate and monitor conditions to ensure that the fire will not threaten communities or other values at risk. These decisions are supported by the best available science and fire behavior models.

Which brings us back to the main point - fire is a part of Montana. It's not a matter of IF a fire will burn, but WHEN. To prepare for that time, we can manage our forests and plan our communities so that negative wildfire impacts are minimal. This means that every Montanan - from government officials, to land management agencies, to business owners, renters, and homeowners - must help build communities that are prepared for wildfire.

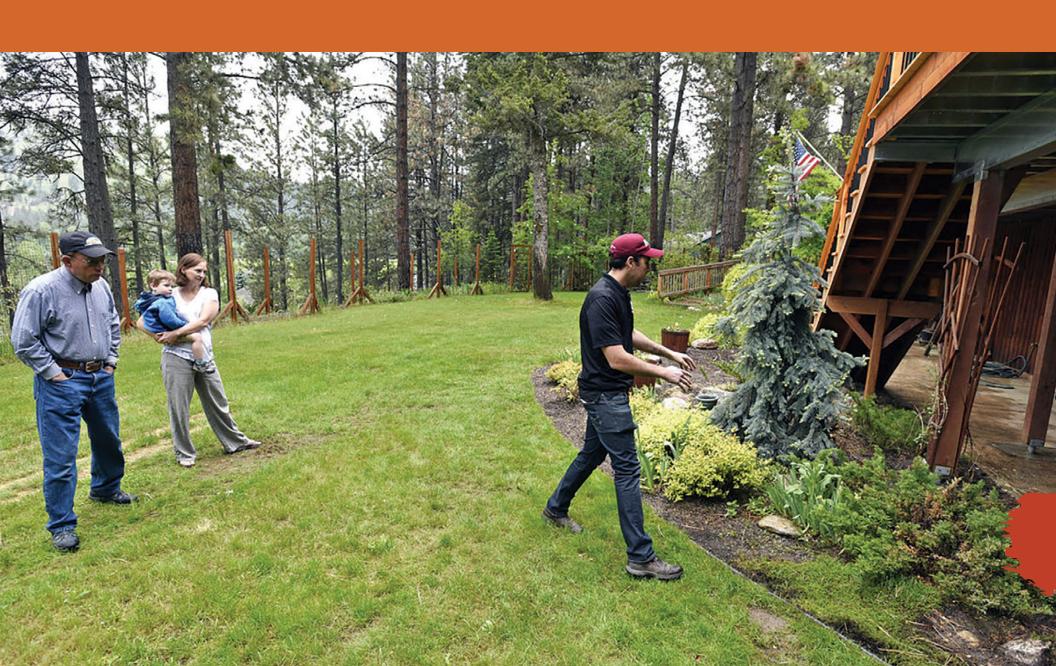
# Common wildfire terms & descriptions

Fire behavior is the way a fire reacts to the influences of fuel, weather and topography. Types of fires include:

- **Surface fires** which burn along the surface of the ground. A tree canopy may be scorched but does not carry a fire. These fires can be some of the easiest fires to control.
- **Crown fires** occur when fire burns and spreads through the crown or canopy of trees. Crown fires are usually ignited by a surface fire. These fires are incredibly hard to control.
- Spot fires occur when embers or firebrands are lofted into the air above a fire and carried by wind to land and ignite an area that is separate from the main fire.
- Ladder fuels are the live or dead vegetation that can connect surface fires to the canopy of a forest and create crown fires.

Past wildfires in the Bob Marshall Wilderness of Montana have created a mosaic of forest stands across the landscape. When wildfires run into previously burned stands, they often run out of fuel and burn themselves out.

# Determine Your Wildfire Risk.



The first place to start in preparing your home, family, and property for a wildfire is to determine your wildfire risk. The Montana Department of Natural Resources and Conservation (DNRC) offers resources to help get you started.

# You can request a home assessment,

where a local wildfire professional will come and assess your property and provide recommendations on how to reduce your wildfire risk. To schedule a free visit directly, go to: <a href="https://www.dnrc.mt.gov/fire">www.dnrc.mt.gov/fire</a>.

