

Cracking Down on Idling: A Primer for Canadian Municipalities on Developing and Enforcing Control By-laws

September 2005

Report Prepared For:

Natural Resources Canada and the
Greater Toronto Area Clean Air Council (GTA-CAC)

CLEAN AIR PARTNERSHIP
75 Elizabeth Street
Toronto Ontario
M5G 1P4

Telephone 416.392.6672
Fax 416.338.0616

cap@cleanairpartnership.org
www.cleanairpartnership.org



Principal Researcher and Author:

Jennifer Penney, ScD, Senior Researcher, Clean Air Partnership

Editors:

Stephanie Lane, Manager, Clean Air Partnership

Eva Ligeti, Executive Director, Clean Air Partnership

Victoria Orsborne, Program Manager, Personal Vehicle Initiative, Natural Resources Canada

Idling By-law Working Group Members:

Dave Dilks, Lura Consulting

Jean-Louis Gaudet, Lura Consulting

Stephanie Lane, Clean Air Partnership

Eva Ligeti, Clean Air Partnership

Jennifer Penney, Clean Air Partnership

Victoria Orsborne, Natural Resources Canada

Catherine Ray, Natural Resources Canada

Contributors to the Information in this Report:

Kiran Ghai, Region of Peel

Christopher Morgan, City of Toronto

Gary Murray, Natural Resources Canada

David Roewade, Region of Waterloo

Pat Ryan, City of Vancouver

Vanita Sahni, City of Toronto

Shelina Sidi, Greater Vancouver Regional District

Fleur Storace-Hogan, City of Burlington

Franca Ursitti, City of Toronto

William Wiles, Town of Markham

(See also Appendix A: Individuals Consulted for this Research)

CAP would like to thank Natural Resources Canada for its generous funding of this work, the members of Greater Toronto Area Clean Air Council for their financial support, as well as their time and thoughtful reflections on this material, and the Toronto Atmospheric Fund for its ongoing financial support.

© Clean Air Partnership, 2005

For more information, contact:

Clean Air Partnership

75 Elizabeth Street

Toronto, Ontario M5G 1P4

Canada

416-392-6672

cap@cleanairpartnership.org

TABLE OF CONTENTS

1	INTRODUCTION	4
2	EXISTING IDLING CONTROL BY-LAWS IN CANADA	5
2.1	STAND-ALONE BY-LAWS	6
2.2	ANTI-IDLING PROVISIONS IN NOISE AND OTHER BY-LAWS	8
2.3	BEST PRACTICES	10
2.4	STRATEGIC CONSIDERATIONS	11
2.5	SUMMARY	16
3	A MODEL IDLING CONTROL BY-LAW	17
3.1	WEAKNESSES OF EXISTING BY-LAWS	17
3.2	MODEL ANTI-IDLING BY-LAW PROVISIONS	21
4	EFFECTIVE ENFORCEMENT FOR IDLING CONTROL BY-LAWS	26
4.1	WHY ENFORCE IDLING CONTROL BY-LAWS?	26
4.2	ELEMENTS OF AN EFFECTIVE ENFORCEMENT STRATEGY	27
4.3	ENFORCEMENT PLANNING AND IMPLEMENTATION	30
4.4	LEGAL ACTION TO COMPEL COMPLIANCE	33
4.5	EVALUATING ENFORCEMENT PROGRAMS	36
4.6	SUMMARY	37
5	CONCLUSIONS	38
	APPENDIX A: INDIVIDUALS CONSULTED FOR THIS RESEARCH	38
	APPENDIX B: TABLES SUMMARIZING KEY FEATURES OF EXISTING IDLING CONTROL BY-LAWS	44

1 INTRODUCTION

Canadians have become steadily more concerned about air pollution and climate change during the past decade. Highly visible polluters – including idling vehicles – have become the targets of citizen complaints. Many municipalities, especially in regions that suffer from frequent smog episodes, have adopted policies and programs to address these concerns. Among these initiatives are by-laws that target vehicle engine idling.

The first stand-alone idling control by-law was passed by the City of Toronto in 1996, although anti-idling provisions were previously written into noise, nuisance and parking by-laws of some municipalities. Since the Toronto by-law was passed, more than a dozen other Ontario municipalities have adopted idling control by-laws, and several more are in preparation. The Greater Vancouver Regional District has also prepared a model idling control by-law that is now under consideration by several municipalities in the Vancouver area.

There is now enough experience with municipal idling control by-laws to evaluate existing by-laws, identify enforcement issues, and to recommend specific provisions and enforcement practices that could increase their impact. This report addresses these issues. It is written in three major sections. The first is an analysis and assessment of existing idling control by-laws in Canada. The second is a model idling control by-law, designed to build on the strengths and reduce the weaknesses of existing by-laws. The third section outlines issues related to the enforcement of idling control by-laws, and makes recommendations for more effective enforcement programs.

This report is the result of a collaborative effort among the Clean Air Partnership (CAP), Natural Resources Canada (NRCan) and the Greater Toronto Area Clean Air Council, with consulting services provided by Lura Consulting.

Information for the report was gathered in several ways:

- Review of extensive files collected by the Clean Air Partnership from previous idle-free initiatives;
- A survey of members of the Greater Toronto Area Clean Air Council (GTA-CAC), to determine if they had adopted, or were planning to adopt, idling control by-laws, and asking that copies of any such by-laws be forwarded to CAP;
- Consultations with Fleur Storace-Hogan of the City of Burlington and Kiran Ghai of the Region of Peel, on information they had already collected on idling control by-laws in Ontario, and with Shelina Sidi, on the development and application of a model by-law for the Greater Vancouver Regional District;
- Internet searches to identify municipalities outside the GTA that have adopted idling control by-laws, and to download copies of the by-laws and related reports and commentaries;
- Examination of technical information available from Environment Canada and NRCan; and
- Interviews with representatives for all municipalities with by-laws, to get information on the development and application of the by-laws, enforcement practices and related education activities in their communities. Municipal contacts are listed in Appendix A.

2 EXISTING IDLING CONTROL BY-LAWS IN CANADA

Various types of anti-idling provisions have been written into municipal by-laws for at least three decades. The City of Montreal passed an air quality by-law in 1970 that prohibited vehicles from idling more than four minutes if they were parked less than 60 metres from an opening of a building. The Town of Caledon first included anti-idling provisions in a noise by-law, in 1986. Several other municipalities included anti-idling provisions in noise by-laws in subsequent years. The intent of anti-idling provisions in noise by-laws is primarily to prevent disturbance from noisy vehicles idling in, or near, residential areas, rather than to reduce noxious air emissions. A few municipalities have developed anti-idling provisions in nuisance or parking by-laws as well.

The first stand-alone idling control by-law was passed by the City of Toronto in 1996, after several years of discussion and negotiation among City politicians, staff and the public. Most idling control by-laws that have since been passed are very similar to the Caledon or Toronto by-laws, though the newer by-laws contain many variations in the application and wording.

Currently, more than 20 Ontario municipalities have either stand-alone idling control by-laws, or anti-idling provisions in other by-laws. Approximately two-thirds of these by-laws have been passed recently. Our research found no municipalities outside Ontario that have stand-alone by-laws, though many have anti-idling provisions in other by-laws and have mounted effective idle-free campaigns or do substantial work on outreach and education in their communities. In 2004, the Greater Vancouver Regional District finalized a model idling control by-law and recommended its adoption by municipalities in the Greater Vancouver area. At the time of writing, the City of Vancouver is considering adoption of this model by-law.¹

Fourteen municipalities in southern Ontario now have idling control by-laws, including six in the Greater Toronto Area. At least eight other municipalities – including Markham, Newmarket, Oshawa, the City of North Vancouver, Vancouver, Welland and Whitby – have plans to pass stand-alone by-laws in the near future. At least 12 communities in Ontario and B.C. have anti-idling provisions in other by-laws. Individual citizens and local environmental organizations have encouraged several other municipalities to consider and implement such by-laws.

Some municipal councils – including Brampton, Whitehorse, Burnaby and New Westminster – have considered passing idling control by-laws, but decided against a regulatory approach largely on the grounds that the by-laws are difficult to enforce.

¹ This by-law is also similar to the Toronto by-law, though it has eliminated several exemptions contained in the Toronto law.

2.1 STAND-ALONE BY-LAWS

2.1.1 Municipalities with Stand-alone By-laws

At the time of writing, 15 municipalities, all of them in Ontario, have passed stand-alone idling control by-laws. These include: Burlington, Guelph, Huntsville, Kingston, London, Markham, Niagara Falls, Oakville, Pickering, Stratford, Toronto, Vaughan, Whitchurch/Stouffville, Windsor and Woodstock.

2.1.2 Features of Existing Stand-alone By-laws

Typically, stand-alone by-laws contain the following:

- **Legal basis** of the by-law. Each province and territory has enabling legislation that grants authority to municipalities to regulate with respect to nuisances, health, safety and well being of the inhabitants of a community, and this legislation is cited in the by-law.
- **Rationale** for the by-law, usually setting out concerns about air pollution from vehicle emissions and their adverse health effects. Recently, some jurisdictions have added to the rationale the goal of reducing greenhouse gas emissions.
- **Definitions** of terms such as idling, layover, mobile workshop, stopover, transit vehicle, vehicle, and others.
- **General provisions** of the by-law, that set out the time beyond which vehicles are not allowed to idle. Typically, municipalities set a 3- or 5-minute limit. Some municipalities also specify areas of the community where idling is prohibited – usually residential areas. Three municipalities – Kingston, Toronto and Windsor – prohibit the idling of boats as well as motor vehicles.
- **Exemptions** from the by-law. Most recent by-laws have a large number of exemptions from the prohibition against idling. The following are typically exempted from the idling provisions, except where idling is “substantially for the convenience of the operator:”
 - o Fire, police and medical service vehicles
 - o Vehicles participating in emergency activity
 - o Vehicles stuck in traffic
 - o Hot (+27°C) or cold (-5°C) weather conditions
 - o Passengers with a medical letter certifying their need for controlled temperature or humidity
 - o Mobile workshops with equipment powered by the motor, during the course of their work
 - o Where idling is necessary for maintenance or repair of the vehicle
 - o Transit vehicles while passengers are embarking or disembarking
 - o Transit vehicles at a layover or stopover with passengers on board
 - o Vehicles in a parade or other event authorized by the community
 - o Armoured vehicles.

▪ **Administrative and Enforcement Provisions.** This section indicates that a person who contravenes the by-law is guilty of an offence and is liable to a penalty as provided for in the relevant enabling provincial legislation. Although many existing by-laws do not specify the enforcement agency, some by-laws include a clause that identifies the agency or agencies responsible for enforcement, for example:

- o By-law enforcement
- o Parking enforcement
- o Police
- o Public Health inspectorate (the City of London is the only municipality that has allocated enforcement responsibility to its public health department).

Most of the existing by-laws don't specify a set fine for contravening the by-law, although about half the municipalities with stand-alone by-laws do have set fines. To date, set fines vary from a low of \$100 to a high of \$380. For those jurisdictions without a set fine, the offender must attend a court hearing, where the maximum fine for conviction may be much higher. These provisions vary from province to province (and any municipal legal department would be able to cite the relevant regulations). The Ontario provisions for applying a set fine or issuing a summons – which govern all the existing stand-alone idling control by-laws – are outlined in the sidebar on the next page.

▪ **Enactment.** This sets out the date when the by-law comes into force. Most municipalities enact the by-law on the date it passes, but a few have delayed the date it comes into force in order to inform and educate the public first.

Table 1 in Appendix B provides a summary of the key features of 14 stand-alone idling control by-laws in the Province of Ontario and the model by-law proposed by the GVRD.

