REPORT 07-002

PESTICIDE SUB-COMMITTEE

Friday, May 18, 2007
10:00 a.m.
Room 110, 1st Floor
City Hall, 71 Main Street West, Hamilton

Present: Councillor B. McHattie, (Chair)
        Councillor R. Pasuta, (Vice Chair)
        Councillors B. Bratina, B. Clark
        Mayor F. Eisenberger

Also Present: R. Hall, S. Walsh – Public Health Services Department
              A. Dore – Public Works
              R. Gatto – Community Services
              M. Hazell – Parking and By-law Services
              R. Sabo, B. MacNeil – Legal Services
              C. Biggs – Legislative Assistant
              P. Wobschall – Green Venture

THE PESTICIDES SUB-COMMITTEE PRESENTS REPORT 07-002 AND RESPECTFULLY RECOMMENDS:

1. Pesticide Education Campaign (BOH07005) (City Wide) (Item 4.1)

That Report BOH07005 respecting Pesticide Education Campaign be received and that no action be taken.

2. Pesticide Education Campaign (BOH07005(a)) (City Wide) (Item 4.2)

That payment in the amount of $40,000 be provided to Green Venture for the Naturally Hamilton Pesticide Education Campaign as outlined in Appendix A attached hereto, to be funded from existing budget in Health Protection Division, Public Health Services.
3. **City of Hamilton Pesticide Use By-law (BOH07030) (City Wide) (Item 4.3)**

(a) That a special meeting of the Board of Health be convened to receive delegations requesting to speak to the Draft Pesticides By-law;

(b) That staff of the Economic Development and Planning Committee be directed to bring a report back to the Pesticides Sub-Committee outlining a proposed implementation plan and costs. **CARRIED**

FOR THE INFORMATION OF THE BOARD:

(a) **Call to Order/Declarations of Interest (Item 1)**

Councillor B. McHattie called the meeting to order and requested if there were any declarations of interest, of which there were none.

The Sub-Committee was advised that Item 3.3 on the agenda, correspondence from Roger Labelle, CAO-Clerk of the Municipality of Powassan respecting Drinking Water Quality Management Standard, is to be deleted from the agenda as this matter has been dealt with by the Public Works Committee.

The agenda was approved as amended.

(b) **Approval of Minutes (Item 2)**

On a motion, the Minutes of the March 7, 2007 meeting of the Pesticide Sub-Committee were adopted and received as presented.

(c) **On a motion, the following correspondence was received:**

(i) Correspondence from J. P. Dutra, Executive Director, Industry Task Force on 2, 4-D Research Data respecting Pesticides (Referred from Council on March 28, 2007)

(ii) Correspondence from Tom Atterton, Secretary, Hamilton and District Labour Council respecting Use of Pesticides for Cosmetic and Non-essential Purposes (Referred from Council on April 11, 2007)
(d) **Pesticide Education Campaign (BOH07005(a)) (City Wide) (Item 4.2)**

The motion **CARRIED** on the following vote:

- **Yeas:** Councillors McHattie, Bratina, Pasuta
- **Total Yeas:** 3
- **Nays:** Clark
- **Total Nays:** 1

(e) **City of Hamilton Pesticide Use By-law (BOH07030) (City Wide) (Item 4.3)**

Steve Walsh, Environmental Health Promoter, Public Health Services, gave a power point presentation outlining the draft by-law components, restrictions and the phase-in/commencement of the by-law.

(f) **Other Business (Item 5)**

**Review of Proposed Timelines**

Concerns were expressed with respect to the timing of the public meeting in terms of the completeness of the draft by-law. Legal staff advised that more time is required to review and finalize portions of the by-law, and that it may not be in its final form in time for a June 11 or 12 public meeting.

Following discussion, the sub-committee requested that a revised timeline be brought forward to the May 29 Board of Health meeting for review and consideration.

(g) **Adjournment**

There being no further business, the Committee adjourned at 11:35 a.m.

Respectfully submitted

Councillor B. McHattie
Chair

Carolyn Biggs
Legislative Assistant
May 18, 2007
SUBJECT: Pesticide Education Campaign (BOH07005(a)) (City Wide)

RECOMMENDATION:

That payment in the amount of $40,000 be provided to Green Venture for the Naturally Hamilton Pesticide Education Campaign as outlined in Appendix A to Report BOH07005(a), to be funded from existing budget in Health Protection Division, Public Health Services.

EXECUTIVE SUMMARY:

The Naturally Hamilton pesticide education program was developed in 2006 to help residents of Hamilton reduce or eliminate pesticide use for cosmetic purposes on lawns and gardens. The program would also link clients to reliable sources of information on the safe use of pesticides. An evaluation of the program was completed by Public Health Services (PHS) in conjunction with McMaster Institute of Environmental Health. At the direction of the Pesticide Subcommittee, PHS staff has met with representatives of Green Venture, on many occasions, with the resulting Pesticide Education Program for 2007, as outlined in Appendix A to Report BOH07005(a).
This program will build on the work completed in 2006 and address the need to educate the public as to alternative methods for compliance, should a Pesticide Use By-law be adopted by Council.

**BACKGROUND:**

In December of 2006, Green Venture completed the 2006 Naturally Hamilton Year End Report for review by PHS.

The Pesticide Sub-Committee committed to an education campaign as a significant part of the pesticide reduction strategy. In developing the 2006 Naturally Hamilton education campaign, Green Venture drew upon their previous experience with alternatives to pesticides and recommended a Community-Based Social Marketing (CBSM) approach for a multi-year education campaign.

An evaluation of the 2006 campaign was completed by PHS staff in conjunction with the McMaster Institute of Environmental Health. This evaluation raised concerns with a few of the social marketing approaches utilized by Green Venture in the 2006 campaign. At the direction of the Pesticide Subcommittee, PHS staff met with Green Venture representatives, on several occasions in 2007, and were able to agree on the proposed 2007 Campaign, as outlined in Appendix A to Report BOH07005(a).

