



## Brush burning, bonfires and burn barrels

# Outdoor burning in your township

*You don't have to look far to find someone burning brush, enjoying a bonfire or even burning trash. Outdoor burning is common in townships throughout Michigan. Unfortunately, its impact on the health and safety of those living nearby is often overlooked.*

*Township officials have a tough job when it comes to managing outdoor burning in their communities. Although outdoor burning can present risks to property and health, limiting what residents can do on their personal property is not easy or popular. In this article, we'll examine the state regulations regarding outdoor burning, discuss upcoming changes to those regulations, and share why township officials should be concerned. We'll also explore some viable options for taking the heat out of contentious outdoor burning issues.*

### **DNRE OPEN BURNING REGULATIONS**

Many townships, cities and villages throughout Michigan have their own ordinances that address outdoor burning. However, municipal officials may not know that outdoor burning is also regulated at the state level under air, waste and forest fire regulations (Parts 55, 115 and 515 of the Natural Resources and Environmental Protection Act). These regulations identify when a burn permit is required, as well as what type of waste can be burned. A summary of these regulations is provided below. It's important to note that townships can have ordinances that are more restrictive than these regulations, but cannot have ordinances that are less restrictive.

**Burn permits.** The forest fire regulations require that a burn permit be obtained prior to conducting any burning outside of a burn barrel when the ground is not snow covered. In northern Michigan, burn permits are issued by the Michigan Department of Natural Resources and Environment (DNRE). In

southern Michigan and some larger communities throughout the state, burn permits are issued by the local fire department. Information about burn permits and where they can be obtained can be found at the DNRE's burn permit website, [www.michigan.gov/burnpermit](http://www.michigan.gov/burnpermit).

**Trees, logs, brush and stumps.** Air and waste regulations allow the open burning of trees, logs, brush and stumps as long as the burning occurs at least 1,400 feet outside the limits of an incorporated city or village. There are some other areas that the DNRE considers "priority areas" where burning this material is not allowed. A list of these priority areas is available at [www.michigan.gov/openburning](http://www.michigan.gov/openburning); click on "Michigan Open Burning Laws and Rules."

**Leaves and grass clippings.** Open burning of leaves and grass clippings is prohibited in municipalities with a population over 7,500, unless a local ordinance specifically allows the practice. In such cases, the local government must submit the ordinance to the DNRE.

**Recreational fires (campfires).** Recreational fires are allowed.

**Fire suppression training.** Open burning of a structure for the purpose of fire suppression training is allowed. However, the fire department must follow basic environmental protection guidelines, which are identified in a fact sheet available at [www.michigan.gov/openburning](http://www.michigan.gov/openburning) under "Fire Department Suppression Training."

**Household trash burning.** Household trash includes plastics, foam, treated wood, paper and other rubbish generated at a household. Currently, Michigan open burning rules allow the burning of household waste from a one- or two-family dwelling.

However, that will soon change. The DNRE is updating its open burning rules to eliminate the current exemption that allows the burning of household trash. The change will take effect on April 1, 2011, and is discussed in more detail below.

**Outdoor wood-fired furnaces (also known as outdoor wood-fired boilers or hydronic heaters).** Outdoor wood-fired furnaces (OWFs) are a common source of air pollution in townships throughout the state. Improperly designed, installed and operated OWFs can lead to excessive emissions and adversely affect the air quality and health of nearby residents. These problems can intensify if the stack is not high enough to allow for adequate dispersion of the pollutants, or if the unit is not designed properly.

Currently, the DNRE does not regulate residential OWFs and typically defers complaints to the local unit of government. The DNRE recommends that townships develop ordinances to regulate these units by addressing the nuisance and health issues that can be caused by improperly designed, placed and operated OWFs.

Commercial OWFs may require an air permit from the DNRE. Residential and commercial units normally require a mechanical permit.



## Health risks of burning trash

Chemicals from the burning of household trash may include hydrogen cyanide, sulfur dioxides, polycyclic aromatic hydrocarbons, benzene, lead, mercury and dioxin. The fine particulate matter, containing a variety of chemicals, can have acute and chronic health effects on exposed people including cardiovascular and respiratory conditions (e.g., asthma). Long-term and repeated exposure to some of the chemicals emitted during trash burning have been shown to impair neurodevelopment in children, the immune system, reproductive system, and thyroid function. Some pollutants have been shown to contribute to the onset of diabetes and cancer.