Idling control By-laws and the Ontario Provincial Offences Act

Ontario municipalities that enact an idling control by-law, can enforce it under the terms set out by Part 1 and Part 3 of the Provincial Offences Act.

Part 1 of the Provincial Offences Act, “Commencement of Proceedings by Certificate of Offence,” allows a provincial offences officer to issue a ticket certifying that an offence has been committed, and indicating the set fine for the offence, or to issue a summons. Only about half of municipalities with idling control by-laws have applied to the Attorney General for a set fine. A ticket with a set fine allows the offender to pay by mail, simplifies the enforcement process, and reduces the costs associated with administrative proceedings. To date, the set fines vary from a low of \$100 to a high of \$380. For those jurisdictions without a set fine, a summons is served and the offender must attend a court hearing, where the fine for conviction may be up to \$500. A Part 1 certificate of offence must be served on the person charged.

Part 2 of the Act, “Commencement of Proceedings for Parking Infractions,” allows for ticketing a vehicle, rather than the offending driver. This allows enforcement officers to leave a ticket on the windshield, rather than wait for the driver to appear. Several enforcement officers consulted during this research suggested that Part 2 of the Act should be enlarged to include vehicle idling offences, to make enforcement easier. However, Part 2 cannot currently be applied in the enforcement of idling control by-laws.

Part 3 of the Act, “Commencement of Proceedings by Information,” allows Ontario municipalities to make a complaint to a Justice of the Peace on the basis of information from witnesses (including enforcement officers). If the municipality chooses this option, it makes a complaint to a Justice of the Peace, who will issue a summons to the offender to appear in court and answer to the charge. A Part 3 summons may be issued if a vehicle drives off while an enforcement officer is attempting to speak to a driver, or is writing a ticket. This provision allows for a summons for several offences, and provides a fine of up to \$5000.

2.2 ANTI-IDLING PROVISIONS IN NOISE AND OTHER BY-LAWS

2.2.1 Municipalities with Idling Provisions in Other By-laws

Anti-idling provisions are sometimes incorporated in municipal noise by-laws or other by-laws. Brampton, for instance, has an anti-idling provision in its Traffic and Parking By-law. At least eight other Ontario municipalities have anti-idling provisions in their noise by-laws, and some municipalities in B.C. have provisions in nuisance or other by-laws. A few municipalities have both stand-alone idling control by-laws *and* anti-idling provisions in noise by-laws. According to several municipal enforcement officers consulted for this report, the anti-idling provisions in noise by-laws are as a result of noise complaints about vehicle idling, rather than concerns about vehicle emissions and air pollution. However, these by-laws might still be used to restrict unnecessary vehicle idling based on emissions concerns.

The municipalities which have anti-idling provisions in noise, nuisance or other by-laws include: Brampton, Caledon, Kingston, Montreal, Markham, Nanaimo, Newmarket, District of North Vancouver, Ottawa, Richmond Hill, Vancouver and Victoria.

2.2.2 Typical Features of Idling Provisions in Noise, Nuisance and Other By-laws

Because noise is the driving force behind these anti-idling provisions, they differ in many ways from stand-alone by-laws. These by-laws usually contain the following features:

- **Legal basis** of the by-law. In Ontario, the legal authority for noise by-laws passed after 2001 is Section 129 of the Municipal Act, which authorizes local councils to regulate and prohibit with respect to noise.
- **Rationale** of the by-law. This is usually to secure an environment free from noise and vibration that may degrade the quality of life or create a nuisance.
- **Definitions** of terms such as authorized emergency vehicle, conveyance, highway, noise, residential area, sound, etc.
- **General Provisions**, which prohibit the emission of sounds resulting from specific acts listed in the by-law. The application of the by-law is often restricted to certain locations and/or certain periods of time. Typically, idling is prohibited for more than 5 minutes. In several municipalities, idling provisions only apply in residential areas or “quiet zones.”
- **Exemptions** from the by-law. The following idling situations are frequently included as exemptions for anti-idling provisions in noise by-laws:
 - Vehicle is in an enclosed structure
 - Continuous operation is essential to the basic function of the vehicle or equipment
 - Equipment manufacturer recommends longer idling periods
 - Weather conditions justify the use of heating or cooling systems for the welfare of passengers, animals or cargo
 - Low temperatures require idling after start-up
 - Idling is for the purposes of flushing the radiator (where the work is performed other than for profit).
- **Administrative and Enforcement Provisions.** Noise by-laws are administered and enforced by the by-law enforcement department and officers. Few noise by-laws have set fines, and so enforcement usually requires issuing a summons and a court appearance.

The key features of noise and other by-laws with anti-idling provisions are summarized in Table 2 in Appendix B.

2.3 BEST PRACTICES

2.3.1 Situating Idling control By-laws within a Clean Air Plan

Several municipalities have developed idling control by-laws as part of more comprehensive clean air strategies to address air quality concerns as well as climate change. These broad-based clean air strategies can include some or all of the following elements:

- Environmental purchasing policies
- Green fleets policies
- Employee trip reduction programs
- Improvements to public transit
- Land-use planning to reduce sprawl and support transit, walking and cycling
- Energy-efficiency and energy conservation strategies
- Green power programs
- Activities to reduce the urban heat island effect including greenspace enhancement.²

2.3.2 By-laws as Part of a Comprehensive Anti-idling Policy

In several municipalities, an idling control by-law is one part of a consistent and comprehensive approach to reducing unnecessary vehicle engine idling. A comprehensive approach, in place in several jurisdictions, includes the following elements:

- **Internal anti-idling fleet policies**, to ensure that the municipality gets its own house in order, and to deflect complaints from the public when a broader idle-free campaign is launched or municipal idling control by-law passed and enforced. Internal anti-idling programs can involve:
 - General education of municipal staff through newsletters, e-mail, payroll reminders, education sessions, contests and prizes for putting idle-free decals on vehicles, etc.;
 - Incorporating idle-free information in driver training manuals and orientation sessions, with periodic updates and reminders;
 - Installation in fleet vehicles of data recorders that monitor idling and fuel efficiency, among other factors;
 - Installation of idle-limiting devices in fleet vehicles and equipment; and/or
 - Participation in anti-idling “fleet challenges” to motivate staff and demonstrate the commitment of the municipality to being idle free.
- **Ongoing idle-free education and awareness campaign for the general public**, which may include:
 - Idle-free media events and messages, especially at the start of smog season each year;

² For more detail about developing a comprehensive clean air plan see: Clean Air Partnership, 2005. *A Model Clean Air Plan for the Living City*.

- Making idle-free information cards available for interested groups and venues, including schools, businesses, municipal buildings and staff;
 - Setting up and staffing idle-free displays at libraries, shopping centres, and other high-traffic locations;
 - Making presentations to community groups and private fleets;
 - Implementing “idle-free zones” in areas prone to frequent vehicle idling; and/or
 - A community-based social marketing approach at idling hotspots to persuade drivers to change their behaviour.
- **An idling control by-law**, with a clear enforcement strategy potentially including:
 - A communications strategy, including announcements prior to enacting the by-law;
 - Signage at municipal buildings and in idling “hot spots”;
 - Dedicated enforcement responsibility;
 - Training of enforcement officers;
 - A clear procedure to follow up complaints, possibly including dedicated phone line if numbers of complaints warrant;
 - Agreement with the province (the Ministry of Transportation in Ontario) to supply owner information for the licence plate numbers of offending vehicles;
 - Request to the province to provide a set fine for the idling offence (which creates an effective deterrent, makes ticketing easier, and helps the municipality avoid time-consuming court appearances); and/or
 - Enforcement campaigns, which may involve handing out mock tickets and/or information cards, warning letters, tickets or summonses to idling drivers.

2.4 STRATEGIC CONSIDERATIONS

Municipal representatives consulted for this study identified two main areas of potential difficulty in the development and implementation of idling control by-laws, including:

- Specific provisions and exemptions in the by-law; and
- Enforcement administration and resources.

Other strategic considerations that should be taken into consideration by municipalities considering development of an idling control by-law include:

- Type of by-law (stand-alone idling control by-law versus anti-idling provisions in another by-law);
- Penalties; and
- Evaluation of the impact of the by-law.

2.4.1 Issues in the Provisions of Idling control By-laws

To date, stand-alone idling control by-laws in Canada have been modelled after the version adopted by Toronto in 1996. This by-law limits idling to 3 minutes in a 60-minute

period, and is characterized by a large numbers of exemptions. All the by-laws passed since 1996 have contained most of the exemptions that Toronto first proposed. However, several municipalities have lengthened the allowable idling time in their by-laws to 5 minutes and in one case, to 10 minutes.

The City of Toronto is currently revisiting their by-law with a view to strengthening it. In the course of this research, by-law enforcement officers and environmental staff in a number of municipalities identified several problematic provisions of the existing by-laws, including:

- **Inconsistent Provisions from Municipality to Municipality.** Personnel from several municipalities in the Greater Toronto Area commented on the inconsistency of by-laws among neighbouring municipalities and the difficulties that drivers have in knowing what the rules are and at what arbitrary place on the map these rules change. More consistent by-laws across regions, and similar enforcement practices and penalties would increase the impact and effectiveness of idling control by-laws.
- **Large Number of Exemptions in the By-laws.** The exemptions in the Toronto by-law were the result of a significant process of public consultation. At the time of enactment, each exemption had a rational justification. However, in practice, the large number of exemptions results in a very uneven application of the by-law and excuses many highly visible vehicles from the requirement to reduce idling. This limits the impact of the by-law on reducing emissions. It also creates a feeling among some citizens that the law is unfair, because it is not applied to all idling vehicles.³
- **Temperature Exemptions.** The Toronto by-law, and several others exempt vehicles from idling limits where the *inside* temperature of the vehicle is above 27°C or below 5°C. At least six by-laws passed in recent years provide an exemption when the *outside* temperature is above 27°C or below 5°C. Three jurisdictions have done away with the temperature exemption altogether, and the model by-law proposed by the GVRD makes no mention of a temperature exemption.⁴ Markham's by-law provides for an exemption when the temperature is below 0°C or above 30°C. The temperature exemptions create several problems. First, enforcement personnel point out that it is almost impossible for a by-law officer to determine the inside temperature of a vehicle. It *is* possible to determine the outside temperature, but the outside temperature exemption still requires an enforcement officer to check the temperature during the time of the idling offence, which complicates enforcement. Smog days often occur when the temperature is above 27°C and so the idling control by-law cannot be enforced on the days when it would be most important to do so for air quality purposes.⁵

³ One by-law enforcement officer consulted in this research revealed that enforcement officers can spend considerable time explaining to complainants that they are unable to enforce the law in particular cases because the idling vehicle of concern is exempt from the by-law.

⁴ The author of the GVRD model by-law told us that the moderate climate of the area made it easier to leave out the temperature exemption.

⁵ Toronto Public Health staff recently analyzed data on temperature and smog days in the city. They found that between 1993 and 2004, 22.4% of days with a mean temperature equal to or greater than 27°C were also smog days. (Personal communication.)

- **Extended Idling Times for Transit Vehicles on Layover or Stopover.** Typically, transit vehicles are allowed to idle for 10 or 15 minutes while on a layover or stopover. Some by-laws limit this idling to times when passengers are on the bus. Others prohibit this idling when it is “substantially for the convenience of the operator,” which may be difficult to determine. Diesel-powered transit vehicles can consume large amounts of fuel when idling, and create significant exhaust emissions.
- **Idling time allowed.** Much of the literature currently promoting idling control behaviour suggests that a car should idle for no more than 10 seconds. Yet existing by-laws allow idling by the general public for three, five, and in some instances, ten minutes, and allow transit vehicles to idle for ten or fifteen minutes.
- **Inconsistent Idling Provisions in Idling control and Noise By-laws.** A few jurisdictions have a stand-alone by-law as well as anti-idling provisions in a noise or other by-law. In at least two municipalities, the provisions differ in respect to the amount of time the idling is allowed – with 3 minutes allowed in the idling control by-law versus 5 minutes in the noise by-law. This could result in difficulties enforcing the shorter time limit.