**ANALYSIS/RATIONALE:**

As endorsed by Council upon recommendation by the Pesticide Sub-Committee, a Pesticide Education Campaign was approved in 2006 as a necessary tool to meet the strategy of reduction, elimination and safe use of pesticides in the City of Hamilton. As evidenced by the Green Venture “2006 Naturally Hamilton Year End Report”, an education campaign is essential, even while the Pesticide Sub-Committee and Council explore the potential for a Pesticide Use By-law for the City of Hamilton. Should Council approve a Pesticide Use By-law in 2007, Green Venture will alter its social marketing campaign to include educational materials to inform the public as to methods and alternatives to comply with any future by-law.

**ALTERNATIVES FOR CONSIDERATION:**

The Pesticide Sub-Committee may elect to renew funding to Green Venture to a total of $60,000, as a sole sourced supplier, to continue with the pesticide education campaign. However, $40,000 is sufficient to accomplish the recommended campaign.

The Pesticide Sub-Committee may elect to not fund a Pesticide Education Program for 2007, instead utilizing this funding to develop and implement extensive media campaigns intended to educate the public solely on compliance methods should a Pesticide Use By-law be passed in 2007. The funding could also be used for health promotion campaigns addressing other Environmental Health issues.
FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial:
The annual cost to fund the Naturally Hamilton pesticide education campaign is $40,000 for 2007. This amount has been reduced from $60,000 for the 2006 campaign. This reduction is based on prorating the funds for the remaining seven months of the year, and is adequate to accomplish the recommended campaign.

Staffing:
There are no staffing implications.

Legal:
There are no legal implications.

POLICIES AFFECTING PROPOSAL:

There are no current policies affecting the proposal. However, should Council pass a municipal by-law regulating the use of pesticides, the goals of the education campaign, as well as its continued relevance, will require further exploration.

The use of these funds may be utilized for an education campaign to educate the public on implementation and compliance should the City of Hamilton adopt a pesticide by-law.

RELEVANT CONSULTATION:


Green Venture. “2006 Naturally Hamilton Year End Report”.

CITY STRATEGIC COMMITMENT:

Community Well-Being is enhanced. ☑ Yes ☐ No
Public education together with social marketing techniques provides the public with the information and motivation to re-examine their use of pesticides, and to consider pesticide reductions as a desirable behaviour.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
By adopting a process to meet the objectives of the Pesticide Sub Committee’s education campaign.
Economic Well-Being is enhanced. ☑ Yes ☐ No

By endeavouring to maximize the return of City’s investments for a clearly defined project. Does the option you are recommending create value across all three bottom lines?

☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants?

☑ Yes ☐ No
The City of Hamilton’s Pesticide Reduction or Elimination Education Program 2007

The following outlines the components of the 2007 ‘Naturally Hamilton reducing and eliminating pesticides’ education program. These components were developed according to community specific data summarized in the Executive Summary Report of Naturally Hamilton’s 2006 Oracle Poll baseline survey and the results of an environmental scan around existing combination pesticide bylaw & education programs.

The program’s goals are consistent with the principles that have been adopted by council’s Pesticide Subcommittee.

Greater consideration was given to activities that continue and enhance 2006 pesticide reduction or elimination education initiatives. ‘Naturally Hamilton reducing or eliminating pesticides’ has increased visibility and branding through strategic community outreach and networking. This is a multi year plan to reduce or eliminate residential pesticide use through public education. It takes time to raise awareness and influence behaviour change.

Goal

A City of Hamilton and Green Venture partnership with the following goal: To provide the citizens of Hamilton with consistent information and resources that will help them to reduce or eliminate pesticide use for cosmetic purposes on their lawns and gardens. Each action is to align with City of Hamilton Pesticide Sub-committee goals. This education program’s name is: Naturally Hamilton reducing or eliminating pesticides.

Program Objectives

This program will focus on how to get the lawn and garden a resident wants, or take care of a pest problem, without the use of pesticides by:

- changing attitudes/expectations of yard aesthetics,
- increasing use of Healthy Lawn Care Practices (HLCP),
- increasing use of pest forecasting and scouting methods,
- increase knowledge and use of alternatives to pesticides,
- increase awareness of the City of Hamilton Pesticide Bylaw / Compliment City of Hamilton Pesticide bylaw campaign strategy (raise awareness)

Strategies

Strategic recruitment and education of partners from the private and public sector is a crucial component of this campaign. Clear, consistent, and credible messaging from a variety of sources, including community champions, will project specific norms and in turn shape a culture of compliance around the City of Hamilton Pesticide bylaw. Community experts will be recruited to support Naturally Hamilton. We will also encourage and assist interested residents by providing information and resources so that they can help friends and neighbors reduce or eliminate pesticide use.

Naturally Hamilton will be clearly branded and visible in our community.

The Precautionary Principle will guide this education program’s activities.

Where there are threats of serious or irreversible damage, lack of full scientific certainty will not be used as a reason for postponing cost effective measures to prevent environmental degradation.

Target

The ‘Naturally Hamilton reducing and eliminating pesticides’ Oracle Poll baseline identifies the primary target group as Hamilton and area property owners-male and female- age 55+ in a higher income bracket ($60,000/a and over). This demographic typically has the disposable income necessary to
Program Deliverables

The following components will be continued or piloted to convince residents to reduce or eliminate pesticide use.

1. **Three workshops**, in collaboration with local garden centers, professionals, and experts through the months of June to October about specific gardening issues. E.g., lawn care in the fall, planting natives for spring blooms, growing ground covers/alternative lawns, alternative products will be delivered. Professional gardeners, landscapists, and retailers will be recruited to deliver these workshops.

2. **A series of pesticide free gardening articles** will be prepared for community newsletters (print and electronic media). Professional paid and volunteer freelance garden writers will be recruited to write these articles. Seasonally specific articles will be released to local media and community groups: three during the spring/early summer and three during the late summer/fall. An up-to-date list of community newsletters and media outlets will be maintained. Themes for the articles will be developed by the ‘Naturally Hamilton reducing or eliminating pesticides’ coordinator. Priority will be given to publishing in the Hamilton Spectator, Hamilton Community News, Hamilton Magazine, and the Chamber of Commerce Panorama Magazine.

