

Final Evaluation of Toronto's Pesticide Bylaw and Summary of New Provincial Pesticide Regulation

Date:	May 4, 2009
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

City Council enacted Toronto's Pesticide Bylaw (Municipal Code 612) in 2003 and it came into effect on April 1, 2004. Toronto Public Health led the implementation of the bylaw, frequently collaborating with Parks, Forestry and Recreation and Toronto Water.

Toronto's bylaw succeeded in reducing pesticide use and encouraging residents and companies to adopt more sustainable lawn and garden care approaches. In 2007, almost 60 per cent fewer Toronto households reported any use of pesticides on their lawns, as compared with 2003. Furthermore, about two-thirds of homeowners report that they or their lawn care companies are using lower-risk pesticides and/or more natural alternatives, which is a higher proportion than before the bylaw was in place.

An estimated 154 municipalities in seven provinces – including 35 in Ontario – have passed bylaws to restrict pesticide use to protect health and the environment. This municipal leadership has prompted province-wide restrictions on the use and sale of pesticides, first in Quebec and now in Ontario. On April 22, 2009, Ontario Regulation 63/09 came into effect, restricting the use and sale of cosmetic pesticides across the province. The new regulation replaces municipal bylaws in Ontario, therefore Toronto's Pesticide Bylaw is no longer in effect.

The Ontario regulation is more restrictive than Toronto's bylaw, banning the sale of many common pesticides, limiting exemptions, and tightly restricting remaining uses. It should further decrease the use of pesticides, and therefore human exposure to these substances, in Toronto and across Ontario. TPH anticipates a smooth transition for the City and its residents in meeting the new provincial requirements.

Financial Impact

There are no financial implications with this report.

DECISION HISTORY

At its meeting of May 21, 22, 23, 2003, Toronto City Council passed the Pesticide By-law (By-law 456-2003, Municipal Code, Chapter 612). The bylaw came into effect on April 1, 2004.

City Council discussed further elements of the Pesticide Bylaw at its meetings on May 18, 19 and 20, 2004 and February 16, 2005, and made additional recommendations related to its implementation.

The Medical Officer of Health (MOH) presented an interim evaluation report of the Pesticide Bylaw to the Board of Health at its February 26, 2007 meeting. <http://www.toronto.ca/legdocs/mmis/2007/hl/bgrd/backgroundfile-1671.pdf> The report indicated promising signs of behaviour change regarding the use of pesticides in Toronto. For example, 35 per cent fewer Toronto households reported any use of pesticides on their lawns in 2005, as compared with 2003. An increasing number of households reported that they or their lawn care companies were using lower-risk pesticides and/or more natural alternatives.

On April 22, 2008 the provincial government introduced Bill 64, the *Cosmetic Pesticides Ban Act*, to prohibit the use and sale of pesticides for cosmetic purposes across Ontario. The MOH indicated his support for the intent of Bill 64 in his report to the May 20, 2008 meeting of the Board of Health. He expressed concern, however, that the Bill's proposal to render municipal bylaws inoperative could result in fewer protections for the health of Torontonians, depending on its final wording. The Board of Health recommended communicating this concern to the Minister of Environment, along with additional suggestions to strengthen the proposed Bill.

<http://www.toronto.ca/legdocs/mmis/2008/hl/bgrd/backgroundfile-12740.pdf>

ISSUE BACKGROUND

The role of municipalities in regulating pesticides began in the early 1990s in Quebec. Previously considered the exclusive jurisdiction of the federal and provincial governments, municipalities began to restrict pesticide use in response to growing public concern and scientific evidence about the hazards of these substances. In 2001, the Supreme Court of Canada upheld a pesticide bylaw in Hudson, Quebec that was challenged by a lawn care company¹. This decision motivated many municipalities, including Toronto, to consider passing pesticide bylaws. Currently, an estimated 154 Canadian municipalities in seven provinces have passed pesticide bylaws.²

Since the late 1990s, the City of Toronto has reduced pesticide use on public greenspace and promoted alternatives to residents through education campaigns. Following the 2001 Supreme Court decision, the Toronto Board of Health began to consider pesticide restrictions on private property. After broad public consultation and scientific review, City Council passed a pesticide bylaw in May 2003 that was modelled on the Hudson, Quebec bylaw. Toronto's bylaw (Municipal Code 612) came into force on April 1, 2004.

