

Draft

Model Municipal Code of Practice for Open Air Burning in Ontario



December 2010

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**Model Municipal
Code of Practice for
Open Air Burning in Ontario**

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Prepared by

**The Clean Air Partnership and the
Ontario Ministry of the Environment**

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Ontario Ministry of Municipal Affairs and Housing
Ontario Ministry of Natural Resources
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Santa Rosa, California
State of Illinois
State of Michigan
State of Minnesota
State of Wisconsin
The Township of Muskoka Lakes, Ontario

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Introduction

While open air burning may seem harmless, it can potentially cause air pollution and potential health problems, as well as creating visible haze and nuisance concerns. These concerns can come from burning clean dry wood, yard waste such as tree branches, leaves and grass, solid-waste barrel burning, campfires and chimeneas, agricultural burning and burning at landfills.

The *Model Municipal Code of Practice for Open Air Burning in Ontario* was developed by the Ontario Ministry of the Environment and the Clean Air Partnership to provide municipalities with an outline of by-law elements found in some North American jurisdictions addressing outdoor wood and brush burning pollution problems. A municipality may consider these model by-law elements to create their own by-laws to address nuisance air issues and to prevent fires from spreading. By engaging best practices to curtail open burning, this Code should help to reduce the number of nuisance complaints that municipalities respond to each year.

Municipal action to reduce wood burning will give rise to co-benefits in reduced emissions of fine particulate matter, volatile organic compounds, and black carbon (soot) thereby improving local air quality, helping to reduce greenhouse gases and address climate change. Reduced burning of waste in burn barrels will result in reduced emissions of dioxins and furans in the municipality.

When developing its own by-laws, fire permit programs, or programs to manage open burning, municipalities should ensure that their practices are suited or modified to fit their particular needs, consideration of factors such as terrain, population density, burn frequency, meteorology and socio-economic situations. Appendices 1-4 of this Code provide municipalities with templates that may be used for public awareness campaigns on open burning.

The Code also provides guidance on wood-burning curtailment in response to the Ministry of the Environment's smog advisories, and complaint response strategies –all of which

provide useful reference points for enforcement of wood smoke problems.

Ontario's air quality index may initiate a winter or summer smog alert in any part of the province which in turn can mobilize a municipal response to curtail wood-burning emission sources and protect health. Addressing heavy wood-burning activity is an important responsibility especially when atmospheric conditions may prevent smoke from dispersing away from a community or region.

In addition, particulate matter from wood-burning appliances and fireplaces, among other sources, may also contribute to local air quality concerns. The Ministry of the Environment has therefore also prepared the complimentary *Model Municipal Code of Practice for Wood-Burning Appliances in Ontario* to address this issue. Municipalities may rely on both the Code of Practice for wood-burning appliances and the Code of Practice for open air burning to help to address the effects from multiple sources of burning.

Finally, this Code for open air burning is intended mainly for southern Ontario municipalities. Under O. Reg. 207/96 (Outdoor Fires) of the Forest Fires Prevention Act (FFPA), southern Ontario municipalities are authorized to pass by-laws governing the setting of open air fires. In northern Ontario however, the Ministry of Natural Resources (MNR) retains the right to restrict all setting of fires within the fire regions. Municipalities in all regions of the province should check with their local MNR Offices to discuss plans for new or revised open air burning by-laws.

Important: Municipalities should obtain legal advice when drafting and developing their own by-laws. Nothing in this Code of Practice should be construed as legal advice nor should any provisions contained herein be relied upon in lieu of obtaining legal advice. The by-law elements provided in this document are only provided as guidance and do not represent a comprehensive by-law. Municipalities with existing by-laws which are more stringent than those listed in the code should maintain those requirements.

Open Air Burning By-Law Elements

The following by-law elements were developed based on best practices adopted from leading jurisdictions that govern OPEN AIR BURNING. This document is intended solely as an aid for municipalities who wish to put in place a municipal by-law for regulating open air burning. Municipalities may want to seek public input for by-law development in order to address local wood burning issues.

In addition, the Municipal Act, 2001 contains provisions governing the allocation of by-law making powers between upper-tier and lower-tier municipalities. When drafting by-laws based on the information in this Code of Practice, upper-tier and lower-tier municipalities should obtain legal advice to determine which municipality has the authority under the Municipal Act, 2001, or under another act, to enact a provision or best practice suggested in this Code. In some cases it may be necessary for upper-tier and lower-tier municipalities to coordinate their efforts to achieve their desired objectives.

Websites that do not respond when clicking on their links in this document may be copied into a web page browser for access to that site.

Part 1: Definitions

1.1 Adverse Effect includes:

- (a) impairment of the quality of the natural environment for any use that can be made of it,
- (b) injury or damage to property or to plant or animal life,
- (c) harm or material discomfort to any person,
- (d) an adverse effect on the health of any person,
- (e) impairment of the safety of any person,
- (f) rendering any property or plant or animal life unfit for human use,
- (g) loss of enjoyment of normal use of property,
- (h) interference with the normal conduct of business, and
- (i) nuisances including, but not limited to, excessive smoke, odour, dust, airborne sparks, embers or reduced visibility on roadways, railways or airfields.