3. **A display will be taken to 6 community events** and 6 public spaces. At community events the display will be operated by knowledgeable staff and volunteers where appropriate. These events will be chosen because they: topic-ically relevant, identified as high profile media events, and are attended by the target demographic (property owners-male and female- age 55+ in a higher income bracket). In addition correspondence with City of Hamilton councilors will facilitate engagement in community or neighborhood events.

4. **Five presentations** suitable for community, neighbourhood seniors, faith groups, schools, organizations, etc. will be delivered in conjunction with information to help individuals comply with the Pesticide bylaw, reduce or eliminate pesticide use and encourage neighbourhood pride. Measures of success including a participant questionnaire will be developed for evaluative purposes.

5. **Dandelion Festival for Kids** will continue to be utilized as a family education tool. Children will participate in fun activities that teach awareness of pesticide hazards and appreciation of the ecology of lawns and the diversity of living species around our homes and parks. The festival will be presented at 12 summer camps and 3 elementary schools across the city.

6. Retailers and landscapers have a special role and a vested interest in the evolution of pesticide reduction programs. Although a shift to pesticide alternatives may impact traditional sales many retailers and landscapers have recognized an advantage to being leaders in this shift. These leaders will be identified and supported and other businesses will be encouraged to take action.

Naturally Hamilton will conduct an inventory of landscapers servicing the Hamilton area. Landscapers will be provided with ‘Naturally Hamilton reducing and eliminating pesticides’ posters, fact sheets, and endorsement. To evaluate retail and landscape awareness, acceptance and involvement in pesticide reduction a baseline and follow up telephone interview will be conducted.

A retailer tool-kit will help small, medium, and large sized businesses make the transition from selling pesticides to meeting the demand for low-risk and organic products. The tool-kit will include information such as alternative product options, Naturally Hamilton fact sheets, supplementary information about Healthy Lawn Care Practices (HLCP), and other pertinent
documents designed to educate the retailer and their staff. To ensure quality and functionality, between two and three retailers will be engaged in a preliminary consultation to evaluate the quality and functionality of the tool-kit and provide constructive feedback.

Retailers will be invited to participate in a pilot Point of Purchase program. Many consumer decisions on whether to use pesticides are made at the purchase of either product or service. The Point of Purchase program demonstrates that intervention at point of sales will encourage the use of Healthy Lawn Care Practices (HLCP) and can be used as a tool for pesticide sales reduction. In-store prompts and take home tear-away materials will be utilized as the program’s source of alternative horticultural techniques information. Staff specialized in organic gardening techniques and native species will be identified as an in-store resource that customers may be directed to. A staffed display table will be utilized, 1 to 2 occasions at each participating location during late spring through early fall to answer questions and to conduct an in-store interview questionnaire. The results will be used to identify program successes and areas of improvement.

7. Support for Green Venture’s Green Gardening Expo at the Royal Botanical Gardens Health and Wellness Fair as a celebration, learning and action sponsored through the ‘Naturally Hamilton reducing or eliminating pesticides’ program. Partnering with the Royal Botanical Gardens, an outstanding leader in the field of horticulture will make the ‘Naturally Hamilton reducing or eliminating pesticides’ program stronger while increasing creditability and visibility.

8. Develop the Naturally Hamilton web site’s Naturally Hamilton Pride campaign. Pages will include City of Hamilton Initiatives, Community Champions, Case Studies, and Pilot Projects designed to celebrate and recognize the achievements of individuals, groups, businesses, neighbourhoods, etc. that have successfully reduced or eliminated their pesticide use. Positive attention is a powerful tool that encourages institutions and communities to explore healthy lawn care practices in exchange for exposure on our web site. The website will be maintained regularly (e.g.: search engines, accuracy, etc.)

These activities, along with the distribution of communications materials on a website, at events, through municipal sites, by local environment groups and neighbourhood associations and word of mouth, will facilitate actual behaviour change.

Evaluation
Naturally Hamilton tracking reports will be submitted for discussion at regular monthly meetings with a City of Hamilton Public Health Services representative(s).

Before the roll out of new communications materials, an evaluation of the program will be conducted to ensure its outcomes match those required by the Pesticide Sub-committee, can be measured, will secure additional support in the future, and ensure for continual improvement.

Materials will also be measured against target groups and the most appropriate means of reaching that audience. The baseline survey included attitudes and awareness about pesticides, pesticide consumption as well as current use of healthy lawn care practices and perception of a healthy lawn.

In addition to surveys, the success of this program can be measured by meeting or surpassing the program outputs in Table 1 (below). Tracking telephone calls, website hits, display booth attendees, media recognition and volunteer contributions will indicate areas for improvement or changes as part of a continuous improvement process.
Table 1 Communications Outputs

<table>
<thead>
<tr>
<th>Method</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshops</td>
<td>3 per year and track evaluations</td>
</tr>
<tr>
<td>Presentations</td>
<td>5 per year and track evaluations</td>
</tr>
<tr>
<td>In-Kind Contributions</td>
<td>Track hours, products and services</td>
</tr>
<tr>
<td>Telephone</td>
<td>Track calls and nature of requests</td>
</tr>
<tr>
<td>Lawn signs</td>
<td>Track number of signs distributed</td>
</tr>
<tr>
<td>Communications materials</td>
<td>Track types, volume and means of distribution</td>
</tr>
<tr>
<td>Display</td>
<td>Track events, numbers attended &amp; engaged, communication materials, business cards, pesticide users, and evaluations</td>
</tr>
<tr>
<td>Media</td>
<td>Track amount of media recognition</td>
</tr>
<tr>
<td>Website</td>
<td>Track hits (total and per page) &amp; Review Search Engine</td>
</tr>
</tbody>
</table>

Budget and Funding

The total 2007 (June 2007 to June 2008) budget for this program is $67,331 (Table 2). The City is the primary funder and will approve the program and messages. However, the funding provided by the City will be leveraged with funding provided by other government programs and by volunteer contributions. In-kind contributions will be tracked and reported.