Toronto's Pesticide Bylaw restricted the application of pesticides on all public and private properties in the City of Toronto. The bylaw applied to anyone who used pesticides outdoors, including homeowners, renters, lawn care companies, golf courses and cemeteries. The bylaw permitted the use of pesticides in certain situations, such as to control or destroy a health hazard or a pest which has caused infestation to property. It also permitted the use of certain lower-risk products. The bylaw did not regulate the sale of pesticides, which is under provincial authority.

In 2008, the Ontario government announced its intention to pass legislation to ban the use of pesticides for cosmetic purposes. TPH, in consultation with other City divisions, contributed to the development of the legislation through the public comment process and meetings between TPH and Ministry of Environment staff.

On March 3, 2009, the provincial government filed Ontario Regulation 63/09. This regulation provides the framework for the changes proposed in the *Cosmetic Pesticides Ban Act, 2008*. The regulation came in to force on April 22, 2009.

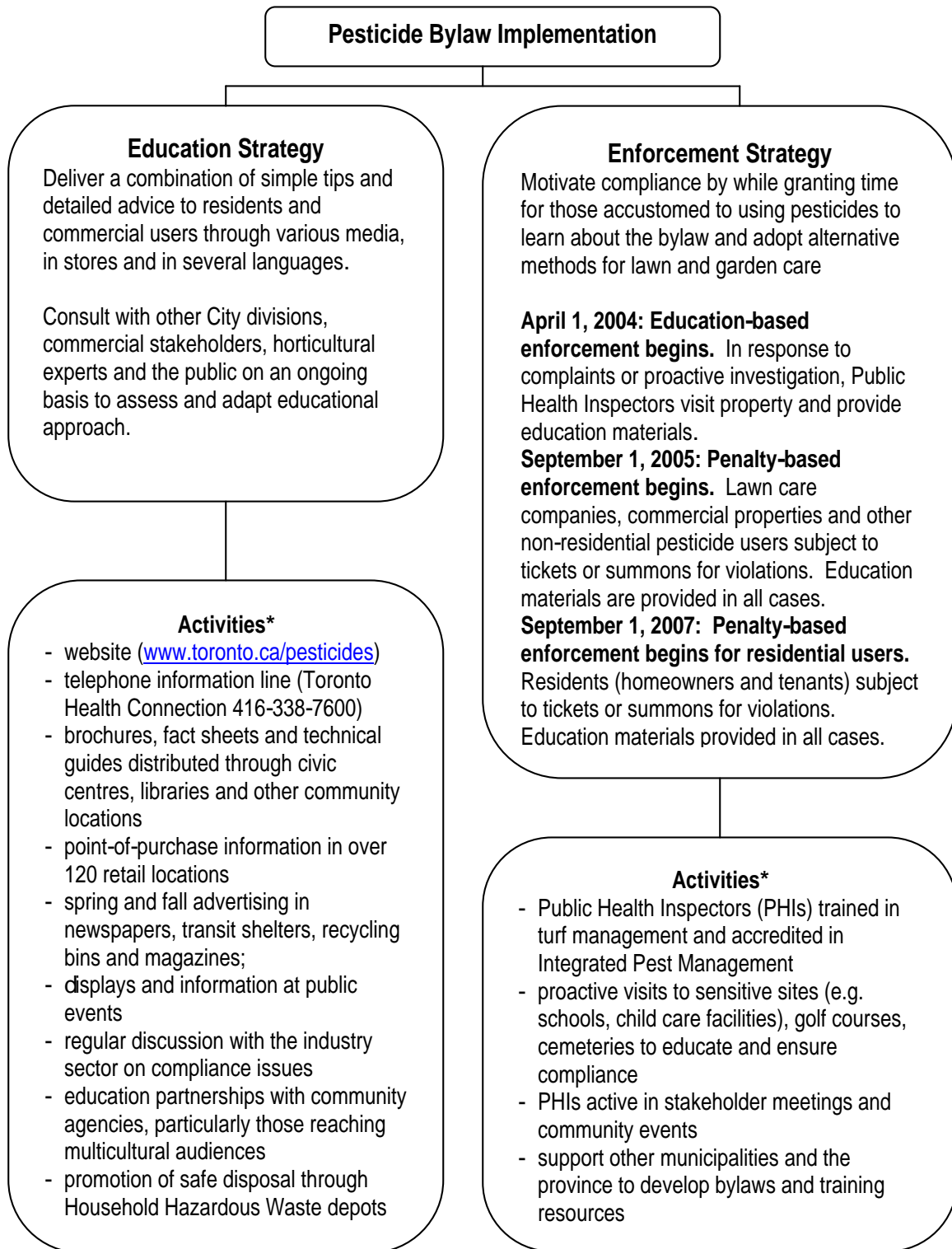
COMMENTS

Implementation of Toronto's Pesticide Bylaw

TPH led the implementation of the bylaw in collaboration with Legal Services, Toronto Water and Parks, Forestry and Recreation. The staff expertise in these divisions routinely supported TPH's enforcement and education activities. Collaboration also helped City agencies, boards, commissions, corporations and divisions (ABCCDs) comply with the bylaw and explore natural approaches to maintaining parks and other public spaces.

City Council acknowledged that for many residents the bylaw presented a challenge to long-standing behaviours regarding lawn and garden care. Council was also aware that many in the professional lawn care sector were concerned that the law would damage their businesses. To support residents and businesses in adapting to these challenges, TPH implemented the Pesticide Bylaw with a dual focus on public education and phased bylaw enforcement to motivate compliance, raise awareness and support professionals and homeowners in adopting pesticide alternatives. Figure 1 summarizes the education and enforcement activities.