2.4.2 Enforcement Issues

Many of the idling control by-law provisions described above have an impact on enforcement. There are a number of additional issues related to enforcement that also arise in most municipalities with idling control by-laws.

There are several ways in which municipalities could choose to enforce idling control by-laws. These include:

- **Complaints-based enforcement**, usually initiated by telephone calls from the public, making a complaint about a one-time or chronic idling problem;
- **Enforcement blitzes**, during which enforcement officers undertake an enforcement campaign designed to get media and public attention for the by-law and to alert the public to the willingness of the municipality to enforce it;
- **Ongoing proactive enforcement**, in which enforcement officers enforce on an ongoing basis; or
- **A mix of the above.**⁶

Most municipalities with idling control by-laws take a complaints-based approach to enforcement. Typically, this involves taking a complaint over the telephone, and if the reported idling appears not to be covered by an exemption, sending out an enforcement officer. There is usually a lag time between complaint and response due to shortages of staff or other enforcement priorities. If the idling driver is still on the scene, then the officer will usually talk to them about the by-law, but not issue a ticket or summons on a first complaint. If, as is more likely, the idling driver has moved on or turned off the

⁶ More information on enforcement issues related to anti-idling by-laws is available in Section 4 of this report.

vehicle engine, then the officer may collect further information from the complainant, and may send out a warning letter, if the idling driver is known or a licence plate number has been recorded and if the municipality has an agreement with the province to supply the owner's name and address.

From the information collected for this report, it appears that no municipalities have committed to an ongoing, pro-active enforcement strategy of seeking out offenders and issuing fines or summonses. To date, a number of municipalities with idling control by-laws have issued no fines or summonses to enforce the law. Although one municipality has conducted three time-limited enforcement campaigns since 1999, it has been reluctant to repeat the effort.

Many reasons are given for the reluctance of municipalities to actively enforce idling control by-laws, including the following:

- A number of municipalities regard the by-law – together with signage and general public information on the problems of idling – as a sufficient deterrent to idling behaviours, and do not regard active enforcement as necessary or desirable.
- By-law enforcement departments are stretched thin and no new staff resources have been allocated to these departments following passage of the by-law.
- By-laws that address safety issues in the community have a higher priority for enforcement staff.
- Enforcement of idling control by-laws as they are written is very time-consuming. Where a by-law officer sees a vehicle idling, he or she must wait several minutes before issuing a ticket or summons. In municipalities without a set fine, the enforcement officer must follow a cumbersome procedure for issuing a summons, and then arrange to go to court on the charge, all of which takes many working hours for what is perceived as a relatively minor offence.
- When an enforcement officer goes to a location identified by a complainant, the idling vehicle or vehicles have often left the scene so direct observation of the idling is not possible and a ticket or summons may not be issued.
- Drivers in idling vehicles are not required by law to produce identification for by-law enforcement officers and may simply drive away when approached by an officer. Some municipalities have not initiated an agreement with the Ministry of Transportation to provide the name and address of an idling vehicle's owner.

2.4.3 Type of By-law

Previous discussion of idling control by-laws has not tended to distinguish between stand-alone by-laws and anti-idling provisions in noise or nuisance by-laws. It is important, however, to differentiate the two. Anti-idling provisions in noise or nuisance by-laws are designed to respond to concerns about bothersome noise and vibration, not to reduce emissions. For this reason, the provisions and exemptions are different than those of stand-alone by-laws, and may not achieve the emission-reduction goals of the

latter. In general, if the municipality desires to reduce emissions from idling, it should develop a by-law geared to that purpose.

Municipalities that have anti-idling provisions in noise or other by-laws, and are also planning to establish a stand-alone by-law because of emissions concerns, should ensure that the requirements of the two by-laws are consistent with one another, particularly with respect to allowable idling time.

If a municipality is concerned about air pollution and greenhouse gas emissions from unnecessary vehicle idling, they should consider adopting a stand-alone idling control by-law. Such a by-law makes a clear statement that the municipality considers unnecessary idling to be unacceptable on health and environmental grounds, and provides a penalty for this behaviour.

2.4.4 Penalties

Municipalities planning to adopt an idling control by-law must consider whether to create a set fine for offences, or rely on the summons and administrative court procedures that are used for enforcing many other municipal by-laws. Less than half of municipalities with idling control by-laws currently have set fines although these would make enforcement easier and less time-consuming. Provincial offences legislation usually provides for maximum fines that are larger than set fines, but few judges actually apply the maximum.

Another consideration related to the issue of set fines, is the size of the fine. For existing stand-alone by-laws, set fines vary from \$100 to \$155. Some municipalities currently planning to adopt new idling control by-laws are considering lower fines to reduce public resistance to the by-law.⁷

2.4.5 Evaluation of By-law Effectiveness

It is important for municipalities to evaluate the effectiveness of their idling control by-law and enforcement activities in achieving the goal of reducing unnecessary vehicle idling and emissions. Evaluation provides the information that would allow municipalities to amend the by-law or adjust enforcement practices to make it more effective. It would also provide valuable information for other municipalities developing specific provisions for a new by-law.

However, relatively few municipalities actively track complaints, or warnings, fines or summonses issued in relation to their idling control by-laws. As a result, it is difficult to get a clear picture of the activities that result from the passage of an idling control by-law, and even more difficult to assess the impact that the by-law has had on community attitudes and behaviours, or the possible reduction in emissions that might result.

There are several methods that a municipality can use to track and measure the effectiveness of their by-law in addressing idling activities as well as reducing idling behaviour. These include:

⁷ These issues are discussed in more depth in Section 4 of this report.

- Integration of by-law actions/results into a database;
- Public opinion polling;
- Evaluation of idling activities before and after enactment of by-laws, or before and after specific enforcement activities.

2.5 SUMMARY

In recent years, municipalities have passed increasing numbers of idling control by-laws or other by-laws with anti-idling provisions. The stand-alone idling control by-laws have been driven by concerns about air quality, smog and greenhouse gas emissions. Most of the stand-alone by-laws have been modelled on the Toronto by-law passed in 1996.

There are a number of problematic provisions in many of these by-laws that complicate their application and make enforcement difficult. Virtually all municipalities have a complaints-based enforcement process and most take a “soft” approach to enforcement, issuing information and warnings rather than fines or summonses to offending drivers.

Education and enforcement activities are not by-and-large well tracked or evaluated. Consequently, it is difficult to know what impact these by-laws have had on idling behaviours.

This analysis is an important first stage in the work of the Clean Air Partnership – with the cooperation and support of Natural Resources Canada – to develop a model idling control by-law for Canadian municipalities, and to propose an effective strategy for enforcing idling control by-laws.

3 A MODEL IDLING CONTROL BY-LAW

The goal of this section is to provide an effective model by-law that municipalities can use to curb idling in their communities.⁸ The model by-law was derived from research that included:

- Collection and analysis of existing idling control by-laws in Canada;
- Interviews with municipal staff responsible for developing, communicating and enforcing these by-laws; and
- Review of relevant technical and regulatory support documentation.

An effective law or by-law is designed to be enforceable. Enforceable by-laws have several features:

- A clearly stated purpose;
- Straightforward and practical requirements;
- Consistency with the provisions of other by-laws;
- Penalties that are unambiguous, appropriate to the level of harm associated with the activity and significant enough to deter non-compliance;
- A designated enforcement authority with the ability to enforce the by-law.⁹

Assessed by these criteria, the existing Canadian idling control by-laws have both strengths and weaknesses. Most of the idling control by-laws have a clear purpose, though practical considerations have resulted in a number of exemptions. Most of the by-laws have identified a clear enforcement authority. However, only half have set fines that are relatively easy to administer. The following provides a more detailed overview of the weaknesses and strengths of existing by-laws.

3.1 WEAKNESSES OF EXISTING BY-LAWS

Several weaknesses in the provisions of existing by-laws make enforcement difficult, time-consuming or costly. These include:

- Lengthy allowable idling period;
- Allowed idling times for transit vehicles on layover or stopover;
- Large number of exemptions;
- Temperature exemptions;
- Medical exemptions; and
- Absence of a set fine.

⁸ An anti-idling by-law is one of a suite of measures that a municipality can take to reduce idling. Other important measures include anti-idling fleet policies, the creation of idle-free zones with appropriate signage, education and community-based social marketing programs.

⁹ In addition to writing and passing a well-designed law, municipalities need to allocate resources to enforcement, and have a clear enforcement strategy and procedures. They also need to communicate to their constituents the reason for and the requirements of the law. Ideally, the impact of the by-law and enforcement activities on polluting behaviour should be evaluated periodically. These issues are dealt with in more depth in Section 4.

3.1.1 Lengthy Allowable Idling Period

Canadian by-laws currently allow vehicles to idle anywhere from three to – in one case – 10 minutes. Enforcement staff in several municipalities have expressed concern about the length of the allowable idling period, because the longer a by-law enforcement officer must wait and observe an idling vehicle, the more time-consuming and costly the enforcement. A reduced allowable idling period would make idling control by-laws easier to enforce.

A reduced idling period would also meet the intent of many by-laws to reduce greenhouse gas emissions. A light-duty car with a warm engine that idles for more than 10 seconds burns more fuel and emits more greenhouse gases than shutting down the engine and starting it again. As a result, a number of municipal and corporate fleets have imposed 10-second limits on idling of fleet vehicles to conserve fuel and reduce greenhouse gas emissions. Many municipalities also promote a 10-second limit in vehicle engine idling literature and idle-free education programs. Shorter allowable idling times in idling control by-laws would be consistent with these environmental policies.

The health grounds for minimizing the allowable idling period, however, are less straightforward. Factors such as the age of the vehicle, the type of engine (diesel or gasoline), the catalytic converter and the outside temperature can all affect air pollution emissions from idling and determine when it is less polluting to idle a vehicle or to shut down the motor and start up again later.

In general, it is more polluting to idle a vehicle to warm up the engine than to start driving after about 30 seconds from a cold start. Vehicle engines warm up fastest when a vehicle is being driven, so as long as the windshields are clear, there is little reason to idle on start-up. Use of a block heater in very cold weather warms the engine before starting and reduces pollution even more.

Catalytic converters – which reduce carbon monoxide and hydrocarbon emissions – work best when warmed up. As a result, some commentators suggest that vehicle idling will produce fewer pollutants than shutting down the engine and starting up a little later. However, idling vehicles circulate coolant that in warmer weather may cool the engine and catalytic converter faster than turning it off. And studies show that in cold weather, a gasoline engine that is shut off for a short period (under 10 minutes) does not cool down enough to reduce the effectiveness of the catalytic converter. However, in extreme cold a vehicle shut down for a longer period (over 30 minutes) would have increased pollutant emissions when it is restarted.

Unlike gasoline-powered vehicles, most diesel vehicles need a few minutes to warm up the engine at the start of a shift. Diesel vehicles can use a variety of anti-idling devices to reduce the need for idling to warm up the engine, cool the vehicle or run auxiliary equipment when stopped, however.¹⁰

All this makes it more difficult to specify an optimum idling cut-off time for all vehicles on the basis of pollutant emissions. When a municipality chooses an allowable idling period,

¹⁰ For a description of some of these options see *A Model Idling Control Program for Municipal Fleets* on the CAP website at www.cleanairpartnership.org/qtacac.

it must balance these issues of enforceability, climate change, pollutant emissions and health concerns.