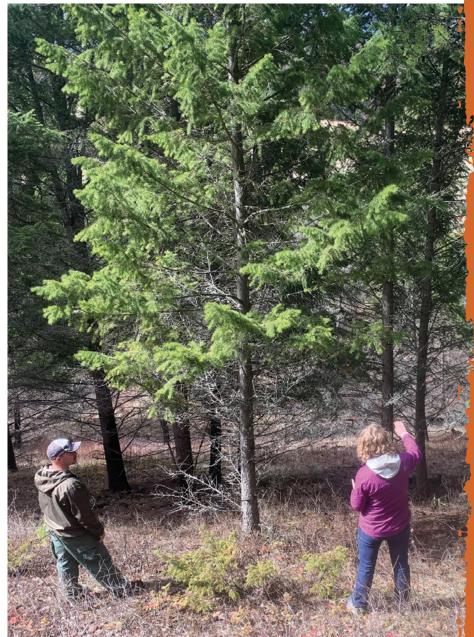


# Visit the Wildfire Risk Portal,

which provides a free interactive tool for homeowners to learn more about how to reduce their wildfire risk. This tool allows you to enter information on your property, which produces a risk report. Once that information is submitted, you will be contacted to see if you would like to schedule a free site visit by a local wildfire professional. Get the process started here: <a href="www.dnrc.mt.gov/firerisk">www.dnrc.mt.gov/firerisk</a>.

For more information on wildfire risk, visit: WildfireRisk.org





# Prepare Your Property.

Homeowners are responsible for preparing their property for wildfire. If your home is in or close to the natural vegetation of Montana's grasslands, foothills, or mountains, you are living in the wildland-urban interface (WUI). Although no home in Montana is immune to wildfire, homes located in the WUI are inherently at greater risk. Studies have found as many as 80% of homes lost to wildfires could have been saved had homeowners followed a few simple practices.

This section focuses on the actions you can take to effectively reduce wildfire risk on your property. Begin these efforts by working on your home and continue outwards through your property.

### **Home Ignition Zone**

The exterior materials and design of a home can greatly impact a home's potential to ignite during a wildfire. The fuels present in the surrounding yard and property also contribute to the home's wildfire risk. We call the home and its immediate surroundings, out to 200 feet, the Home Ignition Zone.



#### **How Does a Home Catch on Fire?**



#### **Ember Ignition**

- This is the most common source of home ignition during wildfires
- Embers are small or large pieces of burning material (such as pine cones, sticks, or leaves) that are transported by wind ahead of a wildfire, where they land, accumulate, and potentially ignite spot fires
- When we build homes with ignitionresistant materials and maintain our Home Ignition Zone, we are better prepared for the blizzard of embers associated with an approaching wildfire

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#### **Surface Fire and Direct Flame Contact**

- When there are fuels adjacent to a home, direct contact from flames can ignite the house
- Ensuring no fuels are present within
   5 feet of a home can greatly minimize this possibility

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#### **Radiant Heat**

- Radiant heat, the feeling of warmth being given off from a fire, can ignite a home
- The source of heat transfer can come from a fire in the forest or even an adjacent structure that has caught on fire



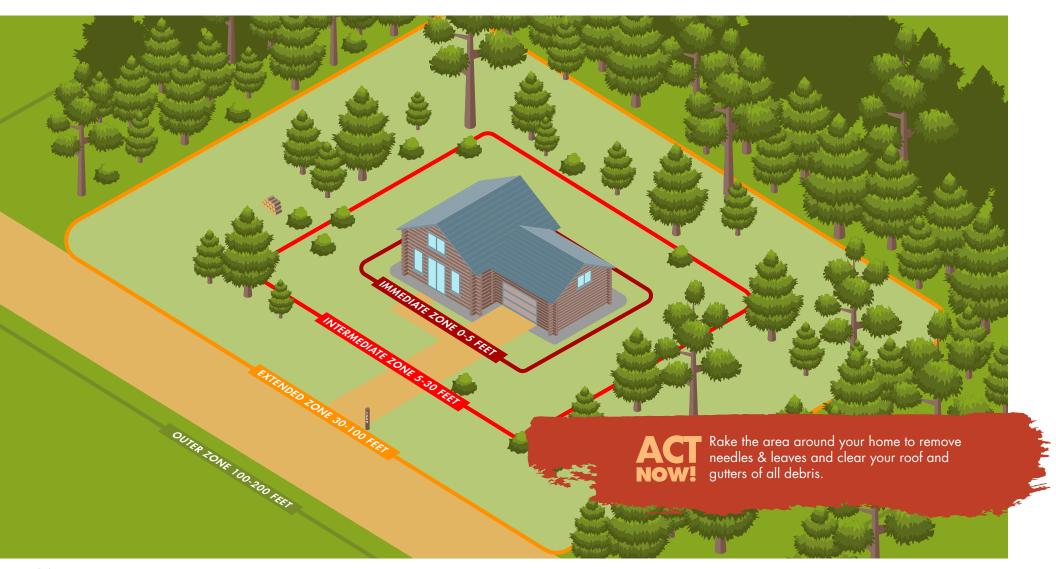
Many homes are lost due to the accumulation of embers. **Be ember aware!** 