Figure 1: Summary of pesticide bylaw education and enforcement activities



*More detail on specific education and enforcement activities is available in the 2007 interim evaluation report at <http://www.toronto.ca/legdocs/mmis/2007/hl/bgrd/backgroundfile-1671.pdf>

Evaluation of the Pesticide Bylaw

The goal of the Pesticide Bylaw was to promote public health by reducing exposure to pesticides. As people become more aware of the bylaw and of the information about how to manage their lawns and gardens without pesticides, it was anticipated that fewer pesticides would be used and consequently public exposure would be reduced.

In Canada, virtually no data on the actual quantities of pesticides used for lawns or gardens are collected or made publicly available. In the absence of sales and use data, TPH collected and reviewed the results of focus groups and surveys of Toronto residents, Public Health Inspectors' statistics on bylaw compliance and pesticide use, and information about the experiences of residents, commercial stakeholders, and City staff. These data provided a number of indicators of the bylaw's impact, including:

- awareness of the bylaw
- reported changes in pesticide use behaviour
- enforcement and compliance
- economic impacts
- comparable experience in other jurisdictions

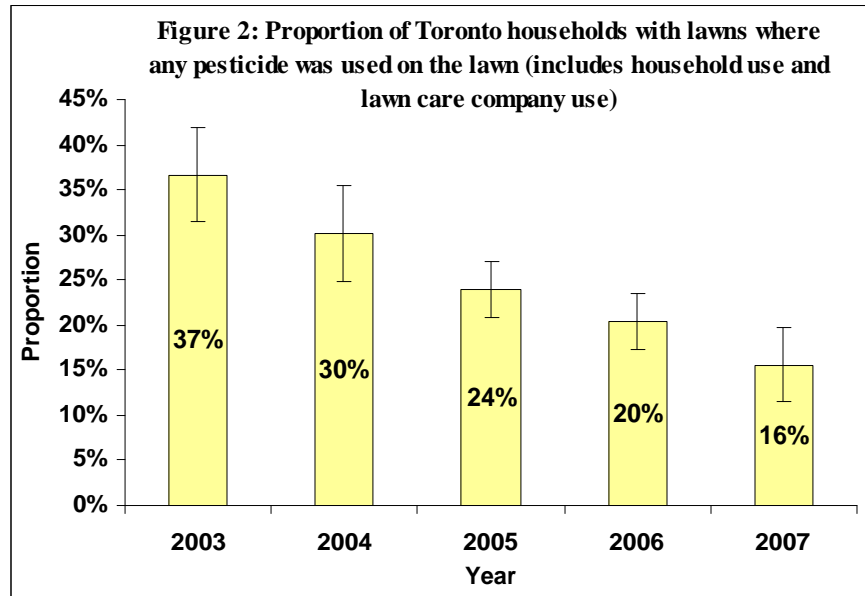
Most of the survey information is collected through the Rapid Risk Factor Surveillance System (RRFSS). RRFSS is a confidential monthly telephone survey used by Toronto Public Health and other Ontario health units to monitor community knowledge, attitudes and risk behaviours related to a variety of public health issues. Each year since the fall of 2003, for approximately six months between September and April, the Toronto RRFSS surveys have included questions about pesticide use during the previous summer.