3.1.2 Extended Idling for Transit Vehicles

Most existing anti-idling by-laws allow transit vehicles to idle for 10 or even 15 minutes on layover or stopover, except where idling is substantially for the convenience of the operator. This is usually justified on the grounds of providing a comfortable environment for passengers. However, a 10- or 15-minute allowable idling period makes enforcement problematic.

Transit vehicles are of particular concern because diesel vehicles – especially those with older or poorly maintained engines – are particularly dirty when idling, emitting particulates as well as greenhouse gases and other pollutants. Emissions from idling buses can become problematic in bus terminals or other partially enclosed areas.

In response to this concern, the Greater Vancouver Regional District in 2004 proposed a model by-law that allows transit vehicles to idle longer than 3 minutes only when passengers are embarking or disembarking. No municipality has adopted this provision to date.

3.1.3 Large Numbers of Exemptions

Most of the existing by-laws have between 10 and 12 exemptions that allow vehicles to idle beyond the prescribed 3- or 5-minute limits. While most of the exemptions are reasonable when examined individually, the effect of having a large number of exemptions is to create a patchwork law that is unevenly applied to some vehicles in some circumstances. Some enforcement officers report that this frustrates citizens who call to lay a complaint about idling vehicles in their communities, only to discover that the vehicles are exempted from the provisions of the by-law for one reason or another.

Municipalities that wish to make their by-laws more credible and enforceable should consider reducing the number of exemptions. A number of vehicles – such as police, fire, ambulance, vehicles attending an emergency (tow trucks), mobile workshops, and others – are currently exempted because of the need to power warning lights, computers, refrigeration, air conditioning, heating, and other devices. However, auxiliary power units are now available to provide power for many of these functions, and use much less fuel than an idling vehicle engine. There are also new technologies – such as LED (light-emitting diode) lights – that require much less power, enabling them to be run from the battery rather than an idling engine.

3.1.4 Temperature Exemptions

Most of the existing anti-idling by-laws exempt vehicles from idling prohibitions when temperatures are higher than 27°C or lower than 5°C, so that drivers can operate air conditioners or heaters to maintain passenger comfort in the vehicle. Three municipalities exempt vehicles whose *interior* temperature is greater than 27°C or less than 5°C. The justification for this is that a vehicle standing in a sunny location might get quite hot inside even though the outside temperature is cooler. However, most

municipalities that have adopted this exemption, have applied it to the *outside* temperature rather than the temperature on the interior of the vehicle. This is because by-law enforcement officers do not have the right to enter a vehicle to check the temperature, which makes the provision difficult to enforce.

Both the inside and outside temperature exemptions allow for unlimited idling for a large part of the year in much of Canada. Perhaps even more problematic, allowing vehicles to idle when the temperature is above 27°C means that unlimited idling is permitted on most smog days.

Recognizing these enforcement problems, the Greater Vancouver Regional District did not include a temperature exemption in its model by-law published last year.¹¹ GVRD representatives acknowledge that weather conditions in this area are moderate, which makes temperature exemptions less of a concern. Still, other municipalities would be wise to consider the problems that the temperature exemption raises for enforcement.

The temperatures of 27°C and 5°C were proposed during the development of the Toronto by-law, to allow vehicles to have air conditioners or heaters operating when temperatures outside are high or low. Temperature is only one of the factors that determine comfort or health effects related to weather conditions. Other factors include: clothing, air movement, cloud cover, and humidity. Ideally, an exemption aimed at the comfort and safety of idling drivers and their passengers would take into account several of these factors. Practically, it is not possible.

Canada's Humidex rating system combines two important factors – temperature and humidity.¹² When the temperature gets into the mid 20's, high relative humidity can raise the Humidex above 30°C. Sedentary people such as drivers and passengers in stationary vehicles, will start to experience some discomfort at a Humidex level of 30-39°C, and feel much more uncomfortable at a rating of 40°C and higher. Heat stress will generally not occur in sedentary persons until Humidex readings reach 46°C. The lowest temperature at which this can occur is 29°C (with a relative humidity of 100 %).

Using this information, municipalities would be justified in using a temperature exemption of 29°C or 30°C to safeguard the health of people in stationary vehicles against heat stress.¹³

Several U.S. states and municipalities allow idling only if the outside temperature is lower than 32°F. This would translate to a temperature exemption of 0°C if it were applied in Canadian jurisdictions.

The Town of Markham's recent idling by-law (June 2005) is the first to allow exemptions when the temperature is above 30°C or below 0°C.

¹¹ The City of Guelph does not have a temperature exemption either, but it allows vehicles to idle for 10 minutes.

¹² If the hour-to-hour Humidex rating were readily available to enforcement officers, it would be a better index to include in an exemption intended to safeguard the health of drivers and passengers in stationary vehicles.

¹³ Of course, people in stationary vehicles usually have the option to leave a vehicle and go to a more comfortable location, or in some instances, simply to roll down the windows.

3.1.5 Exemption for Persons with a Medical Certificate

Existing anti-idling by-laws include an exemption for vehicles transporting a person where a medical doctor certifies in writing that the person needs the temperature or humidity be maintained within a certain range. There is no evidence that in the nine years since this exemption was first enacted in the City of Toronto by-law, and in similar by-laws passed later, that anyone has acquired or used such a letter to allow them to idle their vehicle. The Greater Vancouver Regional District did not include this exemption in their model by-law.

3.1.6 Lack of a Set Fine

By-laws with set fines are easier to enforce. An enforcement officer can write a ticket for an idling infraction, and the offending driver in most cases simply pays the fine in the same way they would a parking ticket, with the option to go to court if they wish to contest the charge. Since relatively few drivers contest the charge, the enforcement officer needs only the time required to observe the idling vehicle for a little longer than the 3 or 5 minutes allowed by the by-law, and to write the ticket, with an occasional appearance in court. In municipalities with a set fine, enforcing an anti-idling by-law could produce revenue that supports by-law enforcement. However, fewer than half of municipalities with anti-idling by-laws have set fines.

In municipalities without a set fine, an enforcement officer must write a summons, prepare a charge and then appear in court, which can take an estimated 4-5 hours for each charge, and takes up the time of court officers as well as the enforcement officer. This can be a revenue drain on a municipality. It may also discourage enforcement officers – who may have the responsibility to enforce many by-laws – from enforcing an anti-idling by-law because of the time requirements.

3.2 MODEL ANTI-IDLING BY-LAW PROVISIONS

The model anti-idling by-law proposed on the following pages outlines the key provisions that municipalities might consider in adopting a new by-law or revising an existing one. It draws on the strengths of existing by-laws, and attempts to address some of the weaknesses identified by municipal enforcement officials. In some cases, the model by-law suggests different options that municipalities might want to consider for specific provisions.

To help municipalities in considering the provisions of a new or revised by-law, the model is first presented in a chart form, with comments on specific provisions in a column on the right. The proposed by-law is also presented as a stand-alone document in Section 3.3.

Provisions of a Model Anti-idling By-law	Comments
<p>Preamble</p> <p>Whereas Section [] of the [<i>relevant provincial act</i>] authorizes municipalities to regulate with respect to [fill in the relevant wording from the Act which grants authority for the municipality to regulate on anti-idling and related issues];</p> <p>And whereas motor vehicles are sources of particulate matter, nitrogen oxide, carbon monoxide, sulphur oxide, volatile organic compounds and greenhouse gas emissions;</p> <p>And whereas air pollution in the [<i>City or Town</i>] of [<i>Insert name of municipality</i>] is associated with adverse health effects;</p> <p>And whereas, the [<i>City or Town</i>] of [<i>Insert name</i>] has committed to reducing greenhouse gas emissions [<i>list commitment, e.g. Partners for Climate Protection</i>];</p> <p>Therefore the Council of [<i>Insert name</i>] enacts the following by-law:</p>	<p>Preamble</p> <p><i>The preamble usually begins by citing the legal authority for the by-law, usually a provincial act that grants to municipalities the right to regulate with respect to public health and welfare, and/or the protection of the environment.</i></p> <p><i>It also sets out the rationale for the by-law, usually related to concerns about air pollution and climate change.</i></p> <p><i>Insert the name of your municipality.</i></p> <p><i>Cities or towns that adopt a by-law as part of a larger commitment, such as joining Partners for Climate Protection, could refer to that commitment in this section.</i></p> <p><i>Insert the name of your municipality.</i></p>
<p>Short title (or Citation)</p> <p>This by-law may be cited as the “Idling Control By-law”</p>	
<p>Article 1 – Definitions (or Interpretation)</p> <p>In this by-law:</p> <p>“Boat” means a ship or any other description of a vessel not propelled by oars and includes a boat used exclusively for towing purposes, a water taxi and a boat used on water for living purposes.</p> <p>“Idle” means the operation of a vehicle engine while the vehicle is not in motion and “idling” has a corresponding meaning.</p>	<p>Definitions (or Interpretation)</p> <p><i>Some municipalities with a waterfront apply idling prohibitions to boats and to ferries, and so define them in this section of the by-law.</i></p>

“Vehicle” or “Motor Vehicle” means any vehicle that is capable of being driven or drawn on roads by any means other than muscular power exclusively, but does not include any vehicle designed to run exclusively on rails.

“Vehicle with Power Take-off” means a vehicle containing work equipment that must be powered by the vehicle engine.

Article 2: General Prohibitions

Option 1) No person shall cause or permit a vehicle or boat engine to idle for more than one minute in a 60-minute period.

Option 2) No person shall cause or permit a vehicle or boat engine to idle for more than three minutes in a 60-minute period.

Some municipalities include a larger number of definitions than are shown here, including “city,” “transit vehicle,” “layover,” “stopover,” or “by-law officer” depending on the specific contents of the by-law.

Most municipal by-laws exempt vehicles referred to as “mobile workshops” from idling restrictions. By mobile workshops they usually mean vehicles containing equipment powered by the engine. Natural Resources Canada has suggested that the term “vehicle with power take-off” is more appropriate and so we are using that term here.

General Prohibitions

Most idling control by-laws currently restrict idling to 3 [or 5] minutes in a 60-minute period. However, some municipalities restrict idling in their own fleets to much shorter periods.¹⁴ These policies are based on the NRCan recommendation to idle no more than 10 seconds (30 seconds for vehicle cold-start).

A one-minute allowable idling time fits better with idle-free goals. Longer allowable idling times are also harder to enforce. Three minutes is the shortest allowable idling time in current by-laws.

Municipalities with a waterfront should add boats to this prohibition.

¹⁴ The Regional Municipality of Waterloo restricts its fleet vehicles to 10 seconds of idling. The Region of Peel has a one-minute limit.

Article 3: Exemptions

Article 2 does not apply to:

- (a) Police, fire or ambulance vehicles or boats while engaged in operational activities, except where idling is substantially for the convenience of the operator of the vehicle.
- (b) Vehicles and boats assisting in an emergency activity.
- (c) Vehicles with power take-off while they are in the course of being used for their basic function.
- (d) Vehicles or boats for which idling is required to service the engine or conduct repairs.
- (e) Armoured vehicles in which a person remains inside the vehicle while guarding the contents, or while the vehicle is being loaded or unloaded.
- (f) Vehicles or boats remaining motionless because of an emergency, traffic, weather conditions or mechanical difficulties over which the driver has no control.
- (g) Vehicles or boats engaged in the course of a parade or race or any other event authorized by Council
- (h) Vehicles or boats idling while passengers are embarking or disembarking.