# Follow these tips to help keep your home and family safe.

By performing simple maintenance tasks and removing fuels within the Home Ignition Zone, you can greatly improve the chance of your home surviving a wildfire, while simultaneously reducing the burden placed on our limited firefighting resources. This section provides you with these tasks, adapted from the National Fire Protection Association, divided up into the sections of the home ignition zone: IMMEDIATE, INTERMEDIATE, EXTENDED, and OUTER ZONE.



For more information visit www.nfpa.org.









### Your home and the 0-5 feet around your home

Wind-blown embers are your home's biggest threat. Remove all combustible materials from this zone and protect vents & openings where embers can enter.

Remove tree limbs that extend into this zone.
Relocate all combustible materials, including garbage and recycling containers, lumber, trash, and patio accessories, to outside this zone.
Do not store combustibles under your deck, and clean out all plant debris, wood piles, and other
easily ignited materials from under decks.
☐ Clean all fallen leaves and needles from this zone – don't
forget about your gutters and roof valleys.
Locate propane tanks at least 30ft from any structures, preferably on the same elevation as the house.



2 INTERMEDIATE ZONE:

5-30 feet around your home

Keep this area "lean, clean, and green," and be sure to maintain it during fire season.

Remove all dead grasses, weeds, plant, and foliage.	Remove limbs 6 to 10ft from the ground.
Keep lawns and native grasses mowed and water all vegetation regularly to keep them from becoming dry.	Remove branches that overhang or touch the roof, making sure there is at least 10 ft of space between the structure and
Grow non-woody, low height, herbaceous plants.	nearest branch.  Clear vegetation around fences,
Provide a minimum of 18ft of space between remaining	sheds, outdoor furniture, and play structures.
shrubs and trees. Increase spacing on steep slopes.	Create fuel breaks with non- flammable walkways, paths,
Store firewood or other	and driveways.
combustible materials at least 30ft away from your home, garage or attached deck.	Isolated groupings of deciduous trees or shrubs are best to provide screening and privacy.

#### What is FIRESCAPING?

Firescaping is a landscape design that incorporates plant selection and hardscaping to reduce a property's vulnerability to wildfire.

#### Plant selection should include:

- Fire-resistant plants with a high moisture content and larger leaves that are low growing.
- Deciduous trees, which are generally more fire resistant than conifer trees.

Hardscaping refers to all the non-living elements of landscaping. Hardscaping with wildfire in mind should include:

 Using fire-resistant material for retaining walls, fencing, and open areas.

**Fuel breaks** are a vital component of firescape design and can be accomplished using driveways, lawns, walkways, patios, parking areas, fences, or areas with inorganic mulches.





Careful planning and firescape design will reduce the possibility of ignition and lower fire intensity while slowing the spread of fire. For more information and examples, check out the <u>MSU extension guide</u>.





## 3 EXTENDED ZONE:

30-100 feet around your home, or to the property line

In this Zone, reduce fuel for fire and create spacing between trees and shrubs.

- Thin trees to a minimum of 12 feet between tops of trees to break up continuous fuels. Spacing recommendations may increase due to slope, tree species, and other site conditions.
- Remove small conifers growing between mature trees to create a separation between ground vegetation and mature tree branches.
- Remove leaf and needle debris from the yard.
- Keep grasses and wildflowers under 8" in height.

- Clear vegetation from under large stationary propane tanks.
- Remove vegetation adjacent to storage sheds or other outbuildings.
- Maintain space clear of vegetation on either side of your driveway and access roads so that emergency vehicles can reach your home. Trim trees & shrubs overhanging the driveway or road to maintain 13.5 feet of vertical clearance across the entire width of your driveway.



# 4 OUTER ZONE:

100-200 feet around your home, or to property line

The goal in this zone is not to eliminate fire, but to slow it down and keep flames on the ground. Keep in mind that your Home Ignition Zone may overlap with your neighbor's.