1.2 Burn Barrel or Solid Waste Barrel

Burner means a steel drum or barrel used for burning wood waste.

Note: Burn barrels are typically 45-gallon steel drums used to burn residential garbage. In many parts of Ontario, including both urban and rural areas, people might burn mixed residential waste and woodwaste. In agricultural areas, feed bags and other commercial waste packaging are also burned. Other terms for this practice are “backyard burning” or “open burning”. Burning waste in a burn barrel may potentially release hazardous contaminants. These fires tend to be inefficient and smoke stays close to the ground, which limits dispersion. Recent studies have indicated that residential garbage burning, which is more prevalent in rural areas, is a significant source of dioxins and furans¹.

1.3 Campfire means a fire designed for cooking or warmth that meets the following conditions:

- (a) the site of the fire is bare rock or other non-combustible material
- (b) the space above the one metre area around the fire is at least three metres from vegetation; and,
- (c) the fire does not exceed one metre in height and one metre in diameter.

1.4 Chief Fire Official means the local municipal Chief Fire Official as defined in the Ontario Fire Code (O. Reg. 213/07).

1.5 Clean Dry Wood means firewood and woodwaste that has been allowed to dry. **Note: “dry” refers to moisture content less than 20 per cent.**

1.6 Fire Regions are the areas of the province described in the schedules to O. Reg. 207/96 as the West Fire Region and the East Fire Region.

1.7 Fire Season means the period from the 1st day of April through the 31st day of October as defined in the Forest Fires Prevention Act.

1.8 Municipal Authority means the local municipality, Municipal By-Law Enforcement Officer, or a person designated by the local municipality to issue permits and authorizations for enforcement of Open Air Burning, Indoor Wood-Burning Appliances, or Outdoor Fireplace Units.

1.9 Open Burning or Open Air Burning means any fire or burning practice that is conducted outside a building including but not limited to bonfires, fires in burn barrels, outdoor recreational fireplaces, construction site and demolition site fires, but does not include the following:

¹ Great Lakes Binational Toxics Strategy 2004. Burn Barrel Subgroup, Strategy/Implementation Plan for Reducing the Prevalence of Household Garbage Burning

(Barrel Burning) in Rural Areas of the Great Lakes (www.openburning.org).

- (a) the operation of welding or similar equipment;
 - (b) the operation of a coal or wood-fired locomotive or boat;
 - (c) a prescribed burn that is part of a forestry process;
 - (d) an appliance which is fueled by natural gas, propane, charcoal, briquettes, including but not limited to a manufactured or non-manufactured barbeque, fireplace or fire pit
 - (e) campfires for the purpose of essential cooking or warmth;
 - (f) burning of materials for fire suppression training, testing of fire fighting equipment or law enforcement purposes.
- 1.10 Outdoor Fireplace Unit or Recreational Fireplace Unit** means a: manufactured wood-burning appliance, site-built masonry fireplace, fire pit, chimeneas, clay or metal fireplaces, portable wood-burning devices used for outdoor recreation or heating, or other enclosed containers that are used outdoors and that are not fueled by natural gas or propane and are designed to hold a small fire, not exceeding one metre (3.2 feet) in any direction; but does not include pellet fuelled barbeques or 'wood-waste' combustors defined under O. Reg. 347/90.
- 1.11 Owner** means the person who owns the property on which an Outdoor Fireplace Unit is installed, or the person who owns the property on which Open Air Burning is conducted or the person responsible for conducting the Open Air Burning.
- 1.12 Prescribed Burning** is the deliberate, planned and knowledgeable application of fire by authorized personnel and only in accordance with Ministry of Natural Resources legislation, policy and guidelines to a specific land area to accomplish pre-determined forest management or other land use objectives.
- 1.13 Restricted Fire Zones** are regions defined by O. Reg. 207/96, where the Ontario Ministry of Natural Resources retains the right to restrict all fires.
- 1.14 Sensitive Receptor** may include a childcare facility, healthcare facility, a senior citizens' residence, long-term care facility, educational facility, environmentally sensitive area, or other place where smoke may have a greater risk to health or the environment.
- 1.15 Smog Advisory** is a public health warning issued through the media by the Ontario Ministry of the Environment during periods of deteriorated air quality due to smog (see www.airqualityontario.ca)
- 1.16 Strike** has the same meaning as in the Labour Relations Act, 1995.
- 1.17 Urban Area** is an area with a population of at least 1,000 and no fewer than 400 persons per square kilometre, as defined by Statistics Canada.
- 1.18 Waste** includes garbage or refuse materials from residential, commercial, agricultural, industrial or institutional establishment.
- 1.19 Woodwaste** means, tree trunks, tree branches, brush, or wood products that do not contain:
- i. chromated copper arsenate, ammoniacal copper arsenate, pentachlorophenol, creosote, pesticides, or paint,
 - ii. easily removable hardware, fittings and attachments, unless they are predominantly wood or cellulose, or
 - iii. plywood or composite wood products containing varnish or glue;
 - iv. an upholstered article, or
 - v. an article to which a rigid surface treatment is affixed or adhered, unless the rigid surface treatment is predominantly wood or cellulose.
- Note: this definition enables burning of clean woodwaste while contaminated woodwaste would not be suitable for burning under this code of practice.**