Exemptions

This section includes only those exemptions adopted by all Canadian municipalities with stand-alone by-laws. Including only essential exemptions simplifies the model by-law and makes enforcement easier and more consistent.

These vehicles must keep lights, radios, on-board computer systems, and other equipment functioning while on the job.

The intent of this exemption is to allow vehicles to use emergency lights, etc.

This exemption covers vehicles where the engine provides power for auxiliary equipment used for work.

Municipalities on a waterfront should add boats to this provision.

Armoured car operators need to be able to get away quickly in case of an attempted robbery. Doors are electronically controlled and windows don't open, necessitating the use of air conditioning.

Most municipalities include this exemption. Using the phrase "in the course of" may help limit idling of vehicles waiting for an event to begin, or waiting to disperse at the end of an event.

This would cover transit buses, tour buses, ferries and other vehicles taking on or discharging passengers. Note: there are no provisions for vehicles idling during a stopover or layover.

(i) **Option 1)** *Do not include temperature exemptions in the by-law*

Option 2) *Provide the following temperature exemptions:*

Vehicles or boats when the ambient outside temperature is more than 30°C or less than 0°C.

Article 4: Administration and Enforcement

This by-law shall be administered and enforced by a Parking Enforcement Officer or By-law Enforcement Officer of the [City or Town] or by an Officer of the [City or Town] Police.

Article 5: Penalties

Any person who contravenes any provision of this by-law is guilty of an offence.

The owner or lessee of a vehicle that is permitted to idle in contravention of this by-law is guilty of an offence.

Every person guilty of an offence under this By-law may pay a set fine of [xx dollars], in accordance with [Relevant Provincial Legislation].

Some municipalities have no temperature exemptions in their idling-related by-laws.

If municipal officials believe that a temperature exemption is advisable, a good argument can be made for reducing the extent of the exemption and improving the enforceability of the by-law, as in the second option.

Smog events are more likely to occur on hot, sunny days, therefore a municipality that opts to include the temperature exemptions in Option 2 may be strengthened by adding a clause disallowing this exemption on smog days.

Administration and Enforcement

Ideally, this by-law would be enforced by parking enforcement officers as well as by municipal by-law enforcement officers. There are more parking enforcement officer and they are out on the streets more of the time.

Penalties

Set fines allow enforcement officers to ticket an offender rather than issue a summons.

This provision allows the municipality to charge the owner of a vehicle, in cases where the driver cannot be identified.

Set fines currently vary from \$20 to \$380. Most are in the \$100 -- \$155 range, which should be a sufficient deterrent to idling but not so high that enforcement officers are reluctant to issue them. Set fines are not always enumerated in the by-law, to give municipalities more flexibility to change the level of the fine.

4 EFFECTIVE ENFORCEMENT FOR IDLING CONTROL BY-LAWS

Many Canadian municipalities have recently passed idling control by-laws to reduce local air pollution and greenhouse gas emissions. Many more municipalities are actively considering adoption of idling control by-laws. Some municipal councils have considered and then rejected idling control by-laws, on the grounds that they are too difficult to enforce.¹⁵ The Clean Air Partnership has consulted with municipalities that have idling control by-laws to discuss the provisions of their by-laws and associated enforcement issues.

Most municipalities with by-laws have taken a limited approach to enforcement. Typically, communities do some public outreach and education on the issue of vehicle idling prior to passing the by-law as well as afterwards. Enforcement has mainly involved reacting to complaints from the public by speaking to offenders, providing information on the by-law and the reasons for it, and asking for voluntary compliance. Few communities issue tickets and summonses, and those that do usually limit this activity to short sporadic campaigns rather than undertaking ongoing enforcement.

Several factors have contributed to this limited approach to enforcement.

- Many municipalities purposely use the by-law as an education tool, and have explicitly rejected the use of penalties to achieve compliance.
- Many municipal by-laws are enforced on a complaints basis, so responding to idling infractions in the same way is the norm.
- Municipal budgets are tight, and by-law enforcement departments may not have sufficient resources to take a more pro-active approach.
- Other by-laws have enforcement priority because they are revenue generators (e.g. parking) or because they have a more immediate impact on public health and safety (e.g. animal control, construction site access, swimming pool fencing, etc.).

4.1 WHY ENFORCE IDLING CONTROL BY-LAWS?

There is a growing consensus today among policy researchers and practitioners that both voluntary and regulatory tools are necessary to effectively tackle environmental issues.¹⁶

Education is essential to build public understanding of and support for environmental programs, as well as to attain voluntary compliance with environmental goals and laws by a significant portion of the population. Educational programs and community based social marketing have been important elements of the effort to reduce idling in Canada

¹⁵ Whitehorse, New Westminster and Burnaby, B.C. have all taken this stand.

¹⁶ See OECD (Organization of Economic Cooperation and Development), 2003. *Voluntary Approaches or Environmental Policy: Effectiveness, Efficiency and Usage in Policy Mixes*. Another useful source is Fatma Maged, 2003. "Voluntary Approaches in Environmental Policy," in *Horizons*, 6:4 (13-17). This article is also available on the Internet at: http://policyresearch.gc.ca/page.asp?pagenm=v6n4_art_04.

and have raised awareness of the economic and environmental costs of idling. In communities with idling control by-laws, education and information programs have made many people aware of the existence and requirements of the law.

Passing environmental laws and regulations engages the media and raises the profile of environmental issues to a level that is difficult to achieve by information and education programs alone. Implementing a by-law also demonstrates the commitment of government to change damaging environmental behaviours, and impose an obligation on the regulated community to make these changes happen. However, laws that are not seen to be enforced:

- Lose the power to affect changes in behaviour;
- Frustrate citizens who wish to see action on environmental issues; and
- Damage the credibility of the government that passed them.

Every government has limited resources for enforcement. Nevertheless, enforcement actions can have significant impact if they are well planned and publicized. The International Network of Environmental Compliance and Enforcement identifies several important benefits to enforcing environmental laws. Enforcement:

- Protects the environment and public health;
- Strengthens the credibility of the government which passed the law by demonstrating the commitment to back it up;
- Encourages compliance by those who otherwise fail to take the law seriously;
- Ensures fairness towards those who voluntarily comply; and
- Reduces economic and environmental costs associated with the unregulated activity.¹⁷

These benefits hold true for idling control by-laws as well as other environmental and public health laws.

4.2 ELEMENTS OF AN EFFECTIVE ENFORCEMENT STRATEGY

Enforcement is a set of actions that governments or others take to achieve compliance with a law or by-law. An effective enforcement program should have the following elements:

- A clear and enforceable law;
- Resources to administer and implement the law;
- Appropriate penalties; and
- An enforcement plan.

¹⁷ See International Network of Environmental Compliance and Enforcement, 1992. *Principles of Environmental Enforcement*, available on the Internet at: <http://www.inece.org/Principi.htm>.

4.2.1 A Clear Law with Enforceable Provisions

Idling by-laws govern a relatively simple environmental problem – the unnecessary idling of vehicles and the noxious emissions that result. The more simple and straightforward the by-law, the easier it is for the public to understand, and the easier it is to enforce. As discussed in Sections 2 and 3, existing idling control by-laws have a number of provisions that make them difficult to enforce. Municipalities planning to pass new idling control by-laws should consider making them more enforceable by reducing the allowable idling times, reducing the number of exemptions and eliminating or reducing the scope of the temperature exemption.

4.2.2 An Enforcement Agency with the Resources to Administer and Implement the By-law

When weighing options about where to assign the responsibility for enforcing idling control by-laws, municipalities should take into account:

- Related and competing responsibilities of the possible departments;
- Staffing resources; and
- Training requirements.

Municipalities tend to allocate the responsibility to administer and enforce idling control by-laws to general by-law enforcement departments. Some municipalities assign the task to parking enforcement officers. One municipality has assigned responsibility to its public health department. In all municipalities, police may also enforce the by-law, though in practice, few do.

Smaller municipalities have fewer options, however, municipalities with a separate parking enforcement office or agency should seriously consider assigning responsibility for idling control by-law enforcement to this department. Parking enforcement officers are an appropriate group to enforce idling control by-laws because:

- There are comparatively large numbers of parking enforcement officers and they have fewer competing responsibilities than general by-law enforcement staff;¹⁸
- Parking enforcement departments often have a more pro-active enforcement mandate than general by-law enforcement personnel;
- Parking enforcement officers are usually on the streets looking for infractions (whereas other by-law enforcement typically depends on complaints or permitting systems to alert them to a potential concern or violation); and
- Many idling infractions occur in areas where parking officers regularly patrol, and they are more likely to spot and be able to respond to these misdemeanours.

It is more challenging for general by-law enforcement officers to take a pro-active role in enforcing idling control by-laws. General by-law enforcement officers have a broad range of by-laws for which they are responsible, some of which have more immediate health and safety consequences than idling, and so have a higher priority. As previously

¹⁸ General by-law enforcement departments have responsibilities for a broad range of by-laws including: property standards, snow and ice removal, littering, dumping, open air fires, noise, signs, animal control, fencing, swimming pool enclosures, street closures, and other health, safety and nuisance issues.

mentioned, by-law enforcement is largely done on a reactive basis, responding to complaints and permit applications. And many by-law enforcement departments are short-staffed compared to parking enforcement operations.

Like the general population, enforcement officers may not consider idling particularly problematic, or may be unable to explain or defend the law to the public. Therefore, in addition to training enforcement officers in the particulars of a proposed or adopted idling control by-law, municipalities should ensure that they understand and can articulate the rationale for the law.

4.2.3 Appropriate Penalties that can be Applied without Disproportionate Effort

Any municipal by-law may be enforced by a summons that notifies a person that he or she has committed an infraction, and orders them to appear in court for a hearing on the issue. This procedure is appropriate for most municipal by-laws. However, municipalities that have or are planning to adopt idling control by-laws should consider establishing a set fine, which makes enforcement easier, less time-consuming, less costly and less of a burden on the courts. A set fine allows the enforcement officer to take a few minutes to write a ticket, which an offender most often will choose to pay by mail – although they will always have the option to contest the ticket in court. By contrast, issuing a summons and appearing in court may take several hours of an enforcement officer's time, will also take up the time of other court officers, and further crowd already packed court dockets.

In establishing a set fine, municipalities must also consider a penalty that is perceived as “fair” in relation to the damage inflicted on the environment and public health. Currently, most set fines for idling range between \$100 and \$155. These are considered significant penalties and strong deterrents. However, at least two Canadian municipalities planning to pass idling control by-laws in the near future are considering fines in the \$40 range.¹⁹ Officials for these municipalities argue that smaller fines still have a deterrent effect, but are less likely to be regarded as grossly unfair, and therefore be contested in court. Also, enforcement officers may be more reluctant to write a ticket for larger fines, either because the fine appears unreasonable or because offending drivers are more likely to react forcefully when given a ticket for \$100 or more.

4.2.4 An Enforcement Plan

No matter how well funded, no municipality ever has enough resources to enforce by-laws everywhere. Thoughtful enforcement planning can ensure that enforcement resources are used to the best effect.

Enforcement planning for an idling control by-law should incorporate the following activities:

- Identification of areas where idling compliance may be a problem so that education and enforcement efforts are appropriately targeted;
- Compliance promotion activities, including:

¹⁹ Pat Ryan, City of Vancouver and Bill Wiles, City of Markham, personal communication.