Table 2 Year Budget Forecast

<table>
<thead>
<tr>
<th>Activities</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>$54</td>
<td>$55,750</td>
</tr>
<tr>
<td>- coordinator, manager, summer student, GV staff</td>
<td>125.81</td>
<td></td>
</tr>
<tr>
<td>Material, Supplies and Equipment</td>
<td>$1,800</td>
<td>$1,854</td>
</tr>
<tr>
<td>- office supplies, postage, travel, computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications Materials</td>
<td>$2,000</td>
<td>$2,060</td>
</tr>
<tr>
<td>- posters, display, brochures, lawns signs, fact sheets, website</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotions</td>
<td>$3,000</td>
<td>$3,090</td>
</tr>
<tr>
<td>- events, Green Gardening Day, gardening awards &amp; tour, presentations, workshops, newsletter, media, Dandelion Festival</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point of Purchase Program (POP)</td>
<td>$2,000</td>
<td>$2,060</td>
</tr>
<tr>
<td>- shelf talker, tear off sheets, staffed info sheet, expert to teach store staff, evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>n/a</td>
<td>$10,000</td>
</tr>
<tr>
<td>- baseline and follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead (7%)</td>
<td>$4,405</td>
<td>$5,237</td>
</tr>
<tr>
<td>Total</td>
<td>$67,331</td>
<td>$69,351</td>
</tr>
</tbody>
</table>

* Add line for tracking In-Kind contributions
Program activities will be evaluated on a yearly base to access design, delivery and adjustments and applied accordingly. Calculated 3% annual increase for inflation on all costs.

Table 3 Revenue Projection

<table>
<thead>
<tr>
<th>Funding</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Hamilton</td>
<td>$60,000</td>
<td>$61,800</td>
</tr>
<tr>
<td>Summer Student (HRDC)</td>
<td>$6,720</td>
<td>$6,922</td>
</tr>
<tr>
<td>In Kind Contributions</td>
<td>tba</td>
<td>tba</td>
</tr>
<tr>
<td>Other (Sponsors, Foundations, Government)</td>
<td>$611</td>
<td>$629</td>
</tr>
<tr>
<td>Total</td>
<td>$67,331</td>
<td>$69,351</td>
</tr>
</tbody>
</table>

Note: Revisions to the 2007 Naturally Hamilton program proposal based on telephone consultations with Health Promotion Consultant Rich Whate, Toronto Public Health - Environmental Protection Office and supplementary documents including the Halifax Regional Municipality 2006 Program Overview-Pesticide By-Law P-800/City of Toronto Interim Report on Toronto’s Pesticide Bylaw.
Information:

This report is prepared in response to Council’s request for a draft pesticide by-law which will address different pest control needs in rural and urban environments.

BACKGROUND:

At the March 7, 2007 meeting of the Pesticides Sub-Committee, two distinct approaches to pesticide by-laws were examined, along with various components of pesticide by-laws such as phased-in enforcement. In considering the needs in the City of Hamilton, several themes emerged.

One theme was the need to accommodate different requirements for pest control in rural and urban environments. It is also important to clearly differentiate between special circumstances, where the scope of a local by-law results from Provincial legislation, and special needs as a result of local land use. Second, there was some agreement that the draft by-law be a hybrid of both restrictive and prescriptive approaches, to effectively address the unique composition of Hamilton. Third, there was general consensus that the by-law should be used in conjunction with an education program, encourage the use of lower risk pesticides, exclude agriculture, and allow for pesticide use to address infestations. Finally, the by-law should be consistent with the precautionary principle, as applied to the issue of urban pesticide use.

The draft by-law is attached as Appendix A.
ANALYSIS/RATIONALE:

Prohibition
Section 3.1 of the draft Pesticide Use By-Law restricts the use of pesticides within the City.

Pesticides are defined in regulation as any product, organism or substance registered under the federal *Pest Control Products Act*. Consequently, reduced risk pesticides like corn gluten, horticultural soap and mineral oil would also be prohibited under the general prohibition for pesticides in section 3.1. To overcome this, the draft by-law modifies the definition to specifically exempt some reduced risk pesticides (Schedule A). As a result, some lower risk pesticides are available for use, and can be promoted as alternatives to other, possibly more harmful or controversial pesticides.

General Pesticide Use

With thousands of registered pesticides and a great variety of uses for registered products, it is impractical to list all accepted pesticides by their active ingredient alone. Furthermore, many pesticides have functional uses completely unrelated to horticulture or property maintenance. For example, chlorine is used to disinfect water. As it is the goal of the Pesticide Sub-Committee to reduce pesticide use related to the care and maintenance of landscapes, the by-law makes references to a list of general uses, which the by-law is not designed to address (Schedule D).

Specific Pesticide Use

Within the by-law, there are seven permitted pesticide uses identified (Section 3.2.2).

Poison Ivy

The use of a chemical pesticide to destroy poison ivy is prescribed in the Property Standards By-law, and the noxious effects of the plant are well known. The purpose of including it as a specific pesticide use is to eliminate any ambiguity about pesticide use for poison ivy control.

The Weed Control Act

Including this as a specific exemption serves two functions. First, it demonstrates compatibility with other legislation, and ensures that pesticide use complying with the Weed Control Act will not conflict with the by-law. Second, as the Act is primarily focused on weeds with negative effects on agriculture, it will allow the control of these weeds on any land before they reach farms. It would most often apply to rural lands in close proximity to agriculture.
To Manage Infestation

Most municipal pesticide by-laws include an exemption to control or eliminate an infestation, and this exemption is consistent with the precautionary principle. To clearly define what constitutes an infestation, various thresholds are outlined in the Schedule “C”. As this is the option many land owners or managers may follow to legally use pesticides, it is linked to several additional conditions. The general conditions for permitted pesticide use reinforce that care must be used with pesticides; Integrated Pest Management accredited professionals are encouraged; spot treatments are encouraged; and pesticides cannot be used on smog advisory days.