Part 2: Open Air Burning Requirements

SECTION 1: PURPOSE

This By-Law is intended to promote public health, safety and protect the welfare of the inhabitants of the municipality from air pollution, nuisances and fire hazards associated with outdoor open burning.

Open air burning in Ontario generally occurs in rural locations where the risk of public exposure to smoke is lower, relative to urban locations. Many urban centres have prohibited open burning due to the risk of exposure to smoke, nuisances and fire spreading. In rural areas, open air burning is considered a convenient method of clearing brush when no other practical method is available. This type of burning is for large volumes of brush, trees, and stumps, and is particularly useful for agriculture and forestry.

Municipalities may choose to enact elements of this Code for the development of their by-laws.

SECTION 2: APPLICABILITY

This By-law applies to all outdoor open burning within the municipality. Part 2 does not apply to:

- 2.1 Grilling or cooking using charcoal, wood, wood pellets, propane or natural gas in cooking or grilling appliances.
- 2.2 Use of propane, acetylene, natural gas, gasoline or kerosene in a device intended for heating, construction or maintenance activities.
- 2.3 Structures that may be burned exclusively for fire suppression training, or testing of fire fighting equipment, provided that all asbestos materials have been removed from the structure and the structure has been inspected by a licensed asbestos inspector.
- 2.4 Burning of materials for law enforcement activities as authorized by the municipal

authority or other law enforcement authority.

- 2.5 Forest operations on Crown Land, which are regulated under the Crown Forest Sustainability Act, 1994 or where the prescribed burns must comply with the Prescribed Burn Manual published by the Ministry of Natural Resources.
- 2.6 Restricting private campground or provincial park operators from permitting campfires covered under the Forest Fires Prevention Act.
- 2.7 Burning of explosive or dangerous material by police or other public safety organization, for which there is no other safe means of disposal.
- 2.8 Burning clean wood at solid waste disposal sites, if carried out in accordance with a Certificate of Approval issued under the Environmental Protection Act.

Note: Municipalities and private landfill owners and operators must comply with O. Reg. 232/98 "Landfilling Sites". In addition, the Ministry of Environment has published several guidelines for landfills including C-7 Burning at Landfill Sites² and Landfill Standards Guideline PIBS 3651E³. All operations of a landfill must also comply with any terms and conditions of a Certificate of Approval issued by the Ministry of the Environment for that site. No burning of any kind should take place at a landfill site, unless specifically allowed by the Certificate.

In addition, operators of landfill sites are encouraged to consider alternatives to burning wood, such as producing

² <http://www.ene.gov.on.ca/envision/gp/C7.pdf>

³ <http://www.ene.gov.on.ca/envision/gp/3651e.htm>

woodchips to be used for dust control on the roads, drainage, erosion control and alternative daily cover at the site, or other uses. Alternatively, clean dry wood may be accepted at thermal treatment sites and facilities.

SECTION 3: GENERAL PROHIBITION OF OPEN AIR BURNING

Open burning is prohibited by the Ontario Fire Code in **[municipality name]** unless the burning is specifically exempted in this bylaw.

Open air burning shall also be conducted in conformance with the Forest Fires Prevention Act, where applicable.

