



# Prescribed Burns

## What are they & why do them?

There are many benefits to properly planned and controlled prescribed burns. Prescribed burning is an extremely cost-effective way of reducing the spread of weeds, removing dead vegetation, minimizing the spread of pests, insects and diseases (can help control tick populations), recycling nutrients back into the soil, and promoting biodiversity.

### What is a prescribed burn?

A prescribed burn, also called a controlled burn, is a maintenance practice performed by trained professionals that entails burning the land with intentionally set fire as a management strategy. This practice is used to ensure ecological health, diversity, and specific land management goals.

Burning naturalized areas every 1-3 years should replace the need to remove invasive species by hand or with chemicals.

Many ecosystems are vitally linked to fire. Prescribed burns have been an important management tool for maintaining and enhancing certain natural areas throughout history; contemporary prescribed burning is directly adapted from the cultural practice Native Americans performed seasonally for millennia as part of their intimate relationship with the land.

### What are the benefits of prescribed burns?

They assist in managing and reducing invasive weeds and other undesirable vegetation and helps control detrimental pests and the spread of disease.

They help return nutrients back to soil from the residue of the burned-off dormant perennial plant material (grasses and flowering forbs) from the previous growing season.

They promote more vigorous growth of native plants by building soil ecology; the sun exposure warms the dark soil which also encourages plant vitality. Some native plants actually require a fire to activate seed germination, allowing the native system to propagate and become more resilient and diverse over time.

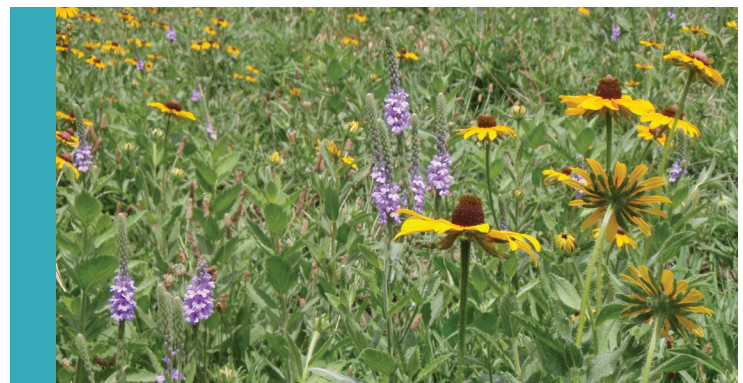
Fire-managed native plantings provide critical habitat for wildlife and help keep Michigan's natural ecosystems healthy and productive. ([michigan.gov](http://michigan.gov))



*Trained professionals doing prescribed burn.*



*Area after prescribed burn.*



*Native plants thriving after prescribed burn.*

## When do prescribed burns generally take place?

Prescribed burns usually happen within short windows in the spring and the fall to burn off the previous season's dead foliage. These seasonal windows are based on the ecological cycles of plants (when they are dormant), and when temperature, humidity, and wind conditions are suitable. In new restorations, spring burning usually favors grassier prairies and fall burns tend to support more flowery meadows, however, neither is exclusive and it is most important to burn when the right conditions are present.

There is typically a shorter window between the first hard frost and snowfall, making it harder to schedule fall burns, although this more closely mimics aboriginal practices.

There is a longer window of time between spring snow melt and early foliage growth, making scheduling somewhat easier.



*Prescribed burn in progress.*

## Is it safe to do a prescribed burn, and can they get out of control?

It is safe to do prescribed burns in parks and most places because they are safe and highly managed, unlike a wildfire that is unintentional and can be hard to contain. Ultimately if prescribed burns are done regularly they can help limit the spread and reduce the impacts of a wildfire.

To ensure safety and minimize smoke emission, trained crews carefully time the burn for a specific range of temperature, wind direction, wind strength, humidity, and ground moisture conditions. Trained fire staff use specialized equipment to prepare for, light and control the fire. Throughout the burn, they monitor safety, site conditions and the weather.

Prescribed burning is done in close collaboration with municipal fire departments; in Detroit a permit is required from the Fire Chief before the day of the burn. Typically, a fire official is on-site during the burn and the local fire units are aware and on the ready if needed.

## Where do the insects and butterflies go when an area is burned? Are they harmed?

Although a few overwintering insects may be affected by a burn, generally the result is a healthier ecosystem that ensures better habitat for native insects, including butterflies and other beneficial pollinators, to sustain and thrive.

## Does it cause air pollution?

The prescribed burn will create some smoke, which is largely water vapor with very little particulate matter, and odor similar to a wood fire. While controlled burning does cause some air pollutants to be temporarily released, a healthy native ecosystem adapted to fire will remove more carbon dioxide and produce more oxygen in the years following the burn.

To put into perspective, substantially fewer emissions are produced from a prescribed burn than the exhaust emitted from mowing a comparable area of turf grass with a gas mower, especially if done on a frequent basis.



*Smoke during prescribed burn.*

## For more information visit:

### Michigan DNR Prescribed Fire Explained

<https://www.michigan.gov/dnr/managing-resources/forestry/fire/prescribed-fire-explained>

### Michigan Prescribed Fire Council

<https://www.firecouncil.org/>

### Michigan United Conservation Clubs

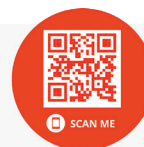
<https://mucc.org/prescribed-fire-as-a-habitat-management-tool-in-michigan/>

### Land Conservancy of West Michigan

<https://naturenearby.org/prescribedburnnotice/>

### Michigan Natural Resources and Environmental Protection Act - prescribed burning

<https://bit.ly/mnrepa>



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