Many of these pollutants emitted can persist in the environment, resulting in future exposures to both people and wildlife. People conducting open burning of household trash as their main method of disposal will frequently be exposed to these hazardous substances. People living in the surrounding area (i.e., neighbors within several hundred feet) will also be frequently exposed to these hazardous substances.

## UPCOMING CHANGES TO OPEN BURNING REGULATIONS

Township officials should be aware that upcoming changes to open burning regulations will eliminate the current open burning exemption that allows the burning of household trash. After April 1, 2011, the exemption that allows residents to burn their trash will *no longer exist*, and it will become illegal to open burn residential trash under state regulations.

The amendments also add three open burning exemptions that will allow the burning of contraband by a police agency, prescribed burns, and the burning of diseased or infested wooden apple bins. The amendments will not change the provisions that allow the burning of leaves, brush and other yard clippings, nor will they prohibit recreational campfires.

The changes reflect the DNRE's increased knowledge of the risks associated with the burning of household trash (*see sidebar above*) and the changes that have occurred in availability of waste disposal throughout the state. The current



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provisions that allow the burning of household trash were added more than 30 years ago when the make-up of our trash was much different, as was the availability of waste disposal services. Along with an increased volume of household trash, composition of the waste now includes treated paper, plastics, foam, metals and other man-made materials. Open burning this type of trash emits contaminants that can have both long- and short-term health effects on exposed people, especially those with cardiovascular and respiratory conditions such as asthma. Over the last decade, numerous studies have demonstrated that the fine particulate matter created from burning is far more hazardous to people's health than previously known.

Trash burning can also cause a significant number of wildfires and property fires throughout the state, and generate numerous smoke and odor complaints. Michigan is not the first to update its regulations. In fact, Michigan is the only state in the Great Lakes region that does not prohibit or restrict trash burning. Nationally, 40 states restrict or prohibit the activity under rule or statute.

**HOW WILL THESE CHANGES AFFECT YOUR TOWNSHIP?**

Townships will *not* be required to adopt these changes in a local ordinance. Rather, the DNRE hopes that local units of government will use these changes as a foundation on which to create their own ordinances, or use the changes to address specific open burning situations in their communities when an ordinance does not exist. By eliminating the current exemption that allows the open burning of household trash, the DNRE is no longer promoting or condoning this activity as a waste disposal option under the state rules, which will make it easier for local governments to pass similar ordinances if they choose to do so.

It is important for residents and local officials to know that the DNRE does not intend to actively target residents for enforcement of this rule, but rather will implement the changes through education and outreach in coordination with local units of government. The immediate concern of the DNRE is protecting the health of those adversely affected by trash burning.

It is expected that any necessary enforcement will be complaint driven and conducted by the local units of government or the DNRE, as needed. For example, if a township official has to respond to a complaint about a resident's trash burning adversely affecting the health or property of another, that official will have a regulatory means by which to address the problem. If no local ordinance exists, the state rule can be cited.

**RECOMMENDATIONS TO TOWNSHIPS**

There are several ways that townships can minimize the risks associated with outdoor burning.

**1) Evaluate your township's current outdoor burning ordinances—or need for one.** While not required, townships may wish to create or update their outdoor burning ordinances. Having an ordinance to address activities like trash burning, leaf burning and OWFs can reduce the risk associated with out-of-control fires and protect the most vulnerable members of your community from the health problems associated with burning.

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Additionally, an ordinance gives the township a tool through which to manage outdoor burning complaints. The DNRE has created a model ordinance that can be used to address outdoor burning issues in your community at [www.michigan.gov/openburning](http://www.michigan.gov/openburning) (click on "Model Ordinance").