- 3.1** No combustible material shall be set fire to or burned out of doors without permission in writing first being obtained from the Chief Fire Official or other Municipal Authority in the **[municipality]**, and then only subject to such terms and conditions as are stated in the permission.
- 3.2** Notwithstanding any of the provisions of this **by-law**, if at any time in the opinion of the Chief Fire Official or other Municipal Authority, it is necessary for the prevention or spread of fire or nuisance, respectively, that any fire should be extinguished, the person responsible for, or in charge of, or on whose property the fire is located, shall forthwith extinguish the fire on notice of the said Chief Fire Official or Municipal Authority to do so, or the Chief Fire Official or Municipal Authority may take such steps as he/she deems necessary to cause any such fire to be extinguished forthwith.
- 3.3** No open burning shall be undertaken during periods when the Ministry of the Environment has issued an Smog Advisory or Smog Alert applicable to the area, and no burning shall take place if it is rainy or foggy **[Note: municipalities are advised to call a burning ban in the event of a smog advisory. To subscribe to the Smog Alert Network and receive smog notifications by e-mail go to www.airqualityontario.com].**
- 3.4** No open burning shall be undertaken during periods of dry conditions or drought or when a local fire ban has been declared pursuant to **section 3.6** of this **by-law**.
- 3.5** Open air burning must not be started earlier than two hours before sunset, and extinguished no later than two hours after sunrise the following day, or earlier, during the fire season **[Note: Some municipalities with volunteer fire departments may want to require burning during times of the day when firefighters are more likely to be available. Other municipalities may limit burning to only daylight hours. The municipality may also limit the times of year when open burning is acceptable, such as months with low fire hazard or times when snow cover is present. Any changes to fire times should not conflict with O. Reg 207/96].**
- 3.6** The Chief Fire Official may declare a total ban against outdoor burning when atmospheric conditions or local circumstances make such fires hazardous, including the discharge of fireworks. The public shall be notified that a fire ban is in affect on local radio, television stations and the **[municipality's]** website. Posters advertising the ban will be posted at the **[municipality's]** offices and all Post Offices within the **[municipality]**.
- 3.7** No materials may be burned upon any street, curb, gutter or sidewalk or on the ice of a lake, pond, stream or body of water.
- 3.8** Open air burning shall be constantly attended and supervised by a competent person of at least eighteen (18) years of age to ensure that the fire is kept under control and until the fire is extinguished and the ashes and other residues are cold. The person shall have readily available for use such fire extinguishing equipment as may be necessary for the total control of the fire.

- 3.9 No person shall allow or permit a fire to spread beyond the fire pit.
- 3.10 No person conducting open air burning shall create an adverse effect.

SECTION 4: OPEN BURNING OF WASTE

- 4.1 Open burning of waste from residential, commercial, agricultural or industrial establishment is prohibited.
- 4.2 Open burning of the following materials is prohibited:
 - 4.2.1 Construction and demolition waste or materials including roofing tiles or shingles
 - 4.2.2 Hazardous substances including but not limited to batteries, household chemicals, pesticides, asbestos, used oil, gasoline, paints, varnishes, and solvents
 - 4.2.3 Furniture and appliances
 - 4.2.4 Tires and rubber materials
 - 4.2.5 Any plastic materials including but not limited to nylon, PVC or ABS plastics, polystyrene or urethane foam, and synthetic fabrics, plastic films and plastic containers
 - 4.2.6 Newspaper, cardboard, office paper
 - 4.2.7 Treated or painted wood including but not limited to plywood, composite wood products or other wood products that are painted, varnished or treated with preservatives.
- 4.3 Open air burning of leaves and grass clippings is prohibited ***[Note: leaves attached to limbs can be burned]***.

SECTION 5: BURNING BRUSH, TREE LIMBS, LOGS, AND STUMPS

- 5.1 Notwithstanding Section 3, large open air burning (bonfires) of tree limbs, logs, brush, and stumps is allowed, unless otherwise permitted, only in accordance with all of the following provisions:
 - 5.1.1 A fire permit issued in accordance with Part 5 (Brush & Logs –

Appendix 4) of this by-law must be obtained prior to open burning under this section between April 1st and October 31st *or when the ground is not snow covered.*

- 5.1.2 The burning of limbs, logs, brush, and stumps must be in a single pile that is less than three metres (10 feet) in diameter and less than two metres (6.0 feet) high, or burning must be inside of a 45 gallon (205 litres) burn barrel ***[Note: municipalities may decide if they would rather prohibit 45 gallon drum burning altogether]***.
- 5.1.3 Open burning under this section shall only be conducted at a location at least **[insert a distance appropriate for the municipality]** (e.g., 33 m (100 feet), 75 m (250 feet) or other greater distance) from the nearest building which is not on the same property.
- 5.1.4 No burning shall be undertaken within **[insert distance]** (e.g., 15-45 m (50-150 feet) or other appropriate distance) between the fire and any forested area, tree or shrub, highway, property line, overhead wire, building or other built structure.
- 5.1.5 A perimeter around the fire of at least **[insert distance]** (e.g., 4.5 m (15 feet) or other appropriate distance) must be clear of combustible material such as ground cover.

SECTION 6: SMALL CONFINED FIRES

Outdoor recreational fires and fires for cooking, or burning of small brush piles outside of urban areas are allowed provided they do not cause a nuisance. Open air fires, unless permitted under Part 3 - Recreational Fireplace Units, are prohibited in urban areas. ***[Note: municipalities will need to decide if fire permits will be required for small confined fires in rural areas]***:

- 6.1 A person may set or cause to be set a small, confined campfire for cooking or

heating *without a permit* only in accordance with O. Reg. 207/96 Outdoor Fires.