- Information and education on the rationale for, and requirements of, the law;
- Posting of signs to inform the public about the law and encourage voluntary compliance, especially in idling “hotspots”;
- Social marketing to encourage the commitment of individuals not to idle;
- Warnings issued to individuals or firms whose vehicles are found idling;
- Enforcement and legal action to compel compliance and impose penalties for violating the law. Approaches may include:
 - Complaints-based enforcement;
 - Pro-active blitzes of hotspots (usually connected to idling control campaigns);
 - On-going proactive enforcement;
 - Some combination of the above;
- Monitoring and periodic evaluation of enforcement activities and their impact on vehicle idling.

These aspects of enforcement planning are developed in more depth in Section 4.3.

4.3 ENFORCEMENT PLANNING AND IMPLEMENTATION

Effective enforcement planning and implementation involves both identification of idling hotspots and compliance promotion.

4.3.1 Identification of “Idling Hotspots”

Identifying areas where idling is a common problem is an important first step in enforcement planning. Municipal staff and councillors will be able to quickly identify many of these due to frequent complaints by the public. Typically, these “idling hotspots” include:

- | | |
|-----------------------|-----------------------------|
| ▪ Schools | ▪ Mall entrances |
| ▪ Childcare centres | ▪ Entertainment venues |
| ▪ Recreation centres | ▪ Tourist sites |
| ▪ Libraries | ▪ Fast food drive-ins |
| ▪ Transportation hubs | ▪ Car washes. ²⁰ |

Listing these hotspots – and adding to the list when new complaints come in – is an important first step in targeting areas for evaluating the extent of the problem, doing education, erecting signs, giving out warnings and then applying legal penalties. Enforcement agencies may not want to limit all their activities to these sites, but concentrating efforts in known areas of concern is a good use of limited enforcement resources.

²⁰ It may be difficult for municipalities that have allowed the establishment of drive-ins and car washes to do a great deal about idling in these venues. However, they are a major source of idling problems and complaints in many communities.

4.3.2 Compliance Promotion

Enforcement is widely regarded as more effective when undertaken together with promotion activities.²¹

Compliance promotion builds public knowledge of and support for a by-law. It provides the rationale for the by-law, explains the requirements and encourages people to comply voluntarily. Compliance promotion may involve the following activities:

i) Education and Engagement of Municipal Staff and Fleets

Compliance promotion with the general public is more effective if municipal employees are knowledgeable about the by-law, support it and abide by its provisions. An important early step in compliance promotion, then, is to communicate with municipal staff and companies on contract to the municipality, and ensure that municipal vehicles comply with the letter and spirit of the by-law. Communications with municipal staff can be done through:

- Broadcast e-mails
- Newsletters
- Bulletin board postings
- Lunch and learn sessions
- Workshops.

Some municipalities have established a fleet policy that limits operators from idling their vehicles for more than 10 seconds. Several municipalities have developed education programs for vehicle operators on the policy and developed incentives to encourage drivers to abide by it. All municipalities planning to adopt idling control by-laws should consider these actions.

Municipalities can inform the public (and remind drivers) of an idle-free policy for their fleet by displaying in all fleet vehicles windshield decals²² with an anti-idling message such as “I turn my engine **off** when parked.”²³ This will encourage the driver to do so, as well as send a message to the public. To expand the impact of its fleet policy, a municipality may want to encourage or challenge transit operations and other highly public fleets to implement their own idle-free policies and programs.²⁴

Municipalities planning idling control by-laws should consider declaring all municipal facilities – including civic centres, libraries and community recreation centres – to be “idle-free zones” and put up signs to that effect.²⁵

²¹ The International Network of Environmental Compliance and Enforcement makes this point in the previously cited *Principles of Environmental Enforcement*.

²² See the *Idle-Free Zone*, Natural Resources Canada’s web site for examples of this kind of decal and many other resources that municipalities can use to inform the public about idling.

²³ It would be a good idea *not* to put this decal on municipal vehicles that are allowed to idle to power auxiliary equipment needed for work.

²⁴ For more information on municipal fleet idling policies, see the Clean Air Partnership’s *A Model Idling Control Policy for Municipal fleets, May 2005*.

²⁵ Natural Resources Canada has artwork for anti-idling decals, signs and other materials that can be used free of charge by municipalities. See www.idling.gc.ca.

ii) Information and Education for the General Public

Compliance promotion activities for the general public involve broader information and education programs. These can take many different forms, including:

- Media releases and events (usually accompanying the announcement of a new by-law, an idle-free awareness campaign or an enforcement blitz);
- Advertising in newspapers, on billboards, on radio or other media;
- Printed cards, brochures, decals and posters;
- Web pages, especially on municipal sites;
- Displays in public venues such as civic centres and libraries;
- Permanent signs and/or banners at idling hotspots; and
- Workshops on idling and on the by-law for fleets, parent-teacher associations, business improvement associations and other interested groups.

Like idle-free information and awareness campaigns, compliance promotion aims to encourage a new social norm that supports idle-free behaviour. As a result, it conveys all the positive reasons for not idling, including cleaner air, decreased smog, acid rain and greenhouse gas emissions, savings in the cost of fuel and reduced wear and tear on vehicle engines. Compliance promotion tackles myths such as the benefits of idling for warming vehicle engines and saving the starter motor.

Compliance promotion alerts the public to the idling control by-law, its main requirements, and the penalties for non-compliance. Several municipalities have developed information cards that provide the rationale for their idling control by-law on one side of the card, and the provisions of the by-law on the other. These have been distributed both before and after enactment, to achieve public support for and voluntary compliance with the by-law.

iii) Warnings and Other Informal Responses to Violations

Compliance promotion can also involve informal ways of dealing with people who disregard the idling by-law. The goal of these informal responses is to educate, to seek the voluntary cooperation of non-compliant drivers and to bring them into compliance.

Contact with these drivers, or with the manager or owner of fleet vehicles, may occur as a result of a complaint or the observation of a violation by an enforcement officer. Enforcement officers consulted in the development of this report believe that the discussion between an enforcement officer and offending driver is usually effective in bringing about compliance.

Some municipalities also use mock tickets and warning letters as a form of compliance promotion. These can be used prior to passage of an idling control by-law, or to educate the public about a new by-law. The mock ticket is given to idling drivers or put on the windshield of vehicles left idling. It can be a very effective deterrent against future idling behaviour because the driver has been “caught” though not penalized for idling.

A few of the municipalities consulted in this research report use warning letters to promote compliance with idling by-laws. These are sent to the owners of vehicles about which complaints were made. The letters state that a complaint has been made about

their vehicle idling for an extended period, remind the recipient that a by-law restricts idling, and provide reasons for not idling unnecessarily.

iv) Public Reports on Enforcement Activities and Success Stories

Compliance promotion is also strengthened when municipalities report on their enforcement activities and successes, and when this information is broadcast widely in the community. Reporting on enforcement activities tells community members that this issue is important, that municipal officials are acting on it, and that the municipality is responsive to public concerns about vehicle idling. It also tells citizens who might not otherwise be deterred that they may be subject to a ticket or summons and a fine for not complying with the law.

Success stories that report on changes in idling behaviour in the community as a result of compliance promotion and enforcement can also encourage people to support the by-law and deter non-compliance. These kinds of reports require municipalities to monitor and evaluate their enforcement efforts. Monitoring and evaluation will be discussed in more depth in Section 4.5.

4.4 LEGAL ACTION TO COMPEL COMPLIANCE

Enforcement is essential to compliance with environmental laws, according to the International Network of Environmental Compliance and Enforcement (INECE), an organization of environmental officers from more than 100 countries. "(I)n any society, many people will not comply with the law unless there are clear consequences for non-compliance."²⁶ Formal mechanisms to enforce new laws are most effective if they are in place and utilized when requirements go into effect. "Delaying enforcement can undermine the credibility of the program and make it difficult to create an atmosphere of deterrence."²⁷ The INECE further recommends that enforcement is needed throughout the life of a regulation or regulatory program, to achieve initial compliance and ensure that compliance is sustained.

There are a number of approaches that municipalities can take to enforce their by-laws, encourage compliance by those who otherwise will not change their behaviour, and to impose a sanction on those who ignore the law. These include:

- Complaints-based enforcement
- Proactive enforcement (e.g. enforcement "blitzes" or ongoing proactive enforcement)
- Some combination of the above options.

²⁶ International Network of Environmental Compliance and Enforcement, 1992. *Principles of Environmental Enforcement*, page 57.

²⁷ Ibid, page 57.

4.4.1 Complaints-based Enforcement

This is the most common approach that municipalities use to enforce idling control by-laws. Citizens phone in a complaint when an infraction occurs and are asked for information on the situation, location and vehicle licence plate. Alternatively, citizens may report a chronic idling problem that may or may not be taking place at the time of the complaint. If an enforcement officer is available, he or she may go to the site. If not, they may follow up with the complainant and the vehicle owner at a later time.

It is difficult to take legal action on the basis of these complaints, because most often the enforcement officer does not actually observe the idling behaviour. As a result, the most that an enforcement officer can do is notify the vehicle owner about the complaint and issue a warning about a potential penalty. Many municipalities believe that warnings by enforcement officers are quite effective in deterring idling by individual vehicle owners and by drivers of fleet vehicles whose company receives a visit or notice about the problem.

If, however, enforcement departments receive complaints about an idling infraction from more than one witness and the complaints are well documented, an enforcement officer may issue a summons and pursue legal action that will result in a penalty and deter future violations.

4.4.2 Proactive Enforcement

Responding to complaints is essentially a reactive enforcement strategy. More proactive enforcement strategies are also available to municipalities with idling control by-laws. Budget and staff constraints mean that no municipality can enforce everywhere or all the time. However, municipalities can conduct a targeted, well-publicized campaign that alerts drivers to the fact that they are subject to enforcement action, which deters idling. Priority locations for proactive enforcement might include:

- Locations where health concerns are high and public sympathy can be leveraged (hospitals, childcare centres, schools)
- Locations with a high public profile (city or town hall, community centres)
- Places about which lots of complaints have been made (tourist sites, highway service centres, bus stops, delivery areas)
- Places where idling is an ongoing issue (commuter rail stations, shopping centres).

i) The Enforcement Blitz

Some municipalities have carried out enforcement blitzes that are very effective at getting media attention for the by-law and highlighting its importance to the municipality. Blitzes can be held shortly after a new idling control by-law is enacted or as part of a general idle-free campaign at the beginning of a summer smog season or at other times.

Blitzes involve a fairly large number of enforcement officers for a relatively short period of time. They usually take place at targeted locations where idling is problematic, where previous vehicle engine idling education has been done, and where signs alerting drivers to the by-law have been posted. Media and public attention is likely to be very high.

Monitoring of idling behaviour before and after the blitz and collection and publishing of statistics about enforcement activities during the event can provide good compliance promotion stories that reinforce support for the by-law and its deterrent effect.

Another advantage of an enforcement blitz is the concentrated and short-term use of enforcement personnel. A municipality can involve enforcement staff that normally might not enforce an idling control by-law, but for a short time could be spared for this task.

One of the drawbacks to enforcement blitzes is the creation of a public expectation of ongoing, high profile enforcement activities. When and if it becomes evident that this level of enforcement will not continue, drivers who are not convinced that idling should be curtailed could feel immune to prosecution and persist in flagrant idling behaviours. For this reason, if a municipality organizes an enforcement blitz, it should be integrated into an ongoing enforcement strategy.

ii) Ongoing Proactive Enforcement

Our research found no Canadian municipality that has yet undertaken an ongoing proactive enforcement strategy to back up an idling control by-law, although one community *is* planning such a strategy.²⁸

Such a proactive strategy would involve keeping tabs on idling hotspots and warning or ticketing idling drivers on an ongoing basis. As indicated earlier in this report, such a strategy would be much easier in many jurisdictions if enforcement of the idling control by-law were allocated to parking enforcement officers rather than to general by-law enforcement staff. Ongoing enforcement may have a longer-term deterrent effect than enforcement blitzes, and have more impact on changing social norms with respect to idling behaviour.