Keep in mind that for some activities like OWFs and brush burning, an all-out ban may not be the right answer. The township board must weigh the needs of the community and come up with creative solutions. While the long-term goal may be to eliminate some types of open burning in your township, the township may have to consider a more modest, short-term approach—such as restricting burning to certain areas or including a nuisance provision in the ordinance that will allow the township to deal with complaints from neighbors who are adversely affected. For example, brush burning could be restricted to certain times or areas. Similarly, the township may choose to allow OWFs only in specific areas of the township, to minimize exposure of nearby residents to the air emissions.

While state regulations can be used as the minimum guidelines, the township ordinance can be more restrictive. The state's model ordinance provides both the minimum restrictions that should be required and additional restrictions that may be incorporated to suit the needs of your community.



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## Reasons for concern

Whether you view burning as a recreational activity, necessity or nuisance, the fact is that outdoor burning involves fire and creates smoke, which inherently poses some risks.

These risks have the potential to affect the safety and well-being of residents, the environment and even relationships between neighbors. Township officials should consider three basic principles about outdoor burning when weighing these risks.

**1) Smoke is unhealthy.** At its best, smoke is a nuisance that irritates the eyes, throat and lungs. At its worst, smoke can be life-threatening, especially to those with certain health conditions. Smoke is made up of particulate matter and toxic air contaminants that are present in varying levels depending on the material being burned. Small children, the elderly, and people with pre-existing respiratory and cardiovascular conditions can be especially vulnerable to fine particulate matter exposure. Significant amounts of particulate matter generated from outdoor burning have been shown to enter inside homes. Once particulate matter enters a house, it can circulate in the air for at least several hours, extending people's exposure to the hazardous substances. *Given that the smoke generated by outdoor fires can pose serious health risks to some individuals, has your township considered the effects that open burning will have upon nearby residents prior to allowing such burning to occur?*

**2) Fire is dangerous.** While this point may seem obvious, outdoor fires are often taken for granted. Although many residents use fire responsibly, some do not. One case of neglect can jeopardize the health and safety of many. Unattended fires, unfavorable weather conditions, failure to properly extinguish a fire, and burning too much or the wrong type of material can have serious consequences. Outdoor fires have the potential to get out of control, and cause significant damage to property and life.

The cost and safety concerns related to extinguishing out-of-control fires fall upon township fire departments and the Department of Natural Resources and Environment (DNRE). The DNRE estimates 30 percent of all wildfires are caused by debris burning, and the State Fire Marshal's office estimates hundreds of thousands of dollars in property damage are caused annually by outdoor burning. *Considering the potential risks associated with allowing residents to maintain outdoor fires, has your township considered ways to minimize the likelihood of out-of-control fires from outdoor burning?*

**3) Fire and smoke do not respect property lines.**


Unfortunately, fire can cross property lines and smoke has a tendency to drift wherever it likes. This can cause serious problems between neighbors. A resident's right to burn freely on their property can directly infringe on a neighbor's right to open windows and enjoy fresh air. This conflict is played out in townships throughout the state, and township officials are usually caught in the middle. *Does your township have ways to address situations where one person's regular burning affects neighbors' health or the simple enjoyment of their property?*

2) **Keep residents informed.** In addition to evaluating township ordinances, it is important that residents are aware of the impact their burning may have on the environment—and their neighbors. Some residents who burn may not realize that their actions are impacting the health and well-being of those around them. Most people want to be good neighbors. If your township receives a complaint, a simple call or letter to the resident doing the burning to notify them of the concern may be all it takes to resolve the matter. Enforcement under a local ordinance or state regulation can be used as a last resort.


The township can also offer materials to educate residents in your community. These materials can be provided to residents who receive burning permits, be made available at fire stations, township offices, or by adding the link to your township website. Sample materials are available at [www.michigan.gov/openburning](http://www.michigan.gov/openburning), or by calling (800) 662-9278. ■

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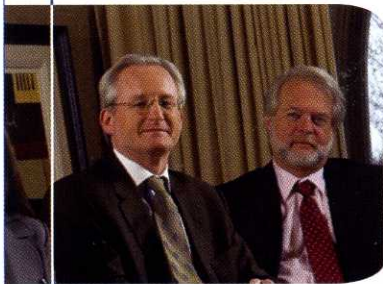
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