- 6.2 The fire shall not exceed one metre (3 feet) in diameter, or one metre (3 feet) in height.
- 6.3 No burning shall be undertaken within **[insert distance]** (7.5 m (25 feet) or other appropriate distance) from any combustible building material, or partition, exterior window opening, overhead wire, exit access or exit unless authorized by the Fire Chief **[Note: for practical reasons, this section does not apply to campfires where a 3 m (10 feet) radius from nearby woodland is required under O. Reg. 207/96 Outdoor Fires].**

SECTION 7: LABOUR STRIKE

Open air burning during a strike shall only be conducted in accordance with a permit issued under Part 5 of this by-law, which contains the following additional requirements:

- 7.1 Only one burning device shall be used at each location. Fires to be confined to containers no larger than a 45 gallon drum or barrel.
- 7.2 Only clean dry wood may be burned and must be kept a minimum of one metre away from the burn barrel.
- 7.3 No burning shall be undertaken within three metres (10 feet) of any vehicle.
- 7.4 The permit is only valid for the duration of the strike.
- 7.5 The fire is to be extinguished if it is not supervised as per *section 3.8*.

SECTION 8: AGRICULTURAL BURNING

As per provisions of the Farming and Food Production Act, 1998 and the Forests Fires Prevention Act, 1990, agricultural open air burning that is part of normal farm practices is subject, due to public safety, to municipal bans on open burning during times of high fire

hazard. **[Note: Farm operators are generally considerate of air quality advisories, local air conditions and nuisance considerations when deciding whether or not to conduct an open burn or prescribed burn to enhance soils.]**

- 8.1 Open burning of weeds, brush, and crop stubble on agricultural lands is allowed if conducted in accordance with other applicable provisions of Part 2.

Note: Farm operators should not burn refuse plastics (hay and feed bales, bale twine or mesh, etc.) that could contribute to air, soil and crop contamination. Dioxin contaminants from the burning of agricultural plastics entering crops and animal feed can bio-accumulate in the fat of farm animals and be subsequently consumed by people. Additional information on plastics recycling is available from the Ontario Ministry of Agriculture and Food^{4,5}. Additional model rules and best practices for agricultural burning including Sample Open Burning By-law, 2005 and Sample Burn Plan, available from the Ontario Ministry of Natural Resources⁶, and the "Crop Residue Management and the Forest Fires Prevention Act" pamphlet produced by the Ministry of Agriculture Food and Rural Affairs and the Ministry of Natural Resources (May 2006).

SECTION 9: SENSITIVE RECEPTORS

- 9.1 Notwithstanding sections 5, 6, 7 and 8, open air burning shall not be undertaken within **[insert distance]** (e.g., 45-83 m (150-275 feet) or other appropriate distance) from a sensitive receptor. **Sensitive Receptors include:**

- 9.1.1 A health care facility

⁴http://www.omafra.gov.on.ca/english/environment/efp/infosheet_6.htm#packaging

⁵http://www.c2p2online.com/documents/Agricl_Plastic_Recycling_Handbook_JUNE2002.pdf

⁶http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@forests/documents/report/mnr_e000528p.pdf

- 9.1.2 A senior citizens' residence or long-term care facility
- 9.1.3 A child care facility
- 9.1.4 An educational facility
- 9.1.5 An environmentally sensitive area
[list municipal sensitive areas]
- 9.1.6 A *[place]* specified by the ***[municipality]*** as a place where discharges of smoke may cause a risk to human health.

Part 3: Outdoor Fireplace Units

Use of outdoor or recreational fireplace units such as chimeneas and other similar solid fuel flame-producing products contravene the Ontario Fire Code if they are operated within the **[municipality]** and their use is prohibited.

SECTION 1: OUTDOOR RECREATIONAL APPLIANCES

(Note: Omit this section entirely if your municipality chooses not to regulate this activity).

Note: Chimeneas, patio warmers, and other portable wood-burning devices used for recreational purposes, all of which are defined as "outdoor recreational fireplace units" in this code, can be a cause of complaints. Sparsely populated rural townships will likely not need to regulate outdoor recreational units. However, if your municipality contains an urban area or has had complaints about recreational units, you should consider the following provisions for those areas. Your municipality will need to decide whether to entirely prohibit the use of recreational fireplace units, whether to allow the use of recreational units under specified conditions such as substantial minimum distances, or whether not to regulate them at all.

1.1 (Alternative 1) No person shall install, use, or maintain a recreational fireplace unit in **[municipality name]**,

or

1.2 (Alternative 2) A recreational fireplace unit shall be installed and used in **[municipality name]** in accordance with all of the following provisions:

- 1.2.1** The recreational fireplace unit shall not be used to burn waste
- 1.2.2** The recreational fireplace unit shall burn only clean dry wood
- 1.2.3** The recreational fireplace unit shall be located at least **[insert a distance appropriate for the municipality]** from any nearby

structure **[Choose a minimum distance such as 7.5 m (25 feet), 15 m (50 feet) or other greater distance as appropriate for your municipality. For the reasons cited in the introductory note to this section, a substantial minimum distance is recommended].**