Where giving responsibility for enforcement to parking authorities is not possible, and then a quota on anti-idling tickets for enforcement officers could serve to sustain ongoing, proactive anti-idling enforcement. This approach would necessarily be more random, as officers keep their eyes out for idling violations while going about their other duties. Random enforcement may have less publicity potential, but may help to ensure that no one feels immune from the law.

iii) Combined Enforcement Strategies

These enforcement strategies are not mutually exclusive. The most effective strategy will likely be a mix of the above approaches, involving enforcement blitzes at particularly problematic idling hotspots or during smog season, and less-intensive but ongoing enforcement at other times.

²⁸ Bill Wiles, Town of Markham. Personal communication.

4.5 EVALUATING ENFORCEMENT PROGRAMS

Monitoring violations, tracking education and enforcement activities and evaluating any changes that result from these can be very useful for municipalities that pass idling control or other environmental by-laws. Monitoring and evaluation can help municipalities determine if the by-law and associated enforcement strategies are having a significant impact on idling and resultant air pollution and greenhouse gas emissions. A monitoring and evaluation effort can help provide statistics that validate the program and discover “success stories” which are important for compliance promotion. A well designed program to measure enforcement activity and its impact can also aid a municipality in identifying weaknesses in the by-law or in specific enforcement activities, and amend these for better results.

An evaluation program requires some up-front planning to collect, store and analyze information. Most municipalities already collect enforcement data and store it on their computer systems. Many municipalities provide their enforcement officers with handheld computers for issuing tickets and summonses. For these municipalities, the collection and analysis of information necessary to monitor and evaluate an anti-idling enforcement program should not be difficult – although it will involve time and effort.

A thorough monitoring and evaluation programs for anti-idling enforcement would include the following activities:

1. Efforts to detect violations and determine where to target enforcement resources, including:
 - Collecting and tabulating total numbers of complaints about idling vehicles and breaking these down by location, type of vehicle, specific fleets involved, etc.²⁹ Complaint numbers will not necessarily be an accurate reflection of the amount of idling that is occurring, but it will reflect the consciousness of the public about the issue, and may initially rise as a result of passing a by-law, because citizens feel that something can now be done about the problem; and/or
 - Identifying specific idling “hotspots” from public complaints and by tapping the knowledge of enforcement officers and other municipal staff.
2. Collection of information to monitor and support enforcement actions. Useful information to collect would include:
 - Data on compliance promotion efforts (e.g. number of signs posted and where, numbers of flyers distributed and to whom, workshops held, media messages published or broadcast, drivers contacted in social marketing programs and committing not to idle, etc.);
 - Data on enforcement efforts, including enforcement contacts with complainants and idling drivers, warnings given, fines or summonses issued, etc. (This might include data on complaints not acted on because drivers are exempt from the by-law.);
 - Anecdotal information from enforcement officers on the response of drivers contacted as a result of complaints or observed idling behaviour;
 - Information on the time and effort required to undertake different types of enforcement activities and the relative effects of each; and/or

²⁹ This would require call centre support.

- Measure costs of the program including materials and wages.
3. Evaluation of enforcement efforts and their impacts on idling:
- Measure changes in knowledge and/or attitude of the public as a result of compliance promotion, an enforcement blitz or ongoing enforcement program (using a survey);
 - Monitor changes in the numbers of complaints following passage of an idling control by-law, a compliance promotion program or enforcement blitz;
 - Evaluate changes in behaviour of individual drivers or particular fleets of vehicles as a result of warnings or other enforcement actions (usually measured by observation at selected sites); and/or
 - Calculate the cost of the program in relation to the changes seen, to determine if the program is an effective use of resources for reducing air pollution and climate change.

4.6 SUMMARY

An enforcement strategy should be planned, implemented and evaluated whenever a municipality passes an idling control by-law. Enforcement is necessary to demonstrate the resolve of the municipal council to solve this problem, and to deter unnecessary and polluting idling behaviour. Compliance promotion is an important element of enforcement, and should be integrated in the enforcement program. A mix of enforcement strategies may be the most effective means to ensure compliance and gradually reduce idling in our communities.

5 CONCLUSIONS

Canadian municipalities are increasingly turning to idling control by-laws as one means of tackling the problem air pollution and greenhouse gas emissions within their towns and cities. This primer was prepared to help municipalities that are considering such a by-law, or are reviewing an existing by-law and its enforcement.

Drawing on the lessons from the review of existing by-laws, and after discussions with staff in many municipalities, we developed a model by-law that has fewer exemptions and that we believe will be easier to enforce than many existing by-laws. Until now, municipalities have tended to draw up new idling control by-laws by adopting most or all of the provisions of existing by-laws. This model by-law – based on an assessment of the strengths and weaknesses of existing by-laws – gives municipalities an alternative basis on which to construct an enforceable by-law that regulates and reduces vehicle idling.

Enforcement is the most challenging aspect of by-law implementation for municipalities. Effective enforcement requires time for planning and resources for implementation that municipal decision-makers need to consider when making a decision to regulate idling in their communities.

APPENDIX A: INDIVIDUALS CONSULTED FOR THIS RESEARCH

Angie Antoniou, Manager
Right of Way Management, District 1
Transportation Services
City of Toronto
Metro Hall, 17th Floor
55 John Street
Toronto, ON M5V 3C6
416-392-1525
aantonio@toronto.ca

Ken Bennett, Manager, Sustainability and Environment Services
District of North Vancouver
355 West Queens Road
North Vancouver, BC V7N 4N5
604-990-2445
kbennett@dnv.org

Peter Berardi, Provincial Offences Officer
Transportation Services
City of Toronto
City Hall, Main Floor West
100 Queen Street West
Toronto, ON M5H 2N2
416-338-5899
pberardi@toronto.ca

Kiran Ghai, Environmental Research and Policy Analyst
Region of Peel
44 Peel Centre Drive
Brampton, ON L6T 4B5
905-791-7800 ext. 2479
kiran.ghai@region.peel.on.ca

Paul Hutt, Coordinator
By-law Services
City of Ottawa
255 Centrum Boulevard
Ottawa, ON K1E 3V8
613- 580-2400 ext. 41567
paul.hutt@ottawa.ca

Eric Jensen, Supervisor
Permit Parking
Transportation Services
City of Toronto
City Hall, Main Floor West
100 Queen Street West
Toronto, ON M5H 2N2
416-392-1801
ejensen@toronto.ca

Bob Judge, Manager
By-law Services
City of Niagara Falls
4310 Queen Street
Niagara Falls, ON L2E 6X5
905-356-7521 ext. 4262
bjudge@city.niagarafalls.on.ca

Ann Kalinowski, Manager
Licensing and Enforcement
By-law Compliance
City of Windsor
185 Wyandotte Street East
Windsor, ON N9A 3H3
akalinowski@city.windsor.on.ca

Shirley Kam, Senior Economic Developer
City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
905-832-6248
shirley.kam@vaughan.ca

Jim Koutroubis, Director
Public Works and Environmental Services
Town of Newmarket
P.O. Box 328
395 Mulock Drive
Newmarket, ON L3Y 4X7
905-953-5139
jkoutroubis@town.newmarket.on.ca

Michael Mannapso, By-law Enforcement Officer
City of Woodstock
P.O. Box 40
944 James Street
Woodstock, ON N4S 7W5
519-539-2382 ext. 816
mmannapso@city.woodstock.on.ca

Glenn Martin, By-law Enforcement Officer
Town of Huntsville
37 Main Street East
Huntsville, ON P1H 1A1
705-789-1751
glenn.martin@huntsville.ca

Andrew McCammon, former Environmental Coordinator
City of Vaughan

Greg McLean, Supervisor
Parking Enforcement
City of Kingston Parking Services
216 Ontario Street
Kingston, ON K7L 2Z3
613-546-4291 ext. 1336
gmclean@cityofkingston.ca

Carol Mee, Supervisor
Environmental Information & Education
Toronto Public Health
277 Victoria Street, 7th Floor
Toronto, ON M5B 1W2
416-338-8098
cmee@toronto.ca

Christopher Morgan, Senior Specialist
Air Quality Improvement
Works & Emergency Services
City of Toronto
City Hall, 21st Floor, East Tower
100 Queen Street West
Toronto, ON M5H 2N2
416-392-6903
cmorgan1@toronto.ca

Gary Murray, Senior Manager
FleetSmart Program
Transportation Energy Use Division
Natural Resources Canada
580 Booth Street, 12th Floor
Ottawa, ON K1A 0E4
613-995-8401
gmurray@nrcan.gc.ca

Paula Nichols, Manager
City of Kingston Parking Services
216 Ontario Street
Kingston, ON K7L 2Z3
613-546-4291 ex. 1279
pnichols@cityofkingston.ca
Dan Olding, Manager of Environmental Programs
Town of Richmond Hill
P.O. Box 300
225 East Beaver Creek Road
Richmond Hill, ON L4C 4Y5
905-771-5505
dolding@richmondhill.ca

Sara Peckford, Officer for Environmental Progress
Town of Caledon
6311 Old Church Road
Caledon East, ON L0N 1E0
905-584-2272 ext. 4269
speckford@town.caledon.on.ca

Kim Perrotta, former Air Quality Coordinator
City of Hamilton

Daniel Raymond
Division de la gestion de documents et des archives
Règlements municipaux
Ville de Montréal
Hôtel de Ville
275, rue Notre-Dame Est, bur. R-106
Montréal, QC H2Y 1C6
514-872-0032
draymond@ville.montreal.qc.ca

Angela Reed, Bylaw Regulation Clerk
City of Nanaimo
455 Wallace Street
Nanaimo, BC V9R 5J6
250-755-4422
angela.reed@nanaimo.ca

Pat Ryan
Assistant Traffic Management Engineer
Traffic Management
City of Vancouver
604-873-7424
patrick.ryan@vancouver.ca

Vanita Sahni, Social Epidemiologist
Health Promotion and Environmental Protection Office
277 Victoria Street, 7th Floor
Toronto, ON M5B 1W2
416-338-8093
vsahni@toronto.ca

Cliff Sherman, Manager of Enforcement
City of Brampton
2 Wellington Street West
Brampton, ON L6Y 4R2
905-458-3424 ext. 120
cliff.sherman@city.brampton.on.ca

Shelina Sidi, Project Engineer
Policy and Planning Department
Greater Vancouver Regional District
4330 Kingsway
Burnaby, BC V5H 4V8
604-436-6750
shelina.sidi@gvrd.bc.ca

Fleur Storace-Hogan, Environmental Projects Support Officer
City of Burlington
P.O. Box 5013
426 Brant Street
Burlington, ON L7R 3Z6
905-335-7600 ext. 7580
storace-hoganf@burlington.ca

Ron Taylor, Economic Development Officer
Corporate Promotions & Economic Development
City of Pickering
1 The Esplanade
Pickering, ON L1V 6K7
905-420-4625 ext. 2292
rtaylor@city.pickering.on.ca

Cindy Toth, Director
Environmental Policy
Town of Oakville
1225 Trafalgar Road
Oakville, ON L6J 5A6
905-845-6601 ext. 3299
ctoth@oakville.ca

Mavis Urquhart, Manager
Environmental Leadership
Town of Markham
Anthony Roman Centre
1 Town Centre Boulevard
Markham, ON L3R 9W3
905-415-7516
murquhart@markham.ca