Public Land

To achieve further sustainable reductions in municipal pesticide use, Council would need to make a significant budgetary commitment to implement operational changes (e.g. Integrated Pest Management, Integrated Plant Health Care) that are supportive of the broader social and environmental objectives of the by-law. As it may not be possible to realize all of the needed budget enhancements within the by-law’s phase-in period, public land is proposed to be addressed through a separate path in the by-law.

This is not a municipal exemption, but rather a conditional use which is tied to implementing Integrated Pest Management, a widely recognized pesticide reduction strategy.

This approach for public lands is more restrictive than that for private land as private land owners are not obliged to employ alternative horticultural practices prior to passing an infestation threshold; they only need demonstrate that they currently have an infestation as determined from Schedule “C” of the by-law.

Sports Field Markings

The boundaries of some playing fields are marked by removing the vegetation along the lines, using a chemical herbicide. The results are materially different from other marking methods (paint, chalk) as the lines will remain clearly visible after rain or cutting the grass. Section 3.2.2 includes sports field markings as a specific use, as they do not fit well with any general use, and the outcome is functional, not cosmetic.

Golf Courses and Bowling Greens

The use of pesticides specific to golf courses and bowling greens recognizes that industry expectations are higher in these circumstances, and that even the lowest weed threshold itemized in Schedule “C” may be too high. This specific use is tied to an expectation that I.P.M. Accreditation will be obtained within a specific timeframe (section 6.3).

Farm Land

The last specific use is for agriculture. First, it is the intent of the Pesticide Sub-Committee to avoid regulation of farmers. In addition, the Provincial Farm Food Production Protection Act clearly limits the ability of by-laws to override normal farm practices.
Enforcement

Phase-in

The purpose for staggering the legal enforcement actions to follow one year after the by-law is two-fold. First, it will allow a larger number of calls to be handled in the first year of the by-law. Enforcement efforts in this period will be largely devoted to educating those accused of breaking the by-law, with little effort spent determining if the accused is guilty, and no time spent collecting evidence. The second purpose is to collect compliance data for analysis, prior to the enforcement phase of the by-law in 2009. Using the information from the first year, subsequent enforcement activities can be focused on those complaints where warnings have been previously issued.

The requirements for I.P.M. accreditation under clause (c), (d) or (f) of section 3.2.2 have also been staggered until April 1, 2010, as a means of allowing those affected time to obtain the required accreditation.

ALTERNATIVES FOR CONSIDERATION:

Public Land

The novel approach to public land under the by-law serves to demonstrate the leadership role the Hamilton Public Works Department has taken in land stewardship and pesticide reductions. However, given that policy governing pesticide use by the City is approved by Council, it is not necessary to include public land in the by-law. Council may wish to limit the scope of the by-law to private land, and demonstrate the City's leadership by other means.

Phase-in

The commencement of the by-law is proposed for the fall of 2008 to allow adequate time to hire and train enforcement staff, following the necessary budget approvals in early 2008. The proposed date for the by-law to come into effect can be changed so long as due consideration is given to budget approval process and other phased-in components.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Following public consultation, final revisions and consultation with legal, the estimated cost of enforcement will be formally assessed.

For a previous draft by-law, the estimated first years cost of enforcement began at $154,000 and was projected to exceed $180,000, depending on other administration and management costs. The estimated cost to enforce the current draft by-law will be contingent upon a phased-in approach, and should include the cost of a media campaign to announce the by-law, staff wages, and costs for travel, administrative and management support, education materials, and the development of a complaints tracking database. See appendix B for an outline of costs.
POLICIES AFFECTING PROPOSAL:

The Pesticide Use Policy On Municipal Parks and Properties, as outlined in Report PW03155 and approved by Council, is the written policy referred to in section 3.2.2 (d). The City of Hamilton’s Public Works Department is currently in the process of reviewing and updating this policy.

Dr. Elizabeth Richardson
Medical Officer of Health
Hamilton Public Health Services
CITY OF HAMILTON

BY-LAW NO. 07-________

To Enact a By-law Limiting the Use of Pesticides

WHEREAS environmental protection has emerged as a fundamental value in Canadian society;

AND WHEREAS Council of the City of Hamilton wishes to enact a by-law regulating and limiting the use of pesticides to address public concern for the environmental well-being of the municipality, and the health, safety and well-being of its inhabitants;

AND WHEREAS Council wishes to provide for the phasing in of requirements under the by-law, and intends that the by-law be combined with public education on pesticide reduction strategies;

AND WHEREAS the City of Hamilton wishes to promote Integrated Pest Management (I.P.M) as a pesticide reduction strategy, and will endeavour to maintain all City parks and sports fields utilizing an I.P.M. program;

AND WHEREAS the City of Hamilton as a single-tier municipality is entitled to pass by-laws for such purposes, and for regulating, prohibiting and requiring persons to do things respecting the subject matter of its by-laws pursuant to the Municipal Act, S.O. 2001, Chapter 25, sections 2, 8, 9 and 10, and in particular clauses 5 and 6 of subsection 10(2);
NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. That this By-law be referred to as the “Pesticide Use By-Law”.