1.2.4 The owner of the outdoor recreational fireplace shall obtain an annual permit from the Chief Fire Official or other Municipal Authority in accordance with Part 5 of this *bylaw* if the fireplace is located **[insert a specified distance]** from the nearest structure which is not on the same property as the recreational fireplace unit. **Note: If a permit will not be required for recreational fireplaces, omit this paragraph entirely. If a permit will be required for all outdoor recreational fireplaces, end the sentence after the word *bylaw*. If a permit will be required only if there are nearby neighbors, insert an appropriate distance such as 15 m (50 feet) or 30 m (100 feet).**

1.2.5 No open burning shall be undertaken during periods when the Ministry of the Environment has issued an Smog Advisory or Smog Alert applicable to the area, and no burning shall take place if it is rainy or foggy **[Note: municipalities are advised to call a burning ban in the event of a smog advisory].**

1.2.6 The outdoor recreational fireplace unit shall not cause an adverse effect.

SECTION 2: FIRE EXTINGUISHING

2.1 Outdoor Fireplaces Units shall forthwith be extinguished when atmospheric conditions cause any or all of the following:

- (a) The possible spread of the fire beyond the fireplace unit;
- (b) Any odour to such an extent or degree so as to cause discomfort to the persons in the immediate areas;
- (c) Excessive smoke;
- (d) A decrease in the visibility on any highway, roadway or airfield; or,
- (e) Any other adverse effect.



Part 4: Aboriginal Communities

In Ontario, municipal governments and Aboriginal communities are developing stronger relationships. Aboriginal communities may have an interest in understanding how they might be impacted by air quality issues due to open air burning and wood-burning appliances, and the opportunities available to address these issues based on the ***Model Municipal Code of Practice for Open Air Burning*** and the ***Model Municipal Code of Practice for Wood Burning Appliances in Ontario***. For instance, the traditional lands and reserves of some First Nations may be located within or adjacent to municipal boundaries. Those communities may wish to consider whether the approaches outlined in the model codes would be useful for preventing air quality deterioration and whether they could impact any burning practices conducted by the community.

Municipalities considering enacting by-laws based on the information in the Model Codes may find it helpful to contact local Aboriginal communities for a discussion of local airshed wood burning issues and the potential to take collaborative actions to address any issues identified. Strong municipal-Aboriginal relations can assist in meeting a range of objectives, including partnering on service delivery to achieve open air burning and wood burning appliance best practices.

In addition, notification of smog alerts and requests for wood burning curtailment are some actions that municipalities may want to consider as part of any municipal outreach program for Aboriginal Communities.

Part 5: Fire Permits, Complaints and Enforcement

SECTION 1: FIRE PERMITS

Fire permits are an important part of open air burning administration. They provide opportunities for public education on fire safety, smoke and environmental issues, while enabling municipalities to compile inventories on burning activities.

No person shall start or maintain any open burning or outdoor fireplace unit ***[insert where applicable]*** except under and in accordance with a fire permit issued by the ***[insert "Fire Chief", or name of other office, or title(s) of other person(s) authorized to issue burning permits]***.

The fee for each fire permit shall be ***[insert cost of permit]***. ***Note: Your municipality will have to decide whether or not to require a fee and how to collect it. Your municipality will also have to decide if a one time or seasonal fire permit would be required.***

1.1 A burning permit issued under this section shall require compliance with all applicable provisions of this *by-law* and any additional special restrictions deemed necessary to protect public health and safety. ***Note: See Appendix 4 -Sample Fire Permit to Conduct Open Air Burning – other municipal specific permit requirements based on sections of the code [by-law] could be added to the permit appendix-reverse side.***

1.2 An outdoor campfire does not require a permit provided that the fire complies with all other applicable provisions of this *by-law*.

The following sub-sections 1.3-1.5 should be clearly identified in all open burning and outdoor fireplace fire permits:

1.3 Atmospheric Conditions: Burning should be carried out only when prevailing weather and atmospheric conditions are suitable. Burning should not be carried out when:

- (a) Rain, fog or smog appears to be present; smoke cannot disperse properly and may be concentrated in one particular area under these conditions; or,
- (b) Wind speeds are high or wind directions are changing frequently enough to cause fire to spread rapidly; or,
- (c) The area or nearby areas have poor air quality according to the Air Quality Index (AQI): value indicates poor air quality (AQI>49) or a high risk Air Quality Health Index (AQHI>6).

1.4 When weather conditions warrant, the Fire Chief or other Municipal Authority may temporarily suspend issuing burning permits and may temporarily suspend previously issued burning permits for open burning.

1.5 Any violation of the conditions of a burning permit shall be deemed a violation of the ***[applicable by-law name]***. Any violation of this *by-law* or the burning permit shall void the permit.

SECTION 2: RESPONSE TO COMPLAINTS

2.1 The person responsible for operating the open air burn or outdoor fireplace unit is responsible for making a reasonable effort to respond to local resident complaints received about burning practices. ***Note: Smoke or odour emissions will have to be resolved by the operator; otherwise the operator may be required to stop burning.***

2.2 The owner shall extinguish the fire if it creates an adverse effect at any time.

2.3 If the Municipal Authority receives complaints about an outdoor burning event, a Municipal By-law Enforcement Officer or other Municipal Authority may enter the land to inspect or extinguish the fire.