- 1-1
regularl
creation
thin and
Remov
Dispose

Proper thinning and pruning in this zone will make a significant difference in protecting your home and other structures.

Create and maintain horizontal

spacing between the tops of

happen; monitor re-sprouting regularly to guard against the creation of ladder fuels, and thin and prune when necessary.

Remove dead trees and shrubs.

Dispose of heavy accumulations of ground litter and debris.

Make sure your address is clearly visible from the road.

Re-sprouting of shrubs will

For more information on managing your forest for wildfire, check out the section below: "Managing your forest". For technical help on how to manage your property with forest health in mind and to be more wildfire resilient, contact your local DNRC service forester at <a href="https://www.dnrc.mt.gov/serviceforestry">www.dnrc.mt.gov/serviceforestry</a>. They can help you understand your fuel types and what steps you can take to immediately reduce your wildfire risk.

# Burn your piles safely & responsibly!

Forest management work nearly always results in debris piles. Getting rid of these piles is necessary to reduce your wildfire risk; however, burning a pile irresponsibly can result in a wildfire. To prevent wildfires:

- Keep your piles small,
- Clear the area around the piles of all fuels,
- Keep water and hand tools ready in case your fire starts to spread,
- Never burn on hot or windy days, and
- Never leave your burn pile unattended.
- Obtain the necessary permits. Many counties in Montana require a permit to burn and have specific seasons when burning is allowed.

Scan this QR code to learn more about responsible pile burning, or search for "MSU forestry extension pile burning."

## When Building or Retrofitting: Use Ignition-Resistant Materials.

Incorporating ignition-resistant construction materials and concepts will help reduce the chance that your home is damaged during a wildfire.<sup>8</sup>



The roof is the most vulnerable part of your home because of its large horizontal surface. Embers can easily land on the roof and ignite combustible materials and debris such as flammable roofing material, needles, and leaves.

- Replace wood shake and shingle roofs with fire resistant class-A roofing materials such as: fiberglass composition shingles, metal, or tile.
- Replace plastic skylights with double-pane glass, one of the panes should be tempered glass. Close skylights if threatened by a wildfire.
- Install an approved spark arrester on chimneys.



Open eave construction is vulnerable to embers and flames. "Boxed-in" or eaves with soffits provide better protection.

- Cover open eaves with sheathing, such as plywood or fibercement board.
- Use tongue and groove joints for sheathing, do not use butt joints.



For more information about how to update the building materials for your home to become more fire resistant, scan the following QR codes:



Wildfire Home Retrofit Guide:



NFPA research fac sheets:



#### **VENTS**



Embers can enter the attic and other enclosed spaces through vents. Vents with vertical orientation, such as vents in open eave construction or gable end vents, are more susceptible to embers.

IHBS Wildfire Risk Research:



#### WALLS AND SIDING MATERIALS

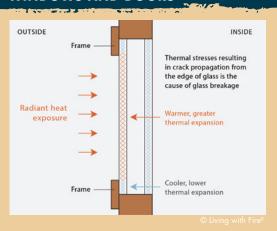


COMPARISON of combustible, cedar-shingle siding product (left) vs. fire-resistant, fiber-cement siding when exposed to a simulated ember storm.

Combustible siding and trim are vulnerable to flames from ignited vegetation or debris at the base of walls. Fire can spread vertically to windows and eaves. An effective noncombustible immediate zone close to your home is particularly important if you have combustible siding.

- Replace building materials that have begun to degrade and are cracking and splintering.
- Install skirting made from noncombustible materials, such as metal or fiber-cement, around the perimeter of your home where vulnerable to embers or flame.

#### WINDOWS AND DOORS



Embers can enter through open windows and through gaps at the edge of garage doors. Plants or combustible materials stored under windows can be ignited by embers, resulting in flames that may break window glass and ignite combustible window frames.

 Replace single-pane, non-tempered glass windows with multiple-pane, tempered glass types.

<sup>&</sup>lt;sup>®</sup>This content was adapted from Wildfire Home Retrofit Guide, publication #SP-20-11, with permission from University of Mevada Cooperative Extension and the Living With Fire Program.