2. Definitions

   In this By-law;

   (a) “agricultural operation” means an agricultural, aquacultural, horticultural or silvicultural business, as those terms are defined in the Farming and Food Production Protection Act, S. O. 1998, which operation is carried on with the expectation of financial gain;

   (b) “application” or “apply” means spreading of a substance, whether by spraying or by any other method of depositing or discharging a substance;

   (c) “application area” means land or ornamental plantings on land on which a pesticide is discharged or intended to be is discharged;

   (d) “building” means a structure fully enclosed by roof and walls, except for openings having windows, or having doors which are ordinarily closed except when in use for access;

   (e) “City” means either the municipal corporation of the City of Hamilton or its geographical boundary as the context requires;

   (f) “Clerk” means the Clerk the City of Hamilton;

   (g) “commercial applicator” means any person who applies pesticides for compensation;

   (h) “Council” means the Council of the City of Hamilton;

   (i) “farm land” means land in use for an agricultural operation in conformance with City zoning by-laws, and including such a use that is legal non-conforming under such by-laws;
(j) “hard landscaped area” means area covered by asphalt, concrete, rocks, gravel, treated wood, brick pavers or similar materials;

(k) “horticultural landscape area” means turf, or ornamental plantings;

(l) “health hazard” means a pest which has or is likely to have an adverse effect on the health of any person;

(m) “infestation” means the presence of pests in numbers or under conditions which involve an immediate or potential risk of substantial loss or damage, where the pest numbers or conditions are above the threshold level for the property class as itemized in Schedule “C” attached to this By-law;

(n) “integrated pest management” or “I.P.M.” means a decision making process for pest control that uses all available techniques in an environmentally sound manner to sustain healthy horticultural landscapes;

(o) “I.P.M. accreditation” means standards of recognition given to persons who demonstrate a commitment to Integrated Pest Management and Plant Health Care principles by successfully completing the I.P.M. certification course and examination administered by the I.P.M. Council of Ontario and by successfully passing an annual audit;

(p) “licensed applicator” means any person who holds a pesticide applicators license as governed by the Ministry of the Environment of Ontario;

(q) “occupier” means;

i. a person residing on or in a property or in possession of a property; or

ii. a person entitled to the possession of the property if there is no other person residing on or in the property or in possession of a property;
(r) “Officer” means a person assigned or appointed by the City to administer or enforce this By-law and for the purposes of exercising any power of entry under this By-law including a police officer;

(s) “outdoor area” means that part of a property outside of a building and including the hard landscaped area and horticultural landscaped areas;

(t) “owner” means a person who has a right, title, estate or interest in a property, other than that of an occupier, and shall include the agent of any such person;

(u) “person” includes a municipality or corporation and any agent thereof;

(v) “pest” means an animal other than human, a plant or other organism that is injurious, noxious, or troublesome, whether directly or indirectly;

(w) “pesticide” means a product, an organism or substance that is a registered control product under the *Pest Control Products Act* (Canada) which is used as a means for directly or indirectly controlling, destroying, attracting or repelling a pest or for mitigating or preventing its injurious, noxious or troublesome effects, but does not include products listed in Schedule “A” attached to this By-law;

(x) “public land” includes horticultural landscapes and hard landscapes located on land which is owned or under the control of the City, including a right of way or road allowance; and

(y) “warning notice” means a sign made of rain resistant materials and sturdy enough to stand upright, containing information as shown on Schedule “B” attached to this By-law.

3. **Restrictions**

3.1 No person shall apply or cause or permit the application of a pesticide within the geographical boundaries of the City of Hamilton.
3.2 Despite the prohibition set out in Subsection 3.1, it is not an offence to apply pesticides when used:

3.2.1 For a purpose outside the scope of the By-law, as listed in Schedule “D” attached to this By-law; or

3.2.2 For the following reasons, provided the special conditions for use as specified in this section have been met, and that the application of the pesticide is done in accordance with label directions, and in compliance with applicable Provincial and Federal acts or regulations:

a) To control or destroy poison ivy, pursuant to Property Standards By-law 03-118 as amended;

b) To comply with the Weed Control Act R.S.O. 1990, and the regulations made thereunder;

c) To control or destroy Pests which have caused Infestation to a horticultural landscape provided that:

   i. A Warning Notice in a form required by this By-law has been conspicuously posted 24 hours prior to the time of the application of the pesticide on the perimeter of the application area at all ordinary points of access to the application area. The Warning Notice shall remain posted for 48 hours following the application of the pesticide;

   ii. The person, if a commercial applicator, is a licensed applicator and has current I.P.M. Accreditation;

   iii. The pesticide is applied only to those areas identified as being infested; and
iv. The pesticide is applied at a time other than any day designated by the Ontario Ministry of the Environment as a Smog Alert or Smog Advisory Day;

d) To maintain public land, provided that any such application is consistent with a written policy, conducted under the direction of an I.P.M. Accredited person, and that the work is carried out by a licensed applicator;

e) To mark athletic fields for sports activities including, but not limited to, football, soccer, and baseball field markings;

f) On a golf course, or lawn bowling green provided any such use or application is permitted under the direction of an I.P.M. Accredited person and the work is carried out by a licensed applicator; or

g) On farm land, provided any such use or application is a normal farm practice carried on as a part of an agricultural operation pursuant to the Farming and Food Production Protection Act, S.O. 1998;

4. Administration and Enforcement

4.1 The Director of <INSERT>, herein referred to as “the Director”, is authorized to administer and enforce this By-law and has delegated authority granted by Council to execute the provisions of the By-law, including the imposition of conditions as necessary to ensure compliance with this By-law.

4.2 The Director may assign or appoint Officers to enforce this By-law who shall have the authority to carry out inspections, make orders to discontinue contravening activities or to do work to correct contraventions,
give immediate effect to any order and otherwise enforce this By-law, and
the Director may assign duties or delegate tasks under this By-law
whether in his or her absence or otherwise.

4.3 In accordance with the conditions set out in sections 435 and 437 of the
Municipal Act, 2001, including the provision of notice to an occupier, an
Officer may enter on a property at any reasonable time for the purpose of
carrying out an inspection to determine whether or not the following are
being complied with:

(a) this By-law;

(b) a direction, requirement or order made under this By-law; or

(c) an order made under section 431 of the Municipal Act, 2001 in
respect of a contravention of this By-law.

4.4 An Officer may, for the purposes of an inspection under section 4.3:

(a) require the production for inspection of documents or things
relevant to the inspection;

(b) inspect and remove documents or things relevant to the inspection
for the purpose of making copies or extracts;

(c) require information from any person concerning a matter related to
the inspection; or

(d) alone or in conjunction with a person possessing special or expert
knowledge, make examinations or take tests, samples or
photographs necessary for the purposes of the inspection.
4.5 An inspection order made under section 4.4 may be served personally or by registered mail to the last known address of such persons affected by it as the Officer making the order determines. Service by registered mail shall be deemed to have taken place five (5) business days after the date of mailing.