SECTION 3: INSPECTIONS AND ENFORCEMENT

- 3.1 A By-law Enforcement Officer or other Municipal Authority may enter on land at any reasonable time for the purpose of carrying out an inspection to determine whether this by-law, an Order to Discontinue Activity, an Order to Extinguish, or an order under section 431 of the Municipal Act, 2001 is being complied with.
- 3.2 The By-law Officer or other local Municipal Authority may order the Owner to extinguish any fire at any time and the Owner shall extinguish the fire; or the Municipal Authority or his designate may take the necessary steps to do so.

Note: Every person is responsible for complying with the provisions of the Environmental Protection Act. No person shall create a discharge of any air contaminants that may cause an adverse health effect which is a prosecutable offence under the act. In the event that the fire offence is related to the burning of waste or hazardous waste materials, the provision of penalties under Ontario's Environmental Protection Act is applicable to the offence.

SECTION 4: LIABILITY

Note: Municipalities may specify penalties for persons who conduct open air burning in breach of municipal by-laws. This enforcement section will need to include specific municipal penalties.

- 4.1 Any person who contravenes any of the provisions of this by-law is guilty of an offence and upon conviction is liable to a fine as provided for in the Provincial Offences Act.
- 4.2 If any person fails to pay the fees set out above, within thirty (30) days, the amount of the fee may be recovered by the Corporation in like manner as municipal taxes in accordance with the Municipal Act.



Appendix 1: Sample Open Air Burning Poster, Pamphlet or Newspaper Article

Open Air Burning Advice - Don't Trash Your Air

Quick Tips

Did you know that every time wood, brush or leaves are burned it creates air pollution and that the leftover ash may contain toxic residue? There is little need to open burn and most open burning is prohibited unless otherwise authorized by the municipality.

Tip #1: Compost, Reduce, Reuse, Recycle – Alternatives to open air burning in fire-pits or barrels include roadside pick-up, drop-off sites, composting, reducing, reusing, and recycling. Items such as glass, plastic, paper, cardboard and newspaper are required to be recycled. They should not be placed in a fireplace or burn barrel. Adding composted leaves and yard clippings to your garden will help your plants grow. Use brush and clean wood to make mulch or decorative chips, or use it as heating fuel in certified low emission woodstoves.

Tip #2: Municipal Waste Collection and Disposal – Where materials cannot be composted or reused, they should be sent to a permitted landfill or thermal treatment facility approved to accept these materials.

Tip #3: Impact of Wood Burning on Air Quality – Be aware of air quality advisories in your area, including those reported on the radio or television and on the Ministry of the Environment website. If a smog advisory is in effect you should not conduct open burning or use your wood-burning appliance or fireplace unless there is no other heating source for essential personal warmth. Open air burning of wood or brush may pollute our air and could also cause wildfires. Never leave your campfire or brush fire unattended.

Tip #4: Fire Permit – If you must burn firewood or woodwaste then you must ensure that you are following the municipality's by-laws for operating an open fire, including chimeneas or patio fireplaces, and obtain a fire permit if necessary. Be aware of offences and penalties for those not complying with permit needs or by-laws. No person conducting open air burning using a wood-burning appliance shall create an adverse effect including causing a nuisance for nearby neighbours.

Tip #5: Smoke Facts – Be aware that wood smoke and brush smoke contain over 100 pollutants. These pollutants negatively impact the environment and are linked to a wide range of health problems. Never burn household trash in a fireplace or burn barrel. Burning trash releases hazardous dioxin and furans, and creates much more ash than properly operated thermal treatment facilities. The safest way to dispose of your household trash is through your municipal or waste management company services.

Appendix 2: Sample Open Air Burning Pamphlet

Municipal Open Air Burning Pamphlet

Outdoor Fireplaces and Open Air Burning

Questions and Answers (Q's & A's)

The following questions will be useful for developing public outreach campaign pamphlets or other advertising materials. Municipalities should provide answers to these questions in the campaign materials based on their specific policies:

Can I burn my own garbage in my backyard?

Can I burn brush, garden clippings and leaves from my own property?

Why is wood smoke bad for my health?

Do I need a permit to make a bonfire for a ceremony?

What size of fire can I have on my own property?

Can I use outdoor/patio fireplaces or chimeneas?

What is a Smog Episode? Can I burn wood on a smog day?

What is a burn ban or burn restriction?

Who do I call to complain if my neighbour is generating smoke and obnoxious odours from open burning?

Appendix 3: Sample Program from the “Bernie” Campaign

Bernie the Burn Barrel: A media case study

Bernie is Born!