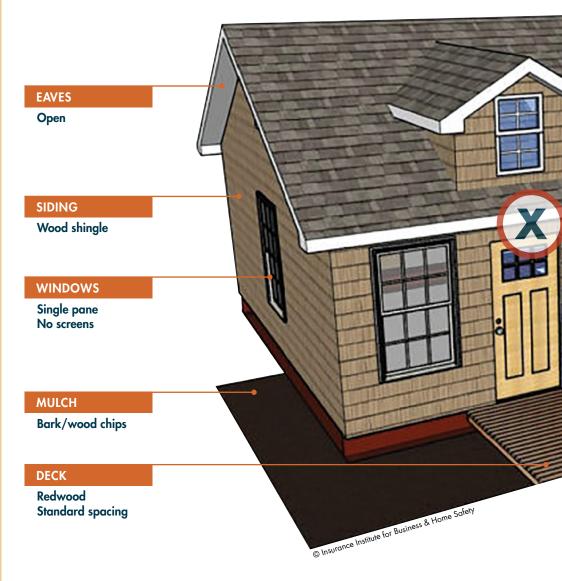
#### **DECKS AND BALCONIES**

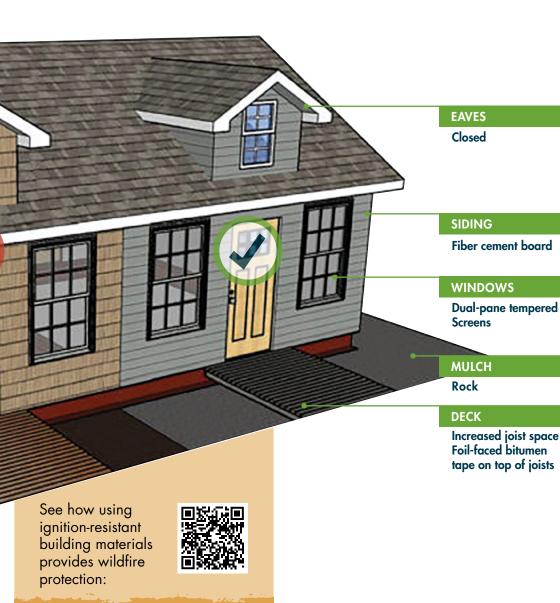


Embers can collect under decks and balconies and ignite combustible materials, such as plant debris or lawn furniture. Flames can then ignite the deck and potentially enter the home through broken sliding glass doors and windows.

- Replace deck boards that are less than one inch thick or cracked with noncombustible or ignition-resistant decking materials.
- Use metal flashing between the deck and the house.
- Consider enclosing the open sides of the deck with siding materials that are properly vented or 1/8-inch wire mesh to reduce maintenance and deter ember entry. Do not use wooden lattice to enclose decks.
- Install non-combustible shade coverings for decks.
- Avoid carpeted decks.

# Wildfire-Resistance: Make the "RIGHT" Choices





#### **Home Insurance**

Your home is your largest asset - protect it. Insurance provides the critical back-up plan after a fire, allowing you to rebuild your home after fire loss. Use the following insurance tips as part of your fire preparedness plan:

**Know What Your Policy Covers:** pay attention to the details. Ask for a full replacement cost policy that pays to replace all your items at the current market price.

Make a Home Inventory: document the contents of your home before and after a fire occurs. Keep your inventory and photos stored online.



Conduct an Annual Insurance Check Up:

speak with your insurance company annually to discuss the policy limits and coverage. Be sure that your policy accurately reflects the correct features and size of your home.

**Update Your Policy to Cover Home Improvements:** if you make home improvements, be sure to call your agent and update your coverage.

**Maintain Your Insurance:** if your home is paid off, be sure to maintain homeowner insurance. Without insurance, would you have the money to rebuild your home?

Get Two Years of Living Expense Coverage: you want to get at least two years of "additional living expenses" coverage, because on average that is how long it takes to rebuild after a fire.

If Your Policy is Cancelled, Act Quickly: if your insurance company notifies you that they will not be renewing your policy, don't panic – but don't wait! Start shopping for a new policy as soon as possible. By law, your insurance company must give you 45-day notice, and you may need that much time to find a replacement policy that works for you.

Find insurance that covers the work you need to make your home fire safe.

**Renters Need Insurance Too:** Renters are just as likely to lose everything in a fire. It is often possible to bundle renter's insurance with an auto insurance policy at a discounted price.

# Manage Your Forest.

Beyond the Home Ignition Zone, forests are managed for specific goals and objectives set by the landowner. Healthy, managed forests are less prone to severe wildfires that threaten homes and communities. There is not a universal approach to forest management, as different forest types require individual prescriptions. That is why is is important to have a **forestry professional** come to your property and help assess the best way to manage your forest and to meet your goals for your forest land.