In addition to RRFSS, TPH conducted focus groups and surveys to better understand public behaviour and the response to specific elements of the education and enforcement programs. Data collected by organizations in other jurisdictions have been used where possible to supplement the TPH data.

The findings presented in this report are drawn, unless otherwise indicated, from results of RRFSS surveys of Toronto residents completed between September and April, each year from 2003 to 2007³. RRFSS data are not yet available from 2008.

Fewer people report using pesticides in Toronto

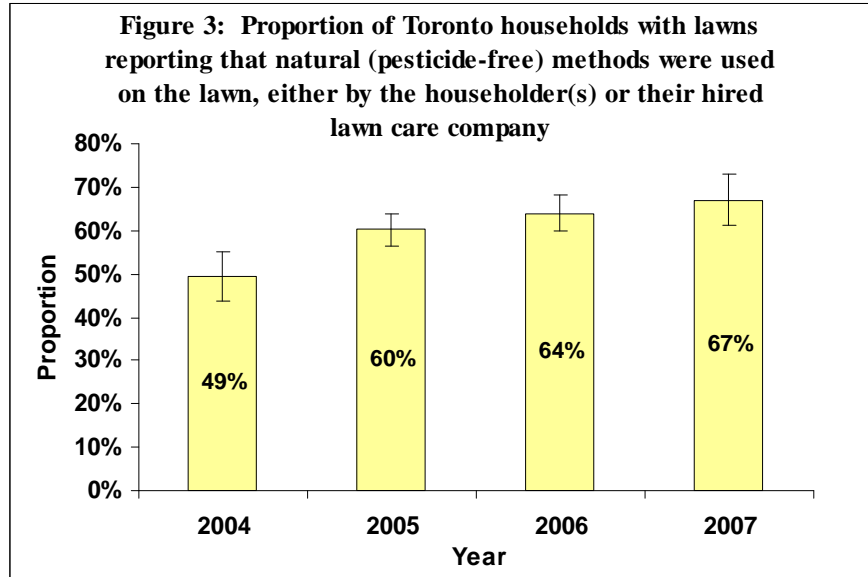
From 2003 to 2007, the proportion of Toronto residents who report any pesticide use on their lawns decreased by 57 per cent. See Figure 2. More than one-third (37% ± 5%) of Toronto households with lawns reported that pesticides had been used on their lawns in the summer of 2003. Four years later, 16 per cent (± 4%) of such households report pesticide use. This remaining pesticide use may be non-compliance or indicate pesticide use that is permitted under the bylaw, such as lower-risk products or to control pest infestations.



Toronto households also report that their lawn care companies have substantially reduced their use of pesticides. In 2003, more than half (60% ±11%) of the Toronto households that reported they hired a lawn care company indicated that the companies had applied pesticides to the lawn. In 2007, the proportion of such households reporting that their lawn care company applied pesticides was 12 per cent (± 8 %). During that same period, the proportion of households who reported that someone in their household had used pesticides on their lawn decreased from 25(± 5%) to 14(± 4%) per cent.