4.6 An Officer may, pursuant to an order under section 438 of the Municipal Act, 2001, undertake an inspection for a purpose described in section 4.3 and exercise powers described in section 4.4 where he or she has been prevented or is likely to be prevented from carrying out an inspection under sections 4.3 or 4.4, provided that:

(a) unless otherwise provided in the order, the conditions set out in section 435 of the Municipal Act, 2001 apply; and

(b) in the case of an order authorizing an inspection of a room or place actually being used as a dwelling, the occupier is given notice concerning the inspection in accordance with subsection 438(5) of the Municipal Act, 2001.

4.7 If an Officer is satisfied that a contravention of this By-law has occurred, he or she may make an order requiring the person who contravened the By-law or who caused or permitted the contravention or the owner or occupier of the property on which the contravention occurred to discontinue the contravening activity.

4.8 An order under section 4.7 shall set out:

(a) reasonable particulars of the contravention adequate to identify the contravention and the location of the property on which the contravention occurred; and

(b) the date by which there must be compliance with the order.
4.9 If an Officer is satisfied that a contravention of this By-law has occurred, he or she may make an order requiring the person who contravened the By-law or who caused or permitted the contravention or the owner or occupier of the property on which the contravention occurred to do work to correct the contravention.

4.10 An order under section 4.9 shall set out:

(a) reasonable particulars of the contravention adequate to identify the contravention and the location of property on which the contravention occurred; and

(b) the work to be done, which may include but is not limited to requiring that:

(i) prior to performing any work, all necessary permits or other approvals be applied for and obtained; and

(ii) examinations or tests be conducted or samples be taken for the purpose of determining what damage or remedial measures are necessary, and that such examinations, tests or samples be supplied to the Director together with any accompanying reports required in the order; and

(c) the date or dates by which the work must be done.

4.11 An order to discontinue contravening activity made under section 4.7 or an order to do work made under section 4.9 may be served personally or by registered mail to the last known address of:

(a) the owner or occupier of the property where the contravention occurred; and

(b) such other persons affected by it as the Officer making the order determines.
Service by registered mail shall be deemed to have taken place five (5) business days after the date of mailing.

4.12 Where service cannot be given in accordance with section 4.11, sufficient service is deemed to have taken place when the Officer places a placard containing the order in a conspicuous place on the property where the contravention occurred.

Failure to Comply and Cost Recovery

4.13 Where a person does not comply with a direction, requirement or order under this By-law to do a matter or thing, an Officer, with such assistance by others as may be required, may carry out such direction, requirement or order at the person’s expense.

4.14 The City may recover the costs of doing a matter or thing under section 4.13 by action or by adding the costs to the tax roll and collecting them in the same manner as property taxes and such costs shall include an interest rate of 15 per cent commencing on the day the City incurs the costs and ending on the day the costs, including the interest, are paid in full.

4.15 The Director is authorized to give immediate effect to any direction, requirement or order carried out under section 4.13 where the costs of carrying out the direction, requirement or order do not exceed $10,000 and, where the costs do exceed $10,000, as Council may authorize.

5. Penalty

5.1 Any person who contravenes any provision of this By-law or an order make under this By-law is guilty of an offence, and upon conviction is liable to a fine or penalty as follows:

(a) for a first offence, a maximum of $5,000.00;

(b) for a second offence, a maximum of $20,000.00; and
6. Commencement

6.1 Subject to subsections 6.2 and 6.3, this By-law shall come into force on September 1, 2008.

6.2 Section 5.1 of this By-law comes into force and effect on September 1, 2009

6.3 Persons who under clause (c), (d) or (f) of section 3.2.2 require I.P.M. accreditation will have until April 1, 2010 to obtain such accreditation.

7. Review

7.1 Schedule “A” attached to this By-law will be reviewed at least once per year, to ensure newly registered reduced risk pesticides are evaluated for inclusion on the list of allowed pesticides.

7.2 The By-law will be reviewed and evaluated prior to May 2010.

PASSED and ENACTED this day of , 2007.

____________________________________________________________________
Fred Eisenberger                        Kevin C. Christenson
MAYOR                                          CLERK
Schedule “A”
List of allowed pesticides

1) A product that uses pheromones to lure pests, sticky media to trap pests or ‘quick-kill’ traps for vertebrate species considered pests such as mice and rats;

2) An insecticide bait which is enclosed by the manufacturer in a plastic or metal container that has been made in a way that prevents or minimizes assess to the bait by humans and pets;

3) A product that is or contains only the following active ingredients:
   
i. Insecticidal and herbicidal soaps;

   ii. A mineral oil, also called dormant or horticultural oil;

   iii. Silicon dioxide, also called diatomaceous earth;

   iv. Bt (Bacillus thuringiensis), nematodes and other biological control organisms;

   v. Borax, also called boric acid or boracic acid;

   vi. Bordeaux mixture or their sulphur compounds;

   vii. Ferric phosphate;

   viii. Lime sulphur;

   ix. Acetic acid, also called horticultural vinegar;

   x. Pyrethrum or pyrethrins;

   xi. Fatty acids;

   xii. Rodenticides;

   xiii. Corn gluten.
Schedule “B”

Example of Warning Sign

On the front:

a) Has the word “WARNING” at the top in red capital letters;

b) Below has a pictogram showing a black silhouette of an adult person on a white background within a red circle crossed by an oblique red bar;

c) Below the pictogram has the words “PESTICIDE USE” in red capital letters;

d) Below “PESTICIDE USE” the words “FOR INFORMATION CONTACT” in capital letters with the name and telephone number of the person responsible, who can provide more information;

e) Below “PESTICIDE USE” the words “DATE SPRAYED” and the date the pesticide use commenced.