### Who can I contact to answer my questions?

Forestry experts can help determine appropriate options based on the forest type, slope, and topography of your land. The Montana Department of Natural Resources and Conservation has 16 Service Foresters located across the state. Your local **Service Forester** is your connection to multiple programs and resources available to help you care for your forest land, and they are available for free one-on-one consultations with private landowners.

For more information, visit dnrc.mt.gov/serviceforestry to connect with the Service Forester in your community.

#### What other resources are available?

Montana State University's Forestry Extension Program offers forest stewardship planning workshops that teach landowners how their forest functions and helps landowners create a stewardship plan to guide their management activities.



You can join the <u>Montana Tree Farm</u> if you own more than 10 forested acres, which ties you in with a network of private family Tree Farms across the state.

Finally, check out <u>www.mylandplan.org</u>, which has easy tools to help you create a plan for managing your forested property independently.

## Why do we use prescribed fire?

Knowing and understanding that fire is a part of Montana, you may now be asking, "how can I get fire back on my own land?" Whereas humans once played a critical role in bringing fire to the landscape, that role has been greatly diminished in modern times. Nevertheless, prescribed burns, or burns intentionally ignited to achieve a stated management goal, are one of the best tools we have for reducing hazardous fuels, improving wildlife habitat, and restoring forest health and resiliency in Montana.

Prescribed fires, also known as controlled burns, are conducted with greater frequency on public lands, such as those managed by the U.S. Forest Service or Bureau of Land Management. These burns are carried out by qualified professionals who create detailed plans and procedures to mitigate smoke impacts from the

prescribed fire, as well as the risk of fire escape. Since most private landowners do not have such qualifications or training, the idea of conducting a prescribed fire on their own land can be intimidating.

Many individuals across the state are working to educate landowners and communities on how to bring fire back to the landscape. For example, the Blackfoot Challenge has established a program that helps private landowners in the Blackfoot Valley of Montana to safely and effectively using prescribed fire as a forestry management practice on their land. If this is of interest to you, contacting your local DNRC service forester is a good place to start. They may be able to connect you to resources available for assistance, or they can tie you into the efforts to increase prescribed fire capacity for private landowners across Montana.



# Wildfire Evacuation.

Being wildfire ready doesn't just involve preparing your home for wildfire, it also involves preparing yourself, family, pets, and livestock to evacuate in the event of a wildfire. Use the checklists in this section to create a Wildland Fire Action Plan that prepares you and everyone in your family to respond and react to an approaching wildfire in a safe and efficient manner.

Your Wildland Fire Action Plan should be prepared, discussed, and practiced with all members of your household well in advance of a fire. Use the checklists below to guide the development of your plan.

#### **Before the fire**

Sign up for emergency alerts system in your area, if available.

#### PLAN AND PRACTICE: PREPARE AN EMERGENCY "GO KIT" THAT INCLUDES: Create a family communication plan with personal, work, N95 respirators. Maps marked with Copies of important school, and caregiver contact information. documents (birth certificates, evacuation routes. Include personal protective passports, insurance policies). Appoint an out-of-area friend or relative as an additional equipment (PPE) to wear Prescription medications. point of contact to update during a wildfire. during evacuation: bandana, Water bottles and food. Spare eyeglasses and goggles, leather gloves, long Designate emergency meeting locations. contact lenses. Pet food and water, leashes, shirt and pants (cotton or pet supplies, and medications. wool), sturdy leather boots, Plan and practice at least two evacuation routes. First aid kit. cotton hat. Natural fibers. Sanitation supplies. especially wool, are less likely Consider pets and large animals (such as horses) when Battery powered to ignite and will not melt. creating an evacuation plan. Change of clothing. AM/FM radio. Flashlight and headlamp. Have fire extinguishers on hand and train your family ☐ Family "walkie-talkie" Spare chargers how to use them. (cell phones, laptops). radios. Extra car keys, credit cards, and cash. Familiarize yourself and your family with the location Spare batteries. and use of your gas, electric, and water main shut-off controls. Protect your investment with homeowner's insurance. Make sure your policy reflects the current features of your home and keep an updated home inventory that documents the contents of your home.