Reported use of natural alternatives has increased

Surveys also indicate that use of alternatives is increasing in Toronto. This is encouraging because alternative approaches such as overseeding, proper fertilization and using lower-risk pest control products are essential to maintain lawns without pesticides. In 2004, 49 per cent (± 6%) of all households with lawns reported some use of natural lawn care methods, either by a lawn care company or a householder. In 2007, this proportion was 67 per cent (± 6%). See Figure 3.



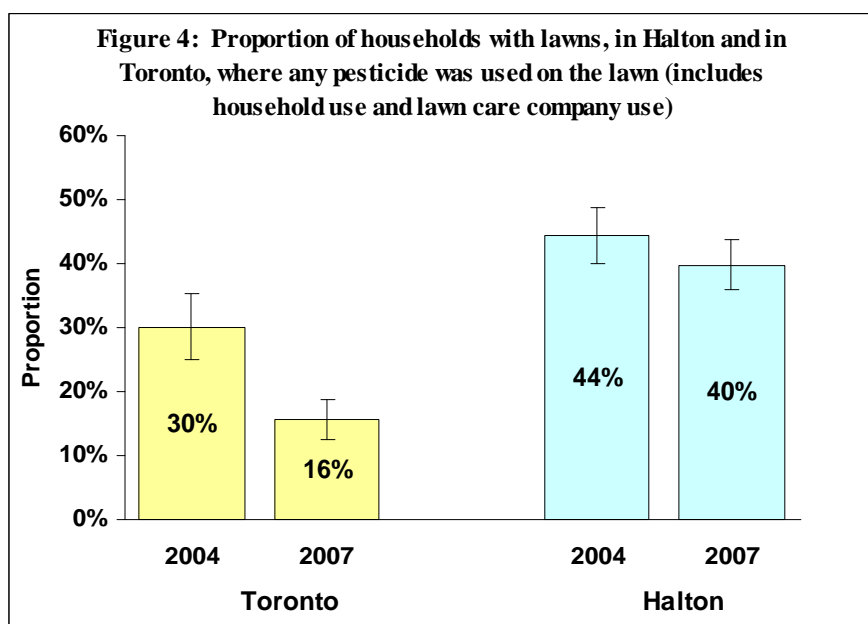
Most people are aware of the bylaw

Awareness of the bylaw is high, particularly among those who have a lawn. Nearly 75 per cent ($\pm 5\%$) of Toronto households with a lawn indicate that they are aware that Toronto has a Pesticide Bylaw. In addition, 38 per cent ($\pm 3\%$) of Toronto households are aware of the educational campaign about the bylaw and the natural care alternatives. For a competitive advertising venue like Toronto, this is a high recall for a promotional program.

Comparison to other jurisdictions

To determine whether or not these reported behaviour changes are unique to Toronto, TPH sought to compare data to those observed in other Ontario municipalities with and without pesticide bylaws. The only known comparable data collected for the same time period is RRFSS data gathered by the Halton Health Unit for the summers of 2004 and 2007.⁴ During this period, Halton had public education campaigns encouraging pesticide reductions but no pesticide bylaws were in effect. (The Town of Oakville's pesticide bylaw came into effect in 2008.)

In 2004, the proportion of households reporting that pesticides were used on their lawns was slightly lower in Toronto than in Halton, and the observed difference was statistically significant (Figure 4). In 2007, the proportion of households in both of these health units reporting that pesticides were used on their lawns was lower than in 2004. However, in Toronto there was a significant decrease in the proportion of households reporting that pesticides were used on their lawn, whereas in Halton the observed decline was smaller and not statistically significant. Furthermore, in 2007 the proportion of households reporting the use of pesticides on their lawns was significantly lower in Toronto than in Halton. These data suggest that Toronto's combination of a bylaw and public education produced greater pesticide reductions than Halton's reliance on education alone.



Bylaw enforcement and compliance

Monitoring bylaw enforcement provides additional indications of the success of the bylaw. TPH tracks bylaw complaints and the details of investigations through its Toronto Healthy Environment Information System (THEIS) database. Information gathered during investigations and proactive visits by inspectors provides additional insight into levels of awareness and compliance.