Franca Ursitti, former Research Consultant
Toronto Public Health

Bill Wiles, Manager
By-law Enforcement & Licensing
Town of Markham
101 Town Centre Boulevard
Markham, ON L3R 9W3
905-475-4851
bwiles@markham.ca

APPENDIX B: TABLES SUMMARIZING KEY FEATURES OF EXISTING IDLING CONTROL BY-LAWS

Table 1: Stand-alone Idling control By-laws

Feature	Burlington	GVRD	Guelph	Huntsville	Kingston	London	Markham	Niagara Falls	Oakville
When enacted	June 2004	Recommended June 2004	December 1998	September 2003	September 1997	August 1999	June 2005	October 1998	August 2002
Application	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail) and boats	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail)
Exemptions	a, b, c, d, e, f, g, h, i, j	a, b, c, f, g, h, j, k, l	b, c, e, f, g, i, j, l, o	a, b, c, d, e, f, g, h, i, j, l, o	a, b, c, d, e, g, h, i, j, l, m, n	a, b, c, d, e, f, g, h, i, j, l	a, b, c, d, f, g, j, l	a, b, c, d, e, f, g, h, i, j, l	a, b, c, d, e, f, g, h, i, j, l
Location	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified
Time allowed	3 minutes in 60-minute period; Transit – 10 minutes	3 minutes in a 60-minute period	10 minutes in a 60-minute period Transit – 15 minutes	5 consecutive minutes; Transit – 15 minutes	3 minutes in a 60-minute period; Transit – 15 minutes	5 minutes Transit – 15 minutes	3 minutes continuously	3 minutes Transit – 15 minutes	5 minutes; Transit – 15 minutes
Enforcement agents	Parking enforcement officers	Not specified	By-law enforcement; Police dept.	By-law and parking enforcement	Parking enforcement	Public health inspectors	By-law enforcement officers	By-law enforcement officers	By-law enforcement officers
Type of enforcement	Not yet enforced	Model by-law for enactment by GVRD municipalities	Warnings	Education and warnings first; Solicited & received support of local businesses	Mainly warnings, summons and fines “last resort”	Complaints-based (though did have active surveillance initially)	Proactive enforcement campaign planned	Complaints-based; Intent to issue summons on habitual offenders	Verified complaints
Fines	\$155 set fine (includes victim surcharge)	\$50 minimum (up to \$2000) recommended	No set fines	\$100	No set fines	\$105 + \$20 victim surcharge	Not yet set at time of writing	No set fines	\$155 set fine
Charges, warnings or summons issued	Friendly warning letters sent; Mock tickets given out with info on idling & by-law	To be decided by specific municipalities enacting the model by-law	None to date	Have warned tour buses; Issued some tickets, which were paid promptly	Warnings issued mainly to tour buses in city centre; a few summons issued	Follow-up on 30-40 complaints since 1999; Issued several warnings	Will use friendly warnings & tickets as warranted	Warnings issued, mainly to bus companies	Several warnings issued; 2 trucking companies fined
Additional comments	Came into force May 2005; Burlington also has provisions in noise by-law (5 min. limit)	Not much take-up of this model by-law because of enforcement issues	Plans to review the by-law and incorporate set fines	Has specific exemptions for driver rest stations, tour buses & specified locations	By-law in effect in former City of Kingston; revised by-law proposed for amalgamated city	Active educational program	Temperature exemption is above 30 or below 0. No special exemptions for transit vehicles.	Innovative services for tour bus drivers to prevent idling	Focus on education

Table 1: Stand-alone Idling control By-laws (continued)

Feature	Pickering	Stratford	Toronto	Vaughan	Whitchurch Stouffville	Windsor	Woodstock
When enacted	February 2004	July 2001	1996 & 1998	June 2004	June 2003	June 2001	June 2002
Application	Vehicles (except rail)	Vehicles (except rail)	Vehicles (except rail), ferries and boats	Vehicle (except rail)	Vehicles	Vehicles (except rail) and boats	Vehicles (except rail)
Exemptions	a, b, c, e, f, g, h, i, j, l	a, b, c, d, e, f, g, h, i, j, l, o	a, b, c, d, e, f, g, h, i, j, p, q, r	a, b, c, d, e, f, g, h, i, j, l, m, n	a, b, c, e, j, l	a, b, c, d, e, f, g, h, i, j, l, m, n	a, b, c, d, e, f, g, h, i, j, l
Location	Not specified	Not specified	Not specified	Not specified	Listed idle-free zones (16 sites)	Not specified	Not specified
Time allowed	5 consecutive minutes; Transit – 15 minutes	5 consecutive minutes; Transit – 15 minutes	3 minutes in 60-minute period; Transit – 15 minutes	5 consecutive minutes; Transit – 15 minutes	3 minutes in a 60 minute period	5 minutes in a 60 minute period; Transit – 15 minutes	5 consecutive minutes; Transit – 15 minutes
Enforcement agents	By-law enforcement or regional police	By-law enforcement	By-law staff in Transportation Services Division	By-law enforcement	No enforcement section	By-law enforcement & parking enforcement	By-law enforcement
Type of enforcement	Not actively enforced	Complaints-based	Mainly complaints-based; three “blitzes” in 1999, 2000 & 2003	Complaints based; Computer code to track complaints	Rely on voluntary compliance	Complaints-based and proactive (parking enforcement officers)	Complaints-based; Take an educational approach
Fines	No set fine	No set fine	\$105 set fine + \$25 victim surcharge	\$250 + victim surcharge requested	No set fine	\$105 + victim surcharge	No set fine
Charges, warnings or summons issued	None to date	No charges laid to date; Have given out warnings	247 tickets, 6 summonses, ~ 1350 warnings (to end of 2003)	None to date	None; Rely on voluntary compliance	None to date: educational approach	None to date
Additional comments			Toronto has included boats in its anti-idling provisions		Schools asking for idle-free signs	Windsor has also included boats and ferries	

Exemptions

(The specific wording varies from city to city.)

- a) Fire, police and emergency medical service vehicles
- b) Vehicles participating in an emergency activity
- c) Vehicles that remain motionless because of traffic conditions or mechanical difficulties
- d) During hot or cold weather
- e) Where a medical doctor certifies that a person requires temperature maintained within a certain range
- f) Mobile workshops (where operation of the motor is essential to the basic function of the vehicle)
- g) Where idling is necessary for maintenance or repair
- h) Transit vehicles while passengers are embarking or disembarking
- i) Transit vehicles at a layover or stopover with passengers on board
- j) Vehicles in a parade or other authorized event
- k) A vehicle that operates a heating or refrigeration system for the preservation of cargo
- l) Armoured vehicles, where a person remains inside guarding the contents, or while the vehicle is being loaded or unloaded
- m) Ferry boats
- n) Boats not at anchor or tied to a dock
- o) Other

Table 2: Anti-Idling Provisions In Other By-laws in Some Municipalities

Feature	Brampton*	Caledon	Kingston*	Montreal	Markham*	Nanaimo	Newmarket*	District of North Vancouver
By-law type	Traffic and Parking By-law	Noise By-law	Noise By-law	Air Purification By-law	Noise By-law	Noise By-law	Noise By-law	Nuisance Abatement By-law and Traffic By-law
When enacted	Idling amendment added August 2001	June 1986 Amended June 1995	March 2004	1986	Amended 2003	1994 (amended 1997)	July 2004	Nuisance: 1996 Traffic: 2004
Application	Vehicles	Vehicle motor	Vehicles and auxiliary equipment	Vehicles	Engine or motor in a vehicle or auxiliary equipment	Truck or bus with diesel engine	Vehicle motor	Motor vehicle engine
Exemptions	None	p, q, r, s, t (See next page for explanation)	q, r, u	q, r	p, q, r, s, t, u	a, v, x, y	k, p, q, y	Nuisance: a, g, q Traffic: c, g, j, l, q
Location	Where signs displayed (residential area near factories)	In residential areas	Not specified	Less than 60 metres from an opening in a building	In residential areas	Highway, private or public place	Not specified	Not specified
Time allowed	3 minutes	5 minutes	5 minutes	4 minutes	5 minutes	15 minutes	10 minutes	3 minutes
Enforcement agents	By-law enforcement officers	By-law enforcement officers	Parking enforcement; Police		By-law enforcement officers	By-law officer	By-law enforcement or regional police	By-law enforcement officer and RCMP
Type of enforcement	Not actively enforced; Factories ensure compliance	Complaints-based education; 20 complaints per year	Mainly in town centre with tour buses; Educational approach	Mainly educational response to complaints	Complaints-based; Resolved by talking to offender	Complaints-based	Complaints-based	Complaints-based. Mainly aimed at tour buses.
Fines	No set fine	No set fine	\$100	No set fine	No set fine	\$100	No set fine	Nuisance: \$50 Traffic: \$20 min.
Charges, warnings or summons issued	None to date	Not available	None to date	Not available	No summons issued to date	Not aware of any	None to date	Not available
Additional comments		Model for anti-idling provisions in Ontario noise by-laws	Inconsistent allowable idling times in stand-alone & noise by-laws	This appears to be the first municipal idling control by-law in Canada			Stand-alone by-law in preparation	

Table 2: Anti-Idling Provisions In Other By-laws in Some Municipalities (continued)

Feature	Ottawa	Richmond Hill	Vancouver	Victoria
By-law type	Noise By-law	Noise By-law	Motor Vehicle Noise By-law	Noise By-law
When enacted	2004	July 2002	1998	2003
Application	Vehicles (except rail)	Engine in any motor vehicle or auxiliary equipment	Buses with diesel engines	Truck or bus engines
Exemptions	q, r, z	p, q, r, s, t	v	a, v
Location	Not specified	Residential area or quiet zone	Not specified	Not specified
Time allowed	5 minutes	5 minutes	3 minutes	3 minutes
Enforcement agents	By-law enforcement; Police	By-law enforcement officers	Parking enforcement and police officers	By-law enforcement
Type of enforcement	Complaints-based, but only enforce noise-based complaints		Active and complaints-based enforcement	Complaints based, but only enforce noise-based complaints
Fines	\$305 + \$75 victim surcharge	No set fine	Minimum \$100 up to \$2000	Minimum \$200
Charges, warnings or summons issued	N/A	Not tracked though warnings have been issued	Not known	N/A
Additional comments	Total exemption for transit vehicles		Plans to adopt stand-alone idling control by-law in 2005	

Exemptions

(Note: The specific wording for exemptions varies slightly from city to city.)

- a) Fire, police and emergency medical service vehicles (see Table 1)
- c) Vehicles that remain motionless because of traffic conditions or mechanical difficulties (See Table 1)
- g) Where idling is necessary for maintenance or repair (See Table 1)
- j) Vehicles in a parade or other event authorized by the municipality
- l) Armoured vehicles, where a person remains inside guarding the contents, or while the vehicle is being loaded or unloaded (See Table 1)
- p) The original equipment manufacturer recommends longer idling period for operation of the vehicle
- q) Continuous operation is essential to a basic function of the vehicle or equipment
- r) Weather conditions justify the use of heating or refrigeration systems powered by the motor for the welfare of the operator, passengers or animals, or preservation of perishable cargo
- s) Low temperatures make longer idling periods necessary after starting the motor or engine
- t) Idling is for the purpose of flushing the radiator ... when such work is performed other than for profit
- u) The vehicle is in an enclosed structure which prevents excessive noise emission
- v) Located in a garage or depot intended for the long-term parking of the vehicle
- w) Municipal other government or utility vehicles engaged in service of the public
- x) Vehicles loading and unloading cargo
- y) When necessary for start up of bus used for public transportation or for the comfort of passengers
- z) Vehicles operating in the course of providing transit service

* Municipalities marked with an asterisk are working on stand-alone idling control by-laws.