# Create a Family Emergency Communications Plan

HOUSEHOLD INFORMATION	SCHOOL, CHILDCARE, CAREGIVER, WORKPLACE	LOCAL CONTACTS
Address	Name	Name
Phone	Address	Address
Email	Phone	Phone
	Email	Email
Name	Web	
Mobile	Emergency Plan/Pickup	Name
Email		Address
Alt. # or Soc. Media		Phone
	Name	Email
Name	Address	
Mobile		Name
Email	Email	Address
Alt. # or Soc. Media	Web	Phone
	Emorgonov Plan /Pickup	Email
Name	<del></del>	OUT-OF-AREA CONTACTS
Mobile		Name
Email		
Alt. # or Soc. Media		Address
	Location 1	Phone
Name	Instructions	Email
Mobile		NI
Email	Location 2	Name
Alt. # or Soc. Media	Instructions	Address
		Phone
		F 1



# Once the Fire Starts.

BE SITUATIONALLY AWARE:
Monitor fire weather conditions and local fire activity.
Stay tuned to your TV or local radio stations for updates or check the appropriate websites.
Evacuate as soon as you are aware of a possible threat to your home or evacuation route—do not wait for emergency notifications.
WHEN PREPARING TO EVACUATE - ALWAYS:
Keep your cell phone fully charged.
Leave a note with your contact info and out-of-area contact information taped to the fridge or inside the front window.
Check on neighbors to alert them to prepare.
Dress using the PPE in your "Go Kit."
Carry car keys, wallet, ID, cell phone, and spare batteries.
Drink plenty of water to stay hydrated.
Put "Go Kit" in your vehicle.
Locate your pets and place them in carriers early.
Prepare horses and large animals for transport and consider moving them to a safe location early.

IF TIME ALLOWS.		
Close all windows and doors but leave them unlocked.	Turn off propane tanks and other gas at the meter.	
Open window shades and curtains and close metal shutters (if installed).	If you are on a municipal water system, don't leave sprinklers on or water running as they can	
Move furniture away from windows and doors.	reduce water pressure for firefighting efforts.	
Turn off pilot lights for gas appliances.	☐ Back your car into the driveway to facilitate a quick departure when you are ready to	
Turn off the air conditioning.	evacuate.	
Leave your lights on so firefighters can see your house and other structures under smoky conditions.	Cover attic and crawl space vents with pre-cut plywood or commercial covers.	
Bring combustible deck furniture, such as chairs, tables, and hammocks, inside the house	Gather other irreplaceable, easily carried items, such as family photos and small heirlooms.	

### Fire Weather

# RED FLAG WARNING conditions exist when:

• Strong winds.

or garage.

IE TIME ALLOWAS.

- Low humidity.
- Warm temperatures, and
- Dry fuels are present.



# A FIRE WEATHER WATCH, alerts the public of upcoming fire weather conditions.

digital information backups.

Collect and bring personal computer data and

These weather conditions often combine to produce extreme fire behavior. If the National Weather Service issues a Fire Weather Watch, **BE PREPARED** with your evacuation and communication plan. If the National Weather Service issues a Red Flag Warning, **TAKE ACTION** – review your Go Kit, prepare your home and family to evacuate, and remain alert. Local TV, print, and radio weather stations will broadcast fire weather warnings.



# Fire Adapted Communities.

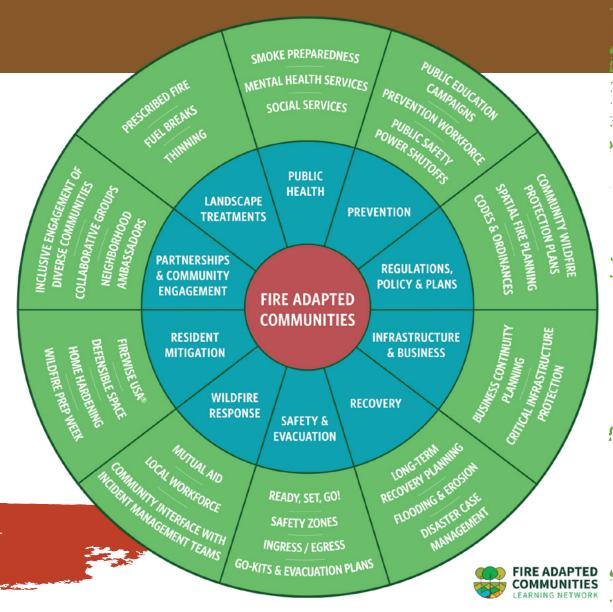
Wildfires do not stop at property boundaries. Your property is part of a larger community and preparing for wildfires is the responsibility of everyone within the community. To better live with fire in Montana, we must work together to create more fire adapted communities.