In 2001, WLSSD developed a public education campaign about the hazards of burning garbage, funded largely by a grant from the Great Lakes National Program Office of the U.S. EPA. A nationally recognized advertising and public relations firm was selected to help WLSSD staff to develop and produce materials to inform the general public about the hazards of open garbage burning and to curb the use of this waste management practice. Several potential options were evaluated, and the group developed and produced a campaign featuring “Bernie the Burn Barrel,” a character designed to appeal to all ages that speaks about the hazards of burning garbage.

The “Bernie” campaign kicked off with a news release and news conference complete with a 6-foot-tall image of “Bernie.” The campaign spanned six weeks and included animated 30-second television commercials, black and white newspaper ads, full-color magazine ads, full-color posters and fact sheets that were mailed directly to local rural residents. Brochures were also distributed at special events and directly to those who were interested. It modestly raised awareness about the problems associated with open garbage burning.

With funding support from GLNPO, WLSSD launched a second public education campaign in 2005 that used much of the same materials as the previous campaign. The new campaign revised some of the content of the fact sheets and advertisements, added billboards in high-traffic areas and added educational pieces for enforcement and to accompany burn permits. The materials were originally used in the Duluth/Superior MSA (Metropolitan Statistical Area), but

could be used anywhere in the country with minor modifications.

Once the character and materials have been produced, media placement and distributing materials to the public make up the most significant costs for the public education campaign. Costs for media placement and distribution vary widely depending upon the size of the media market.

Sample Costs for Bernie Education Campaign:

- Printing of 10,000 2-color, tri-fold brochures on heavier paper: \$850
- Direct mail of this brochure to 7,405 rural residences: \$1,003
- Purchasing ads in daily local newspaper: \$764 per quarter page ad
- Purchasing ads in smaller weekly newspapers: \$176-\$350 per quarter page ad
- Running 30, :30-second TV spots on 2 local stations over 2 months: \$2840
- Purchasing a 10' x 22' billboard: \$625 per month

A free CD of customizable “Bernie” materials is available upon request from WLSSD or online at www.wlssd.com.



Above are samples from the “Bernie” campaign. Look for additional materials throughout this Toolkit and in Appendix E.

Source: Minnesota Office of Environmental Assistance and Western Lake Superior Sanitary District

Appendix 4: Sample Fire Permit to Conduct Open Air Burning

Permit No. [REDACTED]

Permit Holder: [REDACTED] New Renewal

Permit Holder Representative: [REDACTED]
(only required where Permit Holder is not an individual)

Telephone: Home [REDACTED] Cell [REDACTED] Business [REDACTED]

Address of Permit Holder: [REDACTED]

Burn Site Address: [REDACTED]

Rural Address Number Posted; specify [REDACTED] Temporary Site Poster Provided

Date(s) of Burn: [REDACTED] Time of Burn Start: [REDACTED] Finish: [REDACTED]

Fire and Emergency Services Contact (other than 911): [REDACTED]

Type of Permit

- Recreational (\$30): single season event for a recreational fire (maximum three days-consecutive)
- Brush & Logs (\$30): single season event (maximum three days-consecutive)
- Brush & Logs (\$95): multiple seasonal events (greater than three days per year)
- Outdoor Recreational Fireplace (\$30): single season
- Agricultural - permit recommended for farm operations (no fee)
- Other (specify)

Note: Seasonal applies May 1st to October 31st; burning of any waste materials is prohibited; fire permits are not generally issued for land clearing for commercial purposes and construction site materials when other alternatives are available for disposal. Chipping, composting and wood reuse is recommended.

Total Fee Paid \$ [REDACTED] Received by: [REDACTED]

Burn Materials:

- Hardwood
- Softwood
- Mixed (Hardwood and Softwood)

Burn Procedure: Open Pile or Burn Barrel or Both

Open Pile or Burn Barrel Maximum Dimensions are 1m x 1m x 1m unless approved below:

Length [REDACTED]m Width [REDACTED]m Height [REDACTED]m

Carbon Output: Total Number of Burn Piles and/or Barrels Burned [REDACTED] Total Number of Burn Hours [REDACTED]

Note: Carbon output estimates mass of carbon released for duration of permit (e.g., eight piles burned for 16 hours)

Outdoor Boilers: Full Cords of wood per year = [REDACTED] Hours per day (October – May) = [REDACTED] (e.g., 24 hours)

Required Provisions for Extinguishment: Garden hose Extinguisher Other [REDACTED]

Other Site Specific Requirements/Conditions: [REDACTED]

Revocation of Permit: Are you aware that the [municipality name] may temporarily or permanently suspend this permit in the following circumstances (check each box to confirm applicant's awareness of these issues):

- a "smog" alert has been issued for the area
- when high winds are forecasted which might contribute to the threat of fire spread
- during periods of drought
- any complaint received while burning or any other condition deemed to create an extra risk

All permits issued expire on December 31 of the year they are issued (except agricultural permits renewed every two years)

Permit Holder's Signature

Date

Municipal Witness