Between 2004 and 2008, Public Health Inspectors responded to 3285 complaints of possible bylaw violations (Table 1). Complaints decreased substantially following the introduction of penalties. Over 95 per cent of complaints received by the City were for suspected violations by licensed applicators (i.e. lawn care companies) rather than residents. This does not suggest that only companies were committing violations: rather, it is likely that since provincial regulations require licensed applicators – but not homeowners – to post warning signs, these notices were attracting the majority of attention. Warning letters for violations were issued in place of charges at the inspector’s discretion. In total, there were seven convictions for bylaw violations. All were against lawn care companies.

Table 1: Pesticide bylaw complaint investigations and outcomes

Year	Number of investigations	Warnings issued / Convictions
2004	1672	n/a
2005	1118	6 warning letters, 3 convictions
2006	294	28 warning letters
2007	74	6 warning letters, 1 conviction
2008	127*	3 convictions

* Several lawn care companies introduced a new lower-risk pesticide in 2008, which triggered an increase in complaints compared to the previous year. The use of this pesticide was compliant with the bylaw.

Ontario's new cosmetic pesticide legislation

The Ontario government introduced a *Cosmetic Pesticides Ban Act, 2008* in November 2008. It outlined province-wide restrictions on the use and sale of pesticides for cosmetic purposes and was proclaimed in force on April 22, 2009. On March 3, 2009, the provincial government filed Ontario Regulation 63/09 which provides the framework for the changes proposed in the *Cosmetic Pesticides Ban Act, 2008*. The regulation came in to force on April 22, 2009.

Ontario is the second province, after Quebec, to pass legislation banning the sale and cosmetic use of pesticides. Quebec's Pesticide Management Code was enacted in 2003. The government of Prince Edward Island has indicated its intention to ban the sale of cosmetic pesticides beginning in 2010.⁵

The Medical Officer of Health (MOH) provided comments on Ontario's proposed Act through the Environmental Bill of Rights Registry, in consultation with Parks, Forestry and Recreation and Transportation Services. The MOH, the Mayor and the Chair of the Board of Health also made comments to the provincial Standing Committee on Social Policy on June 9, 2008 on the proposal. They expressed their overall support for Ontario-wide legislation and made suggestions to strengthen its provisions, but expressed great concern that it would override municipal bylaws. The City's preference was that the legislation be reworded to avoid conflict with other laws but allow more restrictive provisions of municipal bylaws to prevail – this approach is used in Quebec's Pesticide Management Code and was successfully used in Ontario to regulate smoking restrictions.

The *Cosmetic Pesticides Ban Act, 2008* amended the *Pesticides Act* and in doing so rendered existing pesticide bylaws inoperative. As of April 22, 2009 Toronto's pesticide bylaw is no longer in effect. However O.Regulation 63/09 is strong and should further decrease the use of pesticides, and therefore human exposure to these substances, in our city and across Ontario.

The particular strength of Regulation 63/09 is its ban on the sale of many commonly-used pesticides. Municipalities do not regulate the sale of pesticides, and the effectiveness of local bylaws was compromised by the availability of products in stores. In addition to the product bans, the regulation restricts access to many remaining products and requires annual public reporting and accreditation programs for certain exempted uses such as golf course maintenance. Table 2 summarizes the key differences between Toronto's bylaw and the new provincial regulation.

Table 2: Comparison of selected features of Toronto’s Pesticide Bylaw and Ontario’s new pesticide regulation