A fire adapted community is one that understands the risk that wildfire poses and acts before, during, and after a fire so that the community is more resilient to negative wildfire impacts. Because all residents of a community are impacted by wildfire, everyone in a community – from renters and homeowners to policy makers and government agencies - shares responsibility for becoming more fire adapted.

If you are wondering what you can do to help you community be better prepared for wildfire, get involved with your local firesafe council. And if there is

no firesafe council in your area, consider starting one or becoming a Firewise neighborhood.







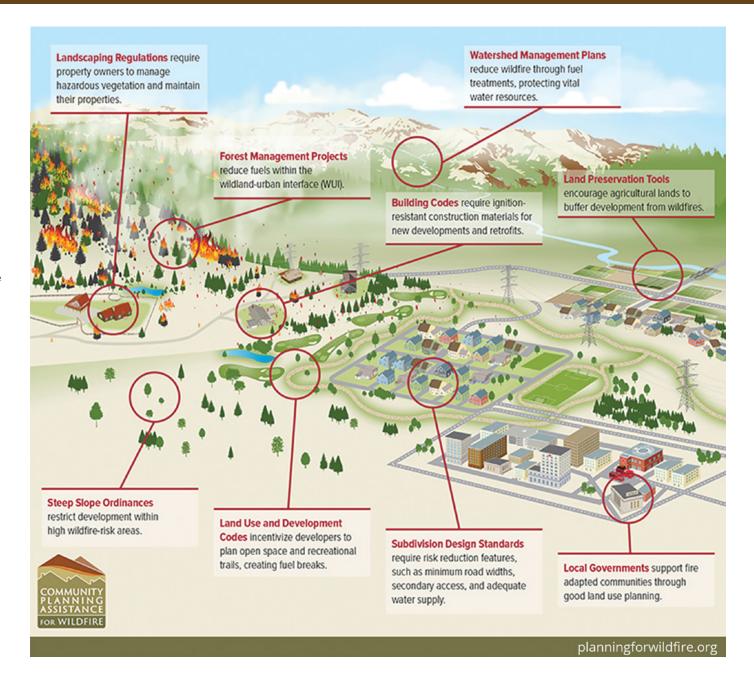
Talk to your neighbors about making your community a Firewise USA ® site.

# Land use planning tools to reduce wildfire risk

Land use planning is a critical element of a Fire Adapted Community. It can reduce wildfire risk by helping communities keep wildfire in mind as they plan for future growth and development.

Planning decisions that address wildfire risk include using wildfire-specific building codes in areas of high wildfire risk, requiring adequate road and water supplies for firefighting & evacuation operations, and implementing ordinances that require vegetation maintenance in the Home Ignition Zone.

To develop and implement planning decisions that fit your community, it is important that local stakeholders are engaged throughout the process. Each community is unique and will use steps and strategies that are the best fit for its collective needs.



Alongside community planning, preparedness, and prevention, active forest management is one of the most powerful tools to reduce the risk and severity of wildfire. While active management cannot eliminate wildfires, it can help moderate fire behavior, reduce the severity, and limit the risk of ember production under certain fire conditions. This type of forest management can also create safer conditions for firefighters.

The actions that a community can take to become more fire adapted are numerous and will vary from one location in Montana to the next. By following the steps and guidelines suggested here, you can make your home and family more fire adapted. By talking to your neighbors about these steps, you can make your neighborhood more fire adapted. And by engaging year-round in local, state, and regional efforts to create fire adapted communities, you can support these efforts far beyond your own backyard.



## What is a community wildfire protection plan?

A community wildfire protection plan, or CWPP, is a strategic wildfire preparedness plan developed by the local fire department, federal and state land managers, local governments, and communities. They are designed to provide a roadmap for wildfire mitigation efforts at multiple scales, as well as across land ownerships. Having a strong, collaboratively developed CWPP in place assists in planning for, responding to, and recovering from wildfire events in order to foster more fire adapted communities. Learn more at <a href="https://www.fireadaptedmontana.org/cwpp">www.fireadaptedmontana.org/cwpp</a>.





To learn more about how you can get involved in creating fire adapted communities in Montana, check out: www.fireadaptedmontana.org.



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