On the back:

a) The word “PESTICIDE” at the top in capital letters followed by the name of the pesticide intended to be used;

b) Below “PESTICIDE” the words “REGISTRATION NUMBER” in capital letters followed by the number assigned to the pesticide under the Pest Control Products Act (Canada) or the Fertilizer Act (Canada);

c) Below the words “REGISTRATION NUMBER” the words “TO CONTROL” in capital letters followed by the name of the pest to be controlled;
Schedule “C”
City of Hamilton – Pesticide Action Threshold Levels

A Pesticide Action Threshold Level is the point in time at which a pest needs to be controlled to prevent it (the pest) from causing unacceptable damage. Threshold levels are the minimum number of pests which must be present before pesticide applications are allowed under the exemption for infestation (subsection 3.2.2 (c)). Threshold levels do not restrict the use of cultural practices, natural controls, or the use of pesticides itemized in Schedule “A”.

The threshold levels listed affect private lands within the City of Hamilton and do not apply to those lands under the ownership or management of the City. All municipally owned properties will be subject to the City of Hamilton Action Threshold Policy for Pesticide Use on Municipal Parks and Properties.

PESTICIDE ACTION THRESHOLDS - WEEDS

<table>
<thead>
<tr>
<th>City of Hamilton Zoning Classifications</th>
<th>Action/Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks and Open Space Use</td>
<td>30% *</td>
</tr>
<tr>
<td>Industrial Use</td>
<td>30% *</td>
</tr>
<tr>
<td>Commercial and Mixed Use</td>
<td>30% *</td>
</tr>
<tr>
<td>Institutional Use</td>
<td>30% *</td>
</tr>
<tr>
<td>Residential Use</td>
<td>30% *</td>
</tr>
</tbody>
</table>

* Percentage of ground cover by area

ACTION THRESHOLDS – INSECTS

<table>
<thead>
<tr>
<th>Insect Type</th>
<th>Action Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Cranefly</td>
<td>Non-irrigated turf: over 10 larvae/0.1m²</td>
</tr>
<tr>
<td></td>
<td>Irrigated turf: 5-10 larvae/0.1m²</td>
</tr>
<tr>
<td>Black Turfgrass Ataenius</td>
<td>30-40 larvae/0.1m²</td>
</tr>
<tr>
<td>Sod Webworm</td>
<td>Healthy turf 2-3 larvae/0.1m²</td>
</tr>
<tr>
<td></td>
<td>Stressed turf - 1 larvae/0.1m²</td>
</tr>
<tr>
<td>White Grubs or June Beetles</td>
<td>3-5 grubs/0.1m²</td>
</tr>
<tr>
<td>European Chafer</td>
<td>Non-irrigated turf: 5-10 grubs/0.1m²</td>
</tr>
<tr>
<td></td>
<td>Irrigated Turf: More than 20 grubs/0.1m²</td>
</tr>
<tr>
<td>Hairy Chinch Bug</td>
<td>20-25 per 20 cm diameter sample</td>
</tr>
<tr>
<td>Sod Webworm or Lawn Moths</td>
<td>6 or more caterpillars / 0.1m²</td>
</tr>
<tr>
<td>Black Cutworm</td>
<td>5 or more cutworms/m²</td>
</tr>
<tr>
<td>Other Insects</td>
<td>Per OMAFRA Specifications</td>
</tr>
</tbody>
</table>
Schedule “D”
General Pesticide Uses Outside the Scope of the By-Law

i. To disinfect swimming pools, whirlpools, spas or wading pools;

ii. To purify water intended for the use of humans or animals or to treat sewage effluent;

iii. Within an enclosed building;

iv. To control aphids, gypsy moths, termites, ants, bees, wasps, hornets cockroaches, mosquitoes, fleas and ticks, or to exterminate or repel rodents;

v. As an insect repellant for personal use;

vi. Direct application of a wood preservative on wood, or by injection into trees, stumps or wooden poles;

vii. To control or destroy a Health Hazard;

viii. To prevent or manage pests which threaten the health of trees.
Table 1 outlines estimated costs, such as wages, associated with the year following implementation of the by-law.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Estimated Cost/Equivalent</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>By-law notification activities</td>
<td>$30,000</td>
<td>One time cost upon the introduction of a by-law</td>
</tr>
<tr>
<td>Complaint response</td>
<td>1.5 FTE</td>
<td>Representing 3 by-law enforcement officers for seasonal positions (6 months).</td>
</tr>
<tr>
<td>Travel (to compliant response)</td>
<td>To be determined</td>
<td>Estimate may be extrapolated from other types of by-law activity numbers. However, actual distances may be higher than for other types of by-law activities as there is no evidence that pesticide use is higher in centralized urban areas.</td>
</tr>
<tr>
<td>Compliance assistance</td>
<td>0.5 FTE</td>
<td>1 by-law enforcement officer, working off season (6 months) to help large land owners, property managers and lawn care operators develop policies and procedures consistent with a pesticide by-law.</td>
</tr>
<tr>
<td>Administration and Management</td>
<td>To be determined</td>
<td>Includes the physical accommodation, managerial and administrative support for new staff. Costs must be determined in light of what recourses may already exist.</td>
</tr>
<tr>
<td>Educational materials</td>
<td>$9,000</td>
<td>‘Homeowner Compliance’ kits to be delivered in response to complaints. Actual cost may vary, depending on the print quality, and number of inserts. Estimate $3 per unit for 3000 volume</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Complaints database</td>
<td>To be determined</td>
<td>Develop database to record complaints and produce reports. Consideration may also be given to developing a web-based complaint reporting option.</td>
</tr>
</tbody>
</table>

The resources in Table 1 are estimated to be sufficient to respond to approximately 1000 complaints, or approximately 0.5% of the number of residential households in Hamilton. With some surveys suggesting that 25% of residents may use pesticides for lawn and garden maintenance, this estimate is conservative, and represents approximately a 98% voluntary compliance rate.

Actual complaint volumes may differ for reasons including, but not limited to, higher rates of non-compliance, the volunteer efforts of environmental watch-dog agencies to report violations, or the unwillingness of citizens to file a complaint about their neighbours.