Selected Features	Toronto Pesticide Bylaw (Municipal Code 612)	Ontario Regulation 63/09 (under the Ontario Pesticide Act (1990))
Scope	<ul style="list-style-type: none"> - Prohibits the use of certain pesticides on public and private properties in Toronto, with exceptions 	<ul style="list-style-type: none"> - prohibits the use and sale of certain pesticides in Ontario, with exceptions - establishes 11 classes of pesticides, according to product attributes and how they can be sold and used - outlines licensing requirements for vendors and commercial applicators, and requirements for pesticide signage, handling and disposal
Key Exemptions	<ul style="list-style-type: none"> - to control or destroy a health hazard - agriculture - indoor applications - pest infestations - specific lower-risk pesticides 	<ul style="list-style-type: none"> - promotion of public health and safety (i.e. pests that bite or sting, poisonous plants, protection of public works) - agriculture - forestry, natural areas (with conditions) - golf courses, lawn bowling, specialty turf (e.g. cricket) exempted, with new requirements to be accredited in Integrated Pest Management and publicly report annual pesticide usage - sportsfields exempted on temporary basis with specific permission when hosting national or international sporting events
Sale of Pesticides	<p>Does not regulate how stores display or sell pesticides.</p>	<ul style="list-style-type: none"> - bans the sale of certain pesticides, including herbicide-fertilizer combinations (“weed and feed” products) - retailers required to upgrade license by 2010 to sell certain pesticides - retailers required to provide educational material to consumers - retailers required, by 2011, to limit consumer access to certain pesticides
Enforcement	<ul style="list-style-type: none"> - enforced by Public Health Inspectors - penalty: fine up to \$5,000 	<ul style="list-style-type: none"> - enforced by Provincial Offences Officers - penalty: fines (up to \$50,000 for individuals, \$200,000 for corporations) and/or imprisonment
Implementation Schedule	<ul style="list-style-type: none"> - came into effect April 1, 2004 - no longer in effect as of April 22, 2009 	<ul style="list-style-type: none"> - came into effect April 22, 2009 - ban on sale of most pesticides in effect; remaining retail changes phased in by April 22, 2011 - April 22, 2012 deadline for golf courses to achieve Integrated Pest Management accreditation

Impact on City operations

City agencies, boards, commissions, corporations and divisions (ABCCDs) that manage properties have operated in compliance with the Pesticide Bylaw, and should be well-prepared to meet the requirements of the new provincial legislation.

While the Pesticide Bylaw was in place, TPH coordinated a committee of ABCCDs that tracked progress in reducing pesticides and helped identify alternative methods to maintain properties. TPH also worked closely with Parks, Forestry and Recreation (PF&R) to establish regular communications and share expertise on issues facing them as the primary steward of the City's greenspaces. Communications included the use of briefing notes as well as an annual report on pesticide usage and measures taken to reduce the use of pesticides. Parks, Forestry and Recreation maintains approximately 7,500 hectares of urban greenspace, which includes parkland, golf courses, lawn bowling greens, sports fields and horticultural beds. Since 1998, PF&R has reduced pesticides by 88 per cent and remains well-positioned to comply with the provincial legislation through two operative strategies: Integrated Plant Health Care (IPHC) and Integrated Pest Management (IPM). Expansion of the IPHC and IPM strategies in coming years would facilitate continued service delivery and greenspace management innovations.

CONCLUSION

Toronto's Pesticide Bylaw enhanced health and environmental protection by reducing pesticide use and motivating many residents and companies to adopt more sustainable approaches to lawn and garden care. TPH anticipates a smooth transition to the provincial regulation for the City and its residents, given that most Torontonians have already shifted their practices over the years due to our bylaw.

The bylaw's success may be credited to an implementation strategy based on public education and bylaw enforcement, phased-in penalties and ongoing review and adjustment. Strong collaboration with other City divisions, particularly Parks, Forestry and Recreation, was also a key element of success. This collaboration was recognized with a 2008 Public Sector Quality Award, and TPH and PF&R will share their experiences throughout the corporation at the 2009 Learning Summit.

The leadership of Toronto and other municipalities was a significant driver in the passage of Ontario's new province-wide pesticide legislation. This new legislation is expected to further decrease pesticide use in Toronto and across the province.

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SIGNATURE

Dr. David McKeown
Medical Officer of Health

References:

- ¹ *Spraytech v. Hudson (Town)*, [2001] S.C.J. No. 42
- ² <http://www.flora.org/healthyottawa/BylawList.pdf> April 6, 2009.
- ³ RRFSS – Rapid Risk Factor Surveillance System, 2003-2007. Toronto Public Health and Institute for Social Research, York University.
- ⁴ RRFSS – Rapid Risk Factor Surveillance System, 2004-2007. Ontario, Canada.
- ⁵ <http://www.cbc.ca/canada/prince-edward-island/story/2009/03/09/pe-pesticide-ban.html> April 